10-1-2012

Declaring Disaster

Jamison E. Colburn

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Available at: https://doi.org/10.37419/TWJRPL.V1.I1.1

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DECLARING DISASTER

Jamison E. Colburn†

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I. INTRODUCTION

A partisan battle erupted in summer 2011 when Governor Rick Perry made an official request to President Obama that the President declare Texas’s wildfires a “major disaster” pursuant to the Stafford Act.1 Perry was taking a break from his campaign for the Republican Party’s nomination in order to visit hard-hit Bastrop County and to denounce President Obama’s alleged inaction on Texas’s request for federal aid.2 (For a candidacy built on the premise of scaling back the

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1. The Stafford Act empowers the President to declare an “emergency” and/or a “major disaster,” either of which serves as a trigger for federal aid. See 42 U.S.C. §§ 5121–5208 (2006). A “major disaster” means “any natural catastrophe . . . or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance . . . to supplement the efforts and available resources of States, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby.” Id. at § 5122(2). The Governor of the affected state must make a request to the President and be taking appropriate responsive action before a Presidential declaration may be issued. Id. at § 5170. To the Author’s knowledge, no one has yet challenged the finding that fires in the “wildland-urban interface” are a “natural catastrophe.”


DOI: https://doi.org/10.37419/TWJRPL.V1.I1.1

Published by Texas A&M Law Scholarship, 2022
federal government, the irony went unappreciated.) But the real disaster of Texas's 2011 wildfires had been building for decades and consisted in a problem far more massive than any single fire, whatever its scope or severity. The problem is that we as a society not only permit but actively subsidize and encourage people to occupy the landscapes that wildfire occupies; we do too little to prepare for fires we know will come, and we do almost nothing to remove the "moral hazard" after we get burned. Our legal order as a whole is the disaster where wildfire is concerned. In this short essay I try to articulate some causal convergences in this disaster and offer a few reflections on some adaptations we see in practice today that may be of broader significance to natural resource law and policy.

Real property law has always been a function of its metaphors. Blackstone's notion of property as dominion has been both orthodox and incoherent for decades. In its contemporary form, a better metaphor than the traditional "bundle of sticks" is the bucket, or what Lee Fennell has called a "leaky bucket of gambles." Property is an artifact of the essential nature of which "resides in the institution's capacity to pool together inputs and outcomes. It need not do so perfectly, of course. Routine spillovers across boundaries can be identified and readily controlled" by tort, contract, public health and safety regulations, etc. But these routine sloshes and leaks from the bucket are no more important to the metaphor than understanding what the bucket is meant to contain: inputs of material, skill, time and effort that may or may not "play out within the domain of the owner's holding" as gains in wealth or value. People gamble on their property and their gambles often depend on the jurisdictions in which their property is found as much or more than their own inputs. The principal fields of law shaping the leaky bucket, the catchments that go with it, and whether the gambles pay off, of course, are a state's common law of real property and the land use plans and regulations every state (including Texas) permits its local governments to enact in some form. Each plays a leading role in defining the bucket, the spills, and who

3. Cf. Robert C. Ellickson, Property in Land, 102 YALE L.J. 1315, 1317 (1993) (quoting 2 William Blackstone, Commentaries *2) ("Blackstone's paean to private property [as a "sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other"] comports with the mainstream Anglo-American exaltation of decentralized ownership of land.").


6. Id.

7. Id. at 16.

8. See id.
wins and loses. Ownership of an estate in land has traditionally entailed a significant degree of autonomy as to use. Indeed, the formative element of local land use law throughout the country is the “existing use.” This aspect of our fire disaster is of surpassing importance, as Part II argues.

Wildfire in the “wildland-urban interface” (“WUI”) is undoing land use law at a national and at a local level, though. Fire is forcing public lands lawyers to become attuned to the practices of risk assessment and management. But it is also changing the use and governance of private property. In Texas, particularly, fire is giving real estate lawyers reason to rethink their clients’ best interests. Given the multiple scales of risks like wildfire, though, this process of undoing is revealing just how poorly adapted to the actual governance of land our federal system has become. As it releases stored carbon and stored solar energy into the atmosphere, fire attacks our landscapes’ beauty, biotic structure, and perceived stasis. But almost a century of suppressing wildfire has jammed us into a continentally-scaled dilemma. Today, many thousands of “communities” across the United States are literally “at risk” from the vegetation around them. The “reintroduction” of fire across our semi-built landscapes has been disastrous, playing out in a series of smaller, more localized disasters like those that ravaged Texas in 2011. Every fire season brings loss of life and millions or billions of dollars of property losses. Fuels and fire are being studied furiously, yielding partial—but often conflicting—insights into fire’s dismal cycles: drenching rains in spring bring the accumulation of fuels that, only months later, dry and burn at high and sustained intensities. And as millions of acres of mountain pine beetle (“MPB”) infestation desiccate alpine timber environments up and down the Rockies, the feedback loops between climate warming and fire are now coming into focus. To anyone who has considered this public problem, it is daunting and growing more so every year.

9. The Departments of Interior and Agriculture define the wildland-urban interface (WUI) as communities falling into three categories: the “interface” community where a sharp separation of urbanized and non-urbanized lands occurs, the “intermix” community where no clear separation can be found and development densities are at or around one structure per forty (40) acres, and the “occluded” community where a clearly urbanized areas is surrounded by “wildland fuels.” Urban Wildland Interface Communities within the Vicinity of Federal Lands that Are at High Risk from Wildfire, 66 Fed. Reg. 751, 753 (Dep’t of Agric. et al. Jan. 4, 2001) (notice). Defining the WUI and, therefore, the “at risk communities” has been a matter of some controversy since 2001. Some estimates are as high as 70,000 at risk communities, some half that size, and others much smaller because they only count the at-risk communities that are proximate to federal public lands. See Urban Wildland Interface Communities within the Vicinity of Federal Lands that Are at High Risk from Wildfire, 66 Fed. Reg. 43384, 43384 (Dep’t of Agric. et al. Aug. 17, 2001) (notice) (reporting that many states in the East reported communities at risk that were not in the vicinity of federal lands).

10. See W. A. Kurz et al., Mountain Pine Beetle and Forest Carbon Feedback to Climate Change, 452 Nature 987 (2008) (describing modeling efforts that suggest
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Modern public lands took over a century to assemble.\(^{11}\) In the face of unprecedented losses and risks from wildfire, however, the demolition and reassembly of this body of law into something very different will come much more rapidly.\(^{12}\) As a tradition, the law governing our 655+ million acre federal estate has been patterned by four discernible compass points. First, its overarching goal has been to secure and protect a collection of extraordinary places withdrawn permanently from “disposition.”\(^{13}\) Initially, this was through totemic “national parks” like Yellowstone. Later, a series of “wilderness,” “national monument,” “national heritage,” and other like areas followed suit. Yet, in immediate parallel, America developed the “working landscape” systems also withdrawn permanently from disposition where extractive uses, infrastructure, and development were to reign, separate and apart from the “preserved” areas.\(^ {14}\) Second, the agents tasked with administering these systems were each in turn disciplined by administrative law’s core commitments to public accountability, participation, and judicial review. One lawsuit at a time, the component bureaus of our public lands systems eventually came to resemble most other regulatory agencies. Third, public lands law has been the product of a crowd of fixed-scale, jurisdictionally-defined agents having authority over one portfolio of federal lands or another. And finally, in its maturity, public lands law has come to expect the impossible—the separation of science from politics—and, so, now routinely portrays its own agents and processes as either suspicious or worse.

This status quo is being replaced today but what will replace it remains unclear. The major federal lands laws, the National Environmental Policy Act (“NEPA”), the Endangered Species Act (“ESA”), the Federal Advisory Committee Act (“FACA”), and the traditional principles of administrative law have all combined to set a status quo that insect impacts on forests will significantly reduce their carbon sequestration potentials as the climate continues to warm).

11. Three leading natural resources casebooks all portray the century from the 1870s to the 1970s as a transition from exploration and exploitation to conservation and preservation. See George Cameron Coggins et al., Federal Public Land and Resources Law 1–29 (6th ed. 2007); Christine A. Klein et al., Natural Resources Law: A Place-Based Book of Problems and Cases 17–21, 37–83 (2d ed. 2009); James Rasband et al., Natural Resources Law and Policy 81–141 (2d ed. 2009).


