

USING PRE-DISASTER COMMUNITY CAPACITY TO ADDRESS LAND USE POST-WILDFIRE

EDITH HANNIGAN

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USING PRE-DISASTER COMMUNITY CAPACITY TO ADDRESS LAND USE POST-WILDFIRE

EDITH HANNIGAN*

ABSTRACT

In the last decade, a number of wildfires have decimated residential communities in California. Ranging from rural Siskiyou County to suburban Sonoma County, these communities need to manage the immediate needs of displaced families and the impacts from the economic losses of the fires while also preparing for long term recovery and stabilization. This paper examines how post-wildfire rebuilding efforts might be complicated by building codes or other land use requirements, and methods for building government and community capacity to effectively address those complications. No two fires will have the same impact, but government agencies can utilize pre-planning for recovery so post-fire communities are rebuilt stronger, safer and more resilient to wildfire.

Edith Hannigan has a statewide perspective on methods to improve the built environment to be more resilient to wildfire and a local perspective on expediting recovery from wildfire while reducing a community's risk from future fires. Ms. Hannigan works for the California Board of Forestry and Fire Protection, directing California's statewide regulations and policies for land use and development in the wildland–urban interface. She is qualified to respond to wildfires as a damage inspector with CAL FIRE, examining the effectiveness of fire safe building codes and land use decisions in a fire perimeter. Her work includes reviewing local General Plans for the inclusion of fire safe planning principles; developing regulations for fire safe land use, development, and defensible space; and identifying and amending state-level laws and policies that might otherwise present barriers to fire safe land use decisions by local land use decisionmakers. Ms. Hannigan earned a master's degree in planning, with a concentration in Sustainable Land Use Planning, from the University of Southern California.

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I. INTRODUCTION: BUILDING, BURNING AND REBUILDING IN THE WUI

A. Building in the WUI

Wind driven fire brands have caused massive housing losses since the Great Fire of London in 1666.¹ When fires begin spotting, fire suppression lines lose their effectiveness and fires spread over larger areas with great speed.² With the expansion of human development into wildland areas, this spotting increasingly results in greater property losses.³

The built environment is a complex interplay of physical structures, financial instruments, and dynamic transformations such as wildfires or floods.⁴ In addition to a significant economic investment in their homes and businesses, people are heavily and emotionally invested in how the arrangement of the built environment influences their lifestyle choices (e.g., home temperature, acceptable commute

1. Eunmo Koo et al., *Firebrands and Spotting Ignition in Large-Scale Fires*, 19 INT'L J. WILDLAND FIRE 818, 818–19 (2010).

2. *Id.*

3. *Id.*

4. Nathan F. Sayre, *Climate Change, Scale, and Devaluation: The Challenge of Our Built Environment*, 1 WASH. & LEE J. ENERGY, CLIMATE & ENV'T. 93, 102 (2010).

times, what is considered “waste”).⁵ These investments make meaningful changes to those environments, even changes to reduce risk, difficult to implement. This inertia remains apparent even after destructive events such as wildfire, where several studies have shown that homeowners often choose to rebuild without incorporating mitigation measures into their structures or vegetation without regulatory interference.⁶

The wildland urban interface (WUI) is the area where structures and other human development meet or intermingle with undeveloped wildland.⁷ The United States Departments of the Interior and Agriculture use this language to identify those communities at risk from wildfire in the vicinity of public lands.⁸ The Federal Register defines this “interface” as areas containing at least 6.17 housing units/km² (1 house/40 acres).⁹ It sets no maximum density criteria.¹⁰ The “intermix” WUI is defined as a density below 6.17 housing units/km² which is dominated by wildland vegetation.¹¹ The “interface,” on the other hand, is “developed areas in the vicinity of wildland vegetation.”¹² For the purposes of this paper, both density configurations, intermix and interface, are commonly referred to as the “WUI.”

As of 2010, the WUI in the United States includes 44 million houses.¹³ By state, California, Texas, Florida, North Carolina, and Pennsylvania have the highest absolute number of houses in the WUI, while Montana, Wyoming, and Maine have the highest percentage of their housing in the WUI.¹⁴ This development into the wildlands, coupled with the unpredictability of fire brands and spotting, means many wildland fires have the potential to morph into urban conflagrations with massive housing losses.

B. Burning in the WUI

A 2016 report from Climate Central indicates that fire season is 105 days longer than in 1970, the number of fires over 1,000 acres is increasing, and the amount of acreage burned by fires is growing.¹⁵ California has the highest number of buildings in fire perimeters, and of burned, rebuilt, and new buildings within fire perimeters.¹⁶ The WUI burning problem, however, is not unique to California: Arizona and Wisconsin rank in the top three states for having the highest percentages

5. *See id.*

6. *See, e.g.,* Miranda H. Mockrin et al., *Adapting to Wildfire: Rebuilding After Home Loss*, 28 SOC’Y & NAT. RESOURCES 839, 853 (2015).

7. V. C. Radeloff et al., *The Wildland-Urban Interface in the United States*, 15 ECOLOGICAL APPLICATIONS 799, 799 (2005).

8. *Id.* at 800.

9. Availability of a Draft Environmental Assessment for Amendment No. 21 to the Hiawatha National Forest Land and Resource Management Plan, 66 Fed. Reg. 751, 753 (Jan. 4, 2001).

10. Radeloff et al., *supra* note 7, at 800.

11. *Id.*

12. *Id.*

13. SEBASTIAN MARTINUZZI ET AL., U.S. FOREST SERV., THE 2010 WILDLAND-URBAN INTERFACE OF THE CONTERMINOUS UNITED STATES 12 (2015), https://www.fs.fed.us/nrs/pubs/rmap/rmap_nrs8.pdf.

14. *Id.*

15. ALYSON KENWARD ET AL., CLIMATE CENT., WESTERN WILDFIRES: A FIERY FUTURE 4 (2016).

16. *Id.* at 11.

of buildings that burn within a fire perimeter, while Texas, Arizona, and Washington have the highest absolute number of burned buildings.¹⁷ Kansas, California, Nevada, and Wisconsin have the highest rebuilding rates for buildings in a fire perimeter.¹⁸ Navigating current building laws while rehousing displaced populations is an issue for every state facing wildfires.

As human populations continue expanding into previously natural wildlands, it is likely that property losses from wildfires will rise. It is critical to address WUI resiliency via new building codes, mitigation requirements, and other pre-fire governance tools, but it is also vital to consider recovery planning prior to an urgent crisis. Implementing regulatory programs for post-fire recovery before significant structure losses occur will reduce repetitive losses and make the built environment more resilient overall.¹⁹

When addressing how the law might impact wildfire prevention, planning, response, ignoring how the law impacts recovery negates much of the work done in pre-planning. The destruction of the urban form by wildfire presents an opportunity for communities to rebuild with more resiliency, but only if agencies are ready with a plan to do so.²⁰ Research has shown having post-disaster recovery plans in place improves both the speed and resiliency of rebuilding.²¹

C. Rebuilding in the WUI

The West is caught in a seemingly ad infinitum destructive feedback loop - homebuilding, wildfire, rebuilding, wildfire that somehow appears both inevitable and preventable. When a community burns, it often rebuilds into something substantially similar to what existed previously or even grows.²² After the Tunnel Fire,²³ and after fires in Canberra, Australia,²⁴ home sizes increased. If one imagines structures as fuel, ultimately such rebuilding results in a greater fuel load than before the fire and also puts larger homes closer to one another, reducing the overall fire safety of the community.²⁵ It is not unheard of to see more homes in the historic fire perimeter five years after a wildfire than there were before the fire.²⁶ Indeed, this is evident in the extreme in Santa Rosa, California where the Hanley Fire in 1964 burned 53,000 acres and over 100 homes.²⁷ When the Tubbs Fire burned 36,000

17. Patricia M. Alexandre et al., *Rebuilding and New Housing Development After Wildfire*, 24 INT'L J. WILDLAND FIRE 138, 142-43 (2014).

18. *Id.*

19. *Cf.* Sayre, *supra* note 4, at 100.

20. *See* Mockrin et al., *supra* note 6, at 853.

21. *See, e.g., id.*

22. *Id.* at 844.

23. Scott L. Stephens et al., *Comparison of Fuel Load, Structural Characteristics and Infrastructure Before and After the Oakland Hills "Tunnel Fire,"* in THE BISWELL SYMPOSIUM: FIRE ISSUES AND SOLUTIONS IN URBAN INTERFACE AND WILDLAND ECOSYSTEMS 189, 190 (U.S. Forest Serv., Pac. Sw. Res. Station ed. 1995).

24. Mockrin et al., *supra* note 6, at 852.

25. Gregory L. Simon, *Vulnerability-in-Production: A Spatial History of Nature, Affluence, and Fire in Oakland, California*, 104 ANNALS ASSOC. AM. GEOGRAPHERS 1199, 1214 (2014).

