Building to Burn? Permitting Exurban Housing Development in High Fire Hazard Zones

*Eric Biber & Moira O'Neill**

California has endured devastating fire seasons over the past few years, with billions of dollars of damages, thousands of homes lost, and dozens dead. A key driver of the state's fire crisis is the increase in development of housing in the wildland-urban interface, where ecosystems and landscapes are more likely to burn. Wildland-urban interface development can put people and property in harm's way and can increase the risk of ignitions of fires. Wildland-urban interface development can also make it harder to restore fire to the landscape, a critical step to reducing fire hazards in California. But current law in California appears to do little to deter development in these high fire hazard areas. Direct regulation of land-use is generally undertaken by local governments that may have incentives to allow greater wildland-urban interface development. The California Environmental Quality Act (CEQA), which requires review and mitigation of the environmental impacts of new development projects, may not provide an adequate response to wildland-urban interface development. In particular, a recent California Supreme Court case limited the scope of CEQA review to the impacts caused by a project on the environment, rather than the impacts of the environment on a project—much of the potential harm posed by fire to wildland-urban interface development falls in the latter category. To understand how well CEQA is addressing wildland-urban interface development, we analyzed data on environmental review for housing projects in three large exurban counties and additional cities with substantial wildland-urban interface areas. We found that in San Diego County, significant amounts

DOI: https://doi.org/10.15779/Z38J678X7Z

* Eric Biber is a Professor of Law, University of California, Berkeley, School of Law. Moira O'Neill is an Associate Research Scientist, Law & City and Regional Planning at the Institute of Urban and Regional Development at UC Berkeley and an Associate Professor in Urban and Environmental Planning, School of Architecture, University of Virginia. Thanks to John Battles for helpful feedback. We appreciate the research help provided by Raine Robichaud, Sara Khan, Taewon Park, Vince Young, Randall Winston, Kelly Frost, Sarah Graham, Marybeth Benton, and Andrew Gorin. The underlying data used in this article is the product of sponsored research, funded by the California Air Resources Board.

of development are being approved using streamlined CEQA review processes, and that most of the housing development in the County is occurring in the wildland-urban interface. Our results indicate that CEQA and local land-use regulation may not be adequately addressing wildland-urban interface development in California. However, any policy response must also recognize the dire housing shortage in the state. Balancing the goals of reducing fire risk and increasing housing production suggests that increased housing development in low fire hazard urban infill areas, and a regional-level planning structure to properly plan for fire hazards, may be appropriate policy responses.

INTRODUCTION

California's wildfire seasons over the past several years have proved devastating. In 2017, the Tubbs Fire burned neighborhoods in the city of Santa Rosa, killing twenty-two people, causing over $12 billion in damages, and destroying over 2,000 homes.[1] The Thomas Fire in 2017–2018 burned neighborhoods in Santa Barbara and Ventura Counties, causing over $2 billion in damages and directly killing two people.[2] In 2018, the Camp Fire in Paradise killed eighty-five people, destroyed thousands of homes, and generated over $18 billion in losses.[3] Media reported this one fire as the single most expensive natural disaster worldwide that year.[4] But 2018 was not an anomaly. Catastrophic and lengthened wildfire seasons are now annual events in California, representing individual datapoints in an overall trend of increasing loss of life, homes, and acreage. Five of the six largest fires in recorded California history

1. NEXT 10, REBUILDING FOR A RESILIENT RECOVERY: PLANNING IN CALIFORNIA'S WILDLAND URBAN INTERFACE 6, 15 (2021), https://www.next10.org/sites/default/files/2021-06/Next10-Rebuilding-Resilient-Final.pdf.

2. *Id.* at 17, 52.

3. *Id.* at 16.

4. Alejandra Reyes-Velarde, *California's Camp Fire Was the Costliest Global Disaster Last Year, Insurance Report Shows*, L.A. TIMES (Jan. 11, 2019, 8:10 PM), https://www.latimes.com/local/lanow/la-me-ln-camp-fire-insured-losses-20190111-story.html.

were in 2020. Before that, fifteen of the twenty most destructive fires in state history occurred after 2000.[5]

The impacts of fire are not limited to the footprint of the fire itself. California's wildfires over the past decade have produced significant smoke and associated air pollution. Wildfire smoke across the state and the country in 2020 led to substantial drops in air quality in affected areas, despite the significant drop in other pollution sources because of the pandemic.[6] Wildfire now contributes more than half of the particulate pollution in the western United States and is contributing to significant declines in regional air quality.[7] Researchers estimate the economic impacts of fire, evacuations, and air pollution on the state as a whole are substantial.[8]

Multiple factors contribute to more destructive wildfire seasons in California, including climate change.[9] But the expansion of residential development into what is called the "wildland-urban interface" or WUI is also a critical factor.[10] The WUI generally describes areas that have high fire hazards, where any development is regularly vulnerable to fires.[11] WUI development can

5. NEXT 10, *supra* note 1, at 5; *see also* GOVERNOR'S FOREST MGMT. TASK FORCE, CALIFORNIA'S WILDFIRE AND FOREST RESILIENCE ACTION PLAN 3 (2021), https://www.fire.ca.gov/media/ps4p2vck/californiawildfireandforestresilienceactionplan.pdf.

6. Hannah Dormido et al., *Smoke from Wildfires Wiped Out the U.S. Pandemic-Related Clean Air Gains in 2020*, WASH. POST (Mar. 17, 2021), https://www.washingtonpost.com/climate-environment/2021/03/17/air-pollution-us-wildfires.

7. Marshall Burke et al., *The Changing Risk and Burden of Wildfire in the United States*, PROC. NAT'L ACAD. SCIS., Jan. 11, 2021, at 1, 1, 3; *see also* Tony Barboza, *Wildfire Smoke Now Causes up to Half the Fine-Particle Pollution in Western U.S., Study Finds*, L.A. TIMES (Jan. 13, 2021, 5:00 AM), https://www.latimes.com/california/story/2021-01-13/wildfire-smoke-fine-particle-pollution-western-us-study.

8. *See generally* Daoping Wang et al., *Economic Footprint of California Wildfires in 2018*, 4 NATURE SUSTAINABILITY 252 (2021).

9. *See generally* John T. Abatzoglou & A. Park Williams, *Impact of Anthropogenic Climate Change on Wildfire across Western US Forests*, 113 PROC. NAT'L ACAD. SCIS. 11,770 (2016), https://www.pnas.org/content/113/42/11770.

10. *See generally* Volker C. Radeloff et al., *Rapid Growth of the US Wildland-Urban Interface Raises Wildfire Risk*, 115 PROC. NAT'L ACAD. SCIS. 3314 (2018).

11. NEXT 10, *supra* note 1, at 6 (noting that California's Office of Planning and Research defines the WUI as "any developed area located adjacent to wildland areas, resulting in those human-made buildings and structures having a high susceptibility to damage by wildfires" (citing GOVERNOR'S OFF. OF PLAN. & RSCH., FIRE HAZARD PLANNING TECHNICAL ADVISORY: GENERAL PLAN TECHNICAL ADVICE SERIES: 2020 UPDATE PUBLIC REVIEW DRAFT – NOVEMBER 2020 (2020), https://opr.ca.gov/docs/20201109-Draft_Wildfire_TA.pdf)). In this Article, we define and use terms like "fire hazard" and "fire risk" the way that fire scientists use the terms. Fire scientists use "fire hazard" to refer to areas where the landscape conditions, particularly fuel buildup and ecosystem context, mean that fires have a higher probability of ignition and are more likely to be difficult to control. Fire scientists distinguish the term "fire risk" to refer to the likelihood that, given particular weather and other time- and place-specific conditions, a fire might start. *See* Colin C. Hardy, *Wildland Fire Hazard and Risk Problems, Definitions, and Context*, 211 FOREST ECOLOGY MGMT. 73, 75–76 (2005); *see also* GOVERNOR'S OFF. OF PLAN. & RSCH., *supra*, at 28–29, 32. State law, regulations, and guidance documents, however, sometimes specifically use the term "fire risk." When referencing law, regulations, and guidance documents, we apply the term "fire risk" in the way that law, regulations and guidance documents use the term. In those instances, we also provide appropriate citations.

place people and property at greater risk of fire, make fire suppression more difficult and dangerous, increase the risk of future fires occurring, and also make restoring fire to the landscape more challenging.[12] This last point is paramount because fire scientists generally agree that for many ecosystems, we will need to have more low-intensity fire across the landscape to reduce the risk of the large-scale, high-intensity fires that have devastated Californians.[13]

Yet, despite the ways in which development in the WUI exacerbates the fire crisis in California, and nationally, large amounts of development still occur in the WUI. According to current estimates, there are about 49 million homes in the WUI in the United States, with a historic trend of about 350,000 being added every year.[14]

As California seeks to address these twin challenges—the increasing risk of fire and the increasing amount of development in the WUI—the state has two primary legal tools at its disposal. The first derives from local planning and land-use regulation. Local governments can regulate where and how development occurs on lands within their borders to reduce or mitigate high fire risk development in the WUI. The second is the California Environmental Quality Act (CEQA), a state law that mandates analysis, public disclosure, and mitigation of significant environmental impacts.

In this Article we analyze the second of these legal tools by assessing how three California counties apply CEQA to proposals to develop exurban housing in high fire risk areas: Placer County, in Northern California, and Los Angeles and San Diego Counties, in Southern California. All three counties are major centers for rapid exurban development from nearby metropolitan areas. We assess whether and how these jurisdictions required analysis and mitigation of wildfire hazard, and evaluate the extent to which CEQA requirements address fire hazard associated with new housing development.[15]

Our findings are troubling. In at least one county, San Diego County, CEQA did not seem to force significant analysis or mitigation of high fire risk of sprawling development the County approved in 2014–2017, and much of the development San Diego County approved was in high fire hazard areas. These findings reflect the limitations (at the time) of CEQA's legal coverage of fire

12. We discuss this below in Part I.

13. *See, e.g.*, Scott L. Stephens et al., *U.S. Federal Fire and Forest Policy Emphasizing Resilience in Dry Forests*, 7 ECOSPHERES 1, 4–5, 8 (2016); Scott L. Stephens et al., *Fire and Fuel Management*, *in* FIRE IN CALIFORNIA'S ECOSYSTEMS 411, 419–20 (Jan W. van Wagtendonk et al. eds., 2d ed. 2018) ("It is the advancement of the size of prescribed fire and managed wildfire programs from small burns to ecologically significant landscape burns that is needed today.").

14. Burke et al., *supra* note 7, at 1; *see also* Radeloff et al., *supra* note 10, at 3314 (finding similar results).

15. While we focus on CEQA implementation in the WUI with respect to fire in this paper, local jurisdiction efforts to address fire hazard and fire risks through their local planning processes, particularly through the safety element, are also key legal tools, and should be addressed through future research that specifically examines how local governments are using those tools. As we discuss *infra*, we do draw on interviews with stakeholders to examine in a qualitative way San Diego County's use of its general plan safety element to address fire hazards.

hazards for new developments in the WUI, the result of a 2015 California Supreme Court decision. But these findings also reflect political and economic pressures for WUI development at the local government level in California—pressures that make curbing sprawl in the WUI difficult despite the wildfire hazards.

Recent changes to CEQA implementation may improve the situation. After analyzing more recent housing development approvals, we found that San Diego County required more thorough environmental review for recent projects (those the County approved in 2018–2020). It is unclear, however, what drives the more thorough environmental review of these projects. Possibly the County leadership's position on fire hazards in the WUI shifted, or possibly the newer proposed developments differ from prior developments in a manner that invites more thorough environmental review in general.

More significantly, a closer review of the relevant environmental review documents associated with the 2018–2020 approvals shows that the County did not demand analysis on the landscape-level risks of development in the WUI during that time. Instead, the environmental review focused only on making individual projects safer from future fires. This limited approach addressed some of the immediate issues created by development in the WUI. It specifically aimed to make new housing safer in the event of wildfire. But it failed to address the possibility that more WUI development might increase the risk to other residents or property in the broader area.

The differences in the treatment of WUI development between San Diego County and Los Angeles and Placer Counties during this period are revealing as well. The latter two counties permitted fewer projects in the WUI, and provide at least moderately more searching environmental review for the projects they do approve. These differences highlight a fundamental truth in California land-use regulation that we have pointed out elsewhere: local governments have tremendous control over both how they regulate development through planning and zoning, and how they use the CEQA review process as part of that regulatory process. This means that, without clear state guidance either with respect to planning or CEQA review, California can expect significant variation in how local governments address WUI development—with some jurisdictions continuing to allow extensive WUI development that will exacerbate fire hazards.

