

The Fire Next Time: Land Use Planning in the Wildland/Urban Interface

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ABSTRACT—Wildfire is a growing threat to suburban and exurban communities, in part because fires have grown more severe and frequent as a result of land use and climatic influences and in part because more people are living in fire prone areas. The so-called Healthy Forest Restoration Act (HFRA), the federal government’s response to this crisis, is a deeply flawed statute that will likely exacerbate wildfire risks at the same time it makes real ecological restoration even harder. While HFRA took halting, partial steps toward the integration of broad and small scale land use planning, it was clearly still the outgrowth of a dysfunctional legislative process in Washington. Before the governance of public lands adapts completely to HFRA, this law should be overhauled (or repealed). I suggest targeted reforms to bring about more transparency, greater clarity on what we mean by “restoration,” and more attention to the trade-offs entailed by further expansion into the “wildland/urban interface.”

Wildfire and sprawl are ugly facts of life. Wildfire burns millions of dollars in homes and other structures every year, costs billions of dollars to contain, and kills both firefighters and civilians almost every year.¹ The costs of sprawl—the low-density occupation of landscapes by scattered residential and related uses—are no less familiar.² Because of our propensity to sprawl, though, we seem incapable of planning our land uses around wildfire. More troubling still is that public lands law has made virtually no room for fire as an element of the landscape. In fact, the longer our public lands law is

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¹ The 2003 fire season is credited with having catalyzed support in Congress for HFRA. See JACQUELINE VAUGHN & HANNA J. CORTNER, *GEORGE W. BUSH’S HEALTHY FORESTS: REFRAMING THE ENVIRONMENTAL DEBATE* (2005). That year, California watched as 750,000 acres and 3,719 homes burned, 24 people perished, and over \$100 million was spent trying to contain the blazes *in southern California alone*. *Id.* at 1.

² See, e.g., Michael Lewyn, *Five Myths About Sprawl*, 23 HARV. BLACKLETTER L.J. 81 (2007) (reviewing ROBERT BRUEGMANN, *SPRAWL: A COMPACT HISTORY* (2005)).

shaped by our so-called “Healthy Forests Restoration Act of 2003” (HFRA)³—the only federal statute pertaining to fire as a matter of land use—the less likely it becomes that we will *ever* plan for fire as a landscape-scale force of nature. HFRA is a deeply flawed statute, enacted five years ago through a dysfunctional legislative process. It has encouraged landowners to build their homes in harm’s way, encouraged communities to invest in more wildland sprawl, and increased the risks firefighters must face in trying to contain wildfire. In this Article, I make the case for the repeal—or at the very least the substantial overhaul—of HFRA. I make this case reluctantly, though, because HFRA was enacted in full view of its likely consequences. Few surprises have arisen from its implementation and the agencies administering it have behaved just as they did before the law. So the real question is why this statute was enacted at all. Saying who it benefited and how they could secure legislation with such extreme social costs is how our social sciences (and legal commentators) normally attack such a puzzle.⁴ The problem with that approach here is that there really is no public enemy who connived HFRA into existence—unless one counts abstractions like ‘private property’ or ‘local control.’ It was the product of our Congress and Presidency, pure and simple. The dominant accounts of “collective action failures” like HFRA falter when concentrated stakeholders, power elites, iron triangles, Prisoners’ dilemmas, and the like are all negligible-to-nonexistent.⁵ This may say more about the state of our social sciences than it does about

³ Pub. L. No. 108-148, 117 Stat. 1887 (2003), codified at 16 U.S.C. §§ 6501-6591.

⁴ See, e.g., JAMES M. BUCHANAN & GORDON TULLOCK, *THE CALCULUS OF CONSENT* (1962); AMARTYA SEN, *COLLECTIVE CHOICE AND SOCIAL WELFARE* (1970); Marci Hamilton, *Federalism and the Public Good: The True Story Behind the Religious Land Use and Institutionalized Persons Act*, 78 IND. L.J. 311 (2003).

⁵ See Steven P. Croley, *Theories of Regulation: Incorporating the Administrative Process*, 98 COLUM. L. REV. 1 (1998).

HFRA,⁶ but HFRA can teach us a lot about the state of our public lands law and, in particular, about the evolutionary juncture Congress and its agencies have reached in this age of ecology. Unfortunately, those lessons are no cause for celebration.

HFRA was a statutory scalpel. Its cuts were deep and likely representative of what we should expect from federal conservation law into the foreseeable future. Part I gives a brief overview of public lands law and its history of fire suppression in the United States. Parts II and III describe and situate HFRA within that context as a statute of seemingly modest aims which is shaping up to be extremely problematic. Finally, Part IV argues that HFRA can teach us a great deal about public lands law more generally. Those lessons fall into three categories. First, Americans divide over what constitutes *good* land use and a healthy landscape and we do not often heed the expert advice we get on land use when that advice is (characteristically) inconvenient and controvertible. Second, but related to the first, we lack a healthy culture of political argument for resolving our land use disputes, a deficit that is exacerbated enormously at the federal level. Lastly, administrative agencies like the Forest Service, Bureau of Land Management (BLM), and others,⁷ are not structurally suited to land use planning and stewardship in this context because they lack both the institutional capacity and the practical authority needed to do broad scale land planning that actually works. These lessons suggest how HFRA *ought* to be reformulated. But they do little to show how it *can* be absent exceptional political courage and leadership.

⁶ See *generally* IAN SHAPIRO, THE FLIGHT FROM REALITY IN THE HUMAN SCIENCES (2005); STEPHEN TOULMIN, THE RETURN TO REASON (2001); *infra* notes 87-90 and accompanying text.

⁷ HFRA was expressly confined in scope to those lands administered by either the Forest Service or the BLM. See 16 U.S.C. § 1502(1). Of course, the National Park Service, Fish and Wildlife Service and others also have their fire problems in what we now know as the “wildland/urban interface.” See Part III below.

I. OF FIRE AND PUBLIC LANDS IN THE TWENTIETH CENTURY

By the time public lands law turned to the reservation of land for permanent administration by the United States, fire suppression was already atop the land managers' priorities. In the 1890s and continuing to the fire season of 1910, the Forest Service—then still in its infancy—struggled to control the fire on its lands.⁸ From about 1910 onward, however, the Forest Service, soon to become a model among its peer agencies, became far more serious about, and proficient at, fire suppression across its lands. That organizational evolution progressed in parallel with the rise of modern public lands law and this Part summarizes their co-evolution.

A. Eradicating the Ineradicable

Whether an agency's mission was the cultivation of a continuous supply of timber or forage, the preservation of sublime wilderness, or the maintenance of preferred game populations for sportsmen, fire was viewed as a threat from the inception of public lands retention in the United States.⁹ Different agencies learned from the Forest Service how to structure themselves, their personnel, and their political postures, in order to best carry out broad scale missions like fire suppression.¹⁰ But fire suppression became a priority

⁸ See *generally* STEPHEN J. PYNE, YEAR OF THE FIRES: THE STORY OF THE GREAT FIRES OF 1910 (2001); STEPHEN J. PYNE, FIRE IN AMERICA: A CULTURAL HISTORY OF WILDLAND AND RURAL FIRE (1982). In 1910, almost 5 million acres of Forest Service lands burned and 78 firefighters perished. See Geoffrey H. Donovan & Thomas C. Brown, *Be Careful What You Wish For: The Legacy of Smokey Bear*, 5 FRONTIERS IN ECOL. 73, 74 (2007). According to Donovan and Brown, it was that fire season of 1910 more than any other that marked the agency's real turning point on fire suppression. *Id.*

⁹ Robert B. Keiter, *The Law of Fire: Reshaping Public Land Policy In an Era of Ecology and Litigation*, 36 ENVTL. L. 301, 304-08 (2006) (hereafter "Keiter, *Law of Fire*").

¹⁰ The Department of Agriculture and its component bureaus, like other agencies, began forming an institutional identity at the time, empowering them to develop politically and

for agencies like the Forest Service, Park Service, Biological Survey, and others well before the long-term consequences of fire suppression were fully appreciated. By the 1920s, every fire was viewed as a management failure, something to diagnose and prevent.¹¹ As the agencies became more expert at suppressing fire, the resources they committed to the enterprise grew, improving their effectiveness in the eyes of the public and in the eyes of Congress.

Little did they know, though, they were stepping onto a treadmill. Eradicating fire from a fire-adapted ecosystem is a temporary achievement at best and, the longer it is absent, the more likely it will return with a vengeance. Fuels are always building in such a system and either they burn periodically or they keep building—presumably to a breaking point of some kind.¹² Our landscapes were altered profoundly in the effort to eradicate the ineradicable, often to differing results depending on local conditions.¹³ Some forest types like Southwest ponderosa pine (adapted to frequent, low-intensity surface fires) are amenable to a range of fire suppression tactics. But they are also likely to change significantly as a result of suppression.¹⁴ Overall, the release of species that

managerially. See DANIEL P. CARPENTER, *THE FORGING OF BUREAUCRATIC AUTONOMY: REPUTATIONS, NETWORKS, AND POLICY INNOVATION IN EXECUTIVE AGENCIES, 1862-1928* (2001).

¹¹ See MICHAEL WILLIAMS, *AMERICANS AND THEIR FORESTS: A HISTORICAL GEOGRAPHY* 315-30, 344-52 (1989); DAVID A. CLARY, *TIMBER AND THE FOREST SERVICE* (1986); ROBERT B. KEITER, *KEEPING FAITH WITH NATURE: ECOSYSTEMS, DEMOCRACY, AND AMERICA'S PUBLIC LANDS* 136-41 (2003); JAMES G. LEWIS, *THE FOREST SERVICE AND THE GREATEST GOOD* 73-81 (2005).

¹² See U.S.D.A. FOREST SERVICE ET AL., *PROTECTING PEOPLE AND NATURAL RESOURCES: A COHESIVE FUELS TREATMENT STRATEGY* (February 2006) (hereafter "FUELS TREATMENT STRATEGY").

¹³ Severe, stand-replacing fires often result in profound habitat disturbance, uniquely disruptive changes to local human communities, watershed damage and surface water quality impacts, and other significant economic losses. See Michael P. Dombeck et al., *Wildfire Policy and Public Lands: Integrating Scientific Understanding With Social Concerns Across Landscapes*, 18 CONSERV. BIO. 883 (2004).

¹⁴ In some areas, the reintroduction of fire through prescribed burns has not restarted the natural regime very well, either. See Jon E. Keeley, *Fire Management Impacts on Invasive Plants in the Western United States*, 20 CONSERV. BIO. 375, 376-77 (2006) (describing invasions of cheat grass associated with prescribed burning).

become uncontrolled, landscape-scale agents of change across our forests, prairies, and deserts is writing another, related chapter.¹⁵ And climate change, of course, is complicating both trends.

Foresters and other land managers came to these realizations years ago, but the general policy of total fire eradication remained in place out of fear that “any admission of a positive role for fire would be confusing; the message that fire was sometimes good and sometimes bad was considered too sophisticated for the general public.”¹⁶ As early as the 1960s and as a rule by the 1970s, most professionals knew that the policy of wide scale fire suppression had been a serious mistake.¹⁷ Correcting the mistake was something else entirely, though. Reintroducing fire into disturbed systems was not only an unpredictable proposition; because of the stakes, it was a potentially catastrophic one.¹⁸

B. Process, Planning and Paralysis

At the same time professional resource managers were accepting the fact that fire suppression had been a monumental mistake, the National Forest System (NFS), National Park System (NPS), and the BLM’s lands were being cemented within a series of “organic” management laws. The NFS alone grew from the relatively modest aims of

¹⁵ See *generally* Keeley, *supra* note 14. The Sonoran desert, for example, is becoming an endangered ecosystem as buffelgrass (an African transplant brought by ranchers now excludes native cacti and burns routinely), takes it over. See Michelle Nijhuis, *Bonfire of the Superweeds*, 39 HIGH COUNTRY NEWS 15 (Aug. 20, 2007).

¹⁶ Donovan & Brown, *supra* note 8, at 75.

¹⁷ Dombeck *et al.*, *supra* note 13, at 886.

¹⁸ Professor Sellars tells the story of fire’s reintroduction into the Park Service’s management policies, many years before the Forest Service did so, through the gingerly use of prescribed burns in Sequoia National Park. See RICHARD WEST SELLARS, PRESERVING NATURE IN THE NATIONAL PARKS: A HISTORY 257-58 (1997).

