

Habitat and Humanity: Public Lands Law in the Age of Ecology

Jamison E. Colburn[†]

ABSTRACT — Public lands law in this country has been gridlocked for a decade at the intersection of democracy and ecology. The public is still led to believe that the “conservation” versus “preservation” of our discrete, bounded parcels of public land is the central political issues and that what must happen for one set of values or another to triumph is that one or another faction capture those lands parcel-by-parcel and put them under its preferred legal regime. Experts and activists have transitioned from this philosophy to the open-textured, inclusive notions of “ecosystem” and “adaptive” management on which everyone agrees in the abstract but not in application. The public’s faith in its pluralist administrative state is very much contingent upon its faith in professional expertise, though, even as this whole arrangement becomes increasingly incompatible with any truly “ecosystemic” approach to public lands. Indeed, while active management and “ecological restoration” are probably truer frames of reference for public lands today, the only way these can even possibly frame a progressive conservation agenda will be from the bottom up. Thus, I argue that public land management agencies are facing a dilemma if they hope to respond both to ecological reality and democratic accountability. They are facing this dilemma most immediately in their several legal duties to generate formal, comprehensive plans for the lands they administer by which they must protect biodiversity at the same time they serve a diverse public according to the terms of almost a dozen different enabling statutes.

ABOUT THE AUTHOR — Jamison Colburn teaches environmental and natural resources law at Western New England College, School of Law. He has been an Instructor at Columbia Law School and a Visiting Professor at Lewis & Clark Law School. Prior to teaching, Colburn was Assistant Regional Counsel for the Environmental Protection Agency during the Clinton Administration. He is currently the Chair of the ABA Task Force on the intersection of environmental and constitutional law, sits on the Board of Trustees of the Connecticut River Watershed Council, and has served as special reporter to the ABA Section on Administrative Law and Regulatory Practice in its study of administrative enforcement programs. His research has appeared in the *Alabama Law Review*, *Ecology Law Quarterly*, *Environmental Law Reporter*, the *Rutgers Law Journal*, and elsewhere.

[†] Associate Professor of Law, Western New England College School of Law. © 2006 Jamison Colburn.

I. INTRODUCTION

In the most significant critique of public lands law in a decade, Professor Robert Keiter challenged the half-dozen federal agencies managing public lands today to merge two very different kinds of values: those of democracy and those of ecology.¹ While some of these values overlap and/or are only partially dissonant, they create one unavoidable contradiction in the management of public lands: democracy has always carved nature up with legal boundaries while ecology has always denied their integrity. The potency of Keiter's challenge is therefore obvious, as the long-range planning duties of the Forest Service, Fish and Wildlife Service, and other land management agencies are showing with increasing clarity today. But this article argues that the gridlock in which public lands law sits will only worsen unless and until a more decentralized approach to its undoing is taken.

From 1982-97, "urbanized" land in the United States increased by 47% while population grew by only 17%.² Projections are that another 60 million housing starts will occur in the United States by 2030.³ As a culture we are "land hungry,"⁴ even though it is increasingly evident that our alterations of the landscape have been and will be one of the principal causes of biodiversity loss.⁵ With half of all the Endangered Species Act's listed species having 80% or more of their known occurrences on private land,⁶ the role

¹ See ROBERT B. KEITER, *KEEPING FAITH WITH NATURE: ECOSYSTEMS, DEMOCRACY, AND AMERICA'S PUBLIC LANDS* (2003).

² William Fulton, *et al.*, *The Brookings Institution, Who Sprawls Most? How Growth Patterns Differ Across the U.S.* 1 (2001), available at <http://www.brookings.edu/es/urban/fulton-pendall.htm>.

³ Frank W. Davis *et al.*, *Renewing the Conservation Commitment*, in 1 *THE ENDANGERED SPECIES ACT AT THIRTY: RENEWING THE CONSERVATION PROMISE* at 296, 305 (Dale D. Goble *et al.* eds, 2006) (hereinafter "ESA AT THIRTY").

⁴ Georgette Chapman Poindexter, *Land Hungry*, 21 *J.L. & POL'Y.* 293 (2005).

⁵ See generally REED F. NOSS & ALLEN Y. COOPERRIDER, *SAVING NATURE'S LEGACY: PROTECTING AND RESTORING BIOLOGICAL DIVERSITY* (1994).

⁶ Davis *et al.*, *supra* note __ at 304. While it is true the Endangered Species Act ("ESA"), 16 U.S.C. § 1531 *et seq.*, "is concerned with two variables in the context of species preservation, the amount of species and

of public lands in the protection of biodiversity is in flux at a time when conservationism itself seems rudderless.⁷ The active management of federal lands for the protection and restoration of habitat is a cornerstone of any effective biodiversity strategy, surely.⁸ For “[i]f biodiversity protection is confined to the ESA, the best case outcome will be maintenance of an “emergency room” strategy.”⁹ But what forms such management should take, and on which public lands, are now very open questions in a political system that delegates authority to agencies who, in turn, confront the organized, internally-disciplined, and issue-driven.¹⁰ “Ecosystem” approaches are widely touted and rarely taken.¹¹

Several federal statutes, such as the National Wildlife Refuge System Improvement Act of 1997 (“NRWSIA”),¹² direct their agencies to protect habitat and

the amount of species habitat,” *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv.*, 378 F.3d 1059, 1066 (9th Cir. 2004), the protections the statute provides for privately owned habitat “may slow but cannot prevent the accelerating, pervasive erosion of native species and ecosystems from the American landscape.” Davis *et al.*, *supra* note __ at 306. See *infra* notes __ and accompanying text.

⁷ See MARK DOWIE, *LOSING GROUND: AMERICAN ENVIRONMENTALISM AT THE CLOSE OF THE TWENTIETH CENTURY* (1997); Michael Shellenberger & Ted Nordhaus, *The Death of Environmentalism: Global Warming Politics in a Post-Environmental World* (2004), available at http://www.thebreakthrough.org/images/Death_of_Environmentalism.pdf

⁸ See Richard J. Fink, *The National Wildlife Refuges: Theory, Practice, and Prospect*, 18 HARV ENVTL. L. REV. 1 (1994); NOSS & COOPERRIDER, *supra* note __ at 129-77; Bradley C. Karkkainen, *Biodiversity and Land*, 83 CORNELL L. REV. 1 (1997); Bradley C. Karkkainen, *Collaborative Ecosystem Governance: Scale, Complexity, and Dynamism*, 21 VA. ENVTL. L.J. 189, __ (2002); Frank W. Davis *et al.*, *Renewing the Conservation Commitment*, in *ESA AT THIRTY*, *supra* note __ at 296.

⁹ Steven L. Yaffee, *Collaborative Decision Making*, in *ESA AT THIRTY*, *supra* note __ at 212, 215.

¹⁰ See generally JERRY L. MASHAW, *GREED, CHAOS, AND GOVERNANCE: USING PUBLIC CHOICE TO IMPROVE PUBLIC LAW* (1997); Steven P. Croley, *Theories of Regulation: Incorporating the Administrative Process*, 98 COLUM. L. REV. 1, 106-42 (1998); see also Steven P. Croley, *White House Review of Agency Rulemaking: An Empirical Investigation*, 70 U. CHI. L. REV. 821 (2003). Even those optimistic about participation and transparency in the administrative process view it mostly as the domain of tightly organized interests. See, e.g., Jody Freeman, *Collaborative Governance in the Administrative State*, 45 U.C.L.A.L. REV. 1, 82-92 (1997).

¹¹ The concept itself has certainly stimulated more philosophizing than productive research. See FRANK BENJAMIN GOLLEY, *A HISTORY OF THE ECOSYSTEM CONCEPT IN ECOLOGY: MORE THAN THE SUM OF THE PARTS* (1993). On the potential negatives of such concepts, see Cass Sunstein, *Incompletely Theorized Agreements*, 108 HARV. L. REV. 1733 (1995).

¹² Pub. L. No. 105-57, 111 Stat. 1252 (1997). NRWSIA is very similar to public lands statutes enacted in the 1960s and '70s. See *infra* notes __ and accompanying text.

provide for use of the land all while remaining transparent and accountable.¹³ Yet this is highly improbable even under the Property Clause (perhaps the strongest of federal authorities to protect nature),¹⁴ partly because the federal government has so scattered a lands portfolio¹⁵ and partly because its expert agencies are now constantly enmeshed in bitter conflict.¹⁶ This article takes up Keiter’s challenge to make a somewhat unconventional argument. The argument is that the scale and scope of human influence on North America’s ecology, coupled with the low priority assigned most of that ecology in national politics, make rational, top-down management of public lands *necessarily* ineffectual, both for identifying desirable ecological conditions and for pursuing them.

“Habitat” can, in this connection, be thought of as any aspect of nature that makes possible the life of a particular organism, species, and/or species assemblage.¹⁷

¹³ “One of the most emphatic ecosystem conservation directives ever written by Congress is the NWRSA mandate to “ensure that the biological integrity, diversity, and environmental health of the system are maintained.”” Vicky J. Meretsky, *et al.*, *New Directions in Conservation for the National Wildlife Refuge System*, 56 *BIOSCIENCE* 135, 136 (2006). But this statute also required that the Secretary of Interior evaluate the “uses” of wildlife refuges and, where appropriate—and “after an opportunity for public comment”—minimize or prohibit those uses deemed incompatible with “the conservation, management, and . . . restoration of the fish, wildlife, and plant resources and their habitats within the United States.” 16 U.S.C. §§ 668dd(d)(3)(B), 668dd(a)(2). Establishing such incompatibilities through legal proceedings of the sort, though, is something apart from stewardship and expert management altogether. *See infra* notes ___ and accompanying text.

¹⁴ *See Kleppe v. New Mexico*, 426 U.S. 529, 539 (1976) (“[W]hile the furthest reaches of the power granted by the Property Clause have not yet been definitively resolved, we have repeatedly observed that “[t]he power over public land thus entrusted to Congress is without limitations.”); *see generally* Peter A. Appel, *The Power of Congress ‘Without Limitation’: The Property Clause and Federal Regulation of Private Property*, 86 *MINN. L. REV.* 1 (2001); *infra* notes ___ and accompanying text.

¹⁵ *See* KEITER, *KEEPING FAITH WITH NATURE*, *supra* note ___ at 80-126; Robert B. Keiter, *Biodiversity Conservation and the Intermixed Ownership Problem: From Nature Reserves to Collaborative Processes*, 38 *IDAHO L. REV.* 301 (2002).

¹⁶ General critiques to this effect go back decades. *See, e.g.*, Joseph Sax, *Helpless Giants: The National Parks and the Regulation of Private Lands*, 75 *MICH. L. REV.* 239 (1976). I have elsewhere argued that biodiversity preservationists are confronting a massive strategic reorientation given these basic limitations of the federal system. *See* Jamison E. Colburn, *Localism’s Ecology: Protecting and Restoring Habitat in the Suburban Nation*, 33 *ECOLOGY L.Q.* ___ (2006).

¹⁷ In this sense, habitat is indistinguishable from biodiversity itself. *See* NOSS & COOPERRIDER, *supra* note ___ at 30-31. Moreover, it is indexed directly to the subject organism, species, or species assemblage, making “habitat functionality” the better concept for capturing those parts of the world to be conserved, preserved, or restored for the sake of biodiversity. *See* CHARLES J. KREBS, *ECOLOGY: THE EXPERIMENTAL ANALYSIS OF DISTRIBUTION AND ABUNDANCE* 58-67 (3d ed. 1985); NOSS & COOPERRIDER, *supra* note ___ at

Importantly, though, “nature” and even a “state of nature” have been put opposite human culture—opposite the progress of humanity—for the whole history of the liberal state.¹⁸

The distinction still orders much of our public lands law today, even though the science of ecology has progressed (and humanity has swelled in size) to where it has become a distinction without a difference.¹⁹ The 700+ million acres of public lands in the U.S., being as stressed, fragmented, and dispersed across so many biomes dominated by so many different influences, are the product as much or more of humanity as they are of nature.²⁰ Thus, even if the national public had the will to devote every last acre to habitat, it is far from certain that biodiversity loss would be halted or even significantly slowed by public lands policy alone.²¹ Habitat and humanity, in short, are at an impasse. What public lands lawyers should *do* about this is the question.

Part II traces the evolutionary path public lands law has followed to its present stage of development. Part III argues that most of the legislation structuring public lands law today is a function of that evolution and, in particular, the vocabulary of conservation

150-56. Humans, of course, make habitats: landscape alterations routinely benefit some species at the expense of others—a process that, as more and more of the world is ‘developed,’ seems to be making a finite number of superabundant species. See David Quammen, *Planet of Weeds*, HARPER’S MAGAZINE (Oct. 1998).

¹⁸ See ANDRZEJ RAPACZYNSKI, NATURE AND POLITICS: LIBERALISM IN THE PHILOSOPHIES OF HOBBS, LOCKE, AND ROUSSEAU 7-8 (1987) (“The hope that science would one day allow human beings to control the natural world made them much more attentive to the relation between man and his environment, and they came to view knowledge not as a form of disinterested contemplation, but as a tool in the human productive effort, directed at the comfort and convenience of life.”); cf. John Rawls, *The Idea of an Overlapping Consensus*, in JOHN RAWLS: COLLECTED PAPERS 421, 422 (Samuel Freeman ed., 1999) (“When Hobbes addressed the contentious divisions of his day . . . the basis of his appeal was self-interest: men’s fear of death and their desire for the means of a commodious life. . . . In a society fragmented by sectarian divisions and warring interests, he saw no other common foothold for political argument.”).

¹⁹ See *infra* notes __ and accompanying text.

²⁰ See *infra* notes __ and accompanying text.

²¹ As has so often been the case, this realization became clearest in studies surrounding the conservation and restoration of particular imperiled species. See, e.g., Leonard F. Ruggiero & Kevin S. McKelvey, *Toward a Defensible Lynx Conservation Strategy: A Framework for Planning in the Face of Uncertainty*, in ECOLOGY AND CONSERVATION OF LYNX IN THE UNITED STATES 5, 11-12 (Leonard F. Ruggiero et al. eds., 1999). Legal scholars have long acknowledged these limitations of the federal public lands. See generally Bradley C. Karkkainen, *Biodiversity and Land*, 83 CORNELL L. REV. 1 (1997); Holly Doremus, *Biodiversity and the Challenge of Saving the Ordinary*, 38 IDAHO L. REV. 325 (2002).

Progressivism created. Finally, Part IV considers the prospects for a new vocabulary in public lands law, a vocabulary rooted in restoration not preservation, and argues that its prospects at the national level are bleak.

II. PROGRESSIVISM AND THE NATURE/CULTURE DIVIDE

Conservationism in the United States became an effective movement at the end of the Nineteenth century, casting nature and humanity in a particular mold. It took shape in the politics of “Progressivism”²² and today we are enduring its mistakes as much or more than we are reaping its benefits. It was then that wilderness was first thought of as something to be preserved,²³ then that the enclosure and protection of “game” and game

²² “Progressivism” as an American era and philosophy is entrenched in many historical and ontological conflicts, including conflicts over the nature of democracy. See, e.g., EDWARD A. PURCELL, JR., *THE CRISIS OF DEMOCRATIC THEORY: SCIENTIFIC NATURALISM AND THE PROBLEM OF VALUE* (1973). At the risk of an unnecessary entanglement in those disputes, I invoke it here as a turning point at which expert and public opinion both began to “interpret the struggle for survival in terms of the species against its environment” and rejected “fatalistic determinism by insisting that evolution had produced human intelligence, which enabled man to control his environment for the benefit of all members of the species.” Id. at 10. This conception of the possibility of progress through collective action remained “American,” though, by continuing to take individual welfare seriously and by viewing “science” as “neither positivistic nor deterministic, but, above all, pragmatic” in substance. RAPACZYNSKI, supra note __ at 277; cf. PURCELL, supra, at 47 (arguing that Dewey’s attack on formal logic and metaphysics was a turning point and that “[b]y the second decade of the twentieth century almost all American social scientists and a large number of philosophers shared [a] hostility toward metaphysics and *a priori* reasoning.”).

²³ The Adirondack Park was first proclaimed a “Forest Preserve” legislatively in 1885 and was protected as forever “wild” by state constitutional amendment, now codified in Article VII, § 7 of the New York State Constitution, in 1894. Louise A. Halper, ‘A Rich Man’s Paradise’: *Constitutional Preservation of New York State’s Adirondack Forest, a Centenary Consideration*, 19 *ECOLOGY L.Q.* 193, 194 (1992). Privately owned lands within the proclamation boundaries of the Adirondack Park today constitute about 52% of the total, see <http://www.apa.state.ny.us/gis/colc0303.htm> (current as of March 2003), making it still the largest example of public/private “wilderness” in North America. Aesthetes familiar with both would not put the Adirondack and Yellowstone parks in the same category, of course. But insofar as habitat functionality goes, they are quite similar in their histories of disturbance and fluctuating species compositions. See L. David Mech, *Returning the Wolf to Yellowstone*, in *THE GREATER YELLOWSTONE ECOSYSTEM: REDEFINING AMERICA’S WILDERNESS HERITAGE* 309 (Robert B. Keiter & Mark S. Boyce eds, 1991) (hereinafter “THE GREATER YELLOWSTONE ECOSYSTEM”). These two legally proclaimed preserves constituted the beginnings of America’s “wilderness cult”—a political and aesthetic movement that flourished throughout the twentieth century, see RODERICK NASH, *WILDERNESS AND THE AMERICAN MIND* (rev’d ed. 1973), at the same time as (but quite separate from) the emergence of modern ecology. See DONALD WORSTER, *NATURE’S ECONOMY: A HISTORY OF ECOLOGICAL IDEAS* (2d ed. 1994) (1977). This wilderness “cult” has always been a collection of disparate conceptions of nature, culture, and the relationships between the two—none of which have necessarily been informed by the sciences.

preserves first gained popular currency,²⁴ and then that a professionalized class of managers charged with the “sustainable use” of public lands first coalesced here.²⁵

In its infancy early in the century, the science of ecology was little more than what botanists did trying to identify “climax communities.”²⁶ By the 1970s, though, there had developed a broad and deep field of physical, chemical, and biological analysis, integrating many sub-disciplines of zoology, paleontology, genetics, and biochemistry together through the mathematics of probability and, eventually, of chaos theory.²⁷ Its object became the *fact* of natural diversity itself²⁸ and that object quickly accentuated homogenization as the end result of human industry and society.²⁹

²⁴ See JAMES A. TOBER, WHO OWNS THE WILDLIFE?: THE POLITICAL ECONOMY OF CONSERVATION IN NINETEENTH CENTURY AMERICA (1981).

²⁵ See James L. Huffman, *A History of Forest Policy in the United States*, 8 ENV. L. 239 (1978); see also WILLIAM G. ROBBINS, LUMBERJACKS AND LEGISLATORS: POLITICAL ECONOMY OF THE U.S. LUMBER INDUSTRY, 1890-1941, at 16-34 (1982). Indeed, professional forestry’s growth in America would remain a catalyst in public lands law throughout the Twentieth century. See WILLIAMS, supra note __ at 315-30, 344-52; ROBBINS, supra note __ at 21-22; CLARY, supra note __ at 3-22; infra notes __ and accompanying text.

²⁶ WORSTER, supra note __ at 205-20. Even as ardent proponents of the “climax community” developed their (somewhat Platonic) theories of equilibration and harmony in nature, though, “[c]hange upon change became the inescapable principle of [the] science.” Id. at 210.

²⁷ Simberloff, supra note __ at 25-27; WORSTER, supra note __ at 391-417, ERNST MAYR, THE GROWTH OF BIOLOGICAL THOUGHT: DIVERSITY, EVOLUTION AND INHERITANCE 829-58 (1982). The most noted collection of papers cross-walking this progress in the field of ecology into the management of natural resources was published in the late 1970s. See ADAPTIVE ENVIRONMENTAL ASSESSMENT AND MANAGEMENT (Crawford S. Holling ed., 1978). Eventually, “ecosystem management” became practically synonymous with “adaptive management.” See Ronald D. Brunner & Tim W. Clark, *A Practiced-Based Approach to Ecosystem Management*, 11 CONSERV. BIO. 48 (1997).

²⁸ See NOSS & COOPERRIDER, supra note __ at 3 (describing this focus as now encompassing at least three distinct levels: genetic, species, and ecosystem diversity). Growing out of the work of MacArthur and Wilson in the late 1960s, the fields of ecology, evolutionary biology, and biogeography turned abruptly to focus upon islands and what they could prove and disprove about extinction, colonization, and species assemblage stability over time. See Robert J. Whittaker, *The Importance of Islands*, in FOUNDATIONS OF BIOGEOGRAPHY: CLASSIC PAPERS WITH COMMENTARIES 931 (Mark V. Lomolino et al. eds., 2004). This eventually became instrumental in the theory of speciation and ecosystem functionality generally. See id.

²⁹ A paper written by John Terborgh and Blair Winter in 1979 argued that the species most susceptible to human-induced extinction are those with naturally low population densities, large individual ranges, and/or habitat endemism. See John Terborgh & Blair Winter, *Some Causes of Extinction*, in CONSERVATION BIOLOGY: AN EVOLUTIONARY-ECOLOGICAL PERSPECTIVE 119 (Michael E. Soulé & Bruce A. Wilcox eds., 1981) (hereinafter “EVOLUTIONARY-ECOLOGICAL PERSPECTIVE”). That paper built from one five years earlier by Terborgh that sketched a similar hypothesis. See John Terborgh, *Preservation of Natural Diversity: The Problem of Extinction-Prone Species*, 24 BIOSCIENCE 153 (1974). Large bodied

Land managers eventually came to this science, due in part to legal mandates for an “interdisciplinary approach” to land management planning.³⁰ But in Progressivism’s reverence of ‘wild’ nature, coupled with its faith in expertise for efficiently exploiting ordinary nature, there grew enormous obstacles to what might be called *inclusive conservation*. Inclusive conservation is, by nature, integrative, uncoupled from governmental power and bureaucracy, inherently participatory, unbounded, and, in response to prevailing conditions, ecologically restorative.³¹ Its *rejection* from public lands law represents a gathering threat to biodiversity through a contempt for ecology and adaptive management. Sections A and B contrast the two major strands of America’s public philosophy of land management: conservation and preservation. Section C suggests how much they are alike.

A. *The Forest Service: The Greatest Good for the Greatest Number Over the Long Run*

Since its inception in 1905 the Forest Service has been an agency imprinted to the ideals of utilitarian use, *i.e.*, the “conservation,” of land and the renewable resources it

mammals—and predators especially—were the obvious objects of the hypothesis. Today, unfortunately, it has gathered a body of confirming evidence. *See infra* notes ___ and accompanying text.

³⁰ 16 U.S.C. §§ 1604(b), 1604(f)(3).

³¹ Such a form of conservation is not necessarily synonymous with “ecologism” or “green” ideologies, *see* ANDREW DOBSON, GREEN POLITICAL THOUGHT (3d ed. 2000)—nor with animal rights *per se*, *see* MARK ROWLANDS, ANIMALS LIKE US (2002)—although there are overlaps. “Ecologism” is a political ideology that not only “holds that a sustainable and fulfilling existence presupposes radical changes in our relationship with the non-human natural world,” *id.* at 2, but also “seeks nothing less than a nonviolent revolution to overthrow our whole polluting, plundering and materialistic industrial society and, in its place, to create a new economic and social order which will allow human beings to live in harmony with the planet.” *Id.* at 9. Practitioners of what I call inclusive conservation view sustainability as having a different opposite: the lack of *community* with nature. Community of the sort starts from an awareness of “ecosystem services” (or “natural capital”), not just in cost/benefit terms but in a deeper awareness of how vitally dependent humanity is on ecological functionality. *See* James Salzman *et al.*, *Protecting Ecosystem Services: Science, Economics, and Law*, 20 STAN. ENVTL. L.J. 309 (2001). Ultimately, such awareness promotes better valuations of relationships in nature, a development that is proving to be as much psychological as social. *See* Christopher S. Elmendorf, *Ideas, Incentives, Gifts, and Governance: Toward Conservation Stewardship of Private Land, in Cultural and Psychological Perspective*, 2003 U. ILL. L. REV. 423 (2003); WILLIAM R. JORDAN III, *THE SUNFLOWER FOREST: ECOLOGICAL RESTORATION AND THE NEW COMMUNION WITH NATURE* (2003); *see infra* notes ___ and accompanying text.

represents. This was and still is in obvious contrast to the “preservation” of land in some natural or sylvan state.³² In one well-known statute, Congress delegated authority to the executive in 1891 to “set apart and reserve . . . in any part of the public lands wholly or in part covered with timber or undergrowth, whether of commercial value or not, as public reservations”³³ And Presidents did so, setting aside huge timber reserves.

