ARTICLE

LAND LAW LOCALISM AND THE CLIMATE RESILIENCE PARADOX

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This article and its companion, Federal Flood Policy & Maladaptation: A Story of Collective Forgetting*, 34 S. Cal. J. Interdisciplinary L. (in print 2025), confront foundational assumptions about land use governance and community resilience, focusing on potential legal reforms that center justice, support community engagement and activism, and grapple with the entrenchment of certain classes of land use problems. Placing flood policy in the United States within its historical and legal context, Federal Flood Policy challenges the prevailing view that the National Flood Insurance Act of 1968 (NFIA) created a national program centered on the provision of flood insurance, demonstrating instead that Congress intended the operative core of the NFIA to be a set of regulatory eligibility criteria that require communities to adopt zoning restrictions limiting development in flood hazard areas.*

Observing that climate maladaptation—like exclusionary zoning and environmental racism—is among a class of local governance problems that persistently defy solution, this article interrogates the nearly universal invocation of the communitarian values of localism to justify local autonomy over land management problems even in the face of overwhelming evidence that most local governments have not been able to martial their land use authority to increase climate resilience at the community scale. The article argues that insufficient attention has been given to zoning law's operative values, which center on protecting and preserving property rights and socio-economic status. By failing to account for tensions between

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these operative values and adaptation strategies that limit development in hazardous areas, the article urges that localism has operated paradoxically to forestall consideration and implementation of the NFIA and other collaborative vertical governance frameworks that could expand local capacity to effectively and equitably increase community resilience to climate disruptions. Recognizing this dynamic, current political realities, and that local land use laws both drive the maladaptation problem and offer an opportunity to address it, the article concludes with an analysis of opportunities for reform to support local climate action that increases communities' resilience to extreme coastal storms, inland flooding, wildfires, and other manifestations of the climate emergency.

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> The word "apocalypse" has Greek roots which translate to "becoming uncovered," or "to reveal." The current apocalypse is revealing the diverse ways people have valued—or failed to value—other humans, cultures, and ideologies . . . .[1]

INTRODUCTION

This Article is about power, tragedy, and a narrowing window of opportunity. It interrogates the structural and rhetorical mechanisms that contribute to the vertical distribution of sovereign power in ways that inhibit cities from exercising their broad legal authority over land uses to increase their communities' resilience to extreme coastal storms, wildfires, and other manifestations of the climate emergency. Nearly ubiquitously, US-based scholars, lawmakers, and courts have responded to the climate maladaptation problem[2] and other problems related to the management of land uses by presuming explicitly or implicitly that the sovereign power to address these problems should lie with local governments.[3] Even efforts to identify collaborative governance frameworks that may help local governments overcome the intractable obstacles to adaptive land use management tend to presume that successful collaborations require the retention of local discretion over the governance of hazard area development. The constituent values of localism[4] that underlie this presumption—such as civic engagement, direct democracy, and pluralism—and the place-based nature of land use management also tend to fuel the assumption that effective land use management typically requires local authority and jealously guarded local autonomy. These

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1. Jade Swor et al., *The Europocene: A Past, Present, and Future Narrative of Climate Change Beginning with the Disruption of Indigenous Relations*, 4 MAPPING MEANING, J. 76, 89 (2020).

2. I use the term "maladaptation problem" to refer to a complex policy problem characterized by the failure of governmental institutions to adopt and implement strategies that increase resilience or, worse, the persistent implementation of governance strategies that increase the vulnerability of natural and human communities to climate hazards. *See infra* Part I. In contrast, adaptive governance strategies increase the resilience of natural and human systems to climate hazards. *See* MARTIN PARRY ET AL., CLIMATE CHANGE 2007: IMPACTS, ADAPTATION AND VULNERABILITY 27 (Wolfgang Cramer & Daniel Murdiyarso eds., 2007) (defining adaptation as "the adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities"); Craig Anthony (Tony) Arnold et al., *Justice, Resilience, and Disruptive Histories: A South Florida Case Study*, 34 COLO. ENV'T L.J. 213, 215, 218-19 (2023) (distinguishing popular use of the term resilience as an expression of a general desire "for our systems to thrive without disruption").

3. *See infra* Parts IV.A-B. I include myself among these scholars. *See, e.g.*, Sarah J. Adams-Schoen, *Beyond Localism: Harnessing State Adaptation Lawmaking to Facilitate Local Climate Resilience*, 8 MICH. J. ENV'T & ADMIN. L. 185 (2018).

4. In this article, I use the term "localism" to refer to a preference for and rationalization of the devolution of lawmaking authority and discretion to municipalities and other sub-state units of government.

communitarian values—which in many contexts may be more aspirational or rhetorical than operational—exist in tension, however, with the pervasive use of local land use laws and procedures to preserve existing wealth and power hierarchies.[5]

This Article critically examines the values that animate what I refer to as "land law localism"[6] and presumptions about local governance of land uses within the context of the expanding climate preparedness gap that characterizes the vast majority of U.S. communities while disparately burdening communities of color and other marginalized communities and threatening large-scale economic upheaval.

Because local legal autonomy and local capacity are not the same, I ask whether the jealous protection of formal local autonomy over land use management contributes to a paradox in which local governments have the broad legal authority to adaptively manage land uses but lack the capacity to exercise that authority—and whether the reflexive invocation of the presumed communitarian values of localism forestalls consideration or implementation of governance frameworks that could help expand local capacity to effectively and equitably increase a community's resilience to climate disruptions *even when doing so conflicts with local proprietary interests*. By identifying local autonomy itself as a potentially significant barrier to the exercise of local land use authority to increase climate resilience at the community scale, the Article provides a unique contribution to a body of scholarship that examines an institutional conundrum in which the entity with the greatest potential to address a policy problem lacks the capacity to do so.[7]

The consequences of this paradox are devastating. The Earth is locked into a trajectory of climactic disruption on a scale not seen in millennia.[8] Throughout

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5. *See* Daniel Farbman, *Reconstructing Local Government*, 70 VAND. L. REV. 413, 419 (2017) (discussing conflict between "communitarian localists" who envision local government as a vehicle for community gatherings, collective efforts, and radical direct democracy, and "proprietary localists," who see local governments as a tool for the protection of private property); *see also id.* at 419 n.15 (recognizing lack of nuance in binary classification); *infra* Part III (further investigating the meanings and constituent values of localism).

6. "Land law localism" refers to a particularly strong preference for and presumption in favor of local authority and autonomy over the management of local land uses. *See* Paul A. Diller, *Is Enhanced Judicial Review the Correct Antidote to Excessive State Preemption?*, 100 N.C. L. REV. 1469, 1490-91 (2022) (discussing State Building & Construction Trades Council v. City of Vista, 279 P.3d 1022, 1034 (Cal. 2012), and the California Supreme Court's "special solicitude for local control . . . despite the state legislature's finding of numerous statewide interests as reasons for a municipal contractor prevailing wage statute"); *see infra* Part III (interrogating ways in which localism's constituent values animate deeply held and often unquestioned presumptions about local governance of land uses). Professor Nolon uses a similar term, "land use localism," to refer to "the role of local government as it exercises its delegated authority to control private land development and protect the physical environment under its police power." John R. Nolon, *Calming Troubled Waters: Local Solutions*, 44 VT. L. REV. 1, 57 n.502 (2019).

7. *See infra* Parts IV.A-B (citing and discussing governance theorists).

8. *See infra* Part I.A.

the United States, communities, critical infrastructure, and ecosystems are experiencing unprecedented catastrophic losses.[9] Home insurers have already increased premiums and withdrawn coverage from markets across the U.S.[10] As premiums rise and insurance becomes less available, the population that can afford to buy or rent a home diminishes[11] and the number of families facing the loss of their largest asset expands[12]—an unfolding tragedy that illustrates the interconnectedness of the climate and housing crises.

But make no mistake: the untenable costs of unmitigated climate disruption will be felt across the social and economic spectrum. The collapse of the home insurance market,[13] for example, has macroeconomic implications—shifting insurance and disaster recovery costs to state and federal governments and threatening state and local economies, real estate markets, private and governmental lenders, property developers, and business owners, among others.[14]

This unfolding tragedy highlights the urgent need to transform governance paradigms to prioritize climate resilience at all levels of government. As I write this, news alerts flash across my screen with words like "unprecedented

9. *See id.*

10. CONG. RSCH. SERV., NATURAL DISASTERS AND THE HOMEOWNERS INSURANCE MARKET 1 (Nov. 22, 2024) (reporting on significant increases in premiums and withdrawal of coverage from homeowners' insurance markets in "many states," including California, Colorado, Florida, Hawai'i, Illinois, Iowa, Louisiana, Texas, and Washington); *see also id.* at 2 (reporting that over the last decade insurers paid more in claims than they received in premiums and the industry had net underwriting losses in all but one year since 2017).

11. *See* Debra Kamin, *Home Insurance Premiums Rise as Americans Flock to Weather-Worn States*, N.Y. TIMES (May 5, 2023), https://www.nytimes.com/2023/05/05/realestate/home-insurance-climate-change.html (reporting that since 2015 homeowners' insurance premiums increased 21 percent on average and 57, 41 and 40 percent in Florida, Colorado and Texas, respectively).

12. *See, e.g.*, JOINT CTR. FOR HOUS. STUD. HARVARD UNIV., THE STATE OF THE NATION'S HOUSING 2024, at 22 (2024) ("[C]ost burdens are rising for owners with lower incomes in the face of higher insurance premiums and property taxes. For homeownership to remain a viable and beneficial choice for US households, the affordability, accessibility, and sustainability of homeownership must be improved for both current and future homeowners.").

13. *See* J. BIRKMANN ET AL., POVERTY, LIVELIHOODS AND SUSTAINABLE DEVELOPMENT IN CLIMATE CHANGE 2022: IMPACTS, ADAPTATION AND VULNERABILITY 1180 (Taikan Oki et al., eds., 2022); Arthur Fliegelman, *Wind, Fire, Water, Hail: What Is Going on in the Property Insurance Market and Why Does It Matter?*, OFF. FIN. RSCH.: OFR BLOG (Dec. 14, 2023), https://perma.cc/AGU7-Q4CK (reporting that 9 "Florida-focused" insurers became insolvent in 2021).

14. Fliegelman, *supra* note 13.

tragedy,"[15] "catastrophic,"[16] "completely gone,"[17] and "death toll rises."[18] More than 300 families are mourning the loss of a loved one who died in the wind, waters, or debris of Hurricanes Beryl, Helene and Milton.[19] The wildfires that leveled large swaths of Los Angeles and surrounding areas in January 2025 directly caused the deaths of 29 people, resulted in the displacement of more than 200,000 people and substantial damage to or destruction of 18,000 structures,[20] and will result in thousands of premature deaths from exposure to wildfire smoke.[21] The economic costs of these four events alone are estimated to exceed $400 billion.[22] Nor are these figures anomalous. The economic costs of weather-related disasters have risen precipitously over the last several decades, with the past three years alone (2022–2024) accounting for 1,534 deaths and direct economic costs of $461.6 billion.[23]

The devastating reality is that I could reference ongoing storms and wildfires of historic ferocity and scale occurring in every year since I began examining the structural and rhetorical barriers to robust climate resilience lawmaking in 2012.[24] Figure 1 illustrates one of the factors that drive the precipitous upward

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15. *Asheville, North Carolina, Devastated By Helene As State Faces "Unprecedented Tragedy,"* CBS NEWS (Oct. 1, 2024, at 04:45 EDT), https://perma.cc/8748-YH5P.

16. Jonathan Erdman & Chris Dolce, *Tropical Storm Helene's Inland Trek Producing Catastrophic Flooding, Damaging Winds*, WEATHER CHANNEL (Sept. 27, 2024), https://weather.com/storms/hurricane/news/2024-09-26-hurricane-helene-forecast-landfall-florida-southeast.

17. Abigail Geiger, "*Completely Gone": In Florida, Cedar Keys Assesses Helene's Devastation*, N.Y. TIMES, (Sept. 27, 2024, at 14:43 ET), https://www.nytimes.com/2024/09/27/weather/hurricane-helene-florida-cedar-key-damage.html.

18. Patricia Mazzei et al., *Helene Live Updates: Death Toll Rises as Damage Engulfs the South*, N.Y. TIMES (Sept. 27, 2024, at 16:17 ET), https://www.nytimes.com/live/2024/09/27/weather/hurricane-helene-florida.

19. NOAA NAT'L CTRS. FOR ENV'T INFO. (NCEI), U.S. BILLION-DOLLAR WEATHER & CLIMATE DISASTERS 1980-2024, at 1-2 (2025).

20. *National Climate Report: January 2025*, NCEI, https://perma.cc/AGN6-YDEN (archived Feb. 16, 2025).

21. *Id.* (reporting on 29 deaths); Zhiyun Li & William Yu, *Economic Impact of the Los Angeles Wildfires*, UCLA ANDERSON SCH. MGM'T: UCLA ANDERSON FORECAST (Mar. 3, 2025), https://perma.cc/VXS6-YXST (citing and discussing studies finding exposure to wildfire smoke caused 52,480 to 55,710 premature deaths in California between 2008 and 2018, as well as increased emergency room visits and hospitalizations, and decreased learning outcomes).

22. NCEI, *supra* note 19, at 1-2 (reporting direct economic costs of Hurricanes Beryl, Helene and Milton of $120.2 billion); Roger Vincent, *Estimated Cost of Fire Damage Balloons to More than $250 Billion*, L.A. TIMES (Jan. 24, 2025, at 09:00 PT), https://perma.cc/NP9H-JL5U (reporting on damage to structures and estimated total economic losses of $250 to $275 billion); Li & Yu, *supra* note 21 (estimating the Palisades and Eaton fires caused property and capital losses of $95 to $164 billion, wage losses of $297 million, and will cause a $4.6 billion decline in county-level GDP for 2025).

23. *U.S. Billion-Dollar Weather and Climate Disasters*, NCEI, https://perma.cc/SCB6-HEZD (archived Jan. 25, 2025).

24. I began writing about structural barriers to climate resilience lawmaking after doing field work with local governments in the aftermath of Hurricane Sandy. *See, e.g.*, Sarah J.

trajectory of climate-related risk: the increasing frequency of high-magnitude of floods, fires and other climate hazards.[25] The frequency and magnitude of these hazards will continue to rise precipitously with the continued burning of fossil fuels and the destruction of natural resources that sequester carbon, such as oceans, wetlands, and forests, often referred to as "carbon sinks."[26] The science is unequivocal: climate resilience governance must prioritize the immediate and rapid elimination of climate pollutants and the preservation and restoration of natural carbon sinks.[27]

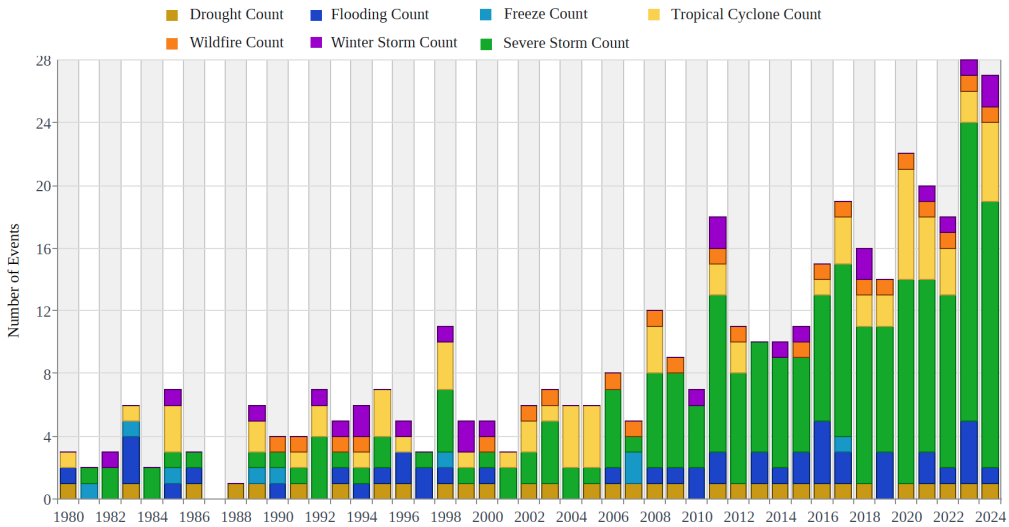

Fig. 1. Frequency of US Billion-Dollar Disaster Events 1980-2024 (CPI-Adjusted).[28]

Adams-Schoen, *On the Waterfront: New York City's Climate Change Adaptation and Mitigation Challenge* (pts. 1 & 2), 25 ENV'T L. N.Y. 81 (2014), 25 ENV'T L. N.Y. 101 (2014); *see also infra* fig. 1.

25. Wing et al., *Inequitable Patterns of Flood Risk in the Anthropocene*, 12 NATURE CLIMATE CHANGE 156, 157 (2022); *see also* Sarah J. Adams-Schoen, *Federal Flood Policy & Maladaptation: A Story of Collective Forgetting*, 34 S. CAL. INTERDISCIPLINARY L.J. (forthcoming 2025) (manuscript at 11-15) (discussing these and other drivers of flood risk).

26. R.T. Pierrehumbert, *Cumulative Carbon and Just Allocation of the Global Carbon Commons*, 13 CHI. J. INT'L L. 530, 532-33 (2012); *see* D.L. Swain et al., *Increased Flood Exposure Due to Climate Change and Population Growth in the United States*, 3 EARTH'S FUTURE, at 3 (2020).

27. *See infra* Parts I.A-B; *see also, e.g.*, E. Lisa Schipper et. al., *2022: Climate Resilient Development Pathways*, *in* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC), CLIMATE CHANGE 2022: IMPACTS, ADAPTATION AND VULNERABILITY. CONTRIBUTION OF WORKING GROUP II TO THE SIXTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 2655, 2658 (H.-O. Pörtner et al. eds., 2022) [hereinafter AR6 WGII].

28. Figure 1 is a chart from the NCEI, edited by the author to depict frequency data only. For the original chart, *see Billion-Dollar Weather and Climate Disasters: United States*

Climate resilience lawmaking must recognize another driving factor of the precipitous upward trajectory of climate-related risk and associated social, economic, and environmental costs: land development patterns that increase the exposure and vulnerability of people, structures, and infrastructure to climate hazards.[29] As reported in a companion to this Article, *Federal Flood Policy and Maladaptation*, absent rapid adoption and implementation of legal reform focused on both how structures are built and *where they are located,* floodplain development is projected to be the primary driver of increased flood risks and costs between 2025 and 2050.

Exposure to flood hazards increases as more people, property, and infrastructure encroach on floodplains. Encroachment may take the form of new development of undeveloped areas or increases in the intensity of land uses in existing developments. . . . [F]uture floodplain development alone [is projected to] nearly double the average annual exposure of the U.S. population to riverine and rainfall-driven floods by 2050 . . . .

The intensity and location of development are dictated in large measure by zoning, subdivision regulations and other land use laws, which are typically enacted and enforced by municipalities and counties. Land use law is also a major driver of social, economic and racial development patterns that increase vulnerability, as illustrated by the use of zoning and discretionary land use decisions—both intentionally and unconsciously—to sequester low-income households and communities of color in undesirable areas, including areas at heightened risk of flooding.[30]

A growing body of research on population dynamics and climate risk also documents the relationship between increased disaster costs and the increased concentration of people and economic activity in high-risk areas, including areas with heightened hurricane-, wildfire-, and heatwave-risk.[31]

And yet, local, state, and federal laws continue to support the intensive development of flood- and fire-prone areas, and people continue to flock to areas pummeled by repeat disasters.[32] By the early 2050s, the U.S. is projected to add

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Summary, NCEI, https://perma.cc/5LUK-ZKQ6 (archived Jan. 25, 2025).

29. Wing et al., *supra* note 25, at 157; *see also* US ARMY CORPS ENG'RS ("USACE"), KEY USACE FLOOD RISK MANAGEMENT TERMS 20 (2015) ("As used in this [training] manual, risk is the function of five factors: hazard, performance, exposure, vulnerability and consequences. Risk involves exposure to a chance of injury or loss.").

30. Adams-Schoen, *supra* note 25 (citing Swain et al., *supra* note 26, at 14); *see also* Charles Lord & Keaton Norquist, *Cities as Emergent Systems: Race as a Rule in Organized Complexity*, 40 ENV'T L. 551, 558-59 nn.47-48, 586-91 (2010) (cataloguing research documenting racially disparate distributions of undesirable land uses in residential areas and examining the use of discretionary land use authority to perpetuate such patterns).

31. Agustín Indaco & Francesc Ortega, *Adapting to Climate Risk? Local Population Dynamics in the United States*, 8 ECONS. DISASTERS & CLIMATE CHANGE 61, 61-62 (2024); *see id.* at 64-70 (citing examples of research on climate risk costs and population dynamics).

32. *See infra* Part I.

35 million new homes,[33] at which point sixty-six percent of the buildings in existence will be approximately twenty-five years old or newer.[34] Most of these homes will be single-family homes,[35] which local zoning laws tend to require be situated on lots with off-street parking and front-, back-, and side-yards.[36] This resource-intensive development pattern drives the geographic expansion of towns and cities—a phenomena referred to as "urban sprawl."[37] The resulting encroachment into undeveloped areas of floodplains, grasslands, and forests puts more people, property, and infrastructure in harm's way, increasing the need for financial safety nets like insurance and governmental disaster assistance, protective infrastructure, and other costly adaptation strategies.[38] At the same time, this development pattern increases carbon emissions and diminishes the capacity of existing natural areas to sequester carbon, support biodiversity, and mitigate climate risks by, for example, storing flood waters.[39] Because these development patterns increase exposure and vulnerability to climate hazards and contribute to the global warming that increases the frequency and magnitude of climate hazards, they are considered "maladaptive."[40]

Although many factors contribute to the persistence of maladaptive development, this Article focuses on land use laws that increase the exposure and vulnerability of communities to climate hazards[41]—or, in other words, "maladaptive governance." In contrast, "adaptive governance" refers to the adoption and implementation of laws and other governance mechanisms that increase the resilience of human and natural systems to climate hazards.[42] While the precise

33. CONG. BUDGET OFF., THE OUTLOOK FOR HOUSING STARTS 1 (Sept. 2024). This projection is based on projected housing unit starts, which is the start of construction of houses, apartments, mobile homes, and other structures and rooms intended as separate living quarters. *Id.* at 14.

34. John R. Nolon, *The Land Use Stabilization Wedge Strategy: Shifting Ground to Mitigate Climate Change*, 34 WM. & MARY ENV'T L. & POL'Y REV. 1, 6 (2009).

35. *See* JOINT CTR. FOR HOUS. STUD. HARVARD UNIV., *supra* note 12, at 12 (reporting that, if trends over the last twenty years hold steady, single-family housing is expected to increase by 2.5 more times than multifamily housing).

36. Sarah J. Adams-Schoen & Edward J. Sullivan, *Middle Housing by Right: Lessons from an Early Adopter*, 37 J. LAND USE & ENV'T L. 189, 205-207, 213-17 (2022).

37. Russell Lopez, *Urban Sprawl in the United States: 1970-2010*, 7 CITIES & ENV'T, at 1 (2014).

38. *See infra* notes 246-52 and accompanying text (regarding climate implications of sprawling development).

39. *See id.*; *see also* Sarah Adams-Schoen, *IPCC Response Essay #9: Big Box Resiliency: U.S. Suburbs and Climate Change*, ENV'T LAW PROF. BLOG (Nov. 14, 2014), https://lawprofessors.typepad.com/environmental_law/2014/11/ipcc-response-essay-7-big-box-resiliency-us-suburbs-and-climate-change.html (reporting on same).

40. *See* Anindita Sarkar et al., *Contextualizing "Risk", "Uncertainty" and "Maladaptation" in the Context of Climate Change in* RISK, UNCERTAINTY AND MALADAPTATION TO CLIMATE CHANGE: METHODS, APPROACHES AND PRACTICES 1, 8 (Anindita Sarkar et al. eds., 2024) (discussing various definitions of adaptation and maladaptation).

41. *See infra* Part I.

42. PARRY ET AL., *supra* note 2, at 27; G.A. Res. 69/283, Sendai Framework for Disaster Risk Reduction 2015-2030, at 2 n.3 (June 3, 2015) (defining resilience as "[t]he ability of a

contours of adaptive governance vary from place to place and include a broad mix of strategies,[43] two resilience lawmaking strategies have the potential to shift development patterns from maladaptive to adaptive: limiting new development in hazard areas ("hazard area avoidance") and proactively planning for and facilitating the relocation of some existing development to less hazardous areas ("managed retreat").[44]

Local, state, and federal governance failures contribute to the stubborn maladaptation problem and unjust allocation of its associated risks and costs. But land use laws both drive the problem and offer an opportunity to address it. The location and intensity of land uses within a community is primarily governed by local land use laws and decisions, with other mechanisms contributing, such as property values, taxes, the availability of financing and insurance, and personal preferences and constraints.[45] A large and growing body of research identifies myriad land use regulatory tools, including ones typically found in local land use codes, that municipalities can deploy to limit new hazard-area development and shift some existing development out of hazard areas, thereby significantly raising the threshold at which the increasingly frequent and intense climate hazards will exceed tolerable living conditions.[46]

Notwithstanding this, proactive land use strategies remain pervasively underutilized in the United States despite climate adaptation research being unequivocal about the inadequacy of current approaches to adaptation that rely primarily on building-scale resilience strategies (e.g., raising structures in floodplains) and large-scale protective structures (e.g., levees) to avoid, or at least forestall, the tremendous losses communities are already experiencing.[47] City zoning codes, subdivision ordinances, and individual land use decisions generally do not distinguish between hazardous and non-hazardous areas except with respect to building design and other criteria unrelated to whether the development encroaches into "high-velocity wave action" zones, the 100-year floodplain, or areas where human development meet wildland fuel, also known as the

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system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions").

43. Such strategies include financial safety nets, new protective infrastructure, maintenance and upgrades of existing infrastructure, accommodation measures like building elevation and defensible space, community engagement and education, and financial support for communities and individuals pre- and post-disaster.

44. *See infra* Part II.A.

45. *See generally* Allan Beltrán et al., *Is Flood Risk Capitalised into Property Values?*, 146 ECOLOGICAL ECONS. 668 (2018) (property values); Jesse D. Gourevitch et al., *Unpriced Climate Risk and the Potential Consequences of Overvaluation in US Housing Markets*, 13 NAT. CLIMATE CHANGE 250 (2023) (property taxes); Okmyung Bin et al., *Flood Hazards, Insurance Rates, and Amenities: Evidence from the Coastal Housing Market*, 75 J. RISK & INSUR. 63 (2008) (insurance).

46. *See infra* Part I.A. (citing and discussing same); Adams-Schoen, *supra* note 25.

47. *See infra* Parts I.A. and I.C.

wildland-urban interface or WUI (pronounced *woo-ee*).[48] By liberally permitting the development of hazard areas throughout the United States, local land use laws drive community vulnerability.[49]

The place-based nature of land use and climate adaptation lawmaking and the unique expertise of the communities and people who have most acutely experienced the burdens of maladaptive lawmaking also suggest that devolution to the local level of some control over climate resilience lawmaking is necessary.[50] The governance conundrum exists here too, however. Local power dynamics have shifted little, notwithstanding growing appreciation of the need to restructure governance frameworks to shift community-scale resilience and justice from the rhetorical periphery to the operative center.

This Article proceeds in four parts. Part I briefly summarizes the relevant climate science, including research focused on increasing communities' resilience thresholds. It concludes with a summary of the ways in which the National Flood Insurance Program (NFIP) exemplifies the climate maladaptation problem. Part II begins with a discussion of the attributes of local land use governance that contribute to the perception that local governments are uniquely suited to address the climate preparedness gap faced by communities throughout the United States and concludes with a discussion of the persistent underutilization of local land use authority to increase community resilience.

Part III examines the constituent values, aspirations, and rhetoric of land law localism, ultimately positing that local governments have relatively broad legal authority over land uses to further exclusionary proprietary interests; however, local autonomy is at its most tenuous when exercised to further communitarian interests in tension with property-based privilege and and existing social hierarchies, two features that characterize transformative adaptation and resilience justice. Part IV asserts that just as land law localism jealously guards local control over the management of private land uses, in the context of particularly intractable land use problems, including the maladaptive development problem, it has the paradoxical effect of undermining the principle of subsidiarity, decreasing the capacity of local governments to effectively address stubborn problems with acute local effects, and hampering the effectiveness of collaborative governance frameworks such as the flood program envisioned by the Congress of 1968. Part IV concludes by recommending tools for recognizing when uncritical presumptions about localism's communitarian values undermine resilience and justice goals, which is an essential first step toward recalibrating shared vertical governance frameworks to more effectively address the persistent problem of maladaptive development.

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48. Urban Wildland Interface Communities Within the Vicinity of Federal Lands That Are at High Risk from Wildfire, 66 Fed. Reg. 751, 752-53 (Jan. 4, 2001) (notices).

49. *See infra* Part I.C.

50. *See infra* Parts I.A.2-3; *see also* Arnold et al., *supra* note 2, at 218-19 (discussing concepts of resilience, "resilience thinking" and "resilience justice").

I. DESTABILIZATION OF THE CLIMATE SYSTEM, MALADAPTIVE DEVELOPMENT, AND ADAPTATION THRESHOLDS

As the pace of global warming accelerates,[51] communities throughout the United States and abroad are experiencing the destabilizing effects of a fundamental transformation of the Earth's climate system.[52] In 2023, the U.S. Office of Management and Budget (OMB) issued the following warning in response to the federal fiscal exposure from the widening climate preparedness gap facing U.S. communities, highlighting the "narrowing timeframe to invest in opportunities to avoid the most catastrophic impacts":[53]

> The climate crisis poses a serious threat to the United States economy and human welfare with a narrowing timeframe to invest in opportunities to avoid the most catastrophic impacts. Changes in the average range of climate conditions and increasingly frequent and intense extreme weather events [and slow-moving climate hazards like sea level rise] will continue damaging the physical integrity of our infrastructure, the livable and social conditions of our communities, the health of our people and natural ecosystems, and the productivity of major economic sectors. All of these changes will increasingly and severely impact communities, businesses, and governments.
>
> The impacts of climate change on businesses and communities are broad. . . . The most severe harms from climate change fall disproportionally upon socially vulnerable populations, and racial and ethnic minority communities are particularly vulnerable to climate impacts.[54]

A. Climate Realism

The central purpose of the Paris Agreement on Climate Change (2015) was to "[h]old[] the increase in the global average temperature to well below 2°C [3.6°F] above pre-industrial levels and pursu[e] efforts to limit the temperature increase to 1.5°C [2.7°F] above pre-industrial levels."[55] June 2024 marked the

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51. Between 1970 and 2008, global warming occurred at a linear rate of approximately 0.18C per decade and has almost doubled to 0.3C over the past 15 years. Models project that the rate of acceleration will increase 50 to 100 percent above the historic 0.18C rate over the next 30 years and continue accelerating beyond that, although projections of short term future variation are less certain. Zeke Hausfather, *Factcheck: Why the recent "acceleration" in global warming is what scientists expect*, CARBONBRIEF.ORG (Apr. 4, 2024, at 14:32 PDT), https://perma.cc/7C8Y-353M (summarizing and citing recent scientific reporting).

52. Alexa K. Jay et al., *Overview: Understanding Risks, Impacts, and Responses* 1-10, *in* U.S. GLOB. CHANGE RSCH. PROGRAM, , FIFTH NATIONAL CLIMATE ASSESSMENT (2023) [hereinafter NCA5]; Wolfgang Cramer et al., *Point of Departure and Key Concepts*, *in* AR6 WGII, *supra* note 27, at 125.

53. OFF. MGMT. & BUDGET, ANALYTICAL PERSPECTIVES: BUDGET OF THE U.S. GOVERNMENT FISCAL YEAR 2023, at 277-291 (2022), https://perma.cc/YYN6-SSQV (summarizing conservative estimates of federal budget exposure to climate risk).

54. *Id.* at 277.

55. Paris Agreement to the United Nations Framework Convention on Climate Change,

twelfth consecutive month in which monthly global average air surface temperatures exceeded 1.5°C above pre-industrial levels.[56] Prior to this, the longest streak above the 1.5°C threshold was three months.[57] As illustrated in Figure 2 below, 2024 set an even more foreboding record as the first year with an annual average temperature above 1.5°C, blowing past the threshold to reach an annual average temperature of 1.6°C.[58] Although the political cap of 1.5°C is measured on a decadal basis and thus will not be exceeded until the 2030s, the reality is that, as renowned climate scientist James Hansen puts it: "We are not moving into a 1.5C world, we [briefly passed] . . . through it in 2024. We will pass through the 2C (3.6°F) world in the 2030s unless we take purposeful actions to affect the planet's energy balance."[59] Indeed, global average temperatures for January 2025 were 1.75°C above pre-industrial levels, despite the cooling effect of an emerging La Niña.[60]

art. 2.1(A), Dec. 12, 2015, T.I.A.S. No. 16-1104.

56. *Why Do We Keep Talking About 1.5C and 2C Above the Pre-industrial Era?*, COPERNICUS CLIMATE CHANGE SERV. (C3S) (Jul. 17, 2024), https://perma.cc/ZC96-UCVB. The streak was punctuated in July 2024, when the global average surface air temperature was 1.48C above the estimated July average from 1850-1900. The monthly averages again exceeded 1.5C in August (1.51C), September (1.54C), October (1.65C), November (1.62C), December (1.69C), January 2025 (1.75C), February (1.59C), and March (1.60C). *Surface Air Temperature*, C3S, https://climate.copernicus.eu/surface-air-temperature-maps (last visited April 10, 2025) (click on individual month for details).

57. C3S (July 17, 2024), *supra* note 56.

58. *Surface Air Temperature for December 2024*, C3S, https://perma.cc/975K-XTXL (archived July 14, 2025).

59. Oliver Milman, *Global Heating Will Pass 1.5C Threshold This Year, Top Ex-Nasa Scientist Says*, THE GUARDIAN (Jan. 8, 2024, at 11:07 EST), https://perma.cc/624H-GKPF.

60. *Surface Air Temperature for January 2025*, C3S, https://perma.cc/K4EU-EHSS (archived July 14, 2025). January 2025 was also the eighteenth month in the last nineteen months for which the global-average temperature exceeded 1.5C above the pre-industrial level. *Id.*

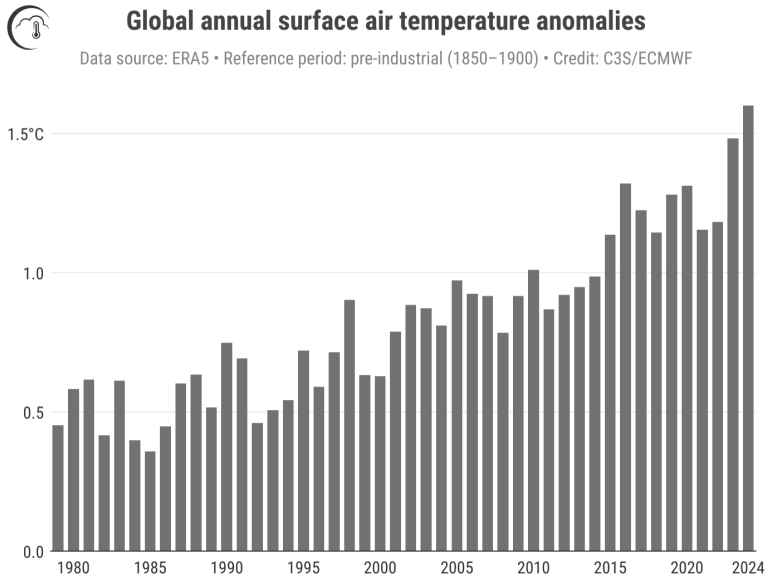

Fig. 2. Annual Global-Surface Air Temperature Anomalies Relative to the 1850–1900 Pre-Industrial Reference Period[61]

These and other manifestations of climate change—such as dramatic increases in ocean temperatures, the melting of polar ice caps, and rising sea levels—are driving equally dramatic increases in the frequency and intensity of droughts, storms, and heatwaves.[62] While this information is nothing new, the need for law and policy changes on par with the unfolding climate emergency continues to be highly relevant.

