

Beyond Preemption, Toward Metropolitan Governance

Alejandro E. Camacho* and Nicholas J. Marantz**

I. INTRODUCTION	127
II. FROM METROPOLITAN GOVERNMENTS TO METROPOLITAN GOVERNANCE	130
A. Metropolitan Governments	132
B. Metropolitan Governance	133
III. REFRAMING AND DESTABILIZING AUTHORITY VIA METROPOLITAN GOVERNANCE	135
A. A Taxonomy of Governmental Authority.....	135
B. Identifying Tradeoffs Within Dimensions	139
C. Functional and Dimensional Analysis of Metropolitan Governance	141
D. Collaboration And Learning via Destabilization and Enforced Municipal Self-Regulation	143
E. Promoting Effective Metropolitan Governance.....	145
IV. HOUSING AFFORDABILITY	146
A. Housing Localism and the Problems of Housing Affordability.....	147
B. Land-Use Law and Housing Localism.....	149

*Alejandro E. Camacho, Chancellor’s Professor of Law and Faculty Director, Center for Land, Environment, and Natural Resources, University of California, Irvine School of Law; Member-Scholar, Center for Progressive Reform.

**Nicholas J. Marantz, Assistant Professor, Urban Planning and Public Policy, School of Social Ecology, University of California, Irvine.

The authors thank Michael Barsa, David Dana, Robert Glicksman, Melissa Kelly, Arthur Pugsley, Holly Whatley, and the participants in workshops at the UC Irvine and Northwestern Law Schools for their constructive thoughts and comments, and Alexandra Schluntz for her valuable research assistance.

C.	Other Regulatory Levers of Housing Localism	150
D.	Reallocating Authority to Mitigate Housing Localism and Promote Regional Goals	151
E.	Tailoring Functions to Address Housing Localism in Massachusetts.....	152
F.	Enhancing Enforced Municipal Self-Regulation via Modest Reallocations of Governmental Authority	154
G.	Identifying Additional Opportunities to Promote Regional Housing Goals.....	157
1.	Enhancing enforced municipal self-regulation.....	158
2.	Other reallocations of authority could yield additional improvements	159
V.	STORMWATER MANAGEMENT	161
A.	Ecological and Human Health Harms from Metropolitan Stormwater Runoff.....	162
B.	Decentralized Authority over Metropolitan Stormwater Pollution	163
C.	Promoting Neglect of Metropolitan Stormwater Pollution	166
D.	Missing Opportunities for Effective Governance	169
E.	Inducing Metropolitan Solutions: Standard Setting through Joint Liability	172
1.	The Los Angeles MS4 Template.....	173
2.	Liability Standard Setting as Destabilization	175
3.	Other Potential Destabilizing Reallocations.....	178
VI.	ADDRESSING GHG EMISSIONS FROM TRANSPORTATION AND LAND USE	180
A.	The Design of California's SB 375.....	182
B.	An Incremental But Poorly Tailored Allocation.....	184
C.	The Limits of One-Dimensional Preemptive Fixes	186
D.	Promoting More Effective Metropolitan Transportation Governance	188
1.	Tailoring Centralization by Function	188
2.	Beyond Centralization of Transportation Governance.....	190
VII.	CONCLUSION.....	196

I. INTRODUCTION

Like many Americans of her generation, Susan Kirsch grew up in the Midwest but settled on the West Coast during the 1970s.¹ Now in her mid-70s, Kirsch moved to California about 40 years ago. She lives in a modest single-family home in the City of Mill Valley, population 14,295, located 14 miles north of downtown San Francisco. Kirsch supports the Sierra Club and drives a Prius, but she adamantly opposed a project that would add multifamily housing in Mill Valley, despite evidence that such housing could mitigate both climate change and the rapid escalation of housing costs in the region.² More recently, when California legislators considered a bill that would require municipalities such as Mill Valley to allow denser development, Kirsch formed a statewide coalition to oppose it. “Climate change is a serious problem, and we need to get a handle on it,” Kirsch has said. But she characterizes state intervention as “[a] one-size-fits-all mandate [that] violates democratic principles,” contending that “we need to get a handle by focusing on local control: local solutions for local issues.”³

Kirsch’s argument reflects the tortured discourse of local government law, which has long fixated on the possibility and normative desirability of two poles—preemption and decentralization.⁴ One line of reasoning emphasizes the interdependencies of jurisdictionally fragmented metropolitan areas.⁵ Such scholars and commentators have repeatedly called for state intervention in local policy, either via express legislative preemption or via judicial determination that state law implies the preemption of local regulation.⁶ Paralleling Susan Kirsch’s reproach of a

1. Laura Bliss, *The NIMBY Principle*, CITYLAB (Jul. 26, 2019), <https://www.citylab.com/equity/2019/07/nimby-vs-yimby-single-family-zoning-laws-california-housing/594373/>.

2. See *infra* Part V.

3. Bliss, *supra* note 1.

4. See Richard Thompson Ford, *The Boundaries of Race: Political Geography in Legal Analysis*, 107 HARV. L. REV. 1841, 1845–46 (1994) (“Legal analysis oscillates between two contradictory conceptions of local political space One regards local jurisdictions as geographically defined delegates of centralized power . . . , [t]he other treats local jurisdictions as autonomous entities that deserve deference because they are manifestations of an unmediated democratic sovereignty.”).

5. See generally Richard Briffault, *Our Localism: Part II – Localism and Legal Theory*, 90 COLUM. L. REV. 346 (1990) [hereinafter Briffault, *Our Localism II*] (evaluating the social costs of local autonomy and how well the values of localism are advanced by localism in practice). We use the term “metropolitan area” to denote regions defined by the U.S. Office of Management and Budget as “metropolitan statistical areas.” 2010 Standards for Delineating Metropolitan and Micropolitan statistical areas, 75 Fed. Reg. 37,246, 37,252 (Off. of Mgmt. and Budget June 28, 2010).

6. See, e.g., John Infranca, *The New State Zoning: Land Use Preemption Amid a Housing Crisis*, 60 B.C.L. REV. 823 (2019); Anika S. Lemar, *The Role of States in Liberalizing Land Use*

“one-size-fits-all mandate,” an opposed view suggests that efforts to promote more altruistic behavior by local governments via centralized fiat are normatively undesirable, due to their democracy-dampening effects, and instrumentally undesirable, due to their likely inefficacy.⁷

Several perceptive scholars have recognized that traditional municipal functions often simultaneously implicate matters of regional and local concern.⁸ As a result, they have sought tractable intermediate forms of governance, involving “a state-local relationship characterized by [n]either complete state dominance [n]or one of complete local autonomy”⁹ Yet scholars have struggled to depict and cultivate these more tailored forms of metropolitan governance, for at least two reasons. First, despite an array of taxonomic projects characterizing the allocation of authority in metropolitan areas, each of these projects have overlooked elemental characteristics of the allocation of governmental authority. As a result, scholars and policymakers fail to appreciate the basic choices and tradeoffs involved in allocating metropolitan authority. Second, most scholars and policymakers have neglected the potential for relying on discrete reallocations of authority that do not prescribe specific courses of action for local governments, but which instead unsettle, or destabilize, local expectations, thereby triggering policy experimentation in pursuit of regional goals.

This Article addresses both of these shortcomings, deploying a novel taxonomy to describe a range of narrow interventions by which state governments (or the federal government) have set standards for local governments, established new rights for third parties to enforce these standards, and/or provided forums or instruments for intergovernmental coordination and collaboration in order to promote implementation and attainment of the standards. The interventions that we describe are very different from the forms of field preemption that have recently preoccupied scholars of state-local relations,¹⁰ but at least as important.

We use this taxonomy to describe approaches to metropolitan

Regulations, 97 N.C.L. REV. 293 (2019).

7. See *infra* Section I.B; see, e.g., Gerald E. Frug, *The City as a Legal Concept*, 93 HARV. L. REV. 1057 (1980); Jerry Frug, *Decentering Decentralization*, 60 U. CHI. L. REV. 253 (1993).

8. See, e.g., Briffault, *Our Localism II*, *supra* note 5; Gerald E. Frug, *Beyond Regional Government*, 115 HARV. L. REV. 1763, 1775 (2002) [hereinafter Frug, *Beyond Regional Government*].

9. Briffault, *Our Localism II*, *supra* note 5, at 453.

10. See, e.g., Richard Briffault, *The Challenge of the New Preemption*, 70 STAN. L. REV. 1995 (2018); Erin Adele Scharff, *Hyper Preemption: A Reordering of the State-Local Relationship?*, 106 GEO. L. J. 1469 (2018); Richard Schragger, *The Attack on American Cities*, 96 TEX. L. REV. 1163, 1171 (2018).

regulation that transcend the centralization/decentralization dichotomy, providing an analytical framework for state and local policymakers seeking to address both novel and enduring problems of metropolitan areas.¹¹ Policymakers should consider not only the extent that governmental authority is (or should be) centralized, but also the extent that any such authority overlaps (or should overlap) with other governmental entities, as well as the extent such authority is (or should be) coordinated with others.¹² Moreover, by disaggregating governmental functions (such as standard-setting, planning, implementation, and enforcement), and parsing different ways of allocating authority for each function, we explore how state governments can effectively alter standards for regional welfare and create new rights for third-party enforcement.¹³ This analytic framework reveals opportunities for regulatory innovation that can enhance government effectiveness,¹⁴ increase allocative efficiency, improve accountability, and promote fair distributions of the burdens and benefits of regulation.¹⁵

More centralized but tailored standard setting enables municipalities to retain primary authority over most governmental functions (including planning and implementation), thereby potentially realizing many of the benefits of decentralization while mitigating its most pernicious regional costs. Moreover, such alterations of authority can induce local governments to coordinate in the implementation of state standards—not through the creation of new government institutions, but through a variety of existing forums for intergovernmental cooperation. Indeed, one of the remedial innovations that we explore, relating to regional watershed management, gives local governments a powerful motive to collaborate in order to achieve the relevant standards, and thereby to avoid the consequences of third-party enforcement.

11. To be sure, we do not contend that formal structures are generally determinative of social outcomes. Rather, we view formal structure as a potentially significant and underexplored feature of metropolitan governance arrangements.

12. ALEJANDRO E. CAMACHO & ROBERT L. GLICKSMAN, *REORGANIZING GOVERNMENT: A FUNCTIONAL AND DIMENSIONAL FRAMEWORK* 31 (2019).

13. IAN AYRES & JOHN BRAITHWAITE, *RESPONSIVE REGULATION: TRANSCENDING THE DEREGULATION DEBATE* (1992); Charles F. Sabel & William H. Simon, *Destabilization Rights: How Public Law Litigation Succeeds*, 117 HARV. L. REV. 1015 (2004).

14. We view a regulatory instrument as “effective” if it serves its intended purpose. Of course, to the extent that the intended purpose of a regulatory instrument is ambiguous, the instrument’s effectiveness will also be ambiguous.

15. See CAMACHO & GLICKSMAN, *supra* note 12, at 3; Alejandro E. Camacho & Robert L. Glicksman, *Functional Government in 3-D: A Framework for Evaluating Allocations of Government Authority*, 51 HARV. J. ON LEGIS. 19, 26–31 (2014) (defining these various normative considerations for allocation of authority).

Ultimately, application of this framework can reveal more viable and effective adjustments in the allocation of metropolitan authority. We do not suggest a single set of reallocations as a panacea for the diversity of metropolitan problems; appropriate adjustments in allocations will depend on the pre-existing configuration of authority, the characteristics of the substantive issue, and ultimately the normative preferences of policymakers. For example, in some instances increased centralization in the authority over information dissemination may further enhance regulatory effectiveness, while in other circumstances such centralization may be unnecessary. But this article offers a framework that better uncovers the key tradeoffs presented in allocating metropolitan authority than prior debates have considered, and the various case studies offer key insights about how limited changes in the authority over certain governmental functions can promote regional goals.

The remainder of the Article proceeds as follows: Part I briefly describes the simultaneously fragmented and integrated quality of metropolitan areas, and discusses the transformation of efforts to address fragmentation from an approach centered on metropolitan *government* to one oriented toward metropolitan *governance*. Part II argues that previous conceptions of metropolitan governance have generally neglected to account for the fact that public authority is better understood as having both substantive and functional attributes, as well as consisting of three different dimensions that respectively focus on the extent to which authority is centralized, overlapping, and coordinated. Part II also links the insights derived from this functional and dimensional taxonomy to the literature on experimentalism and enforced self-regulation, which suggests how formal authority can interact with the informal, networked relationships that have come to characterize metropolitan governance. Parts III through V then illustrate how this functional and dimensional analysis can yield insights about the configuration of metropolitan governance, using case studies of three governance innovations related to housing, water pollution, and transportation.

II. FROM METROPOLITAN GOVERNMENTS TO METROPOLITAN GOVERNANCE

As of 2016, the United States contained 382 metropolitan areas,¹⁶ each consisting of an urbanized area,¹⁷ combined with “adjacent outlying

16. See U.S. CENSUS BUREAU, 2016 AMERICAN COMMUNITY SURVEY: 1-YEAR ESTIMATES (2017).

17. An urbanized area is “[a] statistical geographic entity delineated by the Census Bureau, consisting of densely settled census tracts and blocks and adjacent densely settled territory that

counties having a high degree of *social and economic integration* with the central county or counties as measured through commuting” (emphasis added).¹⁸ Metropolitan areas are constituted not by jurisdictional boundaries, but by commuting patterns, economic activity, and wellsprings of regional identity such as sports teams.¹⁹ A resident of the metropolitan area encompassing Boston, Massachusetts could easily work in the latter city, live in the nearby City of Newton, and worship in the City of Cambridge. On the opposite side of the country, one southern California woman explained, “I live in Garden Grove, work in Irvine, shop in Santa Ana, [and] go to the dentist in Anaheim.”²⁰

If transportation networks and commerce are the centripetal forces that integrate a metropolitan area, then municipal land-use regulation is the centrifugal force that segregates it. Local authority to regulate land use derives from the states’ police power, which entails inherent authority to make and enforce laws to protect health, safety, and general welfare.²¹ States generally delegate substantial authority over land-use regulation to local governments via zoning enabling legislation.²² Such enabling legislation gives municipalities the authority to adopt zoning maps, specifying the permitted land uses in different districts and the area requirements for development in each district, such as minimum lot sizes and maximum building heights.²³ Many local zoning ordinances restrict residential development to detached single-family homes on large lots. Such regulatory constraints can raise housing prices beyond the means of many households, producing economic exclusion and perpetuating

together contain at least 50,000 people.” 2010 Standards for Delineating Metropolitan and Micropolitan statistical areas, 75 Fed. Reg. 37246, 37252 (Off. of Mgmt. and Budget June 28, 2010).

18. *Id.* As noted in note 5, *supra*, we use the term “metropolitan area” in lieu of “metropolitan statistical area.”

19. WILLIAM H. FREY ET AL., TRACKING METROPOLITAN AMERICA INTO THE 21ST CENTURY: A FIELD GUIDE TO THE NEW METROPOLITAN AND MICROPOLITAN DEFINITIONS 1 (2004).

20. Richard Briffault, *Our Localism II*, *supra* note 5, at 413 (1990) (quoting CARL ABBOTT, THE NEW URBAN AMERICA 186 (rev. ed. 1987)).

21. *See, e.g.*, Nat’l Fed’n of Indep. Bus. v. Sebelius, 567 U.S. 519, 535–36 (2012) (holding that federal legislation can promote the “general [w]elfare” only to the extent authorized by the Constitution, contrasting the enumerated powers of the Federal Government with the powers of the States, which “perform many of the vital functions of modern government[, including] zoning property for development . . . , even though the Constitution’s text does not authorize any government to do so[.]” and describing “this general power of governing, possessed by the States but not by the Federal Government, as the ‘police power’”).

22. *See* NORMAN WILLIAMS & JOHN M. TAYLOR, AMERICAN LAND PLANNING LAW: LAND USE AND THE POLICE POWER § 19:1 (rev. ed. 2011) (describing the origination of the Standard Zoning Enabling Act and noting that state laws modeled on it are “still in effect [with various modifications] in 47 states”).

23. *See* STEWART E. STERK ET AL., LAND USE REGULATION 23–25 (2d ed. 2016).

segregation.²⁴ The resulting sprawling development patterns replace wetlands, forests, and farmland with impervious surfaces, such as roads, parking lots, and rooftops, thereby exacerbating risks of flooding and pollution from urban runoff.²⁵ Sprawling development also reinforces reliance on automobiles for commuting, creating substantial obstacles for efforts to limit greenhouse gas emissions from automobiles.²⁶

The jurisdictional fragmentation that currently characterizes U.S. metropolitan areas is largely a product of rapid urbanization (and suburbanization) during the twentieth century, when central cities stopped expanding to encompass newly developed territory. For many decades, commentators decried the jurisdictional fragmentation of metropolitan areas and sought to limit it via the creation of metropolitan *governments*.²⁷ As detailed in Part I.A, this goal proved to be elusive and, during the latter half of the twentieth century, analysis of metropolitan areas turned to the more diffuse concept of metropolitan *governance*. But, as explored in Part I.B, accounts of metropolitan governance have largely neglected the role that allocations of formal legal authority play in shaping effective governance, while others frequently have conflated the various dimensions of formal authority.

A. Metropolitan Governments

Consolidated metropolitan government emerged as a possible solution to problems of metropolitan areas at the dawn of the metropolitan era. During the first half of the twentieth century, political scientists and public administrators routinely called for the consolidation of municipal authority into “a single areawide multipurpose unit of government,” ostensibly to “clarify lines of responsibility, make service delivery more economical and effective, improve coordination, unplug communications channels, and enhance accountability to the public.”²⁸ Proponents of such centralization contended that giving a metropolitan government authority

24. Rolf Pendall, *Local Land Use Regulation and the Chain of Exclusion*, 66 J. AM. PLAN. ASS'N 125 (2000); see also Michael C. Lens & Paavo Monkkonen, *Do Strict Land Use Regulations Make Metropolitan Areas More Segregated by Income?*, 82 J. AM. PLAN. ASS'N 6 (2016).

25. ROBERT BURCHELL ET AL., *SPRAWL COSTS: ECONOMIC IMPACTS OF UNCHECKED DEVELOPMENT* 42–43 (2005).

26. MARLON BOARNET & SUSAN HANDY, *A FRAMEWORK FOR PROJECTING THE POTENTIAL STATEWIDE VEHICLE MILES TRAVELED (VMT) REDUCTION FROM STATE-LEVEL STRATEGIES IN CALIFORNIA* 14–21 (2017).

27. See *infra* notes 29–33 and accompanying text.

28. ADVISORY COMM'N ON INTERGOVERNMENTAL RELS., *REGIONAL DECISION MAKING: NEW STRATEGIES FOR SUBSTATE DISTRICTS* 11–12 (1973) [hereinafter ACIR, *REGIONAL DECISION MAKING*].

over land use, revenue collection, and infrastructure could reduce harmful spillover effects and mitigate resource inequalities.²⁹

During the first half of the twentieth century, metropolitan consolidation may have seemed to be a viable option because it had been commonplace toward the end of the nineteenth century and during the first decades of the twentieth. During that period, cities such as Boston, Cleveland, Chicago, Denver, Indianapolis, and Los Angeles annexed surrounding territory, including existing cities and unincorporated areas.³⁰ Between 1870 and 1930, the area of the twenty most populous cities in the U.S. more than tripled.³¹ Many residents of outlying areas sought consolidation in order to access services requiring extensive infrastructure, such as water supply and wastewater treatment.³² Large cities had property tax bases sufficient to secure the debt necessary to finance the requisite facilities, providing a powerful incentive for consolidation.³³

B. *Metropolitan Governance*

As shifts in transportation technology facilitated development at ever greater distances from central cities, many burgeoning suburbs balked against consolidation under a single metropolitan government. Under a consolidation regime, annexed areas were forced to cede control over taxes and land-use regulation to a much larger city government. By contrast, outlying municipalities could pool their resources for limited purposes via the use of regional special districts—distinct corporate entities with “substantial fiscal and administrative independence from general purpose local governments.”³⁴ In the Los Angeles area, for example, the formation of the Metropolitan Water District enabled smaller municipalities to acquire rights to water and finance the infrastructure to deliver it, stalling the territorial expansion of the City of Los Angeles, which had previously been the sole provider of water supply infrastructure.³⁵

29. See G. ROSS STEPHENS & NELSON WIKSTROM, METROPOLITAN GOVERNMENT AND GOVERNANCE: THEORETICAL PERSPECTIVES, EMPIRICAL ANALYSIS, AND THE FUTURE 29–46 (2000) (collecting citations).

30. JON C. TEAFORD, CITY AND SUBURB: THE POLITICAL FRAGMENTATION OF METROPOLITAN AMERICA, 1850-1970, at 39 (1979).

31. *Id.* at 77.

32. *Id.*

33. *Id.*

34. ACIR, REGIONAL DECISION MAKING, *supra* note 28, at 20.

35. ROBERT M. FOGELSON, THE FRAGMENTED METROPOLIS: LOS ANGELES, 1950-1930, at 143–44, 271–72 (rev. ed. 1993).

This shift from metropolitan governmental consolidation to increased reliance on regional special districts heralded the demise of the era of metropolitan *government* and the rise of metropolitan *governance*.³⁶ In the decades following World War II, metropolitan areas were routinely described as consisting of “fragmented political system[s] featuring multiple decision-making centers and multiple service delivery mechanisms.”³⁷ As befits a system characterized by fragmentation and multiplicity, metropolitan governance itself proved to be an elusive concept. For some commentators, the term denoted “cooperation and competition among *decentralized* governmental units in urban metropolitan areas.”³⁸ In this view, general-purpose local governments serve a role akin to private firms, with a multiplicity of local governments facilitating the articulation of demands for different “bundles” of services.³⁹ If each municipality provided a different bundle, then prospective residents would have a wider variety of options, enhancing their ability to satisfy their preferences.⁴⁰ A complementary perspective characterized metropolitan governance as involving “large numbers of jurisdictions with some aspects of *overlap* among jurisdictions,” as in the case of general-purpose local governments supplemented by regional special districts.⁴¹ For still others, metropolitan governance entailed the supplementation of formal authority “by an increasing reliance on informal authority . . . in the shape of negotiated patterns of public-private coordination.”⁴²

36. The timing of the demise of central city consolidation varied among regions. Initially, the end of consolidation was largely confined to the Northeast, the Midwest, and the West Coast, and consolidation remained viable in much of the South and parts of the Southwest through the 1970s. See STEPHENS & WIKSTROM, *supra* note 29, at 46.

37. ADVISORY COMM’N ON INTERGOVERNMENTAL RELATIONS, REGIONAL GOVERNANCE: PROMISE AND PERFORMANCE i (1973)

38. RICHARD C. FEIOCK, METROPOLITAN GOVERNANCE: CONFLICT, COMPETITION, AND COOPERATION 4 (2004) (emphasis added).

39. Vincent Ostrom et al., *The Organization of Government in Metropolitan Areas: A Theoretical Inquiry*, 55 AM. POL. SCI. REV. 831 (1961); Charles M. Tiebout, *A Pure Theory of Local Expenditures*, 64 J. POL. ECON. 416 (1956).