13. Disposition into other hands was the overarching point of public lands law for much of American history. See Coggins et al., supra note 11, at 64–70.

with which public lands lawyers and conservationists are familiar.\textsuperscript{15} But wildfire has just as surely made each of our four compass points into its own special sort of paradox and is now undermining the very norms that defined this field. Whatever happens next, fire is one force among several poised to remake public lands law into a wholly unprecedented collection of institutional and normative forms still in their infancy—challenging anyone who would call it an “architecture” to explain and justify it. One way or another, in the face of mounting ecological disturbance, risk, and political turmoil, public lands law as we know it is either going to adapt or be marginalized. I conclude with some suggestions for how we might bring the values that gave rise to the field of public lands law into a future of assessing and managing multiple-scale risks like wildfire across our intermixed landscape. Part II first sketches the fire problem and the intermixture of our land use systems. Part III then introduces the new normative and organizational forms wildfire has prompted into existence. And Part IV seeks to reconcile what we know about fire and these innovations with our hopes for land and local autonomy as they intermix in the WUI.

II. Popular Sovereignty, Fire, and Land: A Planner’s Inferno

Fire’s consumption of public lands law probably began with the Yellowstone fires of 1988.\textsuperscript{16} In just weeks, a century of scenery, wildlife, and watershed management were put in doubt, leaving a landscape virtually unrecognizable to its governors.\textsuperscript{17} Fires of like scale and intensity attacked the West every summer throughout the following decade, eventually catalyzing an unprecedented inter-agency strategic planning mobilization. But the majority of fire ignitions, just like the majority of the WUI, sit on private land, where public lands law does


\textsuperscript{17} John J. Craighead, Yellowstone in Transition, in The Greater Yellowstone Ecosystem: Redefining America’s Wilderness Heritage 27, 35 (1991) (“The 1988 wildfires drastically altered the entire ecosystem in just a matter of weeks, creating conditions that will take years to evaluate fully.”).
not reach. This part diagrams the crisis of jurisdiction that wildfire is creating today.

A. Planning For More Fire

After Yellowstone, the resulting federal “Fire Management Policy Review Team,” which went on to issue reports in 1988, 1995, and 2001, aimed at nothing less than a “uniform,” “cooperative,” “cohesive” approach to wildfire across all five major land management agencies, FEMA, EPA, NOAA, and the Defense Department. The wildfire problem was roughly defined at that juncture. Each of these federal agencies is a product of its own legislative mandates; each has its own budget and accounting; each has its own unique blend of professional and para-professional staffs; and each is distributed geographically without regard to the others. Jurisdictional fragmentation just at the level of managing the 655+ million acres of federal land was assured. Still, these review teams set a key cornerstone: traditional organizational forms were failing and new forms were needed.

It was an inter-departmental team report to the President in 2000—after one of the most challenging fire seasons then on record—that provided the kernel of our so-called “National Fire Plan.” In that 2000 report, national fire policy took the form of five goals: (1) control wildfires with all available assets; (2) restore fire as an element of natural landscapes; (3) invest in fire risk-reducing projects like thinning and prescribed burns; (4) build and enhance local communities’ capacities to plan for and fight wildfires; (5) establish a permanent, accountable coordinating body that oversees federal fire management planning and execution. Achieving those goals in particular places—specifying them spatially and temporally—became the core challenge. The fragments of our multi-agency state are not well suited

20. See 2000 REPORT TO THE PRESIDENT, supra note 19, at 2–4. These five ends were intentionally continuous with those articulated in the 1995 Federal Wildland Fire Management Review. See 1995 FEDERAL WILDLAND FIRE MANAGEMENT REVIEW, supra note 18. The ensuing “National Fire Plan” references to both documents have all seemed calculated to minimize the likelihood of conflict among the different goals.
to such gargantuan and politically sensitive tasks, though. And today, as rapid and likely dangerous climate change begins to expose many of the weaknesses of the institutions and norms by which we have governed public lands, those institutions and norms are either adapting or eroding away.

Wildfire exemplifies the challenge of multi-scale risks with high degrees of uncertainty and variability. After decades of excluding fire from too many biomes that had evolved and adapted to it, we now better understand the dynamics of fire across a range of vegetative and hydrologic regimes—which is not to say we understand them very well. In most of these environments, though, fire will either come periodically with varying intensity or it will erupt suddenly and with destructive intensity. Fire risks have been exacerbated by a vast array of decisions which have made fires both more prevalent and more severe.21 The “wilderburbs”22 that now collar so much of our federal public land contribute to the very same risks to which fire suppression, imprudent logging, the release of invasive species, and climate change all now contribute.23 The 2000 fire season still ranks among the worst. Some 123,000 fires burned more than 8.4 million acres, twice the 10-year average (at the time).24 Most importantly, following that fire season the states identified over 11,000 communities “at risk” and “adjacent to Federal lands.”25 Many of these at-risk communities faced menacing threats: “479 homes were destroyed during the 1990 Painted Cave fire in Santa Barbara, most of them within two hours of the initial fire report.”26 Texas in 2011 was distinct only in how little adjacent federal land was involved in its WUI fires.

21. The research is now keyed to no fewer than a dozen contributing causes of increased fire risk, including a history of fire exclusion, insect infestation, the spread of invasive vegetation species, grazing, soil erosion, climatological shifts resulting in less moisture being retained, logging, and other land uses. See Paul F. Hessburg et al., Dry Forests and Wildland Fires of the Inland Northwest USA: Contrasting the Landscape Ecology of the Pre-Settlement and Modern Eras, 211 FOREST ECOLOGY & MGMT. 117 (2005). See also Michael H. Madany & Neill E. West, Livestock Grazing: Fire Regime Interactions Within Montane Forests of Zion National Park, Utah, 64 ECOLOGY 661 (1983).


25. Id. at 24.

Managing these risks in our rural and suburban communities is, therefore, a multi-dimensional, inter-jurisdictional, inter-generational endeavor. In one of the two “Quadrennial Fire Reviews”—a strategic vision for the five major federal lands agencies—the forecast was grim: shorter, wetter winters and longer, warmer, drier summers that will spread more fire across more landscape, probably in the 10-12 million annual acre range.\(^{27}\) Cumulative droughts, insect infestations, and excess human ignitions will continue to exacerbate fire severity and frequency. And, as Governor Perry’s dust-up with the Obama Administration showed last year, even the risks and devastation of wildfire have not been urgent enough to eliminate the partisan political combat so endemic to natural resource politics.\(^{28}\)

**B. Land Use Planning Today: Popular Sovereignty’s Revenge**

For much of the twentieth century, local governments were in charge of the land use planning within their borders according to criteria fixed (to greater or lesser extent) by state law.\(^{29}\) The same governments that supply the public services of modern urban living and that rely disproportionately on the collection of real property taxes, in other words, were charged with governing the land uses within their boundaries. That whole system—the ostensible point of which was the protection of local autonomy—demonstrates how vulnerable individual jurisdictions are to their neighbors’ “spillovers.”\(^{30}\) Indeed, the average town or county in the wildland-urban interface today is best described as a “semicommons”: the intermixture of public and private land where much of what is valuable about the private land comes from neighboring parcels, local markets, local public services, and, of course, public lands in the vicinity.\(^{31}\)

However much of a public/private hybrid real property is, the rhetoric and popular imagination of owner and local autonomy are clear. People largely ignore the interconnectedness of their property with their neighbors’, and of their property with their local jurisdiction’s


\(^{31}\) See Fennell, supra note 5, at 64.
choices, and think of it as their own thing to plan and direct. As a result, the regions that face the worst wildfire risks lack the political power to govern themselves collectively so that regionally scaled problems like sprawl into fire-prone areas cannot be addressed directly. Indeed, the collateral damage from “our localism” was driving legal and political change on several fronts, including voting rights, education, taxation, housing policy, and, of course, conservation. Neo-classical theories of our localism portray it in alternating notes of skepticism and reverence. The one thing localism’s boosters have never done is argue that it can solve regional natural resource tragedies like wildfire in the WUI. With some estimates ranging as high as 44 million homes in the WUI already and the promise of more in the coming decades, this is a real problem. Land use planning has never been comprehensively rational, but it is growing even less so as risks like wildfire begin to dominate.