There may be some changes afoot. Recent revisions to the guidelines implementing CEQA encourage a more searching review of fire hazards by local governments. Litigation by the state attorney general's office and environmental groups has also forced reanalysis under CEQA of the fire hazard posed by some major WUI projects. At the local level, San Diego County's recently elected

board of supervisors has instructed planning staff to avoid identifying sites for development in the higher fire hazard areas.[16]

But the ultimate answer cannot be as simple as just stopping residential development in the WUI. The state's major metropolitan areas—many of which have land area within the WUI—also face tremendous pressure to increase housing supply.[17] Indeed, there are established communities in the state that are entirely or mostly within the WUI that have been designated under state law to increase their housing supply.[18] The primary driver of California's housing crisis is inadequate housing supply in the state's highest cost coastal cities—an inadequate supply that drives up costs across the entire state.[19] The state's housing policy framework aims to encourage dense infill housing development near transit in urban areas, both to address the lack of an adequate supply of housing and to reduce the greenhouse gas emissions from automobile use.[20] However, state efforts to date have been insufficient to address either of those issues; inadequate housing supply and high housing costs in urban areas persist.[21]

It is therefore unsurprising that at least some low- and moderate-income households increasingly seek housing in exurban and rural areas.[22] Many Californians extend their daily commutes farther out from high-cost metropolitan areas. This development pushes the exurban fringe of metropolitan areas farther into the WUI. Restricting development in the WUI to reduce fire hazards is in tension with increasing housing supply and reducing housing costs. For example, the 2018 Camp Fire destroyed naturally occurring affordable housing in the town

16. *See* BD. OF SUPERVISORS, CNTY. OF SAN DIEGO, MINUTE ORDER NO. 4, at 2–3 (2021), https://bosagenda.sandiegocounty.gov/cob/cosd/cob/doc?id=0901127e80cb21de.

17. *See* Moira O'Neill et al., *Sustainable Communities or the Next Urban Renewal?*, 47 ECOLOGY L.Q. 1061, 1063–64 (2020).

18. *See, e.g.*, *Wildland Urban Interface*, FIRE SAFE MARIN, https://firesafemarin.org/harden-your-home/wildland-urban-interface/ (last visited Dec. 20, 2021) (showing map of Marin County indicating that many communities are in the WUI, including cities like Mill Valley). Specifically, these communities will shortly receive regional housing needs allocation (RHNA) quotas that require significant production of housing under state law, with a range of potential consequences that might occur if those quotas are not met, including the ability for developers to construct housing inconsistent with components of the local jurisdiction's zoning regulations. *See* ASS'N OF BAY AREA GOV'TS, DRAFT REGIONAL HOUSING NEEDS ALLOCATION (RHNA) PLAN: SAN FRANCISCO BAY AREA, 2023–2031, at 24 (2021) (draft proposal that would require Mill Valley to produce 865 units between 2024 and 2031); S.B. 35, 2017–2018 Leg., Reg. Sess. (Cal. 2017) (state law requiring approval of certain affordable housing projects if a local jurisdiction has not satisfied its RHNA quota for low-income housing).

19. *See* MAC TAYLOR, LEGIS. ANALYST'S OFF., CALIFORNIA'S HIGH HOUSING COSTS: CAUSES AND CONSEQUENCES 3 (2015), https://lao.ca.gov/reports/2015/finance/housing-costs/housing-costs.pdf.

20. *See* O'Neill et al., *supra* note 17, at 1064–66.

21. *See, e.g.*, *id*. at 1063–71.

22. This is a national trend, with rising rates of poverty in suburban and exurban areas. *Id*. at 1063–64. This trend is also pronounced in California's metro areas—with massive and significant demographic shifts in the past decade and the creation of "megaregions" with households commuting from one metro region to another for work. *Id*.

of Paradise,[23] displacing thousands of households who then sought new housing in nearby similarly high fire hazard communities.[24]

Entirely blocking development in the WUI therefore may come at its own cost, as reflected in public debates over the wisdom of the state attorney general's litigation against recent major housing projects in the WUI. Redoubled efforts to encourage infill development in low fire hazard zones will provide one part of the solution, but it is likely that these policy challenges also demand more innovation—in policy, science, and construction.

Part I of our Article provides an overview of why development in the WUI matters for managing fire in California and nationally. Part II provides an overview of why CEQA could play such a large role in managing development in the WUI. Part III presents our data on development in the WUI in our study counties from 2014–2017. Part IV assesses recent legal changes to CEQA's application to wildfire hazards, provides updated data from San Diego County from 2018–2020, and develops the sharp trade-offs California faces in managing wildfire hazards and housing costs.

I. WHY THE WUI MATTERS FOR FIRE

Development in the WUI renders people and property more vulnerable to fire hazard. For example, although not all property damage and lives lost in the recent California fires occurred in the WUI,[25] much of it did.[26] WUI development places investments and people where they are more likely to burn. By siting infrastructure and people in high-hazard areas, WUI development also increases the risk for fire fighters and other first responders who may be required to protect property and lives from dangerous fires.[27]

Development in the WUI can also increase fire hazard directly because people cause fire. The more people are present on a landscape, the more likely there are to be ignitions of fire caused by people.[28] Thus, introducing more

23. *See* NEXT 10, *supra* note 1, at 14, 16, 41 (noting low cost of housing Paradise pre-fire). Naturally occurring affordable housing refers to housing that does not receive a subsidy to be affordable.

24. *See* Natalie Hanson & Rick Silva, *Countywide Study Reveals Camp Fire Disparities in Housing*, CHICO ENTERPRISE-RECORD (Nov. 1, 2020, 5:00 AM), https://www.chicoer.com/2020/11/01/countywide-study-reveals-camp-fire-disparities-in-housing/; *FHSZ Viewer*, FOREST HEALTH RES. PROGRAM, https://egis.fire.ca.gov/FHSZ/ (last visited Mar. 10, 2022) (showing that Oroville, Glen County, and Yuba County—places where people displaced by the Camp Fire moved—are or are near HFHSZ).

25. Some of the most significant damage in Paradise and Santa Rosa occurred in urban areas where a wildfire turned into "structure-to-structure" fires, where ignition primarily occurs from the burning of other structures, not from trees or vegetation. *See* Thomas Curwen & Joseph Serna, *The Camp Fire Burned Homes but Left Trees Standing. The Science Behind the Fire's Path*, L.A. TIMES (Nov. 20, 2018, 2:00 AM), https://www.latimes.com/local/california/la-me-camp-fire-lessons-20181120-story.html.

26. *See, e.g.*, NEXT 10, *supra* note 1, at 15–17 (mapping fire burn areas for Tubbs, Thomas, and Camp Fires with the WUI and showing substantial overlap).

27. *See id.* at 6; *see* Radeloff et al., *supra* note 10, at 3314.

28. NEXT 10, *supra* note 1, at 6; Alexandra D. Syphard & Jon E. Keeley, *Location, Timing and Extent of Wildfire Vary by Cause of Ignition*, 24 INT'L J. WILDLAND FIRE 37, 37, 42 (2015).

people into areas that are high in fire hazard will increase the number of fires. And if those fires occur in high fire hazard areas, they are more likely to spread faster and be more damaging.[29]

Development in the WUI may also interfere with returning fire to the landscape. Fire scientists broadly agree that suppression of fire in forested ecosystems that regularly burned historically is a root cause, perhaps *the* root cause, for increasing wildfire in many forests in California and nationally.[30] Suppression of fire allows biomass (dead and alive) to accumulate in a forest over time.[31] As that biomass accumulates, it generates fuel for much larger, hotter, and more difficult-to-control fires.[32] In the coniferous forests in the Sierra Nevada, fires before the early twentieth century occurred every few years, consuming small shrubs and trees, downed branches, and ground cover—what fire science calls a "ground fire."[33] This reduced the accumulation of biomass and the likelihood that a fire would become big enough or hot enough to consume the large trees or enter the canopy of the forest. Fire suppression, however, lets shrubs and trees grow, filling out the lower levels of the forest.[34] This produces "ladder fuels" that allow a fire to enter the canopy, where it burns hotter, and damages or kills the adult trees.[35] The resulting fire can then kill all or most trees in large areas, become uncontrollable, and threaten lives and damage property.[36] Restoring fire to the landscape can help address the buildup of fuel in forests that can produce large, high-intensity fires.

This summary of the role of fire suppression burns elides many variations in the role that fire plays in ecosystems. Some ecosystems—such as high-elevation coniferous forests in the Sierra Nevada or chaparral in Southern California—generally burn in hot, stand-replacing fires that consume much or

29. Radeloff et al., *supra* note 10, at 3314.

30. For a thorough historical overview of the relevant literature and scientific debates, as well as implementation by federal, state, and local agencies, see generally STEPHEN J. PYNE, BETWEEN TWO FIRES: A FIRE HISTORY OF CONTEMPORARY AMERICA (2015). *See also* Stephens et al., *supra* note 13. For additional discussion of the importance of fire suppression, see Stephens et al., *supra* note 13, at 419–20.

31. David A. Perry et al., *The Ecology of Mixed Severity Fire Regimes in Washington, Oregon, and Northern California*, 262 FOREST ECOLOGY MGMT. 703, 712–13 (2011); *see also* GOVERNOR'S FOREST MGMT. TASK FORCE, *supra* note 5, at 12–13.

32. *See* GOVERNOR'S FOREST MGMT. TASK FORCE, *supra* note 5, at 3, 12–13.

33. Perry et al., *supra* note 31, at 703, 706, 711–13; *see also* Jan W. van Wagtendonk, *Fire as a Physical Process*, *in* FIRE IN CALIFORNIA'S ECOSYSTEMS, *supra* note 13, at 39, 45 (discussing the distinctions between ground, surface, and crown fires); Neil G. Sugihara et al., *Fire as an Ecological Process*, *in* FIRE IN CALIFORNIA'S ECOSYSTEMS, *supra* note 13, at 57, 68 (same). For a detailed discussion of the specifics of fire in Sierra Nevada forests, see generally Jan W. van Wagtendonk et al., *Sierra Nevada Bioregion*, *in* FIRE IN CALIFORNIA'S ECOSYSTEMS, *supra* note 13, at 25.

34. GOVERNOR'S FOREST MGMT. TASK FORCE, *supra* note 5, at 12–13; *see also* van Wagtendonk et al., *Sierra Nevada Bioregion*, *supra* note 33, at 255–71 (noting the history of fire suppression in the Sierra Nevada, and the importance of fire to many Sierra Nevada ecosystems).

35. Perry et al., *supra* note 31, at 712–13; GOVERNOR'S FOREST MGMT. TASK FORCE, *supra* note 5, at 12; van Wagtendonk, *Fire as a Physical Process*, *supra* note 33, at 45, 49; Amy G. Merrill et al., *Fire and Plant Interactions*, *in* FIRE IN CALIFORNIA'S ECOSYSTEMS, *supra* note 13, at 103, 104; *see also* Stephens et al., *Fire and Fuel Management*, *supra* note 13, at 411–12 (defining ladder fuels).

36. *See generally* Perry et al., *supra* note 31 .

all vegetation.[37] In these ecosystems, restoring fire may not reduce the intensity of fires and may even be counterproductive where fire intervals have become abnormally high because of human-caused ignition.[38] The addition of new species can also fundamentally change fire cycles in ecosystems, causing the displacement of native plants. For example, the introduction of cheatgrass to the Interior West causes hotter and more frequent fires that are eliminating native sagebrush and the species that depend on the sagebrush.[39]

Restoring fire to the landscape can occur in one of two ways. First, agencies might purposefully ignite fires for management purposes.[40] Today, we call these "prescribed burns." Prescribed burns have a long history in California and elsewhere from the use of fire by Native Americans and, later, European-American settlers to manage the landscape.[41] Second, agencies can let naturally or accidentally ignited fires burn across the landscape—perhaps with efforts to contain or partially suppress the fire to protect certain places or resources. Agencies have used an almost dizzying series of names to refer to this concept[42] —here we will call it "managed wildfire."

Both approaches restore fire to landscapes, but necessarily with the risk that the fire will get out of human control, and cause damage to property or threaten lives. An infamous example is the Cerro Grande Fire in northern New Mexico. A prescribed fire set by the National Park Service on the Bandelier National Monument escaped because of changing wind conditions. Eventually, the fire burned over 40,000 acres, caused $1 billion in damages in the town of Los

37. Stephens et al., *Fire and Fuel Management*, *supra* note 13, at 411, 422 (discussing the distinction between crown-fire-adapted ecosystems such as chaparral and surface-fire-adapted ecosystems such as lower-elevation pine forests). *See generally* Jon E. Keeley & Alexandra D. Syphard, *Twenty-First Century California, USA, Wildfires Fuel-Dominated vs. Wind-Dominated Fires*, 15 FIRE ECOLOGY 24 (2019) (noting the broad range of ecosystems in California and their variable interaction with wildfire); Scott L. Stephens & Lawrence W. Ruth, *Federal Forest-Fire Policy in the United States*, 15 ECOLOGICAL APPLICATIONS 532, 536 (2005).

38. Keeley & Syphard, *supra* note 37, at 24, 28–31 (assessing that fuel management is less important to reducing fire hazard in chaparral, and that prescribed burns can be detrimental, and that a better approach is to reduce the exposure and presence of development in chaparral ecosystems); *see also* Jon E. Keeley et al., *Ignitions Explain More than Temperature or Precipitation in Driving Santa Ana Wind Fires*, SCI. ADVANCES, July 21, 2021, at 1; Jon E. Keeley & Alexandra D. Syphard, *South Coast Bioregion*, *in* FIRE IN CALIFORNIA'S ECOSYSTEMS, *supra* note 13, at 319, 328, 343–44 (providing a general overview of the fire regime in southern California chaparral).