“securing favorable conditions of water flows, and . . . furnish[ing] a continuous supply of timber,”¹⁹ to a 192 million acre, 155 unit aggregate being managed for “the long-term benefit for present and future generations.”²⁰ That gradual process of legislative accretion is often overshadowed by its milestones. Looking back on the full sweep of the twentieth century, though, two kinds of legislative prescriptions stand out as constants through the ups and downs. First, Congress repeatedly directed land managers to balance disparate land uses to the best of their abilities and to protect as many uses as they could, place by place.²¹ Second, Congress consistently relied on administrative procedures to resolve or dissolve pitched conflicts over management choices.²² Eventually, these two types of legislative mandates cornered the agencies into what the Forest Service famously called a “process predicament.”²³ Unable to marshal the expertise needed for all the treacherous balancing and lacking real guidance on what—besides everyone’s exhaustion—all the procedures were really *for*, the agencies too often found a lowest

¹⁹ Act of June 4, 1897, c. 2, § 1, 30 Stat. 34, codified at 16 U.S.C. § 475.

²⁰ 16 U.S.C. § 1609(a).

²¹ For accounts that collect and emphasize such legislative mandates, see Robert B. Keiter, *Preserving Nature in the National Parks: Law, Policy and Science in a Dynamic Environment*, 74 DENV. U.L. REV. 649 (1997); Charles Wilkinson & H. Michael Anderson, *Land and Resource Planning in the National Forests*, 64 ORE. L. REV. 1 (1985); Robert Glicksman & George C. Coggins, *Federal Recreation Land Policy: The Rise and Decline of the Land and Water Conservation Fund*, 9 COLUM. J. ENVTL. L. 125 (1984); George C. Coggins, *Of Succotash Syndromes and Vacuous Platitudes: The Meaning of “Multiple Use, Sustained Yield” for Public Land Management (Part I)*, 53 U. COLO. L. REV. 229 (1982); John D. Leshy, *Wilderness and Its Discontents: Wilderness Review Comes to the Public Lands*, 1981 ARIZ. ST. L.J. 361.

²² “Public participation” is one of the most frequently analyzed concepts in forestry today. See William D. Leach, *Public Involvement in USDA Forest Service Policymaking: A Literature Review*, 104 J. FORESTRY 43 (2006). For accounts that collect and emphasize such legislative mandates, see Richard Lazarus, *Environmental Law and the Supreme Court: Three Years Later*, 19 PACE ENVTL. L. REV. 658 (2002); Bradley C. Bobertz & Robert L. Fischman, *Administrative Appeal Reform: The Case of the Forest Service*, 64 U. COLO. L. REV. 371 (1993); JULIA M WONDOLLECK, PUBLIC LANDS CONFLICT AND RESOLUTION: MANAGING NATIONAL FOREST DISPUTES (1988).

²³ See Jamison E. Colburn, *The Indignity of Federal Wildlife Habitat Law*, 57 ALA. L. REV. 417 (2005).

common denominator of (1) zoning different land uses into discrete districts, (2) trimming and/or avoiding established procedures whenever possible, while (3) underinvesting in monitoring, benchmarking, and organizational reform.²⁴

The Bush Administration, of course, aimed to upset this equilibrium. HFRA was its first—and, as it turns out, also its last—*legislative* salvo in that assault.²⁵ (The courts have yet fully to decide the fate of all its administrative maneuvers.²⁶) Convinced that too much was being spent on appeals and process, determined to continue extractive uses like logging and drilling,²⁷ and bolstered in 2002 with a Republican majority in both houses of Congress, the Administration pushed hard on its plans to overhaul public lands law. The National Environmental Policy Act (NEPA) was its primary target. NEPA practice has long weathered serious critique from many quarters.²⁸ Perhaps the most powerful critique, though, is the simplest: NEPA is a readily enforceable statutory duty

²⁴ See Jamison E. Colburn, *Habitat and Humanity: Public Lands Law in the Age of Ecology*, 39 ARIZ. ST. L.J. 145 (2007).

²⁵ See Robert B Keiter, *Breaking Faith With Nature: The Bush Administration and Public Land Policy*, 31 J.L. RES. & ENVTL. L. (forthcoming 2008).

²⁶ A district court remanded the Administration's overhaul of the Forest Service's National Forest Management Act (NFMA) planning rules as contrary to NEPA and the Administrative Procedure Act. See *Citizens for Better Forestry v. U.S. Dept. of Agric.*, 481 F.Supp.2d 1059 (N.D. Cal. 2007). The Forest Service announced that it would reconsider and re-promulgate the planning rules and complete an Environmental Impact Statement for them rather than appeal. See Forest Service, Notice of Proposed Rule, National Forest System Land Management Planning, 72 FED. REG. 48514 (2007).

²⁷ Extractive uses had, in the decades preceding the second Bush administration, declined significantly across every public land system in the nation. See Jan G. Laitos & Thomas A. Carr, *The Transformation on Public Lands*, 26 ECOLOGY L.Q. 140 (1999) (gathering the statistical evidence showing a massive shift in all land systems toward recreation as the dominant commodity use of public lands).

²⁸ See, e.g., JAY AUSTIN ET AL., *JUDGING NEPA: A "HARD LOOK" AT JUDICIAL DECISIONMAKING UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT* (2004) (observing significant correlation between judges' party of appointment and judgments in NEPA litigation). One article in particular that further disenchanting many with contemporary NEPA practice was Bradley C. Karkkainen, *Toward a Smarter NEPA*, 102 COLUM. L. REV. 903 (2002) (hereafter Karkkainen, "*Smarter NEPA*"). Karkkainen maintained that the full-dress environmental impact statement (EIS) has become, in essence, a "penalty default" that action agencies typically seek to avoid and that drives them to innovate in doing so. See also Bradley C. Karkkainen, *Information-Forcing Environmental Regulation*, 33 FLA ST. U. L. REV. 861 (2006).

requiring prediction, not knowledge production.²⁹ Its requirement that our agencies conduct analyses of choices and try to forecast possible futures arguably makes us “paper-rich but information-poor.”³⁰ The “NEPA process”—wherein planning and project-level decisions both involve mandatory environmental reviews—constituted much of the Forest Service’s “process predicament.”³¹ NEPA’s notorious mandate to predict the unpredictable, in short, is (1) much of what aligns public land managers (and the Bush Administration) against this icon of conservation, and (2) a flawed vehicle for ecological restoration. Our agencies possess many forms of expertise. But even expert predictions are of limited utility when complex systems are at issue. Predicting the behavior of ecosystems where fire has been suppressed demonstrates the point unequivocally.³² Thus, HFRA’s boldest and most controversial ‘reform’ may have been its abbreviation of NEPA’s analytical requirements with respect to “hazardous fuel

²⁹ NEPA’s approach to uncertainty is perennially debated, some arguing the statute itself is flawed and some arguing the CEQ guidelines and judicial interpretations of the Act are flawed. See Nicholas Yost, *NEPA’s Promise—Partially Fulfilled*, 20 ENVTL. L. 533 (1990).

³⁰ Karkkainen, *Smarter NEPA*, supra note 28, at 909. The one retrospective accuracy audit of NEPA documents to date concluded that, from how most are framed, it is impossible to test their accuracy. See PAUL J. CULHANE, ET AL., *FORECASTS AND ENVIRONMENTAL DECISIONMAKING: THE CONTENT AND PREDICTIVE ACCURACY OF ENVIRONMENTAL IMPACT STATEMENTS* (1987).

³¹ See USDA Forest Serv., *The Process Predicament: How Statutory, Regulatory, and Administrative Factors Affect National Forest Management* 7-10, 32 (June 2002) (copy on file with author) (hereafter “*Process Predicament*”).

³² See, e.g., RUSSELL T. GRAHAM ET AL., *THE EFFECTS OF THINNING AND SIMILAR STAND TREATMENTS ON FIRE BEHAVIOR IN WESTERN FORESTS* (1999) (Forest Service & BLM PNW-GTR-463) (documenting severe uncertainties about fuel treatment strategies); Sharon Hood & Barbara Bentz, *Predicting Postfire Douglas-Fir Beetle Attacks and Tree Mortality in the Northern Rocky Mountains*, 37 CAN. J. FOR. RES. 1058 (2007) (documenting conflicting evidence that tree size and age structure influence vulnerability to post-fire beetle infestations and suggesting that length of time forests are monitored following fire event may be the most significant predictor); Keeley, supra note 14, at 379-82 (documenting rise in fire frequency in some ecosystems that is allowing more successful invasions of alien plant species); Julie E. Korb et al., *Different Restoration Thinning Treatments Affect Level of Soil Disturbance in Ponderosa Pine Forests of Northern Arizona, USA*, 25 ECOL. REST. 43 (2007) (studies of various disturbances including fire and mechanical thinning show conflicting evidence of effects on soil layer integrity).

reduction projects” (HFRPs), something the Administration had sought even before legislative authorization was given.³³

Its biggest impact, though, is likely to be less tangible: it is helping change how our land management agencies view themselves and their roles as keepers of public land. As in other fields, the analytical burdens of planning land uses without hard data have steered managers into relying more and more on modeling. Facing a universe of possibilities across vast territories, models generated on limited information are attractive to agencies that cannot actually achieve “comprehensive rationality.”³⁴ This is rather alarming to many given the tendency of model-based predictions to fail and fail miserably.³⁵ Still, it is the sacrifice our land management agencies have been choosing under their circumstances. Freed of NEPA’s yoke in more and more contexts,³⁶ the

³³ Some of Forest Service’s recent uses of categorical exclusions—for example, excluding “salvage” timber harvests of a certain size—have been upheld against challenges. See, e.g., *Utah Envtl. Congress v. Bosworth*, 370 F.Supp.2d 1157 (D. Utah 2005). Many have been invalidated. See, e.g., *Sierra Club v. Bosworth*, 510 F.3d 1016 (9th Cir. 2007) (invalidating categorical exclusion of all fuel reduction projects under 1,000 acres and prescribed burn projects under 4,500 acres). And other “reforms” seeking to build on categorical exclusions by, for example, eliminating appeal rights on excluded projects, have been invalidated, as well. See, e.g., *Earth Island Inst. v. Ruthenbeck*, 459 F.3d 954 (9th Cir. 2006). Of course, the NEPA guidelines on categorical exclusions rely heavily on the review of proposed categorical exclusions by the Council on Environmental Quality—a political extension of the President. See 40 C.F.R. §§ 1507.3(2)(ii), 1508.4. See *Colorado Wild et al. v. U.S. Forest Service*, 435 F.3d 1204, 1211-12 (10th Cir. 2006).

³⁴ See James D. Fine & Dave Owen, *Technocracy and Democracy: Conflicts Between Models and Participation in Environmental Law and Planning*, 56 HASTINGS L.J. 901 (2005); Robert L. Glicksman, *Bridging Data Gaps Through Modeling and Evaluation of Surrogates: Use of the Best Available Science to Protect Biological Diversity Under the National Forest Management Act*, 83 IND. L.J. (forthcoming 2008).

³⁵ See ORRIN H. PILKEY & LINDA PILKEY-JARVIS, *USELESS ARITHMETIC: WHY ENVIRONMENTAL SCIENTISTS CAN’T PREDICT THE FUTURE* (2007).

³⁶ See, e.g., *Ohio Forestry Ass’n v. Sierra Club*, 523 U.S. 726 (1998); *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332 (1989). The Energy Policy Act of 2005 alone included five new categorical exclusions from NEPA. See Pub. L. No. 109-58, § 390, 119 Stat. 747 (2005), *codified at* 42 U.S.C. § 15942.

analyses the agencies have been generating when confronting their choices are etiolated, model-driven versions of what they learned from NEPA.³⁷

Models, however, have a tendency to disguise uncertainties and to construct superficially rational pictures of exceedingly complex choice situations. Once the resources are sunk into building a model, moreover, its founding assumptions and predictive aims too often become ends in themselves—they drive behavior as much or more than the uncertainties with which they are supposed to cope.³⁸ The Forest Service and BLM have been developing wildfire and fuel models, most notably a model-driven system named LANDFIRE, to assess and compare risks.³⁹ Yet they are still not enabling risk-based decisionmaking and, indeed, seem to be departing further and further from that ideal under the organizational umbrellas they have opened. These agencies operate at scales that necessitate model-based approaches to land planning—even where the stakes

³⁷ See Glicksman, *supra* note 34. NEPA's lessons to agencies have been numerous, but one lesson always stands out: bullet-proofing documents by including all information on hand—whether useful or not—so as to avoid having to do *more* information gathering and/or analysis under subsequent court order. See Karkkainen, *Smarter NEPA*, *supra* note 28, at 922.

³⁸ See PILKEY & PILKEY-JARVIS, *supra* note 35, at 186-92.