From 1964-76, statutory frameworks for planning the land uses on our public lands systems were either updated or created whole in rapid succession. While fire restoration was a priority for none of them, they also lacked any means of integrating land use planning by adjacent communities with federal land planning. And that makes land use planning involving fire and the WUI extremely complicated.

32. See, e.g., Larissa Katz, Exclusion and Exclusivity in Property Law, 58 U. Toronto L.J. 275 (2008) (arguing that property law’s core concern is preserving the owner’s position as the exclusive agenda setter for the owned thing).


35. Compare Charles M. Tiebout, A Pure Theory of Local Expenditures, 64 J. Pol. Econ. 416 (1956) (speculating that inter-local competition for residents the efficiently distributes people and the baskets of local public goods and services that different localities provide), with Fennell, supra note 5, at 150–69 (describing a theory of “associational entitlements” that could be restructured and rendered more alienable in order to reduce the high incidence of discriminatory exclusion by owners and localities).


no matter the scale. Because the individual units of our national land systems (normally tens to hundreds of square kilometers in size) do the planning under these public lands statutes, they most often work to get along with local land use planners who, in turn, work to get along with local property owners—especially developers.\textsuperscript{39} If anything, what our land use planning system now lacks is any truly national planning or other coordinative norms.\textsuperscript{40} It has become a loosely federated collection of jurisdictions that only sporadically cooperate toward broader regional or national goals.

Local land use planning and development have always complicated federal land planners’ jobs.\textsuperscript{41} As federal land planning matured in the twentieth century, so did local land use authority.\textsuperscript{42} Land use planning’s traditions are replete with complexity, variation, even contradiction. Indeed, the governance of land use has been fragmented and fuzzy from its inception in this country.\textsuperscript{43} One core tenet of local land use law throughout the nation, though, is the sanctity of the “existing use,”\textsuperscript{44} a pervasive form of grandfathering.\textsuperscript{45} Residences built in fire-

\textsuperscript{39} See generally Jamison E. Colburn, Habitat and Humanity: Public Lands Law in the Age of Ecology, 39 Ariz. St. L.J. 145 (2007) (arguing that the national land planning bureaus and laws have mirrored localistic zoning across the public lands despite the national priorities named in the organizing statutes). Though carried out under the banner of expertise, some of this planning resulted in continental-scale mistakes—like fire- and predator-suppression. See Colburn, supra note 12, at 225–27 (discussing the continental scale mistakes of fire suppression and predator eradication by the Forest Service and other federal land management agencies).

\textsuperscript{40} This is a critique others have leveled forcefully. See, e.g., John Turner & Jason Rylander, Land Use: The Forgotten Agenda, in THINKING ECOLOGICALLY: THE NEXT GENERATION OF ENVIRONMENTAL POLICY 60 (Marian R. Chertow & Daniel C. Esty eds., 1997); Henry L. Diamond & Patrick F. Noonan, Healthy Land Makes Healthy Communities, in LAND USE IN AMERICA 1, 4 (Henry L. Diamond & Patrick F. Noonan eds., 1996).


\textsuperscript{43} See Kaiser & Godschalk, supra note 29, at 365.

\textsuperscript{44} Existing uses are perhaps the single most dominant element of the land use landscape. See Christopher Serkin, Existing Uses and the Limits of Land Use Regulations, 84 N.Y.U. L. Rev. 1222, 1232–42 (2009).

\textsuperscript{45} See id. (reviewing the law of prior, nonconforming uses, amortization, vested rights, constitutional takings and due process doctrines, and their preferential treatment of existing as opposed to prospective, future land uses).
prospective areas already are, in the vast majority of places, grandfathered from any later-adopted land use controls—including those that aim for a retreat from the WUI. Indeed, the competition among localities that seek to attract residents and capital investment often means that even those with real WUI problems and relatively few grandfathered existing uses will still not succeed in keeping growth out of the WUI. Even as developers who build in the fire-prone canyons and steep hillsides throughout the West prey on homebuyers’ tastes for wilderness getaways with the comfort and security of urban living, local land use planners remain mostly powerless to stop them.

In summary, our popular sovereignty has proven to be a limitless source of new jurisdictions, each differentiated from the next by its geographical or topical scale and scope, its particular priorities, and/or its decision-makers. It has helped us build highly dispersed communities that maximize our intermixture of built and unbuilt landscapes, maximize our demands for water and energy, and, thus, maximize our (relative) vulnerabilities to landscape-scale forces like geologic activity, rising sea-levels, wildfire, hurricanes, and floods. These are, in Ruhl and Salzman’s words, “massive problems” and they are never matched to an appropriately shaped or scaled jurisdiction. They frame a common future of environmental risk and disjointed risk management which remains impeded by the very popular sovereignty of our Constitution guarantees. Thus, the institutional and normative boundaries that have hardened over the last century will soon either soften into permeable membranes that facilitate needed exchange and filtering or they will be our failure.

III. THE PROLIFERATING LEGAL FORMS OF THE TWENTY-FIRST CENTURY

Ad hoc partnerships of varying character, scale, and durability that join federal, state, and local legal authority to address public problems like water scarcity or wildfire are becoming the norm. The failure of “cooperative federalism” in the face of problems like regional air quality, non-point source water pollution, wildfire, habitat disruption and loss, climate disruption, etc., has already led practitioners to innovate many new forms of collaboration. They represent an effort to create public problem-solving capacities that outperform courts, agen-

cies, and markets combined.\textsuperscript{50} This includes entities like the Northwest Power and Conservation Council,\textsuperscript{51} CalFed,\textsuperscript{52} the Chesapeake Bay Commission,\textsuperscript{53} the Great Lakes Regional Collaborative,\textsuperscript{54} the Quincy Library Group,\textsuperscript{55} the Upper Clark Fork Steering Committee,\textsuperscript{56} the Applegate Partnership,\textsuperscript{57} the Comprehensive Everglades Restoration Plan,\textsuperscript{58} the Southern California multi-species conservation plans,\textsuperscript{59} the Greater Yellowstone Area,\textsuperscript{60} the Malpai Borderlands Group,\textsuperscript{61} and many, many more.\textsuperscript{62} Since 2000, one seemingly incorrigible problem—fire in the WUI—has forced the spring for several of these new organizational and normative forms. Local, state, and federal governmental authorities are learning their roles today through these entities. In 2000, the Secretaries of Agriculture and Interior doubled their budgetary commitment to fighting wildfire and began

\textsuperscript{50} See generally Anecocoos Wiersma, \textit{A Train Without Tracks: Rethinking the Place of Law and Goals in Environmental and Natural Resources Law}, 38 ENVTL. L. 1239 (2008); Bradley C. Karkkainen et. al., \textit{After Backyard Environmentalism}, 44 AM. BEHAV. SCIENTIST 690 (2000).

\textsuperscript{51} This entity has its beginnings in the Northwest Power Planning Council, created decades ago. See generally John D. Echeverria et al., \textit{Rivers at Risk: The Concerned Citizen’s Guide to Hydropower} 121–22 (1989).

\textsuperscript{52} See generally Jody Freeman & Daniel A. Farber, \textit{Modular Environmental Regulation}, 54 DUKE. L.J. 795, 837–99 (2005).

\textsuperscript{53} See generally Howard R. Ernst, \textit{Chesapeake Bay Blues: Science, Politics, and the Struggle to Save the Bay} (2003).


\textsuperscript{55} See generally Keiter, supra note 15.

\textsuperscript{56} See generally Elizabeth A. Olson, \textit{Water Management and the Upper Clark Fork Steering Committee, in Finding Common Ground: Governance and Natural Resources in the American West} 48 (Ronald D. Brunner et al. eds., 2002).


ramping up the institutional scheme we see today.63 This Part examines two innovations in the heart of their response to pervasive wildfire risk. They are the “cohesive” national strategies and the Wildland Fire Leadership Council (“WFLC”).