39. *See* Christopher Joyce, *In Arid West, Cheatgrass Turns Fires into Infernos*, NPR (Dec. 5, 2012, 12:33 PM), https://www.npr.org/2012/12/05/166574589/in-arid-west-cheatgrass-turns-fires-into-infernos. *See generally* Jennifer K. Balch et al., *Introduced Annual Grass Increases Regional Fire Activity across the Arid Western USA (1980–2009)*, 19 GLOB. CHANGE BIOLOGY 173 (2013).

40. GOVERNOR'S FOREST MGMT. TASK FORCE, *supra* note 5, at 18–19 (calling for increased use of prescribed fire in California); Stephens et al., *Fire and Fuel Management*, *supra* note 13, at 411, 412 (defining prescribed burns).

41. *See* PYNE, *supra* note 30, at 33–98 (providing an overview of this history).

42. *See, e.g.*, *id.* at 363–65 (describing some of the variations in terminology over time); *see also* Stephens et al., *Fire and Fuel Management*, *supra* note 13, at 411, 412 (discussing the use of managed wildfire).

Alamos, and almost burned the Los Alamos National Laboratory, a site of high-level atomic weapon research.[43]

The town of Los Alamos is a classic example of development in the WUI, and the Cerro Grande Fire illustrates a basic principle: the more development in the WUI, the more difficult it is to use managed fire, whether prescribed burns or managed wildfires. Development in the WUI decreases the margin for error—if there are homes or people nearby, a change in the wind, a mistake in calculating the fuel's moisture levels, or some other error can mean that property and lives are at risk. The more fragmented the landscape is by development, the fewer large contiguous areas there are of forests or other natural landscapes that can burn. And it is large contiguous areas that give land managers the space to allow fire to return to the land without risking harm to people or property. Harm to people or property, in turn, increases the policy and political risks for the restoration of fire.[44] WUI development therefore makes it harder for us to restore fire to the landscape—a primary, perhaps *the* primary, tool we have to manage fire in many ecosystems in California.[45]

Increased development in the WUI, therefore, risks human life and property damage from wildfire while also potentially blocking possibilities for the restoration of fire. Analysts have long argued that a key component of addressing fire hazards in the United States is reducing the amount of development in the WUI and managing the fire risk in the WUI for existing developments.[46] Still, WUI development has been a problem both in California and nationally for decades.[47]

One tentative legal approach California has taken to address development in the WUI is to create a mapping system that identifies areas by fire hazard,

---

43. PYNE, *supra* note 30, at 350–56.

44. Stephens et al., *Fire and Fuel Management*, *supra* note 13, at 411, 420.

45. Another group of fuel treatment tools are mechanical treatments, in which trees and other biomass are directly removed from the landscape through mechanical means such as "[t]hinning, crushing, chipping, shredding, chopping." *Id.* at 411, 412. "Mechanical treatments are more precise than prescribed fire," avoid the risk of escaped fire and smoke, and the removed biomass can produce wood products or energy. *Id*. at 412–15. However, they are expensive to pursue, and can only be done in areas with adequate access, which is less than 40 percent of the lands managed by the U.S. Forest Service in California. *Id*. at 412–13. Accordingly, they may only be a partial solution to the problem of fire management in California—for instance, near high-risk communities or to help address a large historic build-up of fuel that makes immediate restoration of fire infeasible. *Id*.; *see also* Neil G. Sugihara, *The Future of Fire in California's Ecosystems*, *in* FIRE IN CALIFORNIA'S ECOSYSTEMS, *supra* note 13, at 517, 521 ("There is one simple rule that applies to the restoration of fire into ecosystems: to completely restore fire as an ecological process, there is no substitute for fire."). However, they likely will be a crucial component of any broader effort to address fire in California, given the challenges of reintroducing fire in areas directly adjacent to development for instance. *See* Neil G. Sugihara et al., *Introduction Fire and California Vegetation*, *in* FIRE IN CALIFORNIA'S ECOSYSTEMS, *supra* note 13, at 1, 7 ("[T]he restoration of fire as an ecological process will occur on a relatively small proportion of California's landscape.").

46. *See, e.g*., NEXT 10, *supra* note 1, at 24–29; Radeloff et al., *supra* note 10, at 3314.

47. *See* Radeloff et al., *supra* note 10, at 3314 (finding that WUI housing grew by 41 percent from 1990 to 2010 nationally). Increasing fire hazard in the WUI has been a key justification for significant changes to federal management of National Forests, for instance. *See* PYNE, *supra* note 30, at 377–82.

including areas that are Very High Fire Hazard Severity Zones (VHFHSZ) and High Fire Hazard Severity Zones (HFHSZ).[48] The Department of Forestry and Fire Protection is required to identify VHFHSZ using criteria such as wind behavior, slopes, and the amount of fuel present in a landscape.[49] Areas identified as VHFHSZ must be publicly disclosed.[50] Owners of structures within the VHFHSZ must maintain defensible space within 100 feet of the structure,[51] remove additional vegetation near the building, and, when doing new construction or other work that requires a building permit on the structure, must conform to current building codes intended to increase fire resiliency.[52] Sellers of property within the VHFHSZ must disclose that status to sellers.[53] Finally, properties within the VHFHSZ must comply with State Fire Safe regulations.[54] Those regulations now require that properties be connected by roads and driveways sufficient for emergency access and egress,[55] that emergency water for wildfire protection is available,[56] that buildings are set back from property lines or nearby structures,[57] and ensure that new developments can maintain fuel breaks.[58] We will use the state's fire hazard severity system as the basis for our analysis of whether local governments are approving housing projects in high fire hazard areas.

48. CAL. GOV'T CODE §§ 51175–51189 (2021). We will draw on the state VHFHSZ designations in our analysis of development patterns in Part III, *infra*.

49. CAL. GOV'T CODE § 51178 (2021).

50. *Id.* §§ 51179, 51181 (requiring public disclosure, as well as adoption of the VHFHSZ by local governments as an ordinance).

51. Defensible space is an area where vegetation has been removed or managed to reduce fire hazard and increase the ability of fire fighters to protect a structure from fire. *See Defensible Space*, CAL FIRE, https://www.fire.ca.gov/programs/communications/defensible-space-prc-4291/ (last visited Dec. 20, 2021) ("Defensible space is the buffer you create between a building on your property and the grass, trees, shrubs, or any wildland area that surround it. This space is needed to slow or stop the spread of wildfire and it helps protect your home from catching fire—either from embers, direct flame contact or radiant heat. Proper defensible space also provides firefighters a safe area to work in, to defend your home.").

52. CAL. GOV'T CODE § 51182(a)–(b) (2021). There are limited exceptions for structures in habitat for endangered species and in open space or other protected areas. *Id.* § 51184.

53. *Id.* § 51183.5.

54. *See* CAL. PUB. RES. CODE § 4290 (2021) (mandating the regulations). The Fire Safe Regulations apply to all property within the State Responsibility Area (SRA), which is the area within which the state is responsible for fire protection, in contrast to local governments (the local responsibility area, LRA) and the federal government. The SRA generally excludes federal landholdings and developed urban areas (the latter of which is generally in the LRA). *See generally California State Responsibility Area*, CAL. STATE GEOPORTAL (Apr. 15, 2021), https://gis.data.ca.gov/datasets/CALFIRE-Forestry::california-state-responsibility-area/explore.

55. CAL. CODE REGS. tit. 14, §§ 1273.00–.09 (2022).

56. *Id.* §§ 1275.00–.04.

57. *Id.* § 1276.01.

58. *Id.* § 1276.02. Proposed revisions to the regulations would also require that local governments restrict construction on sites that are important for fire control, and would generally make the restrictions more stringent. *See* "DRAFT STATE MINIMUM FIRE SAFE REGULATIONS, 2021," at 69–76, https://bof.fire.ca.gov/media/lirpljwy/6-state-minimum-fire-safe-regulations-15-day-rule-text_ada.pdf.

II. LEGAL TOOLS TO MANAGE DEVELOPMENT IN THE WUI

As introduced above, there are two primary legal tools for managing development in the WUI in California: local land-use planning and regulation, and environmental review. California's cities and counties enact and implement local level land-use regulation and planning—which we refer to here as planning and zoning law—that controls where development occurs, and what uses can occur on which parcels of land. Theoretically, local governments could manage the problem by severely restricting development in the WUI through local planning and zoning law.

But in practice, political and economic conditions place pressure on local governments to facilitate development in the WUI. Local governments seeking to expand their property tax base may approve development in the WUI.[59] Or influential landowners or developers may apply political pressure on government to allow more development in the WUI. Political and fiscal pressures compound when changing the land-use regulations for a particular parcel might significantly increase the economic value of development, such as allowing a residential development on a parcel previously limited to agricultural uses. Not all jurisdictions face the same political or fiscal pressure, so jurisdictions may permit development in the WUI at different levels.

The state encourages local governments to take greater consideration of fire hazard when they consider development proposals in the WUI through several mechanisms. A key leverage point is in the general plan process, a process that the state requires of all local governments. Specifically, California requires local governments to prepare and update a general plan that guides development,[60] and state law also requires that general plans include a safety element that addresses threats such as fires.[61] The state makes incentives available in the form of state funding to cover post-disaster recovery costs for local governments, under the condition that local hazard mitigation plans are incorporated by reference into general plan safety elements to reduce the risk from disasters such as fires.[62] California has further required local governments to include wildfire mitigation programs in the safety element for areas within the VHFHSZ.[63] The State Board of Forestry and Fire Protection must review and comment on the safety element.[64] And state law also now requires regular updates to the safety

59. For an overview of fiscal dynamics for local governments, see ROBERT C. ELLICKSON ET AL., LAND USE CONTROLS: CASES AND MATERIALS 647–54 (4th ed. 2013); *see also* O'Neill et al., *supra* note 17, at 1106–09.

60. *See* CAL. GOV'T CODE § 65300 (2021); DeVita v. County of Napa, 9 Cal. 4th 763, 772 (1995); Lesher Commc'ns, Inc. v. City of Walnut Creek, 52 Cal. 3d 531, 540 (1990).

61. CAL. GOV'T. CODE § 65302(g) (2022).

62. A.B. 2140, 2005–2006 Leg., Reg. Sess. (Cal. 2006).

63. S.B. 1241, 2010–2011 Leg., Reg. Sess. (Cal. 2012). The requirements also apply in the State Responsibility Area as well. *Id.*

64. CAL. GOV'T CODE § 65302.5(b)(1)–(2).

elements in general plans,[65] and an assessment of evacuation routes in the safety element.[66]

Because local land-use regulations must be consistent with general plans, the substance of the general plans matters for how land-use development occurs.[67] Thus, a local government that undertakes a rigorous implementation of these state planning requirements might thoroughly evaluate the costs and benefits of WUI development and limit development that exacerbates wildfire hazards. But whether the state will enforce these general plan requirements is uncertain, at least based on historical practice in similar contexts. For instance, state law has also required a housing element with regular updates in the general plan for decades.[68] Local governments often evaded these requirements.[69] A similar dynamic might well play out here.

The planning mandates provide just one legal pathway to mitigating fire hazard. The other major leverage point might be through environmental law. The broadest environmental law in California is the California Environmental Quality Act (CEQA). CEQA demands mandatory disclosure and mitigation (where feasible) of potentially significant environmental impacts posed by state or local government projects.[70] Unlike other environmental statutes, CEQA does not focus on a specific environmental resource (like water or air quality) or a specific activity that threatens the environment (such as pesticide use). CEQA applies to all environmental impacts that a project proposed by a public agency might cause.

Moreover, because the California Supreme Court has interpreted CEQA to apply to private projects that require approval from public agencies,[71] and because local governments are arms of the state government, CEQA has a very broad reach. Together, these two points mean that CEQA applies to private projects that are permitted by local governments. As noted above, local governments are responsible for the vast majority of land-use regulation and related approvals in the state. Because local governments in California have a

65. S.B. 1035, 2017–2018 Leg., Reg. Sess. (Cal. 2018).

66. S.B. 99, 2019–2020 Leg., Reg. Sess. (Cal. 2019); A.B. 747, 2019–2020 Leg., Reg. Sess. (Cal. 2019). Additional state legislation relevant to local planning for fire risk in California includes Senate Bills 379 and 1035 that require safety elements in general plans to include a climate vulnerability assessment and climate adaptation measures. *See* S.B. 1035; S.B. 379, 2015–2016 Leg., Reg. Sess. (Cal. 2015). For an overview of how local planning for wildfires should occur under state law, and guidance as to how local governments might do that planning, see generally GOVERNOR'S OFF. OF PLAN. & RSCH., *supra* note 11.

67. *See* Friends of Lagoon Valley v. City of Vacaville, 65 Cal. Rptr. 3d 251, 257 (Cal. Ct. App. 2007).

68. *See* Liam Dillon, *California Lawmakers Have Tried for 50 Years to Fix the State's Housing Crisis. Here's Why They've Failed.*, L.A. TIMES (June 29, 2017, 3:00 AM), https://www.latimes.com/projects/la-pol-ca-housing-supply/.