³⁹ See GAO Report to Congressional Requesters: Wildland Fire Management at 5-6 (GAO-07-655) (hereafter “GAO Report”); see also GAO Testimony Before the Subcommittee on National Parks, Forests and Public Lands, Committee on Natural Resources, Wildland Fire Management: A Cohesive Strategy and Clear Cost-Containment Goals are Needed for Federal Agencies to Manage Wildland Fire Activities Effectively at 6 (GAO-07-1017T) (hereafter “GAO Testimony”). GAO noted, for example, that while agency officials said “they recognize the importance of ensuring that data are periodically updated and are developing a plan to operate and maintain [LANDFIRE],” no such plan has been finalized. *Id.* The Forest Service's own Inspector General, auditing its implementation of HFI in September of 2006, concluded that LANDFIRE, even as planned, would not adequately guide line personnel attempting to prioritize between HFRPs and that the current measures for allocating appropriations, *i.e.*, overall number of acres treated, distort the risk/benefit analyses being done. See U.S. Dept. of Agric., Office of Inspector General, Audit Report: Implementation of the Healthy Forests Initiative at 5-7 (Report No. 08601-6-AT) (Sept. 2006) (hereafter “OIG Report”) (copy on file with author).

are as high as they are in wildfire management. Part II pulls apart the causes of this paradox and what it means for land use planning in the wildland/urban interface.

II. MORAL DIVERSITY IN THE REGULATORY STATE: ECOLOGICAL RESTORATION TODAY

Legal change is overwhelmingly a legislative phenomenon today. But our legislatures are becoming contrived, even deceptive environments. Our society's ambivalence about most appeals to virtue, combined with our utter failure to nurture a political discourse that is at once both sincere and able to handle truly divisive issues like sprawl, are creating real troubles for our democracy. These troubles are eased very little by the injection of expertise or expert advice.⁴⁰ HFRA is as good a case study as any. Section A traces the path HFRA took to enactment and what it demonstrates about lawmaking on issues like land use and natural resources today, issues that are both complex and morally charged. Section B locates this case study of HFRA in a larger context of our changing conceptions of legal authority and moral diversity as we seek to implement a restorative agenda.

A. Deliberate Abstraction: 'Restoration' in Reality

Legislation today is more often powered by pragmatism than it is by democratic will. HFRA was enacted in late 2003 by a 2-1 margin in the House (286-140) and a 6-1

⁴⁰ Compare MICHAEL J. SANDEL, *DEMOCRACY'S DISCONTENT: AMERICA IN SEARCH OF A PUBLIC PHILOSOPHY* (1996) (critiquing liberalism's ambition of scrubbing the public sphere of direct appeals to values or virtues), with John Rawls, *The Idea of Public Reason Revisited*, in JOHN RAWLS: COLLECTED PAPERS 573 (Samuel Freeman ed., 1999) (articulating an ideal of "public reason" in light of the fact of reasonable pluralism and equal concern and respect for persons that does not require any public justification to rest on premises someone could reasonably reject).

margin in the Senate (80-14).⁴¹ But it was hardly the bi-partisan sweep of reform that that might suggest.⁴² Indeed, the margin may have been because 2003 was the high water mark of “Luntz-speak” in Washington⁴³—where nothing is as it sounds—more than it was a moment of renewal for public lands law. This legislation, as Section B explains more fully, entwined the administrative and legislative processes in a way that, improbably, made them even more opaque and dysfunctional than normal. First, HFRA stamped congressional imprimatur on an administrative document, “A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment,” placing it *and its subsequent revisions* in the role of master plan for fire risk reduction.⁴⁴ That HFRA did so shows a legislature willing to defer to administrators and local people, perhaps. But the content of this plan—or the lack thereof—inspires little confidence that Congress’s deference was either informed or warranted. The *Implementation Plan* embodies an agreement to agree reached by an ad hoc “Wildland Fire Leadership Council” (WFLC). It does not record shared priorities among the signatories; the goals it mentions are vague and indeterminate. Indeed, this aspect of HFRA may be the next

⁴¹ Toddi A. Steelman & Caitlin A. Burke, *Is Wildfire Policy in the United States Sustainable?*, 105 J. FORESTRY 67, 68 (2007).

⁴² Cf. Keiter, *Law of Fire*, supra note 9, at 344 (“Judging from HFRA’s declared purposes, Congress perceives fire primarily as a political rather than ecological matter.”).

⁴³ See VAUGHN & CORTNER, supra note 1, at 12 (observing that U.S. environmental policy had gone from being inspired by *Silent Spring* to being sleazed by “Luntzspeak,” named for Frank Luntz, a Republican political consultant famous for “reframing” issues by popularizing tendentious phrasings). Luntz’s version of political discourse is diagrammed in FRANK LUNTZ, WORDS THAT WORK: IT’S NOT WHAT YOU SAY, IT’S WHAT PEOPLE HEAR (2007).

⁴⁴ HFRA requires that all authorized projects be consistent with the “Implementation Plan” (which it defines as including the May 2002 version of the document and its “subsequent revisions”). See 16 U.S.C. § 6511(11). The stakeholders—banded together in something called a “Wildland Fire Leadership Council” (WFLC)—released a subsequent revision in 2006. See A COLLABORATIVE APPROACH FOR REDUCING WILDLAND FIRE RISKS TO COMMUNITIES AND THE ENVIRONMENT (December 2006) (hereafter “IMPLEMENTATION PLAN”) (copy on file with author). This WFLC consists of the Secretaries of Agriculture and Interior and their representatives, various Western governors, tribal leaders, professional foresters, and local officials. *Id.* at 3.

evolutionary step for legislation in the modern state: in and of itself, HFRA’s investiture of authority in the *Implementation Plan* decided nothing, planned nothing, guided no one toward definite action *and deputized an indeterminate, ad hoc entity to change it all at will.*⁴⁵ The most mature outgrowth of this set-up to date, a so-called “cohesive fuels treatment strategy,” acknowledges that “[f]ires become more costly when homes are involved,” but provides no guidance whatsoever to stakeholders or field personnel on where the WUI should stop and ecosystem “restoration” should begin.⁴⁶

Second, the centerpiece of the Act, the HFRP, is defined only by reference to the *Implementation Plan*’s glossary entry on “appropriate tools.”⁴⁷ “Fuel reduction” can be anything from pruning trees to prescribed burns to logging burned-over areas on the theory that their full restoration requires it.⁴⁸ The provable benefits of some of these projects are nil—or even possibly outweighed by their costs.⁴⁹ Not surprisingly, thus, the “collaboration” this *Implementation Plan* encourages, and which HFRA enables

⁴⁵ That moves like this are the evolutionary perfection of contemporary legislation has been argued by many. See, e.g., DAVID SCHOENBROD, *SAVING OUR ENVIRONMENT FROM WASHINGTON: HOW CONGRESS GRABS POWER, SHIRKS RESPONSIBILITY, AND SHORTCHANGES THE PEOPLE* (2005).

⁴⁶ See *FUELS TREATMENT STRATEGY*, *supra* note 12, at B-8. *But cf. id.* “Urban and suburban community expansion into rural areas placed valuable human improvements across a landscape that now burns much more severely than historically.”

⁴⁷ 16 U.S.C. § 6511(2) (“The term “authorized hazardous fuel reduction project” means the measures and methods described in the definition of “appropriate tools” contained in the glossary of the *Implementation Plan* . . .”).

⁴⁸ This is a “theory” because post-fire regeneration by different tree species and forest types remains enshrouded in considerable doubts. See *supra* note 31.

⁴⁹ A principal field of debate concerns the “salvage logging” project wherein a burned area is logged, ostensibly on the theory that restoration by mechanical planting and removal of dead or at-risk trees improves the regenerative prospects of the treated area. The science behind these predictions is nascent, though, and has caused conflagrations of its own. See, e.g., Erin Halcomb, *Weathering the Academic Storm*, 39 *HIGH COUNTRY NEWS* 6 (May 28, 2007) (describing the storm over Oregon State Ph.D. student’s fieldwork studying conifer regeneration after Oregon’s Biscuit Fire and finding greater regeneration rates than was normally assumed which resulted in tremendous pressures from the logging industry, the Oregon legislature, and other stakeholders favoring “salvage” logging).

notwithstanding the Federal Advisory Committee Act,⁵⁰ has already generated ill will and accusations of exclusionary motives.⁵¹ What the *Implementation Plan* says is that the signatories all hope to “improve fire prevention and suppression,” “reduce hazardous fuels,” “restore fire adapted ecosystems,” and “promote community assistance.”⁵² Where, when, and how they intend to meet these goals, however, remains a mystery.⁵³ Of course, pursuing such goals across a real landscape is the sort of challenge that the median voter in Congress was unlikely to confront willingly.⁵⁴ How to reduce fuels in the same place one is restoring fire-adapted ecosystems without either excluding people from that landscape or putting them in jeopardy remains deeply unclear even among experts.⁵⁵ And high profile failures like the Cerro Grande fire of 2000—a prescribed

⁵⁰ See 16 U.S.C. § 6513(b)(2).

⁵¹ See, e.g., *Wildwest Institute v. Bull*, 472 F.3d 587, 590 (9th Cir. 2006) (allegations that HFRA project was selected through a “pattern and practice of selective inclusion and exclusion” of stakeholders by Forest Service).

⁵² IMPLEMENTATION PLAN, *supra* note 44, at 9-19.

⁵³ HFRA requires all its authorized projects to follow the *Implementation Plan*. See 16 U.S.C. § 6512(a) (“As soon as practicable after the date of enactment of this Act, the Secretary shall implement authorized hazardous fuel reduction projects, consistent with the Implementation Plan”); *id.* at 6513(a) (“In accordance with the Implementation Plan, the Secretary shall develop an annual program of work for Federal land that gives priority to [projects] that provide for the protection of at-risk communities or watersheds or that implement community wildfire protection plans.”). But the plan itself is a loosely structured framework that mentions “performance measures” and measurable goals without actually setting any. It instead touts a “three tiered organizational structure [that] facilitates collaboration among governments and stakeholders at the local, state, regional and national levels.” IMPLEMENTATION PLAN, *supra* note 44, at 5.

⁵⁴ Legislators familiar with these issues and the trade-offs they entail would be the consummate specialists on any account. How and why nonspecialists vote for bills like HFRA, however, has divided political scientists profoundly. See Keith Krehbiel, *Legislative Organization*, 18 J. ECON. PERSP. 113 (2004) (describing and comparing different models of legislative process and modes of organization).

⁵⁵ Even managers who agree that prescribed burning is the preferred restorative technique have proven unwilling to experiment with it where fire means even moderate risks to homes or human life. See Lynne A. Maguire & Elizabeth A. Albright, *Can Behavioral Decision Theory Explain Risk-Averse Fire Management Decisions?*, 211 FOR. ECOL. & MGMT. 47 (2005). Consequently, “both public forest management organizations . . . and private forest management organizations . . . have fallen far short of their goals for treating forested areas with prescribed fire.” *Id.* at 48.

burn set by the National Park Service in hopes of restoring the fire regime on its land, which quickly escaped and burned into Los Alamos, New Mexico⁵⁶—dominate people, cognitively.⁵⁷

This all goes beyond legislative (or administrative) reactions to bounded rationality. Restoration that entails real risks has precious few advocates. But do the shortcomings of our legislated steps toward ecosystem restoration diminish them in some way? Conceivably, their authority is diminished.⁵⁸ Basic questions like this are hardly ever asked. Yet what is the *practical authority* of a law like HFRA and the agencies implementing it? One could argue that, next to the public lands statutes of the past, HFRA pales by comparison.⁵⁹ This might not be that much of a surprise: “restoration” of damaged ecosystems is an agenda with no beginning, no end, few champions, and mixed moral implications.⁶⁰ When we speak of environmental restoration, we do so without any meaningful consensus on its purpose or point.⁶¹ Indeed, citizens divide sharply over any environmental philosophy of restoration, usually choosing instead to worship the

⁵⁶ See Sara Elizabeth Jensen, *Policy Tools for Wildland Fire Management: Principles, Incentives, and Conflicts*, 46 NAT. RES. J. 959 (2006).

⁵⁷ See Maguire & Albright, *supra* note 55, at 48.

⁵⁸ Cf. JÜRGEN HABERMAS, BETWEEN FACTS AND NORMS: CONTRIBUTIONS TO A DISCOURSE THEORY OF LAW AND DEMOCRACY (William Rehg trans. 1998) (arguing that legislation is only legitimate when it is the product of autonomous, informed choice by legitimate electors).

⁵⁹ See, e.g., Keiter, *Law of Fire* *supra* note 9, at 365-78.

⁶⁰ Cf. JULIANNE LUTZ NEWTON, ALDO LEOPOLD’S ODYSSEY (2006) (tracing this reality throughout the thought of one of the twentieth century’s principal environmental philosophers, Aldo Leopold).