The International Panel on Climate Change (IPCC), which is the United Nations body tasked with assessing the science related to climate change,[63] concluded in its 2023 assessment report that the cumulative scientific evidence is unequivocal: Any further delay in adaptation and mitigation will miss a brief and rapidly closing window of opportunity to maintain tolerable living conditions.[64] The U.S. body charged with

61. *Surface Air Temperature for December 2024*, C3S, https://perma.cc/975K-XTXL (archived July 14, 2025).

62. ANDRÉS ALEGRÍA ET AL., CLIMATE CHANGE 2023: SYNTHESIS REPORT 5 (Hoesung Lee & José Romero eds., 2023) [hereinafter AR6 SYNTHESIS REPORT].

63. Adam J. L. Harris et al., *Lost in Translation? Interpretations of the Probability Phrases Used by the Intergovernmental Panel on Climate Change in China and the UK*, 121 CLIMATIC CHANGE 415, 415 (2013).

64. Rawshan Ara Begum et al., *Point of Departure and Key Concepts*, *in* CLIMATE CHANGE 2022: IMPACTS, ADAPTATION AND VULNERABILITY 125, 169-170 (Roberto Sánchez Rodríguez & Michael Sutherland eds., 2022) (finding that many human and natural systems are near their soft adaptation limits," meaning adaptation "options may exist but are currently not available to avoid intolerable risks" which are risks that "threaten core social objectives associated with health, welfare, security or sustainability"). Mitigation refers to actions that slow the pace and scale of climate change by reducing the concentration of greenhouse gases

comprehensively assessing climate change, the U.S. Global Change Research Program (USGCRP),[65] concluded in its most recent National Climate Assessment (NCA5) that even with the rapid and deep decarbonization of the atmosphere sufficient to keep warming below 2°C, current approaches to adaptation are "insufficient to reduce today's climate-related risks and keep pace with future changes in the climate."[66]

More specifically, OMB estimated that damages from only "a subset of storms, floods, wildfires, and other extreme climate-related weather events" grew to approximately $120 billion annually over the five years preceding the 2023 report.[67] Looking forward, OMB projects that federal fiscal exposure is likely to increase by an additional $25 to $128 billion annually before 2100.[68] Notably, this projection was based on a conservative climate model and reflects only a subset of the projected costs of "just six climate-related financial risks."[69] For example, the OMB analysis of federal fiscal exposure in the NFIP considered damage to the NFIP's current portfolio of insured properties in Special Flood Hazard Areas (SFHAs),[70] but did not consider the costs attributable to FEMA's significant underestimation of the existing 100-year floodplain, future geographic expansion of the floodplain, and increased development in the floodplain.[71] The report thus cautions that the projections are illustrative only and "the overall welfare risk to the economy" will be significantly larger.[72]

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in the Earth's atmosphere. PARRY ET AL., *supra* note 2, at 878. Critically, neither adaptation nor mitigation are sufficient, on their own, to avoid or reverse catastrophic disruptions to human communities. *See* Begum et al., *supra*, at 126, 128-130, 178 (regarding urgency, magnitude of risk, and need to couple transformative adaptation with rapid reductions in human-induced emissions to "at least net zero CO_2").

65. The Global Change Research Act of 1990 (GCRA), Pub. L. No. 101-606, § 101(b), 104 Stat. 3096 (codified at 15 U.S.C. §§ 2921-2961) (requiring USGCRP to develop and coordinate a "comprehensive and integrated United States research program" to support national and international "understand[ing], assess[ment], predict[ion], and respon[se] to human-induced and natural processes of global change"). NCA5 "documents observed and projected vulnerabilities, risks, and impacts associated with climate change across the United States." NCA5, *supra* note 52, ch. 1, at 1-2.

66. NCA5, *supra* note 52, ch. 1, at 1-10.

67. OFF. MGMT. & BUDGET, *supra* note 53, at 277-278.

68. *Id.* at 277.

69. *Id.* (the six risks are "disaster relief, flood insurance, crop insurance, healthcare expenditures, wildland fire suppression spending, and flood risk at Federal facilities"); *see also id.* ("Many other risks to the Federal budget are apparent but have not yet been quantified, such as the risks to national security, changes to ecosystems, and infrastructure expenditures which can each have wide-ranging and diffuse effects to the budget.").

70. SFHAs are "the land in the flood plain within a community subject to a 1 percent or greater chance of flooding in any given year." 44 C.F.R. § 59.1 (2023); *see also id.* (defining "100-year flood" by reference to "base flood," which is a "flood having a one percent chance of being equalled or exceeded in any given year").

71. OFF. MGMT. & BUDGET, *supra* note 53, at 282-83.

72. *Id.* at 277.

B. Adaptation Strategies and Resilience Thresholds

Reflecting the economic, sociological, and ecological tragedy of maladaptive development, climate researchers broadly agree that for most communities located partially or entirely in hazard areas, climate resilience thresholds will soon be surpassed unless land use laws are reformed to more effectively constrain development of hazard areas and facilitate managed retreat in the many places where hazard area occupancy is increasingly untenable.[73] Construed narrowly, "managed retreat" refers to the relocation of populations, structures, and infrastructure away from the most vulnerable areas.[74] The term also has a broader meaning, which includes limiting the location and intensity of new development in hazard areas.[75] Such limits are also referred to as "avoidance" strategies.[76]

In contrast to managed retreat and avoidance strategies, "protection" and "accommodation" strategies facilitate the ability to develop in hazard areas by attempting to protect development in those areas from hazards—with, for example, levees—and attempting to make structures and people in hazard areas more resilient to the hazards—by, for example, installing early warning systems.[77] Examples of development accommodation strategies include what I have termed "building-scale" resilience measures, which typically require the construction or reconstruction of structures to conform with criteria that increase the threshold at which the hazard will substantially destroy the structures.[78] The federal floodplain management criteria that communities[79] must meet or exceed as a condition of participating in the NFIP consist almost

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73. AR6 SYNTHESIS REPORT, *supra* note 62, at 8; *see also, e.g.*, Wing, et al.*, supra* note 25, at 157-59. Although this insight is far from new, it is becoming increasingly urgent. *See* Adams-Schoen, *supra* note 25 (documenting local, state, and federal recognition since the 1950s that managed retreat and avoidance strategies are needed to stem the tide of maladaptive floodplain development). I say "more effectively" constrain hazard area development because recent empirical analyses suggest that flood hazard area development may already be constrained to some extent in many U.S. communities. *Infra* notes 332-54 and accompanying text.

74. Nicholas Pinter, *The Lost History of Managed Retreat and Community Relocation in the United States*, 9 ELEMENTA: SCI. ANTHROPOCENE, at 1 (2021) (defining managed retreat as "the abandonment of occupied land and the removal or relocation of population and/or infrastructure out of areas subject to repeated flooding, rising sea level, or other natural hazards" and identifying as synonymous terms "'planned relocation,' 'managed realignment,' 'climate migration,' and increasingly, 'climigration'").

75. Adams-Schoen, *supra* note 3, at 220; James G. Titus et al., *State and Local Governments Plan for Development of Most Land Vulnerable to Rising Sea Level Along the US Atlantic Coast*, 4 ENV'T RSCH. LETTERS, at 1-2 (2009).

76. *See* A.R. Siders et al., *How Local Governments Avoid Floodplain Development Through Consistent Implementation of Routine Municipal Ordinances, Plans, and Programs*, 4 OXFORD OPEN CLIMATE CHANGE 1, 1 (2024) (discussing hazard area avoidance).

77. Adams-Schoen, *supra* note 3, at 199; John R. Nolon, *Land Use and Climate Change: Lawyers Negotiating Above Regulation*, 78 BROOK. L. REV. 521, 549 (2013).

78. Wesley E. Highfield et al., *Measuring the Impact of Mitigation Activities on Flood Loss Reduction at the Parcel Level: The Case of the Clear Creek Watershed on the Upper Texas Coast*, 74 NAT. HAZARDS 687, 689 (2014).

79. 44 C.F.R. § 59.1 (2023) (defining "community" as "any State or area or political

exclusively of building-scale criteria.[80] Larger-scale protection strategies include engineered structures like sea walls that attempt to protect existing and new hazard area development by diverting hazards to other areas.[81]

The particular mix of adaptation strategies a community adopts implicates complex tradeoffs and location-specific values and variables.[82] Comprehensive adaptation policies with location-specific strategies may include protection and accommodation measures such as early warning systems, insurance and other financial safety nets, building construction standards, and engineered protection.[83] While building- and large-scale protection and accommodation strategies can contribute to resilience at the community scale by limiting the scope of structural damage caused by hazard events, they facilitate hazard area occupancy and development that puts more people, structures, infrastructure, and cultural assets in harm's way when, for example, flood levels exceed building elevation requirements or overwhelm levees.[84] Similarly, until disaster strikes, communities are often driven by the need for the property tax revenue from new development in desirable areas, such as along waterfronts and in the wildland-urban interface—revenue that increases their financial capacity to provide essential public services, including services related to climate resilience.[85] The political strength of local development interests is also a formidable obstacle to the adoption and implementation of avoidance and retreat strategies.[86] Communities with insufficient housing or affordable housing also face difficult choices between permitting and

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subdivision thereof, or any Indian tribe or authorized tribal organization, or Alaska Native village or authorized native organization, which has authority to adopt and enforce flood plain management regulations for the areas within its jurisdiction").

80. 44 C.F.R. § 60.3 (2023); *see also infra* Part I.C (summarizing detailed analysis of the NFIP in Adams-Schoen, *supra* note 25).

81. *See* Rachel K. Gittman et al., *Engineering Away Our Natural Defenses: An Analysis of Shoreline Hardening in the US*, 13 FRONTIER ECOLOGY & ENV'T 301, 301, 305 (2015) (discussing sea walls and other structures used to harden shorelines and protect development from erosion and storm damage).

82. Emily Wasley et al., *Adaptation*, *in* NCA5, *supra* note 52, at 31-18.

83. POH POH WONG ET AL., *Coastal Systems and Low-Lying Areas*, *in* CLIMATE CHANGE 2014: IMPACTS, ADAPTATION, AND VULNERABILITY. PART A: GLOBAL AND SECTORAL ASPECTS. CONTRIBUTION OF WORKING GROUP II TO THE FIFTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 361, 387 (Christopher B. Field et al. eds., 2014).

84. Adams-Schoen, *supra* note 3, at 199; Nolon, *supra* note 77, at 549.

85. *See* PATRICK J. ROHAN & ERIC DAMIAN KELLY, 10 ZONING AND LAND USE CONTROLS § 53C.14 (2024) ("Local governments throughout the country rely on local property taxes . . . for revenues for their general operation. Therefore, it is understandable that the revenue-generating characteristics of land uses receive strong consideration in development decisions. In many circumstances, these characteristics are driving factors behind the approval process."); *see also* Christine M. McMillan, Comment, *Federal Flood Insurance Policy: Making Matters Worse*, 44 HOUS. L. REV. 471, 473 (2007) (noting that the Houston neighborhoods in the floodplain, destroyed by Tropical Storm Allison [in 2001], have been replaced by "entirely new neighborhoods . . . [that] sit in the path of future floods.").

86. William W. Buzbee, *Sprawl's Dynamics: A Comparative Institutional Analysis Critique*, 35 WAKE FOREST L. REV. 509, 521 (2000).

even encouraging the development of housing in hazard areas, on the one hand, and the resilience of those structures and the people who will reside in them on the other.[87] For some communities, the ability to have retreat strategies may also be severely limited—for example, because all or nearly all land in the jurisdiction is in the floodplain—thereby necessitating the centering of accommodation, protection, and avoidance measures geared toward protecting existing developments and limiting new vulnerable development.[88]

That said, the climate science is clear that the current focus on accommodating new development in hazard areas is hastening the point at which communities will experience intolerable conditions.[89] Critically, without legal reform to center hazard area avoidance and managed retreat, current and future hazard area development is projected to account for most of the sharply rising disaster costs communities—and the nation—will experience by 2050,[90] and will "especially affect[] marginalised and vulnerable groups adversely."[91] Constricting the development of hazard areas is thus one of the few strategies with the potential to mitigate the massive social, environmental, and economic costs of climate-related natural disasters in both the near- and long-term,[92] although the continuing efficacy of any adaptation measure depends on the rapid drawdown of greenhouse gas emissions.[93]

C. The National Flood Insurance Program, Community Rating System, and Weak Incentives for Hazard Area Avoidance and Managed Retreat

The folly of overreliance on protection and accommodation measures is powerfully illustrated by the failure of federal flood policy to reverse or even flatten the ever-expanding social, environmental, and economic costs of floods.[94] The evolution of

87. Jade A. Craig, *Struggle Against the Water: Connecting Fair Housing Law and Climate Justice*, 24 NEV. L.J. 737, 755-759 (2024).

88. PETER PLASTRIK & JOHN CLEVELAND, CAN IT HAPPEN HERE? IMPROVING THE PROSPECT FOR MANAGED RETREAT BY US CITIES 40-41 (Mar. 2019); *see generally* ANNE SIDERS, MANAGED COASTAL RETREAT: A LEGAL HANDBOOK ON SHIFTING DEVELOPMENT AWAY FROM VULNERABLE AREAS (2013) (discussing strategies to avoid future hazard area development and relocate existing hazard area development and related legal issues).

89. *See supra* Part I.A and *infra* Part II.B (summarizing empirical evidence and modeling).

90. *Id.*

91. SUMMARY FOR POLICYMAKERS in CLIMATE CHANGE 2023: SYNTHESIS REPORT. CONTRIBUTION OF WORKING GROUPS I, II AND III TO THE SIXTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 8 (INDIAN INSTITUTE FOR HUMAN SETTLEMENTS 2023) [hereinafter AR6 SUMMARY FOR POLICYMAKERS] (finding "increased evidence of maladaptation" and compelling evidence that this maladaptation "especially affects marginalised and vulnerable groups adversely").

92. *See supra* Part I.A-B (summarizing empirical evidence and modeling).

93. *Id.*

94. This Part summarizes the history of federal flood policy chronicled and analyzed in detail in *Federal Flood Policy & Maladaptation*. *See* Adams-Schoen, *supra* note 25 (manuscript at 23-42).

federal flood policy over the last 175 years has been driven by a seemingly endless cycle of tragedies in which the federal government builds, funds, requires, and incentivizes various protection and accommodation measures.[95] Before Congress created the NFIP in the late 1960s,[96] federal flood policy relied primarily on engineered protection and large-scale accommodation measures, like dams, levees, and dikes, to protect floodplain communities and their assets from flood hazards and thereby facilitate the development of the nation's floodplains.[97] Measures like these increased floodplain occupancy and held floodwaters at bay—until they were overwhelmed, at which point the breached protective structure itself often magnified the hazard with catastrophic consequences for the population living within its protective shadow.[98] From the mid 1800s through the 1950s, Congress responded to one flood disaster after another by federal policy in a largely futile and self-destructive attempt to better protect and accommodate floodplain development.[99]

As detailed in the companion to this article, *Federal Flood Policy & Maladaptation: A Story of Collective Forgetting*, "[t]he private insurance market recognized what Congress would not."[100]

> As early as 1929, the risk to properties developed in the nation's floodplains was so great that the private sector essentially stopped covering flood losses. In 1933, Congress passed the first law authorizing the federal government to provide direct disaster assistance to private citizens, specifically in the form of loans to people who suffered property losses from the earthquake in Long Beach, California. Congress followed the 1933 model of temporary, post-disaster authorizations until it created a permanent system for disaster relief in 1950. But not even one year later, floodwater topped the levees on the Mississippi and Missouri Rivers and their tributaries, inundating Kansas City and causing major flooding across North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, Missouri, Wisconsin, and Illinois—resulting in the largest flood-related losses in the nation's history to date.[101]

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95. *Id*.

96. *See* National Flood Insurance Act of 1968, Pub. L. No. 90–448, § 1302, 82 Stat. 572, 572-73 (1968) (codified as amended at 42 U.S.C. §§ 4001-4132) (directing implementing agency to create the NFIP); *see also* Title 44 of the Code of Federal Regulations, Subchapter B (regulations creating and administering the NFIP).

97. Adams-Schoen, *supra* note 25 (manuscript at 17-23).

98. *See id.* (manuscript at 18-20) (citing and discussing sources).

99. Adams-Schoen, *supra* note 25 (manuscript at 21-28); *see, e.g.*, Swamp Land Act of 1849, ch. 87, 9 Stat. 352 (1849); Swamp Land Act of 1850, ch. 84, 9 Stat. 519 (1850) (levees and drains); Flood Control Act of 1917, Pub. L. No. 64-367, 39 Stat. 948 (1917) (levees); Flood Control Act of 1928, Pub. L. No. 70-391, 45 Stat. 534 (1928) (levees, spillways, floodways, and artificial reservoirs); *see also generally* Christine A. Klein & Sandra B. Zellmer, *Mississippi River Stories: Lessons from A Century of Unnatural Disasters*, 60 SMU L. REV. 1471 (2007).

100. Adams-Schoen, *supra* note 25 (manuscript at 27).

101. *Id.*

Beginning in the 1950s, federal, state, and local officials and land use planning professionals began advocating to change the paradigm of federal flood policy from accommodation of development to hazard area avoidance, managed retreat, and the preservation of the flood-mitigating attributes of undeveloped floodplains.[102] President Harry Truman responded to the high costs of the 1951 floods by creating a federal taskforce to evaluate and recommend changes to the federal flood control program,[103] including the potential creation of a "national system of flood disaster insurance."[104] The taskforce confirmed what floodplain management experts had long understood: the floodplain development facilitated by flood control infrastructure drives the enormous costs of flood disasters.[105]

Recognizing that federal flood insurance would also facilitate continued floodplain occupancy and development, the taskforce concluded that unless federal flood insurance is coupled with zoning that restricts floodplain development, it would only exacerbate the flood problem.[106] Congress and the Eisenhower administration responded with the Federal Flood Insurance Act of 1956, which made the availability of federal flood insurance in a community contingent on the community adopting "flood zoning laws" that the administrator deemed necessary "to reduce, within practicable limits, damages from flood[s] in such location[s]."[107] The 1956 Act was never implemented, however, because Congress failed to appropriate funding for it.[108]

Congress tried again four year later. The Flood Control Act of 1960 attempted to support local flood zoning to "avoid[] future flood hazards."[109] But rather than

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102. *Id.* at (manuscript at 27-37); *see, e.g.*, *Conclusions Adopted at the Conference on Flood Plain Regulation and Insurance (Chicago, Ill., Dec. 1-2, 1958)*, 32 STATE GOV'T: J. STATE AFFAIRS 126, 126-127 (1959) (recommending that federal support for floodplain occupancy and development including federal flood insurance and other federal benefits be contingent on state or local adoption of "flood zoning" consisting of "zoning, subdivision regulations, housing and building codes, encroachment lines, and other land-use regulations" that limit development of floodplains); *see also infra* Part IV.B. (regarding local and state advocacy during the 1950s for vertical shared governance using federal flood insurance as an incentive for local adoption of land use laws that constrict development in and guide development away from flood hazard areas).

103. The taskforce was created by the Commission on Organization of the Executive Branch of the Government, which was chaired by Herbert Hoover and popularly known as the Hoover Commission. *See* COMM'N ON ORG. EXEC. BRANCH GOV'T, REPORT OF THE WATER RESOURCES AND POWER TASK FORCE 725 (1955) [hereinafter TASK FORCE REPORT (1955)].

104. AM. ACAD. ACTUARIES FLOOD INS. SUBCOMM., THE NATIONAL FLOOD INSURANCE PROGRAM: PAST, PRESENT, AND. . .FUTURE?, 31 (Jul. 2011) [hereinafter FLOOD INSURANCE SUBCOMMITTEE MONOGRAPH].

105. Adams-Schoen, *supra* note 25 (manuscript at 28) (analyzing TASK FORCE REPORT (1955), *supra* note 103, and other historical evidence).

106. *Id.*

107. Federal Flood Insurance Act of 1956, Pub. L. No. 84-1016, § 12(b)-(c), 70 Stat. 1083 (codified at 42 U.S.C. § 2414).

108. S. REP. NO. 93-583 (1973).

109. Flood Control Act of 1960, Title II of Pub. L. No. 86-645, § 206(a), 74 Stat. 480, 500.

providing a powerful incentive (i.e., federal flood insurance) for state and local governments to restrict land uses in floodplains, the 1960 Act required the Corps to compile and disseminate to local governments technical resources such as flood elevation maps, engineering advice, and guidance on managing floodplain land uses.[110] In so doing, the Act treated local incapacity to adaptively manage floodplain land uses as a technical resources problem, essentially ignoring the findings of floodplain management experts, the federal taskforce, and state and local government officials—all of which identified the source of the local incapacity to adaptively manage flood hazard areas as federal policies that accommodate maladaptive development and a lack of sufficiently powerful federal incentives for local governments to adopt flood zoning.

With the change in administrations from Eisenhower to Kennedy to Johnson, the federal executive and Congress responded to the continued maladaptive development of flood hazard areas by recognizing yet again the need for federal intervention to support local flood zoning and thereby decrease the massive economic, social, and ecological costs of floods.[111] The Johnson Administration and Congress designed the National Flood Insurance Act of 1968 (NFIA) to stem "annual losses throughout the nation from floods."[112] Recognizing the need for a financial safety net for existing floodplain occupants, whose occupancy had been facilitated by earlier federal flood policies, and the inability of the private flood insurance market to provide that safety net, the Act provided for a system of federal flood insurance.[113]

As I document in *Federal Flood Policy & Maladaptation*, the operative provision of the NFIA is not, however, the provision of federal flood insurance, despite widespread belief to the contrary. The primary purpose of the NFIA is to reduce flood losses and federal fiscal exposure by providing powerful incentives for communities to exercise their police powers to limit new floodplain development and gradually decrease the intensity of existing floodplain land uses.[114] To achieve this purpose, the Act directed the Department of Housing and Urban Development (and now FEMA) to create a unified national flood program with three integrated features: flood insurance, floodplain land use criteria, and technical data and guidance, including federal mapping of flood hazard areas.[115] The flood insurance feature of the program

110. *Id.*

111. *See* Adams-Schoen, *supra* note 25 (manuscript at 27-34) (citing and discussing TASK FORCE ON FEDERAL FLOOD CONTROL POLICY, A UNIFIED NATIONAL PROGRAM FOR MANAGING FLOOD LOSSES 8 (Aug. 2, 1966) [hereinafter TASK FORCE REPORT (1966)], and Letter of Transmittal from Lyndon B. Johnson, U.S. President, to John W. McCormack, Speaker of the House of Representatives (Aug. 10, 1966), *in* H.R. Doc. No. 465, 89th Cong., 2d Sess. (transmitting the Task Force Report) [hereinafter Johnson Letter of Transmittal]).

112. The Flood Disaster Protection Act of 1973, Pub. L. No. 93-234, § 2(a)(1), 87 Stat. 975, 975-76 (codified at 42 U.S.C. § 4002) (describing intent of NFIA).

113. S. REP. NO. 90-549, at 3 (1967).

114. *See supra* notes 111-12; *see also* Adams-Schoen, *supra* note 25 (manuscript at 33-39) (analyzing statutory text, legislative history, agency reports to Congress, and other evidence of Congressional intent).

115. *See* Adams-Schoen, *supra* note 25 (manuscript at 24-27) (discussing TASK FORCE

provided "a reasonable method of sharing the risk of flood losses"[116] by shifting some flood disaster costs to policyholders.[117] But Congress had no illusion that this feature of the program would decrease maladaptive development. Rather, Congress and the Johnson Administration understood that federal flood insurance, without avoidance- and retreat-centered flood zoning, would have the perverse effect of "exacerbat[ing] the whole problem of flood losses,"[118] thereby "frustrating the purpose for which such assistance was extended."[119]

Congress intended the second integrated feature of the program—the floodplain land use criteria—to mitigate the "moral hazard"[120] posed by the provision of federal flood insurance and other benefits that directly and indirectly support encroachment on and occupancy of flood hazard areas.[121] To avoid this perverse outcome, the NFIA requires as a condition of participation in the flood insurance program that a community adopt and enforce "adequate land use and control measures" that are consistent with federal "comprehensive criteria for land management and use" developed pursuant to the Act.[122] Congress and the Johnson Administration believed that the Act could only achieve its purpose and thereby "promote the public interest" by making federal flood insurance and other valuable benefits of program participation contingent on a community's adoption of land use laws that limit future development of flood hazard areas and gradually shift exiting development to less hazardous areas.[123]

To achieve its purpose of decreasing flood losses and related federal fiscal exposure,[124] the NFIA directs FEMA to study "the adequacy of State and local measures in flood-prone areas as to land management and use, flood control, flood zoning, and flood damage prevention,"[125] and "on the basis of such studies," to:

REPORT (1966), *supra* note 111, at 17).

116. TASK FORCE REPORT (1966), *supra* note 111, at 17.

117. *Id.*

118. Johnson Letter of Transmittal, *supra* note 111 (quoting TASK FORCE REPORT (1966), *supra* note 111, at 8).

119. Pub. L. No. 93-234, § 2(a)(1)-(3), 87 Stat. 975, 975-76.

120. *See* The Flood Disaster Protection Act of 1973, Pub. L. No. 93-234, § 2(a)(1)-(3), 87 Stat. 975, 975-76 (finding that "the availability of Federal loans, grants, guaranties, insurance, and other forms of financial assistance are often determining factors in the utilization of land and the location and construction of public and of private industrial, commercial, and residential facilities"); David Rowell & Luke B. Connelly, *A History of the Term "Moral Hazard,"* 79 J. RISK & INSURANCE 1051, 1052-53 (2012) (explaining that "moral hazard" refers to the problem of insuring risky behavior whereby the insured undertakes higher risk behavior than it would have without insurance and thereby increases the insured risk).

121. *See* Adams-Schoen, *supra* note 25 (manuscript at 37-40) (analyzing the text, structure and legislative history of the NFIA).

122. § 1305(c), 82 Stat. at 573 (codified at 42 U.S.C. § 4012(c)); § 1315, 82 Stat. at 580 (codified at 42 U.S.C. § 4022(a)).

123. § 1302(c), 82 Stat. at 573 (codified at 42 U.S.C. § 4001(c)); *see also* Adams-Schoen, *supra* note 25 (manuscript at 31-37, 42-58) (providing extensive evidence of Congress's and the Johnson Administration's intent).

124. Pub. L. No. 90–448, § 1361(c), 82 Stat. at 587 (codified at 42 U.S.C. § 4102).

125. Pub. L. No. 90–448, § 1361(a), 82 Stat. at 587.

> develop comprehensive criteria designed to encourage, where necessary, the adoption of permanent State and local measures which, to the maximum extent feasible, will—
>
> (1) constrict the development of land which is exposed to flood damage where appropriate,
>
> (2) guide the development of proposed construction away from locations which are threatened by flood hazards,
>
> (3) assist in reducing damage caused by floods, and
>
> (4) otherwise improve the long-range land management and use of flood-prone areas.[126]

By 1973, Congress found that annual losses from floods continued to "increas[e] at an alarming rate, largely as a result of the accelerating development of, and concentration of population in," flood hazard areas.[127] Reiterating earlier concerns about the moral hazard of providing "Federal loans, grants, guaranties, insurance, and other forms of financial assistance" for properties in flood hazard areas, Congress declared again that (1) access to such federal benefits is "often [the] determining factor[] in the utilization of land and the location and construction of public and of private industrial, commercial, and residential facilities," and (2) "property acquired or constructed with grants or other Federal assistance may be exposed to risk of loss through floods, thus frustrating the purpose for which such assistance was extended."[128] To address these concerns and encourage community participation in the NFIP, the Flood Disaster Protection Act of 1973 amended the statutory scheme to add the "mandatory purchase requirement," which essentially requires all real estate in a FEMA-designated Special Flood Hazard Area (SFHA) that is financed with a federally backed mortgage to carry flood insurance for the life of the loan.[129]

As amended, the program's incentive structure worked. Notwithstanding a nearly universal localism norm with respect to the regulation of land uses,[130] more than 22,000 municipalities have adopted zoning and other regulations that meet or exceed the NFIP eligibility criteria.[131] However, the criteria promulgated by FEMA and its

126. Pub. L. No. 90–448, § 1361(c), 82 Stat. at 587.

127. 42 U.S.C. § 4002(a).

128. *Id.*

129. 42 U.S.C. § 4012a(b); *see also* 44 C.F.R. § 60.1(a) ("The Act provides that flood insurance shall not be sold or renewed under the program within a community, unless the community has adopted adequate flood plain management regulations consistent with Federal criteria."); 24 C.F.R. § 203.16a(b); FED. EMERGENCY MGMT. AGENCY, MANDATORY PURCHASE OF FLOOD INSURANCE GUIDELINES 186 (May 1997).

130. *See* Richard Briffault, *Our Localism* (pts. 1-2), 90 COLUM. L. REV. 1, 346 (1990); Rapanos v. United States, 547 U.S. 715, 738 (2006) ("Land use regulation is the 'quintessential state and local power.'").

131. U.S. GOV'T ACCOUNTABILITY OFF., GAO-17-425 FLOOD INSURANCE: COMPREHENSIVE REFORM COULD IMPROVE SOLVENCY AND ENHANCE RESILIENCE 40 (2017).

predecessor did not center on either hazard area avoidance or, to a lesser extent, managed retreat as required by the NFIA. Instead, the criteria center on the structural integrity of buildings, something I have referred to as "building-scale resilience."[132] In so doing, the federal benefit program that Congress had intended to provide powerful incentives for localities to use their police powers to limit floodplain development instead provided powerful incentives for localities to use their police powers to improve the resilience of new structures in the floodplain to flood hazards.

> None of the criteria incorporate any of the myriad land use regulatory tools that decrease the intensity of development in flood hazard areas . . . , with two mostly ineffectual exceptions. . . . The regulatory criteria focus so myopically on the structural resilience of buildings and so utterly neglect the location of development that . . . [e]ven FEMA describes the regulations as "minimum building design criteria. . . .
>
> . . . [T]he criteria allow both new development and rebuilding of destroyed structures in even the "most hazardous part of the coastal floodplain," which FEMA designates as "coastal high hazard" areas, or "V" zones. V zones are areas subject to "high velocity wave action," which means the area is subject to waves that "generally carr[y] enough energy to break a wall panel away from a floor to which it has been nailed." Although the most stringent criteria apply in these coastal high hazard areas, none of the federal criteria limit new development in these areas—with one exception that prohibits development of land seaward of the mean high tide line. . . . In combination, the criteria applicable in coastal high hazard areas allow residential and commercial development subject only to building design and construction standards that differ in degree from those applicable in less hazardous flood-prone areas.[133]

The hazard avoidance and managed retreat features of the program that Congress saw as essential to achieving its objective of decreasing the enormous costs of flood disasters were pushed to the periphery. They were incorporated into two toothless features of the NFIP: a regulation requiring communities to review various "planning considerations" and the Community Rating System (CRS), a voluntary program providing flood premium discounts to policyholders in communities that choose to exceed the federal minimum standards.[134] The level of premium reduction available to policyholders in a CRS participating community is based on the regulatory and

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132. *See, e.g.*, Adams-Schoen, *supra* note 3, at 207.

133. Adams-Schoen, *supra* note 25 (manuscript at 37) (quoting FED. EMERGENCY MGMT. AGENCY, FLOOD DAMAGE-RESISTANT MATERIALS REQUIREMENTS 1 (2008)); *see also id.* (manuscript at 29-30) (discussing this and other FEMA characterizations of the floodplain management criteria as tools for accommodating floodplain development).

134. 44 C.F.R § 60.22 ("planning considerations for flood-prone areas"); FED. EMERGENCY MGMT. AGENCY, NATIONAL FLOOD INSURANCE PROGRAM COMMUNITY RATING SYSTEM: CRS COORDINATOR'S MANUAL 110-1 (2017); FED. EMERGENCY MGMT. AGENCY, NATIONAL FLOOD INSURANCE PROGRAM COMMUNITY RATING SYSTEM: ADDENDUM TO THE 2017 CRS COORDINATOR'S MANUAL A-1 (2021).

non-regulatory actions, or "creditable activities," the community undertakes.[135] Although several of these creditable activities include the adoption and enforcement of land use laws that guide new development away from flood hazard areas, facilitate the managed relocation of existing development, and protect the natural capacity of the floodplain to mitigate flood risk,[136] the CRS appears to lack sufficient incentives to shift the paradigm of state and local floodplain regulation from accommodation to hazard area avoidance, retreat, or the preservation of natural floodplains.[137]

Whereas roughly 22,600 communities participate in the NFIP, only around seven percent of them opt to participate in the CRS,[138] although it remains to be seen whether CRS participation will improve in response to higher premiums under Risk Rating 2.0, the NFIP's new pricing methodology.[139] FEMA's CRS data[140] reveal that CRS communities engage primarily in three categories of creditable activities: education, mapping, and the imposition of more stringent building-scale requirements.[141] Only 12% of CRS communities receive credit for zoning that limits the density of flood hazard area development and only 3% receive credit for limiting floodplain development by prohibiting the use of fill and "other ground-altering measures" in the

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135. FED. EMERGENCY MGMT. AGENCY (2017), *supra* note 134, §§ 432d-432e.

136. *See, e.g., id.* §§ 412.e (floodway standard more restrictive than one foot), 422.a (prohibiting new buildings and fill in the floodway, V Zones, or other parts of the floodplain), 422.f (zoning to minimize the number of buildings in the floodplain), 422.g (maintaining the natural condition of watercourses and shorelines), 432.a (maintaining the natural capacity of the floodplain to store and transport floodwaters, and preserve floodplain lands as open space), 432.n (prohibiting alteration of dunes outside V Zones); *see also* Adams-Schoen, *supra* note 25 (manuscript at 82) (discussing these and "other creditable activities that FEMA should consider moving to the minimum criteria").

137. Adams-Schoen, *supra* note 25 (manuscript at 37, 77-78, 99-100) (discussing these aspects of the NFIP). *See* Jingyuan Li & Craig E. Landry, *Flood Risk, Local Hazard Mitigation, and the Community Rating System of the National Flood Insurance Program*, 94 LAND ECONS. 175, 178-79 (2018) (describing the CRS as the NFIP's "mechanism for integrating insurance with mitigation"); *infra* notes 143-51 and accompanying text (regarding CRS influence on floodplain development).

138. Request for Information on the National Flood Insurance Program's Community Rating System Redesign Effort, 89 Fed. Reg. 56889, 56890 (July 11, 2024) (reporting NFIP participation data as of 2024 and CRS participation data as of October 2023).

139. CONG. RSCH. SERV., NATIONAL FLOOD INSURANCE PROGRAM RISK RATING 2.0: FREQUENTLY ASKED QUESTIONS 1-2 (2024), https://perma.cc/R7T7-BKLD; *see also* Jesse D. Gourevitch & Nicholas Pinter, *Federal Incentives for Community-Level Climate Adaptation: An Evaluation of FEMA's Community Rating System*, 18 ENV'T RES. LETTER, at 1, 8 (2023) (questioning whether Risk Rating 2.0 will increase CRS participation).

140. FED. EMERGENCY MGMT. AGENCY, COMMUNITY RATING SYSTEM ELIGIBLE COMMUNITIES (2023) [hereinafter CRS DATA] (spreadsheet listing CRS communities, and each community's CRS class, and points for creditable activities, effective Oct. 20, 2023).