This authority to “set apart and reserve”—before its repeal was secured by a coalition of western Senators—was used by Presidents Harrison, Cleveland, McKinley, and Roosevelt to reserve 150 million acres of forest.³⁴ Roughly three quarters of the modern National Forest System (“NFS”³⁵) acreage in 159 national forests was set apart as such by 1907.³⁶ It was chiefly this land and later, similar set-asides that would be managed for national timber markets in the coming century.³⁷ As early as the 1920s,

³² See Huffman, *supra* note __ at 258-72; JAMES G. LEWIS, *THE FOREST SERVICE AND THE GREATEST GOOD: A CENTENNIAL HISTORY* (2005) (hereinafter “THE GREATEST GOOD”). Each took shape as a result of the other. See Louise Halper, *A Rich Man’s Paradise: Constitutional Preservation of New York’s Adirondack Forest, A Centenary Consideration*, 19 *ECOLOGY L.Q.* 193 (1992); Christine A. Klein, *Preserving Monumental Landscapes Under the Antiquities Act*, 87 *CORNELL L. REV.* 1333 (2002). On the moral and political underpinnings of this divergence in Progressive politics, see Donald J. Pisani, *Forests and Conservation, 1865-1890*, 72 *J. AMER. HIST.* 340 (1985). The “preservation” of land in this sense propelled the National Park Service’s “organic act” as passed in 1916. See *infra* notes __ and accompanying text. Also instrumental, though, was the rise of forestry as a professionalized approach to land management and the interest the Forest Service took in forester education at several major universities. See *THE GREATEST GOOD*, *supra*, at 42-49.

³³ Act of March 3, 1891, ch. 561, 26 Stat. 1103, § 24, repealed by P.L. No. 94-579, 90 Stat. 2791 (1976). According to the standard narrative, this 1891 statute symbolized the reversal of more than a century of federal land policy encouraging disposition of public lands into private ownership. This birth of the modern “policy of retention” gradually consolidated into a lasting national consensus that the over 700,000,000 acres of land left in the federal government’s hands should stay there. See Leigh Raymond & Sally K. Fairfax, *Fragmentation of the Public Domain Law and Policy: An Alternative to the “Shift-to-Retention” Thesis*, 39 *NAT. RES. J.* 649 (1999).

³⁴ HAYS, *supra* note __ at 47. On the inter-agency rivalry that arose almost immediately between the Forest Service and the National Park Service (“NPS”), see *infra* notes __ and accompanying text.

³⁵ The lands portfolio of the NFS of today is the result of a century of legislation, litigation, and bureaucratic administration as between the Departments of Agriculture and Interior. See PAUL WALLACE GATES, *HISTORY OF PUBLIC LAND LAW DEVELOPMENT* 563-606 (1968).

³⁶ HAYS, *supra* note __ at 47; WILKINSON, *supra* note __ at 124-25.

³⁷ See WILLIAM G. ROBBINS, *LUMBERJACKS AND LEGISLATORS: POLITICAL ECONOMY OF THE U.S. LUMBER INDUSTRY, 1890-1941* (1982) (linking the creation and management of national forests to the market dynamics and lobbying pressures of timber companies). An omnibus appropriations bill in 1897 provided certain regulations for the reserves made under the 1891 statute. These provisions, see 30 Stat. 34-36, ch.2

detailed management plans were being prepared for every national forest producing timber.³⁸ Expert harvesting and long-term species rotation plans became the organizational focus³⁹ and the Forest Service gained a reputation for its knowledge, professionalism, and efficiency as the public's agent.⁴⁰

The Forest Service's authority to cultivate the forests under its administration was, as is widely known, utilized to stunning effect.⁴¹ But the agency's discretion to align itself with particular industry segments represented its greatest power.⁴² The 1944

(1897), eventually came to be known as the Forest Service's "Organic Act"—even though they make no mention whatever of the Forest Service and, at the time, the Department of Agriculture's Division of Forestry (then already headed by Pinchot) had not yet been given jurisdiction over the forest reserves. *See* GATES, *supra* note __ at 569-80. The 1897 statute required that "[n]o public forest reservation shall be established except to improve and protect the forests *within the boundaries*, or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for use and necessities of citizens of the United States." 30 Stat. at 34 (emphasis added).

³⁸ FEDKIW, *supra* note __ at 15. Forest planning at this nascent stage was wholly informal and internal to the Forest Service. As Congress had said in the so-called Organic Act, 30 Stat. 35 (1897), the agency was to "make such rules and regulations . . . as will insure the objects of such reservations, namely, to regulate their occupancy and use and to preserve the forests thereon from destruction. . . ." *Id.* As early as Pinchot's tenure as Chief Forester, though, the Service had been classifying lands for their "highest" use based on surveying and evaluation techniques set by headquarters (something the Roosevelt administration began doing for the whole public domain). HAYS, *supra* note __ at 70-71.

³⁹ As the Forest Service concentrated on producing timber as a merchantable, consistently delivered commodity, *i.e.*, to avoid glutting and price depressions, its expertise led it to view old-growth and slow growing forests as "over mature" and better replaced by younger trees and faster growing species, especially where productive soils predominated (*e.g.*, in low elevations and flood plains). WILKINSON & ANDERSON, *supra* note __ at 122-29.

⁴⁰ *See* HERBERT KAUFFMAN, *THE FOREST RANGER: A STUDY IN ADMINISTRATIVE BEHAVIOR* (1960). A *reputation* for such competence and integrity is, obviously, distinct from actual competence and integrity and administrative agencies have always had powerful incentives to cultivate the former whatever their claims to the latter. *See* DANIEL P. CARPENTER, *THE FORGING OF BUREAUCRATIC AUTONOMY: REPUTATIONS, NETWORKS, AND POLICY INNOVATION IN EXECUTIVE AGENCIES, 1862-1928*, 284-89 (2001).

⁴¹ WILKINSON & ANDERSON, *supra* note __ at 117-54; MICHAEL WILLIAMS, *AMERICANS AND THEIR FORESTS: A HISTORICAL GEOGRAPHY* 489-94 (1989).

⁴² "The conservation movement [of which TR and Pinchot were leaders] did not involve a reaction against large-scale corporate business, but in fact, shared its views in a mutual revulsion against unrestrained competition and undirected economic development. Both groups placed a premium on large-scale capital organization, technology, and industry-wide cooperation and planning to abolish the uncertainties and waste of competitive resource use." HAYS, *supra* note __ at 266. "The crux of the gospel of efficiency lay in a rational and scientific method of making basic technological decisions through a single, central authority." *Id.* at 271. *See also* CLARY, *supra* note __ at 68-80 (detailing the cooperation between Forest Service and timber companies); FEDKIW, *supra* note __ at 15 ("Timber harvesting was seen as a tool for increasing national forest timber growth and transforming national forests from "wild" to cultivated forests.").

Sustained Yield Forest Management Act is indicative.⁴³ In its purposes preamble, this lesser known statute invoked “the benefits of forests in maintenance of water supply, regulation of stream flow, prevention of soil erosion, amelioration of climate, and preservation of wildlife”⁴⁴ Yet, in its particulars, it authorized the Secretaries of Agriculture (the forest reserves) and Interior (most other public timberlands) to formulate “cooperative agreements” with timber companies whereby the companies could purchase publicly owned timber through no-bid contracts as long it was “in accordance with the provisions of sustained yield management plans formulated or approved by the Secretary for the unit”⁴⁵ The 1944 law also authorized the Secretaries to enter these no-bid contracts where they found it necessary to the “maintenance of a stable community” because those communities were “primarily dependent upon the sale of timber or other forest products.”⁴⁶ Their administration of such laws prompted comparisons to the worst abuses of corporate self-dealing.⁴⁷

⁴³ 58 Stat. 132, ch. 146 (1944).

⁴⁴ 58 Stat. 132, ch. 146, § 1.

⁴⁵ 58 Stat. 132, ch. 146, § 2.

⁴⁶ 58 Stat. 132, ch. 146, § 3. The authority was apparently little used. Huffman, *supra* note __ at 274-75. This is probably due at least in part to a controversial contract done immediately with the Simpson Logging Company in Shelton, Washington. The contract gave Simpson exclusive rights for 100 years and effectively barred others from roughly 270,000 acres of public timber. THE GREATEST GOOD, *supra* note __ at 107-08. The whole episode became an embarrassment, *id.*, and a major catalyst in the eventual erosion of public faith in Forest Service expertise. See DAVID A. CLARY, *TIMBER AND THE FOREST SERVICE* 126-46 (1986).

⁴⁷ Progressive Era investigations into the “lumber trust” by Roosevelt’s Bureau of Corporations resulted in one of that agency’s biggest projects: a three-volume study documenting the startling degree of consolidation within the timber industry in the Progressive era. WILLIAMS, *supra* note __ at 425-29. Clearly, though, Progressivism’s rhetoric was often more radical than its institutional imagination. *Cf.* ROBBINS, *supra* note __ at 11 (“The conservation movement . . . was not removed from the realities of the political economy. . . . [I]n almost every legislative and regulatory “conservation” measure adopted at the federal level, the Hand of Esau is apparent—the needs of America’s expanding industrial economy.”). By the coming of the New Deal, “cooperation” with consolidated industry had become accepted practice even among progressives and it was only the worst instances of governmental/corporate collusion that were lifted into the public eye. See CARPENTER, *supra* note __ at 363-66. Still, the 1944 law’s “cooperative agreements” apparently rose to that threshold. See *supra* note __.

At the same time it was cultivating all the timber, the agency was supposed to be balancing demands for grazing, mining, farming, and recreation.⁴⁸ Its tunnel vision and utter subordination of these other uses to timber planning, though, eventually grew so notorious as to come to Congress's attention.⁴⁹ Indeed, by 1940 the Bureau of the Biological Survey (one of the precursors to the modern Fish and Wildlife Service ("FWS")) was being combined with other federal offices to create a central administrator of the several "bird sanctuaries" and "game refuges" presidents had been setting aside independent of the forest reserves.⁵⁰ Congressional and presidential reservations of this kind had come at an impressive pace even before FWS or the "National Wildlife Refuge

⁴⁸ As the applied science of forestry matured, multiple use management became a series of stunningly complex trade-offs. Cf. Marion Clawson, *The Concept of Multiple Use Forestry*, 8 ENVTL. L. 281, 282 (1978) ("Though the basic theory of multiple use of forests is apparently simple, perhaps deceptively so, its application often grows complicated."). Indeed, one of the earliest tests of administrative agency authority came when the Forest Service's predecessor, the General Land Office, issued regulations in 1897 prohibiting grazing on most of its forests out of concern for the effects on stand regeneration and soil erosion. But by 1899, these rules were softened in response to hostility they had provoked among western ranchers and livestock companies, ultimately being amended into a permitting system. CHARLES F. WILKINSON & H. MICHAEL ANDERSON, *LAND AND RESOURCE PLANNING IN THE NATIONAL FORESTS* 99-101(1987). Some not fortunate enough to receive permits just ignored the rules and grazed anyway. The General Land Office was then forced to seek criminal convictions and injunctions, some of which were rejected by the local courts hearing the cases. See, e.g., *United States v. Blasingame*, 116 F. 654, (S.D. Cal. 1900) (invalidating 1897 statute making it a crime to violate any regulation created by General Land Office as an unconstitutional delegation of legislative power). Eventually, the government sought and obtained the reversal of these holdings, though. See *Dastervignes v. United States*, 122 F. 30 (9th Cir. 1903).

⁴⁹ See CLARY, supra note __ at 183 ("By the early 1960s, clearcutting had altered many scenic landscapes, particularly in the Northwest, and it appeared to be increasing . . . More and more recreationists were using the woods, and they were appalled by what they saw."); see infra notes __ and accompanying text (Bolle Report discussion).

⁵⁰ CLARKE & MCCOOL, supra note __ at 110. This early form of the Fish and Wildlife Service "existed for some sixteen years without an organic act," perhaps making it predestined to "muddle through" as an agency. Id. at 111-25. In Leopold's *Game Management*, published in 1933, he says of a "game refuge" that it "is an area closed to hunting in order that its excess population may flow out and restock surrounding areas." LEOPOLD, supra note __ at 195. In the book, he includes maps of state refuges in Pennsylvania (a total of over 100), id. at 199, and New Mexico (a total of almost 100), id. at 201, and considers their efficacy from, among others, the criterion of distance between individual refuge units. Id. at 195-98. From 1900-1920, almost fifty federal refuges were reserved, including seven in Florida, eight in Alaska, and still the smallest in the system, the 0.6 acre Mille Lac refuge in northern Minnesota. Lynn A. Greenwalt, *The National Wildlife Refuge System*, in WILDLIFE AND AMERICA 399, 401 (Howard P. Brokaw ed., 1978).

System” (“NWRS”) emerged.⁵¹ The felt need for such “refuges” had to have stemmed at least in part from a perceived incompatibility between habitat and utilitarian “conservation.”⁵² Of course, each one of the sanctuaries and refuges were based on their own political deals and, thus, on their own establishment terms and conditions.⁵³ Early

⁵¹ “Benjamin Harrison’s 1892 order protecting Afognak Island, Alaska, as a “forest and fish culture reservation” is probably the first presidential proclamation withdrawing public domain for wildlife conservation.” FISCHMAN, *supra* note __ at 34. But it was not until the 1900s and 1910s that a collection of sanctuaries and refuges arose by Roosevelt’s executive orders, later to be combined with the habitat protections of the Migratory Bird Treaty Act of 1918, 40 Stat. 755, ch. 128, codified at 16 U.S.C. §§ 703-711. *See* FISCHMAN, *supra* note __ at 34-36. On the different preservation and conservation constituencies and their different roles in reserve, park, and sanctuary formation in this period, see HAYS, *supra* note __ at 189-98; NASH, *supra* note __ at 141-81; Winks, *supra* note __ at 583-611. To oversimplify, the constituencies and political deals underlying the many Progressive era reserve- and sanctuary-creations were highly variable. As Professor Keiter himself described that legacy today, a century later, “[a]s a result, both the origins and the justifications for our preserved public lands are as diverse as the landscapes themselves. Yet there remains one enduring reality: nature preservation is an inherently a political matter.” KEITER, *KEEPING FAITH WITH NATURE*, *supra* note __ at 195.

⁵² *See* TOBER, *supra* note __ at 210 (“By the late nineteenth century, a history of wildlife decline had become part of the popular consciousness.”); THE GREATEST GOOD, *supra* note __ at 128-135 (describing the forces pulling Forest Service policies away from managing lands for wildlife habitat, including ranchers who demanded lethal predator control policies). The same powerful sportsmen’s organizations that led the struggle to create Yellowstone and the Adirondack preserve for a time pushed to have Forest Service lands put into “game” preserves. *See* TOBER, *supra* note __ at 225-29. Pinchot was actively opposed, going so far as to cross his and Roosevelt’s own Boone and Crockett club. *See* HAYS, *supra* note __ at 40-42, 196-98. For this reason, the Migratory Bird Conservation Act of 1929, 45 Stat. 1222, ch. 257 (1929), was perhaps the single most important source of habitat protection authority. It is commonly regarded as the first to authorize federal *acquisition* of habitat as such. *See, e.g.*, MICHAEL J. BEAN & MELANIE J. ROWLAND, *THE EVOLUTION OF NATIONAL WILDLIFE LAW* 284 (3d ed. 1997). It served as the legislative authority for wildlife refuge creation throughout much of the NWRS’s growth to its current size, being surpassed only by the Land and Water Conservation Fund Act of 1964, Pub. L. No. 88-578, 78 Stat. 899 (1964), and finally the National Wildlife Refuge Administration Act of 1966 (“NWRAA”), Pub. L. No. 89-669, 80 Stat. 926 (1966). *See infra* notes __ and accompanying text.

⁵³ This remains a major impediment to the unified management of the NWRS today. As Professor Fischman found in his in-depth study of the system, it was not until the 1960s legislation that the various refuges and sanctuaries were even held to account to some set of common objectives or management goals. FISCHMAN, *supra* note __ at 23-31, 46-53. “A major challenge for [FWS in administering the modern refuge system] is to provide a unity of purpose for the System while preserving the individual establishment mandates for the refuge units.” *Id.* at 79. Indeed, it was not until 1956 that Congress even legislated FWS into existence—by splitting it in half. In the Fish and Wildlife Act of 1956, ch. 1036, 70 Stat. 1119 (1956), Congress ‘established’ the “Bureau of Sport Fisheries and Wildlife,” which was to be separate from the “Bureau of Commercial Fisheries.” *Id.* at § 3(a). The former would be responsible for those “matters” “relating to migratory birds, game management, wildlife refuges, sport fisheries and sea mammals (except whales, seals, and sea lions) and related matters,” the latter would be responsible for “commercial fishers, whales, seals, and sea lions and related matters.” *Id.* at §§ 3(d)(1), (2). This legislation came at a time when the “fiction” of state ownership of wildlife was still honored, at least nominally. *See Toomer v. Witsell*, 334 U.S. 385 (1948). Federal regulatory authority was infrequently asserted over wildlife as such, a political reality that only changed gradually as species loss became widely publicized, *see* William S. Boyd, *Federal Protection of Endangered Wildlife Species*, 22 STAN. L. REV. 1289 (1970), and as the courts breathed new vigor into the Property Clause in cases such as *Kleppe v. New*

on, it was only nationally symbolic game species that received refuges.⁵⁴ By the 1960s, though, that threshold was rolled back to where Congress and the President directed FWS to create refuges with sub-fee interests in farmlands laying in migratory bird flyways.⁵⁵

B. Parks, Preservation and Progressivism's Promise

Apart from all that,⁵⁶ the National Park Service assembled a collection of trophy landscapes that seemed to spring from a Hudson River School painting.⁵⁷ The Park Service's "Organic Act" creating the National Park System ("NPS") in 1916 validated the preservationist splinter of the Progressive conservation consciousness.⁵⁸ Yellowstone may have started it all,⁵⁹ but many followed throughout the Progressive era and after.⁶⁰

Mexico, 426 U.S. 529 (1976), and *Minnesota ex rel. Alexander v. Block*, 660 F.2d 1240 (8th Cir. 1981). See Appel, *supra* note __ at 75-120.

⁵⁴ FISCHMAN, *supra* note __ at 172. In 1908, congress established the 18,000 acre National Bison Range in northwest Montana, *see* Act of May 23, 1908, Ch. 192, 35 Stat. 267, and in 1914 the President established the National Elk Refuge. *See* FISCHMAN, *supra* note __ at 168. The next year, Congress would, by appropriating money for wolf eradication, bring into official existence the program for killing cougars, wolves, coyotes and other predators—years after it had already become the Biological Survey's most widespread and bureaucratized mission—in part out of a mistaken belief that eradicating such animals protected game. *See* MICHAEL J. ROBINSON, *PREDATORY BUREAUCRACY: THE EXTERMINATION OF WOLVES AND THE TRANSFORMATION OF THE WEST* 78 (2005) (hereinafter ROBINSON, "PREDATORY BUREAUCRACY"); *see* *infra* notes __ and accompanying text.

⁵⁵ Fink, *supra* note __ at 13-20. On the federal-state antagonisms stirred by this mode of refuge creation, *see* Murray G. Sagsveen, *Waterfowl Production Areas: A State Perspective*, 60 N.D. L. REV. 659 (1984).

⁵⁶ The Departments of Interior and Agriculture have waged a jurisdictional turf war for control of public lands since the beginning. It began with the reassignment of the forest reserves from the General Land Office within Interior to the Forest Service within Agriculture in 1905. *See* JEANNE NIENABER CLARKE AND DANIEL C. MCCOOL, *STAKING OUT THE TERRAIN: POWER AND PERFORMANCE AMONG NATURAL RESOURCE AGENCIES* 109-10 (2d ed. 1996); HAYS, *supra* note __. But when the Forest Service's management of Washington's Olympic peninsula angered many preservationists, they pushed successfully to have the majority of the lands used to create Olympic National Park. CLARY, *supra* note __ at 102-03. This and other like episodes powered the conservation/preservation rivalry even among professionals beyond the agencies themselves.

⁵⁷ On the inspiration painters such as Bierstadt, Church, Gifford, Kensett, and Moran provided Progressives in their mission to save the monumental landscapes of America, *see* ANDREW WILTON & TIM BARRINGER, *AMERICAN SUBLIME: LANDSCAPE PAINTING IN THE UNITED STATES 1820-1880* (2002).

⁵⁸ NASH, *WILDERNESS AND THE AMERICAN MIND*, *supra* note __ at 145-81; Robin W. Winks, *The National Park Service Act of 1916: "A Contradictory Mandate"?*, 74 DENV. L. REV. 575, 583-603 (1997)

⁵⁹ *See* Robert B. Keiter, *An Introduction to the Ecosystem Management Debate*, in *THE GREATER YELLOWSTONE ECOSYSTEM*, *supra* note __ at 3 ("Ever since the year 1872, when Congress designated Yellowstone as the world's first national park, the name Yellowstone has been synonymous with lofty

The Park Service was organized to “promote and regulate the use” of the parks by “such means and measures as conform to the[ir] fundamental purpose”: protection of “the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.”⁶¹

These were extraordinary places and holding them in stasis was obviously incompatible with conventional land use. But these preserves became, in the popular consciousness, the green-lined *opposite* of the “working landscapes” of the forest reserves, governed as they were by a “Use Book” and hopes of “yield” maximization.⁶²

The Park Service became curator of special spaces that were to be experienced. Its lands were being held separate from human cultivation (if not human *presence*⁶³) for future

idealism and often heated controversy . . . [D]ebate over how these lands are to be managed has escalated into a symbolic issue of national and international significance.”)

⁶⁰ With the Casa Grande Ruins in Arizona in 1889, the Chickamauga and Chattanooga battlefields in 1890, Mount Ranier in 1899, and then, with the Antiquities Act in 1906 (empowering the executive generally to reserve and set apart sites that would be added later to the NPS), many others, the treasures being guarded were quickly amassed. See WILLIAM C. EVERHART, *THE NATIONAL PARK SERVICE* 7-16 (1983).

⁶¹ Act of August 25, 1916, 39 Stat. 535, codified at 16 U.S.C. § 1. By 1916 and even more so today, though, the National Park System included sites of purely *cultural* relevance—bifurcating the agency’s mission as between preserving nature and preserving culture. See supra note __. And while none of the nineteenth century parks were originally created as wildlife habitat preserves per se, many NPS lands quickly assumed the identity of a kind of “game” habitat protectorate. See NOSS & COOPERRIDER, supra note __ at 71-72. Of course, “game” was a small subset of “wildlife.” SELLARS, supra note __ at 108-32.

⁶² The “Use Book,” the forerunner to the modern *Forest Service Manual* (now a multi-volume compilation constantly in flux with a continuous flow of circulars, guidance, etc.), was an internal collection of headquarters’ directives issued to every Forest Ranger to guide land use decisions in the field. THE GREATEST GOOD, supra note __ at 50; KAUFMAN, supra note __ at 95-102. By contrast, the Yellowstone National Park Act directed the Executive “to make and publish such rules and regulations as . . . necessary or proper . . . for the preservation, from injury or spoliation, of all timber, mineral deposits, natural curiosities, or wonders within said park, and their retention in their natural condition.” 17 Stat. 32 (1872), codified at 30 U.S.C. §§ 21, 22. The regulations were also to “provide against the wanton destruction of the fish and game found within said park, and against their capture or destruction for the purposes of merchandise or profit.” *Id.* Later, after the “organic act,” this norm was generalized to cover the other national parks as well.

⁶³ “Development” of the tourism trade has been a hallmark of the NPS. See George Cameron Coggins & Robert L. Glicksman, *Concessions Law and Policy in the National Park System*, 74 U. DENV. L. REV. 729 (1997). Professor Sax summed up the internal contradictions of this form of preservationism most eloquently in considering the Jackson Lake Lodge in Grand Teton National Park. It “is a lovely resort hotel, but it disserves the sort of opportunities the park ought to be stimulating. It is an attraction in itself,

generations.⁶⁴ The Park Service became the first bureaucracy in the modern state meant to put wild nature on a pedestal, to turn deliberately segregated parts of nature into the sublime.⁶⁵ Its installment as this steward ensured a budget line item, a professionalized corps of administrators (just like the Forest Service!⁶⁶), and a political constituency.⁶⁷ They all coalesced quickly around the preserves and a Janus-faced notion of preservation for the future by professional stewardship and legal boundaries.⁶⁸ Progressives matched their faith in the applied sciences of the earth with an inclination to draw lines on a map

with its fancy shops, swimming pool, and elegant restaurant. . . . If a place like the Tetons cannot attract someone based on its own resources, [though,] then that visitor may not be ready for an encounter with nature.” SAX, *supra* note __ at 88-89.

⁶⁴ The Forest Service even reluctantly began a move to preserve wilderness on NFS lands, see *infra* notes __ and accompanying text, mostly out of fear that it might lose jurisdiction over such lands to the Park Service. See Roderick Nash, *Historical Roots of Wilderness Management*, in U.S.D.A. FOREST SERVICE, WILDERNESS MANAGEMENT 35 (USFS Pub. No. 1365) (1978).