26. Alexandre et al., *supra* note 17, at 138.

27. Bill Van Niekerken, *Wine Country Fire of 1964: Eerie Similarities to This Week's Tragedy*, SAN FRANCISCO CHRON. (Oct. 11, 2017), <https://www.sfchronicle.com/thetake/article/Wine-Country-fire-of-1964-Eerie-similarities-to-12267643.php>.

acres through the Hanley Fire footprint in 2017, it burned over 1,500 homes in the Fountaingrove neighborhood alone—all built in the last three decades on what had previously been largely uninhabited ranchlands.²⁸

Local governments are faced with inordinate pressure to quickly rehouse the community made homeless by a wildfire and to rehouse them in their original homes.²⁹ This pressure doesn't allow time for long term recovery planning to occur after the fire, during which a community would re-imagine their homes in a new, fire-adapted configuration.³⁰ Government leaders are given an opportunity for some community improvement, but largely speaking, there are only a few months after a disaster when those changes can take place.³¹ After a wildfire, those community improvements typically result in stricter WUI building codes requiring older structures, when rebuilt, to adhere to newer WUI building codes that were implemented after the homes in question were constructed.³² The general design and location of residences on the landscape goes largely unchanged, and the city will be rebuilt in a way that looks familiar to residents.³³ Without a prior plan in place for creating a more fire-adapted community after a wildfire, the opportunity for comprehensive planning is rarely fulfilled post-disaster.³⁴ There is already a plan for reconstruction: the plan of the pre-disaster city.³⁵

Rebuilding the pre-disaster city also happens as a result of several structural social programs. Homeowners are attached to their lot and their lifestyle; federal and state money is released to rebuild infrastructure such as roads, water and sewer systems, telecommunications, etc; and insurance money is available (to varying degrees) to rebuild homes.³⁶ Local governments faced with a shrinking tax revenue base are unlikely to discourage rebuilding, so they develop incentives for homeowners to rebuild on their existing parcel of land.³⁷ Local governments might ease permit fees or approval requirements or exempt rebuilt homes from certain current code requirements.³⁸ Between these incentives for rebuilding and the apparent new construction in historic fire perimeters, it is clear that the existence of a fire threat does not depress housing construction.

28. Kevin Fixler, *Santa Rosa's Fountaingrove the Latest Front in Post-Fire Property Sales*, N. BAY BUS. J. (Jan. 10, 2018), <https://www.northbaybusinessjournal.com/northbay/sonomacounty/7858797-181/santa-rosa-fountaingrove-fire-real-estate>.

29. See generally Robert Olshansky, Address at 46th Annual Conference of the Association of Collegiate Schools of Planning: How do Communities Recover from Disaster? A Review of Current Knowledge and an Agenda for Future Research (Oct. 27, 2005) (transcript available at <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.492.1231&rep=rep1&type=pdf>).

30. See *id.*

31. *Id.*

32. See *id.*

33. *Id.*

34. See *id.*

35. Olshansky, *supra* note 29 (discussing J. EUGENE HAAS ET AL., RECONSTRUCTION FOLLOWING DISASTER (MIT Press, 1977)).

36. Alexandre et al., *supra* note 17, at 139.

37. *Id.*

38. *Id.*

II. HOW THE PUBLIC EXPERIENCES WILDFIRE

A. Public Perceptions of Wildfire

Fire professionals—whether firefighters, fire ecologists, or fire agency policy-makers—each have their own understanding of wildfire impacts and what constitutes a “catastrophic” wildfire based on their frequent, direct experiences with wildfire. The public, however, only rarely interacts with wildfire, and usually through indirect means such as news reports. If the public is interacting with wildfire directly, it is typically in the context of fear, confusion, loss, and ambiguity.

An evaluation of wildfire impacts and an examination of how to foster fire-adapted environments is not possible without considering how the public, particularly residents in the fire perimeter, views the fire.

The long history of fire suppression in the United States has led private citizens to believe that wildfire can be managed effectively, a belief that strengthens their arguments for increasing development in the wildlands.³⁹ However, this has resulted in a skewed perception of wildfire by the public where normal, ecologically healthy fires are viewed as disastrous because of their impact on the landscapes, property, or infrastructure humans value.⁴⁰ Examining the impacts of a wildfire on a community needs to expand beyond purely structural and economic losses if the leaders of recovery efforts are to adequately provide for victims’ needs.⁴¹ Understanding the public’s psychological reactions to wildfire and its impacts is also vital for successful land management post-fire.⁴² Residents’ views of incident commanders’ leadership, the effectiveness of prior fuel treatments in the area, and the effectiveness of land management agencies in managing the wildfire will all influence the direction government agencies move to manage the land post-fire.⁴³

Wildfire is a natural event, taking place in natural ecosystems regardless of human intervention.⁴⁴ Nonetheless, it is unequivocally impacted by the built environment and has impacts on both the physical built environment and the psyche of those who live, recreate, and work in it.⁴⁵ The public perception of any given wildfire and its impacts will shape post-fire recovery and adaptation efforts,⁴⁶ and it is to policymakers’ detriment to downplay the importance of these perceptions.

Public perceptions of wildfire center their own losses—How fully are their social networks disrupted? How much damage has infrastructure or private property sustained? Will the community, or individuals within it, require outside assistance to fully recover? Policymakers and fire managers may look at the wildfire’s landscape-level ecological or economic impacts, but these parcel-scale social impacts

39. Travis B. Paveglio et al., *Understanding Social Impact from Wildfires: Advancing Means for Assessment*, 24 INT’L J. WILDFIRE 212, 217 (2015), <http://www.publish.csiro.au/wf/pdf/WF14091> [hereinafter Paveglio, *Social Impact*].

40. *Id.*

41. *Id.* at 213.

42. *Id.* at 218.

43. *Id.*

44. *Id.*

45. Paveglio, *Social Impact*, *supra* note 39, at 218–19.

46. *Id.*

play a large role in determining the post-fire mitigation, adaptation, and recovery priorities.

B. Who Lives in the WUI?

Understanding the social impacts and public perceptions of wildfire is difficult to do without working knowledge of the community impacted by a wildfire. Carroll et al characterized WUI communities into four archetypes: formalized suburban communities, high amenity-high resource, rural lifestyle, and working landscape/resource dependent communities.⁴⁷

A WUI community can be any one of these archetypes and, ten years later, can have transitioned to another; they can also exist along a continuum of these archetypes; and there are components of these archetypes that do not strictly follow these lines.⁴⁸ These archetype descriptors are not intended as an end stage, but an acknowledgement of a community's interaction with their built environment, with their government, and with each other at a particular moment in time.⁴⁹ As a community strives for fire adaptation, it is key to understand the social dynamics shaping the decisions of the people living there—the underlying social structure of a community will influence the strategies they chose for planning, mitigating, and recovering from wildfire.⁵⁰

The anchor of one side of the WUI community archetypes is the “formalized suburban” WUI communities.⁵¹ Typically wealthy, professional, and lacking the skills and equipment to reduce local fuel on their own, they are more likely to hire contractors to perform fuel reduction work than do it themselves, and they place high value in regulatory requirements and formal organizations.⁵² Balancing the other end of the spectrum are working landscape/resource dependent communities.⁵³ These communities tend to be the least trusting of government and formal organizations and are most likely to rely on informal familial or resident-based communication networks.⁵⁴ They have the least support for government regulations or standards for wildfire mitigation.⁵⁵

Besides these WUI community archetypes, it is important for planners and policymakers to understand how rural poverty influences wildfire planning. Across the United States a significant number of poor households reside in the wildland-urban “intermix,” where people live in the wildlands but do not meet the minimum

47. Matthew S. Carroll et al., *Community Diversity and Wildfire Risk: An Archetype Approach to Understanding Local Capacity to Plan for, Respond to, and Recover from Wildfires*, 4–5 (Univ. of Oregon Inst. for a Sustainable Env't, Working Paper No. 50, 2014).

48. *Id.* at 8.

49. *Id.* at 3–4.

50. See, e.g., Travis Paveglio et al., *Categorizing the Social Context of the Wildland Urban Interface: Adaptive Capacity for Wildfire and Community “Archetypes,”* 61 *FOREST SCI.* 298 (2015) [hereinafter Paveglio, *Social Context*].

51. Carroll et al., *supra* note 47, at 5.

52. *Id.*

53. *Id.* at 7; Paveglio, *Social Context*, *supra* note 50, at 304.

54. Paveglio, *Social Context*, *supra* note 50, at 304–05.

55. *Id.* at 305.

density criteria to be a wildland-urban “interface” area as defined by the Federal Register.⁵⁶ This leaves these at-risk communities unable to access critical fire prevention funding.⁵⁷ A report from ECONorthwest estimates that in 2000, 3-5 million of the 10-15 million WUI residents in the United States lacked adequate resources to protect themselves from wildfire.⁵⁸ Policymakers are best positioned to help communities develop impactful wildfire mitigation and recovery programs when they fully grasp how the social and economic dynamics of a community influences its approach to wildfire.

C. Psychological Stress After Wildfires

It should surprise no one to learn that wildfire losses felt by the public extend far beyond the economic and physical loss of one’s home or neighborhood; there have been efforts to contextualize the impact of the stress of such an event on public health.⁵⁹ Even if one’s own home is still standing after a fire, the stress from exposure to a number of severely damaged parcels, parcels stagnant in recovery, and burned non-residential land can be similar to that experienced by those in chaotic, derelict urban environments.⁶⁰ This exposure to wildfire damage and the psychosocial distress it induces can impact the overall health of wildfire victims, in addition to physical effects of smoke inhalation or flame contact.⁶¹

In three of the four WUI community archetypes described by Carroll, Paveglio, and others, people reside in the WUI for access to the natural environment either on their own parcel or in the vicinity.⁶² When that landscape burns to a devastating degree, the loss of the natural environment is keenly felt among WUI residents.⁶³ The dramatic transformation of a beloved landscape can cause distress described as “solastalgia.”⁶⁴ Residents who return to homes within a fire perimeter, or who rebuild in one, must face daily their grief from the loss of a forested landscape.