141. *See* Samuel D. Brody et al., *Policy Learning for Flood Mitigation: A Longitudinal Assessment of the Community Rating System in Florida*, 29 RISK ANALYSIS 912, 920 (2009) (finding that from 1999 to 2005 Florida CRS communities earned less than 10% of available CRS points on average, performed best in the public information series of activities, and most improved their scores in the mapping series of activities); *see also* Adams-Schoen, *supra* note 25 (manuscript at 84 & n.534) (discussing Brody et al., *supra*, and other studies).

floodplain or parts of the floodplain.[142] Consistent with these observations, a study that examined development outcomes—or changes in the proportion of a community's floodplain development relative to its non-floodplain development—in approximately 18,500 communities nationwide found that, out of seventeen factors that influence floodplain development, the CRS-related factors were the least influential.[143] Moreover, communities participating in the CRS were *more* likely to concentrate both development generally (e.g., commercial, residential, and industrial) and housing in the floodplain than communities that did not participate in the CRS, although communities that improved their CRS scores were "somewhat less likely" to concentrate development generally or housing in the floodplain.[144]

Although recent research has considerably enhanced knowledge of the program and its potential effects, there is a need for finer-grained analysis of other CRS data that have been treated as indicators of local action limiting hazard area development.[145] For example, a community's receipt of CRS credits in the open space protection series of creditable activities (OSP) may not be a reliable indicator of floodplain avoidance or retreat.[146] To illustrate: while ninety percent of CRS communities receive some credit for the open space protection series of creditable activities (OSP),[147] this statistic on its own can be misleading. Each category of creditable

142. These figures are based on the author's use of the CRS DATA, *supra* note 140, to calculate participating communities' points in the Land Use and Zoning and Development Limitation series of creditable activities. *See also* FEMA (2017), *supra* note 134*,* § 420-28 – 29 ("low-density zoning" credit based on a community having one or more zoning district with minimum lot sizes of 5 acres or larger); *id.* § 430-6 – 10 ("development limitation" credit for regulatory limits on floodplain development).

143. Armen Agopian et al., *A Nationwide Analysis of Community-Level Floodplain Development Outcomes and Key Influences*, 12 EARTH'S FUTURE, at 1-2, 10 (2024). "Community" refers to "(a) [i]ncorporated municipalities, (b) unincorporated places participating in the . . . [NFIP], (c) the remaining incorporated area of a county (to recognize the role of county governments as floodplain authorities, or (d) tribal reservations. *Id.* at 3. "Floodplain" refers to areas designated as SFHAs on FEMA's Digital Flood Insurance Rate Map. *Id.*

144. Agopian et al., *supra* note 143, at 2, 12; *see also* Siders et al., *supra* note 76, at 7 (examining approximately 500 New Jersey municipalities, fifty-three of which participated in the CRS, and finding a significant positive correlation between CRS participation and the concentration of housing in the floodplain). Note that Agopian and colleagues did not categorize "[i]ncome properties (e.g., apartment buildings)" as housing. *Id.* at 5.

145. *See* Jenna Tyler et al., *A Review of the Community Flood Risk Management Literature in the USA: Lessons for Improving Community Resilience to Floods*, 96 NAT. HAZARDS 1223, 1227-30 (2019) (identifying 16 published English-language empirical studies of the CRS as of December 31, 2017, and increased rates of publication since 2006).

146. OSP creditable activities involve the "prevent[ion] or minimiz[ation of] development in the regulatory floodplain that obstructs floodwaters; exposes insurable buildings to damage; is subject to erosion or other flood-related hazards; or adversely affects water quality, water quantity, or other floodplain functions." 420-3.

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activity is broken down into tiers of progressively more robust activities. Within the OSP series, 90% of communities receive, on average, 26% of the available credit for the least protective tier of creditable activity. This tier includes credit for zoning lands for agricultural or forestry uses and includes zoning that allows unrestricted commercial clearcutting.[148] It also recognizes as creditable open space school playing fields[149] and structure-free portions of land owned by churches, hunting clubs, golf courses, and zoos.[150] Although four more tiers provide credit for increasingly robust protections of open space, only 3% to 7% of CRS communities receive credit for these activities, and no CRS communities receive credit for the most protective tier.[151]

Development accommodation strategies can and do increase some aspects of a community's hazard resilience, however. For example, in a 2020 report, FEMA credited the NFIP's building-scale criteria with protecting 786,473 buildings constructed in flood areas where adjacent pre-NFIP buildings were destroyed.[152] Researchers also tend to agree that the CRS's more protective building-scale criteria further reduce flood losses, and even those creditable activities that do not directly reduce flood losses can enhance resilience in other ways.[153]

While significant, cost avoidance data at the building scale fails to account for the total cost of flood disasters, which are increasing as more people, homes, businesses, infrastructure, and social and cultural resources are exposed to flood hazards and natural floodplains are further degraded. Reliance on building-scale cost avoidance data as an indicator of success also obscures the failure of the federal flood program to meet its objective to decrease the nation's flood losses through the provision of powerful incentives to state and local governments to adopt land use laws that avoid new hazard area development, facilitate managed retreat where appropriate, and preserve the flood-mitigation and other benefits of natural floodplains.[154] The combination of the federal floodplain management criteria's myopic focus on development accommodation, federally subsidized flood insurance, and other federal benefits available to residents of communities that participate in the NFIP continue to entrench local approaches to the management of floodplain land uses that facilitate rapid and

148. FEMA (2017), *supra* note 134, § 420-4.

149. *Id.*

150. *Id.* §§ 420-6, 420-9.

151. CRS DATA, *supra* note 140.

152. FED. EMERGENCY MGMT. AGENCY, BUILDING CODES SAVE: A NATIONWIDE STUDY 7-4 (2020), https://www.fema.gov/sites/default/files/2020-11/fema_building-codes-save_study.pdf, archived at https://perma.cc/N9B2-R5XC.

153. *See* Gourevitch & Pinter, *supra* note 139, at 2 (summarizing relevant literature); *id.* at 7-8 (case study finding that participation was associated with reductions in flood losses and discussing resilience enhancing features of creditable activities related to community engagement and flood warnings); *but see* Li & Landry, *supra* note 137, at 177 (finding household income, larger tax revenues, and population density are positively associated with community hazard mitigation).

154. Adams-Schoen, *supra* note 25 (citing and discussing evidence that NFIP is a driver of floodplain development).

widespread development of even the most hazardous areas of the riverine and coastal floodplains.[155] In so doing, the NFIP succeeded in transforming state and local regulation of building construction and design in flood hazard areas while failing to use the NFIA's collaborative framework and powerful incentives to effectively encourage communities to exercise their police power authority to stem the tide of maladaptive floodplain development.

II. THE UNREALIZED ADAPTIVE POTENTIAL OF THE ZONING POWER

Legal scholars, planners, urbanists, climate researchers, and law and policymakers along the entire vertical governance axis tend to agree that municipalities—or, more familiarly, cities[156]—are uniquely situated to respond to the climate crisis.[157] This perception of U.S. cities is largely based on a hallmark of land use law found throughout the United States: the delegation of broad land use law authority from state governments to cities. Nearly every city in the United States has formal legal authority to adopt and enforce zoning and other land use laws that determine the boundaries of their communities' adaptation strategies—i.e., where and at what intensity land use development may occur.[158] In addition to formal legal authority, cities bring a kind of moral authority to the climate resilience challenge. For centuries, local governance has been associated with pluralism, democracy, and citizen engagement—three attributes that climate researchers identify as essential components of effective and equitable climate resilience planning and lawmaking.[159]

And yet, most U.S. cities remain unprepared for the intensity, frequency, and scale of the climate hazards they are currently experiencing or will experience in the near term, hazards that are increasing both community-wide vulnerabilities and the inequitable distribution of risks, resources, and power within and among communities.[160] This reality predictably follows from governance failures at the federal, state, and local levels.[161]

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155. *Id.*

156. *See CITY Definition & Meaning*, MERRIAM-WEBSTER, https://perma.cc/56D2-ZRTY (archived July 13, 2025) ("an inhabited place of greater size, population, or importance than a town or village); "Municipality," *Merriam-Webster.com Dictionary*, Merriam-Webster, https://www.merriam-webster.com/dictionary/municipality (last visited Feb. 11, 2025) ("a primarily urban political unit having corporate . . . status and usually powers of self-government).

157. *See* Felix Creutzig et al., *Towards a Public Policy of Cities and Human Settlements in the 21st Century*, 4 NPJ URB. SUSTAINABILITY, at 1 (2024) ("[T]he discourse increasingly points toward the downscaling of climate action, with the local level and its actors as crucial points of intervention.").

158. *See infra* Part I.A.1 (regarding formal legal authority of local governments).

159. *See infra* Parts II.A.2-3.

160. *See supra* notes 63-65 and accompanying text (regarding urgency and inadequate speed and scale of current adaptation responses).

161. *See infra* Parts I.C and II.B.

A. The Essentiality of Local Land Use Governance

Three attributes of local governance make cities both uniquely qualified and essential to the design and implementation of effective climate resilience strategies: (1) the traditional devolution from states to cities of sovereign authority over the location and intensity of land uses,[162] (2) the place-dependent nature of land use management,[163] and (3) the essentiality of local power as an aspect of resilience justice.[164] The first two attributes have been relatively uncontested for nearly a century and appear to influence state and federal failures to respond effectively to the maladaptation problem.[165] The third attribute, while recognized by an emerging consensus of climate adaptation researchers worldwide,[166] has yet to be meaningfully integrated into local, state, or federal climate resilience strategies and related law and policy analyses.[167]

1. Broad Formal Control of Development Patterns and Land Use Intensity

Cities throughout the United States tend to have broad formal authority to regulate the location and intensity of the land uses within their boundaries. This legal authority, often referred to as the "zoning power," includes the authority to adopt a zoning ordinance or code that details how private property can be developed and used in designated districts or zones. These codes are overlaid onto a zoning map that divides the city into districts.[168] In addition to dictating permissible land uses, the codes regulate maximum height, number of stories and floor area, the size of structures, yards and other open spaces on each legal lot, the percentage of the lot that can be occupied, the density of the population on the lot and in the district, and myriad other details of land use development, design, and occupancy.[169] For example, zoning codes typically regulate aspects of a structure's exterior appearance, fences, landscaping, signs, and the minimum or maximum number of off-street parking each developed lot must contain.[170] Many residential codes even dictate how many kitchens a home may have and the permissible types and numbers of pets; nearly all strictly limit how many families

162. *See infra* Part II.A.1.

163. *See infra* Part II.A.2.

164. *See infra* Part II.A.3.

165. *See infra* Parts II.A.1-2 and II.B.

166. *See infra* Part I.B.3; *see also, e.g.*, Schipper et. al., *supra* note 27, at 2657.

167. *See infra* Parts I, II.A.3, II.B and notes 134-55 and accompanying text (regarding aspirational and rhetorical integration of justice values into climate adaptation strategies but lack of operational integration).

168. SARA C. BRONIN & DWIGHT H. MERRIAM, 1 RATHKOPF'S THE LAW OF ZONING AND PLANNING § 1:3 (Arden H. Rathkopf et al. eds., 4th ed. Nov. 2024 update).

169. *Id.*

170. Edward H. Ziegler, Jr., *Aesthetics and Land Use Regulations*, *in* BRONIN & MERRIAM, *supra* note 168, § 16.2.

may reside in a structure and prohibit or limit cohabitation by people who do not meet the codes' typically narrow definitions of family.[171]

This is so notwithstanding that as a matter of federal constitutional law, local governments have no inherent sovereign powers,[172] contrary to what the lived experience of most Americans would lead them to believe. Within the U.S. federalist system, all sovereign powers are reserved to the states and the people except the finite powers the federal constitution delegates to the federal government, such as the interstate commerce power and the spending power.[173] Principle among the states' reserved powers is the police power, which refers to the sovereign authority to enact and enforce laws for the "public health, safety, morals and welfare."[174] This police power includes the power to enact and enforce laws that regulate private land uses for the benefit of the community as a whole.[175]

Inherent in the state power to enact and enforce police power laws, and thus to regulate land uses, is the power to delegate that authority to sub-state units of government.[176] By the mid-twentieth century, all states had enacted zoning enabling

171. *See infra* notes 188-90 and accompanying text (discussing the use of narrow definitions of family and other exclusionary mechanisms of zoning to maintain racial and economic segregation). Zoning codes also regulate the location of vehicle charging stations; regulate how floodplains and other environmentally sensitive areas may be developed; provide for the protection of historic properties, trees, and resources like wetlands; and use various privileges to incentivize certain types of developments such as 55-years and older age restricted residential properties. This list of the subjects of zoning is far from exhaustive. *See generally* BRONIN & MERRIAM, *supra* note 168, chs. 1, 7, 8, 11, 19, 23, 78.

172. Hunter v. City of Pittsburgh, 207 U.S. 161, 178-79 (1907); Paul A. Diller, *The Political Process of Preemption*, 54 U. RICH. L. REV. 343, 361-64, 379-81 (2020) (analyzing democratic legitimacy of state exercise of "the awesome *Hunter* power . . . to deprive local governments of pre-existing powers" in the context of anti-majoritarian state gerrymandering).

173. U.S. CONST. AMEND. X ("The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people."); John R. Nolon, *Historical Overview of the American Land Use System: A Diagnostic Approach to Evaluating Governmental Land Use Control*, 23 PACE ENV'T L. REV. 821, 825 (2006) ("[The U.S. Constitution] created a federal government that has the power to legislate only within the parameters of the specific powers delegated to it in the Constitution. Notably, the full police powers of the states were not delegated to the federal government.").

174. Nolon, *supra* note 6, at 28.

175. *Id.*; *see also* Nebbia v. People of New York, 291 U.S. 502, 524 (1934) ("[T]he police powers of a State . . . are nothing more or less than the powers of government inherent in every sovereignty to the extent of its dominions."); Berman v. Parker, 348 U.S. 26, 32-33 (1954) ("Public safety, public health, morality, peace and quiet, law and order—these are some of the more conspicuous examples of the traditional application of the police power to municipal affairs. Yet they merely illustrate the scope of the power and do not delimit it . . . ."). *But see infra* Parts II.B and III (regarding land use law's failure to operationalize its communitarian rhetoric, for example, by consistently prioritizing protection of whiter, more affluent neighborhoods over the health and safety of neighborhoods where more People of Color and low-income people reside).

176. BRONIN & MERRIAM, *supra* note 168, § 1:9 (reporting that all 50 states delegate to local governments authority to regulate land uses through specific zoning enabling legislation). Many states also delegate authority to regulate land uses through broad delegations of the power to make and enforce laws for the public welfare, which are generally referred to as

legislation that delegated broad authority to regulate land uses to local governments,[177] and most states delegated authority over land uses to municipalities and some other sub-state units of government through both their zoning enabling acts and their home rule grants,[178] which at their most basic are state statutory or constitutional delegations of broad lawmaking authority to sub-state units of government.[179] Throughout the country, courts have interpreted zoning enabling acts and home rule delegations broadly, concluding that local governments have the authority to restrict private uses of land for the public health, safety, and welfare, which includes improvement of community safety, traffic patterns, and aesthetics, preservation of property values, and protection of intangibles like the "character of a neighborhood as a place for families."[180] Consequently, over the course of the twentieth century, nearly all municipalities, as well as many counties, acquired the power to regulate the broad uses and minuscule details of private land development.

Although land use laws significantly limit private landowners' development rights and, in some cases, even require the termination of existing economic uses, challenges to the validity of these laws as *ultra vires*—i.e., without authority—or in violation of constitutional substantive due process and equal protection guarantees usually fail. In addition to broadly interpreting the scope of local land use lawmaking authority, courts presume local land use laws are valid.[181] This presumption applies to legislative actions at all levels of government, operationalizing the principle of separation of powers, which, among other features, allocates lawmaking authority to the legislative branch.[182] Within the context of land use law, this framework requires

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grants of home rule authority. *Id. See also infra* notes 447-48 and accompanying text (discussing federal role in promoting local zoning through, among other things, promulgation and heavy-handed promotion of a model State Zoning Enabling Act in the early 1920s).

177. Except for Houston, every major city in the United States has a comprehensive zoning ordinance. Edwin Buitelaar, *Zoning, More Than Just a Tool: Explaining Houston's Regulatory Practice*, 17 EUR. PLAN. STUD. 1049, 1049 (2009).

178. Laurie Reynolds, *A Role for Local Government Law in Federal-State-Local Disputes*, 43 URB. LAW. 977, 996 (2011) (regarding state delegations of home rule authority); Lynn A. Baker & Daniel B. Rodriguez, *Constitutional Home Rule and Judicial Scrutiny*, 86 DENV. U.L. REV. 1337, 1339 nn.11-12 (2009) (identifying forty-six states with home rule).

179. In contrast to Dillon's rule, whereby grants of local lawmaking authority must be interpreted narrowly, home rule is a rule of construction whereby courts interpret grants of lawmaking authority broadly. Under home rule regimes, local governments thus have lawmaking powers beyond those expressly delegated by the state. Some home rule delegations also give local governments some immunity from state supersession of local law. *See* Paul A. Diller, *Reorienting Home Rule: Part 2-Remedying the Urban Disadvantage Through Federalism and Localism*, 77 LA. L. REV. 1045, 1064-65 (2017) ("'Home rule' is a protean concept used to describe many different governmental systems that embrace some form of local control . . . .").

180. *See infra* notes 376-82 and accompanying text (citing and discussing examples).

181. PATRICIA E. SALKIN, 1 AM. LAW OF ZONING § 2:22 (5th ed., Nov. 2024 update); *see also infra* note 183 and accompanying text (citing and discussing cases).

182. Mistretta v. United States, 488 U.S. 361, 380-384 (1989); *see also* Mayo v. Wisconsin Injured Patients & Fams. Comp. Fund, 383 Wis. 2d 1, 24, 914 N.W.2d 678, 689 (2018) ("Our presumption of constitutionality is based on respect for a co-equal branch of government

courts to presume that local legislatures enact land use laws to further the public welfare.[183] Generally, evidence that a land use law only minimally furthers the public welfare is not sufficient to overcome the presumption of validity.[184] State and federal courts alike tend to apply a "minimum rationality" or "fairly debatable" standard to challenges that land use laws exceed the scope of the local government's delegated police power authority or are otherwise arbitrary, unreasonable, or discriminatory.[185] As the Supreme Court explained in the context of a substantive due process challenge to a land use law, the law "will be upheld if any state of facts either known or which could be reasonably assumed affords support for it,"[186] even if the land use restriction at issue has "only a *de minimis* effect on public safety."[187] This is not to say that state or local land use laws are immune to challenges based on the limits of enabling legislation, the police power, or Fourteenth Amendment guarantees. For example, some states require more than "minimum rationality" to satisfy the requirement that a land use law bear a "real and substantial relationship" to the public welfare,[188] many require the law to reasonably further the purpose for its enactment,[189] and at least two state courts have invalidated regulations that reasonably related to a legitimate public purpose when the challengers presented clear evidence that the regulations had effects contrary to the public welfare that far outweighed their public benefits.[190] The Supreme Court also appeared to apply a more rigorous standard in *City of Cleburne v. Cleburne Living Center*[191] when it held that the city's denial of an application for a special use permit to develop a property in an "apartment house" district as a group home for people with intellectual disabilities violated the Equal Protection Clause because the district regulations that required a permit for group homes—but did not

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and its legislative acts.").

183. Village of Euclid, Ohio v. Ambler Realty Co., 272 U.S. 365, 388 (1926); *see also, e.g.*, Berman v. Parker, 348 U.S. 26, 32 (1954) (characterizing state legislature's judgment as "well-nigh conclusive"); Gorieb v. Fox, 274 U.S. 603, 608 (1927) ("State Legislatures and city councils, who deal with the situation [of the great increase and concentration of population in urban communities and the vast changes in the extent and complexity of the problems of modern city life] from a practical standpoint, are better qualified than the courts to determine the necessity, character, and degree of regulation which these new and perplexing conditions require; and their conclusions should not be disturbed by the courts, unless clearly arbitrary and unreasonable.").

184. Goldblatt v. Town of Hempstead, 369 U.S. 590, 595-96 (1962).

185. Edward Ziegler, Jr., *Constitutional and Legislative Limitations on Zoning*, *in* BRONIN & MERRIAM § 2, *supra* note 168 (citing and discussing state and federal cases); *see also, e.g.*, *supra* notes 196-97 (citing federal cases).

186. *Goldblatt*, 369 U.S. at 596 (citing and quoting United States v. Carolene Prods. Co., 304 U.S. 144, 154 (1938)).

187. *Id.* at 595-96.

188. Ziegler, Jr., *supra* note 185, § 2:3.

189. *Id.*

190. *Id.* (citing Home Builders League of South Jersey, Inc. v. Berlin Tp., 81 N.J. 127, 405 A.2d 381 (1979), and Weitling v. Du Page County, 26 Ill. 2d 196, 186 N.E.2d 291 (1962)).

191. City of Cleburne v. Cleburne Living Ctr., 473 U.S. 432 (1985).

require a permit for boarding houses, fraternities, hotels, hospitals, and nursing homes—did not substantially further an important governmental purpose, notwithstanding that the Court did not recognize people with intellectual disabilities as a suspect or quasi-suspect class.[192] These cases remain notable as outliers, however.

The same cannot be said for challenges based on claims that a land use law had the effect of taking all or part of a property's value without the payment of just compensation. Over the past forty years, federal regulatory takings doctrine has increasingly constrained the ability of local governments to regulate land uses in ways that diminish the economic value of some properties or impose conditions on land development applications that require developers to mitigate the public costs of their developments—even when the regulations and conditions substantially advance the public health, safety, or welfare.[193] Even so, until more recently, land use laws that had the effect of diminishing, but not eliminating, a property's economic value could usually withstand constitutional attack.[194] Within the past decade, however, the Court's regulatory takings jurisprudence has increasingly undercut the ability of local governments to exercise their land use authority. The Court has done this by expanding the scope of both *per se* regulatory takings[195] and unconstitutional land use exactions.[196] These expansions limit the scope of the *Penn Central* balancing test that had applied to the vast majority of alleged regulatory takings, a test that weighs heavily against the challenger when the regulation being challenged is a health or safety regulation.[197] By

192. *Id.* at 435, 447-48 (holding that district regulation requiring permit for group home was invalid as applied to Cleburne Living Center's application).

193. *See generally* JOHN MARTINEZ, 2 LOCAL GOVERNMENT LAW § 16:59 (Oct. 2024 update) (discussing Nollan v. California Coastal Comm'n, 483 U.S. 825 (1987), and concluding that "*Nollan* represents the beginning of serious curbs on local government land development regulation"); *see also id.* §§ 16:51, 16:61 (discussing the expansion of regulatory takings affected by *Nollan* and cases following *Nollan*).

194. *See, e.g.*, Palazzolo v. Rhode Island, 533 U.S. 606 (2001) (holding that a reduction in the development value of a property from approximately $3.2 million to $200,000 left more than a mere "token interest" in the property and therefore the *Penn Central* balancing test, and not the *Lucas per se* test, was applicable).

195. *See* Cedar Point Nursery v. Hassid, 594 U.S. 139 (2021) (holding that California regulation imposing a temporary easement on agricultural employer's property was a per se taking).

196. *See* Sheetz v. Cnty. of El Dorado, 601 U.S. 267, 279-80 (2024) (holding that legislatively imposed traffic impact fee was subject to test previously limited to adjudicatory land use exactions).

197. Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104, 124 (1978); *see also* Lingle v. Chevron U.S.A. Inc., 544 U.S. 528, 538-39 (2005) (summarizing the deferential balancing test, the two *per se* tests applicable to regulatory takings challenges, and the unconstitutional conditions test applicable to adjudicatory land use exactions). *Lingle* clarified that land uses laws are subject to the *Penn Central* test unless they fall within two narrow categories of *per se* regulatory takings, which apply when a law eliminates "*all* economically beneficial us[e]" of a property or when a law requires a landowner to allow a permanent physical occupation of part of their property. *Id.* (discussing and quoting Lucas v. South Carolina Coastal Council, 505 U.S. 1003, 1019 (1992) (emphasis in original) and discussing Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419 (1982), Nollan v. California Coastal

expanding the applicability of the unconstitutional conditions test from applying solely to the "special category" of *adjudicatory* land use exactions to at least some conditions on land development imposed by generally applicable legislation,[198] the Court also departed from the well-established rule that requires courts to defer to legislative determinations and places the burden of proof on the party challenging the constitutionality of enacted laws.[199]

As alluded to above, a state's sovereign authority to delegate some of its powers to local governments includes authority to modify or even rescind those delegations, at least as a matter of blackletter constitutional law.[200] States may also exercise their sovereign authority to limit their own power to preempt local law or may have that choice foisted on them by the people via referenda, but such limitations tend to be narrow in scope and relatively rare.[201] States have imposed both narrow limits on their preemption powers—for example, state constitutional bans on unfunded mandates[202]—and somewhat broader limits in the form of "imperio" home rule.[203] Unlike legislative home rule, which delegates broad lawmaking authority that can be overridden by superseding state law,[204] imperio home rule refers to delegations of home rule authority that include both the power to make laws and some degree of immunity from state preemption of those laws.[205] The states that include some immunity in their home rule delegations limit that immunity in several ways.[206] For example, states often provide immunity from special laws, which are laws that target one or a small number of local governments, but not from general laws, thereby retaining the power

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Comm'n, 483 U.S. 825 (1987), and Dolan v. City of Tigard, 512 U.S. 374 (1994)).

198. *See Sheetz*, 601 U.S. at 279-80 (holding that a legislatively imposed traffic impact fee is subject to the *Nollan* and *Dolan* tests).

199. Edward Ziegler, Jr., *Presumption of Validity Doctrine—Generally Explained*, *in* BRONIN & MERRIAM, *supra* note 168, § 5:2 ("Almost every case in which the validity of an ordinance is attacked contains language supporting the basic proposition that zoning ordinances are presumed to be constitutional and valid and enacted upon adequate information and under the influence of correct motives and to support the corollary propositions that: (1) the burden of proving the ordinance to be unreasonable, arbitrary, discriminatory, or confiscatory is upon the person attacking the ordinance; (2) where the question is fairly debatable, the ordinance will be upheld; and (3) the courts will not substitute their judgment for that of the legislative body unless the unreasonableness of the ordinance, in one of the senses mentioned above, is clear.").

200. Hunter v. City of Pittsburgh, 207 U.S. 161, 178-79 (1907); *see also* Edward J. Sullivan, *Will States Take Back Control of Housing from Local Governments?*, 43 ZONING & PLAN. L. REP., at 1 & n.6 (2020) (commenting on states' selective erosion of "previous complete delegation of land use powers to local governments").

201. Paul Diller, *Intrastate Preemption*, 87 B.U. L. REV. 1113, 1163-64 (2007).

202. *Id.*

203. *Id.* at 1125-26.

204. *See generally* Diller, *supra* 179, at 1064-77 (discussing these nuances and others); Kenneth Stahl, Home Rule and State Preemption of Local Land Use Control, 50 URB. LAW. 179, 185 (2020) (discussing *imperium in imperio* (state within a state) movement that gave rise to imperio home rule).

205. *Id.*

206. Diller, *supra* note 201, at 1125-26.

to preempt local laws through general legislation.[207] The few states that limit their power to preempt local laws through general legislation do so only for local laws that address matters of "local concern."[208] Thus, at least in theory, all local laws may be preempted in legislative home rule states, and local laws that address a mix of local and supra-local matters generally may be preempted by state law in all states, regardless of the scope of local home rule powers[209]—in stark contrast to the strong localism norms discussed above.[210]

This description of the relationship between local and state governments often belies reality, however, when it comes to the regulation of private land uses.[211] Although courts generally agree that local governments have no inherent sovereign authority,[212] state courts often treat local government authority over land uses as presumptively local, regardless of the text of the state's home rule grant. Some courts do this by interpreting potentially conflicting state and local laws narrowly to avoid finding that they are in conflict, thereby ducking imperio home rule immunity and preemption questions entirely.[213] Relatedly, some courts apply state preemption doctrine differently to conflicts between state and local land use laws than they do to other conflicts—for example, by rejecting field preemption, strictly limiting the application of conflict preemption, and applying presumptions against preemption of land use laws that manifest as a hesitancy to interpret state law as preempting local land use law even when the state law appears on its face to do so.[214] Courts have also relied on

207. *Id.* at 1126-27.

208. *Id.* at 1125.

209. *Id.*; *see, e.g.*, City of Northglenn v. Ibarra, 62 P.3d 151, 155 (Colo. 2003).

210. *See supra* Part II.A; *see also* David J. Barron, *Reclaiming Home Rule*, 116 HARV. L. REV. 2255, 2263 (2003) (lamenting that "[w]hat now passes for home rule . . . is not local legal autonomy," but "[r]ather, it is a mix of state law grants of, and limitations on, local power that powerfully influences the substantive ways in which cities and suburbs act").

211. Richard Briffault, *Our Localism: Part II—Localism and Legal Theory*, 90 COLUM. L. REV. 346, 346 (1990) ("under state legislation and federal and state judicial decisions local autonomy plays a critical role in the law of . . . land-use regulation," as well as the law of school finance and local government formation and preservation).

212. *See supra* notes 183-84 and accompanying text (discussing role of local governments in the U.S. federalist system).

213. Richard Briffault, *Our Localism: Part I-the Structure of Local Government Law*, 90 COLUM. L. REV. 1, 17 (1990).

214. *See, e.g.*, City of Riverside v. Inland Empire Patients Health & Wellness Center, 56 Cal. 4th 729, 737 (2013) (interpreting *imperio* home rule and reasoning that the principle of inherent local power constrains the state's ability to preempt local land use laws, even when the local laws frustrate a statewide legislative scheme set forth in the general laws of the state); Wallach v. Town of Dryden, 23 N.Y.3d 728, 754-55 (N.Y. 2014) (reasoning that state statute that "preempt[ed] local laws 'relating to the regulation of the oil, gas and solution mining industries,' did not preempt zoning laws that prohibited fracking because the legislature would say so clearly if it intended to preempt "one of the core powers of local governance"—i.e., "the preeminent power of a locality to regulate land use."); DJL Rest. Corp. v. City of New York, 749 N.E.2d 186, 191 (N.Y. 2001) (limiting state's ability to impliedly preempt land use laws through generally applicable statewide regulation of a field).

other provisions of state constitutions as a basis for upholding local land use laws in the face of potentially conflicting state laws.[215]

Several states have laws requiring local governments to consider climate and housing needs in their comprehensive plans, zoning amendments, and land use decisions.[216] And, as discussed further below, many Republican-controlled state legislatures have reacted to local efforts to address climate change, affordable housing, and environmental justice by passing laws preempting local authority over those issues.[217]

Generally, however, unless a land use law is preempted by state or federal law, affects an uncompensated taking, or is procedurally defective, it likely can withstand challenges to its validity or constitutionality. This durability contributes to the broad formal legal authority cities have over *where* and *how* land is developed—the two variables with the greatest potential to increase, or decrease, a community's resilience to climate hazards.[218]

2. Land Use Management and Place-Based Knowledge

Within cities and other sub-state governments with land use regulatory authority, land use laws strongly affect building-scale and community-scale resilience by governing many aspects of building construction and design as well as development patterns that have the potential to increase or decrease the resilience of individual structures, the people who live and work in the community, and the community's essential resources, including infrastructure and social and cultural cohesion.[219] Moreover, most communities already have land use regulatory tools that are capable of facilitating hazard area avoidance and managed retreat.[220]

These commonplace regulatory tools include amendment of zoning use districts—i.e., "rezoning"—to de-intensify the permissible land uses in hazard areas and natural areas that provide adaptation and mitigation co-benefits. Throughout the country, zoning enabling acts allow local legislative bodies to rezone areas as needed to

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215. Briffault, *supra* note 213, at 16-17 & n.56 (citing cases).

216. *See infra* notes 465 and 471 and accompanying text (discussing examples); *see also, e.g.*, Equitable and Inclusive Transit-Oriented Development Enhancement Act, 2023 Md. Laws Ch. 512 (H.B. 12) (2023) (establishing Transit-Oriented Development Capital Grant and Revolving Loan Fund "to promote the equitable and inclusive development of transit-oriented developments").

217. *See infra* Parts III.C and IV.B (discussing examples).

218. *See infra* Part II.A.

219. *See* Patricia E. Salkin, *Sustainability at the Edge: The Opportunity and Responsibility of Local Governments to Most Effectively Plan for Natural Disaster Mitigation*, 38 ENV'T L. REP. 10158, 10158-59, 10162, 10165-69 (2008) (discussing examples of land use regulations that can be employed to increase resilience of communities, structures, infrastructure and people) ; Casandra D. Vo, *Reinforcing Community Climate Resilience Through Social Cohesion: Opportunities for Local Governments in Southern California*, 43 UCLA J. ENV'T L. & POL'Y 117, 127, 134-35 (2025) (discussing integral relationship between land use law, community cohesion, and climate resilience).

220. *See infra* notes 344-51 and accompanying text (discussing empirical studies).

promote the public health, safety, and welfare,[221] which, as discussed above, is a legislative determination subject to a strong presumption of validity.[222] Rezoning such areas to limit permissible land uses to, for example, open space, recreation, or light commercial uses can result in the prohibition of new home development, hospitals, and other more vulnerable uses. When a developed area is rezoned, existing uses that were permissible before the rezoning but are no longer permitted by the code are classified as "nonconforming uses" and allowed to continue subject to strict limits.[223] Nonconforming use status (i.e., the ability to continue using land in a way that is prohibited by the current zoning code) generally ends if the nonconforming use is changed to another nonconforming use, expanded, substantially destroyed, or abandoned; some nonconforming uses are also required to end after a reasonable time.[224] Courts considering these limits on the continuation of non-conforming uses have held that they are constitutional and consistent with the general purpose of zoning to manage land uses for the public health, safety, and welfare.[225] Rather than providing an entitlement to continue nonconforming uses, "the public policy embodied in zoning laws 'dictates the firm regulation of nonconforming uses with a view to their eventual elimination."[226]

For example, to facilitate hazard area avoidance and gradual managed retreat, a city can rezone a particularly hazardous residential area, changing its use designation from residential to recreational, thereby limiting future development to recreational use and making existing residences in the rezoned area nonconforming. Under traditional zoning law, the nonconforming residential uses can continue (i.e., existing homes can continue to be used as dwellings), but they cannot be expanded or rebuilt if substantially destroyed, and if a nonconforming residential use is abandoned (i.e., people stop using the dwelling as a residence), it cannot be reinitiated.[227] Because the right to continue a nonconforming use is not personal, but rather adheres to the property, the owners of the nonconforming dwellings can sell or otherwise transfer their land to new owners who can continue the nonconforming residential use subject to the strict expansion, rebuilding, and abandonment conditions.[228]

Land use laws can also encourage hazard area avoidance and managed retreat through voluntary mechanisms like "transfer of development rights" (TDRs), which allow a landowner in one area (e.g., a hazard area) to transfer her development rights to a property in another area.[229] Although TDR programs on their own may not

221. SALKIN, *supra* note 181, §§ 8:22-23.

222. *Supra* notes 181-86 and accompanying text.

223. SALKIN, *supra* note 181, § 12:1.

224. *Id.* § 12:19-24.

225. *Id.* § 12:1 (citing cases).

226. *Id.* (citing and quoting Bastian v. City of Twin Falls, 104 Idaho 307, 658 P.2d 978 (Ct. App. 1983)).

227. *Id.* §§ 12:18-12:20, 12:22, 12:24.

228. *Id.* § 12:10.