A. The Rise of the “Cohesive” Plans and Strategies for Wildfire

In the 1990s, a little known inter-agency operations team vaulted to the leadership of federal fire policy. A full history of this National Wildfire Coordinating Group (“NWCG”), yet to be written, would describe how a loosely connected team of middle managers joined up in a little auditorium in Washington in 1973. Persistent in its efforts to hold together the disparate elements of fire management across three cabinet departments, the NWCG emerged two decades later as an anchor of federal wildfire policy housed at a “National Interagency Fire Center” in Boise, Idaho.64 NWCG today has its own insignia, web domain, and library of guidance documents—including an official 170+ page “glossary” of wildfire terminology.65 It is the operational hub of our wildfire-fighting capabilities. Local governments today know that they must cooperate with NWCG and its developing normative architecture. Most important are its dozen (or so) “working teams,” divided into three branches, each with its own “branch coordinator,”66 that struggle to supply the needed coordination to the sprawling mass of fire planning and firefighting elements strung throughout the United States,67 doing so with fewer and fewer recognizable connections to the political constituencies of the constituent agencies.68

Much of NWCG’s authority stems from the issuance of several nationally prominent “policy statements.” In 1995, the NWCG’s cabinet

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67. The NWCG working teams struggle to create and hold together what Hugh Heclo once called “shared-knowledge groups”—groups of actors who regard each other as knowledgeable, or at least as “needing to be answered.” Hugh Heclo, Issue Networks and the Executive Establishment, in THE NEW AMERICAN POLITICAL SYSTEM 87, 103-04 (Anthony King ed., 1978).
68. Cf. id. at 118 (“[O]nly a small minority of citizens, even those who are seriously attentive to public affairs, are likely to be mobilized in the various networks . . . [and] instead of garnering support for policy choices, more communication from the issue networks tends to produce an ‘everything causes cancer’ syndrome among ordinary citizens.”).
and sub-cabinet overseers had deliberated at length and produced an experimental type of text, the Federal Wildland Fire Management Policy. A draft of this text was published in its entirety in the Federal Register and two rounds of public comment ensued. In this statement of recommended findings, principles, and policies—eventually finalized under the hands of nineteen different signatories including the secretaries of Agriculture and Interior—the acceptance of fire as a “natural process” was unambiguous. But given how unnatural wildfire had become, it was as if these agents were announcing that they could not manage the unmanageable. Notably, they generated a text so provisional and so scrupulously free of any mandatory content that it could have mattered only as a means of animating an extending government network. In a 2001 reworking of the 1995 policy, the NWCG again pushed the departments of Agriculture, Interior, Defense, and Energy, EPA, and FEMA to adopt nine “guiding principles,” backed by over a dozen multi-part “findings” and eleven “Strategic Implementation Actions.” They again agreed that “reintroducing” fire was an urgent necessity. But one thing had shifted unmistakably: the “wildland-urban interface” had gone from being someone else’s problem to being the federal land managers’ worst nightmare. Palpable was the sense that fire management on federal land was simply impossible with so much time, money, and effort being spent fighting “structural fires.” So the participants reiterated that state and local authorities be engaged directly and that “every


70. See 1995 FEDERAL WILDLAND FIRE MANAGEMENT REVIEW, supra note 18, at iii, 4.

71. The 2000 “National Fire Plan” memorandum to President Clinton took many of its core points from the policy statement. See 2000 REPORT TO THE PRESIDENT, supra note 19.


73. Id. at 25–31.

74. Id. at 2 (“The task before us—reintroducing fire—is both urgent and enormous.”).

75. See id. at 11–12. The fifth Finding in their report was that the “scope of the fire hazard problem in the [WUI] is more complex and extensive than envisioned in 1995,” and that federal land managers’ efforts to reintroduce fire were being frustrated by the need to protect people and homes. Id.

76. Compare 1995 FEDERAL WILDLAND FIRE MANAGEMENT REVIEW, supra note 18, at 23 (“Agency administrators’ views on this issue cover the entire spectrum from ‘the Federal Government has no business in the urban interface’ to ‘Federal involvement is essential in the interface.’”), with 2001 REVIEW AND UPDATE, supra note 72, at 3 (“The Wildland Urban Interface has become a major fire problem that will escalate as the nation moves into the 21st Century. People continue to move from urban to wildland areas...[giving] little thought to the wildfire hazard, and bring with them their expectations for continuation of urban emergency services.”), and Id. at 26–27 (linking the failures to reintroduce and manage wildland fire to the urgent need to protect people and homes from wildfire).
area with burnable vegetation must have an approved Fire Management Plan”—a unit-level plan designed to “define a program” for managing wild and prescribed fires “based on the area’s approved land management plan.”77 By 2001, the Cerro Grande prescribed-burn-run-amok78 had convinced some land managers that fire reintroduction in the vicinity of “at risk communities” was practically impossible. The NWCG soon communicated the lessons to the rest.79

It was this early history that prepared the President and Congress to govern wildfire by informal, network-oriented policy statements. NWCG is now based on a continuing memorandum of understanding (“MOU”) executed between BIA, BLM, FWS, NPS, USFS, FEMA’s National Fire Administration, and two nonprofits—the Intertribal Timber Council and the National Association of State Foresters (“NASF”).80 The NWCG’s planning and operations, carried out by its “working teams,” straddle the boundaries dividing planning from action, past from future, and permanent from ad hoc.81 The teams are as diverse as the problem of wildfire is wide and deep. They collect the working parts of their different host agencies into a functional connection complex that is at least better fit—if not yet provably superior—for the kind of work fire in the WUI necessitates. The NWCG’s “mission statement”82 reveals its nature: to be anything

77. 1995 FEDERAL WILDLAND FIRE MANAGEMENT REVIEW, supra note 18, at 23–24.
78. An NPS-prescribed fire in Bandelier National Park in May 2000 escaped and became an infamous wildfire which burned into Los Alamos, New Mexico, now known as “Cerro Grande.” See INTERAGENCY FIRE INVESTIGATION TEAM, CERRO GRANDE PRESCRIBED FIRE INVESTIGATION REPORT (2000). It catalyzed the Secretaries of Interior and Agriculture to reconvene the team that produced the 1995 Federal Wildland Fire Management Review. See 2001 REVIEW AND UPDATE, supra note 72, at 3.
82. The NWCG “mission statement” is given as follows:

Establish a unified and cohesive federal fire management policy codified in agency, inter-agency and departmental manuals, guidebooks and other documents through clear, concise, and uniform language across all agencies. Through a communication plan share work and information with all wild-

land agencies.

http://www.nwcg.gov/nwcg_admin/organize.htm. I was unable to find any legal au-

thorization from a higher authority of any sort grounding or otherwise directing this mission statement.
more permanent would require unimaginable consolidation;\(^\text{83}\) to be more future-oriented would be unmindful of relevant history;\(^\text{84}\) to emphasize planning over action or vice versa would ignore the spatial and temporal scales of the systems at issue.\(^\text{85}\)

The NWCG and the early policy statements it pioneered have led to a continuous flow of “strategy” documents that do not govern so much as they guide. The latest in a succession of these instruments, the National Cohesive Wildland Fire Management Strategy was required by Congress in 2009 and now sits atop the policy networks for wildland and WUI fire management.\(^\text{86}\) This “Cohesive Strategy” was itself an innovation, setting out a single vision,\(^\text{87}\) the “factors” that will most influence its attainment,\(^\text{88}\) and the “goals” and “performance measures” the authors believed would lead to a spatially explicit implementation of the desired future conditions—along with the explicit caveat that it was being translated into three “regional” strategies due for completion in late 2012.\(^\text{89}\) The instrument was forthrightly evolu-

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\(^\text{84}\) Cf. A. Dan Tarlock, A First Look at a Modern Legal Regime for a “Post-Modern” United States Army Corps of Engineers, 52 U. Kan. L. Rev. 1285, 1315–18 (2004) (detailing the counterintuitive ways that greater stakeholder participation and local control of Corps decision-making mix with Corps operating procedure and funding structures to increase the risk of political self-dealing).