69. *Id.*

70. For an overview of CEQA's application to residential or mixed use development, see Moira O'Neill et al., *Developing Policy from the Ground Up Examining Entitlement in the Bay Area to Inform California's Housing Policy Debates*, 25 HASTINGS ENV'T L.J. 1, 12–17 (2019).

71. Friends of Mammoth v. Bd. of Supervisors, 502 P.2d 1049, 1054–56 (1972).

dense regulatory web that covers the large majority of significant land development activities,[72] CEQA in theory would usually apply to individual development projects, public or private, in the WUI.[73] And because CEQA requires consideration of the full range of environmental impacts, it should generally require consideration of fire hazards.

Government agencies subject to CEQA that find that there is a fair argument that a project will create significant environmental impacts must prepare an environmental impact report (EIR).[74] The EIR analyzes and publicly discloses any significant environmental impacts that the project might cause.[75] CEQA also requires that the agency mitigate those impacts to the extent feasible.[76] If an agency concludes that there is no fair argument that there are significant environmental impacts, it can avoid preparing an EIR.[77] For instance, with a mitigated negative declaration, an agency can use mitigation to avoid a finding of significant environmental impacts and preparation of an EIR.[78]

State law and regulations create a range of exemptions from CEQA for particular projects.[79] State law also allows local governments to reduce the burden of environmental review through "tiering."[80] Tiering allows agencies to rely on environmental review for a prior decision to reduce or even eliminate the obligation for environmental review for a subsequent decision, if the analysis for the prior decision adequately analyzed and mitigated any significant impacts.[81] A common way local governments use tiering is by allowing individual proposed developments to rely on an EIR for a land-use plan—or "tier off" the EIR associated with the plan—to reduce or eliminate CEQA review for individual projects within the plan area. These plan EIRs provide a high-level analysis of

72. *See, e.g.*, O'Neill, *supra* note 70, at 49–51 (survey of a set of Bay Area local governments finds they impose significant land-use regulatory restrictions on all residential development projects of five units or more).

73. The primary exception here would be projects that are approved through a non-discretionary ("ministerial") local review process. CEQA only applies to government actions that are discretionary—where the relevant government agency retains some choice or judgment about whether or how to proceed. CAL. PUB. RES. CODE § 21080(a) (2021); *see also* Mountain Lion Found. v. Fish & Game Comm'n, 16 Cal. 4th 105, 117 (1997). Most land-use regulation by local governments involves some form of discretionary approval process. For instance, most major development projects in exurban areas like the WUI require the subdivision of land for new development into smaller parcels for sale to new owners—subdivision of land in California generally requires discretionary approval by a local government. *See* CAL. GOV'T CODE § 66451. We did find a few ministerial projects in the City of Los Angeles in the WUI.

74. *See* No Oil, Inc. v. City of Los Angeles, 13 Cal. 3d 68, 74–75 (1974).

75. *See* CAL. CODE REGS. tit. 14, §§ 15125, 15126.2 (2022).

76. CAL. PUB. RES. CODE §§ 21002, 21081 (2021).

77. *Id.* §§ 21080(c), 21064.

78. *Id.* § 21064.5; CAL. CODE REGS. tit. 14, § 15070(b) (2022).

79. For an overview, see CECILY TALBERT BARCLAY & MATTHEW S. GRAY, CALIFORNIA LAND USE & PLANNING LAW 150–57 (36th ed. 2018).

80. *See* CAL. CODE REGS. tit. 14, § 15152 (2022).

81. *See* CAL. PUB. RES. CODE §§ 21068.5, 21093 (2021); CAL. CODE REGS. tit. 14, §§15152, 15385 (2022).

land-use regulations in a county or city, which may adequately address the fire hazard of proposed developments.

Still, at first glance, CEQA could offer a tool to address development in the WUI. CEQA could require local governments to consider the possible fire hazards of each proposal for WUI development and require mitigation of those risks, and possibly reject projects that pose significant fire hazards. In 2015, however, the California Supreme Court limited CEQA's scope of environmental review to the impacts of a project on the environment, not the impacts of the environment on the project.[82] "Reverse CEQA" analysis, as practitioners sometimes call the latter concept,[83] cannot trigger the obligation to prepare an EIR, and cannot be the basis for mitigation. As an example, consider a project proponent seeking approval for a housing development in an urban area exposed to higher levels of air pollution because of its proximity to freeways or other sources of air pollution: the proponent does not need to analyze or mitigate the impacts of that air pollution on the potential future residents of the project.[84]

The limitation on "reverse CEQA" analysis excludes the first of the three ways in which development might exacerbate fire hazard in the WUI. Siting a development in harm's way is not enough to trigger CEQA review of fire hazards, at least according to one court of appeals decision. This was true even though the project was located in the VHFHSZ.[85]

However, the California Supreme Court has also emphasized that where a project would exacerbate existing environmental conditions, the CEQA analysis must consider those impacts on the public at large as well as the future residents or users of the project.[86] This principle would cover the other two ways in which

82. Cal. Bldg. Indus. Ass'n v. Bay Area Air Quality Mgmt. Dist., 362 P.3d 792, 794 (Cal. 2015) ("In light of CEQA's text, statutory structure, and purpose, we conclude that agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents."). For caselaw applying this rule, see, for example, Aqualliance v. U.S. Bureau of Reclamation, 287 F. Supp. 3d 969, 1023–28 (E.D. Cal. 2018) (no requirement under CEQA to analyze impacts of climate change on water supply in context of water project, since climate impacts would be impacts affecting the project by potentially reducing water supply); E. Sacramento P'ship for a Livable City v. City of Sacramento, 209 Cal. Rptr. 3d 774, 786–88 (Ct. App. 2016) (rejecting requirement that housing project needs to examine the impacts of on-site soil contamination on residents); Preserve Poway v. City of Poway, 199 Cal. Rptr. 3d 600, 615–17 (Ct. App. 2016) (CEQA does not require potential impacts of existing businesses on housing project); Mission Bay All. v. Off. of Cmty. Inv. & Infrastructure, 211 Cal. Rptr. 3d 327, 356–58 (Ct. App. 2016) (no need to examine wind impacts on users of future sports facility); *see also* Berkeley Hills Watershed Coal. v. City of Berkeley, 243 Cal. Rptr. 3d 236, 243–46 (Ct. App. 2019) (narrowly construing CEQA provision that required further environmental review of small-scale projects to not include seismic hazards because doing so is consistent with purpose of CEQA to focus on risks of project on the environment, not the risks the environment causes to the project).

83. *See e.g.*, Timothy D. Cremin, *CA Supreme Court Issues Major Ruling on "CEQA-in-Reverse"*, MEYERS NAVE (Dec. 26, 2015), https://www.meyersnave.com/ca-supreme-court-issues-major-ruling-ceqa-reverse/.

84. *See Cal. Bldg. Indus. Ass'n*, 362 P.3d at 794–96.

85. Clews Land & Livestock, LLC v. City of San Diego, 227 Cal. Rptr. 3d 413, 437–39 (Ct. App. 2017).

86. *Cal. Bldg. Indus. Ass'n*, 362 P.3d at 794 ("But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of

development in the WUI can exacerbate fire hazard—increased risks of ignition and fragmenting the landscape in ways that interfere with the ability to restore fire to the landscape. Indeed, in two different cases lower courts have relied on this principle to require consideration of the increased impacts from fire that a project might cause if located in a high fire hazard area.[87]

Given that most WUI development has the potential to exacerbate fire hazards in the WUI, CEQA would seem to offer an important tool to reduce the ways in which WUI development can exacerbate fire hazards. We now turn to examine whether, in practice, local governments are using CEQA in this way.

III. WHAT IS HAPPENING ON THE GROUND?

Local governments implement local and state land-use regulation and associated CEQA review for most residential development.[88] Any examination of how CEQA applies to development in the WUI requires examining how local governments are applying CEQA to individual projects. We were able to do this as part of a larger research project, the Comprehensive Assessment of Land-Use Entitlements Study. This work involved collecting data on how residential developments moved through regulatory and environmental review approval processes in twenty jurisdictions. Some of these jurisdictions have land in the WUI. All of our jurisdictions are also in major metropolitan areas that have significant development pressure.[89]

We began our work with legal research on how our study jurisdictions approve residential or mixed-use development that would provide five or more units of housing. We then gathered data to understand how jurisdictions apply land-use law—their own and state law (like CEQA). This work involved gathering details on proposed developments and the types of approvals our study jurisdictions required of project proponents. We focused our research on developments that cities and counties approved in 2014, 2015, 2016, and 2017. We also found the geographic coordinates for each of these approved

such hazards on future residents or users. In those specific instances, it is the project's impact on the environment—and not the environment's impact on the project—that compels an evaluation of how future residents or users could be affected by exacerbated conditions.").

87. *See* Cal. Clean Energy Comm. v. County of Placer, No. C072680, 2015 WL 9412772, at *21–27 (Cal. Ct. App. Dec. 22, 2015) (remanding CEQA analysis for ski area project in Lake Tahoe because of inadequate analysis of wildfire risks); Climate Resolve v. County of Los Angeles, No. 19STCP01917, at *53–60 (Cal. Super. Ct. Apr. 5, 2021) (remanding CEQA analysis for housing project because of inadequate analysis of wildfire impacts on areas outside the project, based on the risk that the project would increase the risks of fire ignition). The *California Clean Energy Committee* case is nonprecedential, and the court also held that the project proponent had waived any arguments that wildfire analysis was not required as a "reverse CEQA" analysis. *Cal. Clean Energy Comm.*, 2015 WL 9412772, at *26–27, *38.

88. The "lead agency" has primary responsibility and authority for conducting CEQA reviews. CAL. PUB. RES. CODE § 21067 (2022). In the context of land-use regulation, because local governments are usually the ones issuing the relevant permits, they are the lead agencies who decide what nature of CEQA analysis, if any, occurs. *Id.* § 21080.1.

89. For more details about our methodology, see O'Neill et al., *supra* note 17, at 1085–86, and O'Neill et al., *supra* note 70, at 36–49.

developments. Finally, we interviewed various stakeholders, including developers, attorneys, planners, and members of community-based organizations with an interest in how residential and mixed development proceeds within our study jurisdictions.

Our Comprehensive Assessment of Land-Use Entitlements Study data allows us to examine whether and how local jurisdictions apply discretionary review to proposed development of five or more units, and how they apply CEQA. This data also allows us to examine how many approved developments are located within the WUI, if any, using mapping tools. We can then explore the approval pathways for these developments in the WUI. Specifically, to determine whether our study jurisdictions approved housing within high fire hazard zones, we used the California Fire Hazard Severity Zone Maps and fire hazard maps available at the local level for cities that assume responsibility. We then examined what CEQA pathways those projects used to achieve entitlement in relationship to their siting in fire hazard zones.

A. CEQA Does Not Prevent Development in the WUI

All three of the counties in our study approved development in the WUI. Our results were most striking for San Diego County. Most of the proposed development that San Diego County approved in our study years is in a very high- or high-risk fire hazard zone. Over four years, San Diego County entitled 1,434 units of housing (twenty-seven proposed developments) in the unincorporated land in our study period. Almost two-thirds (or about 62 percent) of the housing units San Diego approved are sited in the VHFHSZ. Another roughly 20 percent of approved units are sited in the next level of fire hazard, HFHSZ.

The other jurisdictions within our study that developed in higher fire hazard zones saw these areas hold lower proportions of projects or units. Although Placer County had about as many individual residential projects approved in higher fire hazard areas as San Diego County, these were much smaller projects, so fewer units would be developed in higher fire hazard areas.

Table 1: Distribution of Projects and Units by Fire Hazard (Cal Fire FHSZ State and Local Responsibility Areas)[90]

Jurisdiction	Total Projects	Projects in Very High Fire Hazard	Projects in High Fire Hazard	Projects in Moderate Fire Hazard	Total Units	Units in Very High Fire Hazard	Units in High Fire Hazard	Units in Moderate Fire Hazard
City of Los Angeles	1,081	45	0	0	66,058	1,099	0	0
City of San Diego	176	29	0	1	13,957	2,070	0	9
Los Angeles County	37	2	0	0	2,532	585	0	0
Placer County	19	6	0	4	3,535	138	0	1,135
San Diego County	27	11	2	3	1,434	889	301	34
Total	**1,340**	**94**	**2**	**8**	**87,516**	**4,781**	**301**	**1,178**

90. MOIRA O'NEILL-HUTSON ET AL., EXAMINING ENTITLEMENT IN CALIFORNIA TO INFORM POLICY AND PROCESS: ADVANCING SOCIAL EQUITY IN HOUSING DEVELOPMENT PATTERNS 109 (2022).