229. *See* JESSICA GRANNIS, ADAPTATION TOOL KIT: SEA LEVEL RISE COASTAL LAND USE

significantly alter the trajectory of hazard area development,[230] TDRs can be combined with other land use tools, such as down-zoning, to allow affected property owners an opportunity to recoup more of their investment in their down-zoned properties.[231] Such an approach may also decrease the likelihood that newly enacted limits on the use of property will not affect a taking of private property without just compensation, as illustrated by *Penn Central Transportation Co. v. New York City*, which rejected a takings challenge to a landmark preservation law that combined restrictions of development rights with a TDR program that allowed affected property owners to transfer those rights to other properties.[232]

By dictating development patterns and land use intensity, land use laws also contribute to the magnitude of the hazard that those exposed to the hazard experience and the vulnerability of the exposed population.[233] For example, new and expanded development often increases the amount of impermeable land and the concentration of buildings and other hard surfaces while decreasing tree and other vegetative coverage and open space.[234] These landscape changes contribute to higher flood elevations, wider dispersal of floodwaters, and higher temperatures during heatwaves.[235] As discussed in more detail below, zoning codes typically preserve open space, tree coverage, and other amenities in whiter, more affluent neighborhoods and allow significantly more pavement and other impermeable surfaces in less affluent neighborhoods, contributing to significant disparities in the distribution of climate-related hazards.[236]

16-44, 57-59 (2011) (discussing TDRs and other regulatory strategies for managing retreat from hazardous areas); Brion Blackwelder, *Presidential Executive Orders Duel Over Floodplain Definition as S.E. Florida Prepares for Sea Level Rise*, 29 FORDHAM ENV'T L. REV. 156, 177 (2017) (providing examples of TDRs facilitating managed retreat from flood-prone areas in Florida); *see also* CARSON RIVER WATERSHED FLOODPLAIN MANAGEMENT PLAN, at 2-3, E-3 – E-4, E-12, E-27 (2018) (reporting on existing protection of open spaces and natural mitigation functions of floodplain including through TDR programs and conservation subdivision density bonuses, among other regulatory measures).

230. *See* Rick Pruetz & Noah Standridge, *What Makes Transfer of Development Rights Work?*, 75 J. AM. PLAN. ASS'N 75, 78 (2009).

231. *See, e.g.*, Penn Central Transp. Co. v. New York City, 438 U.S. 104, 113-15 (1978).

232. *Id.* at 113-15, 138.

233. Wing et al., *supra* note 25, at 157.

234. *See* Jeffrey Raven et al., *Urban Planning and Urban Design*, *in* CLIMATE CHANGE AND CITIES: SECOND ASSESSMENT REPORT OF THE URBAN CLIMATE CHANGE RESEARCH NETWORK 139, 145 (2018) (discussing "intense local climate impacts" in areas "where building density is greatest, streets are narrowest, and there is little vegetation" and concluding that "[i]n many of these areas, the population is highly vulnerable due to poverty or age").

235. Alice Kaswan, *Climate Change Adaptation and Land Use: Exploring the Federal Role*, 47 J. MARSHALL L. REV. 509, 513 (2013); *see also id.* at 517 (regarding the significant influence of "urban design elements and building codes" on "'urban heat island' effect"); Raven et al., *supra* note 234, at 146 (discussing effects of impervious surface cover on flood volume and intensity); OR. DEP'T LAND CONSERVATION, WATER QUALITY MODEL CODE AND GUIDEBOOK 4.44 (2000) (same).

236. *See infra* Part II.A.3 (discussing and citing literature on "resilience justice"); *supra* note 180 and accompanying text; *infra* Parts I.B.2. and II.A (regarding disparate harms, systemic burden shifting to Black, Indigenous and other historically marginalized communities,

These disparities can be the difference between life and death when, for example, neighborhoods where more People of Color live experience urban heat waves at temperatures 10°F to 25°F hotter than amenity rich areas.[237]

Land use laws have further increased the vulnerability of communities residing in amenity constrained areas through zoning laws and decisions that allow toxic and other undesirable land uses to be located near homes, businesses, schools, and parks,[238] to the extent the area has any parks or open spaces.[239] In these and other ways, land use laws put downward pressure on these areas' property values, often decreasing the property tax revenue they generate and thereby decreasing the funding available for the areas' public schools and providing a purported justification for local decisions to spend less public money on services and amenities in the areas.[240] The result is that land use laws frequently contribute to both hazard area occupancy and the increased vulnerability of some communities to hazards.[241]

Because climate disruption is rapidly exceeding the limits of current adaptation strategies, and the "[r]isks and projected adverse impacts and related losses and damages from climate change [are] escalat[ing] with every increment of global warming,"[242] the urgent need to fundamentally transform land use development regulations to center hazard avoidance and managed retreat exists in tandem with the urgent need to rapidly decrease climate disruptive emissions. To this end, land use laws that regulate the location and intensity of development can support adaptation and mitigation goals, or, in other words, provide essential mitigation "co-benefits."[243] For

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and resilience justice).

237. *See generally* Jeremy S. Hoffman et al., *The Effects of Historical Housing Policies on Resident Exposure to Intra-Urban Heat: A Study of 108 US Urban Areas*, 8 CLIMATE 12 (2020); Jackson Voelkel et al., *Assessing Vulnerability to Urban Heat: A Study of Disproportionate Heat Exposure and Access to Refuge by Socio-Demographic Status in Portland, Oregon*, 15 INT'L J. ENV'T RSCH. & PUB. HEALTH 640 (2018).

238. Andrew H. Whittemore, *Racial and Class Bias in Zoning: Rezonings Involving Heavy Commercial and Industrial Land Use in Durham (NC), 1945-2014*, 83 J. AM. PLAN. ASS'N 235, 235-38 (2017); *see also* Jade A. Craig, *"Pigs in the Parlor": The Legacy of Racial Zoning and the Challenge of Affirmatively Furthering Fair Housing in the South*, 40 MISS. COLL. L. REV. 5, 37-47 (2022) (discussing theoretical and empirical evidence that zoning is the primary cause of environmental racism).

239. Andrew H. Whittemore, *The Experience of Racial and Ethnic Minorities with Zoning in the United States*, 32 J. PLAN. LITERATURE 16, 20-24 (2017).

240. SHERYLL CASHIN, WHITE SPACE, BLACK HOOD: OPPORTUNITY HOARDING AND SEGREGATION IN THE AGE OF INEQUALITY 113, 118-26 (2022).

241. AR6 SYNTHESIS REPORT, *supra* note 62, at 17.

242. AR6 SUMMARY FOR POLICYMAKERS, *supra* note 91, at 14 (stating projection with "very high confidence"); *see also infra* Part I.A-B (regarding urgent need for climate adaptation and "mitigation," which refers primarily to the reduction of greenhouse gas emissions and preservation and rehabilitation of ecosystems that naturally sequester carbon dioxide).

243. AROMAR REVI ET AL., *Urban Areas*, *in* CLIMATE CHANGE 2014: IMPACTS, ADAPTATION, AND VULNERABILITY, CONTRIBUTION OF WORKING GROUP II TO THE FIFTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 535, 541 (Christopher B. Field et al. eds., 2014) [hereinafter *AR5 Urban Areas*]; *see generally* J. Rogelj et al., *Mitigation Pathways Compatible with 1.5°C in the Context of Sustainable Development*,

example, land use laws that require or provide sufficiently powerful incentives for landowners to protect and restore wetlands, dunes, mangroves, and other natural systems can increase a community's adaptive capacity by limiting the encroachment of structures and infrastructure into hazard areas and preserving natural areas that store floodwaters, thereby buffering communities from the impacts of natural hazards such as floods,[244] while also contributing to mitigation goals by preserving the natural area's capacity to absorb heat and sequester carbon.[245]

Land use laws that limit urban sprawl provide a potent example of a regulatory measure that has both adaptation and mitigation benefits. Limiting urban sprawl can promote adaptation, reduce greenhouse gas emissions, and preserve the capacity of natural areas to sequester carbon.[246] Examples of land use laws that limit urban sprawl and have adaptation and mitigation co-benefits include laws that condition urban growth boundary expansions on the utilization of buildable land within the existing boundary,[247] permit or require high-density development in areas with relatively lower hazard risks,[248] or provide incentives for infill development in lower-risk areas.[249]

But land use laws can just as easily undermine adaptation and mitigation goals. For example, land use laws can drive sprawling development patterns by imposing

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in GLOBAL WARMING OF 1.5°C: AN IPCC SPECIAL REPORT ON THE IMPACTS OF GLOBAL WARMING OF 1.5°C ABOVE PRE-INDUSTRIAL LEVELS AND RELATED GLOBAL GREENHOUSE GAS EMISSION PATHWAYS, IN THE CONTEXT OF STRENGTHENING THE GLOBAL RESPONSE TO THE THREAT OF CLIMATE CHANGE, SUSTAINABLE DEVELOPMENT, AND EFFORTS TO ERADICATE POVERTY 93 (V. Masson-Delmotte et al. eds., 2018).

244. *Benefits of Natural Floodplains*, FED. EMERGENCY MGMT. AGENCY, https://perma.cc/3YTH-MDCZ (archived Feb. 1, 2025) ("Except in narrow, steep valleys and areas of coastal bluffs, [natural] floodplains allow floodwaters to spread out and temporarily store excess water. This reduces flood peaks and velocities and the potential for erosion. One acre of floodplain flooded 1 foot deep holds approximately 330,000 gallons of water. Flood storage is particularly important in urban areas where even small floods, for example from a 5- or 10-year storm, can cause severe damage.").

245. Benjamin M. Sleeter et al., *Land Cover and Land-Use Change*, *in* II IMPACTS, RISKS, AND ADAPTATION IN THE UNITED STATES: FOURTH NATIONAL CLIMATE ASSESSMENT 193, 212 (David Reidmiller et al. eds., 2018); Anastasia Telesetsky, *Nature-based Solutions: Protecting and Building Coastal and Ocean Ecological Infrastructure*, 34 NAT. RES. & ENV'T 25, 25-28 (2020).

246. Sarah Adams-Schoen & Michelle Smith, *Land Use Law and Climate Change*, *in* OREGON'S SIXTH CLIMATE ASSESSMENT (Erica Fleishman ed., Or. Climate Change Rsch. Inst. 2023).

247. *See, e.g.*, OR. REV. STAT. § 197.626 (2024) (providing statutory framework for state oversight of local expansion).

248. Adams-Schoen & Smith, *supra* note 246, at 174; Shuaib Lwasa et al., *Urban Systems and Other Settlements*, *in* CLIMATE CHANGE 2022: MITIGATION OF CLIMATE CHANGE. CONTRIBUTION OF WORKING GROUP III TO THE SIXTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 861, 897-98 (P.R. Shukla et al., eds. 2022).

249. *See, e.g.*, NORFOLK, VA., ZONING ORDINANCE § 3.9.19 (2025), https://perma.cc/Z76X-T6DP ("upland resilience overlay" district encouraging conservation and reductions in maximum density of higher risk areas and development in upland areas with lower risk of flooding).

minimum lot size and maximum density requirements—such as typical residential zoning regulations that require each residential lot to be a minimum of ¼ acre (or more) and contain no more than one dwelling in which no more than one regulatorily defined family unit may reside.[250] Other less obvious examples include minimum yard sizes and off-street parking requirements, each of which tend to increase the amount of land needed for a home or other development.[251] Although a detailed analysis of the relative adaptive qualities of a specific land use regulation or set of regulations is beyond the scope of this article, regulations that increase the amount of land needed to house the population tend to contribute to sprawling development patterns that increase the distance residents typically travel by personal vehicle for work, school, and other activities; contribute to the loss of forests, grasslands, and other ecosystems that if left intact help sequester significant amounts of carbon; and facilitate population shifts into more hazardous areas, thereby increasing the vulnerability of human populations to climate-related hazards.[252]

Given the robust evidence that zoning and related land use laws that regulate the location and intensity of land uses are essential components of effective adaptation policies, the extent to which cities exercise—or fail to exercise—their broad legal authority to limit hazard area development dictates in large measure how long communities will be able to tolerate increasingly destructive climate hazards.

3. Resilience Justice and Place-Based Knowledge and Values

Local control over the climate maladaptation problem is an essential feature of climate adaptation strategies that center community resilience and principles of justice, a synergy that Tony Arnold and his colleagues at The University of Louisville refer to as "resilience justice."[253] The centering of resilience justice requires the

250. Adams-Schoen & Smith, *supra* note 246, at 174-75.

251. *Id.*

252. *See* Christopher Jones & Daniel M. Kammen, *Spatial Distribution of U.S. Household Carbon Footprints Reveals Suburbanization Undermines Greenhouse Gas Benefits of Urban Population Density*, 48 ENV'T SCI. & TECH. 895, 895, 897, 901 (2014) (finding a generally positive but complex relationship between urban sprawl and household carbon footprints (ECF)—i.e., suburbanization generally corresponds with higher ECF; the ECF calculation did not include the degradation of carbon sequestering lands resulting from sprawl); Brian Stone et al., *Urban Form and Extreme Heat Events: Are Sprawling Cities More Vulnerable to Climate Change than Compact Cities?*, 118 ENV'T HEALTH PERSPS. 1425, 1427 (2010) (finding positive relationship between urban sprawl in 53 metropolitan areas, regional rates of deforestation, and frequency of extreme urban heat events); Volker C. Radeloff et al., *Rapid Growth of the US Wildland-urban Interface Raises Wildfire Risk*, 115 PROCS. NAT'L ACAD. SCI. 3314, 3316-3317 (2018) (finding that between 1990 and 2010 the WUI area growth rate outpaced other changes in land cover in the conterminous U.S., that 43% of new houses were built in the WUI notwithstanding that the WUI accounts for less than 10% of the conterminous U.S., and new housing development was both "the dominant cause of WUI growth," accounting for 97% of the increase in WUI area, and "a major factor contributing to wildfire occurrence and cost").

253. *See generally* Craig Anthony (Tony) Arnold, *Resilience Justice and Community-*

process, substance, and assessment of climate resilience lawmaking to account for the unequal geographic distribution of vulnerabilities to climate hazards and negative externalities of land use and climate adaptation policies, and to incorporate the deep and relevant expertise of the people who have disproportionately borne these burdens.[254]

Climate adaptation science recognizes that resilience justice strategies have widely applicable adaptation and mitigation benefits that make them integral to adaptation planning and lawmaking. For example, the IPCC reported in AR5 that "[c]ooperation, and inclusive decision making, with Indigenous Peoples and local communities, as well as recognition of inherent rights of Indigenous Peoples, is integral to successful adaptation and mitigation across forests and other ecosystems."[255] Thus, land back programs that restore indigenous sovereignty over ancestral lands have contributed to climate change mitigation and adaptation, with—in the dehumanizing language of economics-based assessments—"economically positive returns," and "co-benefits for poverty reduction and improved livelihoods."[256]

Adaptation strategies that center justice are also more likely to increase the capacity of communities to maintain their core structures and functions as the climate continues to destabilize. For example, several factors impact the ability of a metropolitan area "to respond to, and bounce back from, and adapt positively to any negative shock"[257]—i.e., to increase its resilience threshold.[258] These factors include attributes that contribute to a community's capacity to collectively address challenges,[259] including a "strong attachment to place; social cohesion between groups; community

Based Green and Blue Infrastructure, 45 WM. & MARY ENV'T L. & POL'Y REV. 665, 670 (2021).

254. Arnold et al., *supra* note 2, at 215, 218-19; *see also* Sheila R. Foster, *The City as an Ecological Space: Social Capital and Urban Land Use*, 82 NOTRE DAME L. REV. 527, 529 (2006) (analyzing "exogenous" or external social costs from land use decision that are not accounted for in the regulatory scheme).

255. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2014: SYNTHESIS REPORT. CONTRIBUTION OF WORKING GROUPS I, II AND III TO THE FIFTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE 30 (R.K. Pachauri & L.A. Meyer eds., 2014) (reporting same with "high confidence") [hereinafter AR5].

256. *Id.* (reporting same with "high confidence").

257. ALLISON PLYER ET AL., DATA CTR., THE NEW ORLEANS INDEX AT TEN: MEASURING GREATER NEW ORLEANS' PROGRESS TOWARD PROSPERITY 7 (2015), https://perma.cc/E6BH-CXAX; *see also* David B. McWethy et al., *Rethinking Resilience to Wildfire*, 2 NATURE SUSTAINABILITY 797, 797 (2019) (critiquing use of the phrase "bounce back" as assuming rebuilding to vulnerable pre-disaster standards that are becoming more vulnerable as climate disruptions increase dramatically).

258. *See supra* notes 2 and 40 (discussing definition of climate "resilience").

259. Foster, *supra* note 254, at 530-32; *see also* AR5, *supra* note 255, at 29 (concluding with high confidence that "inclusive long-term planning that takes an integrated approach to physical, natural and social infrastructure" fosters policy changes "that offer benefits for mitigation, adaptation, human health and wellbeing, ecosystem services, and vulnerability reduction for low-income communities").

competence and problem-solving ability; strong leadership; and trust in government."[260]

While recognition of the interdependence of resilience and justice in climate science is relatively new, this understanding emerges from the histories and knowledge of Indigenous Peoples, People of Color, immigrants, people who are unhoused and housing-insecure, and others whose everyday experiences include persistent inequitable disruptions, resilience in the face of major disruptions, and the potential for imminent social, cultural, and ecological collapse.[261] The failure of status quo approaches to climate adaptation to meaningfully draw upon these experiences, and the expertise they give rise to partially explains the persistent maladaptive governance of land within U.S. communities.

Institutional norms that drive climate injustices factor heavily in governance structures that not only fail to decrease the climate resilience gap but are increasing it. For example, in the early- and mid-twentieth century, American zoning law's institutionalized preference for relatively large, restrictively regulated single-family dwellings was widely promoted specifically to exclude People of Color and recent immigrants from whiter neighborhoods and concentrate them in smaller, less desirable parts of town, or expel them entirely.[262] This form of zoning facilitated racial and economic segregation by using economics as a proxy for race, thereby avoiding the judicial scrutiny applied to expressly racial legal classifications.[263] As this history receded from mainstream public consciousness, the regulatory tools remained unchanged: most municipal residential land continues to be zoned for restrictively regulated (and thus more expensive) single-family housing and municipal codes continue to designate geographically smaller areas for multi-family and less restrictively regulated (and thus relatively more affordable) single-family housing.[264]

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260. Plyer et al., *supra* note 257, at 7-8 (also identifying strong infrastructure and a strong, diverse, and inclusive local economy, amongst other factors); *see also* Michael J. Coren et al., *Climate Coach: See if your city is poised to bounce back from the next climate disaster*, WASH. POST (Nov. 20, 2024, at 05:00 EST), https://wapo.st/3OkJysR (reporting on study that identified "social cohesion," as measured by the extent of income inequality and household debt, as one of four key factors in a city's climate resilience; the other three factors identified were "infrastructure, economic strength, [and] good governance").

261. Arnold et al., *supra* note 2, at 226-28 (discussing and citing research); *see also id.* at 229-61 (presenting case studies).

262. *See infra* notes 375-79 and accompanying text; *see also* Sarah J. Adams-Schoen, *The White Supremacist Structure of American Zoning Law*, 88 BROOK. L. REV. 1225, 1264-65 (2023) (regarding widespread promotion of single-family zoning by the Hoover Administration for the purpose of creating and maintaining whites-only neighborhoods).

263. Adams-Schoen, *supra* note 262, at 1270, 1302-1303.

264. *See* Emily Badger & Quoctrung Bui, *Cities Start to Question an American Ideal: A House With a Yard on Every Lot*, N.Y. TIMES (June 8, 2019), https://perma.cc/CW75-Y63Q (reporting that 75% of land un major US cities is restricted to single-family dwellings); Jonathon Rothwell & Douglas D. Massey, *The Effect of Density Zoning on Racial Segregation in U.S. Urban Areas*, 44 URB. AFF. REV. 779, 779-801 (2002) (reporting on study of density zoning, housing supply and prices, and economic mobility).

The racially oppressive effects of these regulations persist[265] and contribute to the maladaptation problem. For example, early American planners, developers, and government officials encouraged city sprawl to accommodate a more exclusionary, resource-intensive housing form that effectively segregated U.S. cities both economically and racially.[266] Because most American municipalities still mandate the low-density development that was the hallmark of this racially neutral yet race-based zoning, sprawl still characterizes the development pattern of large swaths of the country.

Until recently, the development of urban land in the United States has far outpaced population growth,[267] thereby significantly increasing the per capita consumption of land and other resources. The suburbs that emerge from this sprawl are often characterized by exclusionary land use restrictions, have a higher per capita carbon footprint than urban areas, and have historically been less likely to take action on climate change.[268] As noted above, sprawling development patterns also tend to increase the number of people and structures exposed to climate hazards like flooding and wildfire, increase transportation-related greenhouse gas emissions, and decrease the capacity of the land to sequester carbon.[269] Communities of color and low-income communities also bear disproportionate wildfire risks, which have increased dramatically as urban sprawl exposes more people, structures, infrastructure, and cultural assets to wildfire risk,[270] notwithstanding that sprawling development also exposes whiter, wealthier neighborhoods to extreme fire risk.[271]

Further compounding the injustice of the maladaptation problem, less restrictively regulated residential areas, where more People of Color and low-income people tend to live, also tend to have significantly higher risks of flooding and extreme

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265. Adams-Schoen, *supra* note 262, at 1264-67.

266. *Id.* at 1269-70.

267. EPA, URBANIZATION AND POPULATION CHANGE, REPORT ON THE ENVIRONMENT (2022), https://perma.cc/CHQ2-8X6V (reporting on land development at twice the rate of population growth in the four five-year intervals from 1982 to 2002, and 61% increase in developed land and 40% increase in population over 35 years from 1982 to 2017, not including Alaska or Washington D.C.); UNIV. MICH.: CTR. FOR SUSTAINABLE SYS., U.S. CITIES 1 (2024), https://perma.cc/8VJX-ZX65 (reporting that, "[b]etween 2000 and 2020, urban land area in the U.S. increased by 14%" and urban land area "is projected to more than double by 2060").

268. Hari M. Osofsky, *Suburban Climate Change Efforts: Possibilities for Small and Nimble Cities Participating in State, Regional, National, and International Networks*, 22 CORN. J.L. & PUB. POL'Y 395 (2012).

269. *See supra* notes 225-27 and accompanying text.

270. Ella Sandrine Parsons et al., *Climate Change and Inequality*, PEDIATRIC RSCH., at 1, 3 (July 29, 2024) ("People in low-income areas are at greatest risk for wildfires," which, among other things affect health and morbidity and have long-term adverse psychological effects); *id.* at 6 (noting "discriminatory effects of wildfires and $PM_{2.5}$ on human and pediatric health"); McWethy et al., *supra* note 257, at 779 ("trends in residential development are increasing human exposures to wildfire"); Radeloff et al., *supra* note 252, at 3316-3317 (documenting that the concentration of new housing in the WUI between 1990 and 2010 significantly increased the size of the WUI and wildfire frequency and damage).

271. *See* Li & Yu, *supra* note 21 (discussing various properties destroyed by the January 2025 wildfires).

heat.[272] One of the strategies of the avowedly white supremacist land use regimes of the nineteenth and twentieth centuries was to designate areas with heightened flood risk, including uninhabitable marshes and coastal lowlands thought to be unfarmable, as the only areas where People of Color could live—a strategy some refer to as "blue-lining."[273] These laws included the facially race-based zoning ordinances of the American West that targeted Chinese immigrants and U.S. citizens of Chinese descent and the Jim Crow zoning ordinances that proliferated in the southeastern United States before spreading northward and westward prior to the U.S. Supreme Court holding in *Wallace v. Buchanan* that Louisville's Jim Crow zoning violated the constitutional right to buy and sell property.[274] But *Buchanan* did not end blue-lining. In addition to cities simply ignoring the ruling, facially neutral land use laws that used economics as a proxy for race proliferated and continued to segregate cities by race and sequester People of Color to undesirable areas, including areas with a higher risk of flooding.[275] These laws remain in place in most U.S. municipalities.[276] As Wing and colleagues reported in 2022, pluvial (rainfall-driven) and fluvial (riverine) flood hazard events disproportionately impact poorer communities and will increasingly disproportionately affect Black communities as flood hazard risks increase precipitously over the next twenty-five years.[277] This sharp increase in risk will be driven primarily by current and future development of flood hazard areas.[278]

The effects of blue-lining continue to be compounded by, among other factors, systemic underinvestment in infrastructure—including flood mitigation

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272. Neil Debbage, *Multiscalar Spatial Analysis of Urban Flood Risk and Environmental Justice in the Charlanta Megaregion, USA*, 28 ANTHROPOCENE, at 1, 13 (2019) (finding Hispanic and Non-Hispanic Black people and people living below the federal poverty line were 42%, 31%, and 14%, respectively, more likely to live within the 500-year floodplain, and areas with the largest risk ratios, particularly by race, included historically marginalized neighborhoods and more locally undesirable land uses, mobile home parks, and apartments); Risto Conte Keivabu, Ugofilippo & Emilio Zagheni, *Racial Disparities in Deaths Related to Extreme Temperatures in the United States*, 7 ONE EARTH 1630, 1633 (2024) (finding "evidence of persisting inequities in heat-related deaths"); *see also generally* Brett F. Sanders et al., *Large and Inequitable Flood Risks in Los Angeles California*, 6 NATURE SUSTAINABILITY 47 (2023); Farshid Vahedifard et al., *Overrepresentation of Historically Underserved and Socially Vulnerable Communities Behind Levees in the United States*, 11 EARTH'S FUTURE, at 1 (2023); Laura Dwyer-Lindgren et al., *Ten Americas: A Systemic Analysis of Life Expectancy Disparities in the USA*, 404 THE LANCET 2299, 2301, 2308-11 (2024) (finding "[s]tark" and "truly alarming" differences in life expectancy, based on race, ethnicity and where one lives, widened over the last twenty years; reporting significant racial life expectancy gap in highly segregated metropolitan areas).

273. *Research Shows More People Living in Floodplains*, NASA: EARTH OBSERVATORY (Sept. 27, 2021), https://perma.cc/8UQ4-LH6K.

274. Adams-Schoen, *supra* note 262, at 1250-53.

275. *Id.* at 1232.

276. *Id.* at 1297-98.

277. Wing et al., *supra* note 25, at 158-159.

278. *Id.*

infrastructure—in areas where more People of Color live.[279] Simultaneously, exclusionary zoning laws contribute to the stability and upward trajectory of property values in zoning's "favored quarters,"[280] by prohibiting the siting of locally needed but undesirable land uses like manufacturing plants and landfills near these zones while permitting them in or near less restrictively zoned residential districts where more People of Color and low-income people live, areas that have come to be referred to as "sacrifice zones." Land use law and sustainable development scholar Jonathan Rosenbloom traces the use of the term in the mid-twentieth century as a reference to land that was degraded by—or sacrificed to—intense agricultural practices, recognizing the detrimental effects of certain land uses on "both the natural environment" and "adjacent communities," and in so doing recognizing that the law sacrifices some people to protect others.[281]

> These areas are often severely contaminated, and the term [sacrifice zones] highlights the significant health impacts experienced by the residents, who are typically people of color or members of lower socioeconomic groups. . . . The individuals in these sacrifice zones face severe health risks, including premature death. This understanding has led both the public and scholars to recognize that the most significant sacrifice is the people themselves.[282]

Zoning and other land use laws and policies also increase some residents' vulnerability to hazards by sacrificing the economic stability of some people to protect the economic stability of others. For example, these laws and policies maintain the exclusivity of more affluent areas through restrictive regulations that drive up the cost of housing and disproportionate investments in infrastructure and public amenities while clustering industrial and other land uses that are generally considered undesirable in denser, less affluent areas.[283] These and other attributes of sacrifice zoning put

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279. *See* Katherine Mach et al., *From Flood Control to Flood Adaptation*, *in* OXFORD RESEARCH ENCYCLOPEDIA OF ENVIRONMENTAL SCIENCES (2022) (publicly available unpaginated version available at https://perma.cc/4DNZ-EKF4) (regarding the concept of "blue-lining" and systemic nature of disparate flood resilience investment in more affluent communities); *see* Sheryll D. Cashin, *Localism, Self-Interest, and the Tyranny of the Favored Quarter: Addressing the Barriers to New Regionalism*, 88 GEO. L.J. 1985, 2004-09 (2000) (citing and discussing evidence that lower-density affluent suburban areas receive disproportionately larger shares of public infrastructure investment as compared to denser less affluent urban areas, including evidence that "there is a degree of cross-subsidization whereby the urban core—central cities and inner-ring suburbs—is helping to defray the costs of low-density development in the outer-ring suburbs").

280. Cashin, *supra* note 279, at 1987-88, 2003-15.

281. Jonathan Rosenbloom, *Sacrifice Zones*, 24 NEV. L.J. 891, 932 (2024).

282. *Id.* at 936.

283. Cashin, *supra* note 279, at 2003-16; *see also* Barry E. Hill, Emily Bergeron, *Climate Justice Litigation in the United States-A Primer*, 54 ENV'T L. REP. 10307, 10308 (2024) (reporting on "numerous independent studies" over 30 years "consistently [finding] that certain communities in the United States, including African American, Hispanic, Native American, Alaska Native, Native Hawaiian, and working-class White communities, face a

downward pressure on property values in the sacrifice zones, decreasing the property tax revenue they generate, thereby decreasing the funding available for essential public services, and providing a purported justification for decisions to spend less public money on infrastructure, services and amenities that would decrease vulnerability to disruptions, including disruptions from floods.[284] For example, areas with lower wealth and higher racial diversity receive fewer infrastructure grants supporting proactive flood risk reduction, disaster relief, opportunities to participate in buyback programs, and post-disaster rebuilding funds.[285] Many of these funds are allocated based on cost-benefit analyses or require significant cost-sharing, criteria that disproportionately benefit highly resourced communities or parts of communities with high property values.[286] Decreased investment in infrastructure puts additional downward pressure on property values, increasing residents' financial vulnerability and decreasing their ability to amass the capital and credit necessary to improve their properties or move to lower risk, higher opportunity, and higher amenity neighborhoods.[287]

Ultimately, land use laws and climate adaptation policies at all levels of government entrench these cascading and compounding outcomes when they allow and encourage denser development of lower cost housing in higher risk areas while also neglecting infrastructure and other essential amenities. Attempting to increase community resilience by focusing on how structures are built, without considering the systems that drive sprawl and the disparate allocation of vulnerabilities, creates a threat to the broader community's core systems and functions, increasing the unequal vulnerabilities of marginalized and oppressed people in the community.

Permissive laws that allow new development in hazard areas increase communities' vulnerability to hazards in multiple ways. With new and expanded residential developments in hazard areas, economic stability is threatened by the exposure of the most valuable asset for many families—their home—as well as irreplaceable personal items like family pets, heirlooms, photographs, documents, and the myriad other things people keep in their homes that, when lost, cause tremendous distress.[288]

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disproportionate burden of environmental harms and risks" attributable to zoning practices, among other factors).

284. Cashin, *supra* note 279, at 2009-16.

285. *See* Katherine Mach et al., *Managed Retreat Through Voluntary Buyouts of Floodprone Properties*, 5 SCI. ADVANCES, at 1 (2019) (finding that poorer, more rural areas have fewer government-funded buyouts than wealthier more densely-populated areas); *see also* A.R. Siders & Jesse M. Keenan, *Variables Shaping Coastal Adaptation Decisions to Armor, Nourish, and Retreat in North Carolina*, 183 OCEAN & COASTAL MGMT., at 1 (2020) (finding low home values, household incomes and population density and high racial diversity corresponded with more buyouts but less shoreline armoring and beach renourishment).

286. Lev E. Breydo, *Inequitable Infrastructure: An Empirical Assessment of Federalism, Climate Change & Environmental Racism*, 102 N.C. L. REV. 1035, 1070-72 (2024).

287. Cashin, *supra* note 279, at 2003-2015.

288. *See generally* Samanthika Ekanayake et al., *"We Lost All We Had in a Second": Coping With Grief and Loss After a Natural Disaster*, 12 WORLD PSYCH. 69 (2013).

Failure to adopt and enforce avoidance and managed retreat strategies also reduces the efficacy and equity of other adaptation strategies,[289] thereby narrowing the range of adaptation measures that can help communities stay within tolerable limits.[290] For example, residential development of hazard areas is frequently accompanied by the development of drinking and wastewater infrastructure, sewage treatment plants, hospitals, nursing homes, hospice facilities, daycares, schools, houses of worship, businesses, and other infrastructure and services essential to meeting the needs of the expanded population. Financial safety nets, such as insurance, Small Business Administration loans, and disaster assistance, do little to offset the enormous losses suffered when these assets are damaged or destroyed. Even the temporary loss of access to hospitals, grocery stores, and other essential services aggravates new and existing vulnerabilities.[291] Work and school absences result in the loss of wages, employment, and financial aid, as well as destabilizing educational disruptions.[292] Grief and social instability also accompany the disruption, often exacerbated by the simultaneous loss of personal and community networks that accompany unplanned temporary and permanent displacement, and substantial damage to or destruction of social and cultural gathering places, such as houses of worship.[293]

Ultimately, as the limits of current building-scale and large-scale accommodation and protection measures are exceeded, transformational adaptation is inevitably occurring—whether through the "deliberate" restructuring of systems in response to major disasters or the "forced" transformation that occurs when, for example, property values plumet or areas become unlivable.[294]

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289. Katherine J. Mach & A.R. Siders, *Reframing Strategic, Managed Retreat for Transformative Climate Adaptation*, 372 SCI. 1294, 1294 (2021).

290. AR6 SYNTHESIS REPORT, *supra* note 62, at 31; Mach & Siders, *supra* note 289, at 1295.

291. *See generally* Rotem Dvir et al., *Far From Home: Infrastructure, Access to Essential Services, and Risk Perceptions About Hazard Weather Events*, 80 INT'L J. DISASTER RISK REDUCTION, at 1-2, 7 (2022).

292. *See generally* Ariel R. Belasen & Solomon W. Polachek, *How Hurricanes Affect Wages and Employment in Local Labor Markets*, 98 AM. ECON. REV. 49 (2008); U.S. GOV'T ACCOUNTABILITY OFF., GAO-22-104606 SCHOOL DISTRICTS IN SOCIALLY VULNERABLE COMMUNITIES FACED HEIGHTENED CHALLENGES AFTER RECENT NATURAL DISASTERS (2022).

293. *See generally* Armin Zareiyan et al., *The Prevalence of Prolonged Grief Disorder (PGD) After Natural Disasters: A Systematic Review and Meta-analysis*, 7 PUBLIC HEALTH J., at 1-2 (May 2024).

294. Begum et al., *supra* note 64, at 125, 179; *see* NCA5, *supra* note 52, at app. 5, § A5.2 (defining transformational adaptation as "[a]daptation that changes the fundamental attributes of a social-ecological system, often involving persistent, novel, and significant changes to institutions, behaviors, values, and/or technology in anticipation of climate change and its impacts").

B. Persistent Underutilization of the Zoning Power to Adaptively Manage Land Uses

Since at least the 1950s, researchers have attempted to focus public and policymaker attention on the problem of maladaptive development in hazard areas.[295] I joined this chorus in 2014[296] and subsequently reported on substantial evidence that U.S. municipalities were not using their land use law authority to facilitate hazard area avoidance and managed retreat.[297] Land use law and federalism scholar Blake reached a similar conclusion in a 2019 paper that characterized maladaptive land development in the United States as a "wicked," or particularly intractable, environmental problem.

> A greater use of land development restrictions would help internalize development externalities by forcing a more efficient use of developed space so that forests, wetlands, species habitat, waterways, and other natural resources are impacted as little as possible. . . . Yet, such policies are underutilized even though they have been available to policy makers, and validated by the U.S. Supreme Court, for at least a century. . . .[298]

Climate adaptation research has improved since 2019, with considerably more empirical research focused on climate risk and shifting demographic patterns[299] and a small but growing body of empirical research examining the relationship between communities' land use regulations and the development of their flood hazard areas.[300] This research confirms that hazard area occupancy continues to grow at an alarming pace.[301] It also cautions against generalizations or simplistic narratives about local capacity to adopt and implement hazard avoidance strategies.[302]

By permitting new development of certain types of land uses, such as residential land uses in areas with heightened flood and fire risk,[303] local zoning codes are strongly implicated in the exposure of people and structures to the increasingly

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295. *See* Adams-Schoen, *supra* note 25 (manuscript at 27) (citing and discussing early examples); WONG ET AL., *supra* note 83, at 392 (citing and summarizing research).

296. *See* Adams-Schoen, *supra* note 24.