40. Under this model, jurisdictions compete for “consumer-voters,” who select a residential community based on preferences for public goods. Tiebout, *supra* note 39, at 418. Fragmentation into myriad municipalities is desirable because “[t]he greater the number of communities and the greater the variance among them, the closer the consumer will come to fully realizing his preference position.” *Id.*

41. Vincent Ostrom, *Polycentricity (Part 2)*, in POLYCENTRICITY AND LOCAL PUBLIC ECONOMIES 119, 126 (Michael McGinnis ed., 1999) (emphasis added).

42. Jon Pierre, *Introduction: Understanding Governance*, in DEBATING GOVERNANCE: AUTHORITY, STEERING, AND DEMOCRACY 1, 3 (Jon Pierre ed., 2000); see also Allan D. Wallis, *The Third Wave: Current Trends in Regional Governance*, 83 NAT’L CIVIC REV. 290, 292 (1994) (characterizing metropolitan governance by reference to “informal structures and processes for

These various conceptions of metropolitan governance often obscured as much as they revealed. Commentators emphasizing formal governmental authority in metropolitan areas tended to characterize it either in terms of decentralization *or* in terms of overlap, and sometimes conflated the two concepts.⁴³ Legal scholars have focused largely on the tradeoffs associated with either decentralized or centralized governance for managing metropolitan problems,⁴⁴ largely overlooking the potential for simultaneous moves toward more (or less) overlap and more (or less) coordination. In other areas of social science, analysis of metropolitan governance turned almost wholly to the processes of consultation and collaboration, sometimes relegating formal institutions to a secondary role.⁴⁵

III. REFRAMING AND DESTABILIZING AUTHORITY VIA METROPOLITAN GOVERNANCE

The design and assessment of metropolitan governance should reflect the overlapping, fragmented, inter-relational characteristics of metropolitan areas. After outlining the nature of metropolitanism and the prevailing baseline of land use governance, this section describes and employs a taxonomy developed in our prior scholarship to explain and assess inter-governmental relations. It then describes how this taxonomy might be applied in the substantive area of land-use regulation, a focal point for concerns about metropolitan governance. Finally, it links our taxonomy to the literature on collaborative governance and enforced self-regulation to advance a provisional suite of reallocations for promoting metropolitan governance.

A. *A Taxonomy of Governmental Authority*

Regulatory efforts to address problems stemming from the simultaneous integration and fragmentation of metropolitan areas can be categorized along three dimensions of *substantive* and *functional* jurisdiction. Of course, governmental authority to manage or regulate

setting policy and mobilizing action”).

43. CHRISTOPHER R. BERRY, IMPERFECT UNION: REPRESENTATION AND TAXATION IN MULTILEVEL GOVERNMENTS 48 (noting that scholars analyzing overlapping or “polycentric” jurisdictions typically fail to make “a fundamental theoretical distinction between horizontal and vertical fragmentation”); Christopher Berry, *Piling on: Multilevel Government and the Fiscal Common-Pool*, 52 AM. J. POL. SCI. 802, 816 (2008) (indicating that many analyses of metropolitan governance “assume (often implicitly) that governments are general purpose and nonoverlapping”).

44. See *supra* note 4 and accompanying text.

45. See, e.g., sources cited *supra* note 42.

activity can be characterized based on the subject matter managed or regulated. Such substantive jurisdiction in metropolitan areas might include authority for direct provision of services (such as policing, fire protection, transportation, refuse collection and disposal, water and sewer, parks and recreation, libraries, education, public health and welfare, and housing) as well as regulation of private activities (such as environmental protection, and land use and development).⁴⁶

For every allocation of authority, however, there is not only a substantive allocation but also, at least implicitly, a functional one.⁴⁷ Such functional jurisdiction might include *funding public activities*;⁴⁸ *generating*,⁴⁹ *distributing*,⁵⁰ and *analyzing information*;⁵¹ *planning*;⁵² *standard setting*;⁵³ *implementation and permitting*;⁵⁴ *service provision*;⁵⁵ *inspection and compliance monitoring*;⁵⁶ and *enforcement*.⁵⁷ Government institutions in a metropolitan area often have authority over a segment of

46. See ADVISORY COMM'N ON INTERGOVERNMENTAL RELS. (ACIR), GOVERNMENTAL FUNCTIONS AND PROCESSES: LOCAL AND AREA WIDE 9 (1974).

47. CAMACHO & GLICKSMAN, *supra* note 12, at 21.

48. See *id.* at 26 (defining government funding as “provision of financial resources (toward an activity, social need, program, or project)”).

49. *Id.* (defining research and data generation as “systematic investigation into and production of materials and sources to establish facts and reach new conclusions relevant to a particular issue”).

50. *Id.* at 27 (defining information distribution as “the collection and dissemination of information”).

51. *Id.* (defining information analysis as “governmental examination and/or assessment of information or research”).

52. U.S. EPA Office of the Administrator/Office of Policy/Office of Strategic Environmental Management, Program Evaluation Glossary (November 1, 2007), https://ofmpub.epa.gov/sor_internet/registry/termreg/searchandretrieve/glossariesandkeywordlists/search.do?details=&glossaryName=Program%20Evaluation%20Glossary#formTop (defining “planning” as “[t]he process of anticipating future occurrences and problems, exploring their probable impact, and detailing policies, goals, objectives, and strategies to solve the problems”).

53. CAMACHO & GLICKSMAN, *supra* note 12, at 27 (defining standard setting as “government activities in developing, promulgating, and revising general benchmarks that are to be applicable to a group of private or public actors”). Cf. ACIR, *supra* note 46, at 10 (referring to the formulation of rules, rule interpretation, rule adjudication, rule evaluation, rule amendment, and rule enforcement as subcategories of metropolitan standard setting).

54. CAMACHO & GLICKSMAN, *supra* note 12, at 28 (defining implementation and permitting as “governmental activities involving the interpretation and application of identified standards in a particular circumstance or set of circumstances, such as the permitting or licensing of activities.”).

55. Direct provision of services can include the development and/or operation of infrastructure such as public utilities.

56. CAMACHO & GLICKSMAN, *supra* note 12, at 28 (defining inspection and compliance monitoring as “governmental observation and/or review of the performance of an entity or activity that is being managed or regulated”).

57. *Id.* (defining enforcement as “activities meant to induce compliance with and enforce . . . legal duties through civil administrative proceedings or judicial civil and/or criminal proceedings”).

some, but not all, of the full range of possible functions for a particular substantive area.

Of course, regulatory authority is routinely lodged in more than one governmental institution. In a metropolitan area, myriad general-purpose municipalities, special districts, counties, regional governments, and even state and federal entities have jurisdiction over various aspects of metropolitan life.⁵⁸ The relationship between these different authorities in a metropolitan area is typically understood in terms of the extent that governmental authority is centralized or decentralized.⁵⁹ Proposed regulatory reforms therefore promise some combination of scale economies, equity, and political accountability via centralization or decentralization.⁶⁰

For example, the decentralization of land-use regulation—long regarded as the most important topic of political contestation in local government⁶¹—is well rehearsed in the literature. Between the 1920s and the 1970s, as the U.S. completed its transition from a predominantly rural nation to a predominantly urban one,⁶² regulating the development of land became a defining activity of local governments.⁶³ During this period, as many scholars have noted, local authority over land use regulation was highly decentralized because state zoning enabling legislation gave local governments substantial authority to establish and implement standards for land development. The widespread use of zoning, in combination with technological development, rapid population growth, and federal expenditures on highways and mortgage programs facilitated the rapid increase in homeownership during the latter half of the twentieth century, which—in turn—reshaped the politics of metropolitan governance.⁶⁴

Notably, scholarly focus on decentralization can obscure other ways

58. See generally STEPHENS & WIKSTROM, *supra* note 29; ACIR, REGIONAL DECISION MAKING, *supra* note 28.

59. CAMACHO & GLICKSMAN, *supra* note 12, at 32.

60. *Id.* at 34–37.

61. J. ERIC OLIVER, DEMOCRACY IN SUBURBIA (2001); PAUL E. PETERSON, CITY LIMITS (1981).

62. The U.S. population in 1920 was 106,021,537, of which 51.2% resided in urban areas, marking the first decennial census in U.S. history when the urban population predominated over the rural population. U.S. CENSUS BUREAU, 1990 CENSUS OF POPULATION AND HOUSING: POPULATION AND HOUSING UNIT COUNTS – UNITED STATES 37 (1993), <https://www.census.gov/prod/cen1990/cph2/cph-2-1-1.pdf>. By 1970, the U.S. population was 203,211,926, of which 73.6% resided in urban areas. *Id.*

63. NANCY BURNS, THE FORMATION OF AMERICAN LOCAL GOVERNMENTS: PRIVATE VALUES IN PUBLIC INSTITUTIONS (1994).

64. See generally William A. Fischel, *An Economic History of Zoning and a Cure for Its Exclusionary Effects*, 41 URB. STUD. 317 (2004).

of characterizing allocations of authority, which may militate in favor of alternative institutional designs. For example, such allocations can also be understood as providing for substantial (or minimal) *overlap* in authority between government institutions.⁶⁵ Moreover, an allocation may allow, or even require, the exercise of authority to be independent from that exercised by other government institutions, but it may alternatively require some form of *coordination* (e.g., interlocal or local-state coordination) of the exercise of such authority with that of other institutions.⁶⁶ Governmental authority thus involves not only *substantive* and *functional* characteristics, but also three *dimensional* features, with every substantive and functional allocation of authority capable of being simultaneously categorized along each of three axes, one indicating the extent of centralization (a **centralization-decentralization** axis), one indicating the extent of overlap (an **overlapping-distinct** axis), and one indicating the extent of coordination (a **coordination-independence** axis).⁶⁷

Scholarly focus on the **decentralization** of land-use regulation has generally overlooked the fact that local authority over standard-setting and implementation in the domain of land-use regulation was also **independent** (as opposed to **coordinated**) and **distinct** (as opposed to **overlapping**). Local zoning authority was largely independent, at least until the end of the 1960s, because it required little coordination with other localities or with overlapping governments.⁶⁸ It was distinct, because it was commonly the *sole* purview of local governments. In the years following the U.S. Supreme Court's decision in *Village of Euclid, Ohio v. Ambler Realty, Co.*, courts in many states increasingly came to presume the validity of local land-use regulation.⁶⁹ This decentralized, distinct, and independent allocation of authority largely persists, although reforms

65. CAMACHO & GLICKSMAN, *supra* note 12, at 38–40.

66. *Id.* at 43–44.

67. *Id.* at 31–32 (providing a figure depicting the dimensions of regulatory authority). The continuum from independence to coordination can be understood as an index consisting of five indicators concerning: (1) the *duration* of coordination, (2) the extent to which coordination is *mandatory* (e.g., whether consultation between government entities is permitted or required), (3) the presence of a *hierarchical* relationship, in which one governmental authority has veto power over another, (4) the *frequency* of required communication, and (5) the *formality* of coordination (with unofficial conversation at one end of the spectrum and written inter-governmental memoranda of agreement at the other end).

68. Charles M. Haar, *Regionalism and Realism in Land-Use Planning*, 105 U. PA. L. REV. 515, 522 (1957); Robert A. Hendel, *The Aggrieved Person Requirement in Zoning*, 8 WM. & MARY L. REV. 294, 304 (1967).

69. WILLIAMS & TAYLOR, *supra* note 22, § 5:3. This presumption was particularly strong in states such as California and Massachusetts. *Id.* §§ 7:3–7:5.

adopted by states and the federal government starting in the late 1960s effectuated some reallocation. Such reforms modestly centralized standard setting and permitting for certain land-related activities in conjunction with a range of moves along the **overlapping-distinct** and **coordination-independence** axes for an array of functions, including *standard setting, permitting, and planning*.⁷⁰

B. *Identifying Tradeoffs within Dimensions*

For each function, movement along each dimension of authority entails a variety of tradeoffs, many of which are familiar from a long line of scholarship on law and public policy. For example, **decentralization** can leverage local knowledge,⁷¹ facilitate experimentation,⁷² expand regulatory diversity,⁷³ promote accountability,⁷⁴ and promote arguably less instrumental goals, such as the inculcation of democratic values and the exercise of citizenship.⁷⁵ **Centralization** may enhance economies of scale,⁷⁶ encourage trans-boundary cost internalization,⁷⁷ and promote

70. See generally AMERICAN LAW INSTITUTE, MODEL LAND DEVELOPMENT CODE (1976); FRED P. BOSSELMAN & DAVID L. CALLIES, THE QUIET REVOLUTION IN LAND USE CONTROL (1972); CAMACHO & GLICKSMAN, *supra* note 12, at 77–100; DANIEL R. MANDELKER, ENVIRONMENTAL AND LAND CONTROLS LEGISLATION (1976).

71. See, e.g., Adrian Vermeule, *Local and Global Knowledge in the Administrative State*, in LAW, LIBERTY AND STATE: OAKESHOTT, HAYEK AND SCHMITT ON THE RULE OF LAW 295, 296, 315 (David Dyzenhaus and Thomas Poole eds., 2015) (explaining that proponents of decentralized authority prefer allocations that take advantage of context-specific knowledge).

72. See, e.g., *New State Ice Co. v. Liebmann*, 285 U.S. 262, 311 (1932) (Brandeis, J., dissenting) (describing states as potential laboratories of democracy).

73. See, e.g., CAMACHO & GLICKSMAN, *supra* note 12, at 34 (offering a diversity justification for decentralized authority as premised on such regulation as “better tailored to local conditions, preferences, and economic conditions.”).

74. See, e.g., GERALD E. FRUG, CITY MAKING: BUILDING COMMUNITIES WITHOUT BUILDING WALLS (1999) (suggesting greater accessibility and accountability of decision makers in decentralized systems).

75. The obligatory reference is ALEXIS DE TOCQUEVILLE, DEMOCRACY IN AMERICA 60 (Henry Reeve trans., 1900) (“[L]ocal assemblies of citizens constitute the strength of free nations. Town-meetings are to liberty what primary schools are to science; they bring it within the people’s reach, they teach men how to use and how to enjoy it.”); see, e.g., Richard Briffault, *The Local Government Boundary Problem in Metropolitan Areas*, 48 STAN. L. REV. 1115, 1123 (1996); Gerald E. Frug, *The City As a Legal Concept*, 93 HARV. L. REV. 1057, 1071 (1980) (“In the 1830’s, de Tocqueville saw the then-widespread participation in local government as the essential strength of American democracy.”); Edward A. Zelinsky, *Metropolitanism, Progressivism, and Race*, 98 COLUM. L. REV. 665, 671 (1998) (“Tocqueville . . . emphasizes the civic benefits of a citizenry attached to a small locality and participating in its affairs[.]”).

76. See, e.g., Anne Joseph O’Connell, *The Architecture of Smart Intelligence: Structuring and Overseeing Agencies in the Post-9/11 World*, 94 CALIF. L. REV. 1655, 1680 (2006).

77. See, e.g., Briffault, *Our Localism II*, *supra* note 5, at 434 (“Local governments will not, as long as they need not, take extralocal effects into account, give a voice to nonresidents affected

uniformity.⁷⁸ Rationales for **overlapping** authority center on reducing risks of under-regulation,⁷⁹ agency capture,⁸⁰ and regulatory arbitrage.⁸¹ **Distinct** authority, on the other hand, may serve to minimize compliance or agency administrative costs,⁸² as well as limit risks of conflicting regulation,⁸³ overregulation,⁸⁴ or the creation of a regulatory commons.⁸⁵ Finally, **coordination** of authority may help regulators pool resources or expertise;⁸⁶ reduce agency mission drift,⁸⁷ shirking,⁸⁸ and free-riding;⁸⁹ promote harmonization;⁹⁰ and reduce risks of a race-to-the-bottom.⁹¹ **Independence** of authority may not only avoid administrative costs from coordination, but also may promote regulator competition,⁹² reduce risks

by local actions, internalize externalities, make compensatory payments for negative spillovers or transfer local wealth to other communities in the region to ameliorate fiscal disparities.”).

78. See, e.g., CAMACHO & GLICKSMAN, *supra* note 12, at 37 (arguing that centralization can “promote uniform treatment of similarly situated entities regardless of location”).

79. See, e.g., *id.* at 42 (suggesting that concurrent regulators can provide safety net benefits and increase the likelihood of regulatory action); Jody Freeman & Jim Rossi, *Agency Coordination in Shared Regulatory Space*, 125 HARV. L. REV. 1131, 1138 (2012).

80. See, e.g., Kirsten H. Engel, *Harnessing the Benefits of Dynamic Federalism in Environmental Law*, 56 EMORY L.J. 159, 178–79 (2006); O’Connell, *supra* note 76, at 1677 (“One interest group generally will find it more difficult to capture several agencies than a single agency; to wield power over multiple agencies, interest groups may have to work together, which is a costly enterprise for the groups.”).

81. See, e.g., CAMACHO & GLICKSMAN, *supra* note 12, at 42 (describing regulatory arbitrage as occurring when “a regulated entity has the option of structuring its activities in ways that trigger one regulator’s authority while disabling another’s.”). With overlapping regulation, the existence of jurisdiction by one regulator does not allow a regulated entity to evade the jurisdiction of another. *Id.*

82. See, e.g., CAMACHO & GLICKSMAN, *supra* note 12, at 40 (stating the “government’s ‘transaction costs’ of regulating increase if multiple agencies perform tasks that could have been handled by a single agency.”); Freeman and Rossi, *supra* note 79, at 1150.

83. See, e.g., Freeman and Rossi, *supra* note 79, at 1150.

84. See, e.g., Engel, *supra* note 80, at 165–66.

85. A regulatory commons entails regulatory gaps that emerge when multiple regulators have authority but disincentives (such as high information costs, limited credit, bias toward the status quo, and risk aversion) to address a particular problem. See, e.g., William W. Buzbee, *Recognizing the Regulatory Commons: A Theory of Regulatory Gaps*, 89 IOWA L. REV. 1, 5–6 (2003).

86. See, e.g., Freeman and Rossi, *supra* note 79, at 1184.

87. See Engel, *supra* note 80, at 1187 (explaining the risk that agency exercise of discretionary delegated authority will drift away from legislative preferences).

88. See, e.g., *id.*, at 1187–88 (defining shirking as a form of drift that involves inaction).

89. See, e.g., Freeman and Rossi, *supra* note 79, at 1189.

90. See, e.g., CAMACHO & GLICKSMAN, *supra* note 12, at 45 (“[T]he coordinated exercise of multi-jurisdictional authority can promote effectiveness and fairness by minimizing inconsistent or redundant demands on regulated entities.”).

91. See, e.g., *id.* at 47 (describing a race-to-the-bottom dynamic as independent authorities have incentives to lower standards to compete for regulated entities, even though the independent authorities as a collective would be better off if none did so).

92. See, e.g., *id.* (summarizing literature advancing inter-jurisdictional competition as

of government inaction, and minimize agency groupthink or collusion.⁹³

Assessments of the efficacy of particular allocations will be context-specific and necessarily depend on normative judgments about the relative significance, and appropriate accommodation, of these various tradeoffs of each dimension.⁹⁴ Nonetheless, parsing functional and substantive authority, and distinguishing among the different allocation dimensions, can help identify opportunities for better leveraging the advantages and minimizing the disadvantages associated with each dimensional pole, as described above.⁹⁵

Notably, local government law scholars have predominantly focused on the **centralization-decentralization** axis.⁹⁶ But simply weighing the advantages and disadvantages of centralization versus decentralization overlooks the possibility that modestly centralizing moves might be made more effective, and/or less problematic, by increasing overlap and/or coordination. In addition, focusing exclusively on the **centralization-decentralization** axis risks either ignoring the potential benefits of complementary moves along the **overlapping-distinct** and **coordination-independence** axes, or conflating such moves with (de)centralizing reallocations.

C. Functional and Dimensional Analysis of Metropolitan Governance

We focus our functional and dimensional analysis in the substantive area of land-use regulation, arguably the sole legal domain in which local governments are preeminent.⁹⁷ As a matter of law, the baseline allocation of authority over relevant functions such as *planning*, *standard setting*, and *permitting* is **decentralized**, **distinct**, and **independent**. Core benefits of decentralization—local knowledge, experimentation,

promoting socially optimal regulation). Though this advantage has often been attributed to decentralization, the authority to act independently is what yields the competitive dynamic. *Id.*

93. See, e.g., *id.* at 48 (describing how reliance on diverse and independent agencies can incentivize such authorities to avoid collusion or groupthink (i.e., dysfunctional decision making caused by regulators valuing agreement over accuracy)); O'Connell, *supra* note 76, at 1676.

94. See, e.g., CAMACHO & GLICKSMAN, *supra* note 12, at 8–9.

95. See, e.g., *id.* at 16.

96. See *supra* note 4 and accompanying text.

97. See, e.g., OLIVER, *supra* note 61, at 134 (2001) (“Land is, as any observer of city politics will tell you, at the center of local politics.”); PETERSON, *supra* note 61, at 25 (1981) (“Urban politics is above all the politics of land use.”); Richard Briffault, *Our Localism: Part I – The Structure of Local Government Law*, 90 COLUM. L. REV. 1, 3 (1990) (“Land use control is the most important local regulatory power.”). *But see* GERALD E. FRUG & DAVID J. BARRON, CITY BOUND: HOW STATES STIFLE URBAN INNOVATION 99 (2008) (“Urban scholars have often singled out [land-use] planning and development as an area over which cities enjoy autonomy, downplaying the importance of the state legal structure on city land use decision making.”).

regulatory diversity, and accountability⁹⁸—are especially valuable in the context of land-use regulation. Moreover, a largely distinct and independent allocation of authority helps to minimize administrative costs from duplicative regulation and coordination, as well as the potential for conflicting regulation.⁹⁹

Arguments for local power to regulate land use have much to do with the complexity of property in land. Each parcel is uniquely located, providing distinctive access to other parcels.¹⁰⁰ Moreover, a given parcel can potentially be used in many ways, but—even in the absence of any legal requirements—its suitability for any particular use will depend on myriad characteristics of the site itself and prevailing social norms.¹⁰¹ As a result of land’s complexity, “the control of land uses requires a particularly hands-on, lot-by-lot application of regulatory policy.”¹⁰² Though other complex regulatory problems may be more amenable to resolution by reference to technical expertise alone, land use decisions are particularly dependent on localized knowledge and preferences.¹⁰³

Distinguishing among functions, in conjunction with different dimensions, facilitates the identification of reallocations that maintain core advantages of relatively decentralized, distinct, and independent authority, while mitigating some of the associated risks (e.g., failure to mitigate harmful spillovers, “capture” of local governments by parochial interests, races to the bottom). The case studies below suggest how such a balance might be struck. For example, it is possible to instantiate **centralized** and **distinct** authority over *standard setting*, in conjunction with relatively **decentralized** *permitting* authority that is also **overlapping** and **hierarchically coordinated**.¹⁰⁴ Such an arrangement can facilitate “hands-on, lot-by-lot application of [standards],”¹⁰⁵ but it

98. See CAMACHO & GLICKSMAN, *supra* note 12, at 34–35.

99. See *id.* at 40–41, 46–49.

100. JOHN R. LOGAN & HARVEY L. MOLOTCH, *URBAN FORTUNES: THE POLITICAL ECONOMY OF PLACE* 23 (1987); Robert C. Ellickson, *Property in Land*, 102 *YALE L.J.* 1315, 1319 n.11 (1993).