⁶⁵ Wallace Stegner’s 1960 letter to the Outdoor Recreation Resources Review Commission captured this idealization of wild nature (and identified it with the NPS) better than probably anyone else ever has. “Something will have gone out of us as a people if we ever let the remaining wilderness be destroyed; if we permit the last virgin forests to be turned into comic books and plastic cigarette cases We simply need that wild country available to us, even if we never do more than drive to its edge and look in. For it can be a means of reassuring ourselves of our sanity as creatures, a part of the geography of hope.” EVERHART, *supra* note __ 94-95. On the formation of the Park Service’s identity around this idealization, see CLARKE & MCCOOL, *supra* note __ at 69-91.

⁶⁶ See CLARKE & MCCOOL, *supra* note __ at 71 (“[T]he Park Service was created in the shadow of progressive conservation which was . . . institutionalized in the Forest Service.”); Cheever, *supra* note __ at 634 (“The success Pinchot and [first Park Service Chief Steven] Mather enjoyed in their dealings with Congress and the Cabinet had something to do with their promises, explicit and implicit, to do the difficult job of striking a balance between preservation and use.”).

⁶⁷ See EVERHART, *supra* note __ at 10-30; RICHARD WEST SELLARS, PRESERVING NATURE IN THE NATIONAL PARKS: A HISTORY 28-46 (1997).

⁶⁸ “Throughout the first thirty years of its official existence . . . the Park Service enjoyed one period of impressive growth. This was during FDR’s New Deal. With two park lovers at the helm [Roosevelt and Ickes] . . . [a]gency officials were instructed to expand the park system wherever they could, but especially in the eastern third of the nation where most Americans still resided.” CLARKE & MCCOOL, *supra* note __ at 72. With the foundation of the National Parks Conservation Association (1920), see http://www.npca.org/about_npca/, and as the NPS grew more important to more people, the political salience of the NPS and Park Service grew significantly. Common accessibility led to an emphasis within the Park Service on further boosting visitation, an organizational focus that would eventually define the Park Service in the twentieth century. CLARKE & MCCOOL, *supra* note __ at 73-91; Keiter, *Preserving Nature in the National Parks*, *supra* note __ at 654 (“[T]he Park Service has frequently subordinated its statutory preservationist obligation to its public use obligation. Early management of the national parks was primarily designed to encourage visitation to these remote areas.”). From there, it was a fairly straight path to the legal challenges brought against Park Service management policies by various user groups. See, e.g., *Fund For Animals v. Babbitt*, 903 F. Supp. 96 (D.D.C. 1995); *Mausolf v. Babbitt*, 913 F. Supp. 1334 (D. Minn. 1996); *National Parks Conservation Assn. v. Babbitt*, 241 F.3d 722 (9th Cir. 2001); see *infra* notes __ and accompanying text.

separating lands by type.⁶⁹ Utilitarian use and the setting apart of sublime nature became two very different standards of care for public land, even while their practitioners employed common means.

Of course, experts with delegated power from politicians can—and did—make big mistakes. It was through the discretion granted them that both the Forest Service and Park Service initiated what has become two of the public lands’ most bitter legacies: fire and predator suppression.⁷⁰ No legislation mandated these agency reactions to such important elements of the ecology of North American landscapes.⁷¹ Their judgments pleased their states and stakeholders, but they would have devastating longer-term consequences.⁷² Indeed, broad-scale fire suppression,⁷³ which amassed fuels in forests to

⁶⁹ See HAYS, supra note __ at 267 (“[Roosevelt’s] administration and his social and political views are significant primarily for their attempt to supplant [social struggle] with a “scientific” approach to social and economic questions.”); see Klein, supra note __ at 1384-1402. Bounding the types of land to be “reserve[d] and set aside” was a singularly “Progressive” technique for ending conflicts among parts of the public with diverse priorities. See HAYS, supra note __ at 271-74.

⁷⁰ KEITER, KEEPING FAITH WITH NATURE, supra note __ at 136-37. “There have been many controversies over resource management in the Greater Yellowstone Area, but few have evoked so much emotional debate as the question of what role fire should play.” Dennis H. Knight, *The Yellowstone Fire Controversy*, in THE GREATER YELLOWSTONE ECOSYSTEM, supra note __ at 87. On the misuse of fire catastrophes in the current political debate over national forest management, and their misuse in particular in the passage of the Healthy Forests Restoration Act of 2003, Pub. L. No. 108-148, 117 Stat. 1887 (2003), see JACQUELINE VAUGHN & HANNA J. CORTNER, GEORGE W. BUSH’S HEALTHY FORESTS: REFRAMING THE ENVIRONMENTAL DEBATE (2005).

⁷¹ While the 1897 “Organic Act” included an affirmation of the agency’s power to act against “destructive” fire, it was not that legislation but rather social, market and professional forces that pushed the Forest Service to suppress fire. See WILLIAMS, supra note __ at 447-54; KEITER, KEEPING FAITH WITH NATURE, supra note __ at 141 (“Curiously, although fire plays a major role on the western landscape, few federal laws directly address fire management on public lands.”). One of Pinchot’s more esteemed successors as Chief Forester, William Greeley, regarded the passage of the 1924 Clarke-McNary Act—a statute authorizing and funding federal-state cooperative action for fire suppression—as his “greatest personal monument.” WILLIAMS, supra note __ at 454. Protecting forest reserves from negligent ignitions of fire or unchecked deer herds, in fact, became an early source of elasticity in the Property Clause’s interpretation. See, e.g., *Chesapeake & Ohio Ry. Co. v. United States*, 139 F.2d 632 (4th Cir. 1944); *Chalk v. United States*, 114 F.2d 207 (4th Cir. 1940). And while a series of laws authorized predator control programs, it was the agencies themselves that transformed these authorizations into all out extermination campaigns. See Coggins & Evans, supra note __; ROBINSON, PREDATORY BUREAUCRACY, supra note __.

⁷² Though fire control had been a concern within the Forest Service from the beginning, it was not until the late 1920s and 1930s that forest fires were viewed as a failure of management (due in part to the growing emphasis on timber) and the policy of absolute suppression was adopted. CLARY, supra note __ at 94-126. In 1928, the Park Service established a comprehensive program to prevent and contain fires, appointing its first “Fire Control Expert” within its Bureau of Forestry. DILSAVER, supra note __ at 54. Predator control

unprecedented levels, is at least one *cause* of the fire risks of today.⁷⁴ Seeing trees as a crop can lead the forester to view fire as a threat,⁷⁵ the same way seeing game animals as a crop led so many “conservationists” to view predators as something to be eradicated.⁷⁶ The intense public pressure that mounted on these professionals to change their views constitutes an important turning point in public lands.⁷⁷

C. Expertise and Mistake: The Rise and Rejection of Experimentalism on Public Lands

by both agencies was intensive, as well. See George Cameron Coggins & Parthenia Blessing Evans, *Predators' Rights and American Wildlife Law*, 24 ARIZ. L. REV. 821, 826-40 (1982) (describing a “war” on predators from 1607-1960). Indeed, on the original use of “cooperative federalism” by federal natural resources agencies (for predator extermination), see ROBINSON, PREDATORY BUREAUCRACY, *supra* note __. By the 1960s, though, the elk herd in Yellowstone had grown so large that it was being likened to pests. See Advisor Board of Wildlife Management, *Wildlife Management in the National Parks* (A.S. Leopold *et al.*, March 4, 1963), *in* DILSAVER, *supra* note __ at 237, 243 (hereinafter “*Leopold Report*”).

⁷³ There is no overestimating the national significance of the Forest Service’s single-minded conviction to suppress fire throughout the national forests starting in the early 1910s. “Success” in fire suppression became “[t]he No 1 job of American foresters” and a “yardstick of progress in American Forestry,” whether practiced by federal, state, or private actors. WILLIAMS, *supra* note __ at 452.

⁷⁴ KEITER, KEEPING FAITH WITH NATURE, *supra* note __ at 140-42 (noting that some ecosystems adapted to high-frequency/low-intensity fires have been severely disturbed by fire suppression policy). Large-scale disruptions of precipitation patterns may be another cause. See Lisa Crozier, *Challenges to Predicting Indirect Effects of Climate Change*, *in* PRINCIPLES OF CONSERVATION BIOLOGY, *supra* note __ at 360 (Case Study 10.1). “The 2000 and 2002 fire seasons raised public concern about the magnitude of the fire problem, deteriorating forests, and the need for fuels reduction to restore forests and protect [wildland] communities.” “The 122,827 fires of the 2000 fire season burned 8.43 million acres—the worst fires in the last fifty years, eclipsing earlier records.” VAUGHN & CORTNER, *supra* note __ at 124. This is not to say that the public political debate about present fire risks portrays them in an accurate light. See *id.*; *infra* notes __ and accompanying text.

⁷⁵ FEDKIW, *supra* note __ at 16-17; THE GREATEST GOOD, *supra* note __ at 73-85; CLARY, *supra* note __ at 73-93. On the Park Service’s felt duty to provide for pleasurable experiences free from the affronts of fire within parks, see Keiter, *Protecting Nature in the National Parks*, *supra* note __ at 655.

⁷⁶ ROBINSON, PREDATORY BUREAUCRACY, *supra* note __ at 98 (detailing the support from the Boone and Crocket Club for wolf extermination efforts). On the transformation of what began as a policy of predator “control” into a fully bureaucratized mission of extermination, eventually expanding to species “released” by the elimination of their natural checks, see *id.* at 178-304. No fewer than a dozen species of predators that were hunted, trapped, shot, poisoned or otherwise pursued by the various bureaus of the Departments of Interior and Agriculture would eventually be listed or become candidates for listing under the ESA. *Id.*

⁷⁷ Forest Service and Park Service documents began acknowledging the many dimensions in which fire was an important element of North American forest ecology only many years after the decisions to suppress fire on a system-wide basis had been made. See Fire Management Policy Review Team, *Report on Fire Management Policy* (U.S. Dept. of Agriculture & U.S. Dept. of Interior 1988). Likewise, the policies of predator suppression came under intense public scrutiny by the 1960s and 1970s. See STANLEY CAIN, ET AL., PREDATOR CONTROL—1971, REPORT TO THE CEQ AND THE DEPARTMENT OF THE INTERIOR BY THE ADVISORY COMM. ON PREDATOR CONTROL (1972) (hereinafter “CAIN REPORT”).

Pinchot's vision of "reserves" administered by a professional corps of trained specialists, of course, became the wider paradigm for public land management, whatever the precise priorities of the system created.⁷⁸ And Pinchot was just one among waves of Progressives who pushed for a wider reformation of mass democracy in the mold of what David Held has called the "technocratic vision."⁷⁹ The Progressive model of experimentation in the approach to public problems is coming back in earnest,⁸⁰ although the public shows little interest in a theory of expertise that presumes mistakes.

Notably, it was only years after the predator and fire elimination policies were known to be mistakes that ecologists working with (but outside of) the Park Service

⁷⁸ See WILKINSON, supra note __ at 120-35; CLARKE & MCCOOL, supra note __ at 49-66; KEITER, KEEPING FAITH WITH NATURE, supra note __ at 20-21. Pinchot's vision was not uncontroversial, to be sure. Indeed, in its execution, major milestones were set in the emergence of the administrative state. Between 1905 and 1907, Pinchot and his friend President Roosevelt relocated the governance of the forest reserves out of what they perceived to be a bureaucracy overrun by patronage politics (the Department of Interior's General Land Office) and into one they perceived to be less so (the Department of Agriculture's Bureau of Forestry). THE GREATEST GOOD, supra note __ at 36-42; HAYS, supra note __ at 35-48. Opinions vary on the effectiveness of that move. See HAYS, supra note __ at 165-74; Huffman, supra note __ at 262-72. Furthermore, Pinchot was eventually fired over a conflict with a later Secretary of Interior, Ballinger, in what became a famous incident in the political supervision of administrative agencies. See CARPENTER, supra note __ at 275-89.

In 1911, Pinchot and his allies provoked heated congressional debates over the federal government's constitutional authority to *acquire* eastern lands from willing sellers for purposes of conservation. Out of those debates came the Weeks Act, the statute that would eventually bring the few National Forests and several small National Parks there are to the East and Northeast. See GATES, supra note __ at 593-97. By 1961, nearly 20 million acres had been acquired under this authority. THE GREATEST GOOD, supra note __ at 79. Finally, also in 1911, in *United States v. Grimaud*, 220 U.S. 506 (1911), the Supreme Court held for the first time that administrative agencies like the Forest Service could—with the proper delegation of authority from Congress—write rules and regulations having the force of law. This, of course, initiated a central dimension of the administrative state.

⁷⁹ See DAVID HELD, MODELS OF DEMOCRACY 157-98 (2d ed. 1996); PURCELL, supra note __.

In 1917 Richard Ely, a professor of political economy at the University of Wisconsin, defined conservation as the division of economics that deals with production. But he did not have then, nor did Gifford Pinchot, a full scientific understanding of how the natural economy in fact works, or any measurements of its productive efficiencies, or in general any mathematical tools for dealing with that system. Without such scientific guidance, neither the economist nor the bureaucrat could go very far toward managing the land for higher production.

WORSTER, supra note __ at 312. This was, in short, a conceptual and analytic step, not a managerial one.

⁸⁰ See, e.g., Michael C. Dorf & Charles F. Sabel, *A Constitution of Democratic Experimentalism*, 98 COLUM. L. REV. 267 (1998); SIDNEY A. SHAPIRO & ROBERT L. GLICKSMAN, RISK REGULATION AT RISK: RESTORING A PRAGMATIC APPROACH (2003); Brandon L. Garrett & James S. Liebman, *Experimentalist Equal Protection*, 22 YALE L. & POL'Y REV. 261 (2004); Charles F. Sabel & William H. Simon, *Destabilization Rights: How Public Law Litigation Succeeds*, 117 HARV. L. REV. 1015 (2004).

acknowledged publicly how truly destructive the experiments had become.⁸¹ Experts in and out of government came to a sobering conclusion from early 1960s' work on this mismanagement of public lands: any *rational* land use policy required a far better understanding of ecology than might be achieved practically.⁸² So, while utilitarian “conservation” for sustained yields was supposed to protect the long-term productivity of the land (whether out of the fear of famine or the promise of prosperity),⁸³ it could not admit its own fallibility.⁸⁴

The need for an explicitly experimentalist, adaptive approach to public lands policy was evident by the 1960s, though. Putting it into effect was something else. For the agencies also learned that their managerial choices could not be kept indefinitely provisional, that they could not just welcome nature's unpredictability—whether it was more rational and “public-regarding” or not.⁸⁵ Unpredictability and on-the-ground field office control precluded too much of the private ordering that has defined our public

⁸¹ See *Leopold Report*, supra note ___ at 245-46; CAIN REPORT, supra note ___. In fact, the Park Service had announced its first policy reversal on predator suppression as early as 1931, stating that it would no longer conduct a “widespread campaign” against predators like wolves, pumas, bears, and others (although it continued suppression policies where it found predators threatening to “more useful species”). SELLARS, supra note ___ at 119. Sellars, the Park Service's official historian, emphasized how important separation from the internal bureaucratic structure was to the independence of the seminal reports ultimately done by the National Academy of Sciences and the Leopold Committee in the 1960s. They documented the agency's ecological failings. See *id.* at 214-21. See also KEITER, KEEPING FAITH WITH NATURE, supra note ___ at 137-38 (“Spurred by the seminal 1963 Leopold Report, the Park Service adopted new resource management policies allowing naturally caused fires to burn when they would promote vegetation or wildlife management objectives.”).

⁸² Compare SELLARS, supra note ___ at 214 (“Ecological management [within the Park Service of the 1960s] inherently required far deeper understanding of natural resources than did scenic preservation and tourism management. . . .”) with CLARY, supra note ___ at 178 (“Almost overnight the public became imbued with a sense of the complexity of the national environment, while scientists gained an increasing voice in public affairs. . . . Competing specialists began to question one another, and the public at large made its own opinions known.”).

⁸³ THE GREATEST GOOD, supra note ___ at 228-31; Pisani, supra note ___.

⁸⁴ See *A University View of the Forest Service*, S. Doc. No. 115, 92d Cong., 2d Sess. 13-17 (1970) (hereinafter the “Bolle Report”). Whether the mistakes were about means or ends is left aside here. See, e.g., WILKINSON & ANDERSON, supra note ___ at 371 (“The upswelling [sic] of the mid-1970s . . . was not a response to a lack of quality within the Forest Service; it was a reaction to timber domination.”).

⁸⁵ See EVERHART, supra note ___ 95-105, 110-16 (Park Service); WILKINSON & ANDERSON, supra note ___ at 76-90 (Forest Service); FISCHMAN, supra note ___ at 56-61 (FWS).

lands systems.⁸⁶ Allowing fire and predation to run their course has met extreme opposition—putting the land managers under another kind of intense pressure for over a generation now.⁸⁷ It is one thing to manage land without suppressing fire or predators out of a belief in their ecological functionality. It is something else again to do so as a federal administrative agency.⁸⁸ Its spillovers and mistakes have a legal and political valence unknown to other landowners and this foundational reality of public lands has always compromised the technocratic vision.⁸⁹ Whatever the priorities, public lands stewards have always been under such disadvantages.

⁸⁶ CULHANE, *supra* note __ at 204-05, 333-34; Blumm, *supra* note __ at 420-21; Raymond & Fairfax, *supra* note __ at 727-45. “Local politicians viewed the summer fire season [in Yellowstone, 1988] as a disaster, not a watershed ecological event. For them, the fires had devastated the park’s once beautiful native forests, unnecessarily endangered neighboring communities, disrupted summer tourism businesses, and thus represented a flawed policy experiment.” KEITER, *KEEPING FAITH WITH NATURE*, *supra* note __ at 139; Keiter, *supra* note __ at 669 (“Believing that wolves and natural fire threaten paramount human safety and property concerns, park neighbors have applied intense political and legal pressure to stop or modify specific restoration efforts.”). Indeed, even after being chastened by the Leopold and NAS reports, see *supra* note __, the Park Service’s internal bureaucratic power structure (itself a function of different external pressures) inhibited the earlier emergence of a science-based approach to park (and especially fire) management. See SELLARS, *supra* note __ at 221-46; see also ROBINSON, *PREDATORY BUREAUCRACY*, *supra* note __ (tracing the history of politics trumping science within FWS, its precursors, and other bureaus charged with predator control). On the wider role reliance interests broadly defined have played in federal environmental and natural resources law, see generally Peter Huber, *The Old-New Division in Risk Regulation*, 69 VA. L. REV. 1025 (1983); Jeffrey S. Kopf, *Steamrolling Section 7(d) of the Endangered Species Act: How Sunk Costs Undermine Environmental Regulation*, 23 B.C. ENVTL. AFF. L. REV. 393 (1996).

⁸⁷ Records of Park Service biologists arguing in the 1930s that predator suppression ought to be ended within the NPS show that their counsel met harsh resistance from above. See SELLARS, *supra* note __ at 119-23. Reliance interests and sunk costs were then and have ever since been powerful countervailing forces against “expertise.” Today, it is probably no exaggeration to say that the “wildland-urban interface,” a euphemism of the growing number of homes being built right up to the edges of (or even on inholdings within) publicly owned timberlands, is today the single most important driver of Forest Service fire policy. See VAUGHN & CORTNER, *supra* note __ 202-03.

⁸⁸ The Predator and Rodent Control (“PARC”) Branch of the Biological Survey was legislated into existence in 1915. Stanley A. Cain, *Predator and Pest Control*, in WILDLIFE AND AMERICA 379, 380 (Howard P. Brokaw ed., 1978); see also CAIN REPORT, *supra* note __. PARC became one of the Departments of Agriculture and Interior’s most resilient bureaus, eventually being reshuffled and renamed the Animal Damage Control program, see Coggins & Evans, *supra* note __ at 835-63 (describing the efficacy and political life of ADC), and into what it is known euphemistically as today: “Wildlife Services.” See, e.g., Associated Press Newswire, January 29, 2006, *Federal Hunt Nets 200 Coyotes: Arizona Ranchers Complained Animals Were Eating Calves*.

⁸⁹ That the public lands policies of predator eradication and fire suppression were expert mistakes is not usually debated any longer. On the other hand, the *nature* of these mistakes and who has borne the harms they created is still the subject of intense debate. Compare WILLIAMS, *supra* note __ at 487 (“Throughout the country, 60 years of fire suppression had caused a marked deterioration in the composition of the

This is clearest today in our collective inability to replace the preservation/conservation dichotomy with anything more descriptively accurate and/or democratically constructive for public lands law.⁹⁰ Notwithstanding all our advances, we appear unable to incorporate nature's inherent stochasticity or the turn toward ecological restoration into the public lexicon of public lands.⁹¹ Why? The politics either could provoke might focus needed attention on identifying our many management mistakes and promoting experimentation with their corrections. Ecological restoration of fire or predators would be “*noncreative* with respect to objectives, neither improving on nature nor improvising on it but attempting, blankly, to copy it.”⁹² It is necessarily dynamic, too, given all of the unknowns involved. But restoration is, at bottom, about recovering a biome's elements regardless of their utility to humanity.⁹³ And that would be a rather

nation's forests.”) with John D. Varley & Paul Schullery, *Reality and Opportunity in the Yellowstone Fires of 1988*, in THE GREATER YELLOWSTONE ECOSYSTEM, supra note __ at 105, 117 (“Probably no topic generated more urgent public concern than the welfare of park wildlife [during the 1988 Yellowstone fires] But few observers were prepared for what we witnessed when Yellowstone wildlife encountered the fires. Wildlife losses were remarkably light.”); see also Coggins & Evans, supra note __ at 824 (“Many people now recognize that the effects of predation do not always hurt human pocketbooks and that some “predatory” activities result in economic benefit, directly and indirectly.”); Holly Doremus, *Restoring Endangered Species: The Importance of Being Wild*, 23 HARV. ENVTL. L. REV. 1, 32-38 (1999) (reviewing the commonly attributed costs of different wildlife restoration initiatives).

⁹⁰ Right beside the Leopold Report's call for the hiding of “observable artificiality in any form” within parks and preserves, DILSAVER, supra note __ at 242, the committee also argued that parks “should represent a vignette of primitive America,” id. at 239, that is, that the Park Service should adopt a *restorative* agenda. To do so, “it follows logically that every phase of management itself be under the full jurisdiction of biologically trained personnel of the Park Service.” Id. at 243; see also SELLARS, supra note __ at 215 (describing the impact of the Leopold Report as an “extraordinary challenge[] to a bureau long focused on accommodating tourism.”). Restoration had little traction in national politics then, and it seems (analysts like Keiter notwithstanding) to have little traction today.

⁹¹ See JORDAN, supra note __ at 28-53. Conservation biologists confronting the centuries of human-caused disturbances of North American biomes readily embrace the vocabulary of “restoration” over that of conservation or preservation, especially with respect to species that must be actively managed for recovery. See, e.g., Daniel Simberloff *et al.*, *Regional and Continental Restoration*, in CONTINENTAL CONSERVATION: SCIENTIFIC FOUNDATIONS OF REGIONAL RESERVE NETWORKS 65, 65-68 (Michael E. Soulé & John Terborgh eds., 1999) (hereinafter “CONTINENTAL CONSERVATION”); see infra notes __ and accompanying text.

⁹² JORDAN, supra note __ at 24 (emphasis in original).

⁹³ Simberloff *et al.*, supra note __. This challenge is perhaps even greater than the scientific challenges inherent in restoration. “Above all, the social, economic, and political climate must be suitable. If there is not broad support for a restoration project, it is unlikely to succeed.” Id. at 71. Restoration does, however,

magnanimous approach to public lands from its stewards and stakeholders (and, for that reason, perhaps one not to be expected).⁹⁴

More importantly, though, “[I]and, like other aspects of culture, exhibits a frequently arbitrary diversity from place to place, in the manner in which it might be treated, in rights of use, in types of tenure, and in laws governing these customs. Indeed the meanings of their property to two owners may be so disparate that a single line separates values as incommensurate as the proverbial apples and oranges, even if the parcels are identical in physical quality.”⁹⁵ Public lands are no exception. “Land appears to have been viewed as a marketable commodity from its first distribution in the colonies.”⁹⁶ And as the different preservation and conservation constituencies identified more and more with ‘their’ lands throughout the Twentieth century, it was the distinctions and boundaries themselves that reified.⁹⁷ Ecological restoration would

have the pragmatic advantage over other approaches in the identification of desirable ecological conditions. Cf. JORDAN, *supra* note __ at 195 (“Restoration . . . provides a way around [the impasse created by trying to rank order parts of nature to be protected] because it offers, as other environmental paradigms do not, a context for confronting and dealing productively with the shame of our encounter with nature as other. . .”).

⁹⁴ Compare Jeffrey J. Rachlinski & Cynthia R. Farina, *Cognitive Psychology and Optimal Government Design*, 87 CORNELL L. REV. 549, 567-68 (2002) (“The rational administrator will act to maintain his position and to expand the authority of his agency.”) with CARPENTER, *supra* note __ at 354 (arguing that bureaucratic autonomy, when it is achieved, is based “not upon the popularity of a policy, not upon occasional administrative fiat, not upon a single well-heeled lobby, but upon the stable political legitimacy of the bureaucracy itself”); see generally MASHAW, *supra* note __ (proposing a paradigm of administrative law that seeks to control for the self-interested opportunism of all actors with law-making power, including expert agencies). Too often today, the very thing that makes some discrete segment of the “public” effective in our national political arena is also what separates it and its interests from that public. *Id.* at 19.