An “ecosystem health” framework examines the links between human health and disturbances in the surrounding environment.⁶⁵ A number of studies have examined the health consequences of gradual environmental degradation, and some

56. KATHY LYNN & WENDY GERLITZ, MAPPING THE RELATIONSHIP BETWEEN WILDFIRE AND POVERTY 401 (USDA Forest Serv., Rocky Mountain Research Station ed., 2006), https://www.fs.fed.us/rm/pubs/rmrs_p041/rmrs_p041_401_415.pdf.

57. *Id.*

58. ERNIE NIEMI & KRISTIN LEE, ECONORTHWEST, WILDFIRE AND POVERTY: AN OVERVIEW OF THE INTERACTIONS AMONG WILDFIRES, FIRE-RELATED PROGRAMS, AND POVERTY IN THE WESTERN STATES 1 (Bob Doppelt ed., 2001), https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/2334/wild_pov.pdf?sequence=1&isAllowed=y [hereinafter ECONORTHWEST REPORT].

59. Jacqueline W. Curtis et al., SPATIAL PATTERNS OF POST-WILDFIRE NEIGHBORHOOD RECOVERY: A CASE STUDY FROM THE WALDO CANYON FIRE (COLORADO SPRING, COLORADO, 2012) (Univ. of Colo. Nat. Hazards Ctr. ed., 2013), https://hazards.colorado.edu/uploads/quick_report/mills_2013.pdf.

60. *Id.*

61. *Id.*

62. Carroll et al., *supra* note 47, at 5–7; Paveglio, *Social Impacts*, *supra* note 39, at 213.

63. Carroll et al., *supra* note 47, at 7.

64. David Eisenman et al., *An Ecosystems and Vulnerable Populations Perspective on Solastalgia and Psychological Distress After a Wildfire*, 12 *ECOHEALTH* 602, 602 (2015).

65. *Id.*

have examined a wildfire's impact on mental health, but considering the psychological health of residents returning to a burn area and its impact on post-fire recovery is mostly unexplored terrain. "When the physical landscape is transformed and stripped of its capacity to provide solace," the resulting solastalgia can increase residents' psychological distress post-fire.⁶⁶ Distress can also result from residents feeling helpless in the face of future wildfire risk and can be exacerbated by the amount of time it takes to rebuild or recover.⁶⁷ By disrupting residents' sense of "place attachment," wildfires can cause residents to move away and lessen their engagement with local ecosystem management issues, as well as cause home prices to decline.⁶⁸

Returning to a damaged neighborhood is another psychosocial stressor unique to wildfires. Unlike many other natural disasters, wildfires rarely destroy an entire neighborhood.⁶⁹ Instead, the damage done to houses within a single community may range from complete destruction to superficial or even no damage.⁷⁰ Over the long term, the mix of severely damaged parcels, parcels that remain damaged or vacant for long periods of time, and burned non-residential land can all result in stress for the residents who have returned.⁷¹ This continuing exposure to a wildfire's effects plays an important role in the emotional and mental health of residents.

Those whose homes were destroyed in a wildfire have lost not just their physical home (and possessions and long-term relationship with their home), but also their attachment to the lifestyle that accompanied living in the WUI. After the Tunnel Fire, Shay Sayre interviewed Oakland residents who had evacuated and returned to find their homes either standing or destroyed.⁷² Sayre examined the specific impacts to the sense of self and identity felt by fire victims who lost their home.⁷³ Although the Oakland hills were considered a "disaster subculture" due to their constant risk of earthquakes and wildfire, victims of home loss experienced the trauma of the wildfire differently from their neighbors.⁷⁴ Because of that, an isolated subculture was created within the entire affected community, as those whose homes burned found it difficult to communicate with anyone except fellow home loss victims.⁷⁵

66. *Id.*

67. Paveglio, *Social Context*, *supra* note 50, at 306.

68. See generally Sophie Yeo, *Why Some Home Prices Rebound Quickly After a Forest Fire*, PACIFIC STANDARD (Oct. 18, 2018), <https://psmag.com/environment/why-some-home-prices-rebound-quickly-after-a-forest-fire>.

69. Miranda H. Mockrin et al., *Recovery and Adaptation After Wildfire on the Colorado Front Range (2010-12)*, 25 INT'L J. WILDLAND FIRE 1144, 1145 (2016).

70. CARROL ET AL., *supra* note 47, at 3.

71. *Id.*

72. Shay Sayre, *Possessions and Identity in Crisis: Meaning and Change for Victims of the Oakland Firestorm*, 21 ADVANCES IN CONSUMER RES. 109, 109 (1994).

73. *Id.*

74. *Id.* at 110.

75. *Id.*

Home loss was particularly devastating for women, who had spent up to decades at home raising children and organizing the household.⁷⁶ To lose “their” space and territory, such a tangible identifier of their purpose and family role, was to lose themselves.⁷⁷ When singular possessions could be recovered, women found them meaningless without their original context (e.g. rituals, socializing, routines) and without their “set” (e.g., a pad and pen by the phone, reading glasses and a book on the nightstand) which made the possessions purposeful and pertinent.⁷⁸ The absence of their home and their possessions, “the summary of [their] life,”⁷⁹ was not only a physical loss but also one of identity and the self.

The economic impacts of wildfire risk and home loss also disproportionately impact the poor.⁸⁰ Wildfires have a disproportionate impact on poor households in prevention, suppression, and recovery.⁸¹ Poor households are less able to access funds to complete fuel reduction work or retrofit their homes for fire safety and are more likely to live in areas with slow or no fire response capability.⁸² Recovering from the economic damage to residences or property has a proportionally higher impact on the finances of poor households.⁸³ In a high amenity/high resource community, the loss of tourism and recreation due to park closures may keep incomes artificially low. A working landscape/resource dependent community reliant on regional timberlands may feel economic repercussions for years.

In addition to direct impact on physical structure, fires can have an indirect impact on poor and middle income households through the lost value of homes in a high fire risk area, the disruption of economic activity due to evacuations and workplace closures, and a drop in a working landscape’s extraction value.⁸⁴ Overall, there is less federal assistance available for individuals after a wildfire as compared to other natural disasters,⁸⁵ and disaster recovery scholarship has shown a financial “donut hole” for middle income households who don’t have enough money to rebuild but make too much to qualify for government assistance.⁸⁶

There are some common trends among households that experience less psychological distress than others during wildfire recovery. Higher incomes (over \$80,000) and a higher family functioning score (a value measuring how well a family functions during times of situational stress) are associated with less psychological distress.⁸⁷

The four archetype WUI developments described by Carroll and Paveglio have one commonality: their reliance on their identity as an organized community.⁸⁸ This

76. *Id.* at 111.

77. *Id.* at 110–11.

78. Sayre, *supra* note 72, at 111.

79. *Id.* at 110.

80. LYNN & GERLITZ, *supra* note 56, at 405–06.

81. *Id.* at 406.

82. *Id.* at 402.

83. ECONORTHWEST REPORT, *supra* note 72, at 41–42.

84. *Id.* at 34.

85. Mockrin, *supra* note 69, at 1145.

86. Christina Finch et al., *Disaster Disparities and Differential Recovery in New Orleans*, 31 POPULATION & ENV’T. 179, 194 (2010).

87. Eisenman et al., *supra* note 64.

88. Paveglio, *Social Context*, *supra* note 50, at 306.

identity can turn into social conflict or cohesion, or both, after a disaster, but communities that are able to capitalize on their social networks are more effective at navigating property owner-government relationships.⁸⁹ Policies, regulations, and recovery strategies are also more effective when the affected community has a sense of ownership and control over their development and implementation.⁹⁰

III. WILDFIRE AND LAND USE LAW

A. Ban All WUI Development!

There are a number of sociological, psychological, and legal reasons why disallowing rebuilding and new construction in fire perimeters is a nonstarter in virtually every WUI community in the United States.

Although the WUI is typically characterized by low density development adjacent to or intermixed with forested or range land, a strong community identity can be found among residents despite the low density.⁹¹ The residents value their access to natural landscapes and their ability to make a living from the landscape.⁹² They work together to solve common problems, support each other financially, and tend to trust each other's experiences and information over that of government agencies.⁹³ This strong rural identity and community cohesion makes them highly likely to resist government bureaucrats requiring them to resettle elsewhere after a wildfire.⁹⁴

WUI residents have strong ties to one another and to the land they inhabit.⁹⁵ Place attachment is a strong force.⁹⁶ Even after losing their homes to the 2010 Four-mile Canyon Fire in Boulder County, Colorado, the wildfire risk did not influence six residents' choice to rebuild.⁹⁷ In interviews, all six of them cited their attachment to the area as an overriding factor.⁹⁸ When considering whether to rebuild, homeowners' attachment to their parcel, their lifestyle, and other factors such as home prices or insurance payments are more important in the decision to rebuild than historic wildfire patterns.⁹⁹ Despite the tangible proof that their home can and will be destroyed by wildfire, homeowners across the board found it worth rebuilding for other non-ecological values that supersede the wildfire risk.¹⁰⁰

The Fifth and Fourteenth Amendments of the United States Constitution forbid the taking of private property for public use without just compensation and the

89. See Matthew S. Carroll et al., *Nontribal Community Recovery from Wildfire Five Years Later: The Case of the Rodeo-Chediski Fire*, 24 *SOC'Y & NAT. RESOURCES* 672, 674, 677–78, 683–84 (2011).

90. Rachel Hughes & David Mercer, *Planning to Reduce Risk: The Wildfire Management Overlay in Victoria, Australia*, 47 *GEOGRAPHICAL RES.* 124, 138 (2009).

91. Carroll et al., *supra* note 47, at 7–9.

92. *Id.*

93. *Id.*

94. *Id.* at 7.