101. WILLIAM A. FISCHER, *ZONING RULES! THE ECONOMICS OF LAND USE REGULATION* 38–41 (2015) [hereinafter FISCHER, *ZONING RULES!*]; Ellickson, *supra* note 100, at 1319 n.11, 1365–66.

102. Carol M. Rose, *The Story of Lucas: Environmental Land Use Regulation Between Developers and the Deep Blue Sea*, in *ENVIRONMENTAL LAW STORIES* 237, 280 (Richard J. Lazarus & Oliver A. Houck eds., 2005).

103. See Alejandro E. Camacho, *Mustering the Missing Voices: A Collaborative Model for Fostering Equality, Community Involvement and Adaptive Planning in Land Use Decisions, Installment Two*, 24 *STAN. ENVTL. L.J.* 269, 325–26 (2005).

104. See *infra* Part III.

105. Rose, *supra* note 102, at 280.

also increases the likelihood that the standards themselves will promote internalization of trans-boundary costs and uniform treatment. Moreover, providing an overlapping and hierarchically coordinated permitting process reduces the risk that local permitting authorities will be exclusively beholden to parochial interests, and hierarchical coordination can promote harmonization. Thus, the increased administrative costs resulting from this overlap and coordination may be offset by the advantages. Policymakers thus can tailor formal authority differently by function to harness the advantages of distinctive dimensional poles.

D. Collaboration and Learning via Destabilization and Enforced Municipal Self-Regulation

Ideally, such reallocations could yield both the instrumental benefits described above, and the arguably more diffuse values associated with collaborative governance, which entails “one or more public agencies directly engag[ing] non-state stakeholders in a collective decision-making process that is formal, consensus-oriented, and deliberative and that aims to make or implement public policy or manage public programs or assets.”¹⁰⁶ Although scholarship concerning collaborative governance and related phenomena such as “democratic experimentalism”¹⁰⁷ is conspicuously heterogeneous,¹⁰⁸ it frequently deemphasizes or neglects reallocations of formal authority that precede (and may precipitate) efforts to develop collaborative processes.¹⁰⁹ Yet there is good reason to believe that the structure of such reallocations could affect the attainment of goals of collaborative governance, such as identifying creative solutions to seemingly intractable problems, fostering and accommodating changing forms of knowledge, and facilitating the development of new connections among previously separate groups and individuals.¹¹⁰

106. Chris Ansell & Alison Gash, *Collaborative Governance in Theory and Practice*, 18 J. PUB. ADMIN. RES. & THEORY 543, 544 (2008); see also Jody Freeman, *Collaborative Governance in the Administrative State*, 45 UCLA L. REV. 1, 22 (1997).

107. See Michael C. Dorf & Charles F. Sabel, *A Constitution of Democratic Experimentalism*, 98 COLUM. L. REV. 267, 267 (1998) (defining “democratic experimentalism” as “a new form of government . . . in which . . . citizens and other actors . . . utilize their local knowledge to fit solutions to their individual circumstances, but in which regional and national coordinating bodies require actors to share their knowledge with others facing similar problems”).

108. See Ansell & Gash, *supra* note 106, at 549 (summarizing the literature and noting that, “the language used to describe [the phenomenon of collaborative governance] [i]s far from standardized”).

109. See William W. Buzbee, *Interaction’s Promise: Preemption Policy Shifts, Risk Regulation, and Experimentalism Lessons*, 57 EMORY L.J. 145, 161 (2007) [hereinafter Buzbee, *Interaction’s Promise*].

110. See generally Jerry Frug, *Decentering Decentralization*, 60 U. CHI. L. REV. 253 (1993)

In the context of metropolitan governance, the goal of maintaining core benefits of **decentralized, distinct, and independent** authority over functions related to land use might promote collaborative goals via regulatory regimes that do not prescribe specific courses of action for local governments, but which instead unsettle, or destabilize, local expectations, thereby triggering policy experimentation.¹¹¹ Under such a regime, municipalities are not confronted with the possibility “that they will suffer any specific set of consequences” if they fail to promote a particular regional goal.¹¹² Rather, they are confronted with a loss of autonomy and uncertainty about the particular form or consequences of this loss. Such an approach is modeled on the notion of “destabilization rights,” developed in the context of public law litigation, which entails the restructuring of public agencies and local governments.¹¹³

Destabilization *can* lead to a regulatory regime under which municipalities do not decide *whether* to pursue regional goals, but can determine *how* to do so. Such an outcome may be more likely under conditions of enforced municipal self-regulation, whereby municipalities are compelled to self-regulate, subject to rules that can be enforced by regulators or third parties, such as public interest groups and/or other municipalities.¹¹⁴ Self-regulation is “enforced” when a government authority requires firms to self-regulate *and* the rules written by the firm can be enforced by regulators or third parties such as public interest groups or other stakeholders.¹¹⁵ Nevertheless, reliance on such groups raises vexing problems of accountability¹¹⁶ and may undermine the cultivation of democratic practice desired by many proponents of local

[hereinafter Frug, *Decentering Decentralization*] (exploring these themes, albeit without invoking the term “collaborative governance”); Frug, *Beyond Regional Government*, *supra* note 8 (same).

111. See generally Sabel & Simon, *supra* note 13.

112. *Id.* at 1055.

113. See ROBERTO MANGABEIRA UNGER, FALSE NECESSITY: ANTI-NECESSITARIAN SOCIAL THEORY IN THE SERVICE OF RADICAL DEMOCRACY 530 (1987) (coining the term “destabilization rights”); Sabel & Simon, *supra* note 13, at 1050–1052 (applying the concept of destabilization rights to public law litigation concerning municipal zoning practices).

114. AYRES & BRAITHWAITE, *supra* note 13, at 101.

115. *Id.* Of course, the desirability and plausibility of such an arrangement assumes that some more centralized entity, such as a state, might, at least on occasion, be interested in surmounting the pathologies of localism. The available evidence, including several of the case studies in the following section, suggests that this may sometimes be a valid assumption, but see Frug, *Decentering Decentralization*, *supra* note 110, at 285 n.163, which casts doubt on the plausibility of such a possibility in the absence of mechanisms for “endowing localities with a decentered subjectivity.”

116. See Jody Freeman, *Private Parties, Public Functions and the New Administrative Law*, 52 ADMIN. L. REV. 813, 849–854 (2000).

government.¹¹⁷

E. *Promoting Effective Metropolitan Governance*

The case studies help demonstrate how attending to the allocation of formal governmental authority is vital for destabilizing municipal incentives to promote enforced municipal self-regulation. In particular, judicious and strategic interventions, focused on adjusting dimensional allocations for particular governmental functions, can serve to disrupt and reverse local incentives to neglect and resist important regional needs such as affordable housing, stormwater pollution management, and climate change mitigation. The cases that we describe involve select combinations of the following interventions:

- **Centralized** *standard-setting* authority at the state (or federal) level that serves to destabilize localities' expectations, thereby compelling local action and encouraging localities to devise creative solutions that promote broader public goals;¹¹⁸
- **Decentralized** and **overlapping** *enforcement* of these standards by localities and/or private parties;
- Relatively **decentralized**, **overlapping**, and **hierarchically coordinated** *permitting* authority;
- Increased interlocal **coordination** of *implementation*, either mandated by state law or induced as a result of the aforementioned **centralized** *standard-setting*; and
- Increased **centralization** of *information dissemination*, but not of *information analysis*.

The case studies illustrate how tailored reallocations may allow policymakers to accommodate many of the suggested advantages of both centralized and decentralized authority. They also substantiate how the prevailing focus by policymakers and scholars on the **centralization-decentralization** axis, and the corollary neglect of the **overlapping-distinct** and **coordination-independence** axes, obscures a range of potential allocation changes in regulatory design that could promote effectiveness, allocative efficiency, and fairer distributions of the burdens and benefits of regulation.

Equally importantly, the cases demonstrate that such reallocations can occur under a variety of different formal institutional configurations. Our

117. See Theda Skocpol, *Voice and Inequality: The Transformation of American Civic Democracy*, 2 PERSP. ON POL. 3, 4 (2004) (associating increased reliance on national public interest litigation organizations with declines in civic membership groups).

118. See Sabel & Simon, *supra* note 13, at 1020, 1073–82.

first case, focusing on affordable housing, provides an example from Massachusetts that involves neither a regional government, nor a formal mechanism for inter-local coordination.¹¹⁹ The second case, concerning the mitigation of stormwater pollution in Los Angeles County, likewise lacks a regional government, but entails extensive formal and informal inter-local coordination.¹²⁰ Third, we assess California's use of formal regional governments to mitigate greenhouse gas emissions by reducing per capita vehicle miles traveled.¹²¹

IV. HOUSING AFFORDABILITY

The history of land-use regulation in the U.S. lends credence to Susan Kirsch's contention that planning, permitting, and standard setting for new housing are the province of "local control."¹²² These functions have long been largely decentralized, distinct, and independent, with municipal governments serving as the principal locus of regulatory authority.¹²³ This allocation of authority may promote interlocal competition, thereby encouraging some communities to shape their policy in accordance with residents' preferences.¹²⁴ It may also promote accountability to local voters (particularly homeowners),¹²⁵ and facilitate the application of local knowledge.¹²⁶ But, as a large literature recognizes, it poses significant problems of cost externalization,¹²⁷ suggesting that—contrary to Susan Kirsch's contention—housing development and affordability are not simply "local issues."¹²⁸ Municipalities seeking to limit local population growth can often do so by imposing restrictions on residential development, or by limiting the availability of necessary infrastructure,

119. See *infra* Part III.

120. See *infra* Part IV.

121. See *infra* Part V.

122. See *supra* note 3 and accompanying text.

123. See *infra* Part III.B.

124. Tiebout, *supra* note 39, at 417. But see Gerald E. Frug, *City Services*, 73 N.Y.U. L. REV. 23, 28–32 (1998) (arguing that the Tiebout model is normatively insufficient, in part, because its treatment of "city services as objects of consumption . . . [undermines] values commonly associated with democracy[,] [such as] equality . . . , the importance of collective deliberation and compromise, [and] the existence of a public interest not reducible to personal economic concerns"); Harold M. Hochman, *Individual Preferences and Distributional Adjustments*, 62 AM. ECON. REV. 353, 359–60 (1972) (arguing that this interlocal competition model, even if descriptively accurate, is normatively insufficient because it assumes the optimality of households "initial endowments of physical and human capital").

125. See generally WILLIAM A. FISCHER, *THE HOMEVOTER HYPOTHESIS* (2001).

126. See *supra* notes 97–103 and accompanying text.

127. See *infra* notes 135–139 and accompanying text.

128. See *supra* note 3 and accompanying text.

such as water supply and sewer systems. Such local action (or inaction) has resulted in dramatic housing-cost increases in parts of the U.S., imposing significant individual and collective harms.¹²⁹

Although centralizing authority at the state or regional scale might address some problems of housing affordability,¹³⁰ such centralization could undermine the goals of regulatory diversity and experimentation, as well as hampering the application of local knowledge.¹³¹ Moreover, the political challenges associated with complete preemption of the field of land-use regulation by a state or regional entity are widely recognized.¹³² In order to illustrate how differentiating among functions can help capture many of the benefits of centralization and decentralization, we analyze in detail the operation of a Massachusetts law that considerably varies the extent of **centralization** for permitting, standard setting, and planning. The Massachusetts reallocation also shows how changes in centralization can be combined with a variety of moves along the **overlapping-distinct** and **coordination-independence** axes. Parsing allocations of authority for different functions along each of the three axes thus reveals the advantages and disadvantages of existing efforts to reconfigure relevant forms of legal authority, while suggesting future innovations and mechanisms for productive destabilization of local decision-making processes.

A. *Housing Localism and the Problems of Housing Affordability*

The states possess inherent authority to make and enforce laws to protect health, safety, and general welfare, including the power to regulate land use.¹³³ States typically authorize local governments to regulate and plan for new development.¹³⁴ Many local governments use this power to restrict the development of residential structures, such as townhomes and apartment buildings, which provide relatively affordable alternatives to

129. William A. Fischel, *The Evolution of Homeownership*, 77 U. CHI. L. REV. 1503, 1515–16 (2010) [hereinafter Fischel, *The Evolution of Homeownership*].

130. See, e.g., MYRON ORFIELD, *METROPOLITICS: A REGIONAL AGENDA FOR COMMUNITY AND STABILITY* (1997); Henry A. Span, *How the Courts Should Fight Exclusionary Zoning*, 32 SETON HALL L. REV. 1 (2001).

131. See *supra* notes 97–103 and accompanying text; see also CAMACHO & GLICKSMAN, *supra* note 12, at 34–35.

132. See, e.g., Sheryll D. Cashin, *Localism, Self-Interest, and the Tyranny of the Favored Quarter: Addressing the Barriers to New Regionalism*, 88 GEO. L.J. 1985, 2048 (2000) (professing to be only “mildly optimistic about the potential” for even more modest changes).

133. See, e.g., *Nat’l Fed’n of Indep. Bus. v. Sebelius*, 567 U.S. 519, 536 (2012).

134. FISCHEL, *ZONING RULES!*, *supra* note 101, at 137; Ruth Knack et al., *The Real Story Behind the Standard Planning and Zoning Acts of the 1920s*, 48 LAND USE L. & ZONING DIG. 3 (1996).

detached single-family homes. Constraints on housing supply have contributed to rapid cost increases in parts of the U.S., including the coastal Northeast and West.¹³⁵ Problems of housing affordability resulting from local regulatory restrictions in these regions are associated with declining economic mobility,¹³⁶ reduced national economic growth,¹³⁷ decreased access to opportunity,¹³⁸ and reductions in health and wellbeing.¹³⁹

These problems stem, in large part, from housing localism—municipal obstruction of housing development that would yield regional or national benefits. Housing localism benefits existing residents, who enjoy the benefits of proximity to jobs, amenities, and other opportunities without bearing many costs of congestion. But it limits options for middle-income households that might have been able to afford market-rate alternatives to detached single-family homes, such as townhomes or apartments. It also affects households that could not have afforded any type of market-rate housing, but which could have afforded subsidized townhomes or apartments, *if* those apartments were permitted by local land-use regulations.

The regulatory levers of housing localism are myriad. Permissive land-use regulation is typically a necessary condition for housing development, although it may not be sufficient.¹⁴⁰ Even if local land-use regulation authorizes housing development, the extent of new development will vary depending on demand for housing and the costs of construction. Costs, for example, partially depend on the availability of sanitary sewers and water supply, which can, in turn, be affected by the configuration of legal authority for financing, constructing, and operating the relevant infrastructure.¹⁴¹

135. Fischel, *The Evolution of Homeownership*, *supra* note 129, at 1515–16.

136. See ENRICO MORETTI, *THE NEW GEOGRAPHY OF JOBS* (2013); Rebecca Diamond, *The Determinants and Welfare Implications of US Workers' Diverging Location Choices by Skill: 1980-2000*, 106 AM. ECON. REV. 479 (2016); Peter Ganong & Daniel Shoag, *Why Has Regional Income Convergence in the U.S. Declined?*, 102 J. URB. ECON. 76 (2017).

137. See Edward Glaeser & Joseph Gyourko, *The Economic Implications of Housing Supply*, 32 J. ECON. PERSP. 3 (2018); Kyle F. Herkenhoff et al., *Tarnishing the Golden and Empire States: Land-Use Restrictions and the U.S. Economic Slowdown*, 93 J. MONETARY ECON. 89 (2018); Chang-Tai Hsieh & Enrico Moretti, *Housing Constraints and Spatial Misallocation*, 11 AM. ECON. J.: MACROECONOMICS 1 (2019).

138. Arthur Acolin & Susan Wachter, *Opportunity and Housing Access*, 19 CITYSCAPE 135 (2017).

139. Sandra J. Newman & C. Scott Holupka, *Housing Affordability and Child Well-Being*, 25 HOUS. POL'Y DEBATE 116 (2015).

140. See *infra* notes 142–157 and accompanying text.

141. See *infra* notes 156–157, 209–214 and accompanying text.

B. Land-Use Law and Housing Localism

Land-use regulation, via zoning, is a crucial regulatory lever for housing localism. Almost all states have adopted zoning enabling legislation, authorizing local governments to adopt ordinances including text that identifies the land uses permitted in various zones and a map assigning zone designations to municipal territory.¹⁴² Zoning—a regulatory linchpin of housing localism—spread rapidly after the U.S. Supreme Court upheld a zoning ordinance against a facial challenge in 1926.¹⁴³ Antipathy to multifamily housing and its potential occupants served as an important, and pervasive, initial motivation for municipal adoption of zoning.¹⁴⁴ Although zoning ordinances confronted numerous state law challenges during the 1930s and 1940s, by the beginning of the 1950s zoning was clearly lawful in every state where it had been implemented.¹⁴⁵

In many states, functions including *standard setting*, *permitting*, and *planning* for land use are largely **decentralized**, **independent**, and **distinct**. Municipalities exercise their standard-setting authority by adopting zoning ordinances and building codes, and they exercise permitting authority by issuing building permits for projects that comply with these standards. State planning enabling legislation authorizes municipalities to plan for new development, and some states *require* local comprehensive planning distinct from the adoption of a zoning ordinance.¹⁴⁶ But comprehensive plans often have limited legal significance, particularly in states where they are not required.¹⁴⁷

This decentralized, distinct, and independent configuration of authority has enabled local governments to cater to local preferences at the cost of regional (and national) welfare.¹⁴⁸ Decentralization has fostered accountability to local voters in matters of land-use regulation, but excluded prospective residents.¹⁴⁹ Local land-use regulations are, of

142. WILLIAMS & TAYLOR, *supra* note 22, § 19:1.

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

144. RICHARD ROTHSTEIN, *THE COLOR OF LAW* 52–53 (2017) (describing the use of density restrictions as a substitute for explicitly race-based restrictions); MARC A. WEISS, *THE RISE OF THE COMMUNITY BUILDERS* 150 (1987) (indicating that, in the 1930s and 1940s, the U.S. Federal Housing Administration sought to encourage the “use [of] zoning to *protect* whole neighborhoods of middle-income single-family houses”).

145. WILLIAMS & TAYLOR, *supra* note 22, § 19:1.

146. Edward J. Sullivan & Matthew J. Michel, *Ramapo Plus Thirty: The Changing Role of the Plan in Land Use Regulation*, 35 *URB. LAW.* 75 (2003) (surveying relevant state laws).

147. *Id.*

148. *See supra* notes 136–139 and accompanying text.

149. *See* Briffault, *Our Localism II*, *supra* note 5, at 366–74.

course, subject to constitutional constraints such as due process rights and prohibitions against uncompensated takings.¹⁵⁰ But these limitations often do not impose significant barriers to housing localism,¹⁵¹ and the absence of significant overlapping or coordinated authority enables local officials to cater to local constituents.

C. Other Regulatory Levers of Housing Localism

Land-use controls, such as those included in zoning ordinances, have served as crucial tools for housing localism, but they are not the only relevant regulatory lever. A comprehensive account would address open space conservation laws,¹⁵² indirect subsidies for market-rate housing (such as the home mortgage interest deduction),¹⁵³ authority over the financing and operation of sewer and water systems¹⁵⁴ and transportation infrastructure,¹⁵⁵ among other topics.

The allocation of authority over the public *service provision*, such as water supply and sanitary sewers, illustrates how allocations of authority in these other substantive areas can promote housing localism. Water and sewer authority is relevant, because limits on the extension of such services are a potent form of growth control.¹⁵⁶ In many parts of the U.S.,

150. See, e.g., *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104 (1978) (holding that an application of New York City's Landmarks Law did not effect a "taking" requiring the payment of "just compensation"); *Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365 (1926) (upholding the facial validity of a zoning ordinance against, *inter alia*, a due process claim).

151. Paul Boudreaux, *Lotting Large: The Phenomenon of Minimum Lot Size Laws*, 68 ME. L. REV. 1, 35 (2016) ("When the law of takings and other constitutional rights is combined with the deference that courts have granted to lotting large, it is safe to reach this conclusion: Large lot zoning is the most attractive and most defensible method for a local government, spurred by its existing homeowners, to use law to avoid density and to slow population growth.").

152. See Stephan Schmidt & Kurt Paulsen, *Is Open-Space Preservation a Form of Exclusionary Zoning?: The Evolution of Municipal Open-Space Policies in New Jersey*, 45 URB. AFF. REV. 92 (2009) (providing empirical evidence of such maneuvers); Christopher Serkin, *Entrenching Environmentalism: Private Conservation Easements over Public Land*, 77 U. CHI. L. REV. 341, 341 (2010) (explaining how such laws can result in maneuvers that are "nearly the functional equivalent of passing an unrepeatable zoning ordinance to restrict development").

153. See Edward L. Glaeser & Jesse M. Shapiro, *The Benefits of the Home Mortgage Interest Deduction*, 17 TAX POL'Y & ECON. 37, 37 (2003) (providing evidence that the "home mortgage interest deduction is a particularly poor instrument for encouraging homeownership because it is targeted at the wealthy, who are almost always homeowners"); Richard Voith, *Does the Federal Tax Treatment of Housing Affect the Pattern of Metropolitan Development?*, FED. RESERVE BANK OF PHILADELPHIA BUS. REV. 3 (March/April, 1999) (arguing that a principal effect of the home mortgage interest deduction is to encourage households to purchase larger homes than they would otherwise, instead of encouraging households to purchase rather than rent).

154. See *infra* notes 156–157, 209–214 and accompanying text.

155. See *infra* notes 344–346 and accompanying text.

156. In areas with significant annual rainfall, wells and septic tanks can serve the drinking

authority over sewer and water system extension is relatively **decentralized**, inasmuch as local governments can choose whether to seek admission to a regional system. Such authority is **overlapping** and non-hierarchically **coordinated**, in that admission requires both approval of a local government *and* a state or regional entity that must interact with each other concerning system expansion. This decentralized and overlapping configuration of authority limits the economies of scale associated with centralized sanitary sewer service, and it can drive up development costs, particularly for multifamily housing.¹⁵⁷

D. *Reallocating Authority to Mitigate Housing Localism and Promote Regional Goals*

During the latter half of the 1960s, courts and legislatures in states that had previously deferred to local decision making began to recognize that the existing configuration of authority over land use regulation posed problems for civil rights and environmental protection.¹⁵⁸ Beginning in the late 1960s, a growing number of states adopted new requirements related to *planning, permitting, and standard setting* for land use.¹⁵⁹

Although these reforms certainly centralized some authority in order to address cost-externalization problems associated with housing localism, commentators at the time often portrayed these requirements *exclusively* as forms of centralization,¹⁶⁰ neglecting three important features of these reallocations. First, within each affected substantive area, authority over most relevant governmental functions remained largely **decentralized**. Second, tailored increases in centralization for particular

water and wastewater disposal needs of single-family homes on large lots. NAT'L COMM'N ON URB. PROBS., BUILDING THE AMERICAN CITY 214 (1968). By contrast, dense development relying on septic tanks can result in contamination of groundwater wells, justifying the prohibition of such development in the absence of sanitary sewers and surface water distribution systems. *Id.* Such health and safety concerns can easily coexist with less legitimate exclusionary motives. *Id.*

157. See, e.g., JOSEPH D. PEZNOLA, SEWAGE RULES CREATE GAP IN HOUSING SUPPLY IN MASSACHUSETTS 7 (2015), https://www.mhp.net/writable/resources/documents/sewer_rules_housing_supply.pdf (noting that projects exceeding 90 bedrooms (e.g., 50 2-bedroom units) “must provide treatment of wastewater prior to discharge to the ground through the construction . . . very expensive systems requir[ing] constant oversight, sampling, monitoring and reporting”).