Table 2: Distribution of % Projects and % Units by Fire Hazard (Cal Fire FHSZ State and Local Responsibility Areas)

Jurisdiction	% Projects in Very High Fire Hazard	% Projects in High Fire Hazard	% Projects in Moderate Fire Hazard	% Units in Very High Fire Hazard	% Units in High Fire Hazard	% Units in Moderate Fire Hazard
City of Los Angeles	4.26%	0.00%	0.00%	1.66%	0.00%	0.00%
City of San Diego	16.48%	0.00%	0.57%	14.83%	0.00%	0.06%
Los Angeles County	5.41%	0.00%	0.00%	23.10%	0.00%	0.00%
Placer County	31.58%	0.00%	21.05%	3.90%	0.00%	32.11%
San Diego County	40.74%	7.41%	11.11%	61.99%	20.99%	2.37%
Total	**7.01%**	**0.15%**	**0.60%**	**5.46%**	**0.34%**	**1.35%**

Also notable is that the dominant pathway to satisfying CEQA obligations in San Diego County involved using less onerous environmental review requirements. Most of the development San Diego County approved in higher fire hazard zones had exemptions that allow a project to "tier" off of prior, plan-level analysis[91]—for San Diego County, the projects tiered off of the EIR for the County's 2011 General Plan. Of the thirteen projects in the Very High or High Fire Hazard Severity Zones, only two projects (with 304 units) had an EIR.

In contrast, in the City of Los Angeles there were forty-five proposed developments located in Very High Fire hazard zones, most of which used a more significant level of review (mitigated negative declarations or MNDs) and only seven used exemptions from CEQA.[92] And only a tiny fraction of the City of Los Angeles's entitled projects or units were in higher fire hazard severity zones.

Other counties with significant exurban development potential in high fire hazard areas also took a different approach than San Diego County for environmental review. Los Angeles County and Placer County required more substantial environmental review for projects in high fire hazard areas, generally completing MNDs or EIRs for these projects.[93]

One possible explanation for why some jurisdictions might entitle more housing in higher fire hazard severity zones may be that some jurisdictions have more land area within higher fire hazard zones. The County of San Diego has more zoned land area within higher fire hazard zones than the County of Los Angeles and Placer County, but not more than the City of San Diego.[94]

91. *See* CAL. CODE REGS. tit. 14, § 15152; *see also* ANTERO RIVASPLATA, JUST THE FACTS: AN EVIDENCE-BABSED LOOK AT CEQA STREAMLINING AND CEQA'S ROLE IN DEVELOPMENT 4 (2019), https://sjud.senate.ca.gov/sites/sjud.senate.ca.gov/files/ceqa_in_10_minutes.pdf.

92. *See* O'NEILL-HUTSON ET AL., *supra* note 90, at 109.

93. The study we draw data from for this analysis is limited in that it covers selected jurisdictions; there are additional jurisdictions that can provide further insights as to the patterns of entitlement in the WUI. For instance, we did not include Riverside County or Orange County, two counties that may have offered additional useful comparative analysis with San Diego County because of their geographies.

94. These calculations use CalFire FHSZ Local Responsibility and State Responsibility zones accessed in December 2020. *California Fire Hazard Severity Zone Viewer*, CAL FIRE, https://hub-calfire-forestry.hub.arcgis.com/apps/CALFIRE-Forestry::california-fire-hazard-severity-zone-viewer/about (last updated Jan. 13, 2020). The zoning shapefiles are from individual jurisdictions, all accessed between 2018–2021. The percentages reflect the amount of zoned area in each jurisdiction, and then how much zoned area overlapped with Very High, High, and Moderate FHSZ. Zoning shapefiles for county jurisdictions represent unincorporated area only.

Table 3: Zoned Land Area in Higher Fire Hazard Zones

Jurisdiction	% Zoned Land in Very High Fire Hazard	% Zoned Land in High Fire Hazard	% Zoned Land in Moderate Fire Hazard	% Zoned Land Not in Fire Hazard	% Zoned Land in Very High or High Fire Hazard
City of Los Angeles	33.57%	0.00%	0.00%	66.43%	33.57%
City of San Diego	51.29%	0.00%	0.00%	48.71%	51.29%
Los Angeles County	22.08%	5.20%	1.28%	71.44%	27.28%
Placer County	17.54%	1.37%	8.89%	72.20%	18.91%
Roseville	0.00%	0.00%	0.00%	100.00%	0.00%
San Diego County	36.56%	9.48%	7.51%	46.45%	46.04%

Table 4: Project CEQA Pathways by Fire Hazard in Placer County

	% of Projects	Projects	Exempt	Tiering	Addendum	MND	ND	EIR	Multiple Pathways
Very High	31.58%	6	0	0	0	4	0	2	0
High	0.00%	0	-	-	-	-	-	-	-
Moderate	21.10%	4	0	0	1	2	0	0	1
Not in Fire Hazard Zone	47.37%	9	0	3	0	5	0	1	0

Table 5: Project CEQA Pathways by Fire Hazard in San Diego County

	% of Projects	Projects	Exempt	Tiering	Addendum	MND	ND	EIR	Multiple Pathways
Very High	40.74%	11	0	8	0	2	0	1	0
High	7.41%	2	0	1	0	0	0	1	0
Moderate	11.11%	3	0	3	0	0	0	0	0
Not in Fire Hazard Area	40.74%	11	0	11	0	0	0	0	0

Table 6: Project CEQA Pathways by Fire Hazard in the City of San Diego

	% of Projects	Discretionary Projects	Process 1-2 Projects[a]	Exempt	Tiering	Addendum	MND	ND	EIR	Multiple Pathways
Very High	16.48%	23	6	4	7	4	6	0	2	0
High	0.00%	0	0	-	-	-	-	-	-	-
Moderate	0.57%	1	0	-	1	-	-	-	-	-
Not in Fire Hazard Area	82.95%	75	71	30	13	4	17	2	7	2

[a] Process 1 and 2 refers here to the City of San Diego's Process 1 ministerial review process and Process 2 staff level discretionary review. CEQA applies to Process 2, only. The City's data did not allow for determining which observations were Process 2.

Table 7: Project CEQA Pathways by Fire hazard in the City of Los Angeles

	% of Projects	Discretionary Projects	Ministerial Projects	Exempt	Tiering	Addendum	MND	ND	EIR	Multiple Pathways
Very High	4.16%	39	7	7	2	0	29	0	1	0
High	-	-	-	-	-	-	-	-	-	-
Moderate	-	-	-	-	-	-	-	-	-	-
Not in Fire Hazard Area	95.84%	752	284	248	11	11	450	2	22	8

Table 8: Project CEQA Pathways by Fire Hazard in Los Angeles County

	% of Projects	Discretionary Projects	Ministerial Projects	Exempt	Tiering	Addendum	MND	ND	EIR	Multiple Pathways
Very High	5.40%	2	0	0	0	0	1	0	1	0
High	-	-	-	-	-	-	-	-	-	-
Moderate	-	-	-	-	-	-	-	-	-	-
Not in Fire Hazard Area	89.2%	33*	2**	8	0	0	12	9	2	0

* Two projects had unknown CEQA pathways, so are included in the count here, but not in the other fields.

** It is unknown whether one project was ministerial or discretionary, so the CEQA pathway is unknown. This project is not included in either project count and not included in these calculations.

We also interviewed stakeholders in the development process in these three counties—including developers, planners, land-use attorneys, and representatives from community-based organizations—to provide context to our quantitative data.[95] These interviews revealed that stakeholders perceive wildfire hazard associated with development in the WUI to be greater in certain locations. For example, this issue was a much more dominant theme among San Diego County stakeholders compared to Los Angeles County and Placer County stakeholders. Notably, all stakeholder groups in Southern California we interviewed indicated that San Diego County was more willing to allow development in higher fire hazard areas than other areas we studied. For example, stakeholders with knowledge of both San Diego and Los Angeles Counties perceived Los Angeles County as adhering more closely to state guidelines on fire safety than San Diego County. Some participants perceived San Diego County as failing to consider how new residential development will impact already difficult evacuation routes during wildfires. Other participants perceived increased approvals in the WUI as reflecting the challenges San Diego County faces in addressing its housing needs.

All participants we spoke to about San Diego County agreed that the County's planning and zoning promotes sprawl, at least some of which is in the WUI. However, participants differed in opinion as to why this is the case. Some participants critiqued the County's General Plan, prepared in 2011, as insufficient to prevent sprawl. While others stated that the 2011 plan adequately provided for infill development, but that the County promoted sprawl through constant amendments to the General Plan. And still others noted that the County had inadequate infill opportunities to begin with because of limited infrastructure and transportation, something that they believed local planning and zoning law could not overcome.

Relatedly, all stakeholders interviewed attributed sprawl development to developer preferences. Our interview subjects specifically noted that developers were willing to navigate major legal hurdles to develop single-family homes on formerly agricultural land with little or no infrastructure and on land outside of areas where the County had planned for more intense development. Consistent with these statements, we found a comparatively higher rate of rezoning and general plan amendment approvals within San Diego County (as compared to

95. We conducted what is referred to as "semi-structured" interviews, where we started the interview with open-ended questions that asked for the participant's background or basis of knowledge in the subject, or their relationship to residential development in the study jurisdiction, and their impressions of how proposed housing developments navigate regulatory processes and environmental review. Using this interview approach, participants are also able to discuss what is of most interest or concerning to them about residential development in the study jurisdiction. We then analyzed our transcripts to identify dominant themes—or what participants appeared to perceive or discuss most. We also compared perceptions against other data points, particularly approval related data and environmental review documents.

other exurban communities)—the most demanding kinds of changes to underlying land-use law that a development proponent might pursue.

Stakeholders in San Diego County routinely shared concerns that the higher rates of general plan amendments during that time compromised the efficacy of the safety element planning process as a legal means to deter development in the WUI. Specifically, stakeholders shared perceptions that the Safety Element does too little to deter development in higher fire hazard areas because at least some projects circumvent the Safety Element through general plan amendments. One stakeholder shared that "[t]he board of supervisors continues to put project after project, general plan amendments in high fire [hazard] locations that can't be evacuated." Another echoed this concern, explaining that the County's "Safety Element can be overridden through the General Plan Amendments . . . . Every single [general plan amendment] that has come through has been in high-risk, very high fire severity zones."

Both planning staff and the newly elected board of supervisors appear to share these concerns about past development approvals. In 2021, the Board directed planning staff to avoid identifying sites for development in higher fire hazard zones, and to instead focus on sites that do not require rezoning.[96]

B. More Recent Approval Actions Followed More Searching—But Likely Still Inadequate—Environmental Review

Because we found such striking differences between San Diego County and the other jurisdictions, with varied explanations for these differences, we investigated more recent development outcomes in the County. We collected data on entitlements for developments that the County approved in the years 2018–2020.[97] We identified where these developments were sited and then again analyzed the County's environmental review approach.

More than half of the projects and nearly two-thirds of the units the County approved in 2018–2020 were in higher-risk fire zones. The one contrast with earlier years is that almost all of the units the County approved in this period required an EIR, the most stringent level of environmental review under CEQA. Though less than a third of the proposed developments required an EIR, there were three large projects with thousands of units that were located in the higher-risk fire zones subject to an EIR.[98] This means that the majority of all approved

96. *See* BD. OF SUPERVISORS, *supra* note 16; BD. OF SUPERVISORS – LAND USE, CNTY. OF SAN DIEGO, MINUTE ORDER NO. 1, at 2–3 (2021), https://bosagenda.sandiegocounty.gov/cob/cosd/cob/doc?id=0901127e80d58f29.

97. In June 2020, the County did deny a project (Lilac Hills Ranch) that would have added 1,746 units on the grounds of fire safety risks. *See* Joshua Emerson Smith, *San Diego Supervisors Reject Lilac Hills Ranch over Wildfire Concerns*, SAN DIEGO UNION TRIB. (June 24, 2020, 1:44 PM), https://www.sandiegouniontribune.com/news/environment/story/2020-06-24/county-rejects-lilac-hills-ranch-housing-project-rejected.

98. One of these three projects became the subject of a petition that sought a voter referendum on the County's approval of the project. BD. OF SUPERVISORS, CNTY. OF SAN DIEGO, THE MINUTES OF THE REGULAR MEETING OF THE BOARD OF SUPERVISORS 5 (2020),

units in 2018, 2019, and 2020 underwent more rigorous environmental review as compared to prior study years (2014, 2015, 2016, and 2017).