297. Adams-Schoen, *supra* note 3, at 202-03.

298. Blake Hudson, *Land Development: A Super-Wicked Environmental Problem*, 51 ARIZ. ST. L.J. 1124, 1131 (2019).

299. *See, e.g.*, Wing et al., *Estimates of Present and Future Flood Risk in the Conterminous United States*, 13 ENV'T RSCH. LETTERS, at 1 (2018); Paul D. Bates et al., *Combined Modeling of US Fluvial, Pluvial, and Coastal Flood Hazard Under Current and Future Climates*, 57 WATER RES. RSCH., at 1 (2021); Franz Schug et al., *The Global Wildland-Urban Interface*, 621 NATURE 94, 94 (2023); Shu Li et al., *Mapping the Wildland-Urban Interface in California Using Remote Sensing Data*, 12 NATURE PORTFOLIO, at 1, 7 (2022); *see* Adams-Schoen, *supra* note 25 (manuscript at 59-69) (discussing extensive body of research).

300. *See, e.g.*, Siders et al., *supra* note 76; Mach & Siders, *supra* note 289; Agopian et al., *supra* note 143, at 1.

301. *See supra* notes 205-20 and accompanying text.

302. *See supra* notes 221-24 and accompanying text.

303. PATRICIA E. SALKIN, 2 AM. LAW ZONING § 12:1 (5th ed. 2024).

destructive manifestations of climate change.[304] To illustrate, between 2020 and 2050, floodplain development is expected to nearly double the average annual exposure of the U.S. population to riverine and rainfall flood hazards.[305] This increased exposure is primarily responsible for the projected increase in annual riverine and rainfall flood costs from $32.1 billion to over $40 billion.[306]

Rapid development of wildfire hazard areas also continues to increase the population and assets exposed to increasingly frequent and ferocious wildfires, toxic smoke, and other related risks.[307] As noted above, the "wildland-urban interface" (WUI) is the geographic area where human development is adjacent to or interspersed with "wildland fuels" (i.e., flammable vegetation), or, as Franz Schug and colleagues evocatively describe it, the WUI is where "the most immediate human-environmental conflicts arise" and risks are concentrated, "including the loss of houses and lives to wildfire" and "habitat loss and fragmentation."[308] Most people who experience fire hazards live in the WUI.[309] Moreover, although lightning is a major wildfire ignition source, researchers estimate that humans cause approximately 85 percent of U.S. wildfires and fire ignitions increase as human development encroaches further into wildlands.[310] Wildfires ignited in or that spread to the WUI also tend to be more difficult to extinguish[311] and have significantly higher socio-economic costs than wildfires in wildlands uninhabited by humans,[312] notwithstanding that most wildfires occur in wildlands.

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304. Adams-Schoen, *supra* note 25 (manuscript at 13-14).

305. Wing et al., *supra* note 25, at 159 (projecting an increase of 97.3% between the early 2020s and 2050). I use "riverine" and "rainfall-driven" flooding to describe fluvial and pluvial flooding, respectively.

306. Wing et al., *supra* note 25, at 159. Wing and colleagues' projections do not include costs from coastal flood hazards such as storm surge flooding, increased erosion, hurricanes, and tsunamis, or costs from flood hazards in Hawaii, Alaska, Puerto Rico, or the U.S. territories.

307. *See generally* Marissa L. Childs et al., *Daily Local-Level Estimates of Ambient Wildfire Smoke PM2.5 for the Contiguous US*, 56 ENV'T SCI. & TECH. 13607 (2022); *supra* note 306 and accompanying text; *infra* notes 308-09 and accompanying text (discussing research examining the connection between WUI development and wildfire risks).

308. Schug et al., *supra* note 299, at 94.

309. *Id.* at 98.

310. *See* Li et al., *supra* note 299, at 7 (using remote sensing data model and determining that, in 2020, 86% of wildfires in California were ignited in the WUI); Jennifer K. Balch et al., *Human-Started Wildfires Expand the Fire Niche Across the United States*, 114 PROCEEDINGS NAT'L ACAD. SCI. 2946, 2948-2949 (2017) (analyzing approximately 1.5 million records of human- and lightning-started fires that required a government agency response in the U.S. from 1992 to 2012 and concluding that humans started 84% of the fires and human-started wildfires significantly expanded the geographic extent of wildfires, accounting for 60% of the land area burned, and tripled the length of the wildfire season).

311. NAT'L ACADS. SCIS., ENG'G & MED., THE CHEMISTRY OF FIRES AT THE WILDLAND-URBAN INTERFACE: CONSENSUS STUDY REPORT 19 (2022).

312. Geoffrey Colin L. Peterson et al., *Trends in Fire Danger and Population Exposure Along the Wildland-Urban Interface in the United States*, 55 ENV'T SCI. & TECH. 16257, 16258 (2021).

> [H]uman development in fire-prone regions, especially in the wildland-urban interface, where neighborhoods intermingle with forest and grassland vegetation, has introduced new, highly flammable fuels. Buildings, vehicles and infrastructure often ignite easily and burn hotter and faster than natural vegetation. . . .
>
> Human-ignited fires often occur in or near populated areas, where flammable structures and vegetation create even more hazardous conditions. As urban development expands into wildlands, the probability of human-started fires and the property potentially exposed to fire increase, creating a feedback loop of escalating wildfire risk.[313]

Yet, the WUI continues to grow—with the population of the Western WUI doubling between 1990 and 2010, and the population of the most hazardous areas of the Western WUI increasing 160 percent.[314] Recognizing these maladaptive demographic patterns, a group of fifteen wildfire researchers warned that "maintaining current patterns of development will increasingly be disastrous."[315] To better understand and respond to this escalating situation, in 2022, Shu Li and colleagues proposed a new method for measuring the rapid growth of the WUI using remote sensing data, in part because the update frequency of the existing WUI maps based on US Census data was "far behind its growth rate."[316]

The concentration of people, infrastructure, and economic assets in flood hazard areas also drives flood risk and the massive economic and non-economic costs of flooding. First Street Foundation, a non-profit organization specializing in flood risk assessment, estimated that average annualized economic losses from flood damage to properties in areas identified by FEMA as Special Flood Hazard Areas (SFHAs) will increase 67% between 2021 and 2051, pushing the costs from $20 billion annually to $34 billion annually.[317] FEMA's mapping of the 100-year floodplain, or SFHAs, significantly underestimates flood risk, however.[318] When the risk to properties in the

313. Virginia Iglesias, *Why wildfires started by humans, cars and power lines can be more destructive and harder to contain*, THE CONVERSATION (Nov. 10, 2024, at 11:28 EST), archived at https://perma.cc/XSG5-LYUL.

314. Krishna Rao et al., *The Fastest Population Growth in the West's Wildland-Urban Interface Is in Areas Most Vulnerable to Wildfires*, THE CONVERSATION (Feb. 7, 2022, at 11:07 ET), https://perma.cc/KM33-6VA6.

315. McWethy et al., *supra* note 257, at 2.

316. Li et al., *supra* note 299, at 2.

317. FIRST STREET FOUND., THE COST OF CLIMATE: AMERICA'S GROWING FLOOD RISK 8 (2021). This report predated FEMA's adoption and implementation of its new rate pricing structure Risk 2.0. *See generally* CONG. RSCH. SERV., *supra* note 139, at 2.

318. FIRST STREET FOUND., *supra* note 317, at 8 (defining properties that are at substantial risk of flooding as properties located within the 100-year floodplain and finding that approximately 1.7 times more properties are at substantial risk than designated by FEMA); Wing et al., *supra* note 299, at 2 (demonstrating that 40.8 million people resided in the contiguous U.S. 100-year fluvial and pluvial floodplain as compared to the 13.0 million indicated by FEMA flood maps).

100-year floodplain that SFHAs fail to account for is considered, First Street estimated that the losses would increase from $40 billion annually in 2021 to $66 billion annually by 2051.[319]

Recent modeling shows that a significant portion of the 40 million new homes and 60 billion square feet of commercial floorspace that are projected to be constructed in the United States between 2024 and 2050[320] will occur in areas that are already at risk of flooding and areas that will become at risk of flooding within the lifespan of the development.[321] Wing and colleagues estimated that 150,000 square kilometers (57,915 square miles) of land in fluvial and pluvial floodplains are currently developed, and this figure will increase by 37 to 72 percent by 2100.[322] This development trajectory is expected to double the $5.5 trillion value of assets located in those floodplains (as of 2010) and the proportion of the population exposed to 100-year fluvial or pluvial floods will increase from 13.3% in 2010 to between 15.6% to 15.8% in 2050.[323] These projections did not consider the coastal floodplain or increased exposure to flood hazards in Hawai'i, Alaska, the Commonwealth of Puerto Rico, or other U.S. territories,[324] and consequently underestimate total floodplain development.

Nearly 30 percent of the U.S. population lives in coastal counties that comprise less than 10 percent of the land area of the contiguous United States.[325] Coastal counties, which have five times the population density of non-coastal counties, also employ more than 50 million people and produce goods and services valued at $10 trillion annually.[326] Historically, the coastal population growth rate has far outpaced the national growth rate with coastal counties growing by 84 percent between 1960 and

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319. FIRST STREET FOUND., *supra* note 317, at 8 (higher figures represent losses from flood damage to properties in SFHAs and in parts of the 100-year floodplain that SFHAs fail to account for).

320. U.S. DEP'T OF ENERGY, DECARBONIZING THE U.S. ECONOMY BY 2050: A NATIONAL BLUEPRINT FOR THE BUILDINGS SECTOR 3 (2024), https://perma.cc/KLX2-NGWR.

321. Wing et al., *supra* note 25.

322. Wing et al., *supra* note 299, at 5. Wing and colleagues' model improved on FEMA and other modelling by "explicitly incorporating flood defenses, [and providing] higher vertical accuracy and finer horizontal resolution of terrain data; better representation of fluid physics; and coverage of all basin scales." *Id.* at 2 and supplementary section 2.1; *see generally* Oliver E. J. Wing et al., *Validation of a 30m Resolution Flood Hazard Model of the Contiguous United States*, 53 WATER RES. RSCH. 7968 (2017) (describing development and validation of model).

323. Wing et al., *supra* note 299, at 3. The model showed that, as of 2010, 40.8 million people (or 13.3% of the population) were exposed to 100-year fluvial or pluvial floods in the contiguous United States, "which translates to a GDP exposure of $2.9 trillion (15.3% of total GDP)." *Id.*

324. Wing et al., *supra* note 25, at 157.

325. Darryl Cohen, *About 60.2M Live in Areas Most Vulnerable to Hurricanes*, U.S. CENSUS BUREAU (Jul. 15, 2019), https://perma.cc/85NL-H365.

326. *Fast Facts: Economics and Demographics*, NAT'L OCEANIC & ATMOSPHERIC ADMIN. OFF. FOR COASTAL MGMT., https://perma.cc/MX43-DYQU (archived Feb. 10, 2025) (reporting statistics for 2020).

2008 compared to non-coastal population growth of 64.3 percent.[327] This trend shifted in recent decades, during which inland county population growth slightly outpaced coastal county population growth.[328] Even with this shift, significant coastal development is projected to occur along with investment in protective infrastructure, such as dams, levees, sea walls, and rip rap, otherwise known as "armoring" or "shoreline hardening."[329] As I recently reported,

> Absent policy reform, the United States is on track to harden nearly one-third of its continental coastline by 2100, doubling the proportion that was hardened as of the early 2010s. Within this period, sixty percent of the land on the Atlantic coast that is one meter or less above sea level is projected to be developed and hardened.[330]

This WUI and floodplain development modeling suggests that few local governments have land use limitations robust enough to significantly slow or halt encroachment into undeveloped hazard areas.

Nonetheless, evidence that growth is slowing in some hazard areas, including a shift in the coastal population growth rate, warrants a finer-grained analysis.[331] Among the body of literature that has begun to fill this gap, two recent studies (both published in 2024) provide analyses and data that resilience lawmaking researchers and others can use to systematically investigate relationships between state and local laws that directly or indirectly influence land development, floodplain development outcomes at the community scale, and geographic and socioeconomic characteristics of communities throughout the United States.[332]

A.R. Siders and colleagues' study of local limits on the development of undeveloped flood hazard areas in New Jersey revealed that between 2001 and 2019, non-floodplain residential development outpaced floodplain residential development in 85 percent of the 628 municipalities studied, and in 25 percent of the communities, no

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327. *Emergency Management Coastal Areas*, U.S. CENSUS BUREAU, https://perma.cc/TS9Y-74KJ (archived Feb. 10, 2025).

328. *Id.* (reporting coastal to non-coastal county growth rates from 1990 to 2000 of 12.4 and 13.5 percent, respectively, and from 2000 to 2008 of 6.5 and 8.7, respectively).

329. Gittman et al., *supra* note 81, at 301 (defining "shoreline hardening or armoring . . . as the construction or placement of vertical sea-walls or bulkheads, sloped riprap (eg rocks) revetments, groins, jetties, or breakwaters along a shoreline").

330. Adams-Schoen, *supra* note 25 (manuscript at 56) (citing Gittman et al., *supra* note 81, at 306) (observing that projected rate is "probably conservative").

331. *See infra* Part I.A.

332. *See* Siders et al., *supra* note 76; Agopian et al., *supra* note 143. Both studies defined the floodplain as synonymous with Special Flood Hazard Areas identified in FEMA's Digital Flood Insurance Rate Map (DFIRM). A.R. Siders et al., *How Local Governments Avoid Floodplain Development Through Consistent Implementation of Routine Municipal Ordinances, Plans, and Programs* [*Supplemental Materials*], 4 OXFORD OPEN CLIMATE CHANGE (2024) [hereinafter "Siders et al. *Supplemental Materials*"]; Agopian et al., *supra* note 143, at 3.

residential development occurred in the floodplain although redevelopment or rebuilding may have occurred.[333] Extrapolating from this and other data presented in the paper, the authors concluded that "New Jersey towns are developing their floodplains less than half as much as might be expected,"[334] assuming the distribution of new floodplain development if sited "at random or by chance alone" would be proportional to the amount of developable land inside the floodplain—or, in other words, assuming "a town with 10% of its developable land in the floodplain" would develop "10% of its new housing in the floodplain."[335] Although they did not identify the causes of the development patterns, they identified some patterns: correlations between the relative concentration of new development in a community's floodplain; indicators of local government capacity, such as more planning staff, financial resources, and technical expertise; and the quantity, type, quality, and extent of implementation of the community's development-related plans and laws, among other factors.[336]

Significantly, the New Jersey study found that key indicators of local government capacity "predict[ed] an increase in floodplain *management actions* but [were] a weak explainer, at best, for floodplain *development outcomes*.[337] Consistent with previous studies, they found that higher levels of capacity correlated with a larger quantity of floodplain management actions, such as the adoption of local plans (e.g., emergency management plans and transportation plans), regulations (e.g., floodplain overlay zones and post-disaster recovery ordinances), and programs (e.g., flood risk educational outreach and hazard disclosure programs).[338] Significant correlations did not exist, however, between floodplain avoidance outcomes and higher levels of capacity or larger quantities of development-related laws or programs, although the existence of more local plans did correlate with more residential floodplain avoidance but not

333. Siders et al., *supra* note 76, at 4. The study did not assess redevelopment or rebuilding.

334. *Id.* at 5.

335. Siders et al. *Supplemental Materials*, *supra* note 332, at 2; *see also id.* 1-2 (defining developable land as community's land area exclusive of open water, steep slopes, and non-locally managed protected areas such as military bases and national parks).

336. *Id.* at 2; *id.* at 6-12 (regarding quality and implementation indicators for four case study towns' plans and laws); *see also id.* at 11 (regarding correlations between development and "23 legal tools commonly used to affect development siting," including flood-related permitting requirements, easements, zoning, setbacks or buffers, density restrictions, targeted growth requirements, transferrable development rights, hazard overlay zones, tax incentives, infrastructure siting requirements, building codes, various types of property acquisitions, risk disclosure requirements, and restrictions on armoring and rebuilding).

337. *Id.* at 6 (emphasis added). Communities received capacity and management action scores based on the presence or absence of various elements categorized as "capacity" elements (i.e., "an element that affects government ability to act") and "action" elements (i.e., "a law, plan, program, or practice"). Siders et al. *Supplemental Materials*, *supra* note 332, at 2-3. Elements indicative of capacity included specialty personnel such as planners, hazards experts, and grant writers; technical supports such as early warning systems; and financial resources such as impact fees, taxing authority, and mutual aid agreements. *Id.*

338. Siders et al., *supra* note 76, at 6 (citing previous studies).

with non-residential floodplain avoidance.[339] Instead, many communities with fewer capacity indicators and fewer management actions had development patterns that suggested they were concentrating as much or more of their new residential development outside the floodplain as communities with more capacity indicators and management actions. The case studies also suggested that consistent implementation of a small number of high-quality and relatively common legal tools—such as open space acquisitions and zoning hazard areas for conservation, recreation, or commercial use but not residential use—can drive residential floodplain avoidance and may even do so in the absence of specialized personnel and other capacity enhancing resources.[340]

The study authors suggest that, although "the primary reason for rising [flood disaster] costs is the concentration of people, infrastructure, and economic activities in hazardous areas . . . that creates an expanding bullseye for disasters,"[341] (1) a relatively small percentage of New Jersey towns "are 'concentrating' their housing in the floodplain,"[342] (2) "some degree of avoidance is the norm (contrary to our expectation)," and (3) even under-resourced communities facing significant development pressure may be using traditional land use legal tools to shift new development away from flood hazard areas.[343]

In a subsequent study also focusing on communities' development outcomes in approximately 18.5 thousand communities throughout the United States, Armen Agopian and colleagues analyzed the proportion of development on developable land inside and outside the floodplain in 2001 and 2019.[344] Similar to the New Jersey study, the researchers analyzed correlations between a community's development pattern and various factors such as the community's population, population density, geography, owner occupancy, median household income, property values, participation in the NFIP's Community Rating System, and use of buyouts to acquire vulnerable properties.[345] The nationwide study found that while the "[e]xtensive floodplain development that has occurred over the past two decades" has "shap[ed] flood risk across the United States,"[346] floodplain development occurred "at a rate lower than would be expected by chance alone," except in coastal communities which concentrated proportionally more residential development in floodplains.[347] Thus, although 2.1 million acres of land (7.6 percent of new development) and 844,000 new

339. *Id.*

340. *Id.* at 7. Participation in the Community Rating System had a statistically significant correlation with *higher* rates of residential floodplain development. Building elevation requirements, better CRS scores, and improvement of CRS scores did not correlate to lower or higher rates of non-residential floodplain development. *Id.*

341. *Id.* at 2 (internal quotation marks omitted).

342. *Id.* at 14.

343. *Id.* at 14.

344. Agopian et al., *supra* note 143, at 1.

345. *Id.* at 10 (noting that study used the number of residential properties per acre as a proxy for density and the total number of residential properties as a proxy for population).

346. *Id.* at 8.

347. *Id.* at 14.

residential properties (5.4 percent of new housing) were developed in SFHAs from 2001 to 2019, 11 percent of developable land is in the floodplain,[348] suggesting to the study authors that "most communities throughout the United States are already limiting floodplain development to some extent . . . , although whether this is the direct result of proactive floodplain management" or the consequence of other factors "remains to be explored."[349]

Both studies contribute to—and persuasively illustrate the need for further development of—a resilience research agenda that evaluates local resilience capacity, lawmaking, and development outcomes across diverse contexts and challenges assumptions about hazard area governance and development trends. However, I caution against describing the studies' findings in terms that suggest hazard area avoidance or managed retreat have overtaken maladaptive development as the norm or are occurring to such an extent that the dangers and persistence of maladaptive floodplain development are overstated. As noted, the studies found that "[s]ubstantial development took place in floodplains across the US."[350] They also limited their analyses to the proportion of new development inside and outside SFHAs (which significantly underestimate the geographic scope of flood hazard areas[351]); utilized a baseline that assumes communities distribute development based on developable land area alone; and analyzed the difference between the proportional distribution of development as opposed to the quantity, rate, or vulnerability of that development.[352] Accordingly, Siders and colleagues note that a town with 10% of its land in the floodplain is not necessarily successfully avoiding flood hazards when anything less than 10% of its new development occurs in the floodplain,[353] and both research teams caution that further research is needed to ascertain whether the observed development patterns resulted from proactive hazard area avoidance or other factors.[354]

The persistence and enormous social, environmental, and economic costs of the maladaptation problem continue and are well documented. New flood hazard area development, for example, is on track to be the primary driver of flood-related costs over the next twenty-five years[355] and development patterns continue to increase exposure and vulnerability to fire, smoke, heatwaves, landslides, erosion, and other

348. *Id.* at 8.

349. *Id.*

350. Agopian et al., *supra* note 143, at 1; *see also* Siders et al., *supra* note 76, at 2.

351. Siders et al., *supra* note 76, at 2.

352. Agopian et al., *supra* note 143, at 1; *see also* Siders et al., *supra* note 76, at 2 (observing that in 2019 Florida's SFHAs contained 398,000 more residential structures than in 2001 and, in 2017, "over 75,000 acres of vacant floodplain land . . . were zoned for development" in North Carolina).

353. Siders et al., *supra* note 76, at 5.

354. Agopian et al., *supra* note 143, at 1; *see also* Siders et al., *supra* note 76, at 2.

355. *See supra* notes 320-30 and accompanying text; *see also* Siders et al., *supra* note 76, at 2 ("Floods are the most prevalent and expensive US disaster, and while climate change plays a role, the primary reason for rising costs is the concentration of people, infrastructure, and economic activities in hazardous areas . . . .).

climate change-related hazards,[356] with disproportionately higher costs for historically marginalized communities.[357] Reform of local, state, and federal law to support rapid, robust, and place-dependent transformation of hazard area land use management represents a pervasively underutilized opportunity to increase the climate resilience of U.S. communities. Without such reform, land use laws throughout the country continue to permit extensive new development of hazard areas that—whether or not proportional to the local geographic footprint of the hazard area and rate of development—drive the widening gap between the risks attributable to the climate emergency and the preparedness of communities.[358] Failure to exercise the authority to increase the resilience threshold poses an urgent and even existential problem: Knowing that land use law reform represents one of the few opportunities to decrease projected increases in the costs of climate disruption between 2025 and 2050 (and beyond), while providing mitigation co-benefits and potentially increasing resilience justice, how do we move hazard area avoidance and managed retreat strategies from the periphery to the center?

III. LAND LAW LOCALISM

Within land use law scholarship, critiques of local governmental capacity to solve persistent problems like climate maladaptation and the housing crisis have yet to grapple adequately with tensions between the constituent values of localism and the rhetorical and instrumental deployment of some of these values to rationalize persistent, unjust, and critical land use law governance failures.[359] Examination of two dominant strands of localism, "communitarian localism" and "proprietary localism," identified by Daniel Farbman in his work on local governance in the antebellum and Reconstruction periods, provides a helpful and as of yet unexamined frame for

356. *See supra* Parts I.A. and I.B.

357. *See supra* Part II.A.3.

358. SEAN KEVELIGHAN & SETH RACHLIN, CAPGEMINI, STEMMING A RISING TIDE: HOW INSURERS CAN CLOSE THE FLOOD PROTECTION GAP 3-4 (2022) (summarizing the literature, finding "main drivers of rising flood losses are related to economic growth and urbanization," and characterizing U.S. communities as "woefully unprepared" for current and future climate risks).

359. *See generally* Nolon, *supra* note 6, at 8-9 (identifying critique of "untethered local control of land uses" as focusing on "the limited geographical jurisdiction of municipal governments, their lack of technical capacity, inadequate financial resources, . . . resistance to mandates from state and federal agencies, . . . a 'race to the bottom' mentality, NIMBYism, inadequate information, and insufficient funding"). A large and growing body of civil rights, critical race theory, and critical legal geography scholarship documents and analyzes the long history of local governance and direct democracy as tools for racial and economic exclusion and oppression. *See, e.g.*, Derrick A. Bell, *The Referendum: Democracy's Barrier to Racial Equality*, 54 WASH. L. REV. 1, 1-7 (1978); Richard Thompson Ford, *Beyond Borders: A Partial Response to Richard Briffault*, 48 STAN. L. REV. 1173, 1183 (1996); Cashin, *supra* note 279, at 2016; *see also* Diller, *supra* note 172, at 382-83 (discussing "an entire literature" devoted to the shortcomings of direct democracy).

understanding the apparent paradox of land law localism and climate maladaptation.[360] Building on Dan Farbman's theory of Reconstruction Localism and mine and others' research on the racist structure of American zoning law,[361] this Part asserts that local government authority and discretion are at their zenith in the context of land use laws that protect proprietorial or exclusionary interests; in contrast, the "special solicitude for local control" often does not extend to, or is at least much more tenuous, when land use laws and decisions serve communitarian purposes that are in tension with proprietorial values. The result is that rather than increasing local capacity to regulate land uses adaptively, land law localism has the apparent paradoxical effect of inhibiting local governments' capacity to use their broad legal authority over land uses to increase climate resilience at the community scale.[362]

A. Land Law Localism's Constituent Values

Communitarian localism refers to preferences for local governance based on the perception that local governance promotes civic engagement, direct democracy, policy innovation, and pluralism.[363] Farbman situates the communitarian strand of localism within what he calls "the township experiment"[364] and radicalism, declaring: "Radicals were communitarian localists."[365] They envisioned the New England township of the early Republic as a space for disruption through community gathering and collective effort.[366] These values, to the extent they are reflected in the present-day structure and functioning of local governments, can facilitate community-driven protest and rebellion, including grassroots struggles for resilience justice.[367] Localism's communitarian values underlie characterizations of local governments as "participatory local democracies," venues for "govern[ing] well, instruct[ing] citizens in civic virtue, and heal[ing] racial, economic, and class divisions within a community."[368]

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360. *See generally* Farbman, *supra* note 5.

361. *See generally, e.g.*, Cashin, *supra* note 279.

362. *See infra* Part IV.

363. Nestor M. Davidson, *The Dilemma of Localism in an Era of Polarization*, 128 YALE L.J. 954, 975 n.78 (2019); *see also* Diller, *supra* note 201, at 1128 (identifying policy innovation and communitarian arguments in favor of home rule).

364. Farbman, *supra* note 5, at 419; *see also* 1 ALEXIS DE TOCQUEVILLE, DEMOCRACY IN AMERICA 74-76 (Harvey C. Mansfield & Delba Winthrop eds. & trans., Univ. Chi. Press. 2000) (1835) (characterizing New England township form of government as essential to the republic's success); *but see infra* note 433 and accompanying text (regarding Tocqueville and other elites of the early republic's concerns about vices of unchecked local governance).

365. Farbman, *supra* note 5, at 419.

366. *Id.*

367. *See supra* Part II.A.3 (regarding meaningful local participation and leadership as key components of effective adaptation and environmental and resilience justice).

368. Farbman, *supra* note 5, at 420.

These communitarian values form the aspirational and rhetorical heart of land law localism.[369] Many consider a participatory process that considers the needs and aspirations of the community—i.e., comprehensive planning—to be the "cornerstone" of local land use governance.[370] State zoning enabling legislation generally mirrors the Standard Zoning Enabling Act (SZEA),[371] and thus requires zoning to be "in accordance with" a comprehensive plan.[372] As such, at least in theory, comprehensive planning should form the basis for zoning and other local land use laws.[373]

The "in accordance with" requirement in the SZEA and state zoning enabling acts reflects the notion that planning increases the legitimacy and accountability of zoning by "serv[ing] as a benchmark for both ordinary citizens and courts in monitoring the municipal exercise of zoning powers."[374] State courts differ greatly, however, on what constitutes conformity with a comprehensive plan, with some holding that a comprehensive plan has no legal effect,[375] and others holding that the zoning map, zoning ordinance, and amendments to the map and ordinance are evidence of comprehensive planning, and thus zoning need only be "in accordance with itself."[376]

In its ideal form, the planning process both exemplifies and makes operable the communitarian vision of local governance, which envisions local governments as essential spaces for "unique educational benefits," "the creation of a sense of

369. And, conversely, land law localism "form[s] the heart of local autonomy since it is closely connected to core areas of personal autonomy and many people want the locus of decision making over these matters vested in the governments they feel are closest to the community." Richard Briffault, *Our Localism: Part II—Localism and Legal Theory*, 90 COLUM. L. REV. 346, 452 (1990).

370. Tamara Krawchenko & John Tomaney, *The Governance of Land Use: A Conceptual Framework*, 12 LAND, at 2 (2023) ("The term land use planning—which intentionally directs how land is used—is most commonly considered a cornerstone of land use governance.").

371. U.S. DEP'T COM., A STANDARD STATE ZONING ENABLING ACT § 3 (2d ed. 1926) [hereinafter SZEA].

372. *See generally* Charles M. Haar, *"In Accordance with a Comprehensive Plan,"* 68 HARV. L. REV. 1154 (1955); Daniel R. Mandelker, *The Role of the Comprehensive Plan in the Zoning Process*, 74 MICH. L. REV. 899 (1976).

373. *See* William M. Randle, *Professors, Reformers, Bureaucrats, and Cronies: The Players in* Euclid v. Ambler, *in* ZONING AND THE AMERICAN DREAM 44-45 (Charles M. Haar & Jerold S. Kayden eds., 1989) (observing that communitarian ideals of planning were ultimately ephemeral); Edward J. Sullivan & Matthew J. Michel, Ramapo *Plus Thirty: The Changing Role of the Plan in Land Use Regulation*, 35 URB. LAW. 75, 75-77 (2003) (critiquing American land use law for failing to make good on its purported commitment to planning, especially early in the history of zoning law); *but see id.* at 89 (describing the role of the comprehensive plan post *Ramapo*: "Generally, a master plan separate from a comprehensive zoning scheme provides a legal standard for land use actions which leads the court to apply a Planning Factor or Planning Mandate approach to land use actions.").

374. Edward J. Sullivan & Jennifer M. Bragar, *Recent Developments in Comprehensive Planning Law*, 49 URB. LAW. 521, 522 (2017).

375. Cochran v. Planning Bd. of City of Summit, 210 A.2d 99, 105 (N.J. Super. Ct. 1965).

376. Sullivan & Bragar, *supra* note 374, at 522.

community" and democratic accountability.[377] These themes are clearly echoed in descriptions of land use planning.

> Citizens enter a meeting room with the intent to take part in a local land use planning program, and bring with them a wealth of knowledge, a morality that establishes some value for nature and a relationship with their neighbors and the landscape.
>
> . . . "[P]eople bring to [this] enterprise as everyday knowledge—their intimate familiarity with their environment, their knowledge of one another as members of a community, and their critical consciousness that their lives can change for better—and [participation in the planning process] transforms that knowledge into a more organized form, turning common sense into good sense."[378]

Thus, the thinking goes, by grounding land use planning in local participatory processes, the plans and related laws are more democratically legitimate, better reflect the diverse perspectives of the community, respond more effectively to local conditions, needs, and values, and, as a practical matter, are more likely to be implemented.[379]

Many have also attributed the emergence and proliferation of zoning law in the United States to communitarian impulses to improve the livability of communities as a whole,[380] and the historical record confirms that some early proponents of zoning advocated for the separation of residential land uses from noxious industrial uses as a means to improve the living conditions of the urban poor.[381] These and other proponents of zoning sought to make cities and urban neighborhoods safer and healthier by decreasing traffic congestion and increasing amenities like open spaces and access to

377. Diller, *supra* note 201, at 1128 (describing arguments in favor of home rule).

378. Ann Hope Ruzow Holland, *If All Planning Is Local, How Are We Going to Save Tomorrow? Ten Pragmatic Lessons from the Field*, 12 J. ENV'T STUD. & SCIS. 177, 188 (2022) (footnotes omitted).

379. *Id.* Note that Holland's descriptions of participatory planning are within the context of a critique of traditional land use planning and lawmaking. *Id.* at 183-85.

380. Charles M. Haar & Michael Allan Wolf, *Planning and Law: Shaping the Legal Environment of Land Development and Preservation*, 40 ENV'T L. REV. 10419, 10420-21 (2010).

381. Yale Rabin, *Expulsive Zoning: The Inequitable Legacy of* Euclid, *in* ZONING AND THE AMERICAN DREAM 101, 103-05 (Charles M. Haar & Jerold S. Kayden eds., 1989).

sunlight.[382] Planning and zoning for these purposes was equated with morality and patriotism.[383]

The communitarian values of land law localism and localism generally exist in tension, however, with a more proprietary strand of localism focused on the preservation of social and economic status, private property rights, and political power.[384] Farbman traces the proprietary strand of localism and tensions between communitarian and proprietary localism to the foundational role of race-based chattel slavery in the development of the American economy and the amassing of white wealth and power.[385] In the Antebellum period, proprietorial interests were furthered by county governments having sufficient authority to protect plantation owners' essentially unfettered control over their property, including their human property. For the vast majority of the Black population, the plantations themselves were the primary unit of government.[386] As the former slave states, their local governments, and white residents grappled with Reconstruction, localism norms shifted to embrace a broadening of local government power needed to maintain racial hierarches, what Farbman refers to as "Jim Crow Localism."[387]

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382. William M. Randle, *Professors, Reformers, Bureaucrats, and Cronies: The Players in* Euclid v. Ambler, *in* ZONING AND THE AMERICAN DREAM 44-45 (Charles M. Haar & Jerold S. Kayden eds., 1989) ("[T]he concept of an efficient social organization based on an ideal of service was the source of the city planning movement. . . . The original agenda of the planning conferences [was] . . . to solve the problems of urban congestion and improve living conditions in cities . . . ."); *see also* SZEA, *supra* note 371, § 3 (providing that legitimate purposes of zoning include lessening street congestion, providing adequate light and air, preventing overcrowding, and ensuring adequate provision of public infrastructure like streets and sewers).

383. *See* Robert H. Nelson, *Zoning Myth and Practice*, *in* ZONING AND THE AMERICAN DREAM 302 (Charles M. Haar & Jerold S. Kayden eds., 1989) (asserting that "it becomes immoral to let poverty, ignorance, pestilence, the war continue if they can be obliterated by a plan") (quoting DWIGHT WALDO, THE ADMINISTRATIVE STATE 69 (2d ed. Holmes & Meier 1984).

384. *See* Farbman, supra note 5, at 419 (discussing conflict between "communitarian localists" who envision local government as a vehicle for community gatherings, collective efforts, and radical direct democracy, and "proprietary localists," who see local governments as a tool for the protection of private property); Briffault, *supra* note 369, at 393-403 (discussing participatory localism versus economic localism); Ford, *supra* note 338, at 1175 (discussing conceptions of local government as a "community of like minds," an administrative subdivision of the state, and a "marketable commodity").

385. *See generally* Farbman, *supra* note 5; *see also* Parts III.B-C (regarding instrumentalism of preferences for local control).

386. Farbman, *supra* note 5, at 426-28.

387. *Id.* at 479. *See* Adams-Schoen, *supra* note 262, at 1231 n.42 ("[T]he term 'Jim Crow' . . . refer[s] to laws enacted and applied to perpetuate racial caste through segregation, including facially race-based laws generally associated with southern resistance to Reconstruction and facially race-neutral, but nevertheless race-based, laws adopted throughout the nation to prevent or slow racial integration," including facially neutral zoning laws.); *see also* Katie R. Eyer, *The New Jim Crow Is the Old Jim Crow*, 128 YALE L.J. 1002, 1032 (2019) (book review) (noting that explicitly race-based laws represented a fraction of the laws enforcing racial segregation).