158. See generally BOSSELMAN & CALLIES, *supra* note 70.

159. See generally *id.*; AMERICAN LAW INSTITUTE, *supra* note 70; MANDELKER, *supra* note 70.

160. See, e.g., R. Kenneth Godwin & W. Bruce Shepard, *State Land Use Policies: Winners and Losers*, 5 ENVTL. L. 703, 723 (1975) (hypothesizing that “state land use policies . . . will shift from . . . more decentralized . . . policy toward . . . more centralized . . . policy”); G. Ross Stephens, *State Centralization and the Erosion of Local Autonomy*, 36 J. POL. 44, 48 n.14 and accompanying text (1974) (describing “the broadening of state control over land-use” as “a good example” of a “centralizing tendency”).

functions were generally combined with changes along the **overlapping-distinct** axis and/or the **coordination-independence** axis. Third, the impact of these reallocations hinged, in part, on their interaction with other functional areas of authority, such as public *service provision*. A case study of Massachusetts illustrates the significance of each feature.

E. Tailoring Functions to Address Housing Localism in Massachusetts

In 1969, Massachusetts adopted a law empowering developers of below-market-rate (BMR) and mixed-income housing to challenge local land-use regulation in municipalities that have not accommodated their “fair share” of regional housing needs.¹⁶¹ At least three other states—New Jersey, Connecticut, and Rhode Island—similarly empower developers.¹⁶² The Massachusetts law, often referred to as “Chapter 40B” after its location in the state’s general laws,¹⁶³ **centralized standard setting, planning, and permitting**, to varying degrees and for a particular type of housing development, while reallocating authority for each of these functions differently along the **overlapping-distinct** and **coordinated-independent** axes.

Chapter 40B creates two **centralized** and **distinct** standards. A quasi-nuisance standard applies to the permitting of BMR housing projects, in which all units are restricted by deed to low- and moderate-income households, as well mixed-income projects, which combine market-rate units and deed-restricted BMR units.¹⁶⁴ Under this standard, a municipality bears the burden of demonstrating that a qualifying project poses “a specific health or safety concern of sufficient gravity to outweigh the regional housing need.”¹⁶⁵ The standard is distinct because it preempts more restrictive local standards. Thus, local objections based on common problems, such as school crowding, traffic congestion, and increased density are generally insufficient to justify the constructive or *de jure*

161. MASS. GEN. LAWS, ch. 40B, §§ 20–23 (2020).

162. Nicholas J. Marantz & Huixin Zheng, *Exclusionary Zoning and the Limits of Judicial Impact*, J. PLAN. EDUC. & RES. 1, 2 (2019) [hereinafter Marantz & Zheng, *Exclusionary Zoning*].

163. MASS. GEN. LAWS, ch. 40B, §§ 20–23.

164. See *Stuborn Ltd. P’ship v. Barnstable Bd. of Appeals*, 1999 MA. HAC. 98-01, 1999 WL 34782799, at *9 (Mass. Hous. Appeals Comm., Mar. 5, 1999) (“[T]hough affordability is not required of all the housing units in a [qualifying] development, a minimum of 25% of the units must be for families at 80% of median income.”); *id.* at *9 n.7 (“Fewer affordable units are acceptable if the income limitation for occupants is lower. For instance, the requirement . . . that 20% of the units be affordable to people with incomes not in excess of 50% of median, is also acceptable.”).

165. *Zoning Bd. of Appeals of Canton v. Hous. Appeals Comm.*, 923 N.E.2d 114, 120 (Mass. App. Ct. 2010); see also *Bd. of Appeals of Hanover v. Hous. Appeals Comm. in Dep’t of Cmty. Affairs*, 294 N.E.2d 393, 413 (Mass. 1973).

denial of a qualifying project.¹⁶⁶ (By contrast, such objections are generally legally adequate to scuttle other projects.)¹⁶⁷ In addition, Chapter 40B creates a second centralized and distinct “fair share” standard to determine whether municipalities are exempt from the quasi-nuisance standard. A municipality is exempt from the latter standard if at least 10% of its housing stock qualifies for the state’s subsidized housing inventory.¹⁶⁸

Notably, these standards coexist with other state standards that protect environmental resources from encroaching development. For example, the Massachusetts Wetlands Protection Act, adopted in 1972, limits development in wetlands and the surrounding 100-foot buffer areas.¹⁶⁹ Chapter 40B does not preempt such state environmental standards.¹⁷⁰

The effect of Chapter 40B on *planning* depends on municipal attainment of the fair-share threshold. For exempt municipalities (i.e., those that have attained the fair-share threshold), planning remains largely

166. MARK BOBROWSKI, HANDBOOK OF MASSACHUSETTS LAND USE AND PLANNING LAW: ZONING, SUBDIVISION CONTROL, AND NONZONING ALTERNATIVES § 18.07[C], nn.166–76 (2011 & Supp. 2016) (collecting cases).

167. *See, e.g.*, *Brett v. Bldg. Comm’r of Brookline*, 145 N.E. 269, 271 (Mass. 1924) (indicating that a challenge to a zoning ordinance must demonstrate beyond a reasonable doubt that the ordinance has “no rational relation to the public safety, public health or public morals”); *see also* *Bamel v. Bldg. Comm’r of Brookline*, 145 N.E. 272 (Mass. 1924); *W.R. Grace & Co.-Conn. v. Cambridge City Council*, 779 N.E.2d 141 (Mass. App. Ct. 2002). *See generally* 28A MASS. PRAC., REAL ESTATE LAW § 23:2 (4th ed. 2019).

168. MASS. GEN. LAWS, ch. 40B, § 20 (2003). A municipality satisfies its fair share obligation if at least 10% of its year-round housing stock (measured as of the previous decennial census) consists of permitted or completed qualifying units. Qualifying units include BMR units that are deed-restricted to cost no more than 30% of 80% of area median income (AMI). Market-rate rental units can also count toward local fair share obligations if such units are located in projects where at least 25% of the units are affordable at 80% of AMI, or where at least 20% of the units are affordable at 50% of AMI. MASS. DEP’T OF HOUS. & CMTY. DEV., GUIDELINES: G.L. C. 40B COMPREHENSIVE PERMIT PROJECTS, § II-A.2.b(1) (2014) [hereinafter GUIDELINES]. Alternatively, a municipality is exempt if “low or moderate income housing exists . . . on sites comprising one and one half per cent or more of the total land area zoned for residential, commercial or industrial use.” MASS. GEN. LAWS, ch. 40B, § 20 (2020). “As of 2015, only one municipality qualified for exemption based on the latter provision, whereas 47 municipalities qualified for exemption based on the 10% fair-share threshold.” Nicholas J. Marantz & Huixin Zheng, *State Affordable Housing Appeals Systems and Access to Opportunity: Evidence from the Northeastern United States*, 30 HOUSING POL’Y DEBATE 370, 390 n.4 (2020) [hereinafter, Marantz & Zheng, *State Affordable Housing Appeals Systems*] (citing BOBROWSKI, *supra* note 166 at §18.07[C][1]).

169. *See* Massachusetts Wetlands Protection Act (MWPA), MASS. GEN. LAWS, ch. 131, § 40 (2020); 310 MASS. CODE REGS. 10.02(2)(b) (2020) (defining areas within 100 feet of certain resource areas as “Buffer Areas”); *id.* § 10.24(1) (requiring, prior to the commencement of work in a Buffer Area, the imposition of “conditions to protect the interests of the [MWPA] identified for the adjacent resource area”).

170. *Bd. of Appeals of Hanover*, 294 N.E.2d at 422 (noting that qualifying project plans must “comply with [s]tate standards”).

distinct, decentralized, and uncoordinated. A non-exempt municipality, however, has a strong incentive to pursue an optional hierarchically **coordinated** planning process. Such a municipality can qualify for a one- to two-year safe harbor from the quasi-nuisance standard of Chapter 40B, if it prepares a housing production plan, receives state approval for the plan, and can demonstrate measurable increases in qualifying housing units.¹⁷¹

Finally, Chapter 40B provides a fairly **decentralized, overlapping and coordinated** allocation of *permitting* authority for BMR and mixed-income housing projects. The developer of a qualifying project can request a local comprehensive permit, which consolidates relevant local permits and can waive local zoning requirements.¹⁷² Primary permitting authority thus remains decentralized. If a municipality does not satisfy the exemption or safe-harbor requirements described above, however, the developer can appeal an adverse decision to a state administrative tribunal, the Housing Appeals Committee (HAC).¹⁷³ HAC review is a form of hierarchical coordination, inasmuch as the HAC can compel issuance of a comprehensive permit. It is also frequently adversarial, because municipal zoning boards are typically the defendants before the HAC. If a municipality does not carry its burden of identifying a clear health or safety concern, then the HAC will remand to the municipality with instructions to issue the comprehensive permit, subject to any conditions that the HAC deems reasonable.¹⁷⁴ HAC decisions are subject to judicial review under Massachusetts administrative procedure law,¹⁷⁵ and courts generally defer to the HAC.¹⁷⁶

F. *Enhancing Enforced Municipal Self-Regulation via Modest Reallocations of Governmental Authority*

Chapter 40B encourages developers to monitor and challenge local exclusionary practices, thereby enhancing enforced municipal self-regulation. The law can facilitate local land-use approvals for projects developed by non-profit organizations or public agencies, in which all of

171. A municipality that has not attained the fair share threshold qualifies for the safe harbor if it completes a state-approved housing production plan and, during a single calendar year, increases its affordable housing stock by at least 0.5% (for a one-year exemption) or 1% (for a two-year exemption). 760 MASS. CODE REGS. 56.03(4) (2017).

172. MASS. GEN. LAWS, ch. 40B, § 21 (2018).

173. *Id.* § 22; 760 MASS. CODE REGS. 56.01 *et seq.* (2018).

174. *See, e.g., Bd. of Appeals of Hanover*, 294 N.E.2d at 417.

175. *See* MASS. GEN. LAWS ch. 40B, § 22 (2018); MASS. GEN. LAWS ch. 30A, § 14 (2018).

176. *See* BOBROWSKI, *supra* note 166, at § 18.07[C], nn.166–76.

the units are BMR units. But it also facilitates development of projects in which 75% to 80% of the units are market-rate units. This arrangement attracts for-profit developers,¹⁷⁷ to the extent that profits from the additional market-rate units (relative to the number allowed without the zoning waiver) more than offset the cost of providing the BMR units.¹⁷⁸

The available evidence suggests that Chapter 40B has modestly enhanced municipal self-regulation.¹⁷⁹ In municipalities where demand for housing is strong and necessary infrastructure is available, the density added via Chapter 40B can yield larger profits for developers, relative to profits from development allowed by the zoning ordinance.¹⁸⁰ Such municipalities do not decide *whether* to accommodate their fair share of BMR and mixed-income housing, but they can decide *how* to do so. Commentators contend that Chapter 40B has “led to more proactive planning for affordable housing production,”¹⁸¹ noting that the law “provides some motivation to up-zone [i.e., increase allowed residential densities] and is mentioned in many [municipal] plans.”¹⁸² Empirical analysis indicates that, in the Boston area, developers have used the law to build multifamily rental housing in municipalities that are relatively accessible to employment and that otherwise impose relatively stringent restrictions on residential development.¹⁸³

Notably, enhanced municipal self-regulation has been driven only in part by increased **centralization** of authority over land-use. To be sure, Chapter 40B centralizes some authority, particularly for *standard setting*. But, the legislature only partially centralized *permitting* and *planning*, and

177. In order to qualify for the Chapter 40B permitting process, a for-profit developer must typically establish a limited dividend organization (LDO). MASS. GEN. LAWS ch. 40B, § 21 (restricting application of the statute to projects proposed by “any public agency or limited dividend or nonprofit organization”). An LDO must comply with regulatory requirements limiting profits to “a reasonable return for building and operating the [p]roject.” GUIDELINES, *supra* note 168, at 1–2. An LDO must return any profits exceeding this limit to the municipality where the project is located, “for the purpose of developing and/or preserving [a]ffordable [h]ousing.” *Id.* at IV–10.

178. See Lynn M. Fisher & Nicholas J. Marantz, *Can State Law Combat Exclusionary Zoning? Evidence from Massachusetts*, 52 URB. STUD. 1071, 1072 (2015).

179. See generally Marantz & Zheng, *State Affordable Housing Appeals Systems*, *supra* note 168.

180. Lynn M. Fisher, *State Intervention in Local Land Use Decision Making: The Case of Massachusetts*, 41 REAL EST. ECON. 418 (2013); Marantz & Zheng, *Exclusionary Zoning*, *supra* note 162.

181. CHRISTINA D. ROSAN, GOVERNING THE FRAGMENTED METROPOLIS: PLANNING FOR REGIONAL SUSTAINABILITY 45 (2016).

182. AMY DAIN, THE STATE OF ZONING FOR MULTI-FAMILY HOUSING IN GREATER BOSTON 7, 101 (2019), https://ma-smartgrowth.org/wp-content/uploads/2019/06/03/FINAL_Multi-Family_Housing_Report.pdf.

183. Fisher & Marantz, *supra* note 178, at 1084.

these functions remain largely local, with the state serving a backup review role. These varying forms of centralization for different functions have helped mitigate localized opposition to new housing generally,¹⁸⁴ and new BMR housing in particular,¹⁸⁵ promoting cost internalization by municipalities and enhancing equity by creating uniform obligations to accommodate BMR housing.¹⁸⁶

To be sure, centralization risks limiting the extent of policy experimentation, the application of local expertise, and the accessibility of members of the public to the permitting process.¹⁸⁷ However, the variation of centralization by function combines the aforementioned advantages of **centralizing standard setting** with those of **decentralization** for *permitting* and *planning*. These include the application of local knowledge, as well as allowing for experimentation, diversity and public access in permitting and planning processes.¹⁸⁸

Moreover, concomitant reallocations of functional authority along the **overlapping-distinct** and **coordinated-independent** axes can mitigate some of the concerns related to centralization, while managing the tradeoffs associated with these other dimensions. For example, overlap in the *permitting* process provides important opportunities for both local and state input, which may reduce risks of undue influence of developers at the state level.¹⁸⁹ A distinct *standard-setting* process, by contrast, limits the risk of local overregulation,¹⁹⁰ which is a core concern in the housing context.¹⁹¹ In the case of Chapter 40B, the resulting distinct standards—the 10% fair-share threshold and the quasi-nuisance standard for applicable qualifying projects—avoid duplication, providing clarity and eliminating the possibility of more stringent conflicting regulation.¹⁹²

Notably, the *permitting* process remains largely **decentralized** and **overlapping**, with authority delegated to municipalities, as an initial matter, and the HAC as a backup. HAC's potential involvement is the product of **hierarchical coordination**, which reduces the costs of previously **independent** permitting authority (e.g., shirking by local governments). Such coordination also reduces the risks of overlap with

184. See *infra* note 194 and accompanying text.

185. See *supra* notes 181–183 and accompanying text.

186. Cf. CAMACHO & GLICKSMAN, *supra* note 12, at 36–37.

187. Cf. *id.* at 34.

188. Cf. *id.* at 72–73.

189. Cf. *id.* at 95.

190. Cf. *id.* at 96–97.

191. See, e.g., Vicki Been, “Exit” as a Constraint on Land Use Exactions: Rethinking the Unconstitutional Conditions Doctrine, 91 COLUM. L. REV. 473, 504–506 (1991).

192. See generally CAMACHO & GLICKSMAN, *supra* note 12, at 40–41.

the state, such as conflicting authority or over-regulation.¹⁹³ These benefits may be worth the additional administrative costs of coordination in permitting added by Chapter 40B.

For housing projects that do not qualify for Chapter 40B, as for all other land development, *permitting* remains entirely **decentralized**, **distinct**, and **independent**. But the existence of Chapter 40B gives local governments an incentive to permit BMR and mixed-income housing projects through the conventional permitting process. In particular, municipalities may allow projects that they would have otherwise rejected in order to avoid “rejected projects return[ing] as larger 40Bs.”¹⁹⁴ In other words, Chapter 40B creates uncertainty for municipalities about future development, but municipalities can limit this uncertainty by promoting regional goals related to BMR housing.

G. *Identifying Additional Opportunities to Promote Regional Housing Goals*

Chapter 40B illustrates how a legislature can promote more effective metropolitan governance. Through limited shifts in *standard setting*, *planning*, and *permitting* authority that vary in terms of **centralization**, **overlap**, and **coordination**, the law has operated to moderately destabilize municipal incentives over housing development.¹⁹⁵ But progress was initially halting. Although the law was adopted in 1969, as of 1997 only eleven of the 147 municipalities in the Boston metropolitan area had attained the 10% threshold.¹⁹⁶ By 2017, twenty years later, this number had increased more than four-fold, to forty-seven.¹⁹⁷ This progress was not directly attributable to the reallocations of authority described above, which had already occurred, but—at least in part—to regulatory revisions stemming from the resulting destabilization. Although repeated efforts to repeal Chapter 40B by ballot measure have

193. *Id.* at 44–45.

194. DAIN, *supra* note 182, at 101.

195. *See supra*, notes 180–183 and accompanying text. At least one commentator has suggested that laws such as Chapter 40B might backfire, because the only way for a municipality to limit its obligation to accommodate additional BMR units is to prevent additional market-rate development. FISCHER, ZONING RULES!, *supra* note 101, at 359–62. In that case, the resulting diminution in the rate of overall housing supply increases could raise housing costs, relative to the status quo *ante*.

196. Massachusetts Department of Housing & Community Development, Chapter 40B Subsidized Housing Inventory Totals over Time (Jan. 22, 2011) (on file with authors).

197. MASS. DEP’T OF HOUS. & CMTY. DEV., CHAPTER 40B SUBSIDIZED HOUSING INVENTORY AS OF SEPTEMBER 14, 2017, https://www.mass.gov/files/documents/2017/10/10/shiinventory_0.pdf.

failed,¹⁹⁸ they have prompted a series of changes by the state administrative agency charged with implementing the statute.¹⁹⁹ Nevertheless, the fact that more than half of the municipalities in the region remain out of compliance suggests that reallocations of authority for functions other than land-use permitting and standard setting might be appropriate.

1. *Enhancing enforced municipal self-regulation.*

The reallocation of authority wrought by Chapter 40B triggered an iterative process of rule revision, as suggested by the democratic experimentalism literature.²⁰⁰ In the late 1980s, a legislative commission established in the wake of efforts to repeal Chapter 40B via ballot measure suggested that the statute should remain unchanged, but that the state housing agency should alter its practices and regulations “to foster local initiative responses for the production of affordable housing” and to “allow responsive municipalities to shape the means of production of affordable housing within [their] own borders.”²⁰¹ The resulting changes led to a spate of so-called “friendly 40B” projects, in which the chief elected local official endorsed a project in advance of the comprehensive permit application.²⁰² Unlike other Chapter 40B projects, such “local initiative” projects can reserve up to 70% of the BMR units for local residents or former residents, municipal employees, or people working in the municipality.²⁰³ While this shift helped to ensure the preservation of Chapter 40B, it also represented a clear acquiescence to localist impulses.²⁰⁴

The state’s Smart Growth Zoning and Housing Production Act, adopted in 2004, attempts to capitalize on the destabilization resulting from the reallocations of authority wrought by Chapter 40B. It does this by providing incentives for local governments to zone for compact

198. See AARON GORNSTEIN & ANN VERRILLI, MIXED-INCOME HOUSING IN THE SUBURBS: LESSONS FROM MASSACHUSETTS 17 (2006); Katherine Levine Einstein et al., *Who Participates in Local Government? Evidence from Meeting Minutes*, 17 PERSPS. ON POL. 28, 34–35 (2019).

199. See *infra* notes 201–203 and accompanying text.

200. See *supra* notes 107–110 and accompanying text.

201. GORNSTEIN & VERRILLI, *supra* note 198, at 18–19.

202. *Id.* at 19.

203. *Id.*

204. Gornstein and Verrilli contend that “[t]he limiting effect of the local preference [on socio-economic diversity] is offset by affirmative marketing requirements.” *Id.* Nevertheless, they acknowledge that “[m]ore research is needed to determine the impacts of local preferences on access for minority households.” *Id.* at 35.

development (including BMR units) in “smart growth” areas.²⁰⁵ Municipalities retain greater control (and receive incentives) under this law, and (unlike under Chapter 40B) developers’ profits are not capped.²⁰⁶ For municipalities that have not attained the fair share threshold under Chapter 40B, the smart growth law provides “a way to create units toward the 10% goal under 40B while controlling project location and design.”²⁰⁷ It thus facilitates a regime of enforced municipal self-regulation²⁰⁸ by maintaining the relevant standard and promoting municipal compliance, while giving municipalities significant discretion concerning the means of compliance.

2. *Other reallocations of authority could yield additional improvements.*

Reallocations of authority over other influential but often overlooked governmental functions could also further catalyze housing development generally, and affordable housing development in particular. For instance, Chapter 40B does not reallocate *service provision* authority over the expansion of water or sewer systems, significantly limiting opportunities for the development of multifamily housing development in many high-opportunity Boston suburbs. Nearly all municipalities within twelve miles of downtown Boston receive sewer service from a public authority, with the waste piped to a centralized treatment plant.²⁰⁹ Municipalities outside of the service area must affirmatively seek admission to the sewer system, and—notably—no community has been added since 1977.²¹⁰ Many municipalities located just beyond the periphery of the service area continue to rely on septic systems.²¹¹ As a result, the relatively dense developments permitted under Chapter 40B must typically provide onsite treatment systems in order to avoid groundwater contamination.²¹²

205. *See generally* ANN VERRILLI & JENNIFER RAITT, THE USE OF CHAPTER 40R IN MASSACHUSETTS (2009).

206. *Id.* at 20.

207. *Id.*

208. *See supra* notes 114–115 and accompanying text.

209. MASS. WATER RES. AUTH., WASTEWATER SYSTEM MASTER PLAN 3-5 (Dec. 2018), <http://www.mwra.com/publications/masterplan/2018/mp-wastewater.pdf>.

210. *Id.* at 3-2.

211. EDWARD J. COLLINS, JR. CTR. FOR PUB. MGMT., UNIV. OF MASS. BOSTON, STUDY ON INVESTMENT IN WATER AND WASTEWATER INFRASTRUCTURE AND ECONOMIC DEVELOPMENT 129 (2014), https://scholarworks.umb.edu/cpm_pubs/23/.

212. *See Reynolds v. Zoning Bd. of App. of Stow*, 37 N.E.3d 656, 665 (Mass. App. Ct. 2015) (revoking a comprehensive permit for a project that would likely increase nitrogen levels in a neighbor’s well).