⁹⁵ EDWARD T. PRICE, *DIVIDING THE LAND: EARLY AMERICAN BEGINNINGS OF OUR PRIVATE PROPERTY MOSAIC* 5 (1995). “Land as property reveals nature and culture inextricably entangled. A parcel of land has an indubitably physical existence, biological too with its vegetation and soils.” *Id.*; cf. Kaiser Aetna v. United States, 444 U.S. 164, 176 (1979) (characterizing landowners’ changed rights bordering the publicly owned submerged lands as “one of the most essential sticks in the bundle of rights that are commonly characterized as property—the right to exclude others.”).

⁹⁶ PRICE, *DIVIDING THE LAND*, *supra* note __ at 332.

⁹⁷ See KEITER, *KEEPING FAITH WITH NATURE*, *supra* note __ at 317-18 (finding that “ecological realities” are forcing experts to question “the role of boundaries” separating kinds of land, both public and private); see also Douglas A. Kysar & James Salzman, *Environmental Tribalism*, 87 MINN. L. REV. 1099 (2003). The progress of ecological sciences might have promoted greater cooperation and integration instead of greater polarization, certainly. See *infra* notes __ and accompanying text. But our federal system itself

require exactly the kind of pluralistic deliberation and collaboration by the users, abutters, affinity groups, and administrators of the different types of (public) lands that all those parties evolved *to avoid*.⁹⁸ For this reason alone restoration might never provide very much of the political vocabulary of nature protection in the administrative state.⁹⁹

Put more generally, if somewhat dismally, the conceptual structure of land in our desiccated “public sphere” has curbed the prospects for conservation by federal public lands law.¹⁰⁰ Nevertheless, biodiversity decline continues, meaning that Progressivism’s fractious public philosophy of land management has set this whole field of law into its own warped endgame. For, even while “conservationists continued to push for state-level programs to *manage* wildlife” and “preservationists began to push for federal programs to *protect* wildlife,”¹⁰¹ public lands law was trapped within its own history—putting out of reach the very means necessary to its ends.

bears some of the responsibility for the lost opportunity. “[T]he combination of uncertainty and complexity creates an atmosphere conducive to group polarization—the tendency for individuals to become more extreme in their views by virtue of their membership in a group.” *Id.* at 1120. *See infra* notes ___ and accompanying text.

⁹⁸ Raymond & Fairfax, *supra* note ___ at 727-45 (describing the Progressive agenda as structurally committed to fragmentation); ROBERT J. BRULLE, AGENCY, DEMOCRACY, AND NATURE: THE U.S. ENVIRONMENTAL MOVEMENT FROM A CRITICAL THEORY PERSPECTIVE 269-82 (2000). “The serious divisions that exist within the environmental movement require a restructuring of the political and ideological cleavages that exist within and among the various environmentalisms so that a coherent project of collective action can be developed.” *Id.* at 276.

⁹⁹ *See* Colburn, *Localism’s Ecology*, *supra* note ___ at ___; BRULLE, *supra* note ___ (tracing five distinct discourses in modern environmentalism and their core attributes making them incommensurable with one another); Robert J Brulle, *Habermas and Green Political Thought: Two Roads Converging*, 11 ENVTL. POL. 1, 13-14 (2002) (hereinafter Brulle, “*Two Roads Converging*”).

¹⁰⁰ *Cf.* Brulle, *Two Roads Converging*, *supra* note ___ at 2-3 (arguing that defects in our basic social institutions are preventing a more constructive use of politics and political dialogue that would promote better, more collectively rational environmental policies). I refer to the “public sphere” in roughly the sense used by Habermas, as a field of discourse collectivizing an indefinite audience for purposes of self-government and in which the procedural norms of engagement are vitally important to the ultimate success of that endeavor. *See* JÜRGEN HABERMAS, BETWEEN FACTS AND NORMS: CONTRIBUTIONS TO A DISCOURSE THEORY OF LAW AND DEMOCRACY 175-86, 360-61 (William Rehg trans. 1998). But Habermas’s procedural account of democratic legitimacy is at least compatible, at least in the abstract, with Rawls’s more substantive account. John Rawls, *The Idea of Public Reason Revisited*, in JOHN RAWLS: COLLECTED PAPERS 573, 582-83 & n.28 (Samuel Freeman ed., 1999).

¹⁰¹ YAFFEE, *supra* note ___ at 37 (emphasis in original).

III. PRESERVATIONISM AND PROCEDURE: PUBLIC LANDS LAW “REFORM,” 1964-76

By 1960, Congress was beginning to voice the public’s dissatisfaction with the agencies’ corporatist approach to conservation. The Multiple Use Sustained Yield Act of 1960 (“MUSYA”) shows the unease.¹⁰² Still, like the Progressive and New Deal statutes and agency policies, it presumed that a “greatest good for the greatest number” could be extracted from parcels of land by trusting in the right forms of expertise and organization.¹⁰³ But it foreshadowed what was coming.¹⁰⁴

¹⁰² Pub. L. No. 86-517, 74 Stat. 215 (1960). MUSYA issued no determinate directive to the Forest Service and MUSYA did nothing to blunt the agency’s emphasis on merchantable commodities extractable from the land. “Multiple use” was defined in the Act to mean “management of all the various renewable surface resources of the national forests so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions . . . and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.” *Id.* at § 4(a), codified at 16 U.S.C. § 531(a). It does not, however, say whether multiple use should be achieved unit-by-unit or what remedies there are if the agencies fail to achieve it.

¹⁰³ One federal court famously described the statute as “breath[ing] discretion at every pore.” Perkins v. Bergland, 608 F.2d 803, 807 (9th Cir. 1979); WILKINSON & ANDERSON, *supra* note __ at 60-66. Essentially, MUSYA was a declaration that “the national forests are establish and shall be administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes.” The uses were listed alphabetically so as to avoid even a hint of priority of one over the other and were, in fact, ushered through Congress by the Forest Service itself in order to solidify the agency’s legal authority in the face of rising conflict among timber and preservation interests. *See* WILKINSON & ANDERSON, *supra* note __ at 29-31. Moreover, the Act required only that the Forest Service give equal “consideration” to all of the uses—not that it actually provide for each equally or that there be any remedy against the agency if it failed to do so. *See Perkins v. Bergland*, 608 F.2d 803, 806 (9th Cir. 1979).

¹⁰⁴ As noted public land law scholar Charles Wilkinson argued forcefully, the multiple use agencies (chiefly BLM and the Forest Service) had been, over a long history of receiving blank check delegations, failures—even if their only objective was to deliver the greatest *quantifiable* good to the greatest number presently accounted for. This is at least partly because irrigators, ranchers, miners, timber companies, and others with concentrated stakes played such dominant roles in these agencies’ decision-making. *See* CHARLES F. WILKINSON, *CROSSING THE NEXT MERIDIAN: LAND, WATER, AND THE FUTURE OF THE WEST* (1992). Indeed, the government has heavily subsidized many such private uses in order to make them seem profitable. *See* Michael C. Blumm, *Public Choice Theory and the Public Lands: Why Multiple Use Failed*, 18 HARV. ENVTL. L. REV. 405, 408-15 (1994). “It is clear that the concepts of multiple use and sustained yield have failed to produce sustainable public land ecosystems supporting a variety of renewable resources. This failure is demonstrated by the enormous costs of the subsidy system as well as by that system’s deleterious effects on wildlife . . .” *Id.* at 429. What is much less clear is whether uses other than commodity extraction (like those prioritized by the Wilderness Act) would necessarily be more “public regarding” or would just be the switching of priorities to recreation and related interests. *See infra* notes __ and accompanying text.

The Forest Service’s practices at the time were attracting potent criticism, especially from adherents of utilitarian conservationism.¹⁰⁵ Congress was pushed to be more specific about how conservation lands should be managed.¹⁰⁶ The most consistently efficient forestry technique—clearcutting and the conversion of slow-growing to fast-growing age structures and species—had become quite alarming in appearance.¹⁰⁷ Indeed, it is probably fair to say that the Forest Service *itself* provoked one of Congress’s most pointed erasures of agency discretion in American history. While faith in expertise may have waxed or waned,¹⁰⁸ the fear that agencies like the Forest Service had become the captives of the industries with which they dealt had gripped

¹⁰⁵ It is important to note, though, what MUSYA (like the Wilderness Act and others after it) took care *not* to change: the *modus vivendi* that had emerged between the federal land managers and state fish and game departments regarding jurisdiction over resident wildlife. While Toomer v. Witsell, 334 U.S. 385 (1948), Takahashi v. Fish and Game Comm., 334 U.S. 410 (1948), and United States v. California, 332 U.S. 19 (1947), effectively demolished the state ownership doctrines with respect to wildlife and other natural resources, the agencies had made no efforts whatever to exclude state wildlife authorities on federal lands. The statutes in question in this part, by and large, sought to preserve the stand-off. See, e.g., 16 U.S.C. § 1133(d)(7). MUSYA and others make clear that no part was to be construed as “affecting the jurisdiction or responsibilities of the several States with respect to wildlife and fish in the national forests.” Pub. L. No. 86-517, § 1, codified at 16 U.S.C. § 528.

¹⁰⁶ Opinion is still divided over the reasons for the significant rise in clearcutting on Forest Service lands through the 1950s and ’60s. The Forest Service has long argued that public demand for lumber in the post-war housing boom drove the practice. See THE GREATEST GOOD, supra note __ at 137-42. But its own historians have suggested otherwise. See, e.g., CLARY, supra note __ at 180-88. By 1969, the first systematically critical study of Forest Service policies conducted by professional foresters outside the agency was set to chastise it for its forestry practices. See *Bolle Report*, supra note __.

¹⁰⁷ Technological improvements and economic shifts brought clearcutting to places that had not previously experienced it and widened perceptions of Forest Service malfeasance. THE GREATEST GOOD, supra note __ at 147-51; CLARY, supra note __ 183-88. Sierra Club leader David Brower and others may have burned with outrage in the 1960s lead-up to the Monongahela and Tongass cases, see West Virginia Div. of Izaak Walton League of America, Inc. v. Butz, 522 F.2d 945 (4th Cir. 1975); Zieske v. Butz, 406 F. Supp. 258 (D. Alaska 1975)—precedents that “effectively stopped clearcutting in the national forests.” JAMES RASBAND ET AL., NATURAL RESOURCES LAW AND POLICY 1187 (2004). But FDR himself had recoiled in horror at the sight of clearcutting in his tour of Olympic National Forest in 1936. CLARY, supra note __ at 103.

¹⁰⁸ Cf. Blumm, supra note __ at 418 (describing a “widespread perception that administrative agencies were stagnant bureaucracies incapable of pursuing the public interest” in the mid-1960s) (citing Bruce Ackerman & William Hassler, *Beyond the New Deal: Coal and Clean Air Act*, 89 YALE L.J. 1466, 1474-79 (1980); Stewart, supra note __ at 1676-81); but cf. BRUCE A. ACKERMAN & WILLIAM T. HASSLER, CLEAN COAL/DIRTY AIR 94-103 (1981) (arguing that the “high-tide of technocratic rationality” on Capitol Hill was not reached until the late 1970s).

Washington.¹⁰⁹ When the flood of legislation leveled, the use of public lands had become one of the most prescriptive fields in the administrative state: more legal boundaries were inscribed separating more kinds of nature according to finer distinctions of use-priorities and jurisdictional turf than ever before. ROADMAP

A. *Communing with (Wild) Nature: Wilderness Preservation in the Public Sphere*

Preservationism's renaissance began with the Wilderness Act of 1964. The Act created a new "overlay zoning" system: the National Wilderness Preservation System ("NWPS").¹¹⁰ Under the Act, public lands, including multiple use lands, were to be expertly surveyed and, for the areas "pristine" enough,¹¹¹ given a permanently protective

¹⁰⁹ The signature academic accounts of such agency infidelities are MARVER BERNSTEIN, *REGULATION OF BUSINESS BY INDEPENDENT COMMISSION* (1955), and GABRIEL KOLKO, *THE TRIUMPH OF CONSERVATISM: A REINTERPRETATION OF AMERICAN HISTORY 1900-1916* (1963). Their veracity is subject to many reasonable doubts. See, e.g., Edward L. Rubin, *Public Choice, Phenomenology, and the Meaning of the Modern State: Keep the Bathwater, but Throw Out That Baby*, 87 *CORNELL L. REV.* 309 (2002). Nonetheless, by the middle of the 1960s, decisions of the D.C. Circuit—especially those of Judges Bazelon, Leventhal, and Wright—seemed increasingly alert to such possibilities. See Thomas Merrill, *Capture Theory and the Courts, 1967-1976*, 72 *CH.-KENT L. REV.* 1039 (1997).

¹¹⁰ Pub. L. No. 88-577, 78 Stat. 890, codified at 16 U.S.C. §§ 1131-1134. I mark 1964 somewhat arbitrarily. In 1948, the International Union for the Conservation of Nature ("IUCN") was formed in Morges, Switzerland, initiating what has evolved into the modern era of biodiversity conservation. See STEPHEN L. YAFFEE, *PROHIBITIVE POLICY: IMPLEMENTING THE FEDERAL ENDANGERED SPECIES ACT* 35-36 (1982). In tandem with IUCN, the Department of Interior began researching endangered species in the 1940s and 50s. *Id.* at 190 n.12. But it was not until 1964, the same year the Interior Department's Wilderness Act passed, that the "Committee on Rare and Endangered Wildlife Species" was first established within the Department of Interior. *Id.* at 34-35. Its nine biologists were tasked with creating the "first official federal list of rare and endangered species of species of fish and wildlife." *Id.* at 35. Of course, "[a]ttempts at explicitly balancing other considerations (such as utility or disutility to humans) were not seen as necessary [jus then] because listing a species . . . did not provide formal federal protection and hence would not economically harm anyone." *Id.*

The most famous polemic on the significance of the Wilderness Act and the political forces that finally coalesced to produce it is Michael McCloskey, *The Wilderness Act of 1964: Its Background and Meaning*, 45 *OR. L. REV.* 288 (1966). A decade later, after the first generation of wilderness designation processes—which certainly did have economic implications for particular interests—Professor Robinson wrote what appears to be the first critical assessment of the statute and in particular the Forest Service's administration. See Glen O. Robinson, *Wilderness: The Last Frontier*, 59 *MINN. L. REV.* 1 (1974).

¹¹¹ The Wilderness Act's concept of "wilderness" in modern society is quite illustrative of the tension between "conservation" and "preservation" in public lands law. "A wilderness, in contrast with those areas where man and his own works dominate the landscape," should be preserved "[i]n order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for

zoning designation.¹¹² The test divided nature and humanity sharply. “Wilderness” was defined as land “where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain” with “primeval character and influence, without permanent improvements or human habitation”—and at least five thousand acres or of sufficient size to “make practicable its preservation and use in an unimpaired condition.”¹¹³ And the link between this form of preservation and capture theory was evident: who created such impacts *besides* those motivated by commodity and profit?¹¹⁴

The Forest Service had zoned “primitive areas” within its reserves long before the Wilderness Act or MUSYA’s inclusion of “outdoor recreation” and “wildlife” as coequal land use priorities.¹¹⁵ The legislative outpouring begun in 1964 was all aimed at agency

preservation and protection in their natural condition” 16 U.S.C. §§ 1131(c), 1131(a). This notion of “wilderness,” essentially aesthetic in concept, places the selected parcel of forest opposite those lands where multiple use is practiced and produces a cultivated environment. See Marion Clawson, *The Concept of Multiple Use Forestry*, 8 ENVTL. L. 281, 304 (1978). But it also prohibits the use of mechanized equipment in designated areas—perhaps even the use of such equipment for needed preservation or restoration measures. See Robinson, *supra* note __ at 50-56. Indeed, the strict dichotomization of this semantic, constructed notion of “wilderness” from the lands people are meant to inhabit and make their own has induced many to question its conceptual integrity. See William Cronon, *The Trouble with Wilderness, Or Getting Back to the Wrong Nature*, in UNCOMMON GROUND: TOWARD REINVENTING NATURE 69 (William Cronon ed., 1995) (hereinafter “UNCOMMON GROUND”); Stephen M. Meyer, *End of the Wild*, 29 BOSTON REV. 20 (2004).

¹¹² The inaugural pieces of the NWPS portfolio came from various administratively designated “primitive” areas the Forest Service had begun setting aside in the 1920s. See WILKINSON & ANDERSON, *supra* note __ at 334-41. This was the beginning of the convergence of “roadless” and “wilderness” qualities. See Klein, *supra* note __ at 1374-76.

¹¹³ Pub. L. No. 88-577, § 2, 78 Stat. 890, codified at 16 U.S.C. § 1131(c). Together with the statute structuring future additions to the NWPS, the Act designated some 9 million acres into the system from among the lands the Forest Service had inventoried as “primitive.” NASH, *supra* note __ at 222-27.

¹¹⁴ Today, it is widely known that motorized recreationists do so—ostensibly without any intention of extracting anything tangible from the land. See Southern Utah Wilderness Alliance v. Norton, 301 F.3d 1217, 1228 n.7 (19th Cir. 2002) (“For example, the [BLM] specifically notes that “[c]ross-country vehicle use off boundary roads and existing ways” constitutes surface disturbance . . . because “the tracks created by the vehicles leave depressions or ruts, compact the soils, and trample or compress vegetation.””), *rev’d*, Norton v. Southern Utah Wilderness Alliance, 124 S. Ct. 2373 (2004).

¹¹⁵ Beginning in 1929, the Forest Service’s so-called L-20 regulations set general guidelines for the establishment and management of roadless areas. By 1933 its foresters had inventoried almost 55 million acres of such lands. See WILKINSON & ANDERSON, *supra* note __ at 338. Sixty-three such areas totaling 8.4 million acres of this inventory initiated the primitive area system and it was this system of lands that the

discretion in the matter. It invested strict rules and procedures with their own legal force, controlling agency discretion and, to a degree, bringing preservation of the “wild” to conservation lands by law.¹¹⁶ It was to be the reformation of bureaucratic deliberation—to be presumptively open to public scrutiny—through statutorily specified process.¹¹⁷

The NWPS has grown spectacularly since, due in large part to a rich history of issue advocacy and agency-forcing litigation.¹¹⁸ Today, it is touted to citizen-contributors as 106 million acres of lands dispersed across the country (or at least west of

Forest Service maintained for purposes of wilderness recreation in the following three decades. While championed by preservation luminaries like Bob Marshall, the Forest Service’s “primitive” designations and their attendant management plans rarely prohibited extractive industry completely—even while the official inventory swelled throughout the 1940s, ’50, and early ’60s. *Id.* at 340-44.

¹¹⁶ Of course it was not (and could not have been) *complete* displacement of such judgment. Even as to the most controversial Forest Service policy—stand replacement by clearcutting—the Congress hedged with amply manipulable language in NFMA. The “diversity of plant and animal communities” requirement was qualified by the primacy of “overall multiple-use objectives,” even as to the seemingly unexceptionable goal of “preserv[ing] the diversity of tree species similar to that existing in the region controlled by the plan.” *Cf.* 16 U.S.C. § 1604(g)(3)(B) (requiring such preservation “where appropriate, to the degree practicable”).

¹¹⁷ In that, the legislation was assured a chilled reception from its principal addressee—a bureaucracy accustomed to having the final say on the balancing of competing values in its “expert” administration of the public lands. Robinson, *supra* note __ at 16-25 (describing Forest Service resistance to wilderness designations). Indeed, by 1975 Congress again seized the initiative by designating fifteen wilderness areas in the East and directing the Forest Service to pay closer attention to seventeen other “wilderness study areas” east of the 100th meridian. *See* Pub. L. No. 93-622, 88 Stat. 2096 (1975) (“The Eastern Wilderness Act of 1975”). “Wilderness Study Areas” are lands protected from logging and other forms of extractive/consumptive use unless and until Congress itself chooses to “release” them from such status.

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¹¹⁸ *See generally* BEAN & ROWLAND, *supra* note __ at 316-29. That growth has mostly been in acreage. *Cf. Sierra Club v. Block*, 622 F. Supp. 842 (D. Colo. 1985) (denying that agencies have enforceable duties to secure necessary water supplies to preserve wilderness area characteristics even where water rights are present); *Forest Guardians v. Animal & Plant Health Inspection Serv.*, 309 F.3d 1141 (9th Cir. 2002) (holding that the Wilderness Act does not prohibit the continuation of predator suppression policies within the NWPS); *The Wilderness Society v. Norton*, 434 F.3d 584 (D.C. Cir. 2006) (dismissing 44 count complaint against National Park Service for failing to conduct wilderness assessments, to prepare wilderness management plans, to forward wilderness recommendations to the President, and “otherwise to take required measures to protect wilderness resources in this country” on grounds plaintiffs lacked Article III standing and/or pleaded claims on which relief could be granted). The Wilderness Society, Sierra Club and scores of other affinity groups perfected the technique of using membership dues and messages of impending doom as a mode of raising capital with which to wage their campaigns—most of which explicitly or implicitly invoked the Progressive preservationist ideals enshrined in the Wilderness Act. *See* BRULLE, *supra* note __ at 168-72. The other principal cause of this spectacular growth of the NWPS was the Alaska National Interest Lands Conservation Act of 1980, 94 Stat. 2371 (1980), doubling the NWPS through its addition of 56 million acres in ten different units. *See* <http://www.wilderness.net/index.cfm?fuse=NWPS&sec=fastFacts>. (“Since 54% of America’s Wilderness is found in Alaska, only 2.58% of the continental United States . . . is protected as Wilderness.”).

the Rockies) where the wild remains. Yet this system, strewn about the other “systems” as it is, consists in little more than its legal controls on logging, motorized vehicles, road building, and certain other activities.¹¹⁹ The preservation for which this wilderness “system” is so emblematic, that is, bears only passing relation to biodiversity and habitat protection.¹²⁰ Grazing and mining—two uses of the public lands with long histories of habitat-destructive effects—still go on in most wilderness areas, specifically saved by the Act¹²¹ in a compromise reached for its passage.¹²² In truth, the holdouts can represent a

¹¹⁹ BLM and the Forest Service offer instructive contrasts in their approaches to NWPS lands within their own systems. BLM, for example (often sued for permitting excessive grazing even by multiple use standards, *see, e.g., Natural Resources Defense Council v. Hodel*, 624 F. Supp. 1045 (D. Nev. 1985)), recently lost a bid to, in effect, ignore a congressional wilderness designation by arguing that the area’s wilderness character and values were not unduly compromised by roads servicing grazing operations. *See Barnes v. Babbitt*, 329 F. Supp.2d 1141, 1154-55 (D. Ariz. 2004). For its part, the Forest Service has shown a willingness to enforce tight restrictions on miners’ use of motor vehicles within wilderness areas. *See, e.g., Clouser v. Espy*, 42 F.3d 1522 (9th Cir. 1994). But it has also argued that, because no statutory language “plainly establishes that predator control is prohibited by the Wilderness Act,” it is the agency itself that should decide when lethal predator control methods may be employed in wilderness areas for livestock protection. *See Brief for Federal Appellees, Forest Guardians et al. v. Animal and Plant Health Inspec. Serv.*, No.01-15239 at 8 (9th Cir. 2001), decided as *Forest Guardians et al. v. Animal and Plant Health Inspec. Serv.*, 309 F.3d 1141 (9th Cir. 2002).

¹²⁰ *Compare Parker*, 448 F.2d at 795 (“We have no difficulty in recognizing the general purpose of the Wilderness Act. It is simply a congressional acknowledgement of the necessity of preserving one factor of our natural environment from the progressive, destructive and hasty inroads of man”) *with McCloskey*, *supra* note __ at 288 (“Though natural beauty is widely appreciated, wilderness is an idealized conception of nature in pure form that becomes generally prized only in advanced cultures.”). Some prominent commentators have argued that wilderness designations are among the most powerful tools of habitat protection. *See, e.g., BEAN & ROWLAND*, *supra* note __ at 315 (“Wilderness is the only legislative land designation that protects habitat from most forms of development, including road building. . . . [T]he Act assures that substantial areas of public land will be spared from forms of use and development most damaging to wildlife.”). If that is true, then it is only true for Alaska and the third of the contiguous United States west of the Rocky Mountains. Of the approximately 106 million acres in the NWPS, only __ or about __ percent are found in the eastern two-thirds of the 48 states. Moreover, while it is true that road building and most forms of extractive use can significantly degrade or alter habitats and that, therefore, the Wilderness Act is at least presumptively habitat-protective, as I have argued elsewhere, this negative conception of “preservation” obscures too much about how connectivity and overall habitat functionality so vitally depend on affirmative action and restoration. *See Colburn, Localism’s Ecology*, *supra* note __.