\(^\text{87}\) The “vision” articulated in the National Cohesive Strategy is to “[s]afely and effectively extinguish fire, when needed; use fire where allowable; manage our natural resources; and as a Nation, live with wildland fire.” See National Cohesive Strategy, supra note 86, at 1. The strategy was required of the Secretaries of Agriculture and Interior acting “jointly” by the Federal Land Assistance, Management, and Enhancement Act of 2009, sec. 503, 123 Stat. 2904 (codified as amended at 43 U.S.C. § 1748b (Supp. III 2009)). The secretaries delegated their authority to the Wildland Fire Leadership Council.

\(^\text{88}\) The National Cohesive Strategy labels the following the “factors” that present “the greatest challenges and the greatest opportunities” in achieving the vision: (1) restoring and maintaining resilient landscapes; (2) creating fire-adapted communities; and (3) responding to wildfires. National Cohesive Strategy, supra note 86, at 1. See generally id. at 7.

\(^\text{89}\) See id. at 10.
tionary in orientation, with an express deferral of decisions to more regionalized teams that had yet to be formed. In a nutshell, the Cohesive Strategy aims to institute a risk-based and phased approach to wildfire in a “polyarchical” system—a system where multiple and overlapping centers of powers exist.

As more human and financial capital have flowed toward restoring fire to our occupied and legally fragmented landscapes, the nationwide norms that exist take the form of informal, non-binding, always-evolving documents governing not individual agencies or their actions, but rather the network of partners and coordinators therein. The most highly connected entity, the Wildland Fire Leadership Council, quickened that evolution.

B. *The Rise of the Wildland Fire Leadership Council (“WFLC”)*

Just as the federal agencies were finishing their 2001 review of the *Federal Wildland Fire Management Policy*, the Western Governors’ Association was moving into crisis mode dealing with fire in the wildland-urban interface. In August, 2001 an unwieldy group of collaborators unveiled a “10-Year Comprehensive Strategy,” calling it a “collaborative framework” and touting it as the response to Congress’s National Fire Plan ambitions. This 10-year implementation plan (10-YIP) articulated four primary goals: (1) to improve prevention and suppression of fire; (2) to reduce hazardous fuels; (3) to restore fire adapted ecosystems, and (4) to promote community

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90. See *Report to Congress*, supra note 86, at 26.

91. The 10-Year Comprehensive Strategy was born an orphan: no one claimed to have authored it. A cryptic sentence in the Appendix (“The Department of the Interior and the Department of Agriculture collaborated with the Governors in the development of this document.”) prefaced a list of twenty-eight (28) parties who were “consulted” and who provided “input.” 10-YEAR COMPREHENSIVE STRATEGY, supra note 24, at 19 app. II. That was followed by a list of forty (40) parties who “[c]ommented.” See id. at 20–21 app. III.

92. Language from a committee report for the budget resolution following the 2000 *Report to the President*, supra note 19—language which is now a routine incantation for the WFLC and NWCG—was quoted at length in the 10-Year Comprehensive Strategy and WFLC documents for having provided the needed “direction” to the federal agencies and the western states to establish a collaborative framework:

The managers [of the budget bill] direct the Secretaries to engage governors in a collaborative structure to cooperatively develop a coordinated National 10-Year Comprehensive Strategy with the states as full partners in the planning, decision making, and implementation of the plan.

10-YEAR COMPREHENSIVE STRATEGY, supra note 24, at 5 (quoting H.R. REP. NO. 106-914, pt. 4, at 193 (2000) (House Rep.)). Why such “direction” was never elevated to any more authoritative stature than a few sentences in a committee report supporting an omnibus appropriations bill, however, perhaps should be a matter of some interest, legally. See, e.g., John F. Manning, *Textualism as a Nondelegation Doctrine*, 97 COLUM. L. REV. 673, 706–31 (1997) (arguing that it is often incorrect to attribute bill managers’ intent to the legislature as a whole and that doing so is inconsistent with the text and structure of the Constitution).
assistance.\textsuperscript{93} It was in the rise of the 10-YIP that the Wildland Fire Leadership Council (“WFLC”) originated.\textsuperscript{94} Following a revision of the 10-YIP, the Healthy Forests Restoration Act’s\textsuperscript{95} marriage of these disparate elements together,\textsuperscript{96} and the 2009 legislation that required the \textit{Cohesive National Strategy}, the WFLC became a powerful force in the nationwide planning and coordination of fire/fuels management.\textsuperscript{97}

What little work toward nationwide restoration is being done today is being coordinated by the WFLC.\textsuperscript{98}

Unfortunately, the WFLC remains a victim of its own scale. Restoring fire-adapted ecosystems, whether by reintroducing fire or by use of “fire surrogates” like mechanical thinning, is incompatible with risk-based fire management in the WUI as a practical matter. Singly and jointly, the federal land managers battle this reality constantly. For now, fires are simply too unpredictable and land managers too risk-averse\textsuperscript{99} or too incapable of shaping public attitudes\textsuperscript{100} for widespread use of prescribed burns in or near WUI communities.\textsuperscript{101}

Mechanical treatments are simply too costly to be as widespread as

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\textsuperscript{93} See \textit{10-Year Comprehensive Strategy}, supra note 24, at 7.


\textsuperscript{96} See Colburn, supra note 12, at 235–37.

\textsuperscript{97} The website collecting the WFLC’s documents and descriptions gives the following “mission statement”:

The [WFLC] is an intergovernmental committee of Federal, state, tribal, county, and municipal government officials convened by the Secretaries of the Interior, Agriculture, and Homeland Security dedicated to consistent implementation of wildland fire policies, goals, and management activities. The Council provides strategic oversight to ensure policy coordination, accountability, and effective implementation of Federal Wildland Fire Management Policy and related long-term strategies to address wildfire preparedness and suppression, hazardous fuels reduction, landscape restoration and rehabilitation of the Nation’s wildlands, and assistance to communities.

\textit{Wildland Fire Leadership Council}, supra note 94.


\textsuperscript{100} Gregory J. Winter \textit{et al.}, \textit{Fuel Treatment at the Wildland-Urban Interface: Common Concerns in Diverse Regions}, 100 \textit{J. Forestry} 15 (2002) (tracking land manager awareness of “public unwillingness to accept prescribed fire” because of the “potential for negative impacts”).

\textsuperscript{101} There is reason to believe that land managers can change this reality and prepare WUI communities for much more restorative fire than is currently being carried out. See, e.g., Christine A. Vogt \textit{et al.}, \textit{Predicting Homeowners’ Approval of Fuel Management at the Wildland-Urban Interface Using the Theory of Reasoned-Action}, 18 \textit{Soc’y & Nat. Resources} 1, 15 (2005) (“Two cognitive factors, personal importance and trust in the agency implementing the [fuel management approaches], are
they would need to be to measurably advance a restorative agenda.\textsuperscript{102} Thus, a \textit{spatially explicit} version of any of the “cohesive” plans or strategies, their component “goals” or “guiding principles” would surely end in the kind of conflict that still blocks comprehensive legislation on wildfire.\textsuperscript{103} The alternative is a “collaboration framework” where people in authority are conditioned to dissemble on core questions and leave major commitments—like actually reestablishing fire regimes in defined regions—in provisional form.

One clear lesson at this point in our evolution is that the NWCG and WFLC are both highly “specific assets.”\textsuperscript{104} While the Obama Administration reorganized the WFLC to reduce its western gubernatorial tilt, the institutional, communicative, and cognitive adaptations that created the WFLC cannot be easily re-tooled or replaced. The political winds will have to shift dramatically to eliminate any of these innovations.\textsuperscript{105} Another take-away is that more of this evolution lies ahead. As Part IV explains, the most palpable element in all of these innovations has been the merger of traditionally separate legal authorities by way of dense interconnections and frequent, almost constant communication. Networking that has developed to an astonishing degree at the trans-governmental level\textsuperscript{106} now threatens (or promises) to reinvent domestic regulation as well.\textsuperscript{107} Wildfire is the preeminent ex-

\textsuperscript{102} See, e.g., Todd A. Steelman & Caitlin A. Burke, \textit{Is Wildfire Policy in the United States Sustainable?}, 105 J. Forestry 67, 70 (2007) (“If the Forest Service and BLM were to treat all moderate and high-risk acres, the annual cost would climb to $4.3 billion/year [using a conservative per acre cost figure].”).