Because such systems do not capitalize on the economies of scale associated with municipal or regional wastewater treatment, they are quite costly, deterring use of the Chapter 40B permitting process.²¹³

Where technologically feasible, the state could compel expansion of these systems to municipalities at the periphery of the existing service area, via centralized and distinct authority.²¹⁴ In this case, a state entity, such as the legislature (potentially by referendum) would have authority to compel expansion, subject to conferral with municipalities. Such a reallocation of authority over the expansion of service provision would move from the current **decentralized, overlapping and non-hierarchically coordinated** configuration to a more **centralized, distinct, and hierarchically coordinated** configuration.

Another possibly fruitful reallocation could involve more coordinated authority over information generation, more centralized authority over information dissemination, and more overlapping authority over information analysis. Systematic data regarding the efficacy of different municipal strategies for achieving the state fair-share standard, as well as measures for mitigating potential project harms,²¹⁵ could provide valuable information for evaluating municipal performance and catalyzing compliance.²¹⁶ Such a regime would entail **decentralized, distinct and coordinated information generation**, with each municipality reporting

213. See CHAPTER 40B TASK FORCE, FINDINGS AND RECOMMENDATIONS: REPORT TO GOVERNOR MITT ROMNEY 21-22 (2003), https://www.chapa.org/sites/default/files/TaskForceReport_0.pdf (“Water supply concerns and the inability to expand the sewer system . . . could be grounds to deny the comprehensive permit application . . . in order to protect the health or safety of the municipality’s residents, and would be upheld by the Housing Appeals Committee.”).

214. This is precisely the strategy that the state pursued in 1889, when it established the predecessor to the public authority that currently operates the public sewer system. In that case, the legislature compelled membership in order to promote regional welfare. See Marcella Alsan & Claudia Goldin, *Watersheds in Child Mortality: The Role of Effective Water and Sewerage Infrastructure, 1880-1920*, 127 J. POL. ECON. 586, 593 (2019) (describing the goals of the public sewer system); see also 1889 Mass. Acts 1154 (listing the municipalities where the system initially operated).

215. In the Boston metropolitan area, harms due to projects permitted under Chapter 40B are particularly salient in municipalities at the urban fringe, which rely on wetlands for flood control and groundwater. See Stephen M. Meyer & David M. Konisky, *Adopting Local Environmental Institutions: Environmental Need and Economic Constraints*, 60 POL. RES. Q. 3 (2007); see also Fisher & Marantz, *supra* note 178, at 1082. As noted above, Chapter 40B projects cannot bypass protections on wetlands or surrounding buffer areas that are required by state law, but they can bypass local restrictions that provide additional protections. See *supra* notes 169–170 and accompanying text.

216. See Alejandro E. Camacho, *Adapting Governance to Climate Change: Managing Uncertainty through a Learning Infrastructure*, 59 EMORY L.J. 1, 49 (2009) (proposing inter-jurisdictional learning infrastructure that increases “opportunities for information sharing and that cultivates learning”).

information; **centralized** and **distinct** *information dissemination* by the state; and **decentralized**, **overlapping** and **independent** *information analysis* by the state and municipality. Differentiating the allocation of authority for different facets of information gathering harnesses local knowledge, diversity, and experimentation to generate information, as well as the economies of scale from more centralized distribution.²¹⁷

Housing affordability is a problem associated with decentralized, independent, and largely distinct authority over various governmental functions, including standard setting; planning; permitting; information generation, dissemination, and analysis; and service provision. Massachusetts has attempted to address this limitation of existing authority through tailored adjustments in standard setting, planning, and permitting. These adjustments have prompted some municipalities to approve development projects that promote regional ends. Other reallocations of authority—such as those involving water and sewer service provision and information generation, dissemination, and analysis—could even further promote more effective metropolitan governance.

V. STORMWATER MANAGEMENT

Recent shifts in stormwater regulation in the United States provide another illustration of the significant value of parsing the functions and dimensions of regulatory authority. The significant human and ecological health problems caused by metropolitan stormwater runoff remain largely unaddressed in part because municipalities have weak incentives to address such cross-jurisdictional harms. Innovative engineering and management practices, if implemented by municipalities, could mitigate the resulting human and ecological health problems.²¹⁸ Such practices are particularly important because, as discussed in the following section, allowing more intense development in urbanized areas could have important environmental benefits by reducing per capita greenhouse gas emissions.²¹⁹ Nevertheless, stormwater pollution remains a significant problem, in part, because the resulting harms are cross-jurisdictional, leaving individual municipalities with weak incentives to adopt the relevant engineering and management practices. As this section explains, regulatory innovation could destabilize such incentives by imposing a stricter state or federal standard on co-permittees of municipal stormwater

217. See CAMACHO & GLICKSMAN, *supra* note 12, at 165–69.

218. See *infra* notes 255–262, 274–278 and accompanying text.

219. See *infra* Part V.

permits under the Clean Water Act (CWA)²²⁰ for failing to meet receiving water limitations.

A case study from California illustrates how a limited increase in centralization over certain stormwater governance functions allows policymakers to tap the experimentation, diversity, and localized expertise benefits associated with decentralization as well as the economies of scale and cost internalization benefits of centralized authority. The case suggests how a limited but clear and stringent reallocation of standard-setting authority, perhaps supplemented by state or federal information dissemination and financing, could motivate municipalities to use existing implementation and enforcement authority that they heretofore neglect. Such a tailored change would also seek to leverage existing mechanisms for inter-local coordination of stormwater planning and implementation without substantially increasing the redundancy costs of overlapping federal, state, and local authority.

A. *Ecological and Human Health Harms from Metropolitan Stormwater Runoff*

Though direct water pollution from industrial sources has significantly decreased in the United States in the decades following passage of the existing federal CWA framework, urban-related runoff and stormwater remain a leading cause of water pollution.²²¹ “Urban development has significantly altered urban hydrology. Cities have paved over natural green spaces to make way for streets, homes, and commercial developments. And when it rains, urban stormwater no longer has an opportunity to sink into the land and recharge groundwater basins.”²²² Rather, it turns into stormwater runoff, which must be managed to reduce the risks of flooding.²²³ Municipalities generally have attempted to cope with runoff through stormwater management systems that collect the water and convey it out of the city. However, these systems can significantly affect water resources. Stormwater runoff picks up pollutants and can cause substantial harm to wildlife and ecosystem processes (such as water chemistry, habitat diversity, and nutrient

220. 33 U.S.C. §§1251–1387 (2016).

221. ENVTL PROTECTION AGENCY, *National Summary of State Information*, https://ofmpub.epa.gov/waters10/attains_nation_cy.control (last visited July 18, 2019); Roopika Subramanian, *Rained Out: Problems and Solutions for Urban Stormwater Runoff*, 43 *ECOLOGY* L.Q. 421, 425 (2017).

222. Subramanian, *supra* note 221, at 423.

223. Allison H. Roy et al., *Impediments and Solutions to Sustainable, Watershed-Scale Urban Stormwater Management: Lessons from Australia and the United States*, 42 *ENVTL. MGMT.* 344, 345 (2008).

cycling) where it is discharged.²²⁴ In addition, such management regimes often displace flood risks to other areas and can create health hazards for water recreationalists and wildlife.²²⁵ Urban stormwater management systems also fail to recharge groundwater basins, thus wasting potentially valuable water supply resources and disrupting watersheds.²²⁶

B. *Decentralized Authority over Metropolitan Stormwater Pollution*

Developing strategies for sustainably managing metropolitan water resources is one of the most significant governance challenges for metropolitan areas.²²⁷ In urban and suburban areas, stormwater runoff is primarily managed by flood control districts and general-purpose local governments (i.e., municipalities and counties), subject to regulation by the U.S. Environmental Protection Agency (EPA) and respective state environmental agencies. For most direct or *point sources*²²⁸ of water pollution in metropolitan areas, federal and state authority to regulate water pollution is shared and extensive. The CWA delegates **overlapping standard-setting** authority to both state and federal authorities, although it varies primary responsibility for different kinds of standards. EPA is primarily charged with establishing technology-based effluent limitations applicable to *sources* of pollution,²²⁹ though each state has authority to adopt more stringent standards.²³⁰ States are primarily tasked with establishing water quality standards for each regulated *water body*,²³¹ though EPA does have a role in such processes.²³² For any water body not in compliance with its applicable water quality standard, a state must also establish (1) total maximum daily loads (TMDLs) that specify daily

224. Roy et al., *supra* note 223, at 345; Subramanian, *supra* note 221, at 423–25.

225. Subramanian, *supra* note 221, at 423.

226. *Id.* at 427. Some systems combine sewage and stormwater, which can overflow during periods of heavy rain, leading to untreated sewage being released directly into water bodies. Punam Parikh et al., *Application of Market Mechanisms and Incentives to Reduce Stormwater Runoff: An Integrated Hydrologic, Economic and Legal Approach*, 8 ENVTL. SCI. & POL'Y 133, 136 (2005).

227. See, e.g., Caitlin S. Dyckman & Kurt Paulsen, *Not in My Watershed! Will Increased Federal Supervision Really Bring Better Coordination Between Land Use and Water Planning?*, 32 J. PLAN. EDUC. & RES. 91, 91 (2012) (“Sustainable management of the nation’s water resources . . . constitutes one of the greatest challenges facing planning.”).

228. Point sources include any confined, discrete conveyance, such as pipes, ditches, wells, and containers. 33 U.S.C. § 1362(14) (2018).

229. 33 U.S.C. §§ 1311(b), 1314(b) (2018).

230. 33 U.S.C. § 1370 (2018).

231. 33 U.S.C. § 1313(c) (2018).

232. EPA is responsible for developing the baseline scientific criteria, 33 U.S.C. § 1314(a) (2018), and it may reject and replace state standards if deemed inconsistent with the CWA, 33 U.S.C. § 1313(c)(3)-(4) (2018).

pollution limits needed to achieve the standard for that water body,²³³ and (2) water quality-based effluent limits for point source dischargers, which may be more stringent than technology-based limitations.²³⁴

The CWA also provides states the primary but not exclusive authority over planning, permitting, enforcement, and financing.²³⁵ States fulfill the *planning* function by developing and implementing a nonpoint source management program²³⁶ that identifies measures to reduce pollution,²³⁷ as well as by adopting a “continuing planning process” with sufficient pollution restrictions to satisfy relevant effluent limitations and water quality standards.²³⁸ States similarly take the lead in source *permitting* for National Pollutant Discharge Elimination System (NPDES) permits²³⁹ through programs certified by EPA²⁴⁰ and subject to EPA permit review.²⁴¹ In addition to the state and EPA,²⁴² private parties with standing may file suit under the CWA to enforce violations of a standard or limitation imposed in a permit or order.²⁴³

But significant components of the management regime for reducing stormwater pollution and urban runoff are left to municipal and regional authorities. In most metropolitan areas, authority over stormwater management is largely decentralized and fragmented. The NPDES municipal stormwater sub-program is the core federal/state regime

233. 33 U.S.C. § 1313(d)(1)(C) (2018). EPA may adopt a TMDL for a state if the state fails to, 33 U.S.C. § 1313(d)(2) (2018), though it lacks the authority to implement the TMDL by imposing enforceable effluent limits on sources. *Pronsolino v. Nastri*, 291 F.3d 1123 (9th Cir. 2002).

234. U.S. ENVTL. PROT. AGENCY, NPDES PERMIT WRITERS’ MANUAL 6–1 (2010).

235. EPA initially had principal financing authority for infrastructure development, but states increasingly have had a more significant role. *See* 33 U.S.C. § 1281(g) (2018), 33 U.S.C. § 1383(a) (2018); DAVID M. BEARDEN ET AL., CONG. RESEARCH SERV., RL30798, ENVIRONMENTAL LAWS: SUMMARIES OF MAJOR STATUTES ADMINISTERED BY THE ENVIRONMENTAL PROTECTION AGENCY 29 (2013).

236. 33 U.S.C. § 1329(b) (2018).

237. 33 U.S.C. § 1329(b)(2)(A) (2018). Each state must submit its plan for EPA review, but EPA lacks any authority to implement a state plan if a state fails to do so. *Pronsolino*, 291 F.3d 1123 (9th Cir. 2002).

238. 33 U.S.C. § 1313(e) (2018).

239. 33 U.S.C. § 1342 (2018).

240. 33 U.S.C. § 1342(b) (2018).

241. 33 U.S.C. §§ 1342(b), (d) (2018). Many states like California have also enacted comprehensive water pollution control regimes that complement the federal program. *See, e.g.*, Porter-Cologne Water Quality Control Act, CAL. WATER CODE §§ 1251, 13000 *et seq.*; CAL. WATER CODE §§ 13050(e), 13260(a), 13263(a), 13376, 13377.

242. State governments monitor permit compliance and conduct most inspections and initial enforcement actions, but EPA has authority to “overfile” or commence enforcement action against permit holders regardless of what state regulators have chosen to do (or not do). BEARDEN ET AL., *supra* note 235, at 17.

243. 33 U.S.C. § 1365 (2018).

regulating stormwater in metropolitan areas, focusing on waters transported from municipal sources through municipal separate storm sewer systems (MS4s) and discharged without treatment into local water bodies.²⁴⁴ While other NPDES permits are typically approved for each point source, MS4 permits are granted for managing innumerable individual discharge points spread across myriad jurisdictions. In many metropolitan areas, multiple local governments typically “operate in an interconnected system discharging into the same surface waters,” so permitting state and/or regional boards “typically issue MS4 permits on a ‘system- or jurisdiction-wide basis.’”²⁴⁵ Accordingly, permits usually only include management standards for the entire system “instead of end-of-pipe controls at each discharge point,”²⁴⁶ and monitoring of pollution levels at each outfall does not consistently occur.

Moreover, MS4s are generally not subject to quantitative standards, or otherwise expected to meet as stringent a set of standards as applicable to most other sources.²⁴⁷ Numerical effluent limits are particularly expensive and complex for municipal stormwater discharges,²⁴⁸ and MS4s are typically subject to less stringent standards than stormwater discharges from industrial activities.²⁴⁹ Instead, they usually must only reduce pollution “to the maximum extent practicable” (MEP),²⁵⁰ as demonstrated by a stormwater management plan listing (in narrative form) practices that would minimize stormwater pollution.²⁵¹ Furthermore, unlike other pollution sources, the CWA does not require

244. See *Stormwater Discharges from Municipal Sources*, ENVTL. PROT. AGENCY (last visited Feb. 6, 2018), <https://www.epa.gov/npdes/stormwater-discharges-municipal-sources>.

245. Subramanian, *supra* note 221, at 435.

246. *Id.* at 434–35.

247. Matt Carlisle, *MS4 Regulation and Water Quality Standards*, ENVTL. L. REV. SYNDICATE (2017), <http://elawreview.org/environmental-law-review-syndicate/ms4-regulation-and-water-quality-standards>.

248. See STORM WATER PANEL ON NUMERIC LIMITS, RECOMMENDATIONS TO THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD: THE FEASIBILITY OF NUMERIC EFFLUENT LIMITS APPLICABLE TO DISCHARGES OF STORM WATER ASSOCIATED WITH MUNICIPAL, INDUSTRIAL AND CONSTRUCTION ACTIVITIES 6–8 (2006), https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/numeric/swpanel_final_report.pdf.

249. *Id.* at 1 (“Discharges associated with industrial activities, were required to meet the technology based standards . . . and to meet water quality standards.”). See also 33 U.S.C. § 1342(p)(3); *Defenders of Wildlife v. Browner*, 191 F.3d 1159, 1165–66 (9th Cir. 1999) (finding that MS4 discharges do not need to comply with the same standards as imposed for industrial stormwater discharges).

250. 33 U.S.C. § 1342(p)(3)(B) (2018). See also Alexandra Dapolito Dunn & David W. Burchmore, *Regulating Municipal Separate Storm Sewer Systems*, 21 NAT. RESOURCES & ENV'T 3, 4 (2007).

251. Carlisle, *supra* note 247.

MS4 permittees to comply with numeric water quality-based effluent limits.²⁵² As a result, for many MS4s, the co-permittee municipalities are largely left to determine, either individually or collectively, whether or not to impose pollution limits for any particular discharge point.

C. *Promoting Neglect of Metropolitan Stormwater Pollution*

This decentralized allocation of metropolitan authority provides municipalities significant disincentives to reduce stormwater runoff and pollution, resulting in substantial cumulative and aggregate harm. As currently configured, metropolitan stormwater governance hinders economies of scale for investment in green infrastructure, and municipalities have little incentive to internalize the regional harms and benefits of stormwater. The resultant regulatory gaps are not addressed by either the coordination provided through the MS4 permitting process, or by the weak tools for enforcement. Moreover, the paucity of relevant information and expertise for municipal decision makers about alternative strategies for managing stormwater may magnify the problem.

First, under the existing allocation of authority, the substantial infrastructure investment costs needed to manage stormwater runoff issues sufficiently may often not be justified at the municipal scale. EPA estimated that “the costs of addressing stormwater runoff to meet regulatory and program goals would be over \$42.3 billion per year,”²⁵³ and some estimated similar costs for LA County Basin Cities at \$120 billion.²⁵⁴ Local governments encounter significant shortfalls in spreading chronically scarce general funds, and they experience substantial hurdles to secure funds specifically allotted for green infrastructure that might capably address stormwater runoff problems.²⁵⁵

Moreover, because states largely have not imposed meaningful

252. Ruling on Petitions for Writ of Mandate, *Cities of Duarte and Huntington Park v. State Water Resources Control Bd.*, No. 30-2016-00833614-CU-WM-CJC, at 6-10 (Cal. Super Ct., Apr. 18, 2019).

253. Subramanian, *supra* note 221, at 444.

254. See DEBORAH WEINSTEIN BLOOME & PHOEBE LIPKIS, TREEPEOPLE, MOVING TOWARDS COLLABORATION: A NEW VISION FOR WATER MANAGEMENT IN THE LOS ANGELES REGION 18 (2015), https://www.treepeople.org/sites/default/files/pdf/publications/Moving%20Towards%20Collaboration_e-version.pdf.

255. Subramanian, *supra* note 221, at 444; see also NELL GREEN NYLEN & MICHAEL KIPARSKY, ACCELERATING COST-EFFECTIVE GREEN STORMWATER INFRASTRUCTURE: LEARNING FROM LOCAL IMPLEMENTATION, WHEELER INST. FOR WATER L. & POL’Y 7 n.38 (2015); CLEAN WATER AMERICA ALLIANCE, BARRIERS & GATEWAYS TO GREEN INFRASTRUCTURE 22 (2015), <http://uswateralliance.org/sites/uswateralliance.org/files/publications/Barriers-and-Gateways-to-Green-Infrastructure.pdf>.

restrictions on MS4 systems, and those that do exist are not directed at all the outfall points throughout the metropolitan area, municipalities have little incentive to limit pollution within their jurisdiction. Indeed, the effects, monitoring, and enforcement of stormwater pollution within a jurisdiction each may occur elsewhere. Moreover, municipalities have little incentive to expend resources for green infrastructure when many of the pollution control benefits are experienced elsewhere.²⁵⁶ Thus, the existing allocation of authority, combined with the lack of numerical limitations and failure to link MS4 limitations with harms to receiving water bodies, has regularly led municipalities to externalize the costs of municipal stormwater pollution and fail to value the metropolitan benefits from abating such pollution locally.

Though MS4 permits could in theory provide a mechanism for inter-local coordination to address regional pollution harms and take into account the benefits of stormwater controls, the absence of rigorous controls tethered to specific sources (or other incentives) fails to induce meaningful coordination. This problem is exacerbated both by the fragmentation of watersheds into multiple general-purpose local governments, and by the fragmentation of authority over stormwater *within* municipalities.²⁵⁷ In particular, municipal water and stormwater management programs are often independent.²⁵⁸ As a result, there are substantial costs of and barriers to coordination even if a municipal authority is motivated to address runoff.²⁵⁹

Furthermore, various commentators have observed that the current regulatory framework fails to disseminate relevant information and expertise to municipalities about the tradeoffs associated with alternative strategies for managing pollution or stormwater capture. One in-depth study found that “[t]he most common technical barrier . . . was an overall

256. Relatedly, stormwater is treated as an unalloyed harm rather than a potentially valuable asset worth capturing. Parikh et al., *supra* note 226, at 135 (“Excess water is seen as a liability, not a desired asset to which rights and value attach.”).

257. Subramanian, *supra* note 221, at 444 (“[A] primary barrier is the fragmentation of relevant responsibilities across local water and land management agencies. Although there are benefits to this specialization, municipalities often manage floodwater, groundwater, wastewater, and drinking water separately. Furthermore, these agencies are typically based on political boundaries, rather than watersheds, and receive funding from restricted sources with independent legal mandates.”).

258. See KATHERINE LABADIE, IDENTIFYING BARRIERS TO LOW IMPACT DEVELOPMENT AND GREEN INFRASTRUCTURE IN THE ALBUQUERQUE AREA 29 (2011), http://digitalrepository.unm.edu/wr_sp/54.

259. See, e.g., Subramanian, *supra* note 221, at 445 (“[L]ocal agencies have limited resources, with high transaction costs for collaboration.”); CLEAN WATER AM. ALL., *supra* note 255, at 28 (“An Achilles heel for green infrastructure can be its dependence on inter-agency and community cooperation in order to be successful.”).

lack of education, knowledge, and experience of green infrastructure design, maintenance, and benefits at the local, state, and even federal level,” as well as among developers.²⁶⁰ Commentators particularly point to insufficient data about the tradeoffs associated with different management strategies in particular contexts.²⁶¹ Some relatedly assert that local and regional authorities tend to lack relevant technical expertise.²⁶²

Finally, numerous commentators have pointed out that the CWA only provides fairly weak federal (and private citizen) enforcement authority for nonpoint source pollution and municipal runoff through MS4 permit compliance review (with the availability of fairly feeble qualitative MEP standards). State agencies, largely through regional boards, do have more direct enforcement authority, though use of such authority remains variable and uneven. Many states have had difficulty establishing and enforcing rigorous TMDLs.²⁶³

It is thus unsurprising that stormwater and nonpoint source pollution remains a large problem in many urban areas. “[S]ome U.S. cities are struggling with failed or failing MS4 systems and, as a result, the reality of fines and other penalties for noncompliance with their existing MS4 permits.”²⁶⁴ To evade the challenges of meaningfully reducing problems from municipal stormwater runoff, several regional water boards have adopted alternative compliance, or “safe harbor,” provisions for their MS4 permits that create a partial or complete exemption from enforcement for violations of water quality standards.²⁶⁵ These exemptions shield permittees from citizen suits so long as they have a plan

260. CLEAN WATER AMERICA ALLIANCE, *supra* note 255, at 15.

261. *Id.* at 14 (mentioning a “lack of available data on costs, long term performance, and maintenance requirements of green infrastructure under different flow regimes, soil types and climate.”); NYLEN & KIPARSKY, *supra* note 255, at 7 (“GSI [Green Stormwater Infrastructure] designs that work well in some cases may not be appropriate in others, leading to uncertainty about GSI’s effectiveness under specific local conditions.”).

262. LABADIE, *supra* note 258, at 29 (“Many of these techniques require a variety of expertise, ranging from soil experts to planners and engineers, and that these professionals need to work together and share knowledge.”); NYLEN & KIPARSKY, *supra* note 255, at 7 (“Limited local expertise . . . may discourage GSI [Green Stormwater Infrastructure] implementation.”).