Table 9: Projects and Units by Fire Hazard, San Diego County 2018–2020
Preliminary Analysis – Still Needs QC and Proofing

	Moderate	High	Very High
# Projects	2	1	11
% Projects	10.0%	5.0%	55.0%
# Units	370	3,158	5,803
% Units	3.9%	33.2%	60.7%

Table 10: CEQA Pathways in Very High Fire Hazard Areas by % Projects, San Diego County 2018–2020
Preliminary Analysis – Still Needs QC and Proofing

Projects	% of Projects	% Exempt Projects	% CEQA Tiering Projects	% CEQA Hybrid Projects	% CEQA Addendum Projects	% CEQA MND Projects	% CEQA ND Projects	% CEQA EIR Projects	% Multiple Pathways Projects
11	55.0%	9.1%	45.5%	0.0%	0.0%	9.1%	0.0%	36.4%	0.0%

Table 11: CEQA Pathways in Very High Fire Hazard Areas by % Units, San Diego County 2018–2020
Preliminary Analysis – Still Needs QC and Proofing

Total Units	% of Units	% Exempt Units	% CEQA Tiering Units	% CEQA Hybrid Units	% CEQA Addendum Units	% CEQA MND Units	% CEQA ND Units	% CEQA EIR Units	% Multiple Pathways Units
5,803	60.7%	0.4%	1.8%	0.0%	0.0%	1.5%	0.0%	96.3%	0.0%

Table 12: CEQA Pathways in High Fire Hazard Areas by % Projects, San Diego County 2018-2020
Preliminary Analysis – Still Needs QC and Proofing

Projects	% of Projects	% Exempt Projects	% CEQA Tiering Projects	% CEQA Hybrid Projects	% CEQA Addendum Projects	% CEQA MND Projects	% CEQA ND Projects	% CEQA EIR Projects	% Multiple Pathways Projects
1	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%

Table 13: CEQA Pathways in High Fire Hazard Areas by % Units, San Diego County 2018-2020
Preliminary Analysis – Still Needs QC and Proofing

Total Units	% of Units	% Exempt Units	% CEQA Tiering Units	% CEQA Hybrid Units	% CEQA Addendum Units	% CEQA MND Units	% CEQA ND Units	% CEQA EIR Units	% Multiple Pathways Units
3,158	33.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%

Given stakeholder concerns about some development circumventing San Diego County's Safety Element, environmental review may be another option to address risk. Project-level environmental review might provide a second legal

https://www.sandiegocounty.gov/content/dam/sdc/bos/agenda/sop/04212020sop.pdf. When that petition received sufficient signatures to force a vote on the project, the County rescinded its approval of the project. *Id*. at 6.

pathway to mitigate or reduce the risks associated with development in higher fire hazard areas. To better explore how more rigorous environmental review might consider, analyze, and mitigate fire hazard, we reviewed the environmental review documents for the projects the County approved in the higher-risk fire zones from 2014 through 2020.

We compared the fire hazard analysis performed for these projects with the issues we identified with WUI development above: specifically, whether the CEQA fire hazard analysis examined making the project itself less vulnerable to fire, whether it examined the increased risk of ignition from the project, and whether it examined the contribution of the project to fire hazard at a broader geographic scale. We also reviewed the particular kinds of mitigation measures examined in the CEQA documents, such as making buildings and landscaping less flammable, improving evacuation routes, improving firefighters' access to projects, and reducing the risk of ignitions by project residents or visitors. The kinds of mitigation measures discussed in the CEQA documents provide insights as to the kinds of risks assessed. For instance, making buildings and landscaping less flammable, improving evacuation routes, and improving access for firefighters generally make the project itself safer, but are less focused on landscape level risk.

Overall, the environmental review documents in San Diego County followed a common pattern of generally focusing on making projects safer, rather than analyzing landscape level risk. Projects in 2014–2017 generally prepared a fire protection plan that was reviewed and approved by the County.[99] That fire protection plan in turn focused on ensuring that residents of a proposed development would be safe from a fire—either because the development itself would be more fire resilient or because residents could safely evacuate, or perhaps both.[100] Fire resilience for projects involved improving access for firefighters to reach the project and access properties,[101] increasing buildings' resilience through sprinklers and fire resistant construction,[102] and managing

99. *See, e.g.*, CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: LONE OAK TENTATIVE MAP AND MAJOR USE PERMIT 2-18 (2016); CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: SIMPSON FARMS TENTATIVE MAP 3-21 (2016); CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: PARK CIRCLE; ZONE RECLASSIFICATION, TENTATIVE MAP, AND MAJOR USE PERMIT 5-29 (2017) [hereinafter CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: PARK CIRCLE]; PLAN. AND DEV. SERVS., CNTY. OF SAN DIEGO, ENVIRONMENTAL REVIEW UPDATE CHECKLIST FORM FOR PROJECTS WITH PREVIOUSLY APPROVED ENVIRONMENTAL DOCUMENTS: FOR PURPOSES OF CONSIDERATION OF SWEETWATER VISTAS RESIDENTIAL DEVELOPMENT PROJECT 29–30 (2017).

100. *See, e.g.*, CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: SIMPSON FARMS TENTATIVE MAP, *supra* note 99, at 3-19.

101. *See, e.g.*, CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: RIKER RANCH TENTATIVE MAP 1-12 to 1-13 (2015); CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: POPLAR MEADOW TENTATIVE MAP 1-10 to 1-11, 1-15 (2017); PLAN. AND DEV. SERVS., *supra* note 99, at 29–30, 36.

102. *See, e.g.*, CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: ORCHARD HILLS TENTATIVE MAP 2-7, 2-11 (2014); CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT:

vegetation within and surrounding the development to reduce fire hazard ("defensible space").[103] All of these approaches focus on the safety of the people and property in the project. In the 2014–2017 environmental review documents, there was little or no analysis of whether the project might increase the risks of ignitions in the area, or whether the mere development of the project might fragment the WUI in ways that make restoration of fire to the landscape more difficult. Notably, the adequacy of the County's fire protection plan that these individual project reviews relied upon came up in interviews.

PARK CIRCLE, *supra* note 99, at 5-175; COUNTY OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: LONE OAK TENTATIVE MAP AND MAJOR USE PERMIT, *supra* note 99, at 2-18.

103. *See, e.g.*, CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: ORCHARD HILLS TENTATIVE MAP, *supra* note 102, at 2-3, 2-7, 2-11, 2-22 to 2-23; CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: RIKER RANCH TENTATIVE MAP, *supra* note 101, at 1-38 to 1-39; CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: LONE OAK TENTATIVE MAP AND MAJOR USE PERMIT, *supra* note 99, at 2-100 to 2-101, 2-156 to 2-157; CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: SIMPSON FARMS TENTATIVE MAP, *supra* note 99, at 3-75; CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: PARK CIRCLE, *supra* note 99, at 5-177. These issues are the ones highlighted in the Safety Element of the County's 2011 General Plan when it discusses fire hazard, and are the standards that are used to assess whether projects are consistent with the General Plan. CNTY. OF SAN DIEGO, SAN DIEGO COUNTY GENERAL PLAN: A PLAN FOR GROWTH, CONSERVATION, AND SUSTAINABILITY 7-7 to 7-14 (2011), https://www.sandiegocounty.gov/content/sdc/pds/generalplan.html#Elements. The EIR for the County's 2011 General Plan found that wildfire impacts from development under the Plan would pose significant environmental impacts, but that full mitigation of those impacts was infeasible. DEP'T OF PLAN. & LAND USE, CNTY. OF SAN DIEGO, EIR NO. 02-ZA-001, SAN DIEGO COUNTY GENERAL PLAN UPDATE: FINAL ENVIRONMENTAL IMPACT REPORT 2.7-45 to 2.7-48, 2.7-53, 2.7-57 to 2.7-60 (2011), https://www.sandiegocounty.gov/content/sdc/pds/generalplan/GP-EIR.html#EIR. (CEQA allows government agencies to reject infeasible mitigation.) CAL. PUB. RES. CODE § 21004 (2022); CAL. CODE REGS. tit. 14, § 15040(e) (2022); *see also* STEPHEN L. KOSTKA & MICHAEL H. ZISCHKE, PRACTICE UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT § 14.24–.25 (2d ed. 2008) ("When imposing measures to mitigate a project's significant environmental effects, a public agency may exercise only powers provided by legal authority independent of CEQA."); *id.* at § 14.26(b) ("[M]itigation measures that are beyond the powers conferred by law on lead and responsible agencies are legally infeasible."). The County has relied on compliance with these 2011 General Plan standards to permit tiering of projects even when they are located in higher fire hazard zones. *See, e.g.*, CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: RIKER RANCH TENTATIVE MAP, *supra* note 101, at 1-75; CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: ORCHARD HILLS TENTATIVE MAP, *supra* note 102, at 2-76; CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: LONE OAK TENTATIVE MAP AND MAJOR USE PERMIT, *supra* note 99, at 2-214; CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: SIMPSON FARMS TENTATIVE MAP, *supra* note 99, at 3-143; CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: POPLAR MEADOW TENTATIVE MAP, *supra* note 101, at 1-10 to 1-11. Among the mitigation measures rejected by the County as infeasible in preparing its 2011 General Plan was generally prohibiting development in the VHFRZ. The County's rationale for rejecting this mitigation as infeasible was the following:

> [T]he majority of the unincorporated County is classified as having a higher than moderate risk for wildland fires under LRA and SRA areas . . . . Implementation of this mitigation measure would result in significant growth restrictions in areas identified for increased growth in the General Plan Update. As such, this measure would conflict with goals of the Housing Element to provide sufficient housing stock and would not achieve one of the primary objectives of the proposed project which is to accommodate a reasonable amount of growth.

DEP'T OF PLAN. & LAND USE, *supra*, at 2.7-58.

The discussion of fire hazard in the 2018–2020 EIRs was more in depth.[104] The documentation discussed the possibility that new projects in the WUI might increase the risk of ignitions and thus increase fire hazard.[105] It also contained similar analysis and mitigation for the risk of fire to the project and its residents, such as better fire fighter response times, strong building code requirements, and defensible space.[106] Despite the use of EIRs, the analyses rarely found that fire was a significant environmental impact.[107] The County concluded that the projects' fire resilience would make the projects and their residents safe.[108] It also concluded that development might well reduce the increased risk of fire from ignition. The County noted that vacant, undeveloped land can be the source of ignitions (such as from firearms use or off-road vehicles) and that development would reduce those ignition sources.[109] The County also argued that heavily managed vegetation and development would mean that any ignition

104. We reviewed the environmental analysis for the three EIRs because they had the overwhelming majority of the units. We did not review the environmental analysis for the smaller projects entitled by the County in 2018–20 in the higher-risk fire zones.

105. *See* PLAN. & DEV. SERVS., CNTY. OF SAN DIEGO, FINAL ENVIRONMENTAL IMPACT REPORT: NEWLAND SIERRA PROJECT 2.8-32 to 2.8-33 (2018) [hereinafter NEWLAND SIERRA EIR]; PLAN. & DEV. SERVS., CNTY. OF SAN DIEGO, FINAL ENVIRONMENTAL IMPACT REPORT: OTAY RANCH VILLAGE 14 AND PLANNING AREAS 16/19 PROJECT 3.1.1-24 to 3.1.1-25 (2019) [hereinafter OTAY RANCH VILLAGE 14 EIR].

106. *See* CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: NEWLAND SIERRA 1-12, 1-44 to 1-45, 1-165 to 1-167 (2018) (adequate fire service and approved fire protection plan that includes defensible space, building codes and evacuation planning); NEWLAND SIERRA EIR, *supra* note 105, at 2.8-16 to 2.8-17, 2.8-17 to 2.8-19; CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: OTAY RANCH VILLAGE 14 AND PLANNING AREAS 16 & 19, at 1-16 (2018) (on-site fire station); *id.* at 1-38 to 1-39, 1-257 to 1-259 (fire protection plan with defensible space, building code requirements, evacuation plans, adequate fire access); CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: OTAY RANCH RESORT VILLAGE 13, at 1-15 (2020) (on-site fire station); *id.* 1-31 to 1-33, 1-111 to 1-113 (defensible space, building code, improved fire protection access, evacuation). One EIR mentioned that the siting of development within the parcel was designed to avoid high fire hazard topography that would make the project hard to defend. CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: NEWLAND SIERRA, *supra*, at 1-165.

107. CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: NEWLAND SIERRA, *supra* note 106, at 1-1275 to 1-1276; CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: OTAY VILLAGE 14 AND PLANNING AREAS 16 & 19, *supra* note 106, at 14 at 1-294; OTAY RANCH VILLAGE 14 EIR, *supra* note 105, at 3.1.1-34; CNTY. OF SAN DIEGO, PLANNING COMMISSION HEARING REPORT: OTAY RANCH RESORT VILLAGE 13, *supra* note 106, at 1-35; PLAN. & DEV. SERVS., CNTY. OF SAN DIEGO, FINAL ENVIRONMENTAL IMPACT REPORT: OTAY RANCH RESORT VILLAGE 2.6-23, 2.6-26 (2020) [hereinafter OTAY RANCH RESORT VILLAGE EIR]. Only for a small fraction of the total units in the three projects did the County find a potentially significant impact for fire hazards. These were units where the fuel management zone—the buffer area around the project in which vegetation would be managed to reduce fire hazard—was narrower than required. A significant environmental impact was nonetheless avoided even for these units by imposing stricter fire resistance construction standards for these units. *See* NEWLAND SIERRA EIR, *supra* note 105, at 2.8-19 to 2.8-21, 2.8-34 to 2.8-35, 2.8-37.

108. *See* NEWLAND SIERRA EIR, *supra* note 105, at 2.8-21; APPROVAL DRAFT: FIRE PROTECTION PLAN FOR THE NEWLAND SIERRA PROJECT, at vii–ix (2018); San Diego County Planning Commission Staff Report Otay Village 13 at 2.6-21 to 2.6-23 (stating that management of vegetation around project mitigates risk from fire); DUDEK, OTAY RANCH VILLAGE 14 AND PLANNING AREAS 16/19 FIRE PROTECTION PLAN viii (2018) [hereinafter OTAY VILLAGE 14 FIRE PROTECTION PLAN].