95. *Id.*

96. *Id.*

97. Mockrin et al., *supra* note 6, at 850.

98. *Id.*

99. Alexandre et al., *supra* note 17, at 139.

100. *Id.* at 146.

deprivation of a person of their property without due process, respectively.¹⁰¹ These private property protections limit a local government's options for wildfire adaptation and mitigation on a landscape-level scale. In a different legal world, a government could determine that no future development can take place within a historic wildfire perimeter and that property lost in a wildfire cannot be rebuilt or recovered. However, within the context of the property rights system set up in the United States Constitution, this option is largely unavailable to local governments.

B. Does Land Use Law Impede Wildfire Recovery?

A number of fraught legal issues concerning fire adaptation and wildfire recovery surround rebuilding, and few government agencies are prepared to address the substantial housing loss that might occur after a wildfire in several respects.

The first and most immediate issue is temporary housing for displaced residents. As the emergency is still unfolding and evacuations are still in place, residents in the fire perimeter will often find friends or family to stay with, but over the following months more semi-permanent housing will need to be provided. In areas with available housing stock prior to the fire, this may be a relatively simple task. For homeowners who can quickly access funds to rebuild or who have stronger social connections, working out arrangements with family or friends may be possible. In communities with devastating housing loss, low vacancy rates, high housing costs, and barriers to accessing rebuilding funds, however, trying to keep displaced residents in their communities may require regulatory interference.

Following residents' placement in emergency housing, a local government must examine its existing permit and construction processes and determine if and how those processes must be revised to facilitate rebuilding post-fire. There are several legal issues and decision points that arise during this part of the recovery process, such as:

- Can permitting or other fees be waived?
- What kinds of structures will be permitted?
- Will any kinds of restrictions be placed on rebuilt structures and their size, location on a lot, etc.?
- To the extent that a neighborhood was developed prior to the implementation of any fire safe development ordinances, which components of the community will be required to be updated?

Every community that faces a devastating wildfire will respond to these questions differently. Three California communities used different mechanisms to build community capacity after a wildfire. They used this new capacity to address land use law issues that arose after residential wildfire losses, to alleviate regulatory burdens, to manage community finances, and to expedite the recovery process.

101. U.S. CONST. amend. V; U.S. CONST. amend. XIV, § 1.

IV. CASE STUDIES

A. Boles Fire, 2014, City of Weed

In the northern California city of Weed, the September 2014 Boles Fire burned 157 residences in a community of 2,967 people ten miles west-northwest of Mount Shasta.¹⁰² The effort to rebuild lost residential structures in Weed immediately hit legal roadblocks.¹⁰³ As these structures had burned completely to the foundation, rebuilding them was considered “new construction” in the local code, subjecting the structures to 2014 local and state building codes.¹⁰⁴ For Weed, local codes required larger lots than before, and single family homes were required to have attached garages.¹⁰⁵ State regulations required new homes to have sprinkler systems installed.¹⁰⁶

Not only would requiring garages and sprinklers raise construction costs, but adding those to a home would also increase insurance rates.¹⁰⁷ In a city where the median income is \$31,252¹⁰⁸ and residents were already spending 40-45% of their income on housing, these kinds of increases were unsustainable.¹⁰⁹ Since the requirement for lot sizes and for attached garages on single family homes was a City requirement, they were easily able to revise the local ordinance so that fire victims could rebuild their original footprint on their existing lot with no square footage increases.¹¹⁰

In order to allow homes without sprinkler systems, the City required approval from the California Building Standards Commission.¹¹¹ Under the Health and Safety Code, a local jurisdiction can request a local amendment to the California Fire Code and California Building Code.¹¹² They must explain the amendment and justify its necessity due to, for example, local climatic, geological, and topographic conditions.¹¹³ Weed requested a narrow amendment to this requirement, applicable only to homeowners who did not have adequate insurance to rebuild with this expensive feature.¹¹⁴ While the city was able to find ways around these barriers to rebuilding,

102. *Incident Information: Boles Fire*, CAL FIRE, http://cdfdata.fire.ca.gov/incidents/incidents_details_info?incident_id=1063 (last updated Oct. 11, 2014, 6:50 PM); *Weed City, California*, AM. FACT FINDER, https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml?src=bkmk (last visited Mar. 12, 2019).

103. Interview with Tom Brandeberry, President and CEO, Rural Cmty. Dev. Corp. California (June 29, 2018) [hereinafter Brandeberry Interview].

104. *Id.*

105. *Id.*

106. *Id.*

107. *Id.*

108. *Weed, California*, CITY-DATA.COM, www.city-data.com/city/Weed-California.html (last visited Mar. 12, 2019).

109. Brandeberry Interview, *supra* note 103.

110. *Id.*

111. *Id.*

112. *Id.*

113. *Id.*

114. *Id.*

identifying and resolving these issues took an enormous amount of time and effort during the recovery phase, delaying residents from returning to their homes.¹¹⁵

Another critical issue impacting rebuilding timelines for any jurisdiction is the processing, approval, and inspection of building permits. Prior to the Boles Fire, on average, Weed saw one building permit a year.¹¹⁶ Their City Administrator served as the building inspector.¹¹⁷ Now faced with 15-20 building permits a month, the city had to find the capacity to process these permits as they came in, as well as address the unique needs of each parcel throughout the design, permitting, and building phases.¹¹⁸ Weed hired a full time building inspector, paid for by the normal construction permitting fees.¹¹⁹ Although reducing or eliminating the permitting fees might have been preferable to the city to reduce the financial burden on an already economically stressed community, without augmenting their staffing, the city had no capacity to approve these housing permits in a timely fashion.¹²⁰ Charging the normal permitting fees prevented stagnant parcels from disrupting the momentum of recovery.¹²¹

Much of the work in Weed to identify and solve issues, such as the requirements for new construction, was possible because of the Weed Long Term Recovery Group (WLTRG), organized by an existing community-based nonprofit, Great Northern Services (GNS).¹²² Because GNS was deeply embedded in the community prior to the fire—and in fact lost their building to the Boles fire—they were able to take on many aspects of recovery so that city employees could focus on the things they needed to manage in order to run the city.¹²³ The WLTRG liaised between NGOs, such as the Red Cross, and coordinated residents' immediate needs after the fire.¹²⁴ They also were able to bring issues such as the sprinkler requirements and lot size discrepancies to the city and explore community-wide solutions, rather than leaving the city to address each lot individually.¹²⁵

A nonprofit committed to community and economic development in a local jurisdiction has a unique ability to build resilience and capacity in the community outside of the formal government structure.¹²⁶ While local government is busy with the day-to-day demands of managing a city or county, a nonprofit community organization can identify potential recovery issues and develop solutions ahead of a disaster.¹²⁷ As government outsiders and members of the community they serve, a nonprofit is in a unique position to suggest solutions to local and state land use laws that might otherwise impede recovery, while still ensuring the health and safety of

115. Brandeberry Interview, *supra* note 103.

116. *Id.*

117. *Id.*

118. *Id.*

119. *Id.*

120. *Id.*

121. Brandeberry Interview, *supra* note 103.

122. *Id.*

123. *Id.*

124. *Id.*

125. *Id.*

126. *Id.*

127. Brandeberry Interview, *supra* note 103.

residents post-disaster.¹²⁸ Nonprofits may also accept funding from organizations who prefer, or are required, to distribute funds to a community organization rather than a city government.¹²⁹ Managing these funds is also a significant burden on local government that nonprofits can relieve.¹³⁰ Because a nonprofit has done this work ahead of time, a jurisdiction faced with significant housing loss can rebuild efficiently and safely.¹³¹

B. Northern California Firestorm, 2017, County of Sonoma

Even as wildfire was continuing to bear down on their communities, Sonoma County officials began recovery work by prioritizing getting people back in their neighborhoods as soon as possible.¹³² They quickly looked at data from ten other recent large fires, and the biggest factor determining a quick return to residents' lots after a wildfire was affluence.¹³³ The median household income in the burn area in Sonoma County was \$102,000, and the lots impacted in the incorporated County areas were primarily larger lots in the mountain foothills with bigger homes.¹³⁴ But even with all the resources those properties imply, there are households considering bankruptcy and leaving Sonoma County behind.¹³⁵

With that in mind, Sonoma County recovery officials developed a recovery infrastructure focused on getting people back on their properties, even in temporary shelters like travel trailers, or back in their neighborhoods as quickly as possible, and focused on reducing rebuilding costs wherever possible.¹³⁶ They approached this from two angles: changing zoning ordinances and changing the building and permitting process.¹³⁷

Sonoma County created an entire new chapter in their zoning ordinance to accommodate fire recovery.¹³⁸ They changed the allowable residential structures on single family home-zoned lots to include travel trailers/RVs.¹³⁹ Residents had to hook the trailer to their existing septic system and well water or demonstrate they had a portable sanitation contractor taking care of those services.¹⁴⁰ The County allowed fire victims to place their trailer on a neighbor's property if their own still had debris, and they also allowed trailers on agricultural zoned properties, County-owned properties, and certain private properties (i.e., churches).¹⁴¹ This kept the

128. *Id.*

129. *Id.*

130. *Id.*

131. *Id.*

132. Interview with Tennis Wick, AICP, Dir., Permit Sonoma, Santa Rosa, California (May 9, 2018) [hereinafter Wick Interview].