Early American zoning law strictly limited where formerly enslaved Black people could live as they moved from the rural South to the urban South and eventually further East and West. The development of these early zoning laws was fueled by Jim Crow Localism. Before this, counties of the American West used facially neutral and expressly race-based zoning ordinances to forcibly displace Chinese Americans and Chinese nationals, sequestering them to undesirable parts of the county, such as areas prone to flooding, or prohibiting them from residing in the county altogether.[388] Nor were these exclusionary and proprietorial tactics new: The very genesis of the nation depended on the brutal political economy of settler colonialism to transfer property rights, and thereby sovereignty, to the colonies, nation, and its white settlers through the forcible displacement and genocide of Indigenous Americans.[389] To this day, U.S. law does not respect the sovereign right of Indigenous People to comprehensively plan and zone their reservation lands.[390]

Local land law systems continue this legacy of dominion and exclusion.[391] I and others have extensively documented the pervasive use of local land use laws to exclude low-income people and People of Color from whiter, more affluent neighborhoods and protect and enhance property values in these neighborhoods by, among other measures, strictly limiting their population density, prohibiting industrial land uses and other land uses deemed incompatible with residential areas, and clustering amenities like parks, street trees, and bicycle and jogging paths in these neighborhoods.[392] Municipalities continue to reap the benefits of industrial uses, airports,

388. Adams-Schoen, *supra* note 262, at 1235-42.

389. Bethany R. Berger, *Race to Property: Racial Distortions of Property Law, 1634 to Today*, 64 ARIZ. L. REV. 619, 621 (2022) (tracing race-based restructuring of private property rights and related development of property law in the United States to pre- and post-colonial to "efforts to acquire Indigenous land and enslaved people"); *see also* Kaitlin Reed, *We Are a Part of the Land and the Land Is Us: Settler Colonialism, Genocide & Healing in California*, 42 HUMBOLDT J. SOC. RELATIONS 27, 36-38 (2020) (discussing political economy of settler colonialism and identifying past and present genocide of Indigenous peoples of California).

390. *See generally* Michelle Bryan, *A Most Essential Power: The Case for Restoring Comprehensive Land Use Authority in Indian Country*, 48 PUB. LAND & RES. L. REV. 46 (2025).

391. CASHIN, *supra* note 240, at 5; *see generally* RICHARD ROTHSTEIN, THE COLOR OF LAW: A FORGOTTEN HISTORY OF HOW OUR GOVERNMENT SEGREGATED AMERICA (2017).

392. *See, e.g.*, Adams-Schoen, *supra* note 262, at 1297-1303 (citing and discussing empirical research); Anika Singh Lemar, *Overparticipation: Designing Effective Land Use Public Processes*, 90 FORDHAM L. REV. 1083, 1086-87 (2021) (regarding local control, community participation, and persistent injustices); Sonia Hirt, *Home, Sweet Home American Residential Zoning in Comparative Perspective*, 33 J. PLAN. EDUC. & RSCH. 296, 298-99 (2013) (reviewing early zoning documents' rationale for excluding multifamily structures from single-family districts); Jessica Trounstine, *The Geography of Inequality: How Land Use Regulation Produces Segregation*, 114 AM. POL. SCI. REV. 443, 444 (2020); RICHARD H. SANDER ET AL., MOVING TOWARD INTEGRATION: THE PAST AND FUTURE OF FAIR HOUSING 1-4, 8-9 (2020); Lord & Norquist, *supra* note 30, at 558 & n.47 (2010) (citing dozens of studies); Jonathan Rothwell & Douglas S. Massey, *The Effect of Density Zoning on Racial Segregation in U.S. Urban Areas*, 44 URB. AFFS. REV. 779, 800-01 (2009); Rolf Pendall, *Local Land Use Regulation and the Chain of Exclusion*, 66 J. AM. PLAN. ASS'N 125, 139-40 (2000) (reporting on

municipal treatment plants, landfills, and other "locally undesirable land uses"[393] either through affluent municipalities' proximity to resource-constrained municipalities where these uses are permitted[394] or by zoning for these uses in and near areas with higher concentrations of low-income people and People of Color.[395] This widespread practice results in economically and racially disparate allocation of air and water pollutants and exposure and vulnerability to climate hazards.[396]

Since comprehensive zoning's inception in the United States, local zoning laws have also furthered proprietary values while undermining communitarian values by using less restrictively zoned residential districts where families live in smaller homes, duplexes, and apartments as buffers between more restrictively zoned affluent, whiter neighborhoods and land uses that the locality deems incompatible with residential neighborhoods[397]—as if less affluent, more racially diverse neighborhoods are not also residential. This was a key feature of the zoning ordinance at issue in the seminal U.S. Supreme Court case that validated the use of zoning to significantly constrain private uses of land, *Village of Euclid v. Ambler Realty*.[398] The use of apartment zones as buffers between lower-density residential zones and industrial uses is apparent on the face of the Village's zoning map.[399] The Village's zoning ordinance and map closely resembled and, as I have previously argued, were likely modeled on the zoning

empirical study showing that certain types of zoning have exclusionary effects on Black people and other racial minorities, funneling these communities into high density, urban neighborhoods).

393. Craig Anthony (Tony) Arnold, *Planning Milagros: Environmental Justice and Land Use Regulation*, 76 DENV. U.L. REV. 1, 15 n.42 (1998) (defining and discussing "locally undesirable land uses").

394. Sheryll D. Cashin, *Middle-Class Black Suburbs and the State of Integration: A Post-Integrationist Vision for Metropolitan Americ*a, 86 CORN. L. REV. 729, 769 (2001).

395. *See supra* Part II.A.3 (citing research).

396. *See id.*; *see, e.g.*, D.R. Wernette & L.A. Nieves, *Breathing Polluted Air*, 18 EPA J. 16, 16-17 (1992) (reporting that the location of landfills, incinerators, power plants, and toxic waste is highly correlated with the geographic distribution of minorities); *see generally* Sheila R. Foster, *Vulnerability, Equality and Environmental Justice: The Potential and Limits of Law*, *in* THE ROUTLEDGE HANDBOOK OF ENVIRONMENTAL JUSTICE 136 (2017); *see also infra* Part I.B.2 (discussing related problems of structural racism, environmental justice, and resilience justice).

397. Adams-Schoen, *supra* note 262, at 1268-69, 1279-81 (tracing the use of apartment districts as buffers to protect higher income, whiter neighborhoods from land uses deemed incompatible with residential neighborhoods to Berkley, California's 1920 amendment to its zoning ordinance and to the Village of Euclid's 1922 zoning ordinance); *see also* Arnold, supra note 376, at 119 (finding that "[t]he most frequent type of buffer between single-family residential areas and industrial or commercial areas is medium- or high-density residential [areas]" and concluding that this use of buffer zones is "perhaps one of the major reasons why low-income and minority neighborhoods have so much industrial and commercial zoning" because "the multifamily housing, where many low-income and minority people live, is purposefully placed near the industrial and commercial uses to create a buffer that protects high-income, white, single-family neighborhoods").

398. 272 U.S. 365 (1926).

399. Adams-Schoen, *supra* note 262, at 1280 fig. 2 (highlighting the buffer zones on Village's zoning map).

codes and maps of other Cleveland suburbs that were crafted by the highly influential planning consultant, advocate for zoning, and outspoken white supremacist Robert H. Whitten.[400]

> As World War I wound down and formerly enslaved people began migrating to Cleveland, the city and its surrounding suburbs experienced a housing shortage, pressure from apartment developers, and increased efforts by white segregationists to prevent Black people from moving into white neighborhoods. Several Cleveland suburbs hired Whitten to draft their zoning ordinances. Whitten, who was working for the City of Cleveland as a city planning consultant, was nationally regarded as a zoning expert [and] . . . an advocate for the use of zoning as a means to racially segregate neighborhoods. . . . *Whitten characterized Black families living in white neighborhoods as "inappropriate [land] uses" that threaten the value of neighborhoods* . . . .
>
> Whitten's plans did not expressly divide Cleveland, its suburbs, or other northern cities by race. Rather, he incorporated the approach [of other facially race-neutral but intentionally segregationist zoning codes] . . . of establishing separate residential districts for single-family and multifamily residences. He overlayed on these use districts various bulk and area district regulations that restricted, among other things, minimum lot size, the percentage of a lot that could be occupied by its primary structure, the number of families per acre, and building height[, thereby incorporating attributes of New York City's 1916 zoning ordinance]. . . . The combined effect, as applied to his planning maps of Cleveland, East Cleveland, Lakewood, and Cleveland Heights—among other cities—. . . limit[ed] the vast majority of residential land to single-family homes or, in some cases, single family homes and duplexes, and allow[ed] residences with three or more units in small, often undesirable locations only. . . . Whitten also used multifamily and residential districts with less restrictive bulk and area regulations as buffers between single family neighborhoods and undesirable areas.[401]

Whitten and other prominent architects of American zoning law invoked a combination of communitarian, proprietary and exclusionary values to justify zoning, describing local governments' restrictive regulation of private land uses as necessary to "preserve" and "protect" "high-class" residential areas, "the morale of the neighborhood," "civic pride," and "economic interest[s]," while preventing economic

400. *Id.* at 1276-82 (citing and discussing historical evidence challenging the prevailing notion that Euclid essentially "superimposed" New York City's zoning regulations onto its new code); Randle, *supra* note 373, at 39, 42-43 (describing Whitten's career and influence). James Metzenbaum, who is credited with drafting the Village's ordinance and who defended the Village in the ensuing litigation, considered Whitten "a significant influence on his . . . career in Ohio." *Id.* at 38; *see also id.* at 42 (quoting contemporary source describing Whitten as "perhaps the most influential zoning advisor in the United States"); Adams-Schoen, *supra* note 262, at 1277-78 ("Today, Whitten may be best known for Atlanta's 1922 plan and zoning ordinance, which, notwithstanding [the Supreme Court's invalidation of an expressly race-based zoning ordinance in] *Buchanan v. Warley*, designated segregated residential areas as 'R1 or white,' 'R2 or [Black],' and 'R3 or undetermined race.'"); CITY OF ATLANTA PLAN. COMM'N, THE ATLANTA ZONE PLAN 10 (1922), https://perma.cc/FU3X-MW65.

401. Adams-Schoen, *supra* note 262, at 1277-79 (footnotes omitted) (emphasis added).

"inefficiency and waste," "social and civic loss," and "degeneracy,"[402] and ultimately to "not simply" create wealth but to "perpetuat[e] and develop[] a breed of men and women strong physicially, mentally and spiritually."[403] In so doing, zoning would "mean[] better homes and an increase of health, comfort and happiness for all the people."[404] The *Euclid* decision echoed these communitarian characterizations of zoning while simultaneously drawing heavily on racist tropes that painted densely populated urban areas and the people who lived there as existential threats to the American family[405]:

> [In a section of private homes,] very often the apartment house is a mere parasite, constructed in order to take advantage of the open spaces and attractive surroundings created by the residential character of the district. Moreover, the coming of one apartment house is followed by others, interfering by their height and bulk with the free circulation of air and monopolizing the rays of the sun which otherwise would fall upon the smaller homes, and bringing, as their necessary accompaniments, the disturbing noises incident to increased traffic and business, and the occupation, by means of moving and parked automobiles, of larger portions of the streets, thus detracting from their safety and depriving children of the privilege of quiet and open spaces for play, enjoyed by those in more favored localities—until, finally, the residential character of the neighborhood and its desirability as a place of detached residences are utterly destroyed.[406]

The Court's references to apartments as a "threat" and a "mere parasite" that could "destroy" neighborhoods of single-family homes, and deprive children of safety, quiet, and space to play echoed Whitten's expressly race-based Atlanta Zone Plan.[407] It also clearly communicated the Court's disregard for the people—including children—who reside in apartments.

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402. Robert H. Whitten, *Zoning and Living Conditions*, *in* THIRTEENTH NATIONAL CONFERENCE ON CITY PLANNING 22-29 (1921); *see also* Adams-Schoen, *supra* note 262, at 1257-58, 1278 (reviewing historical justitications for zoning).

403. Whitten, *supra* note 402, at 29.

404. *Id.* at 29-30.

405. *See* Adams-Schoen, *supra* note 262, at 1292 (documenting that "[t]he notion of apartments invading and destroying single-family neighborhoods was grounded in the segregationist discourse of the era, which equated apartments with 'race suicide'"); *see also id.* at 1290-97 (placing the *Euclid* Court's attitudes about racial segregation within the context of other Supreme Court decisions preceding and contemporaneous to *Euclid* which found that racial segregation was a legitimate police power objective).

406. *Euclid*, 272 U.S. at 394.

407. Adams-Schoen, *supra* note 262, at 1290-91. As I previously reported, "Whitten's other plans also used this language to promote comprehensive zoning." *Id.* at 1291 n.461; *see also* Morris v. City of E. Cleveland, 31 Ohio Dec. 197, 209 (Com. Pl. 1920) (upholding the Whitten-drafted East Cleveland zoning code and reasoning "that it is within the police power of a city to preserve districts against the apartment; that the greater the proportion of private homes in a city, preferably occupied by the owners, the better the city, in health, morals, peace and welfare.").

Nearly fifty years later, the U.S. Supreme Court invoked these themes to validate an exclusionary municipal zoning ordinance that prohibited multi-family residences anywhere in the municipality, reasoning that the legitimate use of zoning includes both the "elimination of filth, stench, and unhealthy places" and the protection of the "family values, youth values, and the blessings of quiet seclusion and clean air [that] make the area a sanctuary for people."[408] The *Belle Terre* Court's validation of a municipality's authority to regulate the types of relationships that constitute a "family,"[409] and thereby regulate who may reside in residential areas zoned exclusively for single-family dwellings, remains intact notwithstanding the Court's rejection three years later of a zoning code's definition of family that permitted "only a few categories of related individuals" to live together in a single-family home.[410] In that case, Inez Moore was convicted and sentenced to jail time and a fine after she failed to comply with a notice of violation that directed her to remove an "illegal occupant" from her home. The illegal occupant was Moore's grandson, John Moore, Jr., who lived with Moore, her adult son, and his son. Because the two grandchildren were cousins rather than brothers, John did not fall within the code's definition of family. The Court's rejection of this restrictive definition of family only superficially advanced associational rights, however—as illustrated by the zoning codes throughout the country that continue to limit the number of blood relatives that can live together in single-family districts,[411] with some cities "redefin[ing] family when unwanted newcomers with different cultures and living arrangements than the established population arrive in noticeable numbers."[412]

In 1977, the same year the Court decided *Moore*, the Court in *Village of Arlington Heights v. Metropolitan Development Corp.* rejected a claim that the Village of Arlington used its zoning powers to discriminate on the basis of race in violation of the Fourteenth Amendment, notwithstanding overwhelming direct evidence of discriminatory impact and, although unrecognized by the Court, substantial circumstantial evidence of discriminatory intent.[413] The plaintiff housing developers had applied to

408. Vill. of Belle Terre v. Boraas, 416 U.S. 1, 9 (1974).

409. *Id.*

410. Moore v. City of East Cleveland, 431 U.S. 494, 496 (1977); *see also* Rigel C. Oliveri, *Single-Family Zoning, Intimate Association, and the Right to Choose Household Companions*, 67 FLA. L. REV. 1401, 1411-14, 1434-36 (2015) (rigorously examining *Belle Terre* and *Moore* and concluding that *Moore* only superficially advanced associational rights because it left *Belle Terre* intact by failing to recognize that heightened scrutiny is appropriate whenever government restricts intimate association by limiting the right to choose who one resides with).

411. Sara C. Bronin, *Zoning for Families*, 95 IND. L.J. 1, 6 (2020) (noting that local codes typically exclude large families from living together in single-family districts by limiting families to a single "housekeeping" or "household" unit, which generally requires sharing meals and a household budget).

412. Ellen Pader, *Family Definition*, *in* TOBIAS ARMBORST, THE ARSENAL OF EXCLUSION & INCLUSION 145, 147 (2014).

413. Vill. of Arlington Heights v. Metro. Hous. Dev. Corp., 429 U.S. 252, 258 (1977); *see infra* notes 414-19 (regarding circumstantial evidence of discriminatory intent or, at least,

rezone a vacant fifteen-acre parcel from single-family to multiple-family to facilitate the use of the property as a federally subsidized, racially integrated affordable housing development.[414] In denying the rezoning application, the Village pointed to its "apartment policy," which required multifamily zones "to serve as a buffer between single-family development and land uses thought incompatible, such as commercial or manufacturing districts."[415] Because no commercial or manufacturing districts adjoined the fifteen-acre parcel, the parcel could not be a buffer, and therefore could not be rezoned from single- to multifamily. The denial prevented the development of affordable housing anywhere in the Chicago suburb, contributed to its ability to keep its population 99.99% white, and avoided what opponents of the rezoning referred to as "the social issue."[416]

In holding that the plaintiffs failed to meet their burden of showing the rezoning was based in whole or in part on racial discrimination, the Court continued to treat as racially neutral the tactic of using multifamily zones as buffers to protect favored residential areas.[417] Indeed, the Court found that the Village's consistent and longstanding use of its "buffer policy" to protect, among other concerns, the property values of the exclusively white favored areas was itself evidence that the policy's application in this case did not have a discriminatory motive.[418] In this way, the Court continued to validate the local use of the zoning power to protect the proprietary interests of people residing in racially and economically exclusive neighborhoods at the expense of those residing in the multifamily residences that buffer these exclusive neighborhoods from land uses deemed incompatible with residential use and family life.[419]

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indifference to the perpetuation of a policy originally adopted to exclude People of Color and which continued to do so).

414. 429 U.S. at 254. The religious order that owned the property had sought out a developer for the purpose of building affordable housing on the property. *Id.* at 255.

415. *Id.* at 258.

416. *Id.* at 255 ("According to the 1970 census, only 27 of the Village's 64,000 residents were black."). Metro. Hous. Dev. Corp. v. Vill. of Arlington Heights, 517 F.2d 409, 414 n.1 (7th Cir. 1975), *rev'd*, 429 U.S. 252 (1977) ("According to statistics of plaintiffs' expert, demographer and urbanologist Pierre de Vise, Arlington Heights is the most residentially segregated community in the Chicago metropolitan area among municipalities with more than fifty thousand residents.").

417. *Id.* at 268-70.

418. *Id.* at 270 ("[T]here has been reliance by some neighboring property owners on the maintenance of single-family zoning in the vicinity. The Village originally adopted its buffer policy long before [the developer in this case] entered the picture, and has applied the policy too consistently for us to infer discriminatory purpose from its application in this case.").

419. The District Court found as follows:

> [T]he evidence shows that a multi-family development would seriously damage the value of the surrounding single-family homes and that its presence in the area is strongly opposed by large groups of citizens of the village. Their motive may well be opposition to minority or low-income groups, at least in part, but the circumstantial evidence does not warrant the conclusion that this motivated the [Village]. . . . The weight of the evidence proves that the [Village was] motivated with respect to the property in question by a legitimate desire to protect property values and the integrity of the Village's zoning plan.

Consistent with this, Briffault describes "[t]he core of local legal autonomy" as "defensive and preservative," functions that he observes align with the operative values of affluent neighborhoods and suburbs.[420] Suburbs, which are autonomous municipalities with the same powers as central cities, routinely use their delegated police powers to "devote local taxable resources to local ends, exclude unwanted land uses and users and protect the autonomous local political structure" that allows local majorities to pursue local policies that increase their wealth, primarily by protecting land values in affluent areas,[421] as illustrated by the Village of Arlington Heights' buffer policy.[422]

Wittingly or unwittingly, courts, government officials, and citizens throughout the country continue to justify the aspects of zoning that were crafted to protect—and effectively have protected—white neighborhoods from "invasion" by People of Color with language that echoes Whitten's justifications for his expressly race-based Atlanta plan and Justice Sutherland's rationale for validating the Village of Euclid's prohibition of apartment buildings from residential areas.[423] These earlier narratives, which intentionally conflated various forms of housing with the people who often resided within them, remain implicit in municipal decisions to allow undesirable land uses in more densely populated residential districts, notwithstanding that local legislative

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Metro. Hous. Dev. Corp. v. Vill. of Arlington Heights, 373 F. Supp. 208, 211 (N.D. Ill. 1974), *rev'd*, 517 F.2d 409 (7th Cir. 1975), *rev'd*, 429 U.S. 252 (1977).

420. Briffault, *supra* note 369, at 355.

421. *Id.*

422. 429 U.S. at 270 (citing "reliance by some neighboring property owners on the maintenance of single-family zoning in the vicinity" and continuous application of buffer policy as reasons to uphold denial of rezoning that would have allowed for multifamily development intended for People of Color).

423. *See supra* notes 400-07 and accompanying text (discussing Whitten's Atlanta Plan and clear echoes of the plan in Village of Euclid v. Ambler Realty Co., 272 U.S. 365 (1926)); *see, e.g.*, Vill. of Euclid v. Ambler Realty Co. 272 U.S. 365, 394 (1926) ("[T]he segregation of residential, business, and industrial buildings will make it easier to provide fire apparatus suitable for the character and intensity of the development in each section; that it will increase the safety and security of home life . . . . With particular reference to apartment houses, it is pointed out . . . that in [residential] sections, very often the apartment house is a mere parasite, constructed in order to take advantage of the open spaces and attractive surroundings created by the residential character of the district."); Vill. of Belle Terre v. Boraas, 416 U.S. 1, 9 (1974) (finding that zoning that prohibited multifamily residence anywhere in the municipality furthered zoning's legitimate interest in "eliminat[ing] filth, stench, and unhealthy places" and protecting "family values, youth values, and the blessings of quiet seclusion and clean air [that] make the area a sanctuary for people"); *see* Adams-Schoen & Sullivan, *supra* note 36, at 224-225 (quoting public comments in opposition to the City of Eugene's implementation of an Oregon law requiring single-family zoned residential neighborhoods to allow duplexes and other small-scale multi-unit housing, including: "Do we need to *ruin* single-house areas as well? Single dwelling neighborhoods do not want *obnoxious multiplexes ruining our environment* (more street traffic, more street parking, infrastructure capacity, etc.)." and "I . . . am extremely upset with what I believe is the city's attempt to *destroy our peaceful neighborhood* by allowing densely packed construction to overwhelm so many of the established parts of this town" (emphasis added)).

bodies deem such land uses incompatible with residential use and family life.[424] Thus, despite the communitarian values articulated in support of land law localism generally and the support of buffer policies and other exclusionary zoning practices, land use planning scholar Sean Nolon and colleagues observe that "most land use systems are designed to adjudicate rights, not reconcile interests."[425] Farbman puts it more bluntly:

> [F]ights over localism are often fights about power—which means they are fights about race, wealth, and politics. While local power is the variable to be adjusted, the motivating principle is not one's deep faith in local democracy, but rather one's views on how power should be distributed and how local governments serve or hinder that distribution.[426]

Yet, devolution of policymaking authority to the local level continues to be credited with increasing society's capacity to democratically and equitably overcome sticky collective action challenges, including the housing crisis and the ever-widening climate resilience gap.[427] In this way, the invocation of land law localism's communitarian values appears to lull many well-intentioned policymakers, adjudicators, citizens, and academics into uncritical acceptance of the communitarian rhetoric of localism, even in the face of overwhelming evidence to the contrary.[428] Localism scholar Nestor Davidson describes the "case for the legal empowerment of cities" and other sub-state units of local government as a "mix [of] the advantages of small scale with the positive valence of decentralization."[429]

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424. *See* Lord & Norquist, *supra* note 30, at 566-78 (finding distance to environmental disamenities correlated more strongly with race than income); Adams-Schoen, *supra* note 262, at 1263-71 (regarding regulation of housing forms as a proxy for regulation of race and clustering noxious land uses in more densely populated, less restrictively regulated neighborhoods for the express purpose of preserving the family character and livability of favored neighborhoods); *see also* Bradford C. Mink, *Environmental Justice and Discriminatory Siting: Risk-Based Representation and Equitable Compensation*, 46 OHIO STATE L.J. 329, 337-339 (reporting on "[s]everal major studies" finding that "hazardous waste sites, solid waste dumps, polluting factories, and other locally undesirable land uses are located in areas that contain, on average, a higher percentage of racial minorities and are poorer than nonhost communities").

425. SEAN NOLON, ONA FERGUSON & PAT FIELD, LAND IN CONFLICT: MANAGING AND RESOLVING LAND USE DISPUTES 9-10 (2013).

426. Daniel Farbman, *Redemption Localism*, 100 N.C. L. REV. 1527, 1531 (2022).

427. *See, e.g.*, Note, *To Save A City: A Localist Canon of Construction*, 136 HARV. L. REV. 1200, 1202 (2023) (stating that "protecting local power is a normative good" and "cities need policymaking discretion" to address "vexing policy challenges" such as climate change and affordable housing). In fairness, I can't claim to have been immune from the charms of the communitarian localist mystique. *See, e.g.*, Sarah J. Adams-Schoen, *Sink or Swim: In Search of a Model for Coastal City Climate Resilience*, 40 COLUM. J. ENV'T L. 433, 442-49 (2015).

428. *See* Davidson, *supra* note 363, at 975; *infra* Part IV.A (regarding land law localism and non-subsidiarity).

429. Davidson, *supra* note 363, at 975.

> Local governments, the argument goes, serve as critical sites for democratic participation and local political engagement. Local participation reinforces bedrock public values as people learn to cooperate to solve problems that face much more significant collective-action challenges at larger scales. As a result, local governments have a distinctive capacity to reflect community needs in polities that foster local voice.[430]

The uncritical invocation of land law localism thus becomes, as Farbman observes in the context of localism generally, "a confusing mixture of [communitarian and proprietary localism]" invoked to consciously or unconsciously "rationaliz[e] racial, economic, and class segregation."[431]

B. Beware False Binaries

The system of laws and norms that drives localities to prioritize policies favoring those within the locality that have more economic and political power is complex, interconnected, and entrenched in ways that interact with localism but are not co-extensive with localism.[432] Just as land law localism's aspirations and rhetoric contribute to presumptions about the communitarian value of local control that fail to reflect the lived experiences of many residents, increasing awareness of the so-called "vices" of zoning law and other local legal regimes can contribute to perceptions of local land use governance as beholden to proprietary interests that fail to reflect the lived experiences of many residents. To be sure, land law governance, and local governance more generally, exemplifies in many respects the tyranny of the parochial majority warned of by anti-localists and localists alike.[433] Yet, local governance as an institution is not inherently self-serving or proprietorial, at least not any more so than other levels of government. Like their state and federal counterparts, local officials prioritize their re-election and are subject to capture by political elites and special interest groups that prioritize profit or exclusion over the welfare of the community.[434]

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430. *Id.* at 975-76.

431. Farbman, *supra* note 5, at 420.

432. *See id.* at 497 (cautioning against binary and discussing limits of the proprietary/communitarian construct); *cf.* Keith Aoki, *All the King's Horses and All the King's Men: Hurdles to Putting the Fragmented Metropolis Back Together Again? Statewide Land Use Planning, Portland Metro and Oregon's Measure 37*, 21 J.L. & POL. 397, 419 (2005) (observing that "the city/suburb division is not absolute and the relations between cities and suburbs will be a mix of cooperation and competition—that it is not inevitably a 'war of all against all'") (citing and discussing Clayton Gillette, *The Conditions of Interlocal Cooperation*, 22 J.L. & POL. 365 (2005)).

433. *See, e.g.*, ALEXIS DE TOCQUEVILLE, DEMOCRACY IN AMERICA 256 (Phillips Bradley ed., Alfred A. Knopf 1945) (1835); *see also* S. Burlington County NAACP v. Twp. of Mt. Laurel, 336 A.2d 713, 723 (N.J. 1975) ("Almost every [developing municipality] acts solely in its own selfish and parochial interest and in effect builds a wall around itself to keep out those people or entities not adding favorably to the tax base, despite the location of the municipality or the demand for varied kinds of housing.").

434. Sara C. Bronin, *The Quiet Revolution Revived: Sustainable Design, Land Use*

The division between proprietary and communitarian values is also not absolute. Across the political and economic spectrum, American homeowners support policies that stabilize their property values and exclude undesirable land uses from their neighborhoods. Local governments facilitate new development for myriad reasons, including generating property tax revenue to help fund essential public services. Local land use laws and policies also reflect the communitarian values of residents, local planning staff, city officials, and special interest groups, such as affordable housing nonprofits and environmental justice advocates. As government theorists and groups advocating for increased local immunity against state preemption have documented, local governments throughout the United States have exercised their police powers in ways that threaten exclusionary proprietary interests. Examples include local laws that: extend civil rights protections to groups that are the target of invidious discrimination and inadequately protected by state or federal law,[435] attempts to fill gaps between state minimum wage laws and the cost of living,[436] reforms to zoning and housing laws to increase the local supply of affordable housing and expand who has access to amenity-rich neighborhoods,[437] and providing sanctuary to undocumented immigrants.[438]

The literature is also replete with examples of hard-fought and successful local advocacy for environmental justice, housing justice, and climate justice. Tony Arnold and the Resilience Justice Project, discussed above, and many others have documented Indigenous communities' leadership in self-advocacy, co-governance, and resilience justice.[439] Jessica Bacher, John Nolon, and Tiffany Zezula's work with the Land Use Law Center has facilitated the ability of hundreds of local government officials and staff working with community leaders to overcome barriers to seemingly

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Regulation, and the States, 93 MINN. L. REV. 231, 259-60 (2008) (discussing "[d]emonstrably false notions that the federal government is subject to interest group capture and local governments are not," and describing the interest group as an "important fourth player" in the drafting of land use regulations, with the others being "landowners, neighbors, and general-purpose local governments"); *id.* at 260 ("In the green-building context, interest groups favoring reform include environmentalists, manufacturers of green-building technology, and developers who favor modern green design. Opponents include unions, manufacturers of conventional building materials, and developers who perceive that green building is too costly.").

435. Davidson & Schragger, *Do Local Governments Really Have Too Much Power? Understanding the National League of Cities' Principles of Home Rule for the 21st Century*, 100 N.C. L. REV.1385, 1395-96, 1413-14.

436. *Id.* at 1395, 1408, 1413.

437. *Id.* at 1395, 1404. *See generally* Adams-Schoen & Sullivan, *supra* note 36 (describing and critically examining land use and housing law reform in Oregon).

438. *See generally* Rose Cuison Villazor, *"Sanctuary Cities" and Local Citizenship*, 37 FORDHAM URB. L.J. 573 (2010) (examining how local sanctuary laws illustrate tensions between national and local citizenship).

439. *See, e.g.*, Craig Anthony (Tony) Arnold & Resilience Justice Project Researchers, *Environmental Justice, Resilience Justice, and Watershed Planning*, 48 WM. & MARY ENV'T L. & POL'Y REV. 553, 578-79, 583 (2024); Barbara L. Bezdek, *Citizen Engagement in the Shrinking City: Toward Development Justice in an Era of Growing Inequality*, 33 ST. LOUIS U. PUB. L. REV. 3, 9-10, 34-37 (2013).

intractable land use governance problems.[440] I previously reported on the successful efforts of community-led strategies for preventing the displacement of People of Color, Indigenous people, and low-income residents as investment grows in a neighborhood in Portland, Oregon, that has long exemplified the vices of localism,[441] as well as the successful and ongoing air quality improvement strategies of a community-based nonprofit dedicated to the grassroots remediation and empowerment of the Bethel Neighborhood, an environmental justice neighborhood in Eugene, Oregon.[442]

Research suggests that these measures are adopted most often by cities that are more heterogenous than surrounding suburbs and rural areas of the state.[443] Although an empirical analysis is beyond the scope of this article, it appears that the cities that adopt communitarian measures like those discussed here remain outliers.[444] This point is not intended to diminish the work that led to, or the significance of, these reforms.

C. Instrumental Localism and the Ascendance of Proprietary Preemption

In terms of local power versus local powerlessness over land uses, as discussed, municipalities generally enjoy broad formal authority, a degree of informal

440. *See, e.g.*, Jessica A. Bacher & Tiffany B. Zezula, *Increasing Coastal Community Resilience Through Facilitated Land Use Training, Assessment, and Amendments*, 41 ZONING & PLAN. L. REP., at 4-7 (2018).

441. Adams-Schoen, *supra* note 262, at 1304, 1309-10 (citing and discussing NOT IN CULLY: ANTI-DISPLACEMENT STRATEGIES FOR THE CULLY NEIGHBORHOOD (2013)).

442. *Id.* (citing and discussing Ellen Israel, *Struggling to Breathe: A Neighborhood's Fight for Healthier Air*, SCI. STORY, n.d., https://sciencestory.uoregon.edu/life-in-a-changing-landscape/air/struggling-to-breathe); *see also generally* Victoria Whalen et al., *Sustainable Land Use Project: Public Health Overlay Zone Policy Paper,* UNIV. OR. ENV'T & NAT. RES. L. CTR. (May 2024) (reporting on amendment of Eugene land use code to integrate public health standards in response to the nonprofit Beyond Toxic's advocacy to remedy air quality concerns in Eugene's Bethel Neighborhood).

443. *See, e.g.*, Brian J. Connolly, *The Black Box of Single-Family Zoning Reform*, 65 B.C. L. REV. 2327, 2369 (2024) (noting that among the statewide middle housing reform efforts, only two permitted duplexes on single-family lots statewide, rather than only urban areas or "areas served by public water and sewer").

444. *See, e.g.*, Kristen Carney, *Oregon Cities by Population (2025)*, OREGON DEMOGRAPHICS (Dec. 17, 2024), https://perma.cc/5S3L-4T9E (reporting that seven large cities and nine medium cities are governed by the middle housing amendments under Or. Admin. R. 660-046-0205).

immunity,[445] and a generous standard of review.[446] Discussing the ways in which municipal governments, and suburban governments in particular, pursue policies that promote what I have identified as exclusionary proprietary interests, Briffault observed that "[l]ocal borders, once created, reinforce local identification, become a focus of sentiment and symbolism and create a powerful legal bulwark for the preservation of local interests."[447] Various structural attributes of municipalities prop up this bulwark, including the structure of municipal finance, which depends largely on local property taxes.[448] The bulwark is also supported by standards of review that are highly deferential to proprietary local land use legislative actions,[449] including facially neutral local legislative actions with well-documented and persistent discriminatory effects—and in many instances a clear record of discriminatory intent.[450]

But how strong is this bulwark when devolution of local control threatens exclusionary and proprietary values? Increasingly strict judicial scrutiny of land use actions that diminish property values or intrude on the exclusionary rights of property owners diminish the ability of local governments to exercise their land use powers to further inclusionary communitarian interests,[451] notwithstanding that local land use

445. *See supra* Part II.A.1. To be clear, state governments generally have formal authority to preempt local laws and withdraw powers they have delegated to local governments. *See* Kenneth Stahl, *Home Rule and State Preemption of Local Land Use Control*, 50 URB. LAW. 179, 195-197 (2020) (discussing California cases that concluded local land use laws had extra-local effects that justified preemption by state law); *id.* at 196 ("[T]hough local governments have traditionally exercised the lion's share of land-use authority, that distribution of power is subject to change if statewide problems emerge that cause the state to assume some control of land use.").

446. *See supra* Part II.A.1.

447. Briffault, *supra* note 369, at 445.

448. *See* Michael Pappas & Victor B. Flatt, C*limate Changes Property: Disasters, Decommodification, and Retreat*, 82 OHIO ST. L.J. 331, 378 (2021) (positing that municipal officials are incentivized to "encourage continued habitation and growth despite disaster risks" because "municipalities typically derive their tax bases . . . from local residency and investment"). The structure of local elections is also relevant, but the wide variation in how local officials are elected cautions against generalizations. *See generally* Diller, *supra* note 179, at 1097-1100 (regarding varying approaches to electing local officials and briefly examining the extent to which some of these approaches further democratic norms).

449. *See supra* Part II.A.1.

450. Of course, longstanding equal protection doctrine subjects facially neutral laws with racially discriminatory effects and intent to strict scrutiny. *See, e.g.*, Village of Arlington Heights v. Metro. Hous. Dev. Corp., 429 U.S. 252, 266 (1977). My point is that doctrine and practice diverge. *See supra* Part III.A (discussing evidence of the Village of Arlington Height's discriminatory intent, or, at the very least indifference to the blatant perpetuation of a discriminatory policy); *see also* Elise C. Boddie, *Adaptive Discrimination*, 94 N.C. L. Rev. 1235, 1275 (2016) (summarizing ways in which equal protection jurisprudence neutralizes evidence of discriminatory intent).