109. *See* OTAY VILLAGE 14 FIRE PROTECTION PLAN, *supra* note 108, at 32–33.

events on the projects would be less likely to cause a fire. By replacing flammable native vegetation with highly managed human landscapes, the County reasoned, projects might serve as a "firebreak" protecting downwind communities from future fires.[110]

In general, the County required CEQA analysis that only covered some of the fire issues from WUI development. When the County did require a more thorough CEQA analysis, it focused on project and resident safety. But it did not consistently analyze ignition risks, and it provided little landscape-level analysis of the implications of development fragmenting the WUI.

This lack of landscape-level analysis of fragmentation has particular implications in San Diego County, where the WUI has large areas of chaparral. The problem with chaparral may be less about restoring fire to a landscape, and more about reducing the amount of ignitions and burning; recent studies have indicated that in chaparral ecosystems in the WUI in California, vegetation may be burning too frequently because of the increased rate of human-caused ignitions.[111] If this is the case, reducing chaparral fuel loads is not the problem,

110. *See* APPROVAL DRAFT: FIRE PROTECTION PLAN FOR THE NEWLAND SIERRA PROJECT, *supra* note 108, at vii ("As determined during the analysis of this site and its fire environment, the Newland Sierra site, in its current condition, is considered to include characteristics that, under favorable conditions, have the potential to facilitate fire spread. Under extreme conditions, wildfires on the site could burn erratically and aggressively and result in significant ember production. Once the project is built, the Newland Sierra on-site fire potential will be lower than its current condition due to conversion of wildland fuels to managed landscapes, extensive fuel modification areas, improved accessibility to fire personnel, and structures built to the latest ignition resistant codes."); *id.* at 25–26 (arguing the project will provide a fire break protecting other communities); OTAY RANCH VILLAGE 14 EIR, *supra* note 105, at 3.1.1-24 to 3.1.1-25 ("The post-development condition of the Project Area would diminish the ability of a wildfire to spread as it has historically in Proctor Valley. The Proposed Project's landscaped and irrigated areas and FMZs, as well as the paved roadways and ignition-resistant structures, would result in reduced fire intensity and spread rates around the Project Area, creating defensible space for firefighters. Additionally, provisions for a fire station in the area would reduce the response time to wildfire ignitions and increase the likelihood of successful initial attacks that limit the spread of wildfires. This fire station would also become part of the regional fire service delivery plan for the SDCFA for this portion of the county and would support fire and emergency service provision in the communities of Jamul, Dulzura, and Otay Mesa."); OTAY VILLAGE 14 FIRE PROTECTION PLAN, *supra* note 108, at 31 ("[T]he Development Footprint would be largely converted from readily ignited fuels to ignition-resistant landscape and structures that are provided defensible space consistent with State of California and County standards[.]"); *id.* at 32–33, 41 ("The post-project condition of the Project Area would modify the historic ability of fire to spread in Proctor Valley. The Proposed Project's landscaped and irrigated areas and FMZs, as well as the paved roadways and ignition-resistant structures, would result in reduced fire intensity and spread rates around the Proposed Project, creating defensible space for firefighters. The result would be improved fire safety of the Project Area with regard to fire behavior, as well as for adjacent, down-wind communities.").

111. *See* Keeley & Syphard, *supra* note 37, at 24, 28–31; *see also* Keeley et al., *supra* note 38; Keeley & Syphard, *supra* note 38, at 328 (providing a general overview of the fire regime in southern California chaparral); Stephens et al., *Fire and Fuel Management*, *supra* note 13, at 411, 422 (stating that in areas of chaparral WUI "many of these homes are at risk not so much because of the buildup of fuel, but because homes and towns are constructed in vegetation types which naturally burn with high intensity and rapid spread such as chaparral").

but reducing ignitions is.[112] This might support the County's focus on ignition in the EIRs for the large projects in 2018–2020, though it does not explain the lack of assessment of ignition in earlier environmental reviews. Nonetheless, there is some evidence that increased road access and leapfrog WUI development also increase the risk of ignition in the WUI[113]—factors that will be better assessed through landscape—rather than project-level analysis undertaken even in the EIRs.[114]

Overall, the relatively less rigorous CEQA pathways for the approved projects may have provided a less stringent analysis of fire hazard for the approved projects.[115] Remarkably, the most thorough analysis (risk to residents and the project) is the analysis that arguably is not required under CEQA.

IV. IMPLICATIONS

The most important implications from our findings are that, despite the possibility that CEQA can address development in the WUI, at least some local governments are producing WUI development with potentially inadequate analysis and mitigation.

The state legislature made one effort to require greater consideration of wildfire in the CEQA process in 2012. Senate Bill 1241 requires the relevant state agencies to update guidance for CEQA compliance for all state and local agencies to include questions about wildfire hazard.[116] In 2018, the state updated Appendix G of the CEQA Guidelines, providing a checklist of questions that agencies can use in their "initial study," to determine whether to prepare an EIR:

> WILDFIRE—If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:
>
> Substantially impair an adopted emergency response plan or emergency evaluation plan?
>
> Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?
>
> Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities)

112. For a contrary position, see Richard A. Minnich, *California Fire Climate*, *in* FIRE IN CALIFORNIA'S ECOSYSTEMS, *supra* note 13, at 11, 21–24 (arguing that fire suppression has contributed to increased fuel loads and fire hazard in southern California chaparral).

113. Leapfrog development refers to development that skips over undeveloped areas, and can substantially increase the fragmentation of WUI.

114. *See* Keeley & Syphard, *supra* note 37, at 24, 28–31.

115. We qualify our statement about the adequacy of the overall analysis because it is possible that the use of fuel management buffer zones around the project will reduce ignition risk enough to offset the impacts of increased road construction and WUI development that recent literature has identified as increasing ignition risks. However, the absence of any such explicit analysis in the review documents is itself problematic. The cumulative analysis of fire hazard in the relevant documents focused on fire response. *See, e.g.*, OTAY VILLAGE 14 FIRE PROTECTION PLAN, *supra* note 108, at 91–92.

116. S.B. 1241, 2010–2011 Leg., Reg. Sess. (Cal. 2012).

> that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?
>
> Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?[117]

As these changes came in 2018, and were not retroactive, they would not affect the projects in our data set from 2014–2017. We are skeptical that they had a major impact on San Diego County's analysis of fire hazards in the three EIRs from approvals in 2018–2020. Those EIRs began in 2015, before the CEQA Guidelines changed. Also, the EIRs did not assess fire hazards as significant environmental impacts; fire hazards therefore would not have triggered the need for the EIRs. The three projects with EIRs were all located in areas with highly sensitive biological resources such as endangered species.[118] Such impacts would likely trigger the need for an EIR in any case. In addition, the three projects were much larger than those entitled in 2014–2017, and all three required major changes to the County's land-use regulatory system. Both of these factors might also have led the County to use an EIR for these projects.

The 2018 Guidelines changes show promise in terms of addressing the risks that development may pose in the WUI by requiring consideration of whether a project might increase fuel ignition. Consideration of impacts of a project on evacuation capacity is also helpful in terms of reducing the risks to people from wildfire, as was amply demonstrated in the Camp Fire, where congestion on the sole evacuation route from the town of Paradise likely contributed significantly to the death toll.[119] Moreover, the Guidelines appear to be overall consistent with the California Supreme Court's "reverse CEQA" analysis—the regulations focus on the impacts of the project on the broader environment, including community evacuation plans and whether the project would exacerbate fire hazard.[120]

---

117. CAL. CODE REGS. tit. 14, app. G (2022).

118. See NEWLAND SIERRA EIR, *supra* note 105, at 2.4-23 to 2.4-39; OTAY RANCH VILLAGE 14 EIR, *supra* note 105, at 2.4-16 to 2.4-55; OTAY RANCH RESORT VILLAGE EIR, *supra* note 107, at 2.3-2 to 2.3-5.

119. *See* Paige St. John et al., *Here's How Paradise Ignored Warnings and Became a Deathtrap*, L.A. TIMES (Dec. 30, 2018, 3:00 AM), https://www.latimes.com/local/california/la-me-camp-fire-deathtrap-20181230-story.html.

120. The last question about exposing people or structures to post-fire risks is the question that may be most in tension with the California Supreme Court's decision in *California Building Industry Ass'n v. Bay Area Air Quality Management District*, 362 P.3d 792 (Cal. 2015). The question does not limit itself to risks that are exacerbated by the project, and it could be interpreted as including post-fire risks to the future users or residents of the project. It is possible that the enactment of Senate Bill 1241 could be understood as authorizing some form of "reverse CEQA" analysis for wildfire, and thus would support this question, and possibly other, broader analyses about projects placing people or structures in high fire hazard areas. *See* S.B. 1241, 2010–2011 Leg., Reg. Sess. (Cal. 2012); CAL. NAT. RES. AGENCY, FINAL STATEMENT OF REASONS FOR REGULATORY ACTION AMENDMENTS TO THE STATE CEQA GUIDELINES 87 (2018). Senate Bill 1241 preceded the *California Building Industry Ass'n* case, and therefore it cannot be understood as a response to that case. On the other hand, the court never considered the impact of Senate Bill 1241 in *California Building Industry Ass'n*, and the court also specifically acknowledged that other provisions of CEQA require specific forms of "reverse CEQA" analysis in particular contexts. *Cal.*

On the other hand, there are limitations to the impact that these additional questions have. First, they do not explicitly consider the possibility that additional development in the WUI will fragment the landscape in ways that make restoration of fire more difficult.[121] As noted above in Subpart I.B., this may be one of the most important impacts of WUI development in terms of fire.[122]

Second, to the extent the questions are consistent with the *California Building Industry Ass'n v. Bay Area Air Quality Management District* case, that consistency limits their ability to address the increased risks to future residents and users of new projects created by placing those new projects in the WUI. In other words, to the extent that "reverse CEQA" is still not required under the new questions, that will reduce the effectiveness of CEQA analysis in addressing WUI development.

Third, and perhaps most important, the initial study questions in Appendix G are simply suggestions for agencies to consider in their decision as to whether to prepare an EIR. There is no requirement that an agency use these questions in its own decision making,[123] though in practice CEQA consultants and public agencies generally do rely heavily on Appendix G in preparing CEQA documentation.

We will likely see more clarity on these questions in the near future. There are multiple CEQA lawsuits challenging housing projects across the state on the

---

Bldg. Indus. Ass'n., 362 P.3d at 800 n.11. Senate Bill 1241 might be understood as doing so in the context of wildfire as well, see CALIFORNIA NATURAL RESOURCES AGENCY, *supra*, at 87, though the voluntary nature of Appendix G, discussed *infra*, cuts against that reading.

121. The explanation given by the promulgating agency for the changes to the relevant provisions of Appendix G references peer-reviewed scientific articles that indicate that development in the WUI can increase fire hazard. However, the explanation does not specifically identify fragmentation due to WUI development as an obstacle to the restoration of fire. CAL. NAT. RES. AGENCY, *supra* note 120, at 87. That explanation does specifically note the role of development in increasing ignition risks.

122. The absence of questions about the impacts of fragmentation of the WUI in development in Appendix G does not mean that analysis of the impacts of fragmentation is not necessarily required under CEQA. As caselaw and the Guidelines themselves note, if there are potentially significant environmental impacts for a project, those impacts must be analyzed under CEQA and may trigger the obligation to conduct an EIR, even if those impacts are not identified in Appendix G. *See* STEPHEN L. KOSTKA & MICHAEL H. ZISCHKE, PRACTICE UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT § 6.13 (2d ed. 2008) ("The fact that a particular impact is not included in the checklist does not insulate the lead agency from a challenge based on a failure to adequately address that impact.").