263. See Ryan P. Kelly & Margaret R. Caldwell, *Ten Ways States Can Combat Ocean Acidification (and Why They Should)*, 37 HARV. ENVTL. L. REV. 57, 75 (2013) (noting the failure of states to create enforceable TMDLs).

264. Dapolito Dunn & Burchmore, *supra* note 250, at 5 (detailing enforcement actions against Dallas and San Diego for violations of MS4 permits).

265. San Francisco, Los Angeles, and San Diego Regional Water Boards have adopted safe harbor to some extent. See, e.g., S.D. REG’L WATER QUALITY CONTROL BD., RES. NO. R9-2015-0100, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM THE MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4S) DRAINING THE WATERSHEDS WITHIN THE SAN DIEGO REGION (adopted Nov. 18, 2015).

to improve water quality.

D. *Missing Opportunities for Effective Governance*

Though the literature on stormwater management identifies these shortcomings of the existing water pollution regime, much of it overlooks ways that adjusting the allocation of authority can address these deficiencies. Many commentators simply focus on the need for engineering solutions, such as green infrastructure strategies that protect, restore, or mimic the water cycle and natural hydrology,²⁶⁶ without exploring how governance might advance or hinder such strategies. Urban forests,²⁶⁷ permeable pavement,²⁶⁸ water harvesting,²⁶⁹ green roofs,²⁷⁰ and infiltration practices²⁷¹ seek to “minimize impervious cover and maximize infiltration of rainfall” through techniques that “capture and temporarily retain stormwater (e.g., rain barrels), infiltrate stormwater (e.g., biofiltration swales, pervious pavement), and promote evapotranspiration (e.g., green roofs, rain gardens).”²⁷² These strategies may provide the opportunity to manage stormwater not only through pollution reduction but also by “[s]lowing down and reducing flow . . . , thereby treating

266. See, e.g., Parikh et al., *supra* note 226, at 134; Subramanian, *supra* note 221, at 432 (“Green infrastructure mimics and restores natural hydrology in just this way. It is referred to by a variety of names, including water-sensitive urban design and low-impact development. Essentially, it is a water management approach that uses natural retention and treatment processes to both improve water quality and slow down or reduce the amount of water flowing into receiving waters.”); Craig Holland, *Financing solutions for storm water run-off*, ENVTL. FIN. (June 15, 2016), <https://www.environmental-finance.com/content/analysis/financing-solutions-for-storm-water-run-off.html> (“Expanding green space, swales, and other nature-based infrastructure not only reduces storm water and localised flooding, but adds job opportunities to build and maintain these sites and can often deliver lower-cost solutions than ‘grey infrastructure’, such as underground tunnels and retention basins.”).

267. STEVE WISE ET AL., INTEGRATING VALUATION METHODS TO RECOGNIZE GREEN INFRASTRUCTURE’S MULTIPLE BENEFITS 3 (2010), https://www.cnt.org/sites/default/files/publications/CNT_CNTLIDpaper.pdf (“Through the direct interception of rainfall and by increasing the ability of soil to store water, trees provide significant stormwater retention benefits.”).

268. *Id.* at 4 (“Permeable pavement is paving that allows for the infiltration of rainwater and snow melt onsite Permeable pavements allow stormwater to infiltrate into underlying soils on a site, reducing surface run-off volumes and rates, recharging groundwater, and filtering pollutants.”).

269. *Id.* at 6 (“Water harvesting practices capture and store rainwater onsite for future use such as irrigation.”).

270. *Id.* at 7 (“Green roofs retain rainwater primarily in the growing media. Much of this rainwater is eventually evapotranspired, preventing it from running off into the sewer system. A range of studies of green roof storm water retention performance has found that these roofs can retain and evapotranspire anywhere from 40 to 80 percent of annual precipitation”).

271. *Id.* at 9–10.

272. Roy et al., *supra* note 223, at 345.

stormwater more as a resource than a liability.”²⁷³ But few are considering how to induce the use of such strategies in light of the allocation of authority over stormwater in the United States.

Most that do explore regulatory solutions focus on identifying specific regulatory tools, either assuming localized adoption or not considering what governmental entity might adopt or impose such tool. For instance, some promote adoption of performance standards at the local level²⁷⁴ to respond to public land use practices and regulations that facilitate stormwater pollution.²⁷⁵ Some commentators propose adoption of user fees, taxes, and/or rebates on homeowners to induce stormwater runoff management.²⁷⁶ Others suggest establishment of a tradeable allowance market regime between landowners in a municipality or watershed,²⁷⁷ or the institution of voluntary auction or offset regimes.²⁷⁸ Few of these many regulatory alternatives have been adopted, however. And there remains significant uncertainty about which tools might be effective at inducing effective stormwater management. Indeed, many of these provisions, adopted at the local level, would not address concerns regarding economies of scale and the failure to internalize many of the inter-jurisdictional harms of stormwater pollution. Nor would they necessarily address concerns regarding the lack of coordination.

Many who do explore the allocation of metropolitan stormwater authority generally propose more conventional centralization through regulatory changes at the state or federal level.²⁷⁹ A number of

273. Subramanian, *supra* note 221, at 432.

274. *See, e.g.*, Roy et al., *supra* note 223, at 355 (suggesting the incorporation of green infrastructure performance standards in the NPDES permitting program’s model ordinance for cities); CLEAN WATER AM. ALL., *supra* note 255, at 13; *id.* at 3–4 (recommending changing parking or road development requirements to reduce impervious surfaces).

275. CLEAN WATER AMERICA ALLIANCE, *supra* note 255, at 13; ENVTL. PROT. AGENCY, GREEN INFRASTRUCTURE BARRIERS AND OPPORTUNITIES IN CAMDEN, NEW JERSEY: AN EVALUATION OF LOCAL CODES AND ORDINANCES 1 (2013) http://treesandstormwater.org/wp-content/uploads/2017/10/camden_gi_evaluation.pdf; William F. Pedersen, *Using Federal Environmental Regulations to Bargain for Private Land Use Control*, 21 YALE J. ON REG. 1, 17 n.48 (2004).

276. Parikh et al., *supra* note 226, at 136–37; Roy et al., *supra* note 223, at 350. Some studies suggest that most existing municipal stormwater user fee systems, however, do not set the charge sufficiently high to induce significant reductions in runoff. Parikh et al., *supra* note 226, 137–38.

277. Parikh et al., *supra* note 226, at 138; Roy et al., *supra* note 223, at 350; Holland, *supra* note 266. Washington, D.C. adopted the first private-to-private stormwater trading market system in the U.S. *Id.*

278. Parikh et al., *supra* note 226, at 140; Punam Parikh Prahallad, Matthew P Claggett, & N. Theresa Hoagland, *Beyond Water Quality: Can the Clean Water Act Be Used to Reduce the Quantity of Stormwater Runoff?*, 39 URB. LAW. 85, 101–102, 106–108 (2007); Roy et al., *supra* note 223, at 356.

279. *See* Dyckman & Paulsen, *supra* note 227, at 91, 94, 95 (describing various proposals to

commentators seek to promote wholesale substantive land use controls by a centralized authority. Some suggest, for instance, amending the CWA to require federal regulation of nonpoint sources and land use,²⁸⁰ including agricultural stormwater discharges and return flows from irrigated agriculture.²⁸¹ Such changes, if implemented, would overhaul the allocation of authority to significantly increase federal and/or state authority over land use decisions. Of course, such proposals have largely not gained any political traction. More importantly, there are reasons to question whether wholesale changes, if they were to remove local authority over land use, would needlessly sacrifice the experimentation and diversity advantages of decentralization.

Alternatively, some scholars of stormwater management have conflated the dimensions and functions in proposing or assessing strategies for addressing the problems of stormwater management. Some commentators, for example, do not distinguish between governmental functions in assessing the tradeoffs of purported centralization strategies.²⁸² Some describe certain coordination proposals as centralization, and assess them against more decentralized strategies, but conflate or ignore the alternatives (and tradeoffs) of potentially overlapping federal, state, and municipal authority.²⁸³ Helpfully, a recently growing literature on stormwater management has emphasized the need to develop a network for regional infrastructure, exemplified in this context by the prevalent calls for Integrated Regional Water Management (IRWM).²⁸⁴ IRWM focuses on providing “a collective-

increase federal authority).

280. See Pedersen, *supra* note 275, at 12 (“Comprehensive restrictions on land use might be needed to reduce non-point source pollution in a watershed or to prevent its increase.”); Subramanian, *supra* note 221, at 437 (“Pollution control cannot be solved with extra street sweeping and storm drain grates. It requires changes in land use and infrastructure.”).

281. Kenneth M. Murchison, *Learning from More Than Five-and-a-Half Decades of Federal Water Pollution Control Legislation: Twenty Lessons for the Future*, 32 B.C. ENVTL. AFF. L. REV. 527, 592 (2005) (suggesting requiring discharge permits for agricultural stormwater discharges and return flows from irrigated agriculture). Some also have suggested comprehensive changes to state water law, which in some states may impede strategies (like rainwater and stormwater harvesting) that may reduce certain harms from stormwater runoff. See, e.g., Katherine Cummings, Comment, *Adapting to Water Scarcity: A Comparative Analysis of Water Harvesting Regulation in the Four Corner States*, 27 J. ENVTL. L. & LITIG. 539, 543–45, 555–56, 568–69 (2012).

282. See, e.g., Dyckman & Paulsen, *supra* note 227, at 94–95 (criticizing a range of proposals involving potential federal roles in stormwater infrastructure financing and planning but failing to distinguish the potential varying tradeoffs of such functions).

283. See, e.g., *id.* at 96, 97, 101–103 (criticizing hierarchical coordination mechanisms as “federal centralization” but ignoring the potential tradeoffs of overlapping state and federal jurisdiction).

284. See Mark Lubell & Lucas Lippert, *Integrated Regional Water Management: A Study of Collaboration or Water Politics-as-Usual in California, USA*, 77 INT’L REV. ADMIN. SCI. 76, 81

choice forum where stakeholders can build networks, trust, and norms of reciprocity.”²⁸⁵ In this sense, scholars of IRWM are exploring not only questions of scale but also collaboration between interested parties, including inter-governmental coordination. However, even these scholars have not fully dissected the functions and dimensions of allocated authority, including among other things how the extent and type of coordination in IRWM might vary for different functions. Perhaps more importantly, as detailed next, bearing in mind how to promote enforced municipal self-regulation in configuring authority like IRWM is vital for stimulating effective metropolitan governance.

E. Inducing Metropolitan Solutions: Standard Setting through Joint Liability

More tailored strategies at the state or federal level, however, could destabilize the currently deficient stormwater management infrastructure and foster meaningful metropolitan governance. Rather than largely appropriating land use authority away from municipalities, state or federal policymakers can better tailor interventions by centralizing a particular governmental function—namely, standard setting—while adjusting inter-local and state-local coordination and overlap. One illustration of such potential change in metropolitan governance was instigated in Los Angeles County, involving the potential imposition of joint and several liability for stormwater discharges on MS4 co-permittees. Yet there are other possibilities, such as state-mandated performance standards for promoting green infrastructure.²⁸⁶ As illustrated below, these strategies can provide significant incentives to local regulators to manage stormwater discharges more effectively while retaining many of the advantages of decentralized authority.

(2011); *see also Integrated Regional Water Management Grant Program*, CAL. DEP’T OF WATER RES. (LAST UPDATED JUNE 3, 2020), https://www.waterboards.ca.gov/water_issues/programs/grants_loans/irwmgp/index.html.

285. Lubell & Lippert, *supra* note 284, at 81.

286. MARTIN JAFFE ET AL., THE ILLINOIS GREEN INFRASTRUCTURE STUDY: A REPORT TO THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY ON THE CRITERIA IN SECTION 15 OF PUBLIC ACT 96-0026, THE ILLINOIS GREEN INFRASTRUCTURE FOR CLEAN WATER ACT OF 2009, 97 (2010), <http://www.epa.state.il.us/green-infrastructure/docs/draft-final-report.pdf> (recommending that Illinois adopt stormwater volume retention performance standards, stating “[s]uch performance standards have become the norm around the country, and are seen as the best method of reducing flooding and sewer overflows while improving water quality at the same time.”); *see also id.* (stating that the “National Research Council recommended that ‘flow and related parameters like impervious cover should be considered for use as proxies for stormwater pollutant loading’ because of the difficulty and expense of compliance monitoring urban stormwater for specific pollutants.”).

1. *The Los Angeles MS4 template.*

Federal law, as mentioned earlier, does not require MS4s to reduce pollution, improve impaired water bodies, or even satisfy numerical standards.²⁸⁷ Without such requirements, co-permittee municipalities are largely left to determine, either individually or collectively, whether or not to impose pollution limits for any particular discharge point. Courts, however, have suggested that states and/or the EPA have the authority to elect to impose numerical limitations on MS4s to help impaired waters meet TMDL requirements.²⁸⁸ California was the first to do so, imposing water-quality based numerical limitations on the Los Angeles (LA) County MS4 and permit,²⁸⁹ including various numerical watershed-based TMDLs and receiving water limitations.²⁹⁰ Though there has been significant litigation concerning the adequacy of state-adopted numerical limitations, courts have upheld the state's authority to impose numerical standards.²⁹¹

However, the state also has approved an alternative regime from municipal compliance with these numerical standards, providing a partial or complete exemption from enforcement for violations of water quality standards.²⁹² Permittees who elected this option would need to develop within identified deadlines an alternative watershed management program (WMP) or enhanced watershed management program (EWMP).²⁹³ If a

287. See *supra* notes 247–252 and accompanying text.

288. See *Defenders of Wildlife v. Browner*, 191 F.3d 1159 (9th Cir. 1999) (finding that EPA has the discretion to not include numeric standards, but also stating in dicta that EPA or the states have discretion to do so).

289. *Dapolito Dunn & Burchmore, supra* note 250, at 4. (“In one of the first times that TMDL-derived, water-quality-based numeric limitations have been applied specifically to MS4 discharges, Los Angeles County now faces a wet-weather bacteria limit for MS4 discharges that is being implemented over a long time period.”).

290. *Subramanian, supra* note 221, at 438. The MS4 would have to comply with a numerical Waste Load Allocation (WLA) that indicated the discharge level allowed. California State Water Resources Control Board, Order WQ 2015-0075, at 29 (June 16, 2015) [hereinafter California Water Resources Control Board, Order WQ 2015-0075] (requiring the co-permittees for the MS4 “to comply with permit provisions to implement the WLAs set forth in the TMDLs . . .”).

291. See, e.g., *Nat. Res. Def. Council v. Cty. of L.A.*, 725 F.3d 1194 (9th Cir. 2013), *cert. denied*, L.A. Cty. Flood Control Dist. v. Nat. Res. Def. Council, 134 S. Ct. 2135 (2014) (holding MS4 co-permittees liable for exceedances of numerical standards); *Ruling on Petitions for Writ of Mandate, Cities of Duarte and Huntington Park v. State Water Resources Control Bd.*, No. 30-2016-00833614-CU-WM-CJC (Cal. Super. Ct., Apr. 18, 2019) (finding that, although the state Water Resources Control Board (WRCB) could adopt numerical standards under both the CWA and analogous state law, the WRCB did not appropriately consider economic factors in setting such standards as required by state law (CAL. WATER CODE § 13421)).

292. *Subramanian, supra* note 221, at 438.

293. *Id.* Unlike a WMP, an EWMP requires that permittees “collaborate on multi-benefit regional projects and, wherever feasible, retain all non-storm runoff, as well as all storm water

municipality engaged in this iterative process, imposing additional qualitative controls on stormwater pollution and making measurable progress, it would not be liable for failing to meet any TMDL-related numerical standards.²⁹⁴

In addition to numerical standards that linked MS4 discharges to reducing stormwater discharges into impaired water bodies, a 2013 decision by the Ninth Circuit Court of Appeals raised the possibility that the LA County MS4 permit could even impose joint-and-several liability on all co-permittees for failing to meet the receiving water limitations.²⁹⁵ Under such a regime, the co-permittees—84 cities, the county, and a flood control district—could be strictly liable for violations of the CWA, but seek contribution for violations from other co-permittees who caused or contributed to the exceedances of its permit.²⁹⁶ The state board responsible for overseeing MS4 permit issuance declined to impose such liability, but nevertheless adopted a standard of joint responsibility, stating that “the burden rests on the Permittee to demonstrate that its commingled discharge is not the source of an exceedance.”²⁹⁷ It supported this standard by stating, “this burden shifting represents a reasonable policy approach to a complicated compliance question where the Permittees are more closely familiar than the Los Angeles Water Board with their outfalls and their discharges in the extensive and interconnected

runoff from the 85th percentile 24-hour storm event . . . for the drainage areas tributary to the projects.” California Water Resources Control Board, Order WQ 2015-0075, *supra* note 290, at 17. Permittees implementing an EWMP are “deemed in compliance with the *final* QWBELs [water quality-based effluent limits] and other TMDL-specific limitations . . . for the water body-pollutant combinations addressed by the storm water retention approach,” whereas permittees implementing a WMP “are deemed in compliance with the [relevant] *interim* QWBELs and other TMDL-specific limitations.” *Id.* (emphasis original).

294. Subramanian, *supra* note 221, at 438.

295. *Nat. Res. Def. Council v. Cty. of L.A.*, 725 F. 3d, at 1205 n.16. Some early interpretations of the CWA suggested such claims might not be available. See *Middlesex Cty. Sewerage Auth. v. Nat'l Sea Clammers Ass'n*, 453 U.S. 1, 20 (1981); *U.S. v. Savoy Senior Housing Corp.*, No. 06-cv-031, 2008 WL 631161, at *5 (W.D. Va. Mar. 6, 2008) (quoting, in part, *Milwaukee v. Illinois*, 451 U.S. 304, 317–32 (1981)); see also Steven L. Hoch & Christopher W. Smith, *Joint and Several Liability is the Future of the Clean Water Act*, 12 A.B.A. SEC. ENV'T, ENERGY, & RES., WATER QUALITY & WETLANDS COMM. NEWSL. 10 (Dec. 2013). More recent decisions, however, have allowed joint and several liability for violations by MS4 permittees. *Mid-Valley Pipeline Co. v. S.J. Louis Constr., Inc.*, 847 F. Supp. 2d 982 (E.D. Ky. 2012); *U.S. v. Hammond*, No. 01-cv-5559, 2002 WL 31133177 (N.D. Ill. Sept. 25, 2002).

296. Hoch & Smith, *supra* note 295, at 12 (“[E]ven though a facility subject to liability under the CWA may be strictly liable for its violations of the CWA, it is not solely responsible for fines or penalties assessed from those violations because it can use federal joint and several liability claims to distribute those damages to others.”).

297. California Water Resources Control Board, Order WQ 2015-0075, *supra* note 290, at 68.

MS4 network.”²⁹⁸

2. *Liability standard setting as destabilization.*

The proliferation of a range of centrally-imposed more stringent standards in the Los Angeles MS4 region suggest how a tailored change in the standard applied to municipalities might promote effective metropolitan governance. Imposing some form of liability on co-permittees to meet numerical TMDLs—whether through judicial interpretation or more explicit state or federal standard setting—might tap centralization’s advantages of economies of scale, uniformity, and internalization of inter-jurisdictional costs. The standard would seek to induce coordination in implementation—leveraging the advantages of pooling resources and reducing risks of shirking, drift, and free-riding—but continue to draw on the local knowledge, diversity and experimentation benefits of decentralization.

Perhaps the most stringent such reallocation might involve federal or state *standard-setting* authority (and concomitant *compliance monitoring* and *enforcement* oversight authority) for MS4 permits that integrates strict, joint and several liability for municipal co-permittees to ensure discharges are subject to TMDLs for applicable impaired water bodies. Though such liability would be particularly destabilizing, a range of less stringent standards might nonetheless also provide municipalities significant incentives to promote regional ends. For instance, even the state board’s approach requiring a municipality to demonstrate that its commingled discharge is not the source of an exceedance could induce municipal auditing, curbing of discharges, and coordination between municipalities to address collective exceedances. Moreover, even without this liability presumption, imposition of numerical standards alone—particularly if tethered to ensuring compliance with TMDLs, but even if just to technological feasibility—would likely be destabilizing. If sufficiently stringent, even requiring imposition of regional plans, such as the state Safe Harbor’s WMPs or EWMPs that mandate additional stormwater pollution controls on MS4s, could incentivize municipalities to coordinate and meaningfully reduce regional stormwater pollution. Weighing the tradeoffs of different dimensions of standard-setting authority is thus not the only key for successful metropolitan governance; policymakers must also seek to calibrate adopted standards to effectively

298. *Id.* Due to pending litigation, it remains to be determined whether cities continue to have the opportunity to avail themselves of the EWMP/WMP alternative safe harbor process to comply with the state board standard.

induce municipalities to promote regional objectives.

In fact, the experience of the Los Angeles MS4 region suggests that the mere threat of a centralized standard can provide significant incentives to innovate and coordinate. Even the less stringent safe harbor provided through the WMP/EWMP process has induced significant inter-local coordination in regional infrastructure planning. Most prominently, the threat of liability in significant part led to the passage in 2018 of Measure W in Los Angeles County.²⁹⁹ This property tax of 2.5 cents a square foot of impermeable space is projected to raise hundreds of millions of dollars annually for stormwater capture and cleanup.³⁰⁰ Moreover, the increased potential for liability induced substantial coordination among municipalities. For example, the San Gabriel Valley sub-region of the Los Angeles MS4 has engaged in significant planning as part of its EWMP process on a suite of innovative distributed and nature-based stormwater infrastructure projects.³⁰¹ Particularly due to the passage of Measure W, such projects are likely to go forward regardless of the final standard adopted by the state.

This is because a more stringent centralized standard provides considerable incentive for local governments to address stormwater pollution. First, it helps leverage economies of scale by offering significant inducement for municipalities to use their existing authority to coordinate with other local governments to manage stormwater at a more regional scale. In particular, linking the MS4 to regional water quality health through TMDLs provides a clear signal to local governments to develop benchmarks to demonstrate that they have internalized the regional costs of stormwater pollution, as well as some of the benefits of stormwater capture and green infrastructure.³⁰² Finally, it substantially promotes enforceability by offering clearer and more precise

299. See, e.g., Editorial, *Endorsement: Yes on Measure W for Clean Beaches and Oceans — and, Possibly, ‘New’ Drinking Water*, L.A. TIMES (Nov. 30, 2018), <https://www.latimes.com/opinion/endorsements/la-ed-measure-w-20181015-story.html> (arguing that “[c]leaning stormwater is not merely a nice thing to do for the environment,” and that the looming threat of “fines that will mount into billions of dollars” justified “invest[ing] in projects that will put [municipalities] into compliance [with the CWA].”).

300. Nina Agrawal, *L.A. County Stormwater Tax Officially Passes*, L.A. TIMES (Nov. 30, 2018), <https://www.latimes.com/local/lanow/la-me-ln-measure-w-20181130-story.html>.

301. See, e.g., UPPER SAN GABRIEL RIVER WATERSHED MANAGEMENT GROUP, REVISED ENHANCED WATERSHED MANAGEMENT PROGRAM PLAN, app. B-1, at 9, 11, 16 (Jan. 2016), https://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/watershed_management/san_gabriel/upper_san_gabriel/USGRRevisedEWMP_Appendices_20160114.pdf (describing Kahler Russell Park, an EWMP project with three jurisdictions in the contributing drainage area).