\textsuperscript{103} Cf. Colburn, supra note 12, at 223, 232–39 (describing the legislative procedural barriers for wildfire reform).

\textsuperscript{104} Specific assets, like “sunk costs,” lose considerable value when they are liquidated or re-tasked. See Oliver E. Williamson, \textit{The Mechanics of Governance} 93–120 (1996).

\textsuperscript{105} While the NWCG purportedly absorbed the WFLC as a coordinating entity in January 2008, it is not clear that such a merger can actually work. The WFLC at least purported to level private, state, and federal stakeholders into a single planning body aimed at achieving the goals set forth in the 10-Year Strategy Implementation Plan. See A \textit{Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment} (2006) [hereinafter 2006 10-YIP], available at http://www.forestsandrangelands.gov/resources/plan/documents/10-yearstrategyfinal_dec_2006.pdf.

\textsuperscript{106} See generally Anne Marie Slaughter, \textit{A New World Order} (2004); Anne Marie Slaughter, \textit{Agencies on the Loose? Holding Government Networks Accountable, in Transatlantic Regulatory Co-Operation: Legal Problems and Political Prospects} (George A. Bermann et al. eds., 2001); Anne Marie Slaughter, \textit{Sovereignty and Power in a Networked World Order}, 40 Stan. J. Int’l L. 283 (2004). However, it is unclear that Slaughter, or anyone else for that matter, has adequately addressed the accountability of such networks.

\textsuperscript{107} Inter-governmental regulatory networks that begin innocently enough often take on the appearances of those who would “out-source” a nation’s sovereignty. See generally Kenneth Anderson, \textit{Squaring the Circle? Reconciling Sovereignty and Global Governance through Global Government Networks}, 118 Harv. L. Rev. 1255 (2005) (reviewing Anne Marie Slaughter, \textit{A New World Order} (2004)).
ample. Wildfire is the ultimate exigent circumstance and it has crunched traditionally separate agents and enterprises together with such force that familiar identities and boundaries are now crisscrossed by the flows of information, personnel, and capital. So where is this all heading? An optimistic view is that it is rebuilding the buckets involved with institutions better designed to serve their functions. Part IV examines the local role in this transformation.

IV. FIRE PLANNING ON THE GROUND: LAND USE EVOLVED?

This Part describes how local governments have been adapting to the normative and institutional constructions described in Part III. One instrument in particular has dominated nationally. It channels private, municipal, state, and federal actors’ authority into a single, ambiguously defined medium: the Community Wildfire Protection Plan (“CWPP”).

A. HFRA: The Rise of the CWPP

A hallmark of “our federalism” has been that it apportions distinct functions to the subnational and national governments while enabling the tribunals of each to interpret and apply whatever law governs the parties at hand. With the rise of individual rights guarantees in the twentieth century, this system was transformed into an increasingly “polyphonic” framework that actively blends local, state, and federal voices, creating an arguably “dialectical” exchange between each level’s authorities. And with the enactment of the Healthy Forests Restoration Act (“HFRA”) in 2003, wildfire in the WUI came to exemplify the tradition. Federal land managers were anchored to the “treatment” of fuels, especially in the WUI, and local officials were incentivized to create localized risk management plans for wildfire. Under HFRA, fuels treatment funding has flowed toward those “at risk communities” with a CWPP. CWPPs have three qualifying elements under HFRA. First, it must be “developed within the context of the collaborative agreements and the guidance established by the [WFLC] and [be] agreed to by the applicable local government, local

108. It is, if anything sound at all, what Karkkainen, Dorf, Sabel, and others call the “experimentalist” rejection of traditional jurisdictionality. Cf. Karkkainen et. al., supra note 50, at 708 (“By blurring the division of labor among the branches and levels of government and tying the ultimate resolution of large policy questions to daily collaborative problem solving, [what the authors diagnose as ‘experimentalism’] seems to repudiate th[e] Madisonian legacy . . .”).
fire department, and State agency responsible for forest management, in consultation with interested parties and the Federal land management agencies managing land in the vicinity of the at-risk community.”112 Second, it “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 one or more at-risk communities and essential infrastructure.”113 Lastly, it “recommends measures to reduce structural ignitability throughout the at-risk community.”114 Localities remain free to create local fire plans that do not meet these standards, but HFRA’s federal subsidies cannot flow to them without a HFRA-compliant plan.

Federal land managers are instinctively wary of stepping on the hal-lowed ground of “local autonomy” and property rights (even as the leaky buckets of gambles around their lands flirt with disaster).115 And where CWPPs are supposed to integrate local and national priorities by, for example, selecting fuel treatment strategies and rendering fire priorities spatially explicit, the results to date are more work in progress than mission accomplished. The HFRA CWPP prerequisites, because they comprise federal law’s definition of a CWPP, carry forward into all its references to CWPPs—most especially as to high priority hazardous fuel reduction work.116 The “stewardship contracting” wherein federal land managers use inducements like merchantable timber to engage local actors in restorative and longer-term partnerships, for example, rests squarely on the capacity of CWPPs to organize this federal-local cooperation.117 Yet federal land managers still know their taboos. They know how little trust they enjoy in the use of prescribed burns, for example, and how easily they are perceived as simply dictating land uses in and around the federal estate.118 Federal land managers’ plans, thus, tend to remain confined within their boundaries.

112. 16 U.S.C. § 6511(3)(A) (2006). This is what the Author calls HFRA’s “triple key” to the completion of a CWPP: the consent of all three (applicable local government, local fire department, and responsible state agency) is mandatory.
115. Federal unit planners also have an incentive to avoid direct participation in CWPP development because of the NEPA, Endangered Species Act, and other triggers that may arise as a result. Even the provision of advice or guidance to local CWPP processes might be regarded as covered agency “action” under the prevailing legal tests. See Bennett v. Spear, 520 U.S. 154 (1997).
116. See, e.g., 16 U.S.C. § 6513(a) (“[T]he Secretary shall develop an annual program of work for Federal land that gives priority to authorized hazardous fuel reduction projects that provide for the protection of at-risk communities or watersheds or that implement community wildfire protection plans.”).
118. See Jensen, supra note 63, at 975–78; Jay O’Laughlin, Policy Issues Relevant to Risk Assessments, Balancing Risks, and the National Fire Plan: Needs and Opportuni-
In the absence of any governance by federal land managers, the WFLC’s 10-YIP indirectly influences CWPP development with several “performance measures” on CWPPs, together with a sea of privately-generated guidance for CWPPs. The one guidance that has come closest to official sanction is the Society of American Foresters’ “handbook,” Preparing A Community Wildfire Protection Plan: A Handbook for Wildland-Urban Interface Communities, which prominently exclaims that it is “not a legal document.” Several states have adopted this as their guidance and the private organizations that authored it are quite influential in their own right. Besides the divide between the nationally-oriented plans and goals on federal lands and locally adopted CWPPs, however, the slow development of CWPPs in states without federal lands and/or major recent wildfires underscores the variability of the problem from East to West. In the little empirical work that has been done, CWPPs have been found to skew toward the West (toward communities proximate to federal public lands) and, especially, toward those “communities” proximate to a major recent fire. In a 2008 report, Community Wildfire Protection Plan Evaluation Guide, Resource Innovations and the University of Oregon’s Institute for a Sustainable Environment found that over 300 CWPPs meeting the HFRA standards had been completed by March 2006.