⁶¹ This is not to say that restorationists have yet to articulate its point—only that our society has yet fully to embrace it. See WILLIAM R. JORDAN III, THE SUNFLOWER FOREST: ECOLOGICAL RESTORATION AND THE NEW COMMUNION WITH NATURE (2003). But it remains to be seen whether restorationists can develop “clear, commonly agreed on endpoints” or “simple formulas for judging outcomes” given their conception of nature as inherently dynamic and rearrangeable. Joy B. Zedler, *Success: An Unclear, Subjective Descriptor of Restoration Outcomes*, 25 ECOL. RESTOR. 162 (2007).

opposing symbols of “preservation” or “conservation.”⁶² A federal statute purporting to *restore* “healthy forests” on our public lands would have to reinvent our public lands law and public lands agencies—indeed, reinvent civil society’s whole vocabulary enveloping them.⁶³ Such restoration would aim to correct centuries of mistakes and abuse. To do so, it would have to imagine a new institutional architecture that would allow landscape scale processes like fire to operate on, and possibly reorder, highly fragmented and heavily disturbed landscapes. HFRA, of course, did nothing of the sort. It contorted legislative and administrative authority into a noxious mixture that only our federalism, pinned beneath the shibboleths of “private property” and “local control,” could have generated.

B. A Healthy Forests ‘Initiative’ Into the Healthy Forests Restoration Act

The last three Presidents have learned hard lessons about wildfire. In their administrations, the Forest Service and the Interior Department have confronted devastating fire seasons in which human lives have been lost while billions were spent trying to forestall the worst. In the fall of 2000, the Secretaries of Interior and Agriculture presented a report to President Clinton calling for a 10 year, \$10 billion “National Fire Plan” to cope with the looming crisis of wildland fire.⁶⁴ By 2003, the

⁶² See Colburn, *Habitat and Humanity*, supra note 24, at 195-205.

⁶³ See generally Colburn, *Habitat and Humanity*, supra note 24.

⁶⁴ See MANAGING THE IMPACT OF WILDFIRES ON COMMUNITIES AND THE ENVIRONMENT: A REPORT TO THE PRESIDENT IN RESPONSE TO THE WILDFIRES OF 2000 (Sept. 8, 2000) (hereafter “REPORT TO THE PRESIDENT”) (copy on file with author). That year, some 123,000 fires burned more than 8.4 million acres (twice the ten year average) and the federal government alone spent over \$2 billion fighting the fires. National Environmental Policy Act Documentation Needed For Fire Management Activities; Categorical Exclusions, 67 Fed. Reg. 77038, 77039 (2002) (hereafter “Fuels CE”).

George W. Bush Administration had adopted a suite of administrative changes,⁶⁵ including new “categorical exclusions” from NEPA for qualified fuels treatment projects⁶⁶ and a new bar on administrative appeals of covered projects,⁶⁷ and had “streamlined” the consultation process for actions impacting species protected by the Endangered Species Act.⁶⁸ These moves all framed the legislation that would become HFRA. Bush’s “Healthy Forests Initiative” was announced at the height of the fire season in 2002 and directed “the Departments of Agriculture and Interior and the Council on Environmental Quality to improve regulatory processes to ensure more timely decisions, greater efficiency, and better results in reducing the risks of catastrophic wildfires by restoring forest health.”⁶⁹ This would soon form the core of HFRA: fund fuel reduction projects on public and private lands in areas having the highest potential for catastrophic wildfire and fast track those projects through otherwise applicable legal procedures.⁷⁰ The agencies themselves played perhaps the biggest role in publicizing the risks of wildfire and the need for fast track authority.⁷¹

⁶⁵ The most significant change was the Administration’s replacement of the planning rules under the National Forest Management Act (NFMA), struck down in *Citizens for Better Forestry v. U.S. Dept. Agric.*, 481 F. Supp.2d 1059 (N.D. Cal. 2007).

⁶⁶ See Fuels CE, 67 Fed. Reg. at 77040-42.

⁶⁷ See Notice, Comment, and Appeal Procedures for National Forest System Projects and Activities (Appeal Rule), 68 Fed. Reg. 33582 (2003).

⁶⁸ See Department of the Interior and Department of Commerce, Joint Counterpart Endangered Species Act Section 7 Consultation Regulations, 68 Fed. Reg. 68254 (2003).

⁶⁹ 67 Fed. Reg. at 77039.

⁷⁰ See Keiter, *Law of Fire*, supra note 9, at 344-50 (calling this the core of HFRA).

⁷¹ See VAUGHN & CORTNER, supra note 1, at 137-42.

There are plenty of reasons to question these “reforms.”⁷² Perhaps as conciliation, HFRA included a cap on the acreage that could be treated with authorized HFRPs (20 million acres)⁷³ and prohibited HFRPs from wilderness areas and wilderness study areas.⁷⁴ The much more daunting prospect, though, is that HFRA solidified a situational strategy into its own feedback loop around wildfire and sprawl. HFRA directed the Forest Service and BLM to target at least half of their wildfire work into the “wildland/urban interface” (WUI)⁷⁵ and, within the WUI, to give priority to those communities having “Community Wildfire Protection Plans” (CWPPs).⁷⁶ Communities in fire prone areas therefore have an incentive to create a CWPP: it brings them federal dollars for expensive work that (ostensibly) reduces their local wildfire risks.⁷⁷ Yet HFRA’s only firm requirements of CWPPs is that they be developed “within the context of the collaborative agreements and the guidance of” the WFLC and be “agreed to by the applicable local government, local fire department, and state agency responsible for

⁷² Several noted experts have critiqued HFRA from different angles. Professor Keiter puts HFRA together with other Bush Administration initiatives on public lands and concludes that their overall impact is “to reduce environmentally-oriented prescriptive standards, and thus provide agency officials with greater management flexibility by eliminating judicial review opportunities.” Keiter, *Law of Fire*, supra note 9, at 350. Vaughn and Cortner make the case that a larger agenda was advanced by the Bush Administration in enacting HFRA through deceptive rhetoric and manufactured crises—“[s]ynecdoches . . . used to generalize from one incident to a pattern of problems, regardless of accuracy.” VAUGHN & CORTNER, supra note 1, at 142.

⁷³ See 16 U.S.C. § 6512(c).

⁷⁴ See 16 U.S.C. § 6512(d)(1)-(3).

⁷⁵ Part III lays out the legal geography of the WUI. The Forest Service has been averaging about 70% of the appropriations for HFRPs to the BLM’s 30%, see GAO Report, supra note 39, and has averaged much more than half of its work in the WUI.

⁷⁶ See 16 U.S.C. § 6513(d).

⁷⁷ The National Association of State Foresters estimates that of the 51,000+ communities in need of CWPPs in 2007, about 4,700 of them had completed any sort of such plan at all. See NATIONAL ASS’N OF STATE FORESTERS, COMMUNITIES AT RISK REPORT FY2007 (Nov. 2007) (copy on file with author). The Society of American Foresters (SAF) developed the handbook the federal government recommends for CWPP-development. SAF reported that, as of March 2006, some 654 CWPPs covering and estimated 2,700 communities at risk (a CWPP may cover more than one community) had been completed and that more 600 others were in progress. See Steelman & Burke, supra note 41, at 70.

forest management.”⁷⁸ The plans need not have any particular content. HFRA does not require that the plans discourage development in fire prone areas, that they protect local watersheds before enabling more development—nor, indeed, that they strike any balance at all among competing priorities. And, for many, the federal money cannot flow fast enough, leading to shorter and shorter turnarounds on CWPPs and other HFRA steps.⁷⁹ How CWPPs relate to local land use planning already in place is but another unanswered question.⁸⁰

Still worse is the fact that neither the Forest Service nor BLM seem much *interested* in the CWPPs, whether as substance or process. Last year, the Government Accountability Office (GAO) found that while 95% of the agencies’ administrative units had completed their own first generation fire plans, neither agency required the plans to be updated with new data or that they be linked in any way to the CWPPs in their region.⁸¹ This is a stunning failure of management given how pronounced the

⁷⁸ 16 U.S.C. § 6511(3)(A). The CWPP is further defined as a plan that “identifies and prioritizes areas for hazardous fuel reduction treatments and recommends the types and methods of treatment on Federal and non-Federal land that will protect 1 or more at-risk communities and essential infrastructure” and “recommends measures to reduce structural ignitability throughout the at-risk community.” *Id.* at § 6511(3)(B)-(C). Nothing in HFRA or WFLC guidance requires a particular scope or completeness for plans—or any other qualitative or performance criteria for a CWPP whatsoever.

⁷⁹ See, e.g., John Q. Murray, *Senators Grill Bosworth: Use the HFRA Authority*, CLARK FORK CHRON., July 20, 2006 (reporting on local pressure to speed up appropriations and approvals for HFRPs and other fuel reduction work); Council of Western State Foresters, *Community Wildfire Protection Planning in the West: A Status Report* 9 (March 2006) (hereafter “*CWPP Status Report*”) (copy on file with author) (finding that most communities that have completed CWPPs have unreasonably high expectations of the level of federal funding support).

⁸⁰ The Disaster Mitigation Act of 2000, Pub. L. No. 106-390, 114 Stat. 1522, rewards state-level disaster planning and its coordination of local land use planning by tying federal disaster relief to certain basic standards of integration. See Federal Emergency Management Agency, *Multi-Hazard Mitigation Planning Guidance* (March 2004), available at www.fema.gov/fima/introduction_031904.doc; 44 C.F.R. §§ 201.1-201.6 (2007). HFRA makes no provision for tying CWPPs into such planning, though.

⁸¹ See GAO Testimony *supra* note 39, at 6.

connections are between dispersed development and ultra-expensive wildfire incidents.⁸² Indeed, if the government is collecting or monitoring any data at all on the content of CWPPs, their performance, their improvement, *etc.*, it is not saying.⁸³ Are the projects and planning of CWPPs actually reducing the wildfire risks within their communities? Are the projects that are being funded contributing in any way to the overall restoration of affected landscapes? We are left to wonder.

In my view, HFRA's Potemkin village version of land planning illustrates how ill suited federal agencies are to do the real work that could, at least in principle, pursue all four of the Implementation Plan's goals: coordinated land use planning at multiple scales. Now it would be one thing if this admixture of legislative and administrative mechanisms were the necessary result of public officials representing their constituents' best interests. Broad scale legislation is a remarkable achievement and Congress's approval ratings are, of course, near their historic low. Borrowing experts' credibility and visibility while deferring to local actors who are attacking the problem at smaller scales is hardly a bad thing.⁸⁴ Beneath the superficial appearances, though, HFRA raises suspicion after suspicion—which, unfortunately, may be all we have. Deliberate abstractions have been the norm in broad scale legislation for decades. Most forms of “command and control” regulation by agencies are even more unpopular than contemporary NEPA practice.⁸⁵

⁸² See INDEPENDENT LARGE WILDFIRE COST PANEL, TOWARDS A COLLABORATIVE COST MANAGEMENT STRATEGY: 2006 U.S. FOREST SERVICE LARGE WILDFIRE COST REVIEW RECOMMENDATIONS (May 2007) (hereafter “COST MANAGEMENT REPORT”) (copy on file with author).

⁸³ GAO has repeatedly criticized the agencies' refusal to gather performance-based data and continuing failure to state in tactical detail how its disparate objectives on fire are being realized. See GAO Testimony, *supra* note 39.

⁸⁴ See, e.g., Jamison E. Colburn, *Solidarity and Subsidiarity in a Changing Climate: Green Building as Legal and Moral Obligation*, 4 U. ST. THOMAS L.J. (forthcoming 2008).

⁸⁵ There are important exceptions. Then-judge Breyer's call for “a small, centralized administrative group, charged with a rationalizing mission” and having “interagency jurisdiction,” “political insulation” and the authority to “impose its decisions,” was issued only

Yet social scientists remain split methodologically in explaining the human behaviors that frame these realities. The prevailing paradigm, known as “public choice” or “positive political theory,” presumes public officials maximize their *own* welfare, not that of their constituents.⁸⁶ Most of that work, though, has generated few (if any) useful predictions—or even propositions that are both true and nontrivial.⁸⁷ On something as basic as whether or not agencies’ informal bureaucratic structures and routines enable tighter political control of agency function, the evidence is still too mixed to say.⁸⁸ And on an infinitely more complicated (practical) question like what design choices would better enable citizens to deliberate collectively on something like sprawl and wildfire, our empirical social sciences are virtually useless in their present state.⁸⁹ We cannot say with any meaningful degree of certainty what is possible in the political realm or what would lead to a more productive public debate about healthy land uses in our ‘wildland/urban

15 years ago. See STEPHEN BREYER, *BREAKING THE VICIOUS CIRCLE: TOWARD EFFECTIVE RISK REGULATION* 60-61 (1993).

⁸⁶ See, e.g., Matthew D. McCubbins *et al.*, *Administrative Procedures as Instruments of Political Control*, 3 J.L. ECON. & ORG. 243 (1987).