302. See Murchison, *supra* note 281, at 589.

requirements for MS4s and thus more straightforward compliance monitoring by interested private parties, state and federal agencies, and other local authorities. Though fairly constrained as a reallocation of authority, this clarification of the statewide standard for stormwater management fills the primary regulatory gap pertaining to municipal stormwater discharges.³⁰³

Undoubtedly, any of these changes in standard setting would affect the allocation of land use authority, customarily treated as primarily municipal, by essentially establishing a more centralized standard that applies to a metropolitan area through the joint MS4 permit. Such a relatively tailored intervention would nonetheless serve to destabilize existing municipal incentives and could induce informal inter-local coordination over the planning and implementation functions in order to tackle the new regional standards. Although some may allege that doing so infringes on local autonomy,³⁰⁴ both the states and the federal government have clear authority to regulate and manage municipal operation of infrastructure that pollutes federal or state water bodies.³⁰⁵

Perhaps more importantly, each of the suggested liability standards actually would largely maintain the CWA's primary allocation of decentralized, distinct, and independent authority to municipalities over stormwater management. Authority over all other stormwater management functions would be largely decentralized, with little overlap vis-à-vis state or federal authority. Each MS4 co-permittee would be induced to ensure any of its discharges do not cause water bodies in the region to exceed baseline water quality standards. Yet such local authorities, independently and/or in coordination with other co-permittees, would have primary authority to create stormwater management plans, implement such plans, and ensure compliance by dischargers into their municipal stormwater system. Exercise of this primarily local authority would thus also be independent vis-à-vis federal

303. Indeed, other sources of stormwater discharges, such as industrial sources, are expected to comply with numerical standards and integrate TMDLs for impaired water bodies. 33 U.S.C. §1342(p).

304. See Pedersen, *supra* note 275, at 17 n.48.

305. As stated by one scholar:

Local governments . . . build storm sewers to capture the storm flows created by the growth of impervious surfaces and channel them for more controlled release. The sewer pipe itself is the immediate source of the pollution discharge, whatever the ultimate origin may be. Both the Clean Water Act and pollution control laws in general regulate such immediate sources . . . The municipality can therefore legitimately be regarded as both the immediate source, through the discharge pipe, and the effective cause, through its own property and land use policies and practices, of storm sewer pollution.

See id.

and state agencies, but would allow for—indeed would actively strive to cultivate—coordination between co-permittees in planning and implementation as well as monitoring and enforcement of discharges into municipal infrastructure.

It is worth mentioning that third parties also have been key catalysts in implementation and enforcement. As noted earlier, private parties may sue municipalities for CWA violations.³⁰⁶ As evidenced by the many lawsuits leading to development of more centralized standards, such citizen suit enforcement authority has been instrumental in promoting enforced municipal self-regulation.

In short, the narrow reallocation of authority continues to tap the diversity, experimentation, and expertise advantages of primarily local control. The effectiveness of many of the strategies proposed to reduce stormwater pollution and promote green infrastructure remain less than fully proven, and the appropriate suite of such strategies may need to vary by watershed to accommodate local variations and preferences. Any of the suggested liability standards leaves decisions about the appropriate approach to local authorities to coordinate and adopt, and facilitates leveraging local knowledge and expertise.³⁰⁷ Each also helps ensure management is better tailored to local conditions, preferences, and economic conditions, and allows opportunities for regulatory experimentation that can encourage innovation.

3. *Other potential destabilizing reallocations.*

Calibrating the imposed standard to provide sufficiently significant incentives to municipalities is key to promoting enforced municipal self-regulation. However, policymakers might also consider coordinating and/or centralizing other government functions to moderate the effects of a stringent standard and help municipalities advance regional objectives. In particular, state or federal authorities might enhance metropolitan stormwater management by helping to finance inter-local coordination and infrastructure improvements.³⁰⁸

They also might directly provide avenues for information generation and dissemination about possible alternative stormwater management

306. See *supra* notes 242–243 and accompanying text.

307. See California State Water Resources Control Board, *supra* note 297, at 68.

308. See, e.g., S.S. White & M.R. Boswell, *Stormwater Quality and Local Government Innovation*, 73 J. AM. PLAN. ASS'N 185, 191–92 (2007); Subramanian, *supra* note 221, at 424 (proposing federal and state financial support to build community capacity for investments in green infrastructure).

strategies³⁰⁹ or potential tools for inter-local coordination.³¹⁰ Financing, as well as information collection and distribution, could benefit from the economies of scale associated with centralization. Requiring centralized distribution of information on stormwater practices or additional funding grants can leverage the superior ability of state or federal authorities to spread costs.³¹¹ These advantages might support supplementing a tailored change in standard setting at the state or federal level, especially if the simple adjustment in the central standard would be insufficient to promote effective stormwater management. Providing for coordination or centralization of these functions might be particularly valuable in context under which municipalities have the incentive but not the resources or knowledge to engage in metropolitan governance.

Nonetheless, in our view, adopting a stringent state or federal standard for MS4 permits is the key intervention for leveraging the existing CWA legal infrastructure to induce significantly more productive regulation and management, particularly in conjunction with additional interventions in information dissemination or funding.³¹² In the Los Angeles MS4 case, it led to inter-local coordination in planning and even eventual creation of a regional funding stream through Measure W.³¹³ Other state and/or federal mandates also have been found to induce local innovation in stormwater management,³¹⁴ and reliance solely on increasing available funding or information alone has not induced sufficient change.³¹⁵

Tailored destabilization through standard setting is the reallocation

309. See, e.g., Roy et al., *supra* note 223, at 355 (suggesting centralized distribution of a model local ordinance based on performance standards rather than dictating the use of specific development practices); White & Boswell, *supra* note 308, at 191–92.

310. See, e.g., Subramanian, *supra* note 221, at 424 (“[F]ederal and state governments [should] focus on arming local governments with the tools and data to build their capacity for collaboration, so they can implement green infrastructure more widely.”).

311. CAMACHO & GLICKSMAN, *supra* note 12, at 35.

312. Municipalities report that some incentives—including cost savings, “time savings, the opportunity to learn from others, and belief in the effectiveness of a regional approach to stormwater management”—already exist for MS4 permit coordination and innovation. See White & Boswell, *supra* note 308, at 190. Of course, the existence of joint MS4 permits themselves provide some incentive for municipalities to establish metropolitan governance, but the lack of significant progress indicates existing incentives have been insufficient to significantly reduce pollution. *Id.*

313. See *supra* notes 299–300 and accompanying text.

314. White & Boswell, *supra* note 308, at 190. See also Elise Harrington & David Hsu, *Roles for Government and Other Sectors in the Governance of Green Infrastructure in the U.S.*, 88 ENVTL. SCI. & POL’Y 104, 107 (2018) (finding “20 of 35 municipal or water agency staff cited regulation as a key driver for green infrastructure . . . [and an] additional five interviewees mentioned regulation as a secondary driver.”).

315. Cf. Subramanian, *supra* note 221, at 447 (“Purely collaborative and data driven solutions, although useful, may not necessarily eliminate barriers to widespread green-infrastructure deployment.”).

most likely to catalyze more effective metropolitan governance, in part by inducing municipalities to tap existing sources of financial support and information. Such an intervention relies on prompting negotiation and problem solving among existing authorities to develop regional solutions rather than requiring development of a new regulatory infrastructure at the municipal or centralized scale. As some existing research suggests, in the absence of adequate regulatory levers, an intricate metropolitan governance infrastructure, exemplified in this context by the prevalent calls for IRWM, may have only modest effects on reducing the collective action problems of stormwater pollution management.³¹⁶ Though such efforts may provide positive gains,³¹⁷ imposing tailored destabilization strategies is essential for stimulating the governmental incentives for bargaining, monitoring, and enforcement necessary for developing effective metropolitan governance.

VI. ADDRESSING GHG EMISSIONS FROM TRANSPORTATION AND LAND USE

A third example exploring a regulatory attempt to mitigate the effects of greenhouse gas (GHG) pollution from transportation emissions offers lessons about the shortcomings of, and potential for, relatively tailored strategies to promote metropolitan governance. Traditionally, municipalities and counties have performed a vital role in the provision and regulation of transportation infrastructure, though some functions have also been addressed at the state and/or federal level, particularly since the advent of the interstate highway system.³¹⁸ The funding, planning, and construction of transportation infrastructure involve overlapping authority by federal, state, municipal, and/or county governments. Some states like California have somewhat decentralized systems of transportation funding and planning with little inter-governmental coordination, as county transportation commissions have significant authority over revenues derived from county sales taxes.³¹⁹ A

316. See Lubell & Lippert, *supra* note 284, at 77 (noting that “the ‘collaborative’ model of IRWM attempts to change the policy decision-making process in ways that aim to improve the status quo[.]” but finding, based on empirical analysis, that IRWM in the Bay Area has “only created incremental changes away from the [customary] situation of fragmentation and conflict”).

317. *Id.* at 82.

318. See EDWARD WEINER, *URBAN TRANSPORTATION PLANNING IN THE UNITED STATES: HISTORY, POLICY & PRACTICE* v (5th ed. 2016) (stating transportation infrastructure planning is primarily carried out by local and state agencies).

319. See generally Amber E. Crabbe et al., *Local Transportation Sales Taxes: California’s Experiment in Transportation Finance*, 25 PUB. BUDGETING & FIN. 91 (2005). For related analysis, see Alejandro E. Camacho et al., *Mitigating Climate Change through Transportation and Land Use*

few states rely on more centralized forms of transportation planning and funding, such as Oregon's urban growth boundary³²⁰ or Maryland's "smart growth" regime, which directs state infrastructure expenditures toward state agency-identified priority funding areas (PFAs) that meet density criteria or target economic revitalization.³²¹ In addition, the regulation of the effects of transportation infrastructure, such as air pollution like GHG emissions, also occurs at the federal and state levels through the Clean Air Act's cooperative federalism regime.³²²

Transportation accounts for 28% of GHG emissions nationally, and this proportion is rising with the phasing out of coal-fired power plants paired with limited state action directed at transportation-sector GHG emissions.³²³ California, along with several other states has ambitious goals for reducing GHG emissions.³²⁴ California has attempted to secure transportation-sector emissions reductions via standards for vehicle fuel economy, low-carbon fuel, and electric vehicles.³²⁵ While these standards have reduced GHG emissions per vehicle mile, in California this gain has been offset by increased vehicle miles traveled (VMT).³²⁶ As a result, reducing VMT is likely necessary to meet California's emissions-reduction goals.³²⁷ But municipal primacy over land use regulation,

Policy, 49 ENVTL. L. REP. 10473, 10484 (2019).

320. Oregon allocates infrastructure spending to promote compact development within urban growth boundaries. Camacho et. al., *supra* note 319, at 10484.

321. *Id.*

322. 42 U.S.C. §§ 7408, 7543 (2018) (providing for federal and state regulation of air pollutants from motor vehicles and transportation).

323. *Sources of Greenhouse Gas Emissions*, ENVTL. PROT. AGENCY, (last visited Feb. 7, 2019), <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>. Transportation now accounts for over two times as many GHG emissions as energy generation in many states. Benjamin Storrow, *Cars Threaten Climate Goals in Blue States*, CLIMATEWIRE (April 17, 2018), <https://www.enews.net/climatewire/stories/1060079199>; *see also, e.g.*, CAL. AIR RES. BD., CALIFORNIA GREENHOUSE GAS EMISSIONS FOR 2000 TO 2016: TRENDS OF EMISSIONS AND OTHER INDICATORS 4 (2018), https://ww3.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_trends_00-16.pdf (stating that transportation accounted for 37% of California's 2015 GHG emissions).

324. *See State Climate Policy*, CTR. FOR CLIMATE AND ENERGY SOLUTIONS, <https://www.c2es.org/content/state-climate-policy/> (last visited July 28, 2019) (summarizing state climate policies).

325. Camacho et al., *supra* note 319, at 10473–74.

326. CAL. AIR RES. BD., 2018 PROGRESS REPORT: CALIFORNIA'S SUSTAINABLE COMMUNITIES AND CLIMATE PROTECTION ACT 22 (2018) [hereinafter CARB 2018 PROGRESS REPORT], https://www2.arb.ca.gov/sites/default/files/2018-11/Final2018Report_SB150_112618_02_Report.pdf; *see also* Robinson Meyer, *The Coming Clean-Air War Between Trump and California*, THE ATLANTIC (Mar. 6, 2017), <https://www.theatlantic.com/science/archive/2017/03/trump-california-clean-air-act-waiver-climate-change/518649/>.

327. *See* CAL. AIR RES. BD., THE 2017 CLIMATE CHANGE SCOPING PLAN UPDATE 100 (2017), https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf; CARB 2018 PROGRESS REPORT, *supra* note 327, at 28.

coupled with significant county authority over transportation funding, has hindered VMT reductions by deterring infill development,³²⁸ limiting housing supply and affordability,³²⁹ and increasing the length of commutes.³³⁰ Government strategies that stimulate denser development in transit-accessible areas, while limiting spending on the construction of new roadways or the expansion of existing roads, can help address these various problems.

California's Sustainable Communities and Climate Protection Act of 2008, commonly known as SB 375,³³¹ is the most ambitious initiative in the U.S. to date attempting to address the effects of land use and development on transportation-related GHG emissions. It establishes state authority to set VMT standards for transportation-sector GHG emissions and provides metropolitan planning agencies the authority to develop plans to meet such standards. Because this tailored strategy does not otherwise alter municipal authority over land use planning or regulation, however, it has not meaningfully altered municipal incentives to disregard regional transportation and pollution needs. SB 375 and its limitations nonetheless help to illustrate a range of possible functional and dimensional reconfigurations that are more likely to promote effective metropolitan governance by destabilizing city incentives while maintaining many of the virtues of largely decentralized and independent regulatory authority

A. *The Design of California's SB 375*

California's SB 375 is the first major and most advanced state intervention for reducing GHG emissions from transportation and land use.³³² It provides the California Air Resources Board (CARB) authority

328. GIAN-CLAUDIA SCIARA & SARAH STRAND, WHEN DO LOCAL GOVERNMENTS REGULATE LAND USE TO SERVE REGIONAL GOALS? RESULTS OF A SURVEY TRACKING LAND USE CHANGES THAT SUPPORT SUSTAINABLE MOBILITY: A RESEARCH REPORT FROM THE NATIONAL CENTER FOR SUSTAINABLE TRANSPORTATION 1, 3–4 (2017), <https://dot.ca.gov/-/media/dot-media/programs/research-innovation-system-information/documents/final-reports/ca17-2973-finalreport-a11y.pdf>.

329. CARB 2018 PROGRESS REPORT, *supra* note 326, at 64; Edward L. Glaeser & Joseph Gyourko, *The Impact of Building Restrictions on Housing Affordability*, 9 ECON. POL'Y REV. 21, 35 (2003).

330. Edward L. Glaeser et al., *Urban Growth and Housing Supply* 13–15 (Nat'l Bureau of Econ. Research, Working Paper No. 11097, 2005), <https://www.nber.org/papers/w11097.pdf>.

331. California's Sustainable Communities and Climate Protection Act of 2008, S.B. 375, 2007–2008 Leg. Reg. Sess. (Cal. 2008).

332. Camacho et al., *supra* note 319, at 10473. In addition, Washington and Oregon have established GHG or VMT targets, and eight state members of the Transportation and Climate Initiative in the Northeast and Mid-Atlantic regions are currently participating in listening sessions

to adopt a metric for measuring GHG emissions,³³³ and mandates *standard setting* by CARB through quantitative GHG reduction targets for each regional Metropolitan Planning Organization (MPO).³³⁴ Additionally, the law allocates regional MPOs authority over metropolitan *planning* by requiring each MPO: (1) prepare a Sustainable Communities Strategy (SCS) that, if fully adopted, would achieve the state-imposed GHG-emission reduction target for that MPO, and (2) incorporate its SCS into its regional transportation plan (RTP).³³⁵ RTPs are linked to federal transportation funding³³⁶ and must be implementable under reasonable budget projections.³³⁷ This is the principle mechanism to ensure that MPOs comply with SB 375's planning mandate.³³⁸

SB 375 also provides opportunities for inter-governmental coordination. First, it requires some coordination between CARB and MPOs in devising the regional MPOs' quantitative targets through a report and recommendations by a Regional Targets Advisory

seeking public input on strategies to reduce GHG emissions from the transportation sector. *Northeast and Mid-Atlantic States Seek Public Input as They Move Toward a Cleaner Transportation Future*, TRANSP. & CLIMATE INITIATIVE, (Nov. 13, 2017), <http://www.transportationandclimate.org/northeast-and-mid-atlantic-states-seek-public-input-they-move-toward-cleaner-transportation-future>.

333. CAL. GOV'T CODE §65080(b)(2)(A)(2)(v) (West 2020); *see also* William Fulton, *Will Climate Change Save Growth Management in California?*, in PLANNING FOR STATES AND NATION-STATES IN THE U.S. AND EUROPE 97, 110–12 (Gerrit-Jan Knaap et al. eds., 2015).

334. CAL. GOV'T CODE §65080(b)(2)(A)(i) (West 2020). In 2010, CARB set initial targets for 2020 and 2035; the 2035 targets were updated in March 2018. Sustainable Communities & Climate Protection Program, CAL. AIR RES. BD., <https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/what-are-sustainable-communities-strategies>.

335. CAL. GOV'T CODE §65080(b)(2)(B) (West 2020).

336. To be eligible for federal funding, all transportation projects must be included in a state transportation improvement program (STIP) or an MPO transportation improvement program (TIP). 23 U.S.C. § 134(j)(1) (2012). A TIP must be consistent with an RTP, which in turn includes the SCS, which CARB must certify as sufficient to meet regional per capita vehicle emission targets. CAL. GOV'T CODE § 65080(b) (West 2020).

337. 23 U.S.C. § 134(j)(1) (2012). If CARB concludes that the combination of measures in an MPO's SCS are insufficient to achieve its emissions target, the MPO must prepare a separate Alternative Planning Strategy (APS). The APS is not part of the RTP and thus not subject to the federal law imposing fiscal constraints on RTPs. To date, every California MPO has succeeded in getting its SCSs approved by CARB, so no APS has been necessary. California Air Resources Board, Sustainable Communities, <https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/what-are-sustainable-communities-strategies>.

338. California also has competitive grant programs that support S.B. 375 implementation. *See Sustainable Transportation Planning Grant Program*, CALTRANS, <https://dot.ca.gov/programs/transportation-planning/regional-planning/sustainable-transportation-planning-grants> (describing Caltrans' \$29.5 million Sustainable Communities Grants Program); *Programs*, CALIFORNIA STRATEGIC GROWTH COUNCIL, <http://sgc.ca.gov/programs/> (last visited July 8, 2019) (describing Strategic Growth Council grant programs funded through auction revenue from the state's cap-and-trade program).

Committee.³³⁹ It also requires limited coordination between an MPO and constituent local governments in devising an SCS via outreach and informational meetings.³⁴⁰

B. *An Incremental but Poorly Tailored Allocation*

SB 375 thus incrementally centralizes transportation and land development authority by mandating state standard setting and regional planning, and it links such planning requirements to federal funding. However, it does not change the fundamentally municipal authority over land-use planning or regulation.³⁴¹ Land-use planning, standard setting, and permitting remain largely local, independent, and uncoordinated.³⁴² Crucially, SB 375 does not impose any mandate for local zoning standards or permitting requirements to incorporate state SB 375 standards. Nor does it mandate consistency between a municipality's general plan or land-use regulations and the SCS adopted by the overlapping MPO.³⁴³ SB 375 also does not require most local standard-setting, permitting, or

339. CAL. GOV'T CODE § 65080(b)(2)(A)(i) (West 2020) (stating that the council would be composed of representatives from the MPO, air districts, League of California Cities, California State Association of Counties, local transportation agencies, stakeholder organizations, and the public). See also Fulton, *supra* note 333, at 110–12.

340. CAL. GOV'T CODE § 65080(b)(2)(E) (West 2020).

341. See Camacho et al., *supra* note 319, at 10480–81.

342. The most prominent exception involves state and regional planning authority over affordable housing that overlaps and is coordinated with municipal planning. The state's Regional Housing Needs Assessment (RHNA) process requires the California Department of Housing and Community Development to generate a regional housing needs determination in consultation with each regional council of governments. CAL. GOV'T CODE § 65584(b) (West 2019). The regional councils of governments then must apportion the needed units among the constituent municipalities and counties. *Id.* As a result of SB 375, RHNA allocations are to be based on the same population forecasts as the SCS. *Id.*, § 65584.01(a). Each municipality must update the housing element of its general plan to be consistent with its RHNA allocations and rezone parcels to conform with this element. SARAH MAWHORTER ET AL., CALIFORNIA'S SB 375 AND THE PURSUIT OF SUSTAINABLE AND AFFORDABLE DEVELOPMENT, 9 (2018), http://turnercenter.berkeley.edu/uploads/SB375_July_2018_Final.pdf. Any interested person can sue to compel a local government to make its zoning consistent with the housing element of its general plan. CAL. GOV'T CODE § 65587 (West 2019). Moreover, if a municipality fails to complete the required rezoning, it must approve any housing development project on a site that the city was required by state law to rezone, so long as the developer commits to set aside at least half of the units for income-restricted housing, and the project would not have a "specific, adverse effect" on public health or safety for which "there is no feasible method to satisfactorily mitigate or avoid." *Id.* § 65583(g). Few legal challenges have been brought to force compliance, suggesting that the integration of RHNA with the SCS process has had a limited impact. CARB 2018 PROGRESS REPORT, *supra* note 326, at 7.

343. In fact, SB 375 expressly states that an SCS does not "regulate[] the use of land," that nothing in an SCS "shall be interpreted as superseding the exercise of the land use authority of cities and counties within the region," and that SB 375 does not "require a city's or county's land use policies and regulations, including its general plan, to be consistent with the regional transportation plan or an alternative planning strategy." CAL. GOV'T CODE § 65080(b)(2)(K) (West 2020).

planning functions to be coordinated with the MPO planning that the statute mandates. California thus requires metropolitan planning bodies to address transportation-sector GHG emissions, but there is a disconnect between these regional entities and the municipalities that have the authority to implement land-use decisions. As a result, the allocation of authority largely fails to destabilize municipal incentives to neglect regional transportation needs.

Moreover, SB 375 pays little attention to the allocation of funding authority for transportation infrastructure. The law tethers federal transportation funding to GHG-emissions mitigation through the requirement that MPOs incorporate the SCS into their RTP. SB 375 thus applies only to discretionary funding allocated by MPOs,³⁴⁴ but state and county agencies—not MPOs—control the bulk of transportation funding in California.³⁴⁵ County transportation commissions, in particular, have funded projects (such as road-building) that are not included in MPOs' plans, and that therefore may not promote the emissions-reduction goals of SB 375.³⁴⁶

As a result, it is not surprising that California's metropolitan planning mandate has had only a limited effect on emissions outcomes.³⁴⁷ SB 375 has increased local governments' attention to transportation-sector GHG emissions and fostered some coordination between local governments and MPOs through the metropolitan planning process.³⁴⁸ However, as CARB has acknowledged, this planning and coordination has not yielded significant reductions in transportation-sector GHG emissions, relative to the state's goals.³⁴⁹ Although an SCS could reduce emissions to the targeted level *if implemented*, SB 375 does not require local land use regulation to be consistent with the SCS, significantly hampering implementation.³⁵⁰

344. ELIOT ROSE, LEVERAGING A NEW LAW: REDUCING GREENHOUSE GAS EMISSIONS UNDER SENATE BILL 375, 5 (2011), https://www.ca-ilg.org/sites/main/files/file-attachments/leveraging_a_new_law.pdf.