¹²¹ *See* 16 U.S.C. §§ 1133(d)(1), 1133(d)(3).

¹²² This story has been contested, but I regard it as the only plausible explanation for §§ 1133(d)(1) and 133(d)(3)—and one that has been confirmed repeatedly. *See* Luna B. Leopold, *Foreword, in THE GREATER YELLOWSTONE ECOSYSTEM*, *supra* note __ at *ix*; NASH, *supra* note __ at 222-26. While the management agencies generally have worked to minimize such uses, the statute makes clear in several ways that its intent was to respect “existing private rights” of several kinds. 16 U.S.C. § 1133(d)(5). The Forest Service regulations, for example, state that “[n]atural ecological succession will be allowed to operate freely” within designated areas, “to the extent feasible.” 36 C.F.R. § 293.2(a). But they also stipulate that “[t]he grazing of livestock, where such use was established before the date of legislation which includes an area in

variety of risks to a biome—some trivial, some not. But efforts to prolong the mining or grazing indefinitely are common, making them a crucible of bitter, sometimes nationally symbolic conflict.¹²³ So, with so much energy drawn to these kinds of fights (fueled as much by vestigial hopes of putting “wild” nature on a pedestal as by any actual proof of harm), a diminished commitment to collectively pursuing desirable ecological conditions and solving common problems is the norm.¹²⁴

As a public purpose, saving the *authentically* wild and threatened has become rather Orwellian, due in part to passionate, very effective advocacy for preserving ecosystems that are actually heavily disturbed and dynamic.¹²⁵ First of all, much of the

the National Wilderness Preservation System, shall be permitted to continue” consistent with regulations governing livestock in the National Forest System (and any specific controls for the particular areas). *Id.* at § 293.7(a). Even when done by best management practices, though, grazing’s routine impacts on a biome include trampling, soil erosion and compaction, stream and bank deterioration and erosion, and habitat competition with various species of wildlife. JERRY HOLECHEK ET AL., *RANGE MANAGEMENT: PRINCIPLES AND PRACTICES* 371-411 (5th ed. 2004). The *totality* of disturbances attributable to livestock operations—including such things as lethal predator controls—is another matter entirely. *See, e.g., Forest Guardians v. Animal & Plant Health Inspection Serv.*, 309 F.3d 1141 (9th Cir. 2002) (upholding Forest Service determination that killing predators in Wilderness Areas in response to ranchers’ requests is permitted under the Act); ROBINSON, *PREDATORY BUREAUCRACY*, *supra* note __ at 325-36.

¹²³ *See, e.g.,* Mitchel P. McClaran, *Livestock in Wilderness: A Review and Forecast*, 20 ENVTL L. 857 (1990). What is zoned in or out of most wilderness areas bears little relationship to conservation biology. In a curious though probably accurate interpretation of the Wilderness Act, the Ninth Circuit recently reversed FWS and held that the Act’s mandate excluding “commercial enterprise” from designated wilderness areas, *see* 16 U.S.C. § 1133(c), meant that the agency could not permit the operation of a hatchery in a wilderness area that would introduce roughly six million hatchery-reared salmon fry into the largest lake in the Kenai Wildlife Refuge’s wilderness area. *See Wilderness Society v. U.S. Fish & Wildlife Serv.*, 353 F.3d 1051 (9th Cir. 2003).

¹²⁴ An example is the spread of invasive plants throughout one of the originally designated wilderness areas of 1964, the Selway-Bitterroot in western Montana and north-central Idaho. Only very recently did the Forest Service finally identify and respond to one of the most potent vectors of the invasion: horse feed. In 2002 it announced an (overdue) order across all four of the affected national forests—the Nez Perce, Clearwater, Lolo, and Bitterroot—mandating all users substitute “weed seed free feed” for their animals. *See* http://www.fs.fed.us/r1/clearwater/ResourceProg/Wilderness/wilderness_report. Very generally, this kind of active management (and its attendant restoration techniques) is routinely troublesome in wilderness areas given the very concept of “wilderness” animating the whole system. *See* Michael McCloskey, *Changing Views of What the Wilderness System is All About*, 76 DENV. U. L. REV. 369, 374-79 (1999).

¹²⁵ The wild that merits our putting it on a pedestal away from civilization has always been vast, primitive, and also somewhat threatening. *Cf.* Klein, *supra* note __ at 1374-75 (discussing characterizations of wilderness areas as “primeval” and as excluding “all traces of human society”); BOTKIN, *supra* note __ at __. The romanticism is palpable in such impulses, but it is unrelated to the protection of nature in its dynamic, disturbed state. And it is generally contrary to Orwell’s famous insistence that, in political language, “[w]hat is above all needed is to let the meaning choose the words and not the other way about.”

authentically wild is privately owned (by those with no intention of selling).¹²⁶

Furthermore, making verifiable findings of fact that particular parcels of land remain a sublime “community of life . . . untrammelled by man” is problematic.¹²⁷ After all, “the imagination has an important part to play in our perception of what is immense, nebulous, beyond exact description.”¹²⁸ Imagination, though, cannot define such preserves¹²⁹ and it cannot help a rational actor justify such a finding in America’s legal culture.¹³⁰ Most of the public lands have become intimately linked to human disturbance and were so before 1964.¹³¹ Lastly, many powerful interests and cohesive local communities are opposed to

George Orwell, *Politics and the English Language*, in GEORGE ORWELL: A COLLECTION OF ESSAYS 156, 169 (Harvest) (1971). Compare McClaran, supra note __ at 885 (describing the formation of the “Wilderness Impact Research Foundation,” a lobby formed to gather and disseminate information on the costs and “harms” of wilderness designations) with NASH, supra note __ at 253 (“Wilderness areas, according to a 1970 observer, were meccas for a “pilgrimage into our species’ past.””).

¹²⁶ John G. Sprankling, *The Antiwilderness Bias in American Property Law*, 63 U. Chi. L. Rev. 519, 559 (1996) (“Depending on which yardstick is utilized, between 10 and 20 percent of the continental United States may today be characterized as wilderness. A substantial portion of it—perhaps as much as half—is privately owned.”).

¹²⁷ Robinson described in depth some of the Forest Service’s specific encounters in the first designation process up to and including the litigation in *Parker v. United States*, 309 F. Supp. 593 (D. Colo. 1970), *aff’d*, 448 F.2d 793 (10th Cir. 1971), *cert. denied*, 405 U.S. 989 (1972). *Parker* is a notable interpretation of the Wilderness Act because it inferred certain protective duties on the Forest Service with respect to areas being considered for inclusion in the NWPS (so-called “Wilderness Study Areas”). See BEAN & ROWLAND, supra note __ at 317. Robinson’s account of the Forest Service’s Wilderness Act implementation is somewhat critical, at one point tacitly accusing the agency of interpreting the definition of “wilderness” too literally as a way of limiting the total acreage that would be suitable for inclusion in the system (and thereby maximizing its own discretion). See Robinson, supra note __ at 21-25; see also BEAN & ROWLAND, supra note __ at 322-29. Indeed, even the Park Service’s involvement with the Act became bitterly politicized. See SELLARS, supra note __ at 191-94 (detailing the divide that arose within the Park Service over the enactment and administration of the Wilderness Act).

¹²⁸ WILTON & BARRINGER, supra note __ at 13.

¹²⁹ See DANIEL B. BOTKIN, *DISCORDANT HARMONIES: A NEW ECOLOGY FOR THE TWENTY-FIRST CENTURY* (1990) (emphasizing human disturbance and dynamism in nature and suggesting that conservation practice must reconceptualize the goal of preserving the wild); DAVID S. WILCOVE, *THE CONDOR’S SHADOW: THE LOSS AND RECOVERY OF WILDLIFE IN AMERICA* (1999) (same); cf. Stephen M. Meyer, *End of the Wild*, 29 BOSTON REV. 20, 21 (2004) (“Although we have been aware of species losses for decades, only recently has it become apparent that the biotic world as we have known it is collapsing.”); Peter M Vitousek *et al.*, *Human Domination of Earth’s Ecosystems*, 277 SCIENCE 494 (1997).

¹³⁰ “The modern environmental law movement was born partly from fear of pollution and partly from distrust: distrust of industry and distrust of governmental efforts and reassurances.” LAZARUS, supra note __ at 87. But this distrust and favor of proof burdens and “hard looks” cut both ways. See Antonin Scalia, *Vermont Yankee: The APA, The D.C. Circuit, and the Supreme Court*, 1978 SUP. CT. REV. 345.

¹³¹ See generally WILCOVE, supra note __. It bears mentioning that much of the land “reserved” or later acquired into the public lands portfolios had been badly abused before its inclusion in the public systems, necessitating restoration. See generally WILLIAMS, supra note __; CLARY, supra note __ at 50-53. But as

the enclosure and preservation of range, timber, and parklands under the aesthetics of the NWPS.¹³² Indeed, this may be what keeps resistance so high nationally to “devolution” and local control in public lands law.¹³³ And because Congress specifically reserved to *itself* the authority to designate lands into the NWPS,¹³⁴ the conflicts surrounding wilderness preservation are often incorrigible.¹³⁵

B. Saving Nature from Whom?

Congress’s protection of the sublime in nature was just getting started with the Wilderness Act, though. From 1964-76, Congress would create a Public Land Law Review Commission (“PLLRC”),¹³⁶ enact the National Wildlife Refuge System

Forest Service designations of “primitive” areas grew in sophistication, its personnel showed an increasing sensitivity toward evidence of past human manipulation and disturbance. And, indicative of the agency’s priorities, the original headquarters regulation governing field agents in their management of these primitive areas, “Regulation L-20,” did not “prevent the orderly use of timber, forage, and water resources” but rather only “unnecessary road building and forms of special use of a commercial character” that would be overt and obvious impairments of the land’s aesthetics. WILKINSON & ANDERSON, *supra* note __ 339 n.1825.

¹³² See Colburn, *Indignity*, *supra* note __ at 458-60; KEITER, *KEEPING FAITH WITH NATURE*, *supra* note __ at 172-86 (describing local strongholds of resistance to wilderness designations in Montana and Utah).

¹³³ See, e.g., Brett C. Birdsong, *Road Rage and R.S. 2477: Judicial and Administrative Responsibility for Resolving Road Claims on Public Lands*, 56 HASTINGS L.J. 523, 531-46 (2005) (describing “uncertainty and angst” surrounding agency efforts to devolve decision making authority to states and communities in resolving contested claims to rights-of-way/roads over public lands); George C. Coggins, *Regulating Federal Natural Resources: A Summary Case Against Devolved Collaboration*, 25 ECOLOGY L.Q. 602 (1999); cf. KEITER, *KEEPING FAITH WITH NATURE*, *supra* note __ at 253 (“Of course, the ultimate devolutionary action under the Endangered Species Act is to delist species, which returns management responsibility from the federal government to the states.”). Part __ briefly summarizes the likelihoods of further “devolutionary reform” in the public lands systems.

¹³⁴ 16 U.S.C. § 1132(c).

¹³⁵ The procedures for actually moving areas into the NWPS following the formal administrative inventory and study turned (and still turn) on the Congress’s and President’s reactions to any assessment(s) of the managing agency. See John D. Leshy, *Wilderness and Its Discontents—Wilderness Review Comes to the Public Lands*, 1981 ARIZ.ST. L.J. 361.

¹³⁶ Pub. L. No. 86-606, 78 Stat. 982 (1964). The Chair of (and chief impetus behind the law chartering) the PLLRC was Congressman Wayne Aspinall, a noted opponent of Executive withdrawals of land as “monuments” and wilderness. Aspinall characterized the mandate to his commission as a charge seeking “a comprehensive review of the public land laws of the United States and of the rules, regulations, practices, and procedures under which those laws are administered, and recommending to the President and to the Congress any revisions that may be considered necessary.” Wayne N. Aspinall, *The Public Land Law Review Commission: Origins and Goals*, 7 NAT. RES. J. 149, 149 (1967). The final report was supported by a great deal of original research, chief among which was a massive study by Cornell history

Administration Act (“NRWSAA”),¹³⁷ the Wild and Scenic Rivers Act,¹³⁸ the National Trails System Act,¹³⁹ the National Environmental Policy Act (“NEPA”),¹⁴⁰ the Federal Water Pollution Control Act,¹⁴¹ the Forest and Rangelands Renewable Resources Planning Act (“FRRRPA”),¹⁴² the National Forest Management Act (“NFMA”),¹⁴³ the Federal Land Policy and Management Act (“FLPMA”),¹⁴⁴ and, of course, the Endangered Species Act (“ESA”).¹⁴⁵ This burst of legislation comprises public lands law’s commitment to conservation to this day, one that fragments nature grouping some of the parts into regimes of protection and some into regimes of consumption.¹⁴⁶ Its underlying structure is the unmistakable continuation of Progressivism, delineating ‘resources’ and assigning them each distinct normative regimes and ‘expert’ stewards.¹⁴⁷

professor Paul Gates. See PAUL WALLACE GATES, HISTORY OF PUBLIC LAND LAW DEVELOPMENT (1968). But the Commission was still regarded as having done political work. See Perry R. Hagenstein, *One Third of the Nation’s Land: Evolution of a Policy Recommendation*, 12 NAT. RES. J. 56 (1972).

¹³⁷ The NWRSAA took the form of Sections 4-9 of the ESPA. See Pub.L. No. 89-669, 80 Stat. 926, 927-30 (1966), codified at 16 U.S.C. §§ 668dd, 668ee.

¹³⁸ Pub.L. No. 90-542, 82 Stat. 906 (1968), codified at 16 U.S.C. §§ 1271-87.

¹³⁹ Pub.L. No. 90-543, 82 Stat. 919 (1968), codified at 16 U.S.C. §§ 1241-49.

¹⁴⁰ Pub.L. No. 91-190, 83 Stat. 854 (1970), codified at 42 U.S.C. §§ 4321-4370f. NEPA’s purposes preamble explicitly invoked “the profound impact of man’s activity on the interrelations of all components of the natural environment, particularly the profound influences of population growth” and “resource exploitation,” forces that had to be checked if the “conditions under which man and nature can exist in productive harmony” were to be achieved. *Id.* at § 101(a), codified at 42 U.S.C. § 4331(a).

¹⁴¹ Pub. L. No. 92-500, 86 Stat. 894 (1972), codified as amended at 33 U.S.C. §§ 1251 *et seq.* (hereinafter Clean Water Act or “CWA”). Notably, the Clean Water Act was one of the first federal statutes to articulate the *restoration* of “biological integrity” as a regulatory objective. Robert L. Fischman, *The Meanings of Biological Integrity, Diversity, and Environmental Health*, 44 NAT. RES. J. 989, 1010 (2004). EPA’s record for implementing that aspect of the CWA in any of the nation’s waters (irrespective of ownership or jurisdiction), though, has been subject to wilting criticism. See Robert W. Adler, *The Two Lost Books in the Water Quality Trilogy: The Elusive Objectives of Physical and Biological Integrity*, 33 ENVTL. L. 29, (2003).

¹⁴² Pub.L. No. 93-378, 88 Stat. 476 *et seq.* (1974), codified at 16 U.S.C. §§ 1600-1687.

¹⁴³ Pub.L. No. 94-588, 90 Stat. 2949 *et seq.* (1976), codified at 16 U.S.C. §§ 1600-1614.

¹⁴⁴ Pub. L. No. 94-579, 90 Stat. 2044 *et seq.* (1976), codified at 43 U.S.C. §§ 1701-1784

¹⁴⁵ Pub. L. No. 93-205, 87 Stat. 884 *et seq.* (1973), codified at 16 U.S.C. §§ 1531 *et seq.* Important changes to the Endangered Species Act (“ESA”) came in 1978, 1979, and 1982, after what I have marked as the formative period. The thrust of the amendments to the ESA, though, was rather reactionary and separate from the preservationism of 1964-76. See *infra* note ____.

¹⁴⁶ See Doremus, *Science of Listing*, *supra* note ____ at 1088-1112.

¹⁴⁷ See *supra* notes ____ and accompanying text.

Even with greater popular appreciation of the fallibility of expertise,¹⁴⁸ the mandates were issued in terms, each system with its own “law to apply.”¹⁴⁹ The resultant opportunities for litigation surrounding every significant management choice were the real turning point.¹⁵⁰ If “rule of law” litigation has been the defining force of modern environmental law,¹⁵¹ public lands law became its archetype following the legislation of 1964-76.¹⁵² Nowhere does environmental law better showcase what many have called its culture of adversarialism and distrust.¹⁵³

The public and expert opinions that prompted this legislative turn were varied in substance, certainly. Species loss played a major role in arguments from the publicists and promoters of NEPA, NWRSAA, and the three versions of the ESA (in 1966, 1969

¹⁴⁸ Cf. Fred P. Bosselman & A. Dan Tarlock, *The Influence of Ecological Science on American Law: An Introduction*, 69 CHI.-KENT L.REV. 847, 869-71 (1994) (describing the arrival of a “non-equilibrium paradigm” in environmentalism in the 1970s); see supra notes __ and accompanying text.

¹⁴⁹ In *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402 (1971), the Court narrowed the agency discretion exception to the presumption of reviewability embodied in the Administrative Procedure Act (“APA”), 5 U.S.C. § 701(a)(2), by concluding that a statutory clause requiring the Secretary of Transportation to find “no feasible and prudent alternative” before routing highways through parks supplied the reviewing court with “law to apply.” 401 U.S. at 417.

¹⁵⁰ If the New Deal’s principal regulatory device (the administrative agency) was merely the institutionalization of Progressive-era ideals, its faith in the ameliorative powers of judicial review thoroughly transformed those ideals. See LOUIS L. JAFFE, *JUDICIAL CONTROL OF ADMINISTRATIVE ACTION* (1965). By the time capture theory had gripped Washington, judicial review was the most self-evident antidote, even though it was by then widely acknowledged that “[a]n administrative action which “favors” an industry or some defined portion of it can usually be adequately explained as expressing a “correct” application of the statute or a theory of regulation which is administratively rather than industry determined.” Id. at 11; see also Peter H. Schuck, *Public Interest Groups and the Policy Process*, 37 PUB. ADMIN. REV. 132 (1977); Marc Galanter, *Why the “Haves” Come Out Ahead: Speculations on the Limits of Legal Change*, 9 L. & SOC’Y REV. 95 (1974). And though NFMA, FLPMA, and several other public lands statutes lacked citizen suit provisions of their own, the judiciary by then had been inferring rights of “general statutory review” from the APA itself for anyone with standing to sue. See *Association of Data Processing Serv. Orgs., Inc. v. Camp*, 397 U.S. 150 (1970) (construing 5 U.S.C. § 704 as authorizing a right of action for the review of any agency action, including rulemaking, where the constitutional minimums of standing were present); Richard Stewart, *The Reformation of American Administrative Law*, 88 HARV. L. REV. 1667, 1723-24 (1975).

¹⁵¹ See RICHARD J. LAZARUS, *THE MAKING OF ENVIRONMENTAL LAW* 79-84 (2004).

¹⁵² See A. Dan Tarlock, *The Future of Environmental ‘Rule of Law’ Litigation*, 19 PACE L. REV. 575, 599-607 (2002).

¹⁵³ LAZARUS, supra note __ at 87.

and 1973¹⁵⁴).¹⁵⁵ But the exhaustive report released by the PLLRC in 1970 proposing 137 distinct changes to the system of public lands law stands alone among the catalysts.¹⁵⁶ Many of its recommendations have served as blueprints for state and federal land agencies ever since.¹⁵⁷ Habitat alteration and disturbance were of secondary concern at most.¹⁵⁸ The most consistent theme of the PLLRC report had nothing to do with biodiversity or habitat loss; it was the promotion of greater formalization in the land management agencies' planning programs.¹⁵⁹

¹⁵⁴ The Endangered Species Preservation Act of 1966, Pub. L. No. 89-669, 80 Stat. 926 (1966) ("ESPA"), was, essentially, a declaration that the "conservation, protection, restoration, and propagation of selected species of *native* fish and wildlife" threatened with extinction was the "policy of Congress." *Id.* at § 1(a) (emphasis added); YAFFEE, *supra* note __ at 39-42. Congress tasked the Interior Department's Committee on Rare and Endangered Wildlife Species with assembling the first sanctioned list of "native fish or wildlife . . . threatened with extinction." ESPA § 1(c). Congress also admonished the Departments of Interior, Agriculture, and Defense that "insofar as is practicable and consistent with the primary purposes of such bureaus, agencies, and services" within those Departments, they "shall preserve the habitats of such species on lands within their jurisdiction." ESPA § 1(b). And it "consolidated the authorities relating the various categories of areas" administered as wildlife habitat into one "National Wildlife Refuge System." *Id.* at § 4. Three years later Congress broadened this pronouncement's scope in the Endangered Species Conservation Act of 1969, Pub. L. No. 91-135, 83 Stat. 275 (1969) ("ESCA"). YAFFEE, *supra* note __ at 42-47. In addition to expanding the list of eligible species, it augmented the importance the secretaries of State and Interior were to attach to foreign countries' activities and species threatened with "worldwide extinction." BEAN & ROWLAND, *supra* note __ at 196-97. Perhaps most importantly, it occasioned the conference which drafted the Convention on International Trade in Endangered Species of Wild Fauna and Flora ("CITES"), a convention that has become "an international system of import and export permits that created a control structure to regulate international commerce in species designated for protection." J. Michael Scott *et al.*, *Introduction, in* ESA AT THIRTY, *supra* note __ at 3, 7.

¹⁵⁵ KEITER, *KEEPING FAITH WITH NATURE*, *supra* note __ at 22-25, 48-78; YAFFEE, *supra* note __; FISCHMAN, *supra* note __ at 45-48; Scott *et al.*, *supra* note __ at 6 ("By the middle of the 1950s, the [FWS] was holding press conferences and newspapers were reporting the annual count of whooping cranes . . .").

¹⁵⁶ See ONE THIRD OF THE NATION'S LAND: A REPORT TO THE PRESIDENT AND TO THE CONGRESS BY THE PUBLIC LAND LAW REVIEW COMMISSION (U.S. Govt. Print. Office, June 1970) (hereinafter "ONE THIRD OF THE NATION'S LAND").

¹⁵⁷ See GEORGE CAMERON COGGINS ET AL., *FEDERAL PUBLIC LAND AND RESOURCES LAW* 18 (5th ed. 2002) ("The Commission's 389 page Report . . . has been analyzed, discussed, dissected, criticized, and cited more than any other like document, and it is still a primary research resource for the serious student."). The report was aimed principally at the so-called "multiple use lands" of the Forest Service and the BLM. "Preservation" lands like those in the NPS were treated only tangentially. *Id.*

¹⁵⁸ WILKINSON, *supra* note __; KEITER, *KEEPING FAITH WITH NATURE*, *supra* note __;

¹⁵⁹ The very first recommendations were that Congress legislate clearly articulated goals for particular land systems and that it legislatively mandate long range planning to achieve those goals based on specified factors and considerations. See ONE THIRD OF THE NATION'S LAND *supra* note __ at 42-48.

Whether through the making of rules and regulations formalizing their operations,¹⁶⁰ the clarification and deepening of appeals procedures,¹⁶¹ the setting of proof burdens, study requirements and the like,¹⁶² or admonitions back to Congress for clearer statutory preferences for uses and use priorities,¹⁶³ the PLLRC argued that what was public regarding was greater proceduralization and legal determinacy. Its individual prescriptions to this effect¹⁶⁴ were a laundry list of complaints about how indeterminacy and agency discretion had made a mess of public land administration since the proverbial closing of the Frontier.¹⁶⁵ Clear priorities had to be set so that stakeholders and experts

¹⁶⁰ See ONE THIRD OF THE NATION'S LAND, supra note __ at 251-52. "Congress should require public land management agencies to utilize rulemaking to the fullest extent possible in interpreting statutes and exercising delegated discretion, and should provide legislative restrictions to insure compliance with this goal." Id. at 251.

¹⁶¹ "Perhaps the most consistent complaint heard at the public meetings was that the review procedures provided for by the administrative review systems of the [BLM] and the Forest Service were largely illusory because those who sat in judgment on "appeal" were part of the establishment that made or participated in the initial decision." ONE THIRD OF THE NATION'S LAND supra note __ at 254. "To the extent that wholly independent review of agency decisions is needed, we believe court review is more direct and more consistent with our constitutional view of the separation of powers." Id.

¹⁶² See ONE THIRD OF THE NATION'S LAND supra note __ at 80.

¹⁶³ See ONE THIRD OF THE NATION'S LAND supra note __ at 48-52. Probably the most ambitious (and naïve) of the PLLRC's proposals was the creation of a single, unitary Department of Natural Resources joining the Forest Service and the rest of the land management agencies under one department within the executive branch and one oversight committee in each house of Congress. See ONE THIRD OF THE NATION'S LAND, supra note __ at 282-85. This, the Commission argued, would be "in the interest of good government" because the fragmentation of congressional committee jurisdiction, no less than the fragmentation of departmental jurisdiction, was "a major cause of public land laws not being fully correlated with each other." Id. at 284-85. FDR himself had rejected such a proposal by his Secretary of Interior Harold Ickes a half-century before. SELLARS, supra note __ at 146.