⁸⁷ See Donald Green & Ian Shapiro, *Revisiting the Pathologies of Rational Choice*, in SHAPIRO, *supra* note 6, at 51-99; Richard H. Pildes & Elizabeth S. Anderson, *Slingshot Arrows at Democracy: Social Choice Theory, Value Pluralism, and Democratic Politics*, 90 COLUM. L. REV. 2121 (1990).

⁸⁸ See, e.g., Steven J. Balla, *Administrative Procedures and Political Control of the Bureaucracy*, 92 AMER. POL. SCI. REV. 663 (1998) (relationship between agency process and political control cannot be proven with existing data). Many in the legal academy are undeterred, though. See, e.g., Lisa Schultz-Bressman, *Procedures as Politics in Administrative Law*, 107 COLUM. L. REV. 1749, 1767 (2007) (“Legal scholars have not adequately considered what positive political theory (PPT) scholars have been saying about administrative procedures for at least the last two decades. . . . [P]rocedures are, or can be, about politics and not simply about law.”); *but cf.* Pildes & Anderson, *supra* note 87, at 2127 (concluding that public choice theory “rests on peculiar conceptions of rationality and of democratic politics” and therefore poses “no significant challenge to the general legitimacy and meaningfulness of democratic decision making”).

⁸⁹ See Joshua Cohen, *Deliberation and Democratic Legitimacy*, in *DELIBERATIVE DEMOCRACY: ESSAYS ON REASON AND POLITICS* at 68, 84-86 (James Bohman & William Rehg eds., 1997).

interface.’⁹⁰ The clearest legislative guidance written to date remains that given in a Conference Report from a 2001 appropriations bill (guidance that prompted the creation of the *Implementation Plan*). But all it said was that Congress expected that reducing fire risks in the WUI would “require close collaboration among citizens and governments at all levels.”⁹¹ The agencies reprint the admonition in many of their administrative documents. Who it actually guides or binds is but another mystery.

As individuals, more and more of us want to live near and among what is left of the “wild” even while society as a whole absorbs the social costs this freedom is generating. That all ends in a massive paradox: our expert agencies, to which our elected representatives keep deferring and keep delegating power, are incapable of saving us from ourselves in matters as complex and morally ambiguous as sprawl and public lands. Part III locates these failures within the geography of wildland fire—a geography of semi-built landscapes, diluted rationalism, and deference to “local control.”

III. THE LEGAL GEOGRAPHY OF THE WILDLAND/URBAN INTERFACE

This Part fills out the legal geography of the wildland/urban interface, a category of space in America that is immense and growing. Section A details HFRA’s different criteria demarcating the WUI, principally as that area attracting the most managerial attention to wildland fire, while Section B compares this whole dynamic to another, earlier example: federal flood control policy. Finally, Section C shows how this area’s

⁹⁰ See Joshua Cohen, *Procedure and Substance in Deliberative Democracy*, in *DELIBERATIVE DEMOCRACY: ESSAYS ON REASON AND POLITICS* at 407 (James Bohman & William Rehg eds., 1997).

⁹¹ *IMPLEMENTATION PLAN*, supra note 44, at *i* (quoting Conference Report for the Fiscal Year 2001 Interior and Related Agencies Appropriations Act, Pub. L. No. 106-921).

immensity will further undermine our faith in expertise as some sort of solution to the challenges of governing public lands.

A. *The Geography of ‘Wildlands’*

The “wildland-urban interface” (WUI) may sound like a boundary, something similar to the nature/culture divide. But it is actually the fastest growing category of real estate in America. This is in part because the legal definition of the WUI is broad and indeterminate.⁹² Its most concrete component began with a gargantuan list of virtually *every incorporated municipality* bordering public lands⁹³ and expanded from there to include any bordering areas having “[three] or more structures per acre, with shared municipal services.”⁹⁴ And any area “within or adjacent to” one of these places that is identified in a CWPP can be WUI.⁹⁵ Where “adjacency” ends, not surprisingly, is quickly becoming the subject of exurban legend. Five miles? Fifteen miles? More?⁹⁶

⁹² HFRA defines the WUI as “an area within or adjacent to an at-risk community,” 16 U.S.C. § 6511(16), and then defines “at risk communities” as an “interface community as defined in the notice entitled “Wildland Urban Interface Communities Within the Vicinity of Federal Lands That Are at High Risk From Wildfire” issued by the Secretary of the Interior . . . or . . . a group of homes and other structures with basic infrastructure and services (such as utilities and collectively maintained transportation routes) within or adjacent to Federal land . . . in which conditions are conducive to a large-scale wildland fire disturbance event” and “for which a significant threat to human life or property exists as a result of a wildland fire disturbance event.” *Id.* at § 6511(1) (emphasis added). This makes the WUI a function of two kinds of “at risk” communities: the “interface” and the “intermix” areas surrounding public lands.

⁹³ The published list consisted of over 11,000 communities, twenty-three *Federal Register* pages long. See Department of Agriculture *et al.*, Urban Wildland Interface Communities Within the Vicinity of Federal Lands That Are at High Risk From Wildfire, 66 Fed. Reg. 751, 754-77 (2001).

⁹⁴ 66 Fed. Reg. at 753.

⁹⁵ 16 U.S.C. § 6511(16)(A). Areas within set buffer zones and/or constituting an evacuation route for such communities are automatically included even in the absence of a CWPP. *Id.* at § 6511(16)(B).

⁹⁶ See BO WILMER & GREGORY H. APLET, TARGETING THE COMMUNITY FIRE PLANNING ZONE: MAPPING MATTERS (2005). Interestingly, by focusing on the qualitative aspects of “community” within

The statutory definition, however, also includes “intermix communities”: any “group of homes and other structures with basic infrastructure and services . . . such as utilities and collectively maintained transportation routes” within or adjacent to federal land.⁹⁷ Nice questions of degree could easily bog this definition down in some parts of the West, but rationally determinate boundaries were not the point: everyone is erring on the side of inclusion.⁹⁸

The combined scope of this WUI is, however interpreted, extraordinarily broad. Potent “market” forces promise to keep it growing, too. There is a commonly expressed preference for residences proximate to landscapes which look and feel like nature in a “wild” state.⁹⁹ In the only spatially explicit analysis done to date on the WUI, Volcker Radeloff and colleagues estimated that the density definition of WUI characterizes some 9% of the surface area of the 48 contiguous states: over 44 million homes (or about 39% of all the housing units in America) are in the WUI.¹⁰⁰ It is still proximity to public lands

the WUI definitions, Wilmer and Aplet argue that most of the highest priority WUI is in California and the East—not the interior West. *Id.*

⁹⁷ 16 U.S.C. § 6511(1)(A)(ii). HFRA also references the notice’s *definition* of “interface community,” not the list. Thus, communities may be added to the list if they meet the definition, *i.e.*, they create “a clear line of demarcation between residential, business, and public structures and wildland fuels. Wildland fuels do not generally continue into the developed area. The development density for an interface community is usually 3 or more structures per acre, with shared municipal services.” *Id.* at 753.

⁹⁸ *Cf.* WILMER & APLET, *supra* note 96, at 3-6 (arguing that the alternative density thresholds in the *Federal Register* definitions of “intermix” communities represent vastly different approaches to controlling wildfire risks).

⁹⁹ Even putting aside the cultish fascination with wilderness in America, see Jamison E. Colburn, *Habitat and Humanity*, *supra* note 24, at 150 & n.25, many millions of Americans now routinely visit wild area for recreation, leisure, and study. See Laitos & Carr, *supra* note 27. A “significant portion of new development occurs at low and medium density and . . . housing growth is particularly high in areas that are rich in natural amenities.” V.C. Radeloff *et al.*, *The Wildland-Urban Interface in the United States*, 15 *ECOLOGICAL APPS.* 799, 799 (2005).

¹⁰⁰ See Radeloff *et al.*, *supra* note 99, at 799. Radeloff and colleagues assembled their estimates from data compiled by the Forest Service’s North Central Research Station and several academic researchers. *Id.* at 800.

that remains most striking about the WUI, though. Over eight million homes were built within thirty miles of a national forest from 1982-97.¹⁰¹ Such encroachment is increasingly the norm on all public lands systems and fire is its foil.

By the 1970s, fire was occurring on a tenth of the acreage annually that it had been in the 1930s.¹⁰² Just as the interior West was booming and recreation and scenery were becoming the dominant economic uses of public lands, fire seemed a distant threat.¹⁰³ The combination of human migration toward forests where fire-intolerant species were flourishing which rendered the forests more susceptible to insects and disease, which then created large stands and downed piles of fuels that further dried out in long stretches of drought, all led to the break point we find ourselves at today: extreme fire risks¹⁰⁴ and growing vulnerabilities.¹⁰⁵ Totally obscured from view is how “healthy forests” actually function. If we are serious about “restoration,” where do we look for our reference landscape amidst this disturbance pattern?

B. Floods and Fires: Our Land Use Planning Federalism

The National Flood Insurance Program (NFIP) predates HFI/HFRA by decades. But HFRA is remarkably similar to the NFIP in many respects. “Since the NFIP has been in effect, the regime has arguably enhanced vulnerabilities to flood losses rather than reduced the outcome risk.” Ironically, by conveying a sense of security and federal

¹⁰¹ See Jesse McKinley & Kirk Johnson, *On Fringe of Forests, Homes and Fires Meet*, N.Y. TIMES (June 26, 2007). (quoting Radeloff that “[i]t’s like a tsunami, this big wave of development that’s rolling toward the public lands.”)

¹⁰² Donovan & Brown, *supra* note 8, at 75.

¹⁰³ See REPORT TO THE PRESIDENT, *supra* note 64, at 8-9.

¹⁰⁴ See *generally* PYNE, *supra* note 8.

¹⁰⁵ Event risk, as opposed to the vulnerabilities thereto, is a discrete variable for purposes of planning. See Daniel Sarewitz *et al.*, *Vulnerability and Risk: Some Thoughts from a Political and Policy Perspective*, 23 RISK ANALYSIS 805 (2003).

approval, the NFIP has probably increased our vulnerability to floods in the U.S. by normalizing and thereby enabling flood plain development—which has risen steadily every year since 1968.¹⁰⁶ NFIP spreads the costs of flood risks by requiring flood insurance on any federally insured mortgages in designated flood plains,¹⁰⁷ thereby blunting the market signals against developing those flood plains.¹⁰⁸ And since 2001, funding for wildfire risk reduction work has increased significantly. Adjusted for inflation, the Forest Service and BLM went from an average of about \$1.3B annually for fiscal years 1996-2000 to an average of about \$3.1B annually in fiscal years 2001-05. What are these appropriations accomplishing? As mentioned already, their principal focus has been fuel reduction in the WUI—a very costly business.¹⁰⁹ By the time all the millions of acres of WUI are treated once, it will almost certainly be time to go back to

¹⁰⁶ See James Chivers & Nicholas E. Flores, *Market Failure in Information: The National Flood Insurance Program*, 78 LAND ECON. 515 (2002). Chivers and Flores emphasize that the NFIP's expectation that mandating insurance within mapped flood plains erroneously assumed buyers would know and understand much more about flood plain risks than they do in fact.

¹⁰⁷ See National Flood Insurance Act of 1968, Pub. L. No. 90-448, 82 Stat. 572, 573 (as amended), 42 U.S.C. §§ 4001-4128.

¹⁰⁸ Another failure is that quantitative estimates of risk are usually based upon a “finite record of past events . . . [and] the assumption of climate stationarity that necessarily underlies the notion of a ‘100-year’ flood.” Chivers & Flores, *supra* note 106, at 806.

¹⁰⁹ The costs of HFRPs vary significantly. They rise from a low of less than \$125 per hectare to a high of \$2500. Donovan & Brown, *supra* note 8, at 76. The overall estimates for HFRPs that most communities seek—the so-called “mechanical” treatments of pruning and removing woody biomass—are daunting.

“[T]he cost of a mechanical treatment program of sufficient size to reverse the effects of a century of aggressive wildfire suppression would be prohibitive. Consider that at a cost of \$2000 per [hectare], total expenditures to treat just the ponderosa pine in condition class 3 would amount to over \$12 billion. The combined fuel management budget of the [Interior Department] and the Forest Service in 2005 was \$464 million. Using this entire budget, it would take almost 26 years to thin all ponderosa pine in condition class 3.”

Id. “Mechanical fuel removal” has been pushed up over a million acres a year according to the agencies. See U.S. Forest Serv., *Healthy Forests Report 2007*, available at www.forestandrangelands.gov (copy on file with author).

square one and repeat the process. That is simply no way to serve any broader, system-correcting function.