133. *Id.*

134. *Id.*

135. *Id.*

136. *Id.*

137. Wick Interview, *supra* note 132.

138. *Id.*

139. *Id.*

140. *Id.*

141. *Id.*

County's rural residents in their neighborhood and part of their community rather than couch surfing away from their social connections.¹⁴²

The County examined other reconstruction needs after the fire and picked apart the zoning code to determine where those needs could be accommodated.¹⁴³ They allowed expanded uses of accessory residential structures, such as year-round occupancy that was previously disallowed, and the long term rental of hospitality units, such as bed and breakfasts.¹⁴⁴ Schools, child care centers, and other important community centers were issued use permits for areas typically zoned for commercial or industrial structures.¹⁴⁵ Labor camps, to accommodate the 70,000 construction workers, were allowed by right in industrial zones and business parks in order to avoid temporary construction laborers from displacing the fire survivors they're rebuilding for.¹⁴⁶

Sonoma County utilized their existing electronic permitting system and an aggressive contract with a consulting firm to reduce the cost of permit fees and the amount of time it took to get a permit approved.¹⁴⁷ Western Code Consultants (WCC) staffed a county Resiliency Center and review and return permits within three to five days.¹⁴⁸ Residents are charged a rate, negotiated between WCC and the County, that covers WCC's hourly rate to review the permit plus 15% overhead.¹⁴⁹ If WCC doesn't respond to a permit within the agreed upon timelines, a prorated percent of the fee is returned to the resident based on how much additional extra time WCC took.¹⁵⁰

The County was able to negotiate such a strict contract with WCC by narrowing their scope of work.¹⁵¹ Since these parcels were already equipped with driveways, septic systems, and wells or municipal water supplies, the actual inspection and review by WCC was of a much smaller character than for standard new construction.¹⁵² With an online electronic permitting system and the "QLess" app, the County can keep an eye on the movement of rebuilding permits through the system while spending most of their staff resources on the everyday business of running the County's building and planning department.¹⁵³ This system has unexpectedly become a laboratory for County staff to imagine how to re-engineer their existing permitting system to be more streamlined, cost-effective, and efficient for residents and builders.¹⁵⁴

Disaster recovery experts suggested to County officials that significant numbers of residents would move elsewhere and that debris removal alone would take

142. *Id.*

143. Wick Interview, *supra* note 132.

144. *Id.*

145. *Id.*

146. *Id.*

147. *Id.*

148. *Id.*

149. Wick Interview, *supra* note 132.

150. *Id.*

151. *Id.*

152. *Id.*

153. *Id.*

154. *Id.*

at least two years.¹⁵⁵ But by May 2018, the County had only two lots with debris remaining and 100 homes under construction.¹⁵⁶ Critical to this fast rebuilding movement, Tennis Wick, Director of the County Permit and Resources Management Department, believes, was a department-specific communications manager and public information officer (PIO).¹⁵⁷ The Board of Supervisors funded the PIO eighteen months before the fires, and having a dedicated communications staffer helped the department identify common problems between homeowners, brainstorm and communicate solutions, and correct the record regarding community rumors.¹⁵⁸

Some of the issues the PIO encountered frequently and brought up to the building staff were related to planning for other hazards, especially earthquakes and landslides.¹⁵⁹ An early earthquake damage prevention law, the Alquist-Priolo Earthquake Fault Zoning Act (1972) requires mapping surface traces of known active faults in the state and a buffer zone (known as Earthquake Fault Zones), the disclosure of a property's location in one of those zones upon sale, and a general prohibition on new construction within the zones.¹⁶⁰ Construction is allowed after a written report of the site is completed by a licensed geologist; if the geologist finds an active surface on the site, a structure for human occupancy must be set back from the fault, typically at a distance of 50 feet.¹⁶¹ The Earthquake Hazard Zones mapped under the Alquist-Priolo Act also include liquefaction and earthquake-induced landslide zones.¹⁶²

This posed some problems for 56 property owners in Sonoma County. For some of them, their home had been built on an active fault line prior to the enactment of Alquist-Priolo in 1972.¹⁶³ Working with County staff and design professionals, most of these owners were able to redesign their lot to avoid this hazard and achieve the now-required 50 foot setback.¹⁶⁴ Other properties, however, were on active landslide zones, and no geotechnical engineer would sign off on the safety of their property.¹⁶⁵ Again, most property owners were able to find a building site design that reduced their risk to landslides, but there are two properties that have yet to come to a solution.¹⁶⁶ At least one of them is considering condemnation of their parcel.¹⁶⁷

Another hazard that emerged as a result of the fire was the contamination of part of the City of Santa Rosa's water system with benzene.¹⁶⁸ As water pipes made

155. Wick Interview, *supra* note 132.

156. *Id.*

157. *Id.*

158. *Id.*

159. *Id.*

160. See CAL. PUB. RES. CODE § 2621 (1994).

161. 14 CCR § 3603(a) (2018).

162. *The Alquist-Priolo Earthquake Fault Zoning Act*, CAL. DEP'T CONSERVATION, www.conservation.ca.gov/cgs/rghm/ap (last visited Mar. 12, 2019).

163. Wick Interview, *supra* note 132.

164. *Id.*

165. *Id.*

166. *Id.*

167. *Id.*

168. *Safety Updates: Water Quality*, COUNTY OF SONOMA: CITY OF SANTA ROSA, www.sonoma-countyrecovers.org/water-quality/ (last visited Mar. 12, 2019).

of polyvinyl chloride plastic burned and melted, the water pressure in the system dropped, sucking ash, burning material, and off-gases from the melting pipes into the water system.¹⁶⁹ The City and County are facing a project of two years, at a minimum, to replace five miles of pipes at a cost of \$43 million.¹⁷⁰

The City only figured out what was causing the high benzene levels in April 2018.¹⁷¹ Residents displaced by the fires had already exhausted six of the twenty-four months of rental subsidies typically provided by insurance agencies.¹⁷² Without potable water, they wouldn't be issued a permit to rebuild, and waiting over two years to begin to rebuild would run out the insurance timeline.¹⁷³ Many considered selling their property, even if their initial plan was to stay.¹⁷⁴ Government agencies needed to come up with an interim plan to get clean drinking water to these properties if they wanted to prevent an exodus of people from these communities.¹⁷⁵ The City is installing activated carbon water filtration systems until the water pipe replacement is complete so re-occupancy isn't slowed down.¹⁷⁶ This also gives the City a longer timeline to investigate the contamination and more narrowly hone in on the exact locations of the contamination, which may result in the need to replace less piping and reduce the costs to the City.¹⁷⁷

The County was able to anticipate many of the barriers to rebuilding because of their quick research and their consultation with counties like San Diego, who had faced these kinds of housing losses before.¹⁷⁸ Despite this, developing code changes to address those barriers, addressing unexpected barriers such as the benzene contamination and earthquake setbacks, and providing sufficient labor housing still took significant staff resources to overcome.¹⁷⁹

C. Cedar Fire, 2003, and Southern California Firestorm, 2007, County of San Diego

Until the December 2017 Thomas Fire,¹⁸⁰ the Cedar Fire in 2003 was the largest fire in California history at 273,246 acres.¹⁸¹ The Cedar Fire burned over 2,300 structures and 500 other buildings.¹⁸² Thirteen civilians and one firefighter died, and

169. Wick Interview, *supra* note 132.

170. *Id.*

171. *Id.*

172. *Id.*

173. *Id.*

174. *Id.*

175. Wick Interview, *supra* note 132.

176. *Water Quality Advisory*, CITY OF SANTA ROSA, www.srcity.org/2801/Water-Quality-Advisory (last visited Mar. 12, 2019).

177. Wick Interview, *supra* note 132.

178. *Id.*

179. *Id.*

180. *Top 20 Largest California Wildfires*, CAL. DEP'T FORESTRY & FIRE PROT. (Feb. 19, 2019), http://www.fire.ca.gov/communications/downloads/fact_sheets/Top20_Acres.pdf. The Thomas Fire was surpassed in acreage by the Mendocino Complex in July 2018. *Id.*

181. Interview with Gregory Schreiner, Fire Marshal (ret.), James Pine, Assistant Fire Marshal, San Diego Cty. Fire Auth. & Vince Nicoletti, Deputy Dir., San Diego Cty. Planning and Dev. Services, San Diego, California (May 30, 2018) [hereinafter Schreiner, Pine & Nicoletti Interview].

182. *Id.*

104 firefighters were injured.¹⁸³ The Cedar Fire is currently the fourth most destructive¹⁸⁴ and fifth deadliest wildfire in California.¹⁸⁵ Just as many jurisdictions would be, the County of San Diego was overwhelmed trying to coordinate an effective recovery.¹⁸⁶

In the chaos of the Cedar Fire, it took three weeks for the County to set up a Local Assistance Center (LAC), after which the recovery process went from “chaos” to “effective chaos.”¹⁸⁷ Most County staff were familiar with responding to and recovering from wildfire.¹⁸⁸ The 1970 Laguna Fire in the same county, for instance, at 175,425 acres,¹⁸⁹ is another of California’s largest fires.¹⁹⁰ Despite their background, however, no one at the County had the experience to address such significant housing losses.¹⁹¹

In 2007, 6,043 fires burned over 1.5 million acres in California.¹⁹² Ten days in late October, however, stand out for their intensity and losses.¹⁹³ The eighteen wildfires in the Southern California Fire Siege burned 517,937 acres across seven counties; 487,106 of those acres burned in the first five days.¹⁹⁴ Seventeen people lost their lives and 140 firefighters were injured.¹⁹⁵ Over 3,000 structures were lost and nearly one million people evacuated.¹⁹⁶

Seven of these wildfires, and three of the five largest, burned in San Diego County.¹⁹⁷ The combined acreage of the two largest wildfires, the Witch Creek and the Harris, was larger than the 2003 Cedar Fire.¹⁹⁸ The Witch Creek, Harris, and other fires across San Diego that month combined to destroy or damage nearly 1,500 homes and businesses.¹⁹⁹ Because many of the experienced staff from 2003 were still available, the County was able to rely on their experience to set up LACs

183. *Incident Information: Cedar Fire*, CAL FIRE (Nov. 5, 2003), http://cdfdata.fire.ca.gov/incidents/incidents_details_info?incident_id=57.