451. The Supreme Court's Fifth Amendment jurisprudence so favors proprietary interests over the welfare of the public that it flipped the longstanding presumption that duly enacted legislation is constitutionally valid. *See supra* Part II.A.1.

legislation is only constitutionally legitimate if it furthers the public health, safety, or welfare.[452]

The ascendance of deregulatory and retaliatory state preemption of inclusionary communitarian local laws in states with Republican-dominated legislatures also brings the instrumentality of localism into focus.[453] This well-documented trend, which Briffault coined the "new preemption," appears to represent a sea change in the state-local relationship.[454] Since the Dillon's rule presumption against local power gave way to broad delegations of home rule authority to municipal governments,[455] states have wielded their preemption authority primarily to nullify local laws that are inconsistent with substantive state law.[456] The new preemption suggests a reemergence of both Dillon's rule and the punitive tactics that led to nineteenth-century state constitutional bans on "special laws" that targeted specific entities rather than applying generally.[457] Illustrating the shift back towards Dillon's rule over the last decade, states have enacted laws that remove local governmental lawmaking authority over broad substantive areas,[458] and some statehouses have considered removing all local authority that is not expressly authorized by state law—or, in other words, replacing home rule with Dillon's rule.[459]

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452. Village of Euclid v. Ambler Realty Co., 272 U.S. 365, 373 (1926).

453. *See* Richard Briffault, *The Challenge of the New Preemption*, 70 STAN. L. REV. 1995, 1997 (2018) (describing the spread of a "new and aggressive form" of state governments preempting local power); Erin Adele Scharff, *Hyper Preemption: A Reordering of the State-Local Relationship?*, 106 GEO. L.J. 1469, 1480-84 (2018) (reporting that, "[w]hile nearly every state in the country has passed some type of preemption law," only Tennessee, Arkansas, and North Carolina had enacted state laws to . . . preempt[] cities and counties from protecting their residents from discrimination).

454. As I discuss below, however, this sea change is consistent with the exclusionary proprietary interests that land law localism tends to operationalize. *See infra* notes 469-73 and accompanying text.

455. *See* Nestor M. Davidson, *Home Rulings*, 2023 WIS. L. REV. 1735, 1741 (2023) (regarding transition from Dillon's rule to home rule).

456. Briffault, *supra* note 453, at 2002, 2012. Under Dillon's Rule, local government lawmaking authority is limited to express delegations and lawmaking that is incidental and necessary thereto. Where Dillon's rule still applies, states do not need to preempt local laws that conflict with state law.

457. *See* Justin R. Long, *State Constitutional Prohibitions on Special Laws*, 60 CLEV. STATE L. REV. 719, 725-32 (2012) (examining the history of state constitutional bans on special laws). Although special law prohibitions are not limited to state laws targeting individual local governments, one of the ways that states limit their own plenary authority over local governments is through constitutional bans on special laws. *Id.*; *but see id.* at 759-62 (observing the inconsistent enforcement, at best, of state special law bans). *See also generally* Evan C. Zoldan, *The Equal Protection Component of Legislative Generality*, 51 U. RICH. L. REV. 489 (2017) (discussing prohibition against special laws in the federal constitution).

458. Richard C. Schragger, *The Attack on American Cities*, 96 TEX. L. REV. 1163, 1182 (2018).

459. *See* Briffault, *supra* note 453, at 2007-08 (discussing bills introduced in Texas in 2015 that would have "preempted all local regulation of private property, . . .activity licensed by the state, and local law setting higher standards" than those in state law, and in Florida in 2017 that would have preempted "all local regulation of 'businesses, professions, and

Akin to special laws that doled out benefits and punishments to specific localities, the new preemption has given rise to the coupling of punitive measures with preemption targeting city laws that conflict with Republican policy positions.[460] For example, of the sixteen states that prohibit discussion of race in public schools, seven impose a range of penalties for violating or failing to enforce the prohibition.[461] Some of the new defensive or retaliatory preemption laws include sanctions for local governments and officials that violate even the "spirit" of the state law,[462] as well as, in some states, sanctions for local officials that endorse the prohibited laws or policies.[463] The sanctions in these and other defensive preemption laws include the loss of state funding for essential local services, removal of the local official from office, civil penalties, private rights of action against public officials and staff, including public school teachers, and even criminal sanctions.[464] The private rights of action frequently provide for damages and attorneys' fees.[465] Bills have also been introduced that would provide for the removal from office of local officials who fail to report "known or probable" violations by other officials of state preemption laws.[466] It is, of course, impossible to reconcile these laws with the rhetoric purporting to uplift and cherish local self-government, subsidiarity, or even democracy writ large.

Many of these defensive preemptions involve local climate, land use, and housing laws and policies. For example, states have banned local land use regulations prohibiting gas appliances in new construction, local regulations requiring some developments to provide electric vehicle charging stations, local zero emissions laws, and local laws requiring some sectors to use clean or renewable energy.[467] States have also

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occupations' unless expressly authorized by state law . . . and all local regulation of 'commerce, trade and labor'") (citations omitted).

460. I say "akin" to special laws because, on their face, these defensive preemptions apply to all local governments.

461. *State Preemption Laws*, TEMPLE UNIV. CTR. FOR PUB. HEALTH L. RSCH.: LAW ATLAS, https://perma.cc/8GMP-EN3M [hereinafter LAW ATLAS] (showing laws as of Dec. 31, 2024, on an interactive map of state preemptions by subject matter); *State Partisan Composition*, NAT'L CONF. STATE LEGISLATURES, https://perma.cc/R9AR-MPVB (showing information as of Apr. 30, 2025).

462. *See* Briffault, *supra* note 453, at 2003 n.46 (citing Kentucky laws that criminalize and provide a private right of action against local officials who violate the spirit of the state law preempting local firearms regulations).

463. *Id.* at 2004 n.59 (citing and discussing example of anti-sanctuary city Texas law).

464. Briffault, *supra* note 453, at 2002-07 (citing and discussing examples).

465. *Id.* at 2003 (citing and discussing examples).

466. *Id.* at 2004 (citing and discussing examples).

467. Edward T. Walker & Andrew Malmuth, *The Natural Gas Industry, the Republican Party, and State Preemption of Local Building Decarbonization*, 3 NPJ CLIMATE ACTION (Nov. 2, 2024); *Red States Try to Preempt Local Governments in Setting EV Charging Station Rules*, INT'L COUNCIL SHOPPING CTRS. (Apr. 11, 2024), https://perma.cc/KUD6-YNAD. *See also, e.g.*, OHIO REV. CODE ANN. § 4928.01(C)(37)(a)(x) (West 2025) (classifying "biologically derived methane gas" as a "renewable energy resource"); TENN. ANN. CODE § 7-51-2403(7), 2404(8) (West 2023) (designating natural gas as a permissible source of "clean" and "renewable" energy).

banned local inclusionary zoning, which generally refers to local laws that require developers to include a certain percentage of affordable units in new residential developments.[468]

These constraints on local authority conflict with rhetoric and values reflected in legislative and judicial precedent that purports to jealously guard "traditional" local functions like the regulation of land uses.[469] The strategic deployment of communitarian localism rhetoric to justify state preemption is also illustrated by the sixteen states that preempt local authority over public school administration,[470] another traditional area of local control.[471] These claw backs of local control censor climate education in particular and science education more broadly,[472] in addition to censoring curricular references to race, slavery, and LGBT people.[473]

Critically, the identification of this trend with Republican-controlled state legislatures, while based in fact,[474] does not take into account how the partisan lines blur

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468. *See* LAW ATLAS, *supra* note 461 (identifying the following states with local inclusionary zoning prohibitions: Arizona, Indiana, Kansas, Tennessee, Texas, and Wisconsin); U.S. DEP'T HOUSING & URBAN DEV., *Section 5: State, Local and Tribal Opportunities*, *in* ELIMINATING REGULATORY BARRIERS TO AFFORDABLE HOUSING 70, 73 (2021) (discussing Virginia); TIMOTHY S. HOLLISTER ET AL., POLICY, PRACTICAL, AND LEGAL CHALLENGES TO INCLUSIONARY ZONING: A RESOURCE MANUAL FOR NAHB MEMBERS; NATIONAL SURVEY OF STATUTORY AND CASE LAW REGARDING INCLUSIONARY ZONING 2 (May 2023) (discussing Montana); *see, e.g.*, Wis. Stat. § 66.1015(3) (2022) ("Inclusionary zoning prohibited. (a) In this subsection: 1. "Inclusionary zoning" means a zoning ordinance . . . , regulation, or policy that prescribes that a certain number or percentage of new or existing residential dwelling units in a land development be made available for rent or sale to an individual or family with a family income at or below a certain percentage of the median income. . . . (b) No city, village, town, or county may enact, impose, or enforce an inclusionary zoning requirement."); *see also* Elizabeth Reiner Platt, *States Attempting to Preempt LGBT-Friendly Municipalities*, COLUM. L. SCH.: PUB. RTS./PRIV. CONSCIOUSNESS PROJECT (Feb. 11, 2016), https:// perma.cc/2B6A-T7UA (discussing state preemption of local laws extending protections against discrimination to people who are transgender and one state's express prohibition of local laws that extend protections against housing discrimination to LGBT people); *infra* notes 475-83 and accompanying text (regarding state mandates, incentives, and prohibitions related to local inclusionary zoning).

469. *See infra* Parts II.B.1-2.

470. *See* LAW ATLAS, *supra* note 461.

471. *Id.*

472. *See Silencing Science Tracker*, COLUM. L. SCH.: SABIN CTR. FOR CLIMATE CHANGE L., https://perma.cc/YJ9H-J2QK (archived July 13, 2025) (identifying more than 100 state laws and policies censoring or attempting to censor science generally including proposed and enacted state laws censoring climate science in public school classrooms and curricula).

473. *See* LAW ATLAS, *supra* note 461 and accompanying text (regarding state laws censoring discussions of race); MOVEMENT ADVANCEMENT PROJECT, LGBTQ YOUTH: LGBTQ CURRICULAR LAWS 4-6 (updated May 14, 2025) (identifying 19 states that censor LGBTQ curricula, 4 state laws censoring references to gay people in sex education, 11 censoring discussions of LGBTQ people throughout school curricula, and 9 requiring parental notification and opt-outs for LGBTQ-related curricula).

474. *See supra* notes 461-71; *see also* Schragger, *supra* note 458, at 1175-76 & n.65 (identifying 19 states that preempted local paid family leave laws, all of which had Republican-controlled legislatures); *id.* at 1176 & n.68 (identifying 27 states that preempted local prohibitions of

somewhat when it comes to land law localism and the preservation of majoritarian wealth and status. The universality of localism's exclusionary proprietary bent—shrouded in the rhetoric of communitarianism—is powerfully illustrated by the enduring public welfare rationale for zoning laws that segregate cities by race and class, embody majoritarian prejudices, and protect the social capital of—and redistribute wealth to—residents of zoning's favored quarters.[475] Local governments throughout the United States continue to zone most of their residential land exclusively for single-family housing, even in cities with housing shortages, notwithstanding some recent state and local reforms that have expanded the range of housing types permitted in areas previously zoned exclusively for single-family housing.[476] A wide range of states restrict or prohibit local governments from enacting rent control legislation[477] or condominium conversion laws.[478] Local resistance to inclusionary zoning is also widespread and not entirely partisan[479]—although several Democrat-controlled states have enacted laws promoting inclusionary zoning,[480] no Democrat-controlled states

employment discrimination based on union membership, all of which had Republican-controlled legislatures).

475. *See* Lemar, *supra* note 392, at 1117-30 (detailing the contribution of public participation in land use law- and decision-making to policies based on local prejudice and misinformation, protection of majoritarian social capital, and redistribution of wealth to residents of whiter, wealthier areas); Cashin, *supra* note 279, at 1987-88, 2003-15 (documenting and analyzing the "tyranny of the favored quarter"); *see also infra* Part II.A; Richard Schragger & C. Alex Retzloff, *The Failure of Home Rule Reform in Virginia: Race, Localism, and the Constitution of 1971*, 37 J.L. & POL. 183, 205 (2022) (analyzing instrumentality of localism evinced by fear of majority black cities driving opposition to home rule); Adams-Schoen, *supra* note 262, at 1230, 1270 (examining the use of economics as a proxy for race in the development of facially neutral zoning laws in the United States); *id.* at 1271-72, 1278 (documenting the federal campaign to promote zoning as a tool for maintaining racial segregation and contemporaneous characterizations of zoning as foundational to expressly racist federal programs like redlining).

476. *See generally* Adams-Schoen & Sullivan, *supra* note 36 (regarding reforms).

477. Dena Standley, *Rent Control Laws by State*, LAWDISTRICT (Oct. 16, 2024), https://perma.cc/Y4DD-VJLG (listing states).

478. *See* Paul A. Diller, *The Partly Fulfilled Promise of Home Rule in Oregon*, 87 OR. L. REV. 939, 966-67 (2008) (dissecting the political process that led affordable housing advocates to acquiesce on state preemption of local condominium conversion laws in exchange for other renter protections); Elizabeth Elia, *Some Programs Old, Some Programs New, This Guide Will Help You Navigate Through*, 31 J. AFFORDABLE HOUS. & CMTY. DEV. L. 173, 179 (2022) (explaining that condominium conversion laws are intended to protect tenants from conversion of apartment buildings into condominiums).

479. *See* Adams-Schoen, *supra* note 262, at 1234, 1308 (critiquing U.S. cities' nearly ubiquitous use of exclusionary zoning laws).

480. The National Association of Home Builders (NAHB) reported in 2023 that the following states expressly allow mandatory inclusionary zoning: California, Connecticut, Florida, Illinois, Louisiana, Maryland, Massachusetts, Nebraska, Nevada, New Jersey, Oregon, Rhode Island, Vermont, and Virginia. HOLLISTER ET AL., *supra* note 468, at 43-95. Some states expressly allow local laws that provide affordability incentives and local governments in many states also have authority to adopt incentive-based or mandatory inclusionary zoning under their broad home rule and land use powers. *See id.* (identifying some of these states); *see also generally* Anika Singh Lemar, *The Role of States in Liberalizing Land Use Regulations*,

prohibit local inclusionary zoning,[481] many urban municipalities impose affordable unit requirements on at least some forms of new residential development,[482] and many Democratic-controlled states limit local authority to increase, rather than stymie, the production of affordable housing.[483]

Ultimately, the ascendance of deregulatory, reactionary, and even punitive preemption of local authority to exercise delegated police powers to further inclusionary communitarian values and the widespread and somewhat less partisan resistance to inclusionary zoning illustrate a complex but predictable distribution of power in which local governments have relatively broad legal authority over land uses to further proprietary interests. However, local government discretion is at its most tenuous when local authority is exercised to further communitarian interests that threaten majoritarian property rights[484] and existing social hierarchies, two features that characterize transformative adaptation and resilience justice.

IV. LAND LAW LOCALISM AND THE CLIMATE RESILIENCE PARADOX

Much has been written about the capacity of local governments to increase community resilience to the devastating effects of climate change.[485] As land use and sustainable development law scholar John Nolon and others have catalogued, land law theorists "[f]rom localists to federalists, and in between" recognize that local governments play an essential role in shaping and implementing climate adaptation laws and policies.[486] Much has also been written about the incapacity of local governments to adaptively manage land uses in hazard areas or even to reduce the scale and intensity

97 N.C. L. REV. 293 (2019); John Infranca, *The New State Zoning: Land Use Preemption Amid a Housing Crisis*, 60 B.C. L. REV. 823 (2019). Note that NAHB intends its report to be a tool for opposing inclusionary zoning. HOLLISTER ET AL., *supra* note 468, at 7-9.

481. *Supra* note 468 (listing states that prohibit inclusionary zoning).

482. *See, e.g.*, CHICAGO, ILL., MUN. CODE § 2-44-090 (requiring 15 to 20 percent of residential housing projects to meet affordability requirements for specified neighborhoods at risk of or experiencing gentrification); DENVER, COLO., REV. MUN. CODE § 27-105, https://library.municode.com/co/denver/codes/code_of_ordinances; DETROIT, MICH., MUN. CODE §§ 14-12-1—14-12-10; NEW ORLEANS CODE OF ORDINANCES § 26-642 (requiring "inclusionary zoning permit" for certain developments in "inclusionary zoning subdistrict[s]").

483. *See, e.g.*, Or. Rev. Stat. § 197A.100(9) (2023) (requiring local governments to affirmatively further fair housing (AFFH)); CAL. DEP'T HOUSING & CMTY. DEVEL., AFFIRMATIVELY FURTHERING FAIR HOUSING: GUIDANCE FOR ALL PUBLIC ENTITIES AND FOR HOUSING ELEMENTS 29-30 (2021), https://perma.cc/P2GW-LM7X (regarding suite of California laws related to AFFH); *see also* RICHARD SCHRAGGER, STATE PREEMPTION OF LOCAL LAWS: PRELIMINARY REVIEW OF SUBSTANTIVE AREAS 11-12 (2017), https://perma.cc/SZN6-L6Z2 (cataloguing state preemptions by subject area and noting that New Hampshire and New Jersey preempt local authority by requiring local governments to promote affordable housing).

484. The modifier here is crucial because local (and other levels of government) have nearly unfettered legal authority to regulate land in ways that diminish the property values in neighborhoods where more People of Color and very low-income people live.

485. *See supra* Part II.A.

486. Nolon, *supra* note 6, at 8-9 (citing and discussing examples).

of new hazard area development,[487] although notable exceptions exist.[488] Many structural barriers to robust local adaptation lawmaking are well-vetted. These include insufficient staffing or expertise to integrate climate science into decision making;[489] political, social, and psychological or cognitive considerations "such as tradeoffs among interests, values and beliefs," counter-factual discounting of risks, and the local political strength of developer interests;[490] and a lack of sufficient funds to address widescale problems effectively.[491] While these attributes of local governance and the climate resilience problem are no doubt obstacles to effective local action, rigid adherence to land law localism creates an additional and formidable obstacle.

A. Localism and Non-subsidiarity

As noted, the term "land law localism" refers to a particularly strong adherence to the proposition that local governments are uniquely equipped and better suited than higher levels of government to address policy problems related to the use of land and the related proposition that good governance[492] requires devolution to local governments of broad discretion to manage local land uses.[493] This preference for local governance forms the core of the principle of subsidiarity, which favors local authority and autonomy over land uses, other matters of local concern, and matters of mixed local and regional, state, or national concern.[494] Depending on the context and commentator, the preference for local governance may be a preference for the devolution of lawmaking authority and discretion to sub-state general-purpose governments, like counties and municipalities; special-purpose governments, like school boards; private

487. *See supra* Part II.B.

488. *See* Bacher & Zezuela, *supra* note 440, at 7-10 (discussing examples).

489. Adams-Schoen, *supra* note 3, at 195, 220-44 (citing and discussing sources analyzing technical challenges, including challenges related to science, engineering, planning, and legal considerations).

490. *See, e.g.,* Danya Rumore, *Assessing the Social Landscape, Understanding the Readiness Challenge*, *in* MANAGING CLIMATE RISKS IN COASTAL COMMUNITIES: STRATEGIES FOR ENGAGEMENT, READINESS AND ADAPTATION 21-22 (Lawrence Susskind et al. eds., 2015) (presenting the findings of a study examining technical and socio-political barriers to adaptation).

491. *See, e.g.*, Alice Kaswan, *Climate Adaptation and Land Use Governance: The Vertical Axis*, 39 COLUM. J. ENV'T L. 390, 430-32, 437 (2014) (arguing that local governments fail to overcome the collective action barrier because of inadequate information, insufficient funding, a "race to the bottom" mentality, and potential benefits from their free rider status).

492. *See* ERIN RYAN, FEDERALISM AND THE TUG OF WAR WITHIN xiv (2011) (discussing related themes in federalism in terms of "good governance"); Farbman, *supra* note 5, at 497 (defining localism for purposes of his analysis as "a theory of how local governance ought to work").

493. *See supra* notes 3-4 and accompanying text.

494. *See* Robert K. Vischer, *Subsidiarity as a Principle of Governance: Beyond Devolution*, 35 INDIAN L. REV. 103, 103 (2001) ("Literally meaning 'to "seat" ('sid') a service down ('sub') as close to the need for that service as is feasible.'").

entities, like homeowners' associations; or the family or individual.[495] Underlying subsidiarity's localism bent is a belief that the people closest to a problem—such as those who live where flooding occurs and suffer flood losses most directly[496]—are uniquely equipped to manage the problem.[497]

Subsidiarity's preference for decentralization is not unyielding, however. Rather, by urging that "responsibility for dealing with a problem should be delegated to the most decentralized institution *capable of handling that problem*,"[498] the principle of subsidiarity favors local governance while also demanding a reckoning with the reality that local governments are not equipped to effectively address some problems even when their effects are acutely experienced at the local level. In this way, the principle tempers its localist imperative by requiring an assessment of the effectiveness of local governance and the potential intervention of supra-local governance institutions when that assessment reveals that the local level lacks the capacity to effectively address a policy problem.[499]

The presumption that local land use management is essential to the promotion of communitarian values is so embedded in the psyche of American law, however, that it can impede rather than promote the pragmatism inherent in the principle of subsidiarity. This is illustrated by local, state, and federal policies that rigidly favor local control[500] over even those land use management problems that abundant evidence

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495. *See id.* ("[S]ubsidiarity holds that where families, neighborhoods, churches, or community groups can effectively address a given problem, they should. Where they cannot, municipal or state governments should intervene. Only when the lower bodies prove ineffective should the federal government become involved."). Like other theories about the distribution of power, subsidiarity's presumption in favor of local governance is also deployed instrumentally. *See, e.g.*, *Mission and Four Pillars of Self-Governance*, CITIZENS FOR SELF-GOVERNANCE https://perma.cc/P8Y8-YSBW (archived July 9, 2025) (advocating for a limited federal role, increased state and local government role, and self-governance by individuals, families and communities); *but see* Jakob Fay, *Tocqueville Warned Us About This Moment*, CITIZENS FOR SELF-GOVERNANCE (Aug. 2, 2023), https://perma.cc/NHR3-9QTX (advocating for "rein[ing] in" individualism and "'sovereignty' of self" that is not based on biblical "capital-t Truth").

496. This language borrows from Patricia Salkin's observations about the essential role local governments play in the management of natural hazard risk. *See* Patricia Salkin, *Sustainability at the Edge: The Opportunity and Responsibility of Local Governments to Most Effectively Plan for Natural Disaster Mitigation*, 38 ENV'T L. REP. 10158, 10159 (2008) ("Land use patterns are determined, infrastructure is designed and provided, and many other development issues are decided at the local level, where natural hazards are experienced[,] and losses are suffered most directly.").

497. *See* James L. Huffman, *Making Environmental Regulation More Adaptive Through Decentralization: The Case for Subsidiarity*, 52 KAN. L. REV. 1377, 1399 (2004).

498. ROBERT ELLICKSON, LOSING GROUND: A NATION ON EDGE 274 (John R. Nolon & Daniel B. Rodriguez eds., 2007) (emphasis added).

499. Erin Ryan, *Federalism and the Tug of War Within: Seeking Checks and Balance in the Interjurisdictional Gray Area*, 66 MD. L. REV. 503, 539-67 (2007).

500. Or, as discussed below in Part IV.B, by favoring collaborative governance frameworks that provide insufficient incentives or oversight to help local governments overcome intractable barriers to certain policy problems, like maladaptive development, the housing crisis, and environmental racism.

demonstrates local governments cannot effectively and equitably address, including the stubborn and costly problem of maladaptive development.[501]

The history of federal flood policy powerfully illustrates this paradoxical phenomenon. As discussed above, flood policy experts and governmental actors along the entire vertical governance axis agreed that local governments face insurmountable obstacles to the use of their broad land use powers to effectively address the maladaptive development problem.[502] After more than a century of mounting flood disaster costs and extensive analysis of the factors that contributed to these costs, they determined that local governments are not the "institution capable of handling that problem,"[503] at least not without supra-local intervention.[504] Congress responded with the National Flood Insurance Act of 1968, which mandates that a community's access to flood insurance and other valuable federal benefits be contingent on the community meeting or exceeding the program eligibility criteria (i.e., the National Flood Insurance Program's minimum floodplain management standards). The Act directed the implementing agency to promulgate criteria that, "to the maximum extent feasible," facilitate flood hazard area avoidance and, where appropriate, managed retreat.[505] However, the agency did not operationalize this primary objective of the federal flood policy. Instead, it promulgated building-scale criteria and other regulations that facilitated rapid and widescale development of the nation's flood hazard areas, including areas subject to high-velocity wave action and portions of the central channel of rivers needed to convey floodwaters during a 100-year flood.[506]

Although a complete appraisal of the factors that led to this governance failure are beyond the scope of this article and its companion, *Federal Flood Policy & Maladaptation*, FEMA's cramped interpretations of the NFIA and its own authority to implement the federal flood program as set forth in the NFIA point to the hegemony of land law localism and its influence at the federal level as key factors. FEMA has characterized limiting development of flood hazard areas as an "ancillary" purpose of the NFIA and suggested that it lacks the "land use authority" necessary to promulgate federal criteria that, if adopted by communities, would limit floodplain development.[507]

The agency's narrow interpretation of the NFIA's objectives and denunciation of its authority elevate land law localism's distain for supra-local interventions targeting

501. *See supra* Part II.B.

502. *See supra* Part I.C.

503. ELLICKSON, *supra* note 498, at 274.

504. *See supra* Part I.C.

505. Pub. L. No. 90–448, § 1361(a), 82 Stat. at 587; *see also supra* notes 118-30 and accompanying text.

506. *Supra* notes 131-43 and accompanying text.

507. NAT'L FLOOD INS. PROGRAM, FINAL NATIONWIDE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT (Sept. 2017) [hereinafter NFIP FNPEIS].

the management of land uses over the agency's clear statutory mandate.[508] FEMA's arguments about land use authority are particularly telling in this respect. The agency has acknowledged that the federal criteria are neither police power regulations nor mandatory. Rather, in apparent recognition that communities voluntarily meet or exceed the criteria as a precondition of receiving federal benefits, FEMA claimed that promulgation of any criteria that "influence" state or local land use lawmaking would unconstitutionally usurp the states' reserved police powers.[509] This claim is contradicted by Supreme Court precedent, which "has long recognized that leveraging federal benefits to incentivize sub-federal action is a legitimate way for the federal government to address problems of national importance that the states, acting independently, cannot effectively address."[510] FEMA's claim that it lacks authority to influence local land use management is also contradicted by the existence of other federal statutory schemes that, like the NFIA, use valuable privileges to influence state and local management of land uses consistent with national priorities,[511] as well as the ways in which the NFIP, even with its myopic focus on building-scale criteria, already directly influences how participating communities exercise their police powers, including their zoning powers.

> [F]or example . . . , the program regulations require participating communities to report all zoning variances (i.e., exceptions to land use laws) to FEMA and prohibit participating communities from granting variances that would relieve a property owner from complying with floodplain regulations even when an applicant would otherwise satisfy the state or local criteria for a variance. A municipality's issuance of a variance that, for example, allows a residence to be built with the bottom floor below the minimum elevation set forth in the federal criteria can result in increased flood insurance premium rates for the affected property and threaten the entire community's program eligibility.
>
> The NFIP also limits municipalities' interpretations of their floodplain regulations, which FEMA recognizes include "zoning . . . and subdivision regulations" and other "applications of the police power." FEMA has also consistently recognized that the NFIA requires participating communities to "take into account flood, mudslide (i.e., mudflow) and flood-related erosion hazards, to the extent that they are known, in all official actions relating to land management and use." NFIP regulations also require participating communities to assure FEMA that

508. *See* Adams-Schoen, *supra* note 25 (manuscript at 33-41) (critically evaluating FEMA statements considering the text of the NFIA, amendments to the NFIA, and relevant legislative and administrative history).

509. *See id.* (manuscript at 41-46) (critically evaluating FEMA statements considering the nature of the NFIP as a federal benefits program).

510. *See id.* (manuscript at 43) (citing and discussing Oklahoma v. U.S. Civ. Serv. Comm'n, 330 U.S. 127, 144 (1947); South Dakota v. Dole, 483 U.S. 203, 210 (1987); Fullilove v. Klutznick, 448 U.S. 448, 474 (1980)).

511. *See infra* note 518 and accompanying text (discussing the Coastal Zone Management Act of 1972 (codified at 16 U.S.C. §§ 1451–1464) and the Coastal Barrier Resources Act of 1982, Pub. L. No. 97–348 (codified at 16 U.S.C. §§ 3501 to 3510)); Adams-Schoen, *supra* note 25 (manuscript at 43-45) (same).

> their comprehensive land use plans are "consistent with the flood plain management objectives" of the NFIP and their floodplain regulations supersede "any less restrictive conflicting local laws, ordinances or codes."
>
> The granting of variances, official actions relating to land management and use, zoning and subdivision regulations, comprehensive land use plans, and local laws, ordinances and codes are all undertaken pursuant to the police power.[512]

The combined effect of these regulations and the federal criteria's focus on building design standards is a federal program that uses valuable federal benefits and program eligibility criteria to incentivize communities to use their police powers to regulate the design of buildings to better accommodate flood hazards and acquiesce to limits on local authority related to those building design regulations, while failing to incentivize adaptive management of the *location* of land uses. In so doing, the NFIP successfully incentivized participating communities to adopt and enforce floodplain building standards that increase the structural resilience of new buildings.[513] Yet, the success of the program in decreasing the rate of damage to individual structures does not account for the massive economic, social, and environmental consequences of the program's concurrent facilitation of intensive development of the nation's floodplains.[514] Consistent with FEMA's building-scale criteria, local land use laws typically allow new development and re-development of areas that have been devastated by flood waters, sometimes repeatedly.[515] In so doing, the NFIP facilitated development that "placed millions of people and trillions of dollars of assets in high-risk flood areas and contributed to the degradation of flood mitigating and carbon sequestering natural areas and substantial and steady increases over time of the cost of flood disasters."[516]

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512. Adams-Schoen, *supra* note 25 (manuscript at 45-46) (quoting 44 C.F.R. §§ 59.1, 59.22(a)(3), 60.1(b)-(c), 60.2(g)).

513. FRENCH WETMORE ET AL., AM. INST. FOR RSCH., THE EVALUATION OF THE NATIONAL FLOOD INSURANCE PROGRAM FINAL REPORT 6 (2006).

514. *See* U.S. COMPTROLLER GENERAL, GAO/CED-82-105 NATIONAL FLOOD INSURANCE (Aug. 16, 1982) (regarding NFIP's contribution to pace and scale of floodplain development);

515. *See generally* BRONIN & MERRIAM, *supra* note 168, § 7:31 ("An emerging problem is the public habit of building and rebuilding in flood prone areas and the associated repetitive claims, for structures which are insured, damaged or destroyed, rebuilt with insurance proceeds, and again damaged by flooding.").

516. Adams-Schoen, *supra* note 25 (manuscript at 49-50) (citing U.S. COMPTROLLER GENERAL, *supra* note 514 (regarding cost); Ecological Rts. Found. v. Fed. Emergency Mgmt. Agency, 384 F. Supp. 3d 1111, 1114-15 (N.D. Cal. 2019) (regarding NFIP's likely contribution to floodplain development that jeopardize ESA-listed species); Coal. for a Sustainable Delta v. Fed. Emergency Mgmt. Agency, 812 F. Supp. 2d 1089, 1125-28 (E.D. Cal. 2011) (finding that the complaint stated sufficient facts regarding NFIP's likely contribution to floodplain development that jeopardizes ESA-listed species); Florida Key Deer v. Paulison, 522 F.3d 1133 (11th Cir. 2008) (finding that the NFIP is a relevant "cause" of floodplain development that jeopardizes ESA-listed species and affirming denial of summary judgment); Nat'l Wildlife Fed'n v. Fed. Emergency Mgmt. Agency, 345 F. Supp. 2d 1151, 1173-76 (W.D. Wash. 2004) (same); *see also* WETMORE ET AL., *supra* note 513, at 6.

Although FEMA's counter-textual interpretation of the NFIA and disavowal of its authority to influence floodplain land *uses* may be no more than an instrumental invocation of land law localism norms to rationalize the agency's failure to implement the NFIA, land law localism's hegemony has contributed to a collective acceptance of FEMA's rationalization and a collective forgetting of the purpose and text of the NFIA. Governmental actors along the vertical governance axis and non-governmental actors in a wide range of disciplines uncritically accept that the operative provisions of the federal flood policy are a combination of federal flood insurance and development-accommodating building standards. This misconstruction is reflected in the nearly complete absence in the relevant published research of recognition that Congress explicitly restructured the federal flood policy to use flood insurance and other valuable federal benefits to incentivize communities to adopt land use laws that, "to the maximum extent feasible," will

> (1) constrict the development of land which is exposed to flood damage where appropriate,
>
> (2) guide the development of proposed construction away from locations which are threatened by flood hazards,
>
> (3) assist in reducing damage caused by floods, and
>
> (4) otherwise improve the long-range land management and use of flood-prone areas.[517]

In this way, land law localism's proponents appear to have forgotten, so to speak, what three federal administrations, floodplain management experts, and state and local officials understood: local discretion to manage hazard area land uses without sufficiently powerful supra-local support can *decrease* local capacity to constrict existing hazard area development or guide new development away from hazard areas. The provision of federal benefits that support floodplain occupancy, such as flood insurance and disaster recovery assistance, further reduces local capacity to adaptatively manage land uses, although Congress understood that some financial safety net is necessary to at least partially offset the massive community and individual costs of flood disasters that have been compounded by more than a century of federal flood policy promoting floodplain occupancy.

The takeaway from this critique is not, however, that the federal government is inherently incapable of effectively supporting local adaptive land management, nor is it that the federal government is an optimal governmental actor to provide such an intervention. The NFIP itself effectively transformed state and local management of building standards in the 100-year floodplain. Other federal statutory schemes, such as the Coastal Zone Management Act ("CZMA") and the Coastal Barrier Resource Protection Act ("CBRA"), provide evidence that the federal government is capable of

517. Pub. L. No. 90–448, § 1361(c), 82 Stat. at 587.

providing effective support for state and sub-state adaptive management of land uses.[518] Yet, looking to the federal government to lead would disregard the current reality in which the Trump administration has indiscriminately fired the federal employees who provide essential disaster prevention and response services, hobbling FEMA's ability to support community disaster planning and post-disaster recovery, and decimating the administrative agencies tasked by Congress with implementing federal laws enacted to support and influence adaptative land management, including the NFIA, CZMA, CBRA, Endangered Species Act, and Clean Water Act, amongst others. Moreover, even as higher levels of government have effectively influenced local management of some aspects of climate resilience, they have continued to support maladaptive local governance of land uses and are, of course, subject to the policy preferences of various incumbent administrations. Such realities illustrate Elinor Ostrom's caution against falling into the "panacea trap" by failing to recognize the systemic and context dependent nature of policy solutions.[519]

Ultimately, the pragmatic feature of subsidiarity requires consideration of governance frameworks that reflect the dynamic and interrelated nature of local, state, and federal governance. It demands a critical evaluation of supra-local levels of government, just as it does the local level. For that evaluation to support adaptive land use management, it must recognize the strengths and weaknesses of various governmental bodies and account for place-dependent variables, including relevant differences among states and regions, as well as time-dependent variables, including differences across administrations.

B. Collaborative Subsidiarity and the Localism Trap

Scholars across a range of disciplines have contributed to a growing literature that attempts to find solutions for this persistent and increasingly tragic institutional conundrum.[520] Recognizing the folly of the panacea trap, many governance theorists and climate researchers have coalesced around the need for collaborative shared governance frameworks that draw on the strengths of various institutional actors, such as federal, state, local, and tribal governments, to help overcome the intractable barriers faced by each actor in its solo capacity. In other words, scholars tend to agree that local capacity to adapt to climate risks requires shared vertical governance in which local governments collaborate with and receive support from their state government,

518. *See* Coastal Zone Management Act of 1972, 16 U.S.C. §§ 1451-1464; Coastal Barrier Resources Act of 1982, 16 U.S.C. §§ 3501-10.

519. Elinor Ostrom, *The Challenges of Achieving Conservation and Development*, IV ANN. PROC. WEALTH & WELL-BEING OF NATIONS 21-22 (2011) ("One of the primary challenges in achieving sustainability is overcoming what I call the 'Panacea Trap.' . . . The challenge instead is to develop a social-ecological system (SES) framework to address multiple ecological problems in a variety of settings. We need to develop better theories that help us understand institutional diversity.").