¹⁶⁴ An account of the PLLRC's process and deliberations is given in Hagenstein, supra note __. "Zoning a portion of the public forest lands for timber as the dominant use was seen as a means of reaching practical accommodation of competing multiple uses on forest lands, the category of land for which competition is greatest." Id. at 68. Whether it was timber, irrigation, mining, game, recreation, or range, experiences with multiple use had proven, across the different agency experiences, that conflict was the norm in the absence of clearly articulated hierarchies of ends to which lands should be dedicated and/or set boundaries. In its 1970 *University View of the Forest Service*, the Bolle Committee studied one particular national forest in depth: the Bitterroot National Forest in western Montana. From its vantage, not only had the Forest Service acted irrationally in its bias toward unsustainable, uneconomic logging in that unit (the Bolle Committee argued that the Forest Service had even failed to achieve the greatest timber yield possible on the land). The agency had also over-controlled its local managers (District Rangers) and made their decision-making so bureaucratic as to be opaque to and unchangeable by local people. See *Bolle Committee Report*, supra note __ at 25-27.

¹⁶⁵ The PLLRC's goal of integrating the different systems and bureaus under a single departmental umbrella was a composite of desires to promote efficiency and the integration of the various bureaus'

could jointly pursue their fixed ends on the various kinds of land drawn up within set boundaries.¹⁶⁶

The report sums up what Congress delivered from 1964-76: it legislated procedure, issue-focused planning, preservation of nature's exceptional, and administrative and judicial appeals.¹⁶⁷ Today, "[f]ew attributes of public land organic legislation better characterize the modern era than comprehensive planning mandates."¹⁶⁸ It all might have had an ameliorative effect on public lands law, especially in terms of agency accountability.¹⁶⁹ Strikingly, though, it has had the *opposite* effect. Conflict may be an inherent part of any decision involving natural resources¹⁷⁰ and it may even be susceptible to productive use.¹⁷¹ But strategic behavior in conflict deters transparency and cooperation,¹⁷² a fact that defines our public lands' legal regime today.

expert offices and to render the resulting organizational structure more transparent and better able to serve "the public." ONE THIRD OF THE NATION'S LAND, *supra* note __ at 282.

¹⁶⁶ The PLLRC's 137th recommendation was the creation of "citizen advisory boards" which would serve as "two-way channels of communication." ONE THIRD OF THE NATION'S LAND, *supra* note __ at 288. Out of concern that such boards would be dominated by persons with concentrated stakes likely to capture the agencies, the Commission recommended that their members be chosen to "represent a broad range of interests" and that representation change "as interest in, and uses of, the land change." *Id.* at 289. Nothing so superficial, however, would even possibly address the problems of agenda-setting within administrative agencies by those with concentrated stakes—a conclusion many were reaching starting in the late 1970s.

See MASHAW, *supra* note __ at 23-29.

¹⁶⁷ *See* KEITER, KEEPING FAITH WITH NATURE, *supra* note __ at 186-208; COGGINS ET AL., *supra* note __ at 137-44; *supra* notes __ and accompanying text.

¹⁶⁸ FISCHMAN, *supra* note __ at 100.

¹⁶⁹ *See* HABERMAS, *supra* note __ at __ (describing a need in mass franchise electoral systems for procedural regulations in the conduct of public debate); Brulle, *supra* note __ at 15.

¹⁷⁰ *See* KEITER, KEEPING FAITH WITH NATURE, *supra* note __ at __; LEE, *supra* note __ at 87; Karkkainen, *Collaborative Ecosystem Governance*, *supra* note __ at __.

¹⁷¹ *See* LEE, *supra* note __ at 90-114 (discussing "bounded conflict" and its instrumental virtues for public problem solving).

¹⁷² *See* THOMAS C. SCHELLING, THE STRATEGY OF CONFLICT (1960). Elites' choices to take extreme or "bargaining" positions in national debates exert significant shaping influences on the nature and deliberative potential of those debates. HABERMAS, *supra* note __ at 336-51; LEE, *supra* note __ at 182 (describing the destructive effects of "unbounded conflict" where the arena of dispute is unlimited and disputants have no incentive to compromise or cooperate). More than one study has reached this judgment about conservation politics over the last generation. *See* BRULLE, *supra* note __ at 273; DOWIE, *supra* note __ at 251-57. And several critiques of the administrative process suggest it has played a significant role in fostering such strategic behavior. *See, e.g.,* Jim Rossi, *Participation Run Amok: The Costs of Mass Participation for Deliberative Agency Decisionmaking*, 92 NW. U. L. REV. 173 (1997); Mark Seidenfeld,

C. Planning and Habitat: Prediction, the Unpredictable, and Accountability

In hindsight, what makes the PLLRC's logic so mystifying is that it clearly wished the multiple use agencies would deepen their commitments to conservation.¹⁷³ The thinking must have been that making *everything* a priority and requiring that binding plans be laid to pursue it all was the best available satisfice.¹⁷⁴ And, if so, the NFMA amendments were the upshot of this logic because they studiously avoided establishing any order of priority among uses while simultaneously requiring the agency to provide for them all.¹⁷⁵

Empowering Stakeholders: Limits on Collaboration as the Basis for Flexible Regulation, 41 WM. & MARY L. REV. 411 (2000). An internal Forest Service memo complained as much in 2004. See *The Process Predicament*, supra note __ at 25-32.

¹⁷³ The Commission wrote that, “[f]ollowing preference to rare and endangered species, preference should be given to the support of those species for which the public lands provide a critical or significant portion of the habitat.” ONE THIRD OF THE NATION’S LAND, supra note __ at 160. This concern for imperiled species would eventually motivate some of the sponsors of the NFMA amendments as well. FEDKIW, supra note __ at 109-12.

¹⁷⁴ For an explanation of why this has usually failed as a conservation strategy, see JOHN TERBORGH, REQUIEM FOR NATURE (1999). The failure has not deterred advocates from making such prescriptions the centerpiece of their continuing criticisms, though. Cf. Blumm, supra note __ at 430 (“A redefinition of multiple use should be encouraged through the implementation of the Endangered Species Act, the Clean Water Act, and [NFMA’s] fish and wildlife directives.”) (internal footnotes omitted); see infra notes __ and accompanying text.

¹⁷⁵ The Forest and Rangelands Renewable Resources Planning Act (“FRRRPA” or “RPA”) first mandated long-range, system-wide planning for the National Forest System in 1974. See 88 Stat. 476 *et seq.* The law required the Forest Service to generate three kinds of planning documents for the National Forest System on a decennial interval: (1) an assessment of the renewable resources on all forest and rangelands, (2) a program of long-range objectives, and (3) an annual report evaluating Forest Service activities thereon. See *National Wildlife Fed’n v. United States*, 626 F.2d 917 (D.C. Cir. 1980). This long-term mandate had also been boosted by the PLLRC and was no doubt motivated by considerable idealism when enacted (although it eventually became an annual target of appropriations riders disabling it). See COGGINS ET AL., supra note __ at 712-13. With the NFMA amendments, though, the planning duties were devolved to a shorter-term, unit-by-unit, region-by-region framework that was supposed to utilize “a systematic interdisciplinary approach to achieve integrated consideration of physical, biological, economic, and other sciences.” Pub. L. No. 93-378, § 6(b), codified at 16 U.S.C. § 1604(b). It is this framework that has been adopted by the other land management systems in public lands law. KEITER, KEEPING FAITH WITH NATURE, supra note __ at __.

Just after legislating the ESA (and before *TVA v. Hill* showed what ESA § 7 really meant¹⁷⁶), Congress legislated NFMA § 6. It required unit-by-unit land management planning that was to provide for both habitat and multiple-use forestry.¹⁷⁷ It specifically required a “systematic interdisciplinary approach to achieve integrated consideration of physical, biological, economic, and other sciences” in utilizing NFS lands.¹⁷⁸ The core deliverable was that, according to uniform guidelines¹⁷⁹ structuring “Land and Resource

¹⁷⁶ The 1973 ESA included basic versions of its present habitat protection structures, including a skeletal version of ESA § 7. See BEAN & ROWLAND, *supra* note __ at 198-213. Originally, ESA § 7 was a single paragraph. 87 Stat. 884, 892. And while *TVA v. Hill*, 437 U.S. 153 (1978), was not the first decision enjoining federal agency action under Section 7, it was by far the most notorious. In *National Wildlife Fedn. v. Coleman*, 529 F.2d 359 (5th Cir. 1976), the Fifth Circuit enjoined the Department of Transportation from funding road projects that would promote the degradations of sandhill crane habitat. But it was the 1978 *Hill* decision that galvanized public opposition to the ESA’s “prohibitory policies” on habitat—eventually turning ESA § 7 into the “maze of procedural requirements” it is today. KLEIN ET AL., *supra* note __ at 795; see also George C. Coggins & Irma S. Russell, *Beyond Shooting Snail Darters in Pork Barrels: Endangered Species and Land Use in America*, 70 GEO. L.J. 1433 (1982); Ronald H. Rosenberg, *Federal Protection of Unique Environmental Interests: Endangered and Threatened Species*, 58 N.C. L. REV. 491 (1980).

¹⁷⁷ WILKINSON & ANDERSON, *supra* note __ at 371-73; Tuholske & Brennan, *supra* note __ at 60-66. FLPMA did as much for BLM lands. FLPMA directed that BLM “shall, with public involvement and consistent with the terms and conditions of this Act, develop . . . land use plans which provide by tracts or areas for the use of the public lands.” 43 U.S.C. § 1712(a). The planning requirements FLPMA leveled on BLM were loosely based upon those found in NFMA, although the far greater intrusion upon BLM discretion has been NEPA. See COGGINS ET AL., *supra* note __ at 800-08. Fast after FLPMA came the Public Rangelands Improvement Act of 1978 (“PRIA”), Pub. L. No. 95-514, 92 Stat. 1808 *et seq.* Between FLPMA, NEPA and PRIA, BLM was given an overall “goal” for its rangelands planning: to make its lands “as productive as feasible in accordance with rangeland management objectives established through the land use planning process,” 43 U.S.C. § 1093(b), which were to include the “potential for livestock, wildlife habitat, recreation, forage, and water and soil conservation,” *id.* at § 1901(a)(1), “multiple use and sustained yield,” *id.* at § 1712(c)(1), “the integrated consideration of physical, biological, economic, and other sciences,” *id.* at § 1712(c)(2), and “compliance with applicable pollution control laws,” *id.* at § 1712(c)(8), together with the obligation to complete Environmental Impact Statements at appropriate junctures.

¹⁷⁸ Pub. L. No. 93-378, § 6(b), codified at 16 U.S.C. § 1604(b). In 1972, the Service had more than double as many trained foresters as other experts—from soil science to economics—*combined* (over 5,000 to about 2,000). FEDKIW, *supra* note __ at 31. By the 1980s and 1990s, measured in “full time equivalents” (FTEs), the staffing gains in these other disciplines doubled in some cases and were partially offset by the *reductions* in range management and timber program staffing. *Id.* at 191. Still, the first Committee of Scientists several times voiced concern about the Forest Service’s capacity to summon the expertise that would be needed to fulfill the analytical burdens it was setting for itself in requirements like the viable populations of MIS rule. See 44 Fed. Reg. at 53975; *infra* notes __ and accompanying text.

¹⁷⁹ Different parts of NFMA § 6 required the Forest Service to provide “assurances” regarding the plans, see 16 U.S.C. § 1604(e), and that plans all have various “required provisions.” *Id.* at § 1604(f). But NFMA § 6(g) required that the Forest Service “shall in accordance with the procedures set forth in section 553 of Title 5 promulgate regulations . . . that set out the process for development and revision of the [plans].” *Id.* at § 1604(g). This sort of explicit requirement of notice and comment rulemaking grew

Management Plans” (“LRMPs”), each local management unit “*provide for diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives . . .*”¹⁸⁰ The Forest Service wrote, rewrote, and is still rewriting those guidelines, though.¹⁸¹ Ecologists cannot say how much “diversity” is enough or how much is “natural.”¹⁸² Thus, local and regional

increasingly popular both with Congress and the Executive in the 1970s. Viewed by some as “one of the greatest inventions of modern government,” KENNETH CULP DAVIS, *DISCRETIONARY JUSTICE: A PRELIMINARY INQUIRY* 65-66 (1969), notice and comment was hailed as an innovative technique for integrating public input and expertise in the writing of agency rules having the force of law. But its “ossification” and domination by more sophisticated stakeholders soon began to undermine confidence in its effectiveness as such a tool. See Jerry L. Mashaw & David L. Harfst, *Regulation and Legal Culture: The Case of Motor Vehicle Safety*, 4 *YALE J. REG.* 257 (1987).

¹⁸⁰ Pub. L. No. 93-378, § 6(g), codified at 16 U.S.C. § 1604(g)(3)(B) (emphasis added).

¹⁸¹ The first proposed rule came in August 1978. See Forest Service, National Forest System Land and Resource Management Planning, Proposed Rule, 43 Fed. Reg. 39046 (1978). The Committee of Scientists delivered its Final Report in February 1979, leading to a reproposal of the rule in May 1979. See Forest Service, National Forest System Land and Resource Management Planning, Proposed Rule, 44 Fed. Reg. 26554 (1979). That rule was finalized with changes in September 1979. See Forest Service, National Forest System Land and Resource Management Planning, Final Rule, 44 Fed. Reg. 53928 (1979). With the changing of administrations in 1981, though, the rule was brought up for amendment by the “Presidential Task Force on Regulatory Relief.” In February 1982, the Reagan Administration’s proposed rule was announced. See Forest Service, National Forest System Land and Resource Management Planning, Proposed Rule, 47 Fed. Reg. 7678 (1982). Though it had disbanded, the members of the Committee of Scientists were formally invited “as individual consultants to discuss and consider” the proposed changes. See Forest Service, National Forest System Land and Resource Management Planning, Proposed Rule; Extension of Comment Period and Notice of Meeting, 47 Fed. Reg. 24348 (1982). That rule was finalized with changes in September 1982. See Forest Service, National Forest System Land and Resource Management Planning, Final Rule 47 Fed. Reg. 43026 (1982). By 1991, the Service was proposing to overhaul the rule. See Forest Service, National Forest System Land and Resource Management Planning, Advanced Notice of Proposed Rulemaking, 56 Fed. Reg. 6508 (1991). With the changing of administrations, a different proposal appeared in 1995. See Forest Service, National Forest System Land and Resource Management Planning, Proposed Rule, 60 Fed. Reg. 18886 (1995). This proposal attracted a lot of comment, though, and a second Committee of Scientists was empanelled the report from which delivered in March 1999 was used to repropose the rule in November 1999. See Forest Service, National Forest System Land and Resource Management Planning, Proposed Rule, 64 Fed. Reg. 54074, 54075 (1999). That rule was finalized in 2000, see Forest Service, National Forest System Land and Resource Management Planning, Final Rule, 65 Fed. Reg. 67514 (2000), but it was immediately stayed with the changing of administrations and a new rule re-proposed. See Forest Service, National Forest System Land and Resource Management Planning, Proposed Rule, 67 Fed. Reg. 72770 (2002). That rule was not finalized until after the 2004 Presidential election, see Forest Service, National Forest System Land and Resource Management Planning, Final Rule, 70 Fed. Reg. 1023 (2005), and its validity is still in doubt. See *Defenders of Wildlife et al. v. Johanns*, No. 04-4512 PJH (N.D. Cal.2005) (complaint filed).

¹⁸² It was the Committee of Scientists that urged the Forest Service to *remove* the term “natural” from its first draft definition of “diversity.” See 44 Fed. Reg. at 53975. Indeed, there was then and still is genuine concern about even measuring biodiversity at the level of species. See 65 Fed. Reg. at 67546 (stating Service conclusion that it is “financially and technically impractical to individually assess each species”); cf. Reed F. Noss, *Hierarchical Indicators for Measuring Changes in Biodiversity*, in *PRINCIPLES OF CONSERVATION BIOLOGY*, supra note __ at 28 (“[T]wo things about biodiversity should be clear: (1) it is

personnel are held to account, through notice-and-comment-like procedures, to uniform guidelines that lack real scientific foundations—in essence, being asked to discover the unknown under conditions of distrust and disagreement.¹⁸³

The guidelines originally specified that unit managers should “ensure that viable populations of native and desirable nonnative vertebrate species will be maintained”¹⁸⁴ and that planning units should “support, at least, a minimum number of reproductive individuals” with habitat “well distributed so that those individuals can interact with others in the planning area.”¹⁸⁵ Yet, as field office personnel learned the hard way, the habitat needs of different species are often incompatible with one another and/or so uncertain that entire planning areas can be taken up by the (known) habitat requirements of only a few populations—assuming the viability analyses are actually done.¹⁸⁶ Their

complex, and (2) it is always changing. How on earth can a conservation biologist or land manager deal with this mess?”).

¹⁸³ Moreover, even granting a policy of no net biodiversity loss per unit is feasible and appropriate, it is unclear that *any* administrative agency imaginable—let alone one as under-budgeted and internally conflicted as the Forest Service—could do much to preserve diversity parcel-by-parcel. See Daniel Goodman, *The Demography of Chance Extinction*, in MINIMUM VIABLE POPULATIONS FOR CONSERVATION 11 (Michael E. Soule ed., 1987) (describing the “minimum viable population” problem and the fact that most populations are characterized by demographic variables of uncertain magnitude); see also Forest Service, National Forest System Land and Resource Management Planning, Proposed Rule, 60 Fed. Reg. 18886, 18895 (1995) (“As a practical matter . . . a requirement to ‘insure’ viable populations . . . envisions an outcome impossible to be guaranteed by any agency, regardless of the analytical resources marshalled [sic.]”); THOMAS, *supra* note __ (arguing that unparalleled levels of interagency coordination will be necessary to preserve biodiversity on most public lands).

¹⁸⁴ 44 Fed. Reg. at 53990 (codified at 36 C.F.R. § 219.13(b) (repealed by Forest Service, Final Rule, National Forest System Land and Resource Management Planning, 65 Fed. Reg. 67,514 (2000)) (emphasis added)). But by the 1990s, the agency had concluded that “[t]he extensive and expensive amount of scientific expertise, data, and technology needed for conducting species viability assessments as currently described in the scientific literature is far beyond what was originally envisioned by the Committee of Scientists when developing the planning rule.” 60 Fed. Reg. at 18895.

¹⁸⁵ 36 C.F.R. § 219.19 (1999).

¹⁸⁶ Population viability analysis and MIS selection both became central parts of the attacks on planning. See, e.g., *Sierra Club v. Espy*, 38 F.3d 792, 800-803 (5th Cir. 1994); *Inland Empire Public Lands Co. v. United States Forest Serv.*, 88 F.3d 754 (9th Cir. 1996); *Sierra Club v. Thomas*, 105 F.3d 248 (6th Cir. 1997); *Oregon Natural Resources Council v. Lowe*, 109 F.3d 521 (9th Cir. 1997). As the Sierra Club argued in one of its many cases, “biological diversity can only be maintained if a given habitat is sufficiently large so that populations within that habitat will remain viable in the event of disturbances.” *Sierra Club v. Marita*, 46 F.3d 606, 610 (7th Cir. 1995). The complementary proposition it omitted is that these area requirements, given the fragmentation of the NFS, can easily exceed available “planning areas,”

choices of and approaches toward “management indicator species” soon seemed to skeptics like just another means for rationalizing the cultivated forest.¹⁸⁷ By trying to comply with its own regulations, though, “[p]lanning had become too time-consuming and expensive, too unresponsive to public input, and too little used—the plans, once all the efforts to formulate them had been expended, mostly take up shelf space.”¹⁸⁸

NFMA’s diversity requirement and the Forest Service regulations implementing it provoked so much rancor¹⁸⁹ that, by 1995, the Service was convinced that its biggest reform was to lower the public’s expectations of forest planning.¹⁹⁰

In this light, it seems deliberate that the statute left “diversity” undefined.¹⁹¹ Just the sustained conflicts of NFMA planning have involved the legal force of the plans,¹⁹²

leaving little room for the other four elements of MUSYA’s “multiple use” under 16 U.S.C. §§ 1604(g) and 538—at least as long as the agency confines its attention to its own lands. See Mark Shaffer, *MVPs: Coping With Uncertainty*, in *VIABLE POPULATIONS FOR CONSERVATION* at 69 (Michael E. Soulé ed., 1987).

¹⁸⁷ Lacking any trust in the Forest Service, user and affinity groups soon found they could at least get a hearing in federal court on the arbitrariness of selecting particular MISs. See, e.g., *Idaho Sporting Cong. v. Rittenhouse*, 305 F.3d 957 (9th Cir. 2002); *Sierra Club v. Martin*, 168 F.3d 1 (11th Cir. 1999); *Inland Empire Public Lands Council v. United States Forest Serv.*, 88 F.3d 754, (9th Cir. 1996). Tragically, though, at least one empirical study of the use of proxies as “indicators” of ecosystem diversity or integrity found that they are of no more provable scientific merit than random selections. See Sandy J. Andelman and William F. Fagan, *Umbrellas and Flagships: Efficient Conservation Surrogates or Expensive Mistakes?*, 97 PROC. OF NAT’L ACAD. SCI. 5954 (2000).

¹⁸⁸ Charles F. Wilkinson, *A Case Study in the Intersection of Law and Science: The 1999 Report of the Committee of Scientists*, 42 ARIZ. L. REV. 307, 308 (2000). Wilkinson sat on the second Committee of Scientists. *Id.* at 308 n.8.

¹⁸⁹ See, e.g., Michael J. Mortimer, *The Delegation of Law-Making Authority to the United States Forest Service: Implications in the Struggle for National Forest Management*, 54 ADMIN. L. REV. 907 (2002) (describing the history of challenges to Forest Service planning and project-level decision-making stemming from habitat degradation complaints); VAUGHN & CORTNER, *supra* note __ at 59-68 (compiling data of Forest Service appeals).

¹⁹⁰ See Forest Service, Advanced Notice of Proposed Rulemaking, National Forest System Land and Resource Management Planning, 56 Fed. Reg. 6508, 6512-13 (1991) (describing Forest Service conclusions, reached after a comprehensive “regulatory review,” that the public’s expectations of forest planning had to be adjusted downward).

¹⁹¹ This gap in the law is one NFMA shares with NRWSIA and which analysts of the NWRS have said represents FWS’s “greatest challenge.” Robert L. Fischman, *The Meanings of Biological Integrity, Diversity and Environmental Health*, 44 NAT. RES. J. 989, 992 (2004) (hereinafter Fischman, “*Meanings*”); *but cf.* WILKINSON & ANDERSON, *supra* note __ at 295-96 (noting that NFMA contains no definition of “diversity” but arguing that the legislative history indicates the “overall purpose” of NFMA § 6 was to direct the Forest Service to treat wildlife as a “controlling, co-equal factor in forest management and, in particular, as a substantive limitation on timber production”). The original Committee of Scientists empanelled to propose regulations implementing NFMA observed that “[d]iversity is one of the more

the means selected for measuring “diversity” and maintaining it,¹⁹³ and the compatibility of roads, timber sales, recreation, and other land uses with habitat.¹⁹⁴ Unsurprisingly, challenges to the agency’s judgments on species diversity came to turn on the brand of deference the reviewing court afforded it.¹⁹⁵

perplexing issues dealt with in these regulations.” Final Report of the Committee of Scientists, 44 Fed. Reg. 26599, 26608 (1979). “No matter how diversity is defined, its measurement is complex.” *Id.* at 26609. Eventually, the Forest Service began arguing that courts should defer to its choice of species to be benefited by its management choices because trade-offs of the kind are inevitable. *Cf. Sierra Club v. Espy*, 38 F.3d 792, 802 (5th Cir. 1994) (deferring to Forest Service as to compliance with the diversity requirement):

In the absence of forest management [*i.e.*, logging], trees would grow older, the character of plant and animal diversity would change, and some wildlife would decline in numbers. Harvesting trees [through clear cutting] necessarily results in younger stands. Wildlife dependent on younger stands would flourish at the expense of species dependent on older growth forests. . . . These forest dynamics make clear that protecting forest resources involves making trade-offs.

¹⁹² NFMA said nothing specifically about the legal force of its required “Land and Resource Management Plans.” NFMA § 14(a) states that the Forest Service must provide, “by regulation,” for “procedures, including public hearings where appropriate, to give Federal, State, and local governments and the public adequate notice and opportunity to comment upon the formulation of standards, criteria, and guidelines applicable to Forest Service programs.” 16 U.S.C. § 1612(a). It also requires that the agency “provide for public participation in the development, review, and revision of [LRMPs],” 16 U.S.C. § 1604(e), that “[r]esource plans and permits, contracts, and other instruments for the use and occupancy of National Forest System lands shall be consistent with the land management plans,” *id.* at § 1604(i), but it says nothing going directly to the question of a plan’s legal force and effect. *See, e.g., Sierra Club v. Robertson*, 28 F.3d 753 (8th Cir. 1994) (challenge to Article III standing of Sierra Club to challenge LRMP); *Coalition for Sustainable Resources v. U.S. Forest Service*, 259 F.3d 1244 (10th Cir. 2001) (holding that Forest Service failure to revise LRMP at a pace timely enough to protect habitat of ESA listed species was unreviewable agency “inaction” under the APA); *but see Lands Council v. Powell*, 379 F.3d 738 (9th Cir. 2004), *as amended*, 395 F.3d 1019 (9th Cir. 2005).