Now the Forest Service has been creating a database to share local plans, documents, and other outputs¹¹⁰ and it is working diligently on its LANDFIRE database and mapping system in an effort to identify and prioritize high-risk areas.¹¹¹ Third parties who have assessed the LANDFIRE investment, however, remain skeptical.¹¹² Geospatial data of the kind, especially on fuel conditions (which can vary significantly depending on microclimates), are extremely costly to gather, manage, integrate, and share. Some of those costs may drop with improvements in technology like satellite imagery and various networking solutions. But, if so, the agencies are not letting on.¹¹³

So we probably cannot say with any meaningful degree of certainty what the core of HFRA is accomplishing. The law certainly reflects a reluctance to dictate land development patterns, whether the federal government has the constitutional authority to do so or not.¹¹⁴ But by attempting to rationalize the market at issue without upsetting it,

¹¹⁰ See <http://www.wildfireprograms.com/index>. The database recorded only 241 entries as of March 8, 2008.

¹¹¹ The Forest Service has also been experimenting with models that are meant to predict the rates at which acreage is treated to stay current with the natural processes by which fire exclusion alters the ecosystem. See Wendell J. Hann & David L. Bunnell, *Fire and Land Management Planning and Implementation Across Multiple Scales*, 10 INT'L J. WILDLAND FIRE 389 (2000). Hann and Bunnell, both Forest Service researchers, predicted (based on their modeling) that multi-scalar planning could reduce the acreage treatments needed to keep pace with fuels, but that even an "integrated" scenario suggested treating between 3.7 and 4.9 million acres per year just to stay ahead of fuel buildups on National Forest System lands alone. *Id.* at 400. That is well in excess of current acreage rates.

¹¹² See OIG Report, *supra* note 39, at 6-8; GAO Testimony, *supra* note 39, at 23-24.

¹¹³ GAO Testimony, *supra* note 39, at 9.

¹¹⁴ Under the Property Clause, U.S. CONST. art. IV, § 3, cl. 2 ("Congress shall have Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States . . ."), the federal government's protective powers with respect to its lands are vast and not limited by geographic boundaries alone. A variety of cases make the point. See, e.g., *United States v. Armstrong*, 186 F.3d 1055, 1061 (8th

the law may accomplish only this: masking that market's (already substantial) failures.¹¹⁵ Now this is not to say that the agencies are collecting *no* data regarding HFRA. But the data they are collecting are cause for more alarm. A team of Forest Service-funded researchers in Minnesota, for example, studied how HFRA/HFI was being covered in the press.¹¹⁶ The Forest Service is also studying ways of reducing home ignitability when fires do reach the WUI. Not surprisingly, their findings confirm that the “key to reducing W-UI home fire losses is to *reduce home ignitability*.”¹¹⁷ Modeling, combined with a few case studies, tended to show that “a home’s structural characteristics [nonflammable roof] and its immediate surroundings determine [its] ignition potential in a W-UI fire.” To ensure a house will not ignite given the intensity of some crown fires prevalent lately, a buffer zone of up to 40 meters around the home and all its structures is often recommended.¹¹⁸ That will certainly increase the disturbance footprint of wildland development, but its overall utility as risk reduction is far more ambiguous.¹¹⁹ And, of

Cir. 1999); *Minnesota ex rel. Alexander v. Block*, 660 F.2d 1240, 1251-53 (8th Cir. 1999); *United States v. Brown*, 552 F.2d 817, 820-21 (8th Cir. 1977).

¹¹⁵ See generally Christine M. McMillan, *Federal Flood Insurance Policy: Making Matters Worse*, 44 HOUSTON L. REV. 471 (2007).

¹¹⁶ See Jayne Fingerman Johnson et al., *U.S. Policy Response to the Fuels Management Problem: An Analysis of the Public Debate About the Healthy Forests Initiative and the Healthy Forests Restoration Act*, USDA FOREST SERV. PROCS. (RMRS-P-41 2006) (copy on file with author). Johnson and colleagues located and coded some 2,800 news stories published in the U.S. between August 2002 and December 2004 treating HFI or HFRA, tracking favorable versus unfavorable mentions and comparing the two. *Id.*

¹¹⁷ See Jack D. Cohen, *Preventing Disaster: Home Ignitability in the Wildland-Urban Interface*, 98 J. FORESTRY 15, 20 (2000) (Cohen is a Forest Service researcher based in Missoula, Montana).

¹¹⁸ Cohen, *supra* note 117, at 18. Cohen also shows, however, that the most cost-effective means of reducing ignitability are through wise construction and materials choices. *Id.* at 20.

¹¹⁹ WILMER & APLET, *supra* note 96, at 3.

course, the agencies are diligently tracking the number of acres being “treated” with HFRPs.¹²⁰

How communities respond to fuels and plan for wildfire with their CWPPs is, or at least can be, a critical moment for a community. Because of our federalism, it is inherently situational and inherently indexed to local conditions. States assert varying degrees of control over their local governments, both by distributing powers and by interceding in federal/local partnerships, making this type of “collaboration” complex and inherently provisional.¹²¹ Given the federal government’s appropriations on wildfire, its legal authority under HFRA and other federal statutes, and its landscape scale perspective, the creation of CWPPs could be, if the federal government managed it properly, an “information forcing” event.¹²² CWPPs done well could be held up as exemplars, as benchmarks for other communities with similar values to meet or exceed. Mandatory monitoring of actions implemented under CWPPs could gather real data about a project’s value because it would collect information about whole experiences from plan to action.¹²³ None of this is being carried out today, though.

C. The Practical Authority of the Forest Service, BLM and HFRA

The foregoing discussion points to a very different kind of question. What is natural resources legislation *for* today? What function does it serve? A long time ago it stopped being the source of people’s legal rights and duties on and around public lands.

¹²⁰ Steelman & Burke, *supra* note 41, at 70. Acres treated, indeed, seem to be the chief performance metric the agencies have created for themselves. See *id.*

¹²¹ See Toddi Steelman *et al.*, *Federal and State Influence on Community Responses to Wildfire Threats: Arizona, Colorado, and New Mexico*, 102 J. FOREST. 21 (2004).

¹²² See Karkkainen, *supra* note 28, at 861.

¹²³ See Karkkainen, *Smarter NEPA*, *supra* note 28, at 936-37.

It shifted to being a blueprint the agencies were to follow in specifying such rights and duties by rules and regulations. But it has morphed again and is hardly even that much any longer. HFRA demonstrates this further evolutionary step. One must find the legislative history of a long-gone appropriations bill to locate any direction at all from Congress to the agencies on how to prioritize fuels treatment projects and with whom the agencies should work in doing so.¹²⁴ The leading casebook on federal public lands champions the rise of “organic legislation” as having “thoroughly overhauled . . . all four (park, refuge, forest, and BLM) major land systems.”¹²⁵ But this kind of legislation seems like a prologue today. It seems increasingly unlikely and antiquated when conservation has become just another political football. Legislation remains with us, though, even as its functional role is shifting so dramatically. Its “dignity” hangs on:

the dignity of legislation, the ground of its authority, and its claim to be respected by us, have a lot to do with the sort of *achievement* it is. Our respect for legislation is in part the tribute we should pay to the achievement of concerted, cooperative, coordinated or collective action in the circumstances of modern life.¹²⁶

As an achievement, federal conservation legislation is becoming cost prohibitive except in the realm of political opportunism (from which HFRA seems to have emerged). If it is true that you manage what you measure, the agencies’ collection of the data they *are* gathering about HFRA/HFI is worrisome. Bean counters love “progress” like millions of acres treated, but landscapes are far more unique and unpredictable than such measurements allow. No matter what a project entails, its restorative potential is necessarily limited, perhaps even temporary (appropriations might not grow on trees, but

¹²⁴ See *supra* note 91 and accompanying text.

¹²⁵ GEORGE CAMERON COGGINS ET AL., *FEDERAL PUBLIC LAND AND RESOURCES LAW* 465 (6th ed. 2007).

¹²⁶ JEREMY WALDRON, *THE DIGNITY OF LEGISLATION* 156 (1999).

fuels do). Thus, without the restoration of historic fire regimes—something that will not happen in the WUI absent huge investments in the hard work of prescribed burning—so-called fuel reduction is a second-best strategy *at most*.

Federal efforts to encourage landowners and communities to reduce structural ignitability probably increase the disturbance footprint of our sprawl, but do they really address our basic problem? Our basic problem is that our WUI keeps expanding—as homes are being built throughout our (comparatively) natural areas. Our basic problem is not even being confronted by HFRA and, in fact, it is probably worsening the problem. The problem is deliberative. Why do we refuse to recognize that *deeply* contentious, emotional issues like good land use are not being resolved at the scale to which our nation has grown? We keep legislating federal jurisdiction into existence only to starve our federal authorities of the resources they need to actually *use* that jurisdiction and achieve our common ends. I offer three conjectures on what this means for ecological restoration in the regulatory state.

First, agencies are never forthcoming about how little they can achieve in the real world. *Real* expertise would make agency managers admit—broadcast—their own fallibility and few agency actors have any incentive to do that.¹²⁷ Fire suppression in the twentieth century was the experts' idea originally. The problem is that broadcasting fallibility is usually not much of a career path, whether in the public or the private sector.¹²⁸

¹²⁷ See BREYER *supra* note 85.

¹²⁸ See Jody Freeman, *The Private Role in Public Governance*, 75 N.Y.U.L. REV. 543, 554-74 (noting the proliferation of public/private hybrids where firms and agencies take actions that are mutually reinforcing but still not fully cooperative given the incentives each has to avoid revealing its own fallibility).

Second, in the context of wildfire where the threat and most imaginable solutions operate at landscape scales, the differentiation of land systems and bureaus and use zones is clearly blocking real progress. This is emblematic of public lands management more generally.¹²⁹ The problem space is so large that the information costs of any operational decision, to say nothing of the stakes, are necessarily immense. The structure of the WFLC decisionmaking process is summit-like, with superpowers who meet at neutral locations first to legislate a neutral vocabulary, then later to establish a decisionmaking procedure, and only finally after that to engage the issues—usually with theatrics and vague allusions to consensus that can never be “imprisoned” in specific terms. Real coordination at these scales on issues engendering deep disagreement is simply too complex, too likely to end in frustration. Working hybrids like “business improvement districts” have proliferated at an astounding rate in local governments across the country—notwithstanding truly divisive legal issues that still simmer.¹³⁰ But such experiments are much easier to plan, execute, and improve over time at small scales than they are at immense ones.¹³¹

Finally, in what must be his most repeated prose, George Perkins Marsh observed long ago that “Man is a disturbing agent,” and that wherever he sets his foot “the harmonies of nature are set to discords.”¹³² This was a deeply misanthropic view of our predicament. Could Marsh have meant that only landscapes *without* people are truly

¹²⁹ See Colburn, *Habitat and Humanity*, supra note 24.

¹³⁰ See Richard Briffault, *A Government For Our Time? Business Improvement Districts and Urban Governance*, 99 COLUM. L. REV. 365 (1999) (reviewing the explosive growth of BIDs notwithstanding many statutory, state constitutional, and federal constitutional issues that BIDs occasion).

¹³¹ See Jamison E. Colburn, *Localism's Ecology: Protecting and Restoring Habitat in the Suburban Nation*, 33 ECOLOGY L.Q. 945, 956-67 (2006).

¹³² GEORGE PERKINS MARSH, *MAN AND NATURE* 191 (David Lowenthal ed. 1965) (1864).

healthy? If so, it shows how perverted our concept of the “wild” really is. Not only does it make conservation exceptional by nature. It draws people onto the (exceptional) landscapes worth protecting only to spoil them by making them ordinary. In this, wildness is its own *pharmakon*—a poison and therapy all in one. In a country of so many people with so much wealth, if “the wild” is where land is healthy, then that is where people of means will want to be. *This* is the WUI problem. We are spreading our civilization over this continent so quickly in good part because we do not like our built environments or the way people inhabit them.

Part IV argues that solving this problem will require us to reimagine landscape scale forces like fire as elements of our land and that this must begin with the substantial overhaul (if not repeal) of HFRA. It cannot stop there, though, because we desperately need enhanced coordination of land uses in the face of so much uncertainty and risk. Part IV proposes targeted reforms that a new administration should work to impose on wildfire and sprawl in the hopes that, ultimately, more information and better sharing of that information will enable real deliberation among the citizen-owners of our landscapes.