520. Nolon, *supra* note 6, at 58-66.

the federal government, or both.[521] Examples of this research include Elinor Ostrom's work on "polycentricity,"[522] John Nolan's work on "collaborative subsidiarity,"[523] and research on the "coproduction of knowledge."[524]

Yet, attempts to structure collaborative shared governance also fall victim to a panacea trap. It is my contention that just as land law localism norms undermine the pragmatism of the principle of subsidiarity in analyses of local governance capacity in the solo-actor context, the amplified localism norms that accompany consideration of vertical shared governance involving land use management also stymie clear-eyed assessment of collaborative governance frameworks. In the collaborative context, the uncritical acceptance of land law localism's communitarian values effectively removes from consideration collaborative frameworks that shift authority over adaptive land use management to higher levels of government, even when evidence suggests such frameworks are necessary.

Land law theorist John Nolon and other scholars explicitly and implicitly appreciate that the "solo-actor" function of subsidiarity undermines the principle's pragmatism by disregarding the reality that local governments do not act in isolation.[525] Nolon observes that even local governments "reject the single actor implication of the principle [of subsidiarity]."[526] He points to abundant "[e]vidence of multilevel, intergovernmental collaboration" between localities and "partners up and down the vertical axis" in support of his theory that local governments "embrace a principle of collaborative subsidiarity," "instinctively collaborat[ing] with other agencies to supplement their parochial capacity."[527] Federalism scholars Erin Ryan and Ashira Ostrow likewise observe that collaborative shared vertical governance is not only prescriptive; it also describes how federal, state and local governments tackle a wide range of policy challenges.[528] Nolon critiques other scholars' focus on and advocacy in favor of "particular collaborators" such as state governments or the federal government, respectively.[529] He suggests instead that effective solutions to land law governance problems require local autonomy to select the most appropriate collaborator for

521. *Id.* at 62-66.

522. *See, e.g.*, Elinor Ostrom, *Beyond Markets and States: Polycentric Governance of Complex Economic Systems*, 100 AM. ECON. REV. 641 (2010).

523. Nolon, *supra* note 6.

524. NCA5, *supra* note 52, ch. 31, at 31-23 & app. 5, § A5.2 (coproduction refers to coproduction of knowledge, or "[t]he integration of different knowledge systems and methodologies to systematically understand phenomena, systems, and processes," and "encompasses a range of collaboration modes—from consultative to collegial—that structure science and decision support to advance societal goals.").

525. *Id.*; *see also, e.g.*, ERIN RYAN, FEDERALISM AND THE TUG OF WAR WITHIN 146 (2011).

526. Nolon, *supra* note 6, at 67.

527. *Id.*

528. Ryan, *supra* note 492, at 539; Ashira Pelman Ostrow, *Land Law Federalism*, 61 EMORY L. J. 1397, 1404 (2012).

529. Nolon, *supra* note 6, at 67-68.

the problem, concluding that "[w]hen serious [land law problems] occur, local officials are required to respond, and they will search out and engage help where it exists in the moment."[530]

At its core, however, Nolon's governance theory is founded in land law localism. His theory of collaborative subsidiarity includes not only a presumption in favor of local governance but also posits that local governments should have the autonomy to determine when single-actor local governance is ineffective and, in such circumstances, to select which entities to collaborate with to address the problem effectively.[531] He provides evidence that for many policy problems, a collaborative governance framework in which local governments have full autonomy to decide when and how to collaborate up the vertical governance axis both describes reality and contributes to effective governance.[532] Nolon's long history of successfully working with local governments to help them overcome stubborn institutional barriers to equitably and adaptively regulating land uses provides a strong foundation for this optimism, providing further evidence of the unique capacities of local governments to regulate local land uses.[533] But, just as "[e]vidence . . . abounds" of localities collaborating effectively "with partners up and down the vertical [governance] axis,"[534] abundant evidence also demonstrates that localities routinely fail to initiate or structure collaborative frameworks to effectively respond to some entrenched policy problems.

The history of U.S. flood policy provides evidence consistent with Nolon's theory of collaborative subsidiarity while simultaneously demonstrating that effective collaborative frameworks for some land use management problems will include supra-local constraints on local autonomy. Recall that nearly seventy years ago, state and local government officials acknowledged that "the growing use of flood plains for residential, commercial, industrial and other purposes" largely accounted for the failure of "extensive flood control measures" to alter the upward trajectory of annual flood losses.[535] Recognizing that land use laws and decisions permitted these maladaptive uses of floodplains and coastal hazard areas, they supported the development of a collaborative federal flood policy that would use powerful federal incentives to counterbalance the development pressures on local governments and thereby increase local governmental capacity to restrict land uses in hazard areas.[536] After Congress

530. *Id.* at 68.

531. *Id.* at 67-68.

532. *Id.*

533. *Id.* at 2 nn.1-2.

534. *Id.* at 67.

535. *Resolutions Adopted by the General Assembly of States (Fourteenth Biennial Meeting, Chicago, Ill., Dec. 5, 1958)*, 32 STATE GOV'T 30, 31 (1959); Allison Dunham, *Flood Control Via the Police Power*, 107 U. PA. L. REV. 1098, 1098 & n.2 (1959) (citing and quoting *Resolutions Adopted by the General Assembly of States (Fourteenth Biennial Meeting, Chicago, Ill., Dec. 5, 1958)*, *supra*, at 31); *see also* Adams-Schoen, *supra* note 25 (manuscript at 28-29) (citing and discussing *Resolutions Adopted by the General Assembly of States*, *supra*, and Dunham, *supra*).

536. *Conclusions Adopted at the Conference on Flood Plain Regulation and Insurance*,

passed but failed to appropriate funds for the Flood Control Act of 1956,[537] which would have done just this, the Council of State Governments, the American Society of Planning Officials, and the American Institute of Planners, among others, sponsored a Conference on Flood Plain Regulation and Insurance.[538] The conference attendees urged Congress to make federal flood insurance and other federal benefits contingent on the community where the insured property was located adopting and enforcing "flood zoning," consisting of "zoning, subdivision regulations, housing and building codes, encroachment lines, and other land-use regulations" that limit the development of floodplains.[539]

Following the conference, the Fourteenth Biennial General Assembly of the States issued a resolution that reflected the conference attendees' conclusion that effective land use management of flood hazard areas required both local land use authority and powerful federal incentives to exercise that authority in ways that were in tension with the proprietorial interests underlying the continued development of hazard areas. The resolution urged state governments to "promptly review [their] existing legislation and administration to determine what steps are needed to authorize the use of zoning, sub-division regulation, building codes and other means of land use regulation to prevent flood losses," and urged Congress to make "[a]ll future expenditures of federal funds for protective works[, insurance and loans] yielding primarily localized benefits . . . contingent upon regulatory action by state and local governments to control further encroachment upon flood ways."[540]

These actions clearly illustrate Nolon's contention that "[w]hen serious [land law problems] occur, local officials are required to respond, and they will search out and engage help where it exists in the moment."[541] With respect to local autonomy, however, the Council of State Governments, the American Society of Planning Officials, the American Institute of Planners, and the General Assembly of States found that unfettered local autonomy had the effect of decreasing the capacity of local governments to use their zoning powers to guide new development away from flood hazard areas.[542] This finding was echoed by the federal floodplain management taskforce, floodplain management experts, the Johnson Administration, and Congress, each of which recognized that state and local laws had accommodated maladaptive floodplain

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supra note 102, at 126-127; *see also* Adams-Schoen, *supra* note 25 (manuscript at 29) (citing and discussing *Conclusions Adopted*, *supra* note 102).

537. Federal Flood Insurance Act of 1956, Pub. L. 1016, § 12(b)-(c), 70 Stat. 1078; *see* S. REP. NO. 93-583 (1973) (accompanying the Flood Disaster Protection Act of 1973, Pub. L. 93-234, 87 Stat. 975) (noting that Congress failed to appropriate funding for the 1956 Act).

538. *Resolutions Adopted by the General Assembly of States*, *supra* note 535, at 30, 31; *see also* Dunham, *supra* note 535, at 1098 (discussing conference).

539. *Conclusions Adopted at the Conference on Flood Plain Regulation and Insurance*, *supra* note 102, at 126-127.

540. Dunham, *supra* note 535, at 1098 & n.2 (citing and quoting *General Assembly of the States*, *supra* note 535).

541. Nolon, *supra* note 6, at 68.

542. *See* Adams-Schoen, *supra* note 25 (manuscript at 29-30) (discussing same).

development for more than a century; they thus warned that a collaborative governance framework that includes federal benefits that support floodplain development without providing sufficiently powerful incentives for local governments to adopt avoidance and retreat centered floodplain zoning would further hobble local government capacity to address the maladaptation problem.[543] Through the NFIA, Congress structured the national flood program to address the concerns of these local and state collaborators, but the agencies Congress tasked with implementing the collaborative framework failed to do so, and, as predicted, the program further decreased the capacity of local governments to leverage their police powers to adaptively manage land uses in flood hazard areas.[544]

Although I can only speculate on the role unflinching localism norms attached to land use management played in FEMA's failure to implement the federal zoning criteria consistent with the NFIA's mandate, the rigidity of the preference for local control combined with land law localism's communitarian mystique appear to play a starring role in the *collective acceptance* of the NFIP as primarily an insurance program and the *collective forgetting* of the program's primary purpose: the reduction of flood losses and related federal fiscal exposure. The super-charged localism norms attached to land use law underly frequent judicial, legislative, and political resistance to federal control of, or even federal influence on, the regulation of private land uses and may partially explain FEMA's failure to promulgate floodplain management criteria that facilitate hazard area avoidance and managed retreat.[545] The tension between hazard area avoidance and retreat strategies, on the one hand, and the instrumental deployment of dualistic federalism to constrict Congress's authority to regulate land and water uses pursuant to its enumerated powers,[546] on the other hand, also cast doubt on the likelihood that FEMA will amend the NFIP regulations to include criteria that center hazard area avoidance and managed retreat, as the NFIA directs it to do, or, if it does so, that the criteria will withstand judicial review.

This critique does not and should not suggest, however, that effective collaborative governance of the maladaptive development problem requires the sidelining of local governments. Local governments are not uniquely subject to capture by development interests or prone to temporal freeriding, and most local governments already have and know how to use various land use regulatory tools that have the potential to facilitate hazard area avoidance and, where appropriate, managed retreat. Indeed, the

543. *See, e.g.*, Pub. L. No. 93-234, § 2(a)(1)-(3), 87 Stat. 975, 975-76; *see also supra* notes 112-28 and accompanying text.

544. *See supra* Part I.C.

545. I say "partially explain" because other factors also contributed to this outcome. *See infra* note 547 and accompanying text.

546. *See, e.g.*, Sackett v. EPA, 598 U.S. 651 (2023) (deploying the rhetoric of communitarian localism to curtail Congress's power to regulate land and water uses, directly or through executive agencies, even when the regulation of land and water uses was within Congress's enumerated powers); West Virginia v. EPA, 597 U.S. 697 (2022) (same).

failure to adopt the floodplain management criteria required by the NFIA illustrates the stickiness of the maladaptation problem along the entire vertical governance axis.

Instead, limits on local governance capacity, state laws that contribute to those limits, and federal benefits that support flood hazard area development operate in concert to entrench widespread maladaptive development patterns. Local governments face significant—one might even say existential—pressures to allow new development and the rebuilding of properties destroyed by floods and wildfires. State laws governing the sources of local government revenue contribute to a conundrum whereby a local government's ability to finance climate resilience measures depends on new and expanded development and development restrictions threaten the primary sources of local government revenue: local property taxes, development fees, and local income taxes.[547]

> When properties that currently have development potential are rezoned for open space or less economically lucrative development, or existing development is relocated or destroyed and not rebuilt, the properties' market values decrease and, consequently, the contribution of the property to the local tax base also decreases. The movement of residents and businesses out of a municipality also decreases the municipality's property tax revenue and local revenue derived from state or local income taxes. Reductions in local revenue decrease the ability of the local government to maintain and improve infrastructure or provide essential services and amenities, like parks and open space, which can lead to further reductions in the value of property and out-migration of residents with the means and desire to move to a more affluent area. This downward spiral "can negatively impact these communities' credit ratings, which in turn can make it harder for them to access the capital necessary to finance the infrastructure projects needed to address . . . [sea level rise and flooding] impacts." All these outcomes tend to disparately burden less affluent communities, rural communities, and low-income and historically marginalized community members.[548]

The dynamic nature of governance institutions and the complexity of the maladaptation problem also caution against attempts to identify the specific distribution of

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547. *See* Donald T. Hornstein, *Public Investment in Climate Resiliency: Lessons from the Law and Economics of Natural Disasters*, 49 ECOLOGY L.Q. 137, 183 (2022) ("a community's ability to finance proactive resiliency measures is directly tied to the strength of its tax base and indirectly to the administrative capabilities that a greater tax base can support."); Pappas & Flatt, *supra* note 448, at 378 (positing that municipal officials are incentivized to "encourage continued habitation and growth despite disaster risks" because "municipalities typically derive their tax bases . . . from local residency and investment"); Elizabeth A. Andrews & Jesse Reiblich, *Reflections on Rural Resilience: As the Climate Changes, Will Rural Areas Become the Urban Backyard?*, 44 WM. & MARY ENV'T L. & POL'Y REV. 745, 752 (2020) (regarding state and local income taxes).

548. Adams-Schoen, *supra* note 25 (manuscript at 93-94) (quoting Andrews & Reiblich, *supra* note 547, at 752); *see also* Breydo, *supra* note 286, at 1060 ("About two-thirds of infrastructure projects are funded through municipal bonds; infrastructure, in turn, represents the bulk of municipal debt.").

authority, discretion, and accountability mechanisms among various levels of government—i.e., the collaborative *sweet spot*—that will overcome the maladaptive governance problem. The contours of effective collaborative governance are place- and time-dependent. For example, any framework that relies on the federal government to support state and local adoption and implementation of laws facilitating hazard area avoidance and managed retreat is a non-starter under a federal administration that is hostile to federal disaster management, environmental protection, climate policy, and environmental and resilience justice.[549] While implementing a framework that relies on state governments to establish powerful incentives or accountability measures to center resilience justice may be a tall order in any state it is off the menu in states that prohibit local officials from even discussing structural racism and ban local laws and policies related to climate change or discrimination.[550] Although Democrat-controlled governments at the federal, state, and local levels have taken significantly more action to support climate resilience, barriers to robust and equitable adaptive governance transcend partisanship. The failure of the federal government to implement the minimum floodplain management criteria required by the NFIA, for example, suggests that no federal administration in the last sixty-five years has been willing to provide sufficiently strong federal support for flood hazard area avoidance or managed retreat, even in the face of a Congressional mandate to do so.[551] Patently inequitable federal and state infrastructure investments are also the norm,[552] with notable exceptions that

549. For example, in its first week, the second Trump administration ordered a freeze on Department of Energy "loans, loan guarantees, grants, cost sharing agreements, contracts, contract awards, or any other source of DOE funding [for] diversity, equity, and inclusion (DEI) programs and activities involving or relating to DEI objectives and principles; and Community Benefits Plans (CBP); and Justice40 requirements, conditions, or principles," and ordered all recipients of DOE loans, guarantees or funding of any kind to immediately "cease any activities, including contracted activities, and stop incurring costs associated with DEI and CBP activities." Memorandum for All DOE Funding Agreements or Awards from Sara Wilson, Acquisition Dir. & Acting Head of Contracting Activity, Energy Efficiency and Renewable Energy, U.S. Dep't Energy 7 (Jan. 27, 2025), https://perma.cc/K2ZU-5GWD. Within its first two months, the second Trump administration also ordered EPA employees to stop working on climate and infrastructure laws; attempted to terminate $20 billion of already-disbursed funds awarded under the Inflation Reduction Act including $6 billion of disbursed Clean Communities Investment Accelerator funds; shuttered the Office of Climate Change and the Environment, which provided technical assistance to state and local governments on accessing federal funding for climate projects, and removed from OCCE's website webinars and other instructional material for state and local governments; fired thousands of federal employees that worked on climate- and justice-related programs, including Congressionally mandated programs; and canceled guidance that encouraged states to consider infrastructure projects' climate and environmental justice impacts. *Inflation Reduction Act Tracker*, COLUM. L. SCH.: SABIN CTR. FOR CLIMATE CHANGE L., https://perma.cc/9KCE-AJWC (archived July 13, 2025); *Climate Backtracker*, COLUM. L. SCH.: SABIN CTR. FOR CLIMATE CHANGE L., https://perma.cc/5LPU-E8SH (archived July 13, 2025).

550. *See supra* Parts III.B and III.C.

551. *See supra* Part I.C.

552. *See generally* Breydo, *supra* note 286.

include the Infrastructure Investment and Jobs Act of 2021[553] and the Inflation Reduction Act of 2022.[554] Ultimately, the extremely limited nature of existing local, state, and federal climate resilience governance, and the hostility that some governmental units exhibit to various aspects of such governance, confirms the obvious: significant barriers to the scale and scope of the governance transformation needed to increase the threshold at which climate hazards will exceed tolerable living conditions exist along the entire vertical governance axis.

C. Calibrating Vertical Shared Governance to Empower Local Resilience Lawmaking

As discussed, the principle of subsidiarity favors local governance of local problems (and mixed local-state problems) while *also* demanding a reckoning with the reality that local governments are not equipped to effectively address some problems even when their effects are acutely experienced at the local level. This reckoning is reflected, to an extent, in broad agreement among governance theorists and climate adaptation researchers that effective solutions to the maladaptation problem must recognize both the essential role of local governments and the need to restructure governance institutions to increase the capacity of local governments to adaptively manage land uses.[555]

The good governance norms and pragmatism inherent in the principle of subsidiarity are reflected in the framework of shared vertical governance of the flood hazard problem envisioned by the Congress of 1968.[556] For a shared vertical governance framework to be consistent with these norms as well as principles of justice and adaptive land use management,[557] however, the framework must be carefully calibrated to:

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553. Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, 135 Stat. 429 (2021); *see* Amy E. Turner, *The Legal Case for Equity in Local Climate Action Planning*, 50 FORDHAM URB. L.J 1245, 1281-83 (2023) (discussing the provision of the IIJA that appropriates funding for programs that "aim to improve environmental justice, such as $55 billion for clean drinking water and lead pipe replacement and $21 billion for environmental remediation").

554. Act of Aug. 16, 2022, Pub. L. No. 117-169, 136 Stat. 1818 (2022); *see* Turner, *supra* note 553, at 1283-90 (discussing "many" sections of the IRA that direct investments to mitigate injustices and observing that, "[o]f the Congressional appropriations made in the IRA, $40 billion is estimated to flow into environmental justice communities or to low-income individuals").

555. See Nolon, *supra* note 6, at 62-66 (discussing agreement among governance scholars); SIDERS, *supra* note 88, at 27 ("Increased and improved local planning has been consistently requested by academics, environmental organizations, developers, and the American Planning Association."); AR5, *supra* note 255, at 538, 541 (characterizing "[a]ction in urban centers [as] essential to successful global climate change adaptation" and identifying the need for "city and municipal governments [to] act[] now to incorporate climate change adaptation into their development plans and policies and infrastructure investments").

556. *See supra* Part II.B.

557. *See supra* Parts I.B (discussing transformative adaptation and adaptative land use management), II.A.3 (discussing resilience justice); *see also* Adams-Schoen, supra note 25

1. Mandate or provide sufficiently powerful incentives for state and local governments to exercise their police powers to increase resilience at the community scale coupled with economic support or structural changes that allow local governments to continue to fund essential public services and infrastructure.[558]

2. Prioritize land use regulatory strategies that limit maladaptive development, include mitigation co-benefits, and address the disparate burdens traditional zoning and business-as-usual approaches to adaptation place on vulnerable and historically marginalized communities.[559]

3. Move beyond climate resilience planning to lawmaking that includes amendments to zoning and related laws that shape development patterns.[560]

4. Allow the flexibility necessary for individual communities to account for variations in local conditions and community needs[561] while recognizing that discretionary land use actions have a long history of increasing maladaptive development and entrenching existing wealth and power hierarchies.[562]

5. Enable meaningful involvement of historically excluded community members in crafting and evaluating communities' adaptation strategies,[563] recognizing that local public participation in land use decisions has a long history of entrenching existing wealth and power hierarchies.[564]

6. Include procedures for reviewing and challenging governmental actions that impede key community resilience objectives—for example, those that allow the maladaptive development of hazard areas or contribute

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(manuscript at 69-76) (discussing principles of adaptive floodplain land use management).

558. *See, e.g.*, 16 U.S.C. § 3504 (provision of Coastal Barrier Resources Act of 1982 limiting availability of federal flood insurance and other federal benefits for developments of barrier islands); *see also* STATE OR. LEGIS. REVENUE OFF., K-12 AND ESD SCHOOL FINANCE: STATE SCHOOL FUND DISTRIBUTION (2004) (describing Oregon law that decoupled public school funding from local property wealth).

559. *See supra* Parts I.A-B, II.A(3), III.A.

560. *See* Siders et al., *supra* note 76, at 7 (finding that the existence of climate plans did not positively correlate with proportionally less new development in portions of New Jersey towns within Special Flood Hazard Areas).

561. *See supra* Part II.A(2) (discussing the place- and context-dependent nature of land management).

562. *See supra* Part II.B (regarding maladaptive development); *supra* notes 391-426 and accompanying text, Parts II.A(3), III.A (regarding the entrenchment of power and wealth hierarchies).

563. The pathbreaking participatory planning model the City of Eugene undertook when it amended its code to exceed the requirements of Oregon's middle housing law provide an example of robust public participation and successful justice advocacy. *See* Sarah J. Adams-Schoen & Edward J. Sullivan, *Reforming Restrictive Residential Zoning: Lessons from an Early Adopter*, 37 J. LAND USE & ENV'T L. 161, 167-169 (2022).

564. Lemar, *supra* note 392, at 1117-30.

to the distribution of benefits and burdens that increase existing vulnerabilities.[565]

7. Incorporate periodic assessments that focus on the adoption and implementation of such laws and policies, related outcomes including changes in development and demographic patterns, and reassessment of objectives and strategies.[566]

It is important to reiterate that a rigid collaborative governance framework relying on the federal government—or on any specific distribution of authority, discretion, and accountability mechanisms between various levels of government—will also undermine the pragmatic feature of subsidiarity. A shared governance framework must provide for recurrent analyses of the various capacities and incapacities of each collaborator to respond effectively to the maladaptation problem. Such a recursive process of planning, implementation, and outcome assessment is necessary to recognize the dynamic, complex, and sticky nature of the problem.

Adaptation strategies that center justice and disrupt dominant paradigms that entrench inequity and maladaptation are more likely to increase the capacity of communities writ large to maintain their core structures and functions as the climate continues to destabilize. Resilience justice and other theories and practices that "seek to disrupt dominance in climate adaptation planning" and lawmaking, such as Cinnamon Carlarne and Keith Hirokawa's theory of Climate Dominance,[567] recognize three essential attributes of human communities that current approaches to adaptation neglect: (1) communities and individuals are more resilient "when they have the capacity and opportunity to flourish and live dignified lives";[568] (2) human communities are interdependent systems, such that a disruption to one part of the community affects the whole; and (3) systemic inequality within communities increases community-wide climate vulnerabilities.[569]

As reflected in the list above, communities can also benefit from the expertise of community members who have spent their lifetimes navigating persistent and significant disruptions by meaningfully including them in resilience planning, implementation, and assessment. Robust community engagement that reflects the demographics of the locality, including, for example, people who rent their homes, people who are experiencing or who have experienced housing insecurity, single parents, and people who are reliant on public transportation, can counter misperceptions about the needs

565. *See infra* notes 573-77 and accompanying text (regarding New Jersey's Environmental Justice Law and Oregon's Housing Production Strategy).

566. *See supra* notes 333-54 and accompanying text (discussing recent empirical studies of development outcomes).

567. Cinnamon P. Carlarne & Keith H. Hirokawa, *Disrupting Dominance*, 56 CONN. L. REV. 133, 137 (2023); *see supra* Part II.A(3) (discussing Tony Arnold's work on resilience justice).

568. W. Neil Adger et al., *Inequality, Precarity and Sustainable Ecosystems as Elements of Urban Resilience*, 57 URB. STUD. 1588, 1589 (2020).

569. *Id.* at 1591-92; *see also* Carlarne & Hirokawa, *supra* note 567, at 137 (citing and discussing Adger et al., *supra* note 568).

and desires of the community as a whole.[570] Such engagement also allows those who are most likely to be harmed by resilience governance tradeoffs to contribute to decisions that implicate those tradeoffs, such as decisions to limit development in some hazard-prone areas of a city, even as the city struggles to provide sufficient housing to meet local needs.[571] Recognizing that public participation itself has been a powerful mechanism for promoting exclusionary proprietary values, Anika Singh Lemar's research, discussed below, suggests several concrete legal reforms to center broad, representative public participation without undermining the function of subject-matter experts.[572]

Decision-making and assessment processes must also incorporate mechanisms that account for the pervasive uncritical acceptance of localism's communitarian values. For example, collaborative governance frameworks can be calibrated to require local governments (or other tiers of government when applicable) to justify actions that contribute to maladaptive development, shift climate vulnerabilities to communities that are already more vulnerable to climate risks, or continue patterns of disproportionate investment in the climate resilience of high-amenity communities.

The periodic reviews suggested above can be designed to root out and evaluate presumptions based on localism's communitarian values, assessing whether the presumptions are reflected in outcomes or merely rhetorical. Local governments, or local-regional-state-federal collaborators, can be required to scrutinize categories of land use actions (including planning, lawmaking, and development decisions) that have historically prioritized, wittingly or not, exclusionary proprietorial values over the welfare of the community as a whole, asking: Are resilience planning processes, plans, policies, laws, and outcomes serving presumed or expressed communitarian values or proprietary exclusionary values? (They're serving both, of course, but to what degree?) Are the outcomes consistent with the substantive purpose of the law or policy? To what extent are climate resilience policies decreasing or increasing racial or economic segregation and inequitable distribution of externalities and amenities?[573]

The Affirmatively Furthering Fair Housing (AFFH) rule adopted pursuant to the federal Fair Housing Act provides a potential model, although the whiplash from

570. *See* Lemar, *supra* note 392, at 1137-1150 (suggesting concrete strategies for "[c]rafting an effective community engagement forum" that is responsive "to the various ways in which existing public participation processes fail, not just their potential to succeed"); Adams-Schoen & Sullivan, *supra* note 563, at 167-69 (describing participatory planning model that reflected demographics of community and respect for expertise of community members who had experienced the problem the planning process sought to address).

571. *See supra* Part II.A.3 (regarding "resilience justice thinking" that centers the expertise of community members who have successfully collaborated to remain resilient in the face of repeated, major disruptions).

572. *See infra* notes 578-81 and accompanying text.

573. Lemar, *supra* note 392, at 1139.

adoption, repeal, readoption, and impending re-repeal of the rule also exemplifies the need for dynamic collaborative governance frameworks that include sub-federal collaborators.[574] Nevertheless, the Obama Administration's AFFH rule used powerful incentives (federal funding) to incentivize localities to analyze how their land use laws furthered, or failed to further, objectives of the Fair Housing Act; specifically, the rule required data gathering, robust public engagement, reporting—including reporting on outreach efforts to "populations that are typically underrepresented in the planning process"—and federal evaluation of the success of local outreach efforts.[575]

A potential model for such a process can be found in New Jersey's Environmental Justice Law, which requires environmental justice reviews for development proposals and provides an administrative procedure for challenging the concentration of industrial land uses in overburdened communities.[576] Oregon's housing laws also provide an example of a state-local collaborative governance framework that requires scrutiny of a category of land use actions (i.e., land use laws and decisions related to housing) that has tended to entrench structural inequities and provides numerous substantive and procedural requirements to counter this exclusionary proprietary tendency.[577]

Also cognizant of the role discretionary land use decisions play in perpetuating inequity, Anika Singh Lemar suggests that the Model State Administrative Procedures Act provides "an off-the-rack solution" to at least one major driver of the tyranny of the parochial majority by requiring public participation in administrative proceedings without relying on public commentary "as a primary legitimating force."[578] Rather, like the federal Administrative Procedures Act, the Model State Act relies on the administrative agency's "evaluation of the substance of the decision in question, taking into account both public comment[s] and the agency's independent

574. Pub. L. No. 90-284, 82 Stat. 73 (1968); *see* Press Release, Nat'l Fair Hous. All., National Fair Housing Alliance Responds to HUD's Withdrawal of Affirmatively Furthering Fair Housing Rule (AFFH) (Mar. 5, 2025), https://perma.cc/7PJH-9M8B.

575. Lemar, *supra* note 392, at 1143-44 (describing AFFH rule as potential model for state zoning law reform to that would "require substantial engagement with the actual impacts of planning and development, rather than the perceived risks of changing the status quo"); Affirmatively Furthering Fair Housing, 80 Fed. Reg. 42272, 42355-56 (Jul. 16, 2015).

576. ENVIRONMENTAL JUSTICE, N.J. DEP'T ENV'T PROTECTION, https://perma.cc/M3MK-NM5T (archived May 23, 2025).

577. *See* Edward J. Sullivan, *Will Housing Become the Inflection Point for Realignment of State Land Use Structures?*, 58 IDAHO L. REV. 495, 499-510 (2022) (describing suite of state land use and housing laws addressing tendency of local governments to resist zoning residential areas and making development decisions that increase access to affordable housing); *id.* at 499-500 (identifying measures to prevent delay on housing development applications and prohibiting reductions in "height or density of such development[s] unless necessary to resolve a health, safety or habitability issue or meet certain other planning goal requirements," among other measures).

578. Lemar, *supra* note 392, at 1139 (discussing REVISED MODEL STATE ADMIN. PROCEDURE ACT (NAT'L CONF. COMM'RS ON UNIF. STATE L. 2010)).

analysis."[579] Applying such procedural standards to local land use lawmaking together with a standard of review that considers whether a local ordinance reflects "reasoned decision-making, consistent with the authorizing statute," would allow the "planning and zoning process . . . to be informed, [but] not dictated, by public participation."[580] Lemar also makes a strong case for limiting the influence of public comments (or outcry) on individual local land use development decisions, urging that

> If the planning process is robust, it cannot leave a door open for the law to be applied inconsistently by allowing deviations from the plan guided only by public participation. The exercise of discretion at the development approvals stage undermines the public participation, expertise, and data analysis that inform the underlying planning and zoning.[581]

Reflective of Lemar's suggestions, Oregon's housing law prohibits denial of housing applications that conform to "clear and objective standards" in city and county plans and land use regulations, requires data analysis at the planning stage, and makes a wide range of housing options permissible as-of-right, even in exclusionary high-amenity residential areas.[582]

While these state housing laws are aimed at facilitating the development of housing by preventing undue delay and the denial of development applications driven by exclusionary impulses, similar procedures can help temper the influence of proprietary impulses in climate resilience lawmaking. As in the housing context, local climate resilience lawmaking is subject to capture by local interests that may not prioritize the long-term welfare of the community or the just distribution of the burdens and benefits of land use and resilience policies.

Delay in the context of resilience lawmaking is extremely costly, and effective resilience lawmaking needs to be grounded in equitable and robust participatory planning, clear and objective criteria, and community-scale data that tracks hazard risks, vulnerabilities, development-related laws, policies, and investments, and demographic and development patterns.

Ultimately, any collaborative governance framework must account for the systemic failure at any level of government to engage in a clear-eyed assessment of resilience planning and lawmaking outcomes calibrated to recognize, monitor, and respond to the likelihood that without sufficiently powerful incentives or accountability mechanisms, climate resilience lawmaking will continue to overtly or covertly support maladaptive development and other proprietary and exclusionary interests.

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579. *Id.*
580. *Id.* at 1138.
581. *Id.* at 1146.
582. Sullivan, *supra* note 577, at 500.

CONCLUSION

Like many U.S. trained lawyers and legal academics, I didn't study land use law in law school. The first time I read a land use law casebook I was teaching the course. As I read *Euclid* and the notes following it, which observed the classist undertones of the opinion but nevertheless characterized the rationale for zoning as communitarian, a pit formed in my gut. This optimistic narrative held even as the text guided students through the major U.S. Supreme Court cases addressing zoning law, including *Belle Terre*, *Moore*, and *Village of Arlington Heights*.

This rosy treatment of zoning wasn't anomalous. Land use law texts, treatises, and scholarship also provided accounts of American planning and zoning that suggested the principal purpose of American land use law is to separate incompatible land uses to improve the health, safety, and welfare of the *community as a whole*. American zoning law continues to be credited with improving living conditions, protecting the residential character of the places families live and play, stabilizing house and land prices that allow families to accrue wealth, and enabling individuals and families to achieve the American dream.[583]

I knew from experience that many places where families lived were not included in this vision, however. Even worse, zoning protected the peace, quiet, and clean air of neighborhoods that were whiter and more affluent by clustering undesirable land *uses* near the undesirable land *users*, including People of Color, immigrants, religious minorities, and families living in poverty. Clearly, zoning did not promote the welfare of the entire community. If it did, how could I reconcile growing up in a progressive city in a state that fully embraced the communitarian ideals of land use law with my and my neighbors' experiences in Portland's Cully Neighborhood, a predominantly Black neighborhood in a city that was otherwise more than 90% white, where our houses and families were densely packed together, with many, including the four-plex I lived in, on busy thoroughfares or unpaved streets, where we lived and played next to a 40-acre industrial landfill and the air was the most polluted in the state? I couldn't even reconcile zoning's economic justifications. Although zoning's exclusionary restrictions buoyed housing prices in whiter, wealthier neighborhoods, they also prevented other economic uses of land in those neighborhoods and contributed to the downward economic spiral experienced by those living in zoning's disfavored quarters. This knowing that formed as an ache in my gut paved the way for my critical examination of American zoning law, and it remains relevant today.

Grassroots efforts have finally begun to make the Cully neighborhood of Portland a cleaner, safer space for people to live, although it is still plagued with some of the unhealthiest air in the state. But Cully was neither an anomaly nor a relic of a bygone

583. This reference to the American dream is not hyperbole. *See* Mary Jo Wiggins, *Supremacy Lost?: Zoning, Covenants, and the Evolution of Single-Family Ownership*, 128 PENN. ST. L. REV. 127, 137 & n.43 (2023) (discussing and citing sources documenting past and present characterizations of single-family zoning as necessary for achieving the "American dream").

racist era. The unquestioned proprietary values, which are shrouded by the aspirational and rhetorical communitarian values of zoning, continue to create and perpetuate the presumption that zoning promotes the *public* welfare—a presumption that, when left unexamined, isolates those in the community (and law school classroom) who know otherwise, impeding the participatory model upon which the presumption is based.

The urgency of a reckoning between the rhetoric and reality of land law localism has always existed for those on the receiving end of zoning's burden-shifting and boundary-making. It would be a mistake to characterize the climate crisis and the disparate reality of that crisis for communities of color and low-income communities as sparking the urgent need for a reckoning between land law localism's presumed values, rhetoric, and the mix of values reflected in the racial and social geography of American cities. But the climate crisis, as with other crises, amplifies structural injustices and provides an opportunity for the activism and awareness building needed to harness land use law's potential.

My yearning for a collaborative framework that provides sufficient incentives or oversight to enable local governments to exercise their land use law authority to facilitate robust adaptation and resilience justice is born of an optimism that is as belied by reality as the communitarian rhetoric I critique here. And yet, my experience with students, land use planning and law practitioners and academics, fair housing and climate resilience advocates, and many local, state, and federal civil servants and public officials provides evidence that this project has value. My hope is to call attention to ways in which the misplaced idealism of land law localism stymies a clear-eyed assessment of governance failures, impedes the operation of the pragmatism embedded in the principle of subsidiarity, rejects the lived experiences of community members who have long borne the burdens of land use law's proprietary bent, and ultimately contributes to the institutional barriers that constrain local climate resilience governance.