184. *Top 20 Most Destructive California Wildfires*, CAL. DEP’T FORESTRY & FIRE PROT. (Feb. 19, 2019), http://www.fire.ca.gov/communications/downloads/fact_sheets/Top20_Destruction.pdf.

185. *Top 20 Deadliest California Wildfires*, CAL. DEP’T FORESTRY & FIRE PROT. (Feb. 19, 2019), http://calfire.ca.gov/communications/downloads/fact_sheets/Top20_Deadliest.pdf.

186. Schreiner, Pine & Nicoletti Interview, *supra* note 181.

187. *Id.*

188. *Id.*

189. *Top 20 Deadliest California Wildfires*, *supra* note 185.

190. *Id.*

191. *Id.*

192. *California Wildfires and Acres for All Jurisdictions*, CAL. DEP’T FORESTRY & FIRE PROT. (Feb. 14, 2018), https://cdfdata.fire.ca.gov/pub/cdf/images/incidentstatsevents_269.pdf.

193. Schreiner, Pine & Nicoletti Interview, *supra* note 181.

194. *Id.*

195. *Id.*

196. RUBEN GRIJALVA ET AL., CAL. DEP’T FORESTRY & FIRE PROT., CALIFORNIA FIRE SIEGE 2007: AN OVERVIEW 67 (2007).

197. Schreiner, Pine & Nicoletti Interview, *supra* note 181.

198. *Id.*

199. Pauline Repard et al., *Fire Damage Severe, But Worst May Be Over*, SAN DIEGO UNION-TRIB., (Oct. 23, 2007, 9:34 PM), <http://legacy.sandiegouniontribune.com/news/metro/20071023-2134-bn23fires2.html>.

faster, spread accurate information, and effectively manage donations, shelters, and staffing.²⁰⁰

As San Diego County continued to experience more damaging wildfires in the last decade, they have become more and more adept at wildfire recovery.²⁰¹ Considered a model government in this regard by the California Office of Emergency Services, County departments like Planning and Development Services (PDS) and the County Fire Authority (SDCFA) have developed the capacity to respond to damaging wildfires while continuing their usual government business.²⁰² The County is looked to as the expert in managing post-wildfire rebuilding; other California jurisdictions facing unprecedented housing losses are often directed to San Diego County officials for technical assistance.²⁰³

The San Diego County Board of Supervisors adopted an ordinance in 2001 revising the County Fire Code to conform with the latest triennial update to the California Fire Code.²⁰⁴ At the same time, the fire chief mapped and defined “hazardous fire areas” in the County, calling it the “wildland/urban interface area,” and the Board of Supervisors adopted stricter construction standards for buildings constructed in that mapped area.²⁰⁵ At just over 1,000 words and 11 requirements, this code section was one of the first acknowledgements in the state that buildings could be designed and constructed in a manner that reduces structural ignition during a wildfire.

The California Fire Code and California Building Code are updated on a triennial cycle.²⁰⁶ As the SDCFA and PDS prepared for the 2004 adoption of the Codes, they examined common features of the thousands of homes that burned in 2003 and created one of the strongest and most progressive WUI building codes in the state.²⁰⁷ Ordinance 9670, adopted July 14, 2004, created “Chapter 7A” in the county fire code.²⁰⁸ Over twice the size of the 2001 Code, 2,500 words and 25 requirements covered new construction in the defined wildland/urban interface.²⁰⁹ These requirements regulated setbacks, vents, eaves, roofs, exterior walls, glazing, and other materials.²¹⁰ In the nearly fifteen years since then, Chapter 7A became part of the statewide California Fire Code and continues to be strengthened in each triennial update cycle.²¹¹

With this early experience developing strict WUI building codes, San Diego County has also been a pioneer in developing a safe, resilient, efficient, and cost-effective rebuilding process.²¹² From the individual parcel owner perspective, the

200. Schreiner, Pine & Nicoletti Interview, *supra* note 181.

201. *Id.*

202. *Id.*

203. *Id.*

204. SAN DIEGO, CAL., ORDINANCE 9397 (Oct. 17, 2001), https://www.sandiegocounty.gov/content/sdc/cob/ordinances/ord_2001.html.

205. *Id.*

206. Schreiner, Pine & Nicoletti Interview, *supra* note 181.

207. *Id.*

208. *Id.*

209. *Id.*

210. *Id.*

211. *Id.*

212. Schreiner, Pine & Nicoletti Interview, *supra* note 181.

County has identified three primary barriers to recovery: permitting fees, debris removal, and navigating the governmental systems to accomplish rebuilding.²¹³ The attitude of County officials is that, with the exception of life safety requirements, officials should find a way to reduce or alleviate the burden on fire victims from any ordinances, regulations, or policies.²¹⁴

Since 2003, the County's template disaster declaration includes language waiving building fees.²¹⁵ An emergency temporary occupancy permit is always on "stand-by" for authorization by the Board of Supervisors.²¹⁶ County officials recognize that many people live in rural parts of the County specifically in order to be away from others and from government regulations.²¹⁷ After a fire, damage assessment teams regularly find a number of unpermitted barns, structures encroaching on setbacks or property lines, or buildings not on the tax rolls.²¹⁸ It is a policy of the County that they are not interested in "cleaning up" the backcountry, but rather that they want to be flexible with property owners so that they can restore their lives.²¹⁹

This flexibility results in structures that are built to modern building codes, ensuring greater safety, but that may be less compliant with current land use and site design constraints. After fifteen years, the County is encountering few truly immovable barriers to efficient and cost-effective rebuilding.²²⁰ The barriers that do exist are typically state-level land use and development financing laws.²²¹ Because the County has built the capacity to address the local regulatory barriers to recovery, they can invest their resources in advocating for their residents at the statewide level.²²²

For example, a major state-level development law with little flexibility is the requirement in the Subdivision Map Act that building permits can only be issued on "legal" lots or parcels.²²³ The legality of a parcel is unrelated to its ownership or transference thereof, but related to the process by which the parcel was created and recorded with the local county officials.²²⁴ If someone purchased an "illegal" parcel and built a home or other structure on it, and those structures were lost in a wildfire or other event, the parcel owner is not allowed to rebuild on that parcel.²²⁵

San Diego faced this issue a number of times after the fires of 2003 and 2007. While County representatives lobbied the state legislature for relief from this restriction, other County employees examined alternative legal processes the County

213. *Id.*

214. *Id.*

215. *Id.*

216. *Id.*

217. *Id.*

218. Schreiner, Pine & Nicoletti Interview, *supra* note 181.

219. *Id.*

220. *Id.*

221. *Id.*

222. *Id.*

223. CAL. GOV'T CODE § 66412(d) (West 2014); CAL. GOV'T CODE § 66412.6 (West 1995); CAL. GOV'T CODE § 66412.7 (West 1980).

224. CAL. GOV'T CODE § 66412.6 (West 1995).

225. Schreiner, Pine & Nicoletti Interview, *supra* note 181.

might use to allow these parcel owners to rebuild.²²⁶ Two code sections in the Subdivision Map Act, they discovered, allow them to “unmerge” legal parcels if the County had issued a building permit for a structure on the illegal lot, allowing them to split the single legal lot into two legal lots on the basis of the additional building permits that were issued.²²⁷ While this discovery aided a number of residents who might have renovated their home or built another permitted structure on the parcel, those who had older homes without a permit or who had never needed a building permit for renovations or additions were left with no option to legally rebuild. Efforts to amend the state codes defining a legal lot have not yet been successful.²²⁸

A state program regulating the conversion of manufactured homes and mobile homes from personal to real property by the California Department of Housing and Community Development (HCD) became a rebuilding roadblock after the December 2017 Lilac Fire.²²⁹ This 4,100 acre fire burned 70 homes in a resident-owned mobile home park, Rancho Monserate.²³⁰ In order to convert a manufactured home or mobile home to real property, HCD provides two forms: the 433A or 433C.²³¹ To be granted a 433A, the homeowner must demonstrate they either own the title to, or are purchasing, the land under the home, or that they have a lease for the exclusive use of the land under the home.²³² By contrast, a Form 433C is issued when a homeowner in a resident-owned park voluntarily wants to convert their personal property to real property without affixing it to a foundation.²³³

Although both forms were intended to provide access to traditional home financing (traditional mortgages, reverse mortgages, etc.) to manufactured homeowners and mobile homeowners, most lenders do not consider a 433C adequate for traditional financing and instead will only offer chattel loans for those homes.²³⁴ The County discovered earlier in 2017 that some residents of Rancho Monserate, a resident-owned community, possessed 433A forms and some possessed 433C forms.²³⁵ When the fire burned a significant portion of these homes, getting access to traditional home financing options for all the fire victims became an urgent issue for County Counsel.²³⁶

County officials have so far had some success in remedying the discrepancy between a 433A and 433C—Assembly Member Marie Waldron, who represents Rancho Monserate in California’s 75th Assembly District, is sponsoring Assembly Bill

226. *Id.*

227. CAL. GOV’T CODE § 66451.301 (West 1985); CAL. GOV’T CODE § 66451.302 (West 1985).

228. Schreiner, Pine & Nicoletti Interview, *supra* note 181.

229. *Id.*

230. CAL. DEP’T FORESTRY & FIRE PROT., INCIDENT INFORMATION: LILAC FIRE (Jan. 9, 2018), http://cdfdata.fire.ca.gov/incidents/incidents_details_info?incident_id=1928; CTY. OF SAN DIEGO, BOARD OF SUPERVISORS AGENDA MEETING MATERIALS (March 13, 2018), <https://bosagenda.sdcounty.ca.gov/agendadocs/materials.jsp>.