IV. TOWARD A LAND USE PLANNING EXPERIMENTALISM?

So what should be done? We are, it seems, moving gradually into an age in which our ‘expert’ natural resource agencies are receding in their influence. Increasingly, the truly hard and big questions that once were left to agency processes are being funneled back into courts, boardrooms, and elsewhere. Deliberate abstractions in legislation—for public lands law, phrases like “valid existing rights”—are being given

determinate meanings by legal actors other than agencies.¹³³ The mass media, judges, and citizens are all increasingly skeptical of public agencies—if not the whole notion of unbiased expertise. Yet, as Karen O’Neill argued in her history of flood control policy, complex, system-wide restorations will remain a practical impossibility so long as broad scale cooperation throughout the natural system as a whole is missing for the obvious reason that too many parts of these natural systems have too long been deranged to suit our will.¹³⁴ People are not normally inclined to think about whole natural systems, though. Our present economy certainly gives them little reason to do so. So what we need are institutional alternatives to the rational centralizing agency and its top-down conceptualization of landscapes in mental-geographic space. And that is a tall order. Part IV begins from the present and works forward into that uncertain future. Section A charts a bottom-up model of integrating large and small scale land planning while Section B argues that critical reforms at the top are vital as well. Finally, Section C briefly considers whether land use planning that presumes mistake and surprise is reconcilable with the rule of law.

¹³³ For example, when Congress repealed the ambiguous grant of rights of way known as R.S. 2477, it did so by saving “valid” rights of way that were in “existence” at the moment of repeal in 1976. See *Sierra Club v. Hodel*, 848 F.2d 1068, 1081 (10th Cir. 1988). This, of course, was a massive equivocation on the mode of identifying the rights, their scope and location, etc. But those legal issues, once viewed as a matter for the land management agencies to sort out, see, e.g., *id.* at 1087 (“The administrative interpretation need only be a reasonable one to be accepted, even though there may be another equally reasonable interpretation.”), are being shifted back into the courts. See, e.g., *Southern Utah Wilderness Alliance v. Bureau of Land Management*, 425 F.3d 735, 749-58 (10th Cir. 2005) (refusing to apply doctrine of “primary jurisdiction” and defer to BLM because, the court argued, R.S> 2477 and the legal issues it implies predated BLM).

¹³⁴ See KAREN M. O’NEILL, *RIVERS BY DESIGN: STATE POWER AND THE ORIGINS OF U.S. FLOOD CONTROL* (2006). “Because the health of each reach of a river depends on conditions throughout the river system, restoration projects done in isolation often fail. In a federal system, the central government could be mobilized to coordinate action across localities. Progressives and New Dealers had aimed to do this . . . [but] largely failed.” *Id.* at 185.

A. Avoiding the Tragedies of Centralization

HFRA gets the multiscalar nature of land planning half right. It incentivizes local planning without mandating it, connects local plans loosely to a broader planning process, and makes the broader process innately flexible (at least as a matter of law).¹³⁵ But by leaving specific measures in CWPPs entirely to local discretion and not requiring that the CWPPs themselves be centrally recorded or widely shared, HFRA misses a rare opportunity to infuse the fruits of directly deliberative local politics into the technocratic abyss that agencies like the Forest Service are becoming.¹³⁶ Real people confronting tradeoffs in their own backyards must imagine and choose practicable solutions to present problems.¹³⁷ That kind of problem solving, nested as it is within whole experiences, is a unique resource that can be of extraordinary value to subsequent actors.¹³⁸ HFRA, in short, missed one of the most powerful insights in decades into how public policy can

¹³⁵ Reforming the WFLC process to make it more adaptive and deliberative as a practical matter is not something accomplishable by legal means alone. But a real step toward that end would be forcing the WFLC to communicate its interpretations of *restoration*, at least in principle, more often and more clearly than it is doing at present. Conceivably, more public discussion of restoration's point and purpose would force far more productive deliberations among the different constituencies represented and could, as a result, lead to a more textured account of what central authority can or should be doing to control the risks of wildfire while allowing fire back on to the landscape. See Cohen, *supra* note 89, at 85 ("At the heart of the institutionalization of the deliberative procedure is the existence of arenas in which citizens can propose issues for the political agenda and participate in debate about those issues.").

¹³⁶ On the challenges of joining these two kinds of institutions into workable hybrids, see Joshua Cohen & Charles F. Sabel, *Directly Deliberative Polyarchy*, 3 EUR. L.J. 313 (1997).

¹³⁷ This is qualitatively different from a federal employee who does so after having taken "comments" or published *Federal Register* notices. The trappings of office too often separate officials from the communities of which they would otherwise be a part. See ROBERT A. DAHL, *AFTER THE REVOLUTION: AUTHORITY IN A GOOD SOCIETY* (1970).

¹³⁸ See, e.g., *CWPP Status Report*, *supra* note 79, at 4 ("Many who have been involved in CWPP development are quick to note that in many cases the process is itself a success. Collaboration among local landowners, local governments, land management agencies and the State for fire planning also creates lasting relationships that extend beyond the immediate task.").

actually shift behavior and markets over time: the use of targeted, mandatory disclosures.¹³⁹

Counties and municipalities possess the lion's share of land use planning authority in the United States. Structurally, though, they are competitors with one another.¹⁴⁰ To be sure, federal agencies are rightly wary of planning or regulating land uses on private land, if only because of the politics involved.¹⁴¹ If there is a role localities and states have shown little interest in playing, though, it is to pool their experiences and compare their own performances.¹⁴² Not surprisingly, information pooling and benchmarking of the sort must normally be done by a third-party.¹⁴³ Comparing some performance to other, similar performances is its own kind of normativity—something qualitatively different from setting general conduct standards in the abstract. The information collected (if not necessarily the cohort being benchmarked)

¹³⁹ See ARCHON FUNG ET AL., *FULL DISCLOSURE: THE PERILS AND PROMISE OF TRANSPARENCY* (2007). The Toxic Release Inventory is the primary example in environmental law, although its real utility to neighbors has been the subject of no little dispute. See, e.g., Shameek Konar & Mark A. Cohen, *Information as Regulation: The Effect of Community Right to Know Laws on Toxic Emissions*, 32 J. ENVTL. ECON. & MGMT. 109 (1997). Other, more unambiguously useful disclosures include the disclosure of medical mistakes, nutritional labeling, and those areas where effective intermediaries manage and distribute the information. See FUNG ET AL., *supra*, *passim*.

¹⁴⁰ Colburn, *Localism's Ecology*, *supra* note 131, at 989-99.

¹⁴¹ See John D. Leshy, *Unraveling the Sagebrush Rebellion: Law, Politics, and Federal Lands*, 14 U.C. DAVIS L. REV. 317 (1980). Research on public attitudes toward cooperative land use planning involving the Forest Service and/or BLM, however, is showing that caution should not solidify into categorical refusals to do so. See Andrew O. Finley et al., *Interest in Cross-Boundary Cooperation: Identification of Distinct Types of Private Forest Owners*, 52 FOREST SCI. 10 (2006) (reporting survey and statistical work indicating that most private forestland owners are amenable to some form of cooperative land use planning with government).

¹⁴² See Charles F. Sabel & William H. Simon, *Destabilization Rights: How Public Law Litigation Succeeds*, 117 HARV. L. REV. 1015, 1021-53 (2004).

¹⁴³ See FUNG ET AL., *supra* note 139, at 28 (noting the rise of "targeted transparency" as a distinct kind of disclosure policy that focuses on disclosures that are able to redress information asymmetries, extend the bounds of rationality, and not be prohibitively costly to generate).

is nonrivalrous¹⁴⁴ and inherently cumulative. Homebuyers would certainly value such comparative information.¹⁴⁵ Indeed, this form of regulation may be the only kind structured to spur continuous adaptation in the pursuit of complex goals.¹⁴⁶

Just as importantly, though, if the normal justification for *federal* governance of natural resources is that the nation as a whole possesses authority over the resource and values it differently from its value in the default, we must not forget that the processes by which federal authority is mobilized allow interested parties unique opportunities to skew the product.¹⁴⁷ One need not impart the cynicism of positive political theory to presume that distortions in the political process are real and potentially devastating.¹⁴⁸ Confining the federal role and the frequency at which federal law must change to keep pace is almost certainly an advantage.

So how do we thread this needle? If combined with a more fully assembled (but still corrigible) broad-scale planning process,¹⁴⁹ monitoring and benchmarking localities

¹⁴⁴ See FUNG ET AL., *supra* note 139, at 31 (“New information has one of the central characterizes of a so-called public good: its consumption is non-rival, meaning that new information can be consumed by one party without diminishing its value to another party.”).

¹⁴⁵ See Colburn, *Localism’s Ecology*, *supra* note 131, at 1000-1011.

¹⁴⁶ Most forms of rulemaking, even some of the most informal, are prone to rutting and ossification as compared to the adaptiveness needed in natural resources management. See J.B. Ruhl, *Regulation by Adaptive Management—Is it Possible?*, 7 MINN. J. LAW, SCI. & TECH. 21 (2005); J.B. Ruhl, *The Disconnect Between Environmental Assessment and Adaptive Management*, 36 TRENDS 1 (July/Aug. 2006).

¹⁴⁷ See generally Jason Scott Johnston, *The Tragedy of Centralization: The Political Economics of American Natural Resource Federalism*, 74 U. COLO. L. REV. 487 (2003). One need not make the assumptions underlying Johnston’s model (or accept Johnston’s proposed solution that courts should “narrowly interpret statutes that federalize natural resource regulation,” *id.* at 644) to acknowledge the regrettable patterns he identifies.

¹⁴⁸ Ultimately, avoiding the cynical shades of skepticism probably means viewing any assertion of remedial authority—whether legislative, administrative, or injunctive—as inherently *provisional* and renegotiable “in the light of experience.” Sabel & Simon, *supra* note 142, at 1098.

¹⁴⁹ Probably the most prominent shortcoming of the WFLC itself is its total failure to assess wildfire risks comparatively. The *Implementation Plan’s* fourth goal, promoting community assistance, includes what it labels an “outcome”: “[c]ommunities at-risk have increased capacity to prevent losses from wildland fire and realize economic benefits resulting from

could show how that next fifty acres of “intermix” landscape might compromise a community’s resilience against fire.¹⁵⁰ It would draw causal connections between incidents (and the expenditures thereon) and planning successes or failures,¹⁵¹ ideally in spatially explicit reports integrating invasive species, microclimatic, use, ownership, and other data.¹⁵² Pushing such information out widely would unquestionably be a public service. Indeed, this kind of federal role can propel public values into traditionally private contexts—creating hybrids that, “far from weakening democratic norms of due process, rationality, equality, and accountability, could instead extend these norms”¹⁵³ significantly. Yet our land management agencies so far seem uninterested in such

treatments and services.” IMPLEMENTATION PLAN, *supra* note 44, at 19. But this outcome has only nominal measures assigned to it, *i.e.*, whether a community has enacted *any* fire mitigation/prevention ordinance, not measures designed to assess community performances qualitatively. In other words, it ignores the incremental, pragmatic possibilities that benchmarking risk-prone communities against each other represents. See SIDNEY A. SHAPIRO & ROBERT L. GLICKSMAN, *RISK REGULATION AT RISK: RESTORING A PRAGMATIC APPROACH* (2003) (“A characteristic idea of the pragmatic tradition is efficacy in practical application. Pragmatism seeks those solutions that work out most effectively.”). Generating real metrics for CWPPs would be much easier if their performances today were being recorded and studied appropriately.

¹⁵⁰ The Josephine County Integrated Fire Plan in Oregon (home of the 2002 Biscuit Fire) is exemplary in this regard. Prepared in 2004 by a watershed program at the University of Oregon, with assistance from regional BLM personnel, the plan integrates emergency management, fuels reduction, education and outreach, and land use-related risk assessment. See Josephine County Integrated Fire Plan (Nov. 2004), *available at* <http://cwch.uoregon.edu>. While Josephine County had critical help from a major research university, there is nothing preventing other localities from finding similar partners to solve their information problems.

¹⁵¹ See COST MANAGEMENT REPORT, *supra* note 82, at 12-20 (recommending that fire plans and land management plans be better coordinated because one is intimately related to the other causally). There need not be a descent from this form of risk comparison into the turgid vocabulary of “risk assessment” and “risk management” traditionally practiced by the federal government. See BRYAN G. NORTON, *SUSTAINABILITY: A PHILOSOPHY OF ADAPTIVE ECOSYSTEM MANAGEMENT* 409-39 (2005).

¹⁵² *Cf.* Donovan & Brown, *supra* note 8, at 77 (“Flood and wildfire risks can be controlled in two basic ways: modify the event itself or reduce the values at risk. . . Homeowners surrounded by federal forests receive not only the forest amenities but also publicly subsidizes fire protection.”).

¹⁵³ Jody Freeman, *Extending Public Law Norms Through Privatization*, 116 HARV. L. REV. 1285, 1350 (2003).

possibilities.¹⁵⁴ With few exceptions, they refuse to play a real role in guiding CWPP development or in prioritizing projects in particular regions.¹⁵⁵ If anything, thus, federal legislation reforming HFRA—or public lands law more generally—should direct the Forest Service and the Interior Department—to better monitor, collect, and benchmark the work put into CWPPs with the federal carrots HFRA creates. More sunlight within the agencies themselves, though, is just as vital a step. Section B explains.