¹⁹³ *See, e.g., Sierra Club v. Thomas*, 105 F.3d 248 (6th Cir. 1997); *Public Lands Council v. U.S. Forest Serv.*, 88 F.3d 754 (9th Cir. 1996); *Sierra Club v. Robertson*, 845 F. Supp. 485 (S.D. Ohio 1994); *Oregon Natural Resources Co. v. Lowe*, 836 F. Supp. 727 (D. Ore. 1993); *Sierra Club v. Robertson*, 784 F. Supp. 593 (W.D. Ark. 1991); *Cronin v. U.S. Dept. of Agric.*, 919 F.2d 439 (7th Cir. 1990); *Sierra Club v. Marita*, 843 F. Supp. 1536 (E.D. Wis. 1994) *consolidated with Sierra Club v. Marita*, 845 F. Supp. 1317 (E.D. Wis. 1994), *and rev’d by Sierra Club v. Marita*, 46 F.3d 606 (7th Cir. 1995); *Krichbaum v. Kelley*, 844 F. Supp. 1107 (W.D. Va. 1994). The published opinions on “even-aged management” and its relationship to management indicator species in the four National Forests in eastern Texas alone span 15 years and constitute a day’s reading. *See Texas Comm. on Natural Resources v. Bergland*, 433 F. Supp. 1235 (E.D. Tex. 1977), *rev’d*, *Texas Comm. on Natural Resources v. Bergland*, 573 F.2d 201 (5th Cir. 1978); *Sierra Club v. Espy*, 822 F.Supp. 356 (E.D. Tex. 1993), *rev’d*, *Sierra Club v. Espy*, 38 F.3d 792 (5th Cir. 1994); *Sierra Club v. Glickman*, 974 F. Supp. 905 (E.D. Tex. 1997), *aff’d*, *Sierra Club v. Peterson*, 185 F.3d 349 (5th Cir. 1999), *rev’d on reh’ing en banc*, *Sierra Club v. Peterson*, 228 F.3d 559 (5th Cir. 2000).

¹⁹⁴ *See Susan Anderson et al., The National Forest Management Act: The Law of the Forest in the Year 2000*, 21 J. LAND, RES. & ENVTL. L. 151, 194-95, 197-206 (2001).

¹⁹⁵ Tuholske & Brennan, *supra* note __ at 125-29; Jamie Kester, *Rubber-Stamping v. Probing Review—The Judicial Role in Enforcing the Substantive Requirements of the National Forest Management Act*: *Lands Council v. Powell*, 16 VILL. ENVTL. L.J. 209 (2005).

In legislating this structure,¹⁹⁶ Congress solved virtually none of the problems confronting public lands in the wake of the technocratic vision's eclipse. No centralized bureau in the Service's position could even possibly identify (let alone pursue) desirable ecological conditions given so little guidance, so little of its many biomes to manage, and in the face of so much distrust.¹⁹⁷ The collective consensus may have been thin, *i.e.*, that the ordinary diversity and complexity of nature, if they were to be plowed under in favor of cultivated forests, should at least get a hearing.¹⁹⁸ But the order of priority among articulated goals—phrased as they were in abstractions¹⁹⁹—quickly became just another

¹⁹⁶ NFMA § 6 is similar to FLPMA and PRIA's planning provisions, *see* 43 U.S.C. §§ 1712, 1751, 1752(d), 1903, perhaps most significantly in that they are also unit-based and aimed at an organization intimately tied to the private users of its lands. *See Public Lands Council v. Babbitt*, 529 U.S. 728, 730-41 (2000).

¹⁹⁷ *See* SAX, *supra* note __ at 61-90; Tuholske & Brennan, *supra* note __ at 67-126; Colburn, *Indignity*, *supra* note __ at 471-87; *see also* THOMAS, *supra* note __ at 153-91 (reaching a similar conclusion about BLM management in the Klamath and describing how cooperative strategies emerged to coordinate with localities, powerful stakeholders, and other agencies.); A. Dan Tarlock, *A First Look at a Modern Legal Regime for a "Post-Modern" United States Army Corps of Engineers*, 52 U. KAN. L. REV. 1285 (2004) (reaching similar conclusion about the Army Corps of Engineers and its enabling legislation). Conservation biologists and organizational theorists have, in concert, demonstrated how unlikely it is that agencies could even possibly manage the dynamics involved in habitat planning on lands like those of the NFS. FLPMA directed BLM to "use and observe the principles of multiple use and sustained yield" while giving "priority to the designation and protection of areas of critical environmental concern." 43 U.S.C. §§ 1712(c)(1), (2). "Areas of critical environmental concern," or ACECs, are defined as those tracts of land where "special management attention is required . . . to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes. . . ." *Id.* at § 1702(a). ACECs are, in short, another mechanism segregating this type of dominant use out of BLM's baseline "multiple use" within its land management plans.

¹⁹⁸ "Ordinary" in this sense means not extraordinary, not a part of a park, a "refuge," "sanctuary," a "critical habitat," or some other exceptional status for the land in question. *See generally* Colburn, *Indignity*, *supra* note __. The "hearing" requirement in NFMA § 6 separating "even aged management" from 'non-timber' planning priorities became the discretionary point to which politics flowed. *See* Charles F. Wilkinson, *The National Forest Management Act: The Twenty Years Behind, The Twenty Years Ahead*, 68 U. COLO. L. REV. 659, 673 (1997). Indeed, conservation biologists had grown weary of the malleability of the "ecosystem management" concept in the early 1990s. *See, e.g.*, R. Edward Grumbine, *What is Ecosystem Management?*, 8 CONSERV. BIO. 27 (1994) (describing ten different themes pervading descriptions of natural resource management philosophies referred to as "ecosystem management" and concluding that "the ecosystem management debate" is really a complex, competitive, conflictual social process about whose values will dominate, it is not about science").

¹⁹⁹ Importantly, the "diversity" prong of NFMA § 6(g) was put squarely within agency discretion in that it only required as much "based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives . . ." Pub. L. No. 93-378, § 6(g), codified at 16 U.S.C. § 1604(g)(3)(B). This qualification was the result of Forest Service lobbying. FEDKIW, *supra* note _ at 110-12.

predicate for litigation.²⁰⁰ This was partly because the purpose behind NFMA’s process requirements was so uncertain²⁰¹ and partly because so little is yet known about preserving biodiversity, especially while permitting other uses of the land (which our conservation land systems must).²⁰²

Most recently, the agency overhauled the guidelines to “deregulate” the planning process and strip it of as much “law to apply” as possible, implicitly closing the book on the PLLRC.²⁰³ FWS’s “Comprehensive Conservation Plans” (“CCPs”) for units of the NWRS, required by the 1997 NWRSIA, bear many resemblances,²⁰⁴ as do the planning

²⁰⁰ See Tuholske & Brennan, *supra* note __ 68-69 (arguing that “intent” of the diversity requirement is obscure and that it is likely more about clearcutting than about ecosystem integrity per se); Colburn, *Indignity*, *supra* note __ at 475-81 (“diversity” in this context is irreducibly ambiguous); Julie A. Weis, *Eliminating the National Forest Management Act’s Diversity Requirement as a Substantive Standard*, 27 ENVTL. L. 641 (1997) (criticizing the Forest Service’s initial proposal to amend the diversity requirement regulations to make them less prescriptive); Oliver A. Houck, *On the Law of Biodiversity and Ecosystem Management*, 81 MINN. L. REV. 869 (1997) (detailing the information demands and political risks created by management policies prioritizing habitat within the NFS). All that said, many progressives now argue that the Forest Service has simply misinterpreted NFMA § 6’s delegation by amending its rules as it did in 2005. See Flournoy *et al.*, *supra* note __ at 2-10 (arguing that Forest Service rules providing for the protection of “native and desired non-native vertebrate species in the planning area” became the subject of so many law suits surrounding LRMPs because the Forest Service lacked conviction in its adherence to its own rules).

²⁰¹ Cf. HABERMAS, *supra* note __ at 266 (criticizing the development of a particular model of procedural justice for its equivocation as to the underlying goals and purposes of the procedural system).

²⁰² See *supra* notes __ and accompanying text. In the 2000 rule, the Service diluted the population viability analysis requirements by explicitly linking them to “the extent of information available” and allowed personnel to employ “general conservation principles and expert opinion” as appropriate. 65 Fed. Reg. at 67574-75. But much of the impetus for the 2002 and 2005 rule changes by the Bush Administration stemmed from the belief (whether accurate or not) that biodiversity had become too important and was beginning to conflict too much with other uses. See 70 Fed. Reg. at 1028-30.

²⁰³ See Forest Service, Final Rule, National Forest System Land Management Planning, 70 Fed. Reg. 1023, 1024 (2005) (“[P]lans under this final rule will be more strategic and less prescriptive in nature than under the 1982 planning rule.”). The Forest Service expressly acknowledged its intent to deprive stakeholders of the means to challenge plans in its 2005 overhaul. See *id.* at 1027 (“The traditional approach of developing and choosing among discrete alternatives that were carried throughout the entire planning process often proved divisive, because it often maintained adversarial positions, rather than helping people seek common ground.”). For present purposes, the most relevant change was the elimination of the requirement that Forest Service unit managers maintain fish and wildlife habitat sufficient to support “viable populations of existing native and desired non-native vertebrate species in the planning area . . .” 36 C.F.R. § 219.19 (1999). In not having to pick particular species, the agency freed itself to plan for the much more abstract requirement of “habitat types.” The most obvious consequence of the distrust and adversarialism at the federal level today is how hostile progressives have been to this rule change, regarding its claims to experimentalism as a sham. See, e.g., FLOURNOY ET AL., *supra* note __

²⁰⁴ Under NWRSIA, CCPs are supposed to ensure that the “biological integrity, diversity, and environmental health of the System are maintained. . . .” Pub. L. No. 105-57, § 5(a)(4)(B), codified at 16

processes of the other public lands law systems.²⁰⁵ Yet none of these systems is actually institutionalizing “adaptive” or “ecosystem” management. For one thing, they are too evolutionarily isolated to do so.²⁰⁶ More importantly, though, none of the planning processes require personnel to take the nonfederal lands surrounding their planning units seriously.²⁰⁷ None has instituted the monitoring and information pooling that makes adaptive management work.²⁰⁸ None has mounted an effective public education campaign to regionalize definitions of desirable conditions.²⁰⁹ Too many of their

U.S.C. § 668dd(a)(4)(B). But individual refuges remain bound by whatever establishment terms and conditions exist under the individual refuges’ “law, proclamation, executive order, agreement, public land order, donation document or administrative memorandum establishing, authorizing or expanding” the refuge or any of its constitutive units. *Id.* at § 668ee(10); Niobrara River Ranch, L.L.C. v. Huber, 277 F. Supp. 2d 1020 (D. Neb. 2003), *aff’d*, 373 F.3d 881 (8th Cir. 2004). Interestingly, and probably because FWS learned from the Forest Service’s mistake, CCPs and the planning guidelines have been given *no* independent legal force according to FWS, presumably in the hopes of avoiding the “hard look” litigation LRMPs have attracted. *See* Fish and Wildlife Service, Notice, Refuge Planning Policy, 65 Fed. Reg. 33892, 33901-02 (2000).

²⁰⁵ BLM’s plans are quite similar under FLPMA to what the Forest Service must complete under NFMA.

²⁰⁶ *See* supra notes __ and accompanying text. A fascinating account of the social psychology of the fragmentation is Raymond & Fairfax, supra note __ (tracing the “fragmentation narrative” and its rhetorical power in twentieth century public lands law debates). Much more significant, though, is the fundamental difference in logic separating rational, technocratic (and, largely, economic) “conservation” from the more aesthetic and spiritual “preservation.” “Rationalization . . . refers to the extension of calculative attitudes of a technical character to more and more spheres of activity, epitomized by scientific procedures and given substantive expression in the increasing role that expertise, science and technology play in modern life.” HELD, supra note __ at 160. Quite outside the rational “technocratic vision,” preservationism seeks to identify and save the sacrosanct from the threat of an ever-impending doom of cultivation. *See* supra notes __ and accompanying text; *cf.* ROBBIN, supra note __ at 251 (“Contemporary liberals . . . speak not for, but against; they do not aspire to the *summum bonum*, but seek to fend off the *summum malum*.”).

²⁰⁷ The 2000 NFS planning rule did include a requirement that planners “seek to engage private landowners.” 65 Fed. Reg. at 67539. But the requirement was watered down considerably in response to hostile reactions from several commenters. *Id.* The 2005 planning rule has no such requirement. And while it may be true that “[s]cience has driven the growth and management of the [NWRS] to a greater extent than other dominant-use federal lands,” Fischman, *Meanings*, supra note __ at 1022, not even FWS has tried to make ecological restoration (as opposed to preservation) the goal and integrative, inclusive management its means. Eric T. Freyfogle, *The Wildlife Refuge and the Land Community*, 44 NAT. RES. J. 1027 (2004).

²⁰⁸ *See* Utah Environmental Cong. v. Bosworth, 372 F.3d 1219 (10th Cir. 2004) (rejecting challenge to Forest Service’s minimal monitoring commitments under LRMP). Indeed, even when plans or regulations have had significant monitoring requirements, the courts have refused to enforce them. *See, e.g., Ecology Center, Inc. v. Forest Service*, 192 F.3d 922 (9th Cir. 1999); Westley, supra note __ (describing the design conditions for a “changeable organization”).

²⁰⁹ For example, path-breaking work is being done by researchers at the Harvard Forest in Petersham, Massachusetts, studying the segmentation of private forest owners into various types the better to gauge propensities for cooperation and the forms of cooperation in which different owners show a willingness to engage. *See, e.g.,* Andrew O. Finley *et al., Interest in Cross-Boundary Cooperation: Identification of*

powerful stakeholders have systemic complaints that can only be aired in artificially particularized challenges.²¹⁰ And if the agencies have devised any internal mechanisms for benchmarking performance among units or regions, they are a secret.²¹¹

Managing to prevent species loss means confronting stochasticity and fragmentation and, often, proscribing and prescribing human behaviors that lack tangible, provable connections to any particular extirpation.²¹² It means managing a mosaic to preserve or restore its integrity—something experts have been advocating for sixty years²¹³ but which none of the systems has actually done.²¹⁴ The statutes requiring and the administrative law guiding the formal planning processes erect massive barriers to such approaches²¹⁵ and actively deter them beyond the boundary lines.²¹⁶ Public land

Distinct Types of Private Forest Owners, 52 FOREST SCIENCE 10 (2006); Daniel L. Belin *et al.*, *Assessing Private Forest Owner Attitudes Toward Ecosystem-Based Management*, 103 J. FORESTRY 28 (2005). If the land management agencies care about such research, it is very hard to tell.

²¹⁰ The legacy of *Sierra Club v. Morton*, 405 U.S. 727 (1972), clarified in cases like *Lujan v. National Wildlife Federation*, 497 U.S. 871 (1990), *Lujan v. Defenders of Wildlife*, 504 U.S. 555 (1992), *Ohio Forestry Assoc. Inc. v. Sierra Club*, 523 U.S. 726 (1998), and, most recently, *Norton v. Southern Utah Wilderness Alliance*, 124 S. Ct. 2373 (2004), has been the transference of national organizations' great energies into the narrowing confines of particularized injuries and artificially discrete "agency actions." See William A. Fletcher, *The Structure of Standing*, 98 YALE L.J. 221, 250-65 (1988).

²¹¹ To be sure, individual units of the national systems are doing interesting and, in some cases, path-breaking things. See, e.g., Meretzky, *et al.*, *supra* note __ at 139. But the institutional point of having a centralized organization in the first place is unrealized unless such innovations are shared and used to benchmark the performances of others. Dorf & Sabel, *supra* note __ at 345-48.

²¹² Cf. Shaffer, *supra* note __ at 83 ("Extinctions of populations and species may occur for many reasons, among which will be chance. The recognition of the probabilistic component of extinction and its dependence on population size and time has profound ramifications for efforts to avoid or minimize the impending extinction crisis."); Colburn, *Indignity*, *supra* note __ at 431-36.

²¹³ See *supra* note __.

²¹⁴ See Colburn, *Indignity*, *supra* note __ at 471; KEITER, KEEPING FAITH WITH NATURE, *supra* note __ at 303-06.

²¹⁵ See, e.g., Albert C. Lin, *The Unifying Role of Harm in Environmental Law*, 2006 WIS. L. REV. __ (forthcoming); Patrick Parenteau, *Rearranging the Deck Chairs: Endangered Species Act Reforms in an Era of Mass Extinction*, 22 WM. & MARY ENVTL. L. POL'Y REV. 227, 258-60 (1997); Jamison E. Colburn, *The Future of Air Pollution Control in the Corporatist State*, 34 ENVTL. L. RPTR. 10577, 10578-80 (2004).

²¹⁶ As Professor Appel argued, it is finding a *limit* on the Property Power, likely through the Tenth Amendment, that is the much more difficult question of law in the realm of Congress's protective powers over federal public lands. Appel, *supra* note __ at 107. Thus, while "the lack of federal regulation in an area does not mean that the power does not exist," "only that the federal government has not pursued it," *id.* at 102, it *can* be presumed that the government has been effectively deterred from regulating private lands surrounding public lands—notwithstanding the many significant drawbacks. See KEITER, KEEPING FAITH WITH NATURE, *supra* note __ at 208-18; COGGINS ET AL., *supra* note __ at 198-206; Doremus, *Restoring*

management, consequently, has become entrenched in what is best described as gridlock.²¹⁷

IV. INCLUSIVE CONSERVATION: THE POSSIBILITIES FOR PUBLIC LANDS LAW

Preservationism revolutionized when it moved to preserving biodiversity, turning its concept of nature to be saved from humanity upon itself. For, all too often, affirmative human *actions* (which are not particularly edifying) must be taken to save imperiled creatures, species, and biomes.²¹⁸ Humanity's disturbances are ubiquitous and growing,²¹⁹ making the work of this new preservationism both infinite and ambivalent. Our alterations of the earth are embarrassing the public lands law systems in concept, scale, and scope while they prevent our "stewards" from adapting fast enough even to identify a usable knowledge.²²⁰ Some will respond that the ESA was not meant to respect bureaucratic turf or the preservation/conservation dichotomy.²²¹ And it is no coincidence

Endangered Species, supra note __ at 59 ("Confining restored animals to federal lands . . . severely limits the effectiveness of restoration efforts.").

²¹⁷ Wilkinson, supra note __ at 308.

²¹⁸ See, e.g., Doremus, *Restoring Endangered Species*, supra note __ at 3 (describing captive breeding and other restorative techniques and arguing that "[d]omestication deprives wild creatures of their aura, their magic, the essence for which we should be protecting them"); Oelschlaeger, supra note __ at 240-44; . Jordan argues convincingly that this is a real problem for the future of ecological restoration. "Several notions of authenticity that have been profoundly influential in the West imply a deep skepticism regarding representation of any kind, and lead inevitably to the devaluation of anything like a restored ecosystem that is intended to be a reproduction or re-creation of something else." JORDAN, supra note __ at 118.

²¹⁹ See supra note __ and accompanying text.

²²⁰ See Ruhl, supra note __ at 24-34. The scale mismatches are not simply on the broad end, though. Often what native habitat specialists require are various microenvironments that are, at once, rare in cultivated forests and too laborious for the agency to make abundant artificially. See, e.g., Steven W. Buskirk & Leonard F. Ruggiero, *American Marten*, in *THE SCIENTIFIC BASIS FOR CONSERVING FOREST CARNIVORES*, supra note __ at 7, 26 (describing "witch's brooms," rot-weakened tree falls creating hollows in decayed logs, as necessary denning and resting sites).

²²¹ Cf. BEAN & ROWLAND, supra note __ at 199 ("Both its statement of congressional findings and purposes and its definitions reflect the truly comprehensive sweep intended for the Act."); *Tennessee Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978) ("As it was finally passed, the [ESA] represented the most comprehensive legislation for the preservation of endangered species ever enacted by any nation."). Of course, whatever its original purposes, bureaucratic turf and the preservation/conservation dichotomy have both heavily influenced the ESA as well. See D. Noah Greenwald *et al.*, *The Listing Record*, in *ESA AT THIRTY*, supra note __ at 51.

that the grizzly bear, the gray wolf, the spotted owl, and other predators have been the most effective catalysts of pragmatic regional integration in public lands law since the 1970s.²²² But it must be remembered that the Forest Service fought a decade of litigation before it relented to demands for protection of uncultivated forests and spotted owl habitat²²³ and that the ESA was never meant to shoulder the burdens it now does. Public lands law must aspire to being more than just a paved road to the last resort. Section A argues that a new, thicker conception of conservation must be allowed to set the agenda on public lands, a conception that moves beyond the boundary lines without forgetting that there are real limitations to federal power. Section B draws one not so sanguine lesson from the history traced above to argue that this new conception of conservation stands little chance of winning in the national ‘marketplace of ideas.’ Section C proposes the alternative.

A. Ecosystem Management and Public Lands: An Empty Set

Ecology teaches that the diversity of organisms assembled in any one place and time is the effect of an endless chain of causes and itself a cause of an endless chain of

²²² Keiter, *Ecosystem Management*, supra note __ at 707-08.

²²³ The spotted owl’s habitat needs for breeding, feeding, and sheltering were the one concrete thing found to be incompatible with Forest Service practices and plans in the Pacific Northwest and were, by most accounts, the principal catalyst of the 24 million acre “Northwest Forest Plan.” See Stephen L. Yaffee, *Lessons About Leadership from the History of the Spotted Owl Controversy*, 35 NAT. RES. J. 381 (1995); Victor M. Sher, *Travels with Strix: The Spotted Owl’s Journey Through the Federal Courts*, 14 PUB. LAND L. REV. 41 (1993); Robert Fischman, *Biological Diversity and Environmental Protection: Authorities to Reduce Risk*, 22 ENVTL. L. 435 (1992); Michael C. Blumm, *Ancient Forests, Spotted Owls, and Modern Public Lands Law*, 18 B.C. ENVTL. L. REV. 605 (1991); Victor M. Sher, *Ancient Forests, Spotted Owls, and the Demise of Federal Environmental Law*, 20 ENVTL. L. RPT. 10,469 (1990). But the elevation of a single bird species’ needs over the politicians’ will became the signal rallying cry for logging, grazing, and mining interests in the decade following the plan’s creation—complete with appropriations riders and other back channel techniques undermining it. KEITER, KEEPING FAITH WITH NATURE, supra note __ at 102-08; VAUGHN & CORTNER, supra note __ at 202.

effects.²²⁴ Even putting development and extractive uses aside, land management that alters and degrades habitat for some species will almost certainly advantage others.²²⁵ Thus, the more we learn about habitat functionality, the more we must *choose* which habitat types to try to foster. Native diversity and the restorative work on which it depends seem to be the most reasonable goals conservation science reveals (although this is certainly not beyond reasonable doubt).²²⁶ But supposing that landscape connectivity is the single best measure of habitat functionality,²²⁷ what comprises such connectivity remains deeply uncertain for most species.²²⁸ And it must be said that updating current

²²⁴ Cf. Simberloff, *supra* note __ at 23-25 (describing the halting progression within ecology to the current belief in the inherent complexity and contingency of species assemblages); KREBS, *supra* note __ at 11-12 (same).

²²⁵ See, e.g., D. Bernardos *et al.*, *Wildlife Dynamics in the Changing New England Landscape*, in *FORESTS IN TIME: THE ENVIRONMENTAL CONSEQUENCES OF 1,000 YEARS OF CHANGE IN NEW ENGLAND* 142 (David R. Foster & John D. Aber eds. 2004). This process is more easily studied in regions like New England where large-scale habitat alterations track particular historical eras, records of abundance and distribution (though spotty) at least exist, and inferences can be drawn about habitat alteration as a cause of species distribution and abundance. *Id.*

²²⁶ JORDAN, *supra* note __ at 28-53; KEITER, *KEEPING FAITH WITH NATURE*, *supra* note __ at 144-70; Deborah M. Brosnan & Martha J. Groom, *The Integration of Conservation Science and Policy: The Pursuit of Knowledge Meets the Use of Knowledge*, in *PRINCIPLES OF CONSERVATION BIOLOGY*, *supra* note __ at 625. The 2000 NFS planning rule preamble went into some detail about the distinction between ecological restoration tied to “pre-European settlement conditions” versus the maintenance of as much native biodiversity as possible. See 65 Fed. Reg. at 67543-545. (FWS also acknowledged the distinction in its “step-down” policy for CCP processes under NWRSA. See 65 Fed. Reg. at 33904.) What makes the latter rational (and, perhaps, the former *unreasonable*) as social goals are the many goods and services contingent upon biodiversity, see Salzman *et al.*, *supra* note __, as opposed to the essentially aesthetic choice of baselines to which reference must be had in most restorative agendas owing to the lack of hard data. See Andre Clewell & John P. Rieger, *What Practitioners Need from Restoration Ecologists*, 5 *RESTORATION ECOLOGY* 350, 350-53 (1997). Under real conditions, though, ecological restoration is usually something much less comprehensive than the removal of all traces of European civilization. JORDAN, *supra* note __ at 197. Of course, under the right circumstances, its aesthetic bases could align it with the political resilience of preservationism. See Colburn, *Localism’s Ecology*, *supra* note __ at *40-43.