231. *Modifying a Mobilehome or Manufactured Home: Alteration, Permit Requirements, and Inspections*, CAL. DEP’T HOUS. & CMTY. DEV., <http://www.hcd.ca.gov/manufactured-mobile-home/modify-mobilehome/index.shtml> (last visited Mar. 12, 2019).

232. *Id.*

233. *Id.*

234. REBECCA RABOVSKY, CAL. ST. ASSEMB. COMM. ON HOUS. & CMTY. DEV., ASSEMB. BILL 1943 BILL ANALYSIS (May 7, 2018), https://leginfo.legislature.ca.gov/faces/billAnalysisClient.xhtml?bill_id=201720180AB1943.

235. Schreiner, Pine & Nicoletti Interview, *supra* note 181.

236. *Id.*

(AB) 1943.²³⁷ This bill would provide that a homeowner may use evidence of their ownership in a resident-owned subdivision, stock cooperative, or condominium project to satisfy the real property requirements for a 433A.²³⁸ AB 1943 was signed by the Governor and chaptered by the Secretary of State in September 2018.²³⁹

Through decades of record-breaking damage from wildfires, San Diego County authorities have established a culture of safety, flexibility, and customer service when supervising post-wildfire recovery. Because the County has been a leader in the state on developing and enforcing WUI building standards, Planning and Development Services rarely receives requests to rebuild burned structures to lower building or fire standards.²⁴⁰ County officials and residents both know that San Diego's fire safe construction laws work, and fire victims are willing to follow these higher standards in construction because they know that under these codes, their new home will be safer and less likely to be lost again.

Their focus on flexibility and customer service to fire victims allows San Diego County to meet residents' personal recovery goals (namely, to get back in their homes and back to their lives) and the County's recovery goals (keeping a vibrant, tax-paying, diverse population in the County) simultaneously. Building plans for fire victims are fast-tracked through the planning process and existing nonconforming structures (i.e. those built in a setback or otherwise not up to code) are evaluated on a parcel-by-parcel, structure-by-structure basis to see where the County can allow variances.²⁴¹ The County will even consider variances to the zoning code if necessary.²⁴² This culture change at the County government, rather than any one specific policy or regulatory change, has resulted in a process that successfully focuses on restoring victims to their communities without sacrificing advancements that improve safety.

V. BUILDING GOVERNMENT AND COMMUNITY CAPACITY FOR EFFECTIVE RECOVERY

A. Tools to Restore a Community

When the emotional losses and personal impacts of a wildfire meet the regulatory burdens to recovery and restoration, many legal land use issues become fraught. Victims must mourn their lost home, community, and even friends or family while navigating a complex and unfamiliar bureaucratic process. Many victims are just looking to replace the home they had, but new building codes, site design requirements, and the loss of the surrounding natural landscape ensure that nothing will ever be exactly the same.

Some of the gaps between residents' recovery goals and actual recovery realities can be closed with money. Families with higher household incomes experience

237. A.B. 1943, Gen. Assemb., Reg. Sess. (Cal. 2018).

238. *Id.*

239. *Id.*

240. Schreiner, Pine & Nicoletti Interview, *supra* note 181.

241. *Id.*

242. *Id.*

less psychological stress after a wildfire.²⁴³ Residents that are fully insured with a reputable insurance company have faster access to temporary housing and money for reconstruction.²⁴⁴ Underinsured or uninsured residents with significant savings are also able to spend money on temporary housing and reconstruction sooner.²⁴⁵ Renters with renters insurance and personal savings in a community with high amounts of available housing stock have more options available to them than those without.²⁴⁶ Without significant financial resources, fire victims are less likely to fully recover financially to pre-disaster levels.²⁴⁷ Building community capacity (with local non-profits) and government capacity (by capturing ephemeral institutional memory) can begin to cover the gaps between recovery needs and a community's abilities to provide.

B. Building Community Capacity

In WUI communities, particularly rural and working landscapes, an organized group of residents can work together as trusted advocates for the community. A local organization that emerges from the community itself, with a mission exclusively to serve that community, can fill in gaps between government services and community needs. A non-governmental group made of community members has an intimate knowledge of the community's needs as well as its capabilities. Because of this, they have a unique vision into the capacity of the community to plan for, endure, and recover from a devastating loss like that of a wildfire. They also have insights into the different resources available to the community and how those resources can be leveraged to build greater community capacity.

When the Boles Fire destroyed 157 homes in the small town of Weed in 2014, a community development nonprofit, Great Northern Services (GNS),²⁴⁸ was already serving the town.²⁴⁹ GNS was also deeply affected by the fire—their office space was destroyed as well as the homes of staffers and their friends and families.²⁵⁰ GNS realized their work would be more critical than ever and set up a new office space within four days.²⁵¹ Because GNS had a diversity of projects from community development and infrastructure improvement, to stocking food pantries and diaper banks, improving home energy efficiency, supporting business development, and encouraging public health, they naturally became the resource the community and local government gravitated to for recovery assistance.²⁵²

243. Eisenman et al., *supra* note 64, at 602, 606–08.

244. ECOWEST REPORT, *supra* note 58, at 57, 60; *see generally* Mockrin et al., *supra* note 69.

245. Andrea Reale & John Handmer, *Land Tenure, Disasters, and Vulnerability*, 35 *DISASTERS* 160, 163–64 (2011); Mockrin et al., *supra* note 6, at 853.

246. Reale & Handmer, *supra* note 245, at 175–79.

247. Olshansky, *supra* note 29, at 13.

248. *History*, GREAT NORTHERN SERVS., <https://www.gnservices.org/about-gns/history/> (last visited Mar. 12, 2019).

249. Tom Brandeberry, *2014 Boles Fire Leads to First Rural Resilience Planning Process in the Nation*, WESTERN PLANNER (July 31, 2018), <https://www.westernplanner.org/hazard-mitigation-disaster-recovery-articles/2018/7/31/2014-boles-fire-leads-to-first-rural-resilience-planning-process-in-the-nation>.

250. BONNIE KUBOWITZ, GREAT NORTHERN SERVS., 2014 ANNUAL REPORT 4 (2015), https://www.gnservices.org/wp-content/uploads/2015/04/GNS_AnnualReport2014.pdf.

251. *Id.*

252. Brandeberry Interview, *supra* note 103.

In Weed, a number of capacity gaps emerged while the fire was still burning. Notably, short term emergency sheltering and long term temporary housing were covered by the Red Cross to a limited extent, and a significant amount of monetary, food, and in-kind donations arrived that other organizations and agencies couldn't manage.²⁵³ The city quickly realized they would need an organized group to articulate community needs, match those needs with resources, and find solutions where resources didn't exist.²⁵⁴ In order to do this effectively, the city organized the Weed Long Term Recovery Group (WLTRG), consisting of local non-profits like GNS, Family and Community Resource Center of Weed, the Shasta Regional Community Foundation, chapters of larger non-profits such as United Way and Helping Hands International, and regional faith communities and government agencies.²⁵⁵

The WLTRG relieved the small Weed city staff by coordinating individual household assistance with disaster nonprofits like the Red Cross and agencies like FEMA.²⁵⁶ This allowed the city staff to focus on the processes they were required to administer, like building permitting.²⁵⁷ The WLTRG was able to harness existing systems their member organizations had in place for accepting and distributing the considerable monetary, food, and in-kind donations Weed received.²⁵⁸ The existence of the WLTRG opened more funding avenues—a grant from Tree City USA required a certain number of volunteer hours as a funding “match,” and the WLTRG members easily marshaled their various volunteer cadres to provide that support.²⁵⁹

As the WLTRG continued to provide services to Boles Fire victims, the city recognized the need to perform broader resiliency planning.²⁶⁰ Great Northern Services was chosen to lead the development of a community-based Resilience Plan.²⁶¹ Funded by an HCD Community Development Block Grant, Weed and GNS undertook a resiliency planning process that is normally only available to larger, well-resourced urban or suburban parts of the state.²⁶² The Resilience Plan recognizes that rural communities lack the technical knowledge to conduct this type of planning and also don't have the financial capacity to hire consultants to write the plan or have the additional staff to implement it.²⁶³ Having a nonprofit leading this kind of planning, particularly a nonprofit as deeply involved in the economic development of the community as GNS is, can begin to bridge some of those capacity gaps.

Tom Brandeberry, President and CEO of the Rural Community Development Corporation of California, has seen nonprofits function separately from, but as part

253. THOMAS Brandeberry ET AL., CITY OF WEED COMMUNITY INSPIRED RESILIENCE PLAN (2016), https://resilience-weed.org/wp-content/uploads/2018/04/City-of-Weed-Resilience-Plan_Final.pdf.

254. *Id.*

255. *Weed Long Term Recovery Group Hub*, RECOVERS, <https://weed.recovers.org/resources> (last visited Mar. 12, 2019).

256. Brandeberry Interview, *supra* note 103.

257. *Id.*

258. *Id.*

259. *Id.*

260. BRANDEBERRY, *supra* note 253, at 14.

261. *See id.* at 18.

262. *Id.* at 19.