123. CAL. CODE REGS. tit. 14, § 15063(f) ("Sample forms for an applicant's project description and a review form for use by the lead agency are contained in Appendices G and H. When used together, these forms would meet the requirements for an initial study, provided that the entries on the checklist are briefly explained pursuant to subdivision (d)(3). These forms are only suggested, and public agencies are free to devise their own format for an initial study."). The failure to include an assessment as to wildfire despite its inclusion in Appendix G might make a reviewing court more skeptical of an agency's assessment under CEQA. However, courts have upheld agency decisions to not use the Appendix G checklist in determining whether a particular impact is significant. *See, e.g.*, Save Cuyama Valley v. County of Santa Barbara, 153 Cal. Rptr. 3d 534, 541 (Ct. App. 2013) (stating that "the County was not required to explain why it did not use Appendix G's thresholds of significance" and that "[t]o require any deviation from them to be documented and justified . . . is to elevate Appendix G from a suggested threshold to the presumptive threshold").

grounds that they inadequately assess the wildfire hazards associated with the project—two of these lawsuits challenge two housing development projects in San Diego County. These are in fact two of the three projects with EIRs that we found in our review of 2018–2020 entitlements from San Diego County.[124] The state attorney general has intervened on behalf of the plaintiffs in the San Diego County lawsuits and a lawsuit in Lake County, arguing that the CEQA analysis of wildfire was inadequate.[125]

These lawsuits bring up a fundamental policy tension in using CEQA to address the wildfire hazards produced by expanding WUI development. Restricting construction in high fire hazard areas may reduce the potential harms from fire, but at the possible expense of constraining housing construction in a state that is facing a dire housing crisis. As we noted in the Introduction, housing costs in the state have skyrocketed, and the impacts of those soaring housing costs have contributed to increases in homelessness, displacement of low-income residents, and long commutes. This tension is reflected in news coverage over the CEQA lawsuits challenging individual housing projects on the basis of inadequate analysis of fire hazard.[126] It was also reflected in debates over state

124. As noted above, the approval for the third project was withdrawn by the County. *See* Smith, *supra* note 97.

125. *See* People's Notice of Motion and Motion for Leave to Intervene; Memorandum of Points and Authorities; Supporting Declaration of Andrew R. Contreiras at ¶ 86, Ctr. for Biological Diversity v. County of Lake, No. CV421152 (Cal. Super. Ct. Jan. 4, 2022) (identifying increased risks of wildfire ignition and spread, and inadequate analysis of wildfire evacuation as bases for CEQA challenge to approved project); People's Notice of Motion and Motion for Leave to Intervene; Memorandum of Points and Authorities at ¶¶ 52, 55, Sierra Club v. County of San Diego, No. 37-2019-00038820-CU-TT-CTL (Cal. Super. Ct. Oct. 7, 2021) (same); People's Notice of Motion and Motion for Leave to Intervene at ¶¶ 57, 60, Ctr. for Biological Diversity v. County of San Diego, No. 37-2020-00046553-CU-WM-CTL (Cal. Super. Ct. May 7, 2021) (making more generalized arguments about inadequate wildfire CEQA analysis); *see also* State of California Department of Justice, Comment Letter on Guenoc Valley Mixed-Use Planned Development Project Final Environmental Impact Report (July 6, 2020), https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/comments-lake-county-feir-070620.pdf (comment from California Attorney General's office on Lake County project noting risk that project might increase ignition in high fire hazard areas, and arguing the project inadequately analyzes evacuation issues); State of California Department of Justice, Comment Letter on Otay Ranch Resort Village—Village 13 Final Environmental Impact Report (Nov. 12, 2020), https://oag.ca.gov/sites/default/files/11.12.20%20Comment%20Letter%20Re%20Otay%20Ranch%20Village%2013.pdf (comment from California Attorney General's office on San Diego County project noting similar issues). Some of the arguments made in the Attorney General's petitions, particularly focused on the risks posed by inadequate evacuation for project residents in the context of a fire, may be mostly directed towards whether the environment has negative impacts on the project. They would therefore squarely raise the question of whether Senate Bill 1241 changes the result in the *California Building Industry Ass'n* case in the context of wildfire.

126. *See* Joshua Emerson Smith, *AG Becerra Joins Lawsuits against San Diego Housing Projects, Citing Wildfire Risks*, SAN DIEGO UNION TRIB. (Mar. 17, 2021, 8:09 PM), https://www.sandiegouniontribune.com/news/environment/story/2021-03-17/becerra-otay-ranch-development (referencing supporters of the projects as touting the importance of constructing housing to address the state's housing crisis); Kurtis Alexander, *Housing Projects Planned for Wildfire Zones Challenged by State. But Residents Want Them Built*, S.F. CHRON. (Mar. 10, 2021, 8:06 PM), https://www.sfchronicle.com/california-wildfires/article/Building-in-the-danger-zone-state-challenges-16012922.php.

legislation to override certain local zoning rules and allow denser development in order to increase housing supply.[127]

Balancing these policy goals will be difficult, but we likely have few choices. It is hard to argue that housing is truly affordable if it comes with the uncertain risk of losing one's house and personal possessions, risking one's life, and sky-high insurance premiums. One important approach for balancing these goals would be to make construction of housing in existing developed areas—infill development—easier. These areas are already often lower fire hazard, and can bring additional benefits such as easier access to public transportation, lower associated carbon emissions, and access to higher quality public services in high-opportunity neighborhoods.

As we have documented elsewhere, a core challenge to advancing infill development of this nature in California is the nature of local control over land use.[128] Local control of land use means that California has a highly fragmented regulatory system that is difficult to learn and navigate. Because it varies from jurisdiction to jurisdiction, it carries high learning costs, as a developer seeking to construct in one jurisdiction often must learn an entirely different regulatory system to build in another city in the same metropolitan area. Local governments may not have the incentive to consider the broader regional, statewide, or even national benefits from providing more housing.[129] The end result is that only some local governments in California implement their land-use regulatory systems in a way that actually facilitates adequate housing production. This dynamic calls for appropriate and thoughtful state intervention in local land-use regulation to increase housing production.

The local variability in land-use regulation is reflected in our analysis of the use of CEQA to address wildfire hazards. Our three study counties differ greatly in the approach they take to approving projects in high fire risk areas. Just as in housing production, it seems that local choices are driving how the state addresses wildfire hazards, and how development in the WUI increases those risks. Given the intersecting nature of California's wildfire and housing crises, this local variability may also point out the need for appropriate state intervention in land-use regulation—not just in advancing infill development in urban jurisdictions, but also in ensuring adequate consideration of fire hazard for development in the WUI.

---

127. *See* Alexei Koseff, *California Senate Defeats SB 50 Denser-Housing Bill*, S.F. CHRON. (Jan. 29, 2020, 8:52 PM), https://www.sfchronicle.com/politics/article/California-Senate-kills-SB50-denser-housing-bill-15015081.php (quoting state legislator who voted against a bill that would significantly increase density for housing in the state on the grounds that it would facilitate development in high fire risk areas).

128. O'Neill et al., *supra* note 17, at 1106–13; O'Neill et al., *supra* note 70, at 78–80.

129. *See* Eric Biber et al., *Small Suburbs, Large Lots How the Scale of Land-Use Regulation Affects Housing Affordability, Equity, and the Climate*, UTAH L. REV. (forthcoming 2021).

CONCLUSION

Our examination of the use of land-use regulation and CEQA review to approve residential development projects in the WUI in three California counties reveals two sharp tensions that California faces as it tries to address the dramatic increase in wildfire hazards. First, at present, housing and climate policy goals are not yet well aligned. San Diego County noted when it approved significant residential projects in high fire hazard areas that not developing at all in these areas will put large swaths of the state off-limits to development. The state is facing a dire housing shortage and astronomical housing costs that are key drivers of poverty, homelessness, and outmigration from the state. This would suggest to some that we need to keep development opportunities in the WUI open. But development in the WUI puts future residents at risk, and may contribute to landscape-level risks of fire that jeopardize existing and future residents as well.

Second, state policy on mitigating wildfire hazard will also have to reconcile the need to guide local control over land-use development and the significant variation in fire conditions across the many different ecosystems in the state. Our analysis showed significant differences across counties in how they reviewed and approved residential projects, and the amount of development they approved in high fire hazard areas. These differences indicate that local control means that local governments will choose the path that they perceive as best for their interests, even if that is not necessarily congruent with the long-term benefits for the region or state as a whole. WUI development in one jurisdiction can increase landscape-level fire hazards, and those fire hazards can have impacts across jurisdictional borders (city or county lines). Local governments may have less of an incentive to consider cross-jurisdictional harms when deciding whether to approve proposed development. At least some of the local stakeholders we spoke to believe that local governments overweight the short-term fiscal and political benefits of development in the WUI, including responding to political pressure from development interests. Both cross-jurisdictional spillovers of fire hazards and the potential for local governments to undervalue the importance of managing for long-term fire hazard support the argument for greater state guidance or constraints on local land-use regulation in high fire hazard areas.

But if the state does get more involved in local land-use decision making in these high fire hazard areas, it cannot apply a uniform standard across the entire state. The contrast between the ecosystems of the Sierra Nevada foothills versus the chaparral of San Diego County in our case studies makes that clear. As we discussed in Part I, in woodlands like the dry coniferous forests of the Sierra Nevada foothills, restoring fire is an essential component of reducing fire hazard—but it is much harder to the extent that the WUI is fragmented. In contrast, in the San Diego County chaparral, there is evidence that the real culprit is excessive human-caused ignitions—a very different policy challenge, and one

that might require very different responses in terms of managing development in the WUI. Both require a form of landscape-level analysis, and both may require some form of state intervention, but the nature of that intervention might differ. Moreover, given how much of the state is located within the WUI, and the importance of providing more housing in the state, the appropriate policy response for certain communities in particular contexts may not be to exclude housing from the WUI entirely. Instead, the appropriate response may be to reduce risk and vulnerability for new housing that is located within the WUI.[130]

If the state proceeds to increase its control over how local governments manage land use in the WUI in California, it will need to consider this variability. That might entail building on the project-by-project approach of CEQA review. This is the primary approach now, as shown by the litigation over approvals of individual projects in high fire hazard areas. But CEQA review has its limitations. Usually, CEQA review is ultimately approved by the local government reviewing the project, but that does not address the concerns about local control. Conducting independent reviews of the impacts of each project on a case-by-case basis can be time- and resource-intensive, and is less helpful when simpler standards or higher-level analysis is available. Indeed, to the extent that a key issue is landscape-level analysis of fire hazard, project-level CEQA review would be less effective, risking inconsistent evaluations across projects that may also reinvent the wheel. A complementary approach the state could take to address this would be to buttress previous efforts to increase fire hazard analysis within the Safety Element of the general plan—efforts that at least some of our study participants identified as presently inadequate.

Yet another option is a requirement for regional-scale planning analysis of fire hazards, planning analysis that in turn flows down to guide or control project-level land-use decisions. Regional-level analysis has at least some potential to overcome the parochial focus of local government decision making that is a driver of inappropriate WUI development. Planning level analysis may have advantages over project-by-project analysis that may be more time consuming, more expensive, more repetitive, and less effective at assessing cumulative impacts. And by acting at the regional level, a planning approach can take into account the significant variability in fire hazards across the state, and different ways to respond to those fire hazards.

California has experimented with this approach in the context of trying to advance transit-oriented development through its Sustainable Community Strategies (SCS) program.[131] SCS are regional long-range plans to guide how development should occur to reduce greenhouse gas emissions from automobile travel, generally by encouraging development in areas that will take advantage

130. *See* GOVERNOR'S OFF. OF PLAN. & RSCH., *supra* note 11, at 38–39.

131. The SCS was enacted by Senate Bill 375. *See* S.B. 375, 2007–2008 Leg., Reg. Sess. (Cal. 2008); CAL. GOV'T CODE § 65080(b) (2021). For an overview, see CECILY TALBERT BARCLAY & MATTHEW S. GRAY, CALIFORNIA LAND USE & PLANNING LAW, 484–86 (36th ed. 2018).

of public transit, increase the use of walking and biking, and reduce vehicle miles traveled. SCS plans are prepared by regional transportation agencies. Certainly, the SCS program has received mixed reviews about its effectiveness.[132] SCS plans are not regulatory documents like local general plans; local governments are not required to make their land-use decisions consistent with the relevant SCS.[133] The primary incentive for local governments to comply with an SCS when they do their own land-use decision making is the availability of transportation funds, and streamlined CEQA analysis for projects.[134] It is unclear if these incentives have been enough to lead local governments to aggressively follow SCS plans in their decision making. Moreover, SCS plans are prepared by regional transportation agencies that are composed of the relevant local governments, raising questions about their independence from those local governments. But including landscape-level fire analysis into the SCS program could be a first step and might align reasonably well with the greenhouse gas reduction goals of the SCS program.[135] After all, the same leapfrog development in the WUI that increases fire hazard also is likely to increase usage of automobiles by residents and increase greenhouse gas emissions. And building on the existing SCS program might be more politically feasible than creating a new regional-level program from scratch.

There is certainly more to consider about policy options for addressing fire hazards and development in the WUI in California. California has no choice but to consider those options and move forward onto the next steps.

132. *See* Sarah Mawhorter et al., California's SB 375 and the Pursuit of Sustainable and Affordable Development (July 2018) (working paper), https://ternercenter.berkeley.edu/wp-content/uploads/2020/08/SB375_July_2018_Final.pdf (summarizing literature and finding uneven results from the statute); Alejandro E. Camacho et al., *Mitigating Climate Change through Transportation and Land Use Policy*, 49 Envtl. L. Rep. (Envtl. Law Inst.) 10,473, 10,478–79 (2019) (noting weaknesses in Senate Bill 375 and stating that the law "has not yielded meaningful reductions in transportation-sector GHG emissions relative to the state's goals").

133. *See* CAL. GOV'T CODE § 65080(b)(2)(K) (2022) (stating that SCS do not regulate the use of land); Camacho et al., *supra* note 132, at 10,478–79.

134. *See* Mawhorter et al., *supra* note 132, at 12–21.

135. For a recent proposal along these lines from a number of housing and environmental advocacy groups, see Sarah Cardona, *Joint Statement of Wildfire & Land-Use Principles to Reduce Risk & Increase Housing*, GREENBELT ALL. (Apr. 16, 2021), https://www.greenbelt.org/blog/joint-statement-of-wildfire-land-use-principles-to-reduce-risk-increase-housing/.