²²⁷ See Colburn, *Indignity*, *supra* note __ at 431-36.

²²⁸ See Noss *et al.*, *supra* note __ at 235 (“Most of the studies documenting deleterious effects of fragmentation have been carried out in highly fragmented landscapes; in less fragmented landscapes, results are mixed.”); BENNETT, *supra* note __ at 5 (“In many ways, the acceptance of corridors as a concept for biodiversity conservation has outpaced scientific understanding and the collection of empirical data . . . on the requirements of species and communities and their potential use of linkages. . . . The explosion of interest in corridors has . . . become a contentious issue.”).

practices to permit adaptive management finally to work in habitat protection is still more art than science.²²⁹

But the fragmentation is at least as much an issue of law as one of fact.²³⁰ While property lines may be meaningless to the ecologist, they are of singular importance to landowners, agencies, and the constituencies and politics that control Washington.²³¹

Nevertheless, as experts came to the realization that virtually *every* kind of preserve eventually loses species diversity to extirpations,²³² the mistake in rejecting what I have called *inclusive conservation* became clear. Public lands law's rejection of conservation as more than a branch of economics²³³—its rejection of citizen conservation that fosters bonds to “ordinary” nature in ordinary places²³⁴ and rejection of a pragmatic conception

²²⁹ Noss *et al.*, *supra* note ___ at 239-40; *cf.* Ruhl, *supra* note ___ at 31 (“[T]here is good reason to doubt whether regulation by adaptive management is possible without substantial change in administrative law.”); Jamison E. Colburn, *Trading Spaces: Habitat Mitigation “Banking” Under Fish & Wildlife Service Policy*, 20 NAT. RES. & ENV. 33, 34 (Summer 2005) (arguing that bold institutional innovations like market mechanisms are needed in the protection of habitats for the very kinds of species for which little or no such innovation is occurring); Holly Doremus, *Lessons Learned, in* ESA AT THIRTY, *supra* note ___ at 195, 204 (“Frequently, little or no research or data collection effort is expended on a species until after it is listed. . . . [T]herefore, both the wildlife agencies and the regulated community are working almost in the dark.”).

²³⁰ Conservation biologists identify habitat fragmentation as the single most common and most significant alteration (often, degradation) of habitat. *See* Reed Noss *et al.*, *Habitat Fragmentation, in* PRINCIPLES OF CONSERVATION BIOLOGY at 213, (Martha J. Groom *et al.* eds., 2005). Fragmentation is both physical, *e.g.*, the creation of physical barriers to migration like roads, *etc.*, and jurisdictional, *e.g.*, the prerogative to manage land very differently across a mosaic of ownerships. But natural patchiness has been linked to species diversity by some research and, thus, understanding the nature of anthropogenic fragmentation and predicting its effects on overall habitat functionality is still on the frontiers of ecological research. *Id.* at 219 (“Spatial heterogeneity and patchy distributions of species in intact landscapes are fragmented, often confounding predictions of biotic responses to fragmentation. No two landscapes are likely to show identical trajectories of change.”).

²³¹ *See supra* notes ___ and accompanying text. It bears mentioning that the ESA speaks broadly of “species,” it limits its attention to those in the plant and animal kingdoms, its “take” prohibitions pertain only to animal species, *see* 16 U.S.C. § 1538(a)(1)(C), and its most intensive recovery programs have skewed tremendously toward “charismatic megafauna.”

²³² *See* Colburn, *Indignity*, *supra* note ___ at 431-36. “Preserves” in this sense include “critical habitat” under the ESA. Because the ESA presumptively limits such designations to “specific areas . . . occupied by the species, at the time it is listed,” 16 U.S.C. § 1532(5)(A)(i), restoration to presently unoccupied habitat is exceptional under the ESA. *See* Doremus, *Importance of Being Wild*, *supra* note ___.

²³³ *See supra* notes ___ and accompanying text.

²³⁴ *See supra* notes ___ and accompanying text.

of the nature/culture divide—all began to seem quite misguided.²³⁵ Yet, since 1964, this field of law has succeeded most certainly in sustaining conflict over the symbols and technical grounds raised by long-term planning—not in promoting effective deliberation about desirable conditions or finding and correcting its own errors.²³⁶

The bureaus and boundaries segregating our forests, parks, refuges, wilderness, and other lands are a lot like the distinctions we draw around the particular animals we afford moral standing: demonstrably arbitrary, but fixed and powerful nonetheless.²³⁷

The difference is that our strategic, conflict-defined national politics block the wide communication of these mistakes about public lands.²³⁸ Conservation advocates clearly

²³⁵ See, e.g., *Symposium: Environmental Restoration: Challenges for the New Millennium*, 42 ARIZ. L. REV. 183 (2000). Professor Keiter and many others dismiss, with a twinge of regret, the now-famous Quincy Library Group, an ad hoc coalition of local stakeholders from one county in the California Sierras that managed to piece together a *local* consensus-based land use strategy. QLG garnered national acclaim because it purported to harmonize extractive uses and habitat, doing so as a place-based, problem-solving body that worked directly with field office personnel in efforts to manage the local units of the national systems “collaboratively” and independent of centralized priorities. KEITER, KEEPING FAITH WITH NATURE, *supra* note __ at 274-310. And this was the cause of its eventual disfavor. “Put simply, its critics believe the Quincy group represents a narrow community of place, not an extended community of interests.” *Id.* at 293. That may be a logical outgrowth of Madison’s “extended republic” and the Constitution’s conception of federal authority itself. But it is also very a cynical picture of the very form of place-based conservation politics that has proven the most resilient, durable over the long run, and, potentially, the most effective. See JORDAN, *supra* note __ at __; Colburn, *Localism’s Ecology*, *supra* note __. Furthermore, it ignores the experimentalist virtues of allowing a multitude of such arrangements to develop in the hopes of one of them solving the basic problems confronting such localist initiatives. *Id.*

²³⁶ Thus, while local and regional initiatives lack the scale needed to achieve nationally significant goals, most of the top national players know they cannot prompt the agencies to actually protect system-wide biodiversity because of the means the agencies lack. See J. Michael Scott *et al.*, *Nature Reserves: Do They Capture the Full Range of America’s Biological Diversity?*, 11 ECOLOGICAL APPLICATIONS 999 (2001) (questioning whether geographic and physiographic characteristics of public lands reserves could even possibly be sufficient to prevent species loss); NOSS & COOPERRIDER, *supra* note __ at 205-19 (questioning the Forest Service’s capacity to practice ecological restoration but not its authority or justifications). Nevertheless, conflicts in public lands agencies have rarely been managed to enhance those agencies’ capacities. *Cf.* KEITER, KEEPING FAITH WITH NATURE, *supra* note __ at 148 (“Do we know enough about historical conditions or trajectories of environmental change to set reliable ecological goals? While there are few easy answers to these questions, they also cannot be avoided if ecological restoration is to play a meaningful role in the public land policy agenda.”); THOMAS, *supra* note __ at 20-26 (describing the deterrents to inter-agency cooperation that inhere in top-down organizational cultures).

²³⁷ See *supra* notes __ and accompanying text; *cf.* ROWLANDS, *supra* note __ at 32-54 (describing membership in a “moral club” which grants particular animals legal entitlements to humane treatment but which is irrationally selective in its membership).

²³⁸ See Doremus, *Best Available Science*, *supra* note __; Brunner & Clark, *supra* note __ at 49; Bosselman & Tarlock, *supra* note __ at __. Put the other way around, when all participants in a public debate lay

have no reason to undermine their own work in the public sphere by arguing that ecology rejects most of the assumptions underlying Progressive preservation.²³⁹ Of course, mistakes are an inevitable part of public life; their detection and correction is the only real object of institutional design. Yet developments in ecology and organizational science have remained peripheral to public lands law, probably because, much of the time, the developments present nothing of convenience to those few having access to the means of mass communication.²⁴⁰

Put differently, the *meaning* of the long history of bounded reserves, mistaken expert judgments on things like fire and predator suppression, and the differentiation of land systems—some of the major *causes* of broad-scale disturbance and species loss—is lost on conservation politics today notwithstanding its growing clarity to professionals.²⁴¹

claims to scientific support for their interests or passions, no participant has any incentive to educate undecideds about how science is actually carried out (or how often the “rational” departs from the “reasonable”) given the risk that doing so may only serve to dilute one’s own claim to authority. HABERMAS, *supra* note __ at 359-79.

²³⁹ Cf. SCHELLING, *supra* note __ at 5 (“To study the strategy of conflict is to take the view that most conflict situations are essentially *bargaining* situations. They are situations in which the ability of one participant to gain his ends is dependent to an important degree on the choices or decisions that the other participant will make.”).

²⁴⁰ This is probably not unique to the public lands agencies. Cf. Tarlock, *supra* note __ at 1307-18 (arguing that Army Corps of Engineers can “talk the talk” but “has trouble measuring the value of ecosystem services, deciding the right geographical planning and management scales for project planning and design, and is just [now] beginning to experiment with adaptive management.”) Nonetheless, had biogeographic science actually played a significant role in the public political debate that produced modern public lands law, the dilemmas Keiter and others have highlighted—what this article has called gridlock at the intersection of democracy and ecology—might never have arisen. As early as the mid-seventies, seminal papers setting out the core theses of conservation biology had been published, arguing that species transport and continued habitat fragmentation (physical and jurisdictional) would produce consistent patterns of extirpation. See Jared M. Diamond, *The Island Dilemma: Lessons of Modern Biogeographic Studies for the Design of Nature Reserves*, 7 *BIO. CONSERV.* 129 (1975); Daniel S. Simberloff & Lawrence G. Abele, *Island Biogeography Theory and Conservation Practice*, 191 *SCIENCE* 285 (1975); see also Michael E. Soule & Bruce A. Wilcox, *Conservation Biology: Its Scope and Its Challenge*, in *EVOLUTIONARY ECOLOGICAL PERSPECTIVE*, *supra* note __ at 1 (describing literature that had accumulated in the 1970s founding the field of conservation biology); HOLLING, *supra* note __.

²⁴¹ The PLLRC Report repeatedly acknowledged that “environmental factors” must play a role in land use planning and that “some uses, entailing severe, often irreversible, impacts, should be permitted only if a decision is based on a detailed study of their potential impact on the environment.” *ONE THIRD OF THE NATION’S LAND*, *supra* note __ at 80. So far as I could find, though, it never once highlighted the role agency actions had played in creating the disturbances of public lands ecologists today see as their chief

The heralded ideal of “ecosystem management” does almost no work in the actual practice of public lands governance because the public expects to be “served” by experts who are supposed to protect the public from itself—its factions and their abuses.²⁴² The national public cannot envision, and is never asked to *do*, what it will take to achieve ecosystem management, operating as it does on symbolism alone.²⁴³

Pragmatism cannot become an excuse not to innovate around the past’s mistakes. If our “stewards” have declined to take effective action against threats to biodiversity originating outside their own jurisdictions, that cannot become a reason to spend still more capital acquiring or proclaiming more or larger preserves.²⁴⁴ If the systems have

legacy. *But see* ROBINSON, *supra* note __ (detailing the role various government agencies played in waging an extermination campaign on predators); WILLIAMS, *supra* note __ at 486-87 (describing the gradual change of mind within the Forest Service on the role of fire in forestry and the rise of the belief that forestry practices of the early twentieth century had made many forest tracts more susceptible to various risks of catastrophic loss); KEITER KEEPING FAITH WITH NATURE, *supra* note __ at 113-26 (identifying the rise of “ecosystem management” ideals with the “coming of age” of public lands law in the 1980s and 1990s); COUNCIL ON ENVIRONMENTAL QUALITY, 21ST ANNUAL REPORT ON ENVIRONMENTAL QUALITY (1990) (same).

Today, even as more and more conservation practitioners acknowledge that land management planning, to be effective in protecting and restoring habitat, must extend beyond the boundaries of any particular reserve, must become deliberately experimental and capable of commandeering significant capital resources as needed, institutional adaptation has never been *less* of a priority within the Departments of Interior and Agriculture. *See* Tony Davis, *High Noon For Habitat*, HIGH COUNTRY NEWS, Feb. 20, 2006, at 8.

²⁴² Progressivism’s faith in expertise evolved from origins in organized, rational pursuits of the common good into a belief that “traditional democratic theory” and a sovereign public were “largely untenable.” *See* PURCELL, *supra* note __ at 11. Thus, as the common good was increasingly defined “in terms of knowledge, efficiency, and scientific planning,” *id.* at 25, social scientists and political theorists “began to analyze power as a central element in politics and to deny the importance of less tangible phenomena.” *Id.* And, thus, eventually the formalization of the land management systems and the issuance of more regulations having the force of law came to be identified with progress. “*By its very nature*, positive law serves to reduce social complexity. This has been brought home to us . . . by means of the “deidealizations” in virtue of which legal rules can compensate for the cognitive indeterminacy, motivational insecurity, and limited coordinating power of moral norms.” HABERMAS, *supra* note __ at 326 (emphasis in original). This is not necessarily incompatible with public “participation” in the setting of such norms, although it certainly confines such participation to a very limited form. *See* Rossi, *supra* note

²⁴³ *Cf.* Sunstein, *supra* note __ at 1739 (“[T]here is a familiar phenomenon of a comfortable and even emphatic agreement on a general principle, accompanied by sharp disagreement about particular cases.”).

²⁴⁴ The reticence is not because these agencies lack the requisite legal authority. *See* William J. Lockhart, *External Threats to our National Parks: An Argument for Substantive Protection*, 16 STAN. ENV. L.J. 3 (1997). Even when the Park Service has sought to restore habitat of the greater Yellowstone area’s grizzlies it has met stiff opposition—including from its ‘partner’ in the Interior Department, BLM. *See*

failed to articulate any central priorities based upon uniquely qualified insights for identifying desirable conditions in particular biomes, that cannot be a reason to legislate still more planning obligations.²⁴⁵ It certainly is no reason to deprive only *some* stakeholders of their rights of appeal with an empty plea for their trust.²⁴⁶

B. Toward A Decentralized Public Lands Law?

Tragically, as conservation scientists angle their work toward continuous adaptation and unbounded conservation, public lands law moves steadily toward prescribed procedural routines and ever-finer distinctions of use types, creating and reinforcing more fragmentation, normative discord, and unreasonable expectations of expertise.²⁴⁷ Quite perversely, while so much was being learned of the systemic effects of road-dependent development, mechanized extractive industry, fire and predator suppression, unmanaged recreational access, *etc.*, the nature held up in the public sphere as worth saving from humanity was still only the authentically wild, sublime nature.²⁴⁸

William J. Lockhart “*Faithful Execution*” of the Laws Governing Greater Yellowstone: *Whose Law? Whose Priorities?*, in THE GREATER YELLOWSTONE ECOSYSTEM: REDEFINING AMERICA’S WILDERNESS HERITAGE 49, 58-59 (Robert B. Keiter & Mark S. Boyce eds, 1991).

²⁴⁵ Restoration as a paradigm has always emphasized adaptive management and that, in turn, emphasizes the paramount importance of local knowledge. See Flournoy, *supra* note __ at 194-96 & n.34 (linking the rejection of “local practical knowledge” by “social engineers” to a failure to appreciate complex functioning orders and citing JAMES C. SCOTT, SEEING LIKE A STATE: HOW CERTAIN SCHEMES TO IMPROVE THE HUMAN CONDITION HAVE FAILED (1998)); *cf.* DOWIE, *supra* note __ at 251-57 (contrasting an environmentalism that is inherently centralizing with one that is inherently noncentralized).

²⁴⁶ HFRA and NEPA Task Force; refute Mortimer argument

²⁴⁷ See *supra* notes __ and accompanying text. The cumulative result, “atrophy of the public sphere,” comes about through the “insulation of the state from public demands . . . [t]hrough the passage of a largely symbolic and administratively discretionary bill [whereby] the political demand is transferred from the visible public arena to the less-visible bureaucratic agency.” BRULLE, *supra* note __ at 37.

²⁴⁸ The immovable focus on the “special” even in supposedly scientific conservation programs has been studied in depth. See Holly Doremus, *Biodiversity and the Challenge of Saving the Ordinary*, 38 IDAHO L. REV. 325 (2002); Colburn, *Indignity*, *supra* note __. What is less studied in public lands law are the strategic choices its stakeholders and activists have made in framing their campaigns for the special. As Professor Doremus has argued, “[w]e have a difficult time recognizing the strategy of the special as the source of the shortcomings of our policy because that strategy comes so naturally to us.” Doremus, *supra*,

On reflection, “adaptive-” and “ecosystem management” seem only to have appeared in public when they could serve as symbols with which to batter other stakeholders—long after they would have better integrated public lands law.²⁴⁹

The warped endgame is that the domain of laws like the ESA will continue to expand because truly integrative mechanisms of habitat connectivity are essentially foreclosed for too many species by any other means.²⁵⁰ Even supposing the local or regional managers of federal property units have the authority to manage them not as elements of their national “systems” but as locally situated, locally significant agents of

at 343. Future research in this field will take it as given that its stakeholders have strategic incentives to over-utilize the conservation/preservation dichotomy in public communications.

²⁴⁹ See Grumbine, *supra* note __ at 29 (linking the spread of talk about ecosystem management to “sociopolitical” trends and the fact that “many citizens are asking for less development of ecosystems and more protection and restoration.”); *cf.* Simberloff, *supra* note __ at 29 (“[One] attraction of the ecosystem is that it lends itself to . . . the glamor of turning ecology into space-age science, replete with the terminology of engineering and physics, [and this] must itself been a powerful inducement of the ecosystem approach, fitting hand-in-glove with the economic appeal.”). In the end, “[p]rivileged access to the sources of relevant knowledge makes possible an inconspicuous domination over the [public] cut off from these sources and placated with symbolic politics.” HABERMAS, *supra* note __ at 317. But this is a failing of the legal system, too. *Cf.* Sunstein, *supra* note __ at 1771 (“A key task for a legal system is to enable people who disagree on first principles to converge on outcomes in particular cases.”).

²⁵⁰ See Mark L. Shaffer *et al.*, *Proactive Habitat Conservation*, in *ESA AT THIRTY*, *supra* note _- at 286, 288-92; *cf.* NOSS & COOPERRIDER, *supra* note __ at 27 (“The continually expanding list of endangered species and ongoing degradation of entire ecosystems is proof enough that current approaches to conservation are flawed.”). Of course, while the ESA itself declares one of its purposes to be the creation of “means whereby the ecosystems upon which endangered species and threatened species may be conserved,” 16 U.S.C. 1531(b), “the agencies have never taken this ecosystem protection mandate seriously, and Congress has never told them how they might do so.” NOSS & COOPERRIDER, *supra* note __ at 27. What is perhaps surprising in this connection, though, is that some participants in the public lands law debate that preceded the ESA made the same point.

To conceive an ecosystems approach to public land policy, one must have first arrived at an ecological viewpoint toward the world of man and nature. But this is not the viewpoint from which pioneers, land speculators, farmers, miners, stockmen, lawyers, bankers, or local government officials, have commonly seen the land. To institute an ecosystems approach to public land policy, a great many other things besides land must be considered. An ecosystems approach is essentially a total systems approach. . . . It would impose constraints upon single purpose approaches to the environment and would arouse hostility among individuals whose single purpose pursuits would thereby be constrained.

Lynton K. Caldwell, *The Ecosystem as a Criterion for Public Lands Policy*, 10 NAT. RES. J. 203, 205 (1970). Even more ironically, some of the PLLRC’s own staff research had argued as much about public lands law. See Ira Michael Heyman & Robert H. Twiss, *Environmental Management of the Public Lands*, 1 ECOLOGY L.Q. 94, 132, 137-39 (1971).

landscape scale, regionally-constructive conservation,²⁵¹ there is little reason to think they have the financial or institutional support to do so.²⁵²

As statutory reform comes over the horizon, the paradox sharpens in our public lexicon of public lands. In stark contrast with what hit Washington from 1964-76,²⁵³ there has been (and likely will be) no real political muscle pushing the tradeoffs that must be made to protect more ordinary nature or to institutionalize adaptive management.²⁵⁴ Notwithstanding the advances in ecology and conservation biology,²⁵⁵ too many “environmentalists” still reject ecological restoration and too many still find leverage to be gotten by playing to latent hopes of saving the authentically wild. In the process, they reject a model of public lands that would uncouple them from professionals, national political capital, and legal procedure; a model that would put our parcels of public land in the hands of place-based volunteers and local definitions of desirable conditions and desirable regional ordering; a model for the incremental reintegration of humanity and nature.²⁵⁶

²⁵¹ This is obviously an agency-by-agency, statute-by-statute question. But, for example,

²⁵² Craig Thomas,

²⁵³ See supra notes __ and accompanying text.

²⁵⁴ See Mark T. Imperial, *Institutional Analysis and Ecosystem-Based Management: The Institutional Analysis and Development Framework*, 24 J. ENV. MGMT. 449 (1999) (describing the gradual rise of “ecosystem management” as a public policy); Grumbine, supra note __; Ruhl, supra note __ at 46-49.

²⁵⁵ See infra notes __ and accompanying text.

²⁵⁶ As a conservation strategy, restoration has been defined as everything done to a “landscape or ecosystem in an ongoing attempt to compensate for novel or “outside” influences on it in such a way that it can continue to behave or can resume behaving *as if* these were not present.” JORDAN, supra note __ at 22. It is this ideal—dependent as it is on active management and indifferent as it is to pedestalizing places that have had comparatively few “outside” influences—that was rejected by “environmentalists” in the formative period of public lands law 1964-76. That is a move some have cogently argued was “one of the defining mistakes of twentieth-century environmentalism.” Id. at 17.

C. Conclusions

With ideological conflict the norm and the preservation of the authentically wild being, in the public's mind, the saving of nature, public advocacy transcending the outmoded thinking of Progressivism remains rare. Even now when the full scope of the species loss pandemic is becoming clear, leading academics still stop on the "dilemma" of intermixed ownership and interspersed jurisdictions to critique the "failures" of Presidents and Congresses in not synthesizing truly *systematic* federal systems of public conservation.²⁵⁷ But a significantly different outcome from our constitutional system is scarcely imaginable. Once the political vocabulary was invented distinguishing "conservation" from "preservation," driving the legislation of our administrative state, the resulting patterns traced above were, if not inevitable, unsurprising. Too much of our legal culture is predicated on the perceived virtue of dividing land among atomized selves.²⁵⁸ That predicate has organized our public domain since the founding²⁵⁹ and Progressive era conservation only reinforced it with the confidence of expertise.²⁶⁰ The bold innovations that will turn this weakness into a strength for conservationism are still missing from the public debate about public lands law.

²⁵⁷ See KEITER, KEEPING FAITH WITH NATURE, supra note __ at 206-15; Robert L. Fischman, *The Problem of Statutory Detail in National Park Establishment Legislation and its Relationship to Pollution Control Law*, 74 DENV. U. L. REV. 779, 783 (1997) ("[T]he trend of increasing congressional management through establishment legislation thwarts efforts to manage the national park system as a *system* rather than a mere collection of lands."); Karkkainen, *Biodiversity and Land*, supra note __ at PINCITE; Tarlock, supra note __ at 1319-20 (critiquing the practice of congressional oversight of Corps of Engineers by appropriations earmarks and other project-specific legislation).

²⁵⁸ See supra notes __ and accompanying text.

²⁵⁹ See Raymond & Fairfax, supra note __; Appel, supra note __ at __.

²⁶⁰ "The breadth of power conferred by the Property Clause as presently interpreted suggests that Congress or the Executive could, if it wished, take a more protective approach to federal property despite otherwise applicable state law." Appel, supra note __ at 5. It can no longer be argued that the Constitution is holding the federal government back: the Property Clause houses more than enough authority to adopt such a restorative, integrative approach. Appel; Lockhart; FISCHMAN

Derek Walcott is reported to have once said that if you break a vase, “the love that reassembles the fragments is stronger than the love that took its symmetry for granted when it was whole.”²⁶¹ A real restoration agenda for public lands can only come from those volunteers and neighbors who work collectively to reassemble a whole through their love of place.

²⁶¹ Derek Walcott, *The Antilles: Fragments of Epic Memory* (Nobel Prize acceptance speech), NEW REPUBLIC, Dec. 28, 1992.