B. Improving Transparency From the Top Down

Our public lands agencies have always conceived of fire as their problem. They know that fire needs heat, oxygen, and fuel to burn and have decided that fuel is the only one they can control.¹⁵⁶ Much of the learning these agencies still have to do is more self-critical in nature, though. Fuels treatments are far less certain than the agencies' attitudes suggest. Indeed, stand-level treatments are richly complicated: without careful selection from the different techniques based on accurate information, one might actually exacerbate fire risks.¹⁵⁷ The appropriations train that HFRA got moving,¹⁵⁸ in short,

¹⁵⁴ Federal agencies can tout “collaboration” until faces are blue without changing the fundamental reality that monitoring and continuous adaptation have tended not to be welcome prospects for propertied interests and other stakeholders with investment plans at cross purposes with federal conservation laws. See Alejandro E. Camacho, *Can Regulation Evolve? Lessons From a Study in Maladaptive Management*, 55 UCLA L. Rev. 293 (2007). Perhaps not surprisingly, that has meant an uneven commitment to monitoring and continuous adaptation by the federal agencies themselves. See *id.* at 323-44; see *generally* MARTIN NIE, *THE GOVERNANCE OF WESTERN PUBLIC LANDS: MAPPING ITS PRESENT AND FUTURE* (2008).

¹⁵⁵ The principal guide for CWPP development was done by the Society of American Foresters (SAF) without the Forest Service's or BLM's authority. See SAF ET AL., *PREPARING A COMMUNITY WILDFIRE PROTECTION PLAN* (March 2004). This guide is referenced by the Forest Service on its website but is not an agency document and, indeed, states explicitly that it is “not a legal document” even though its “recommendations” “carefully conform to both the spirit and the letter of the HFRA.” *Id.* at 2.

¹⁵⁶ See Jensen, *supra* note 56, at 971.

¹⁵⁷ See GRAHAM ET AL., *supra* note 32, at 15-16.

¹⁵⁸ See *supra* notes 108-09 and accompanying text.

might soon become the next gigantic mistake in good part because of agency structure and culture. If there is one thing these agencies learned over the last generation, it is how to minimize conflict with local communities and property owners—not how to reduce risk.¹⁵⁹ To some, the fact that governance of the public lands is becoming just another appropriations logroll—just another farm bill—would be unsurprising.¹⁶⁰ The more opaque a political process, the less likely its agents will be accountable. But the way in which fuels treatment projects are being prioritized—the way in which the federal government is coping with wildfire risk—has gone so far underground that real accountability is becoming impossible, whatever model of politics one accepts. Of all Washington’s processes, the budget process is its most opaque.¹⁶¹ Yet that is where most of the hard decisions are being made on wildfire today. Before the federal government can credibly maintain that communities and regions owe each other better transparency about their fire planning in the wildland/urban interface, the government itself will have to be more explicit about its plans and priorities.

The Forest Service and the Department of Interior must make the budget process that annually channels billions of dollars in fuels treatment projects and fire restoration much more *public* than it is. At present, if there is any coherence to the priority of appropriations and project selection, it is submerged in oceans of patronage and politics-

¹⁵⁹ Cf. SHAPIRO & GLICKSMAN, *supra* note 149, at 178 (“[A]gencies responsible for implementing [risk reduction] typically engage in a process of decision-making that is complex, multifaceted, and multidisciplinary. . . . Thus, “neutral” agency decision-makers are not capable in most instances of ascertaining “correct” solutions through the application of empirical evaluation.”).

¹⁶⁰ Cf. McCubbins *et al.*, *supra* note 86, at 250-66 (describing the incentives legislators and bureaucrats have to keep confidences when deals are made).

¹⁶¹ See SHAPIRO & GLICKSMAN, *supra* note 149, at 188-90; ADRIAN VERMEULE, *MECHANISMS OF DEMOCRACY: INSTITUTIONAL DESIGN* WRIT SMALL 183-215 (2007). “Some of the least transparent stages of the budget process are those that occur entirely within the executive branch,” *id.* at 188, which is where incident and most other wildfire budgeting is being done. See COST MANAGEMENT REPORT, *supra* note 82.

as-usual. Crooked or not, mere appearances can and do undermine public confidence in the governance of public lands.¹⁶²

C. Planning for Unintended, Unforeseen Consequences

The fire risks we know today are largely the unintended consequences of a continental-scale land use policy—fire suppression. That particular policy, it bears mentioning, was a combination of expert advice and expedience.¹⁶³ Now mistakes are inevitable in land planning, even with the benefit of expertise. But incorrigible mistakes of immense scale are not inevitable. To be sure, climate change has made plain how expert advice that is inconvenient can be attacked and discounted. It is possible, though, to design institutions around such collective, cognitive biases. It is possible to take institutional design seriously and to build surprise and mistake into any policy planning operation.¹⁶⁴ The much harder question is whether our notions of law and legal process can square up with such institutions.¹⁶⁵ To imagine a “rolling rule regime” in which any single iteration of a norm is merely a further step in its continuous improvement¹⁶⁶ is not necessarily to imagine the world in which that regime includes the rule of law. Relatively steady, compartmentalized statements of means and ends are an underappreciated constant in our culture’s dominant theories of law. But if our jurisprudential traditions

¹⁶² Cf. NIE, supra note 154, at 184-205 (linking the corrosive effects of “appropriations politics” to the “mistrust” that engulfs the governance of public lands in the West today).

¹⁶³ See supra notes 8-9 and accompanying text.

¹⁶⁴ See, e.g., Lowell Pritchard Jr. & Steven E. Sanderson, *The Dynamics of Political Discourse in Seeking Sustainability*, in PANARCHY: UNDERSTANDING TRANSFORMATIONS IN HUMAN AND NATURAL SYSTEMS 147 (Lance H. Gunderson & C.S. Holling eds., 2002).

¹⁶⁵ See Ruhl, supra note 146, at 55.

¹⁶⁶ See, e.g., William H. Simon, *Toyota Jurisprudence: Legal Theory and Rolling Rule Regimes*, in LAW AND NEW GOVERNANCE IN THE EU AND THE US 37 (Gráinne de Búrca & Joanne Scott, eds., 2006).

continue migrating away from their focus on *interpretation* toward a more productive focus on *deliberation*,¹⁶⁷ truly adaptive management might become more than a theoretical possibility. There is hope that this migration will continue, but it is far from certain.

The administrative agency by itself is probably incapable of being an adaptive steward of land health over the long run. Bureaucracies do not sustain experimentation for one simple reason: routine is their oxygen.¹⁶⁸ But the other side of this coin is that the judiciary, an institution able to destabilize the status quo occasionally, has ineradicable limits of its own. “Public law problems invariably result from the complex interaction of conduct by myriad actors. It is highly unlikely that courts could ever command the evidence or methodology necessary to isolate the effects of particular unlawful decisions.”¹⁶⁹ The time-tested palliative is that they check and balance each other. Judging their performance to date, though, that is wide of the mark in this case.

I have argued throughout that the independent variable in this equation is scale. The CWPPs themselves illustrate. It turns out that the scales of the CWPPs being done vary significantly. In some states, CWPPs are county- or region-wide, while in others each community has its own CWPP.¹⁷⁰ Getting the requisite buy-in, of course, is the determinant.¹⁷¹ To be sure, any municipality or county that uses its land use controls for the benefit of its wider region is probably the exception. But there is one dynamic where

¹⁶⁷ Simon, *supra* note 166, at 64.

¹⁶⁸ See Pritchard & Sanderson, *supra* note 164, at 166 (“Part of the puzzle of adaptive management is how to build a nonbureaucratic bureaucracy. Is it possible to have a legitimate, capable, and responsible management organization that is constantly reforming and reinventing itself, undergoing revolt?”).

¹⁶⁹ Sabel & Simon, *supra* note 142, at 1085.

¹⁷⁰ See *CWPP Status Report*, *supra* note 79, at 8.

¹⁷¹ *Cf.* *CWPP Status Report*, *supra* note 79, at 8 (“Getting signatures from all the fire chiefs in a single county can be a major challenge, especially when the county is large.”).

this exception becomes the norm: when localities must cooperate to oppose forces more threatening than their neighbors. And wildfire seems to be just such a threat. So if field office staff could gather information on local milestones, deliver that information quickly and to the right local constituencies, benchmark communities' performances to show who are the leaders and laggards, and even identify "rolling best partnerships" on broader scale issues like watersheds, *then* we could be hybridizing large and small scale land planning. The taboo against appeals to civic virtue may slacken some at such scales where community is still a powerful concept (or at least more powerful than it is in the "procedural republic").¹⁷²

It will likely entail more than just planning (even multiscalar planning). It will entail creative partnering, perhaps with tools like bridge financing or other subsidies to distressed landowners,¹⁷³ restorative work that is labor intensive and of uncertain benefit, and locally derived definitions of desirable future conditions.¹⁷⁴ In my view, if we can do

¹⁷² See SANDEL, *supra* note 40, at 321 (arguing that there is no way to secure freedom without "attending to the character of citizens" or to "define rights without affirming a conception of the good life").

¹⁷³ HFRA Title V established a "Healthy Forests Reserve Program," aiming to help imperiled species and overall biodiversity and "to enhance carbon sequestration." 16 U.S.C. § 6571(a)(1)-(3). Willing landowners can enroll their land in the program by entering into a cost-share agreements or transferring easements to the Forest Service. *Id.* at §§ 6571(f), 6574-6575.

¹⁷⁴ HFRA Title V provides that land enrolled in the healthy forests reserve program must be under a "restoration plan" developed jointly by the landowner and the federal agencies. 16 U.S.C. § 6573(b). But besides being devoted to habitat conservation and restoration, the content of such plans is left unregulated. This presents any parties to such a deal with the opportunity to look forward collectively in the *deliberative* (not to say *predictive*) exercise of identifying desirable future conditions within possible futures. *Cf.* NORTON, *supra* note 151, at 472-78 (proposing the creation of a social science of "what-if" that mixes different disciplines and identifies key agreements on value priorities).

that, a more sustained deliberative dialogue about what makes a landscape “healthy” is possible.¹⁷⁵ It is certainly a more *restorative* purpose than just subsidizing more sprawl.

V. CONCLUSION: THE FIRE NEXT TIME

In his prescient 1963 book, *The Fire Next Time*, James Baldwin made a powerful, poetic argument that America as a collective enterprise has consisted too often in various self-perpetuating delusions. Baldwin’s experiences growing up in Harlem in the 1930s and ‘40s forged his conviction that people, while not “terribly anxious to be equal (equal, after all, to what and to whom?),” do “love the idea of being superior.”¹⁷⁶ Another such delusion, he argued, took the form of an ‘American dream’ that allowed us to lead unexamined lives—to, for example, view something like Soviet Russia as an oppressor without also reflecting on the forms of oppression from which we benefit. Today, Americans’ are urbanizing their natural areas and ringing up extinction debts at an alarming rate.¹⁷⁷ Individual owners benefit from how their land was treated in the past whether or not they insure its future health. Ironically, the same preferences and political failures generating more and more of our “intermixed” landscape—part nature, part culture—are gradually extinguishing exactly what we as people seek in occupying that landscape. Fire, though, like most risks, presents us with opportunities. It is a force of nature that cannot be managed except at broad scales. One silver lining in the mortgage

¹⁷⁵ Unsurprisingly, field office staff and the trust they earn with local people seem to be the most powerful predictors of the restorative techniques that will be welcomed locally. See Christine A. Vogt et al., *Predicting Homeowners’ Approval of fuel Management at the Wildland-Urban Interface Using the Theory of Reasoned Action*, 18 SOC. & NAT. RES. 1 (2005).

¹⁷⁶ JAMES BALDWIN, *THE FIRE NEXT TIME* 88 (1963).

¹⁷⁷ “The effects of habitat fragmentation on the species composition of communities may not be immediate . . . [L]ags can exist between the time a habitat is fragmented and the time when a species disappears altogether from all habitat fragments.” OSWALD J. SCHMITZ, *ECOLOGY AND ECOSYSTEM CONSERVATION* 89 (2007).

crisis and five-dollar-a-gallon gasoline is that people may decide that compact, transit-, bicycle-, and pedestrian-friendly communities are not so bad after all.¹⁷⁸ It certainly beats being just another “community at risk.” Whether we are ready to seize the opportunity and start restoring our fire adapted ecosystems to their historic conditions, though, is something else altogether.

¹⁷⁸ See Eduardo N. Pealver, *The End of Sprawl?*, WASH. POST, Dec. 30, 2007, at B7.