119. See 2006 10-YIP, supra note 105.
120. Some states like Texas have state guidance and/or templates on CWPP development. The accuracy and/or utility of such guidance varies. No single federal template or guidance has yet been issued.
121. See Preparing A Community Wildfire Protection Plan: A Handbook for Wildland-Urban Interface Communities 2 (2004) (hereinafter CWPP Handbook). “This guide is not a legal document, although the recommendations contained here carefully conform to both the spirit and the letter of HFRA.” Id. Steps six and seven in the CWPP Handbook are the development of community hazard reduction priorities and an action plan that “identifies roles and responsibilities, funding needs, and timetables for carrying out the highest priority projects.” Id. at 8.
CWPPs in the East, where most of the WUI is found, often do little or nothing to plan for wildfire in the WUI.124 There is a great deal of scale variability in completed CWPPs as well, some of which are adopted at the county level and some of which are adopted at scales as small as homeowners’ associations in particular subdivisions.125

The functional value of a CWPP turns on the regional landscape in which the planning area is situated, the threat level the particular landscape faces, and the quality of the plan itself.126 In hard-hit Bastrop County, Texas, the CWPP was completed in 2009, just two years before the WUI fires that destroyed 1,400 homes and killed two people.127 That CWPP has since been pulled from the Internet, pending revisions one assumes. No empirical work yet exists tracking the content or average character of CWPPs. A wholly unscientific review of the CWPPs that have been shared on the Internet suggests some contours, though. First generation CWPPs seem to take the firefighter’s perspective, favoring “defensible space” around homes and other structures, fire-resistant construction, and carefully planned and buffered evacuation routes.128 By contrast, a land use planner might mitigate wildfire-WUI risk by zoning people and homes out of the places fire is sure to reach.129 Where the latter approach is forward- and outward-facing, though, the former need only involve current landowners, current infrastructure, and current budgets. The former, in short, is much less challenging from a present perspective; it is much less of an incentive to coordinate and integrate regionally.

As CWPPs evolve and multiply the real question is what risk mitigation techniques will work best. At present, too few CWPPs seem

124. See Grayzeck-Souter et al., supra note 122, at 283–86.
125. Id. at 286.
126. See COMMUNITY WILDFIRE PROTECTION PLAN EVALUATION GUIDE, supra note 123, at 8–9 (listing criteria by which to evaluate a CWPP, including how it minimizes wildfire risks, how accurately it tracks changes in the local population and local vegetation, its action items, and outcomes).
128. The Author has had the pleasure of reviewing scores of CWPPs over the last four years, the latest being a draft update to Sunset Valley, Texas’s CWPP (in the wake of the 2011 Bastrop County Fires) in February 2012, and the earliest being that from Josephine County, Oregon (adopted in the wake of the massive “Biscuit Fire” of 2002). This work is hindered by the lack of any central repository, any state-to-state sharing architecture, and the lack of common definitions of CWPPs, given how much fire planning had occurred at the local level prior to the enactment of HFRA (and its “triple key” and prerequisite approach to CWPPs). The database that the USDA was constructing was abandoned in 2010. See National Database of State and Local Wildfire Hazard Mitigation Programs, WILDFIRE PROGRAMS, http://www.wildfireprograms.com/search.html (last visited Aug. 25, 2012).
129. Some communities have been experimenting with regulatory tools as means of reducing wildfire/WUI hazards. See REGULATORY TOOLS, supra note 122, at 13–24.
integrated with other local planning processes like, for example, a comprehensive land management plan or the Natural Hazard Mitigation Plans required by the Federal Emergency Management Agency ("FEMA"). Too few seem at all in touch with the CWPPs of adjacent communities. Some qualitative work suggests that different procedural models account for the variability in "community support" for a CWPP, although this work is vulnerable to a variety of biases. Some, like the Sitgreaves CWPP finalized in May 2004, reflect months of intensive planning, interchange, and hard thinking about the WUI/wildfire problem at a landscape scale. Other CWPPs are the work of paid consultants and seem destined to take up shelf-space as dust collectors. Some CWPPs include a variety of mechanisms that seek to control or otherwise deter WUI development. I have been unable to locate any CWPP that prohibits development in high hazard areas, although this seems inevitable in some places.

The CWPP process that unfolded in the Arizona White Mountains after the huge Rodeo-Chediski fire of 2002 provides a typical example of the CWPP in the West. The region had a year-round population of about 17,000 and a seasonal population of about 65,000. CWPP development was utterly central to the local communities and the unit managers of the Apache-Sitgreaves National Forest. So they all adapted their respective jurisdictions significantly to make the plan work. The eastern shore of Staten Island provides a surprisingly typical example of CWPPs in the East. An over-abundance of the common reed Phragmites australis on state owned shorelands and abandoned lots collaring the neighborhoods of the eastern shore boosted fuel loads and, thus, WUI fire risk on this suburban New

130. See Grayzeck-Souter et al., supra note 122, at 280.
132. Judging whether or not CWPP development is "collaborative," as the Joint Fire Sciences program has been attempting to discover, will obviously turn on a variety of contestable judgments about collaboration, its value priorities, and the spectral nature of that particular good.
134. See Regulatory Tools, supra note 122, at 10.
135. See Fleeger, supra note 133. "[A] monumental wake-up call arrived in the form of the Rodeo-Chediski Fire. At more than 460,000 [acres], the Rodeo-Chediski was the largest wildfire in Arizona’s recorded history and claimed approximately 400 homes and forced the evacuation of more than 30,000 residents from nine communities." Id. at 79. Fleeger found that the fire was a "galvanizing" event that "changed community perceptions about the need to mitigate the wildfire risk in the WUI." Id. at 81.
136. Id. at 79.
137. See id. at 80–81.
York island. An intensive planning process involving borough, city, state, and federal officials, local utility providers, land owners, first responders, and others yielded a number of prescribed fuel reductions. Because *Phragmites* is so difficult to eradicate, though, the CWPP outlined multiple, complementary tools including herbicides, mechanical thinning, prescribed burning, and legislation to deal with uncooperative or absentee land owners—which the state eventually enacted. All of this was required for an area only a few dozen city blocks in size.

It is too soon to issue pronouncements on the utility of CWPPs nationwide, except (perhaps) that they are trending toward the treatment of symptoms. Anyone familiar with local land use planning as a tradition will not be too surprised if that is the case. Section B considers what federal guidance can do to improve this loosely federated system within the practical parameters we face.

B. The Missing Elements: Infrastructure for a More Accountable Network

The signature virtues of the system of weakly tied elements described to this point are difference and continuous adaptation. Learning from each other by monitoring others’ experiences and lessons learned is possible in a system of this kind, but it must be facilitated. In this light there are clearly maladaptive techniques. The Texas Forest Service’s “web application” and rigid template for CWPP development, for example, reflect a “do it this way” attitude that does nothing to share others’ experiences, outcomes, learning, etc. Conversely, the level of government possessing the requisite capacity to start a broad-scale system for benchmarking CWPP performance (the federal government) is still preoccupied with collecting data on acres “treated,” as if these treatment totals are ends in themselves. Fuel treatments are still an experiment that, if not selected wisely, may actually end up exacerbating wildfire risks. Different species, soil types, pest regimes, and fire weather will generate significantly different outcomes, leaving very few probabilities on which decision-makers can rely. HFRA’s

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139. *Id.* at 54–58.
141. See Colburn, *supra* note 12, at 244.
142. See Erich Kyle Dodson et al., *Understory Vegetation Response to Thinning and Burning Restoration Treatments in Dry Conifer Forests of the Eastern Cascades, USA*, 255 *Forest Ecology & Mgmt.* 3130 (2008) (concluding that combined thinning and burning treatments improved understory species diversity in dry coniferous forests but that pre-treatment conditions may significantly affect outcomes and that more before/after measurements are needed to document the range of possibilities); Andrew Youngblood et al., *Changes in Fuelbed Characteristics and Resulting Fire Potentials after Fuel Reduction Treatments in Dry Forests of the Blue Mountains, Northeastern Oregon*, 255 *Forest Ecology & Mgmt.* 3151 (2008) (finding that thinning, burning, and thinning plus burning all had some potential to reduce crown fires.
dominant focus on reducing fuels—without critically monitoring outcomes—is probably a fool’s errand. Money may not grow on trees, but fuels do. If you manage what you measure, the net effect of the National Fire Plan and HFRA’s combined focus on acreage totals may end up being a disastrous waste of public money.