263. *Id.* at 16.

of, cities in regions across the state.²⁶⁴ Mammoth Lakes Housing, Inc., functions as the housing department for the town of Mammoth Lakes, in the eastern Sierra Nevada Mountains.²⁶⁵ The town provides funding to Mammoth Lakes Housing to conduct housing services for the community, but as a nonprofit, Mammoth Lakes Housing is also eligible for state and federal grant money to support affordable workforce housing, offer down payment assistance, and implement the General Plan Housing Element and the housing requirements in the town's municipal code.²⁶⁶

Utilizing a community-based and locally-focused nonprofit to partner with the city on managing recovery can help compensate for a lack of leadership, ability to act, or knowledge on the part of local government officials. Since the nonprofit exists outside of the city's governing structure but can partner with them as if they weren't (such as Mammoth Lakes Housing), the nonprofit can fill leadership vacuums, be more adaptable to meet changing community recovery needs, and bridge knowledge gaps.²⁶⁷ Because of the wide breadth of services they provide to the community, nonprofits like GNS, or Blue Sky Center in the Cuyama Valley,²⁶⁸ can develop resilience and recovery plans that address direct disaster impacts while also building longer term economic health, affordable housing, and stable employment.²⁶⁹

Taking advantage of disaster recovery planning to improve overall resilience requires examining changes in law and policy to arrive at co-benefits.²⁷⁰ A resiliency plan that addresses housing can include a plan for emergency ordinances that establish emergency temporary housing and long term temporary housing exemptions to local regulations, and also can maximize changes to the requirements for accessory dwelling units under the California Building Code, for example, to encourage more affordable housing and address illegal structures.²⁷¹ In this way, a nonprofit is able to examine and plan for a community's resilience to disaster and during times of normalcy.

C. Building Government Capacity

The local government, for a jurisdiction particularly vulnerable to a specific, recurring natural disaster, such as wildfire, might have significant investment in annual preparedness programs and response plans. Depending on the frequency of the disaster, however, government officials who have experience leading the response and recovery to an incident may leave public service before another event happens, taking their institutional knowledge, processes, adaptations, and lessons learned with them.

The ability of a local government to lead recovery, adapt to the unique conditions of the disaster, and know where and how to find information to do both of

264. Brandeberry Interview, *supra* note 133.

265. *About*, MAMMOTH LAKES HOUSING, INC., <http://mammothlakeshousing.org/about/> (last visited Mar. 12, 2019).

266. *Id.*

267. *Id.*

268. BLUE SKY CTR., <https://www.blueskycenter.org/> (last visited Mar. 12, 2019).

269. Brandeberry Interview, *supra* note 133.

270. *Id.*

271. *Id.*

those effectively has an impact on the effectiveness and expediency of local recovery.²⁷² After the 2003 Cedar Fire, it took San Diego County three weeks to set up a local assistance center (LAC).²⁷³ A LAC provides a single facility for local, state, and federal agencies, as well as nonprofits and voluntary organizations for individuals, families, and businesses to access disaster assistance programs and services.²⁷⁴ LACs are proven to streamline recovery by quickly allowing people to restore their identification paperwork, register for aid, protect themselves from health impacts of the disaster, and address a myriad of other legal and social needs.²⁷⁵

Because so many staff with experience from the 2003 fire were still with the County in 2007, LACs were set up even while some communities were still under mandatory evacuations.²⁷⁶ In between those fires, the County Office of Emergency Services had set up the Advanced Post-Disaster Recovery Initiative, which is now a cross-departmental organization that trains County staff across all departments.²⁷⁷ The Initiative identifies the County staff that would be tapped to provide particular services during recovery and ensures they are adequately trained for those roles.²⁷⁸ Two days after a training on LAC operations in 2011, county employees were using that training to open a LAC after a wildfire in Jacuma.²⁷⁹ These trainings ensure that county staff, all of whom are considered disaster service workers, know their duties as recovery officials.²⁸⁰

With each fire over the last fifteen years, San Diego County has identified institutional knowledge worth capturing and recording for future wildfires.²⁸¹ Prior to the December 2017 Lilac Fire, the County had already prepared organizational charts for key components of recovery: damage assessment, debris removal, private property and public property rebuilding, and human services and operations for things like shelters and donation management, among other tasks.²⁸² Now the County is trying to capture the experience of the staff who responded to the 2007 firestorm and fires since then in 2011, 2014, and 2017.²⁸³ The County is creating position checklists that can be used by staff serving in particular recovery roles;

272. Schreiner, Pine & Nicoletti Interview, *supra* note 181.

273. *Id.*

274. RONALD LANE & LESLIE LUKE, SAN DIEGO COUNTY OFFICE OF EMERGENCY SERVICES: ESTABLISHING LOCAL ASSISTANCE CENTERS 1 (2011), https://www.sandiegocounty.gov/content/dam/sdc/oes/emergency_management/plans/lac_docs/Establishing_Local_Assistance_Centers.pdf.

275. *Id.*

276. Schreiner, Pine & Nicoletti Interview, *supra* note 181.

277. *Id.*

278. *Id.*

279. Michele Clock, *County Employees Sharpen Disaster Recovery Skills*, CTY. NEWS CTR. (Oct. 4, 2012), <https://www.countynewscenter.com/county-employees-sharpen-disaster-recovery-skills/>.

280. *Id.*

281. *See generally* Unified San Diego County Emergency Services Organization Operational Area Emergency Plan, Unified SAN DIEGO CTY. EMERGENCY SERVS. ORG. (OCT. 2010), https://www.sandiegocounty.gov/oes/emergency_management/protected/docs/2010_Complete_Plan_w_Annexes.pdf.

282. *See id.*

283. *See generally* UNIFIED SAN DIEGO CTY. EMERGENCY SERVS. ORG. AND CNT. SAN DIEGO, OPERATIONAL AREA EMERGENCY OPERATIONS PLAN: EMERGENCY OPERATIONS PLAN SUMMARY, 2 (Sept. 2018), https://www.sandiegocounty.gov/content/dam/sdc/oes/emergency_management/plans/op-area-plan/2018/2018-EOP-Complete-Plan.pdf.

these checklists aren't prescriptive lists of tasks a person needs to complete, but rather guidelines for the role and what the role is responsible for.²⁸⁴ Every wildfire and its impacts are different, and these position descriptions and checklists set standards for recovery while remaining flexible for a wildfire's specific conditions.

The County also examines this collection of institutional knowledge during times of normalcy. A year or two after a fire, they re-open the information they gathered and examine what needs to be changed—has a county service moved to a new department? Did the official remember something new to add? They conduct tabletop exercises to go over this information and build cross-departmental relationships.²⁸⁵ The systems that San Diego County built were taken to Sonoma and Ventura in 2017 and other agencies throughout the state by Cal OES as model recovery programs.²⁸⁶

Building government capacity establishes trust and legitimacy for the government in the community it serves. A government that can be trusted to assist fire victims quickly, effectively, and with integrity builds the social capital required to implement things like stricter building codes. Because County government has also taken on solving complex regulatory problems like legal lots, they build capacity in their staff by giving them the confidence to implement out-of-the-box solutions and build social capital with their community by developing flexible programs to provide for residents' needs.

When a community is devastated by unprecedented losses, such as Sonoma County in 2017, government can help a community build their own capacity. Sonoma County officials contracted with Western Code Consultants to perform expedited permit review for fire victims, allowing the County to manage recovery while continuing to perform their core work to keep regular business functioning in the County.²⁸⁷ This freed up County officials to attend and host a significant number of community meetings throughout the affected areas. After getting to know each other at these meetings, some residents have organized for group pricing for home contractors and builders.²⁸⁸

Many residents of the WUI are there because they value the privacy from their neighbors and from their government. If local government builds their own capacity to implement a flexible, efficient, and cost-effective recovery, they also build their credibility with WUI residents. Improving these relationships grows community and government capacity to adequately prepare for, respond to, and recover from disaster.

VI. CONCLUSION

Looking at the devastation after a wildfire on TV, many might wonder, "Why would anyone live there after that?" The answers to that question are informed by emotional responses as much as rational ones. People who live in the WUI value their access to nature, their privacy and rural lifestyle, and their ability to earn a living from the environment. They may not want to leave friends or family or their

284. Schreiner, Pine & Nicoletti Interview, *supra* note 181.

285. *Id.*

286. *Id.*

287. *Id.*

288. Wick Interview, *supra* note 132

social networks. Their insurance money may not be substantial enough for them to afford a home elsewhere.

A follow up question is often, “Why do they let anyone live there? Why are people allowed to rebuild?” This answer is in the foundational concepts of property established in the United State Constitution—the government cannot limit a person’s rights on their own property without just compensation.²⁸⁹

Knowing that homes will be rebuilt in largely the same development pattern as they existed prior to a wildfire, local governments struggle with how to regulate housing and land use so that fire victims are back in their homes quickly and safely. Every WUI community will experience fire differently and each wildfire has different impacts, but there are common legal issues that can be identified and addressed before a wildfire.

By building community and government capacity, a local government is making it possible to pre-emptively identify the legal barriers that will arise when residential structures are damaged or destroyed by a natural disaster. This capacity creates the space in a community for stakeholders to come to a consensus on these issues without the additional psychological stress of a wildfire, and it builds positive relationships between homeowners and their government. Community capacity in the form of a nonprofit that can participate in recovery gives government recovery workers the freedom and flexibility to address the unique land use issues that arrive after a fire. Government staff are also left with the capacity to continue addressing the day-to-day functioning needs of the jurisdiction.

No two fires will have the exact same impact, so it’s impossible to build a list of “exempt this but enforce that” in local land use code. When local community leaders and government officials build their capacities to efficiently and effectively collect information, examine options, and implement recovery solutions, residents are empowered to re-invest in their homes and in their communities.

289. U.S. CONST. amend. V.