Likewise, especially in the East where federal land is scarce but wildfire is not, FEMA’s role must be updated. FEMA currently maintains informal guidance on the direction of its hazard reduction funds that could probably tie disaster relief under the Stafford Act to improving local preparedness and “resilience” in fire prone areas. Tying FEMA’s Hazard Grant Mitigation Program (“HGMP”) to the preparation and continuous improvement of CWPPs and CWPP performance—especially where there is an abundance of WUI but little federal land—might be one way to nudge localities away from the WUI. Inter-local benchmarking by FEMA in this vein would require an enhancement of its planning function, whether under its “Pre-Disaster Hazard Mitigation” program or under the more general HGMP. FEMA’s current guidance already conditions the availability of federal funds for defensible space work, ignition-resistant (re-)construction, and fuel reduction projects on the attainment of local and/or National Fire Protection Association

in certain conditions, but that thinning plus burning did so most widely). Even less well understood are the cascading effects that stem from fire’s interaction with drought, pests, and disease. See, e.g., Andrew Youngblood et al., Delayed Conifer Mortality after Fuel Reduction Treatments: Interactive Effects of Fuel, Fire Intensity, and Bark Beetles, 19 ECOTOLOGICAL APPLICATIONS 321 (2009).


144. The Disaster Mitigation Act of 2000, Pub. L. No. 106-390, 114 Stat. 1552 (2000), amended the Stafford Act to key more of FEMA’s hazard mitigation work to mitigating vulnerabilities and much of it deals with local land use planning. See Patricia E. Salkin, Sustainability at the Edge: The Opportunity and Responsibility of Local Governments to Effectively Plan for Natural Disaster Mitigation, in LOSING GROUND: A NATION ON EDGE 125 (John R. Nolon & Daniel B. Rodriguez eds., 2007). The amendments permit the President to provide “assistance” of various kinds for the “mitigation, management and control of any fire on public or private forest land or grassland that threatens such destruction as would constitute a major disaster.” 42 U.S.C. § 5187 (2006). There is no reason the President could not condition the supply of such assistance on the attainment of various prerequisites.

145. The Pre-Disaster Hazard Mitigation Program makes federal funds available to select localities that qualify as a “small impoverished community.” 42 U.S.C. § 5133(a) (2006). Many WUI communities would likely qualify under the applicable criteria. Under the HGMP, FEMA can “contribute up to 75 percent of the cost of hazard mitigation measures which [it] determin[e] are cost-effective and which substantially reduce the risk of future damage, hardship, loss, or suffering in any areas affected by a major disaster.” Id. § 5170c(a).

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DOI: 10.37419/TWJRPLV1.I1.1
("NFPA") code compliance.\textsuperscript{146} It also recommends (without requiring) the NFPA’s "Firewise" tools and information.\textsuperscript{147} Firewise is another possible source of guidance to local communities, although its guidance is non-binding and need never rise to the level of inter-local governance.

More fundamentally, the federal land managers, FEMA, states, tribes, and local communities-at-risk must all adapt their thinking about the WUI from a largely spatial conception to one that views it as a set of dynamic conditions of population and vegetation. The WUI is not a place; it is a risk management tool.\textsuperscript{148} Whether an institution’s goal is restoring fire to the landscape, protecting people and property, or planning a more resilient and functional suburban environment, a shift toward this more dynamic conception of the WUI is imperative. Thus, all actors involved in preparing for and recovering from wildfire would do well to cultivate more of a "database aesthetic" in their operations.\textsuperscript{149} By internalizing the many different forms of information and spatial frames available today, those oriented toward the ubiquity and necessity of managing data view our common information pools as core normative signals. They internalize our collective need to build and improve our information-sharing infrastructure with urgency and purpose. California may become a de facto surrogate in this connection until the federal government acts. With over 1,200 designated "communities at risk," California is probably the largest single wildfire/WUI laboratory and the California Fire Alliance is currently building a database of the sort suggested here.\textsuperscript{150}

\textsuperscript{146} See FEMA Mitigation Policy MRR-2-08-1, supra note 143 at 3.

\textsuperscript{147} The Pre-Disaster Hazard Mitigation Program makes federal funds available to select localities that qualify as a "small impoverished community." 42 U.S.C. § 5133(a) (2006). Many WUI communities would likely qualify under the applicable criteria. Under the HIGMP, FEMA can “contribute up to 75 percent of the cost of hazard mitigation measures which [it] determine[s] are cost-effective and which substantially reduce the risk of future damage, hardship, loss, or suffering in any areas affected by a major disaster.” \textit{Id.} § 5170k(a).

\textsuperscript{148} See Grayzeck-Souter et al., supra note 122, at 279 ("[T]he WUI itself is not a physical place, but rather a set of conditions that are constantly changing as human development continues to expand into previously uninhabited areas").

\textsuperscript{149} Ursula K. Heise describes this, quoting media theorist Lev Manovich, as a mental “configuration that is neither narrative nor metaphorical in its basic structure but instead presents infinitely expandable sets of data with the possibility of establishing different sorts of sets and linkages between them.” \textit{Ursula K. Heise, Sense of Place and Sense of Planet: The Environmental Imagination of the Global 67} (2008).

\textsuperscript{150} The California Fire Alliance is a consortium of local, state, federal, and tribal agencies that cooperate to reduce wildfire risks. It is currently collecting CWPPs in an effort to construct a searchable database. \textit{See CALIFORNIA FIRE ALLIANCE}, http://www.cafirealliance.org/cwpp/ (last visited Aug. 28, 2012). In one of their “lessons learned,” the Alliance recommends designating a “[g]enerous” WUI, citing a “plan in New Mexico [that] established WUI boundaries 15 miles from the community.” \textit{See CWPP Enhancement Guidance: Lessons Learned!}, California Fire Alliance, http://www.cafirealliance.org/cwpp/downloads/cwpp_lessons_learned2.pdf (last visited Aug. 28, 2009).
If California can achieve the inter-local benchmarking that flows from such infrastructure, it may well encourage others to follow suit.

V. Conclusion

As our knowledge of the risks facing biota on Earth has grown in sophistication, we have reached the widely shared realization that more of our economy must be reworked to fit within nature’s limits—we have entered an “age of ecology,” so to speak. Fire represents the same kind of lesson, but it is much more exigent and prominent. Federal land planning has been tilting toward “ecosystem management” since the 1988 Yellowstone fires if not before. And wildfire represents perhaps the single most immediate need for this form of integrative thinking. “At the flame front, fire instantaneously links the atmosphere, biosphere, and hydrosphere via the release of heat, gases (notably water vapor), and matter.” In a sense, though, wildfire is but one manifestation of what global climate disruption will mean for local governments and property owners: an environment so far off of historically-oriented expectations that it will be a constant challenge simply to maintain accustomed levels of safety and comfort. With public budgets shrinking and public demands rising, every one of these actors will be continually striving to do more with less. Federal land managers are shifting to a risk-based approach at the same time the traditional tools of holding them accountable have faltered. But wildfire and the institutional evolution traced above show a possible convergence of these two trends. CWPPs represent, to the land managers, a unique sort of informational output: a neighboring community’s desired future conditions complete with (at least some of) the trade-offs and prioritizations necessary to their attainment. As a process, CWPPs also offer an opportunity to build badly needed trust in the agency through partnering, collaboration, and decisional support. Combining these with the land managers’ own challenges reveals a rather serendipitous future for land planning with the WUI. Local, state, tribal, nonprofit and federal actors all have their own reasons to invest scarce resources in CWPPs that actually reduce risk. To do so, however, they each need the others’ information and only together can they synthesize a land use plan that stays ahead of fast-changing conditions on the ground. Recall that property itself functions much like a tool “for regularly collecting inputs and outcomes and charging them to the same owner— in short, a bucket of gambles.” The tools our tribal, state and federal governments use to contain wildfire’s threats should be no less functional, then. “As with

153. See Fleeger & Becker, supra note 131, at 1402.
154. Fennell, supra note 5, at 221.
any bucket, we can expect a certain amount of sloshing and leaking. But when spillovers become so pervasive that more is sloshing out of the bucket than is remaining inside, we should begin to question whether we have configured property [or our jurisdictions] appropriately. CWPPs are quickly becoming one more accompaniment to our leaky buckets. If land use planning—at whatever scale—is to help us achieve our common goals, though, we must pay much more attention to our leaks, sloshes, and buckets as such. Real property law, no less than local land use planning or federal land management planning, is adapting to a present and future where integrative thinking is a necessity. Federal, state, tribal and local leaders must work to deliver the integration that tools like CWPPs promise. And that requires a fuller commitment to continuous improvement, inter-local benchmarking, and the networking infrastructure to support them. Without it, our best laid plans will continue to go awry.

155. Id.