345. *Id.* at 17 (indicating that MPOs allocate roughly 15% of capital transportation funding and 10% of total transportation funding).

346. See Camacho et al., *supra* note 319, at 10482 n.78 and accompanying text; CARB 2018 PROGRESS REPORT, *supra* note 326, at 59–60 (“Many transportation-spending decisions are not controlled by the MPOs who create the regional plans to achieve the SB 375 climate goals [T]wenty-four counties across California have passed local transportation sales tax measures, which comprise a significant portion of many regions’ transportation funds In some regions, these measures have been remarkably supportive of SB 375 goals, while not in others.”).

347. Camacho et al., *supra* note 319, at 10474, 10482 n.77, 10486.

348. *Id.* at 10479.

349. *Id.*

350. See Elisa Barbour & Elizabeth A. Deakin, *Smart Growth Planning for Climate*

C. *The Limits of One-Dimensional Preemptive Fixes*

The conventionally proffered solution for managing cross-jurisdictional harms—namely, centralizing preemptive authority over standard setting, planning, and permitting to the state level—is too one-dimensional, if not more fundamentally problematic, for addressing GHG emissions due to VMT. States surely have the police power authority to occupy the field of land use regulation, even if it intrudes upon traditional local prerogatives.³⁵¹ States could override regional or local land-use regulation to permit development projects that would reduce GHG emissions or restrict development that would increase GHG emissions. For example, a quasi-governmental corporation in New York State, authorized to bypass local permitting authority, has been used on behalf of controversial transit-oriented development projects in New York City.³⁵² Employment of such authority would essentially allow state preemptive control over land use development standards, permitting, and enforcement functions.

In managing some transportation-related cross-jurisdictional harms, however, centralization has proven to be politically feasible for some governmental functions, even if complete field preemption (i.e., centralized, distinct, and independent authority for planning, standard setting, and permitting) has not. Of course, the allocation of authority to a state agency over construction of transportation projects with statewide or even cross-municipal effects is a paradigmatic example of centralized authority. In the context of mitigating GHG emissions from transportation, the federal Clean Air Act centralizes authority over some functions (such as standard setting),³⁵³ and states like California have

Protection: Evaluating California's Senate Bill 375, 78 J. AM. PLAN. ASS'N 70, 74 (2012) (“The MPOs are expected to coordinate transportation and land use, although they lack land use authority and control only a small share of transportation resources. This approach should not be expected to produce substantial climate benefits if other strong policy and market incentives favoring smart growth are not also in place.”); see also CARB 2018 PROGRESS REPORT, *supra* note 326, at 50; Elisa Barbour, *Evaluating Sustainability Planning Under California's Senate Bill 375*, 2568 TRANSP. RES. REC. 17–25 (2016).

351. Even in constitutional home rule states, in which a state's intervention has to be related to a matter of statewide concern, there would very likely be substantial support for a state to alter or forestall municipal development standards to reduce GHG emissions from land use and transportation. See Lynn A. Baker & Daniel B. Rodriguez, *Constitutional Home Rule and Judicial Scrutiny*, 86 DENV. U. L. REV. 1337, 1352 (2009) (noting that “concerns about extraterritorial effects of local decisions loom large as factors in [courts'] home rule analysis”).

352. See, e.g., Amy Lavine & Norman Oder, *Urban Redevelopment Policy, Judicial Deference to Unaccountable Agencies, and Reality in Brooklyn's Atlantic Yards Project*, 42 URB. LAW. 287 (2010).

353. See, e.g., 42 U.S.C. §§ 7521, 7524 (2016) (authorizing the federal government to set automobile emission standards); see also Final Rule, 2017 and Later Model Year Light-Duty

developed centralized measures, such as low-carbon fuel standards, clean vehicle fleet standards, and a cap-and-trade program that regulates various transportation fuel suppliers.³⁵⁴ In each of these contexts, the economies-of-scale, cost internalization and/or uniformity advantages of centralization (as compared to limited expertise, experimentation, diversity and accountability benefits of decentralization) may make foregoing decentralized authority worthwhile.³⁵⁵

In the land use context, state legislatures theoretically could provide a state agency or regional government exclusive authority over all standard setting, planning, land-use standards, permitting, and transportation financing to ensure GHG emissions meet state goals. Essentially, the state would be authorizing field preemption to reduce transportation-sector GHG emissions. Whether shifting authority to the state or regional level, field preemption would involve a move for various functions along the centralization dimension with little to no movement along either the overlapping/distinct or coordinated/independent dimensions.

Such reallocations of authority have generally proven to be politically implausible, and may be normatively undesirable, in the substantive area of land-use regulation.³⁵⁶ Perhaps more importantly, field preemption strategies would not only abandon the potential advantages of decentralized authority (such as diversity, experimentation, accountability, and expertise) long associated with localized land-use controls.³⁵⁷ They also completely ignore the tradeoffs of overlapping versus distinct, as well as coordinated versus independent, authority. More specifically, field preemption implicitly foregoes the potential advantages of overlapping land use authority (such as reducing risks of under-regulation and regulator capture³⁵⁸) and the interlocal competition

Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards, 77 Fed. Reg. 62,624, 62,671–73 (Oct. 15, 2012) (to be codified at 40 C.F.R. pts. 85, 86, and 600) (describing EPA’s authority under the Clean Air Act to set standards for CO₂ emissions from mobile sources).

354. See *California’s Cap-and-Trade Program: Fuel Facts*, CAL. AIR RES. BD., (last visited July 21, 2019), https://ww3.arb.ca.gov/cc/capandtrade/guidance/facts_fuels_under_the_cap.pdf. See also 42 U.S.C. § 7543 (2018) (authorizing California under the federal CAA to set more stringent tailpipe emission standards under certain circumstances); 42 U.S.C. § 7507 (2018) (allowing other states to adopt California’s standards).

355. It should be noted that even in these contexts, the allocation of authority is often not exclusively federal, due to overlapping federal, state, and/or more local roles.

356. See *supra* notes 97–103 and accompanying text.

357. See *supra* note 126.

358. For example, overlapping authority designed to allow state regulator oversight of local permitting decisions might better manage the risks of under- and over-regulation as compared to either distinct local or distinct state authority. Alternatively, overlapping and independent “double

advantages of independent authority.³⁵⁹ Moreover, by ignoring the overlap dimension, states miss the opportunity to allocate relatively distinct authority in other ways. For instance, policymakers could allocate authority over certain functions (such as standard setting) to a state agency and others (such as permitting) to municipalities, limiting overlap to one function (such as planning) or even none. Doing so might tap many advantages of distinct authority without sacrificing the benefits of decentralized authority.³⁶⁰

D. *Promoting More Effective Metropolitan Transportation Governance*

The functional and dimensional framework advanced in this Article makes clear, however, that there are many other options than simply either devolution (distinct, independent and decentralized authority) or field preemption (distinct, independent and centralized authority). Some of these alternative configurations may allow a better accommodation of the benefits of particular dimensions and functions while minimizing the disadvantages. Moreover, the experience with SB 375 illustrates that policymakers should focus on allocating authority in ways that promote effective metropolitan governance by destabilizing municipal incentives in order to advance broader public goals.

1. *Tailoring centralization by function.*

As California has for SB 375, legislatures might consider the possibility of centralizing some functions while leaving others decentralized. A potential critique of SB 375 in this vein might be that the state did not centralize *enough* functions when it limited the state authority added to standard setting of GHG-emission targets and MPO authority to SCS planning. Accordingly, to address the shortcomings of SB 375, policymakers might centralize more governmental functions. A few functions might be particularly well suited for state authority.

Information dissemination and technical assistance, for example, particularly benefit from the economies of scale, as well as the technical

veto” authority that requires permit approval from both state and local regulators could reduce the risk of under-regulation. Depending on the context, it could also reduce risks of capture by local homevoters (as compared to distinct local authority) or by large-scale developers (as compared to distinct state authority). On the other hand, such an allocation might increase the risks of over-regulation. *See, e.g.,* FISCHER, ZONING RULES!, *supra* note 101, at 54–57.

359. CAMACHO & GLICKSMAN, *supra* note 12, at 47.

360. *Cf. id.* at 147–48 (exploring the advantages of dividing or varying the extent of overlap of authority by function in the federal regulation of derivatives).

expertise advantages, associated with more centralized authority.³⁶¹ In California, CARB provides some technical support to MPOs, and the Governor's Office of Planning and Research provides technical guidance to municipalities in drafting general plans.³⁶² However, these agencies only perform limited information dissemination activities. Moreover, CARB is a regulatory agency with little relevant planning expertise, and the Office of Planning and Research has had insufficient resources to effectively provide technical support.³⁶³ One option would be to provide CARB and/or OPR increased responsibility and resources to collect, disseminate and even analyze information—such as forecasting assistance, data on potential implementation options, and data on the efficacy and tradeoffs of such alternatives—to support MPO planning and municipal land use planning, standard setting and permitting to implement the regional GHG targets and the SCS.³⁶⁴

Similarly, further centralization of funding for implementation of SCS plans or otherwise promoting state GHG-emission targets might be feasible and beneficial. Certainly, some funding for transportation projects has long been partly centralized at the federal and state levels because of the economies of scale and trans-boundary cost internalization advantages. California could shift primary authority for transportation funding from county transportation commissions to more centralized authorities. Maryland's PFAs and Oregon's UGBs are examples of more centralized funding authority intended to promote VMT-reducing compact development.³⁶⁵

Perhaps the most obvious potential functional supplement further along the centralization dimension would involve centralizing land-use standards either at the regional or state level. SB 375 does provide for state GHG-targets but does not touch municipal zoning and other land use standard setting, permitting or enforcement. A reallocation could involve lodging one or more of these governmental functions at the regional or state level. The state could simply adopt land use standards that promote VMT-reductions for metropolitan areas, for example by imposing minimum allowable residential densities,³⁶⁶ or by eliminating parking

361. *Id.* at 65, 166–67 (discussing the advantages of centralizing information distribution).

362. *General Plan Guidelines*, CAL. GOVERNOR'S OFFICE OF PLANNING AND RESEARCH, <http://opr.ca.gov/planning/general-plan/>.

363. Camacho, et. al., *supra* note 319, at 10483.

364. *See id.* (describing efforts in Maryland, New York, Oregon, and Washington including development of data sets, analytical tools, best practices, forecasting assistance, and data analysis to assist municipalities and MPOs in achieving statewide emissions targets).

365. *See supra* notes 320–321 and accompanying text.

366. *See, e.g.*, H.B. 2001, 2019 Leg., Reg. Sess. (Or. 2019) (requiring specified types of

requirements near public transit stops or corridors.³⁶⁷ The economies-of-scale, trans-boundary cost internalization, and uniformity advantages of centralization are likely to be strongest for standard setting as compared to permitting and enforcement.³⁶⁸ And though not negligible, the disadvantages in terms of foregoing local expertise, experimentation, diversity, and accountability are likely weakest for standard setting as well.³⁶⁹

2. *Beyond centralization of transportation governance.*

Even if policymakers centralize additional functions, they should also consider other dimensions of authority, including the extent to which an allocation should overlap, as well as be coordinated, with any municipal authority over the same or other related governmental functions. Along the overlap/distinct dimension, concerns regarding administrative costs or potential conflicting or over-regulation may point to allocating more distinct state or regional authority via full preemption of functions (e.g., standard setting) or substantive areas (e.g., land use).³⁷⁰ On the other hand, concerns regarding under-regulation or state agency capture may militate in favor of floor or ceiling preemption, as detailed below in subsection b.

Likewise, policymakers should consider the extent to which state authority should be coordinated with any local or regional authority over their respective governmental jurisdiction, as well as the level of coordination (if any) among municipalities. Indeed, even if the state is given exclusive authority over a particular function, as it is in SB 375 over state GHG emission-targets, policymakers should consider which (if any) of the possible coordination mechanisms makes the most sense in linking such authority to the exercise of other functions performed by regional and/or local entities. SB 375 relies on an intergovernmental committee to coordinate over establishing state targets for MPOs and requires MPOs to consult constituent municipalities in devising an SCS.³⁷¹ But, as detailed in the next subsection, other configurations may well have led to more effective destabilization.

multifamily housing to be permitted in certain areas zoned for single-family development).

367. *See, e.g.*, S.B. 827, 2017–2018 Leg., Reg. Sess. (Cal. 2018).

368. *Cf.* CAMACHO & GLICKSMAN, *supra* note 12, at 35–36, 71–72 (discussing the advantages of centralizing standard-setting authority).

369. *Id.* at 34–35.

370. *Id.* at 40–43.

371. CAL. GOV'T CODE §65080(b)(2)(E) (West 2020).

a. *Mandating coordination in implementation and funding.*

One set of reallocation alternatives in the SB 375 context might involve changing the extent of coordination between the state and MPOs, on the one hand, and municipalities exercising their land use regulatory authority, on the other. In such an alternative, the level of **centralization** might remain largely the same: the state would retain authority to set standards for regional transportation-sector GHG emissions, and MPOs would remain responsible for adopting plans to attain the relevant standard. **Coordination** between municipalities and more centralized authorities would significantly increase, however, if municipal land use planning, standards, and permitting were required to be consistent with state GHG standards and/or regional MPO GHG planning through the SCS.

In various land use governance contexts, scholars and policymakers have proposed a range of hierarchical coordination mechanisms, though they may be framed as increases in centralization.³⁷² Requiring municipal consistency with state standards or a regional plan involves the relationship between governments and primarily implicates the tradeoffs of coordinated authority (such as promoting state-regional-local policy harmonization and reducing risks of municipal shirking, free-riding, and a race-to-the-bottom) versus independent authority (such as administrative coordination costs).³⁷³ As such, coordination mechanisms are fundamentally different from centralized strategies.

An even less sweeping coordination change that might still address some of the SB 375 implementation issues could be to require local government plans to be consistent with the MPOs' SCSs (along with requiring local regulations to be consistent with local plans). As an exemplar, though Oregon does not link requirements of transportation-sector GHG-emission reduction to local planning or regulation, it does require consistency between local land-use regulations and local plans, which must in turn be consistent with state policy goals.³⁷⁴ However, it is worth acknowledging that California has long imposed plan consistency requirements related to housing, which do not have a strong track record in getting local governments to internalize negative externalities.³⁷⁵

372. See generally AMERICAN LAW INSTITUTE, *supra* note 159; BOSSelman & CALLIES, *supra* note 158; MANDELKER, *supra* note 159.

373. CAMACHO & GLICKSMAN, *supra* note 12, at 43–49.

374. Camacho et al., *supra* note 319, at 10479, 10480.

375. See Paul G. Lewis, *Can State Review of Local Planning Increase Housing Production?*, 16 HOUS. POL'Y DEBATE 173 (2005) (finding that statewide compliance with the 1994 housing planning mandate did not correlate with housing production from 1994 to 2000 and that, in 48

Coordination of funding authority is another alternative. Rather than centralize funding (or in addition to it), California could substantially increase the level of coordination between MPOs, which are responsible for GHG mitigation planning, and the state and county agencies that have authority over the bulk of transportation funding. As noted earlier, SB 375 does not link its standards to decisions by state transportation agencies and county transportation commissions.³⁷⁶ Policymakers could require state agencies and/or county transportation commissions make transportation-funding decisions that are consistent with the SCSs and state standards adopted pursuant to SB 375.

Although such a move would surely be politically challenging,³⁷⁷ planning mandates would likely be more effective at achieving GHG emissions reductions if linked to the governmental entities responsible for implementing land-use and transportation decisions. As detailed in the previous subsection, this linkage could occur by centralizing implementation to the state or metropolitan level, but it could also occur by requiring local-regional and/or local-state coordination. Requiring municipal land-use planning, standards, permitting and funding to be consistent with MPO planning and state GHG emission standards allows for the retention of primarily local authority over land use functions. Apart from this consistency requirement, the local exercise of such authority continues to remain rather independent. Crucially, however, such a consistency requirement could induce coordination between municipalities and MPOs, and among local governments in a metropolitan area, through a tailored intervention that may be more politically plausible than centralization via state preemption. Such an approach would help to leverage the cost internalization benefits of centralized standard setting while preserving the expertise, experimentation, and diversity advantages of decentralized authority.

municipalities, compliance with the housing planning mandate was associated with increased below-market-rate housing production, but not increased market-rate housing production); Liam Dillon, *California Lawmakers Have Tried for 50 Years to Fix the State's Housing Crisis. Here's Why They've Failed*, L.A. TIMES (June 29, 2017), <http://www.latimes.com/projects/la-pol-ca-housing-supply/> (documenting various local strategies of circumvention). Since 2017, California's housing planning mandate has undergone numerous reforms, although the effect of those reforms on housing supply is not yet known. See Christopher S. Elmendorf, *Beyond the Double Veto: Housing Plans as Preemptive Intergovernmental Compacts*, 71 HASTINGS L.J. 79 (2019) (summarizing relevant revisions).

376. See *supra* notes 345–346 and accompanying text.

377. Substantial political opposition led the California legislature to reject any requirement in SB 375 that local plans conform to their MPO's SCS. Camacho et al., *supra* note 319, at 10481.

b. *Tailoring the extent of overlap and coordination.*

If mandating coordination through plan consistency would not provide sufficient incentive for municipalities to promote state-GHG targets, then destabilization might require clearer, more robust interventions, perhaps akin to those adopted in Massachusetts' Chapter 40B. Such strategies might rely on tailored modifications along both the coordination *and overlap* dimensions of authority. As detailed herein, establishing overlapping authority of only one governmental function in the form of floor preemption standards could provide valuable safety-net advantages while minimizing the potential increase in administrative costs associated with overlapping authority. And requiring well-defined but limited coordination between state and regional/local standards can help harmonize such overlapping jurisdiction and provide clear incentives that direct municipal actions in ways that promote metropolitan objectives.

Whether policymakers change the extent of centralization or not, they should consider adopting interventions that are far from complete centralization, but allow for some overlapping state and local authority over land use standards, permitting, and/or other governmental functions. Reallocations along the overlap dimension might take any number of forms, ranging from field preemption to overlapping state and authority over multiple functions. In addition, such overlapping authority might or might not be accompanied by inter-jurisdictional coordination of authority. A conventional floor preemption regime, for example, might involve baseline state standards that allow municipalities to adopt more restrictive local standards. Conversely, a state could adopt ceiling preemption that sets maximum restrictions on development but allows municipalities to impose less restrictive standards. For example, a 2018 bill in California unsuccessfully sought to adopt a maximum restriction standard of higher-density zoning around public transit.³⁷⁸ In either the floor or ceiling preemption context, however, there may be little or no direct coordination between state and municipal authorities.

However, other allocations might rely on a variety of default state or regional standards accompanied by a coordination mechanism between such authorities that allowed the municipality to rely on a different but comparable regime. One such mechanism would start with the state or regional intervention as a backstop, but allow municipalities to petition to

378. See, e.g., S.B. 827, 2017-2018 Leg., Reg. Sess. (Cal. 2018) (proposing minimum allowable densities and eliminating parking requirements within a half-mile of a major transit stop or quarter-mile of a high-quality transit corridor).

substitute a different regime that the state certifies as being at least as effective at meeting state VMT-reduction targets. A 2019 bill in California would adopt a higher-density zoning around public transit akin to that in the above-mentioned 2018 bill, but would delay implementation in statutorily defined “sensitive communities,” which have the option of adopting an alternative community plan.³⁷⁹ These proposals would have facilitated development with substantial per-capita VMT and GHG emissions reductions.³⁸⁰

A coordination alternative that is more permissive to municipalities might continue to initially lodge land use standard-setting and permitting functions with cities, but allow for the substitute exercise of more centralized authority over one or more of such functions for cities in MPOs that do not meet adopted state or regional GHG-emission targets.³⁸¹ If a city were to miss its target, state-level land use standards, or perhaps even permitting, would take effect. Such a mechanism is analogous to the federal Clean Air Act strategy allowing for the imposition of a federal implementation plan that imposes emission controls on a region only if a state does not adopt an adequate state implementation plan capable of achieving and maintaining national ambient air quality standards.³⁸² The strategy would be to use the threat of centralized intervention and forfeiture of policy formulation authority to motivate municipalities to implement state goals and regional SCS plans through land use policies that municipalities formulate, individually or collectively. This kind of regime is a hallmark of destabilization and enforced self-regulation.³⁸³

Yet another intervention might be to adjust the enforcement function by providing for decentralized but overlapping rights of action to neighboring municipalities or through third-party rights of action.³⁸⁴ Oregon provides an example of the latter in its growth management framework, which provides for private enforcement against changes in

379. S.B. 50, 2019-2020 Leg., Reg. Sess. (Cal. 2019).

380. See NATHANIEL DECKER ET AL., RIGHT TYPE RIGHT PLACE: ASSESSING THE ENVIRONMENTAL AND ECONOMIC IMPACTS OF INFILL RESIDENTIAL DEVELOPMENT THROUGH 2030, at 27–31 (2017); Camacho et al., *supra* note 319, at 10481.

381. See Camacho, et al., *supra* note 319, at 10489.

382. 42 U.S.C. § 7410(c) (2018).

383. See AYRES & BRAITHWAITE, *supra* note 13, at 108 (“Instead of mandating that individual firms promulgate self-regulating standards, agencies could allow individual firms to promulgate such standards as an alternative to ‘backstop’ or ‘default’ regulations.”).

384. Along similar lines, Gerald Frug has pointed to the potential virtues of regional legislatures with election mechanisms that would transcend existing municipal boundaries. Frug, *Decentering Decentralization*, *supra* note 7, at 295–99; Frug, *Beyond Regional Government*, *supra* note 8, at 1797–1805.

municipal land use regulation that are inconsistent with state goals.³⁸⁵ A similar mechanism could be linked to compliance with state GHG-emission targets and/or an MPO's SCS.³⁸⁶

Of course, coordination mechanisms might often be used to link governments not only performing overlapping functions but also in contexts under which different governments perform different functions.³⁸⁷ For example, a coordination intervention might link state-level funding to municipal implementation of the MPO's SCS. As noted earlier, SB 375 relies on tying SCSs to federal transportation funding via MPOs' long-range transportation plans.³⁸⁸ However, no similar linkage between state funding and local land-use planning exists.³⁸⁹ One possibility might be to tie state-directed funding streams to municipal implementation of state goals or the MPO's SCS. If necessary, any of these could be supplemented with additional tailored centralization, such as the previously mentioned state financing to promote local government attainment of state GHG-targets or state provision of information dissemination and technical assistance.³⁹⁰

Whichever strategy (or strategies) were employed, key to its effectiveness would be to provide municipalities sufficient incentives to advance state and/or metropolitan objectives such as reducing GHG emissions and VMT while retaining local primacy in implementation. These interventions might be more politically plausible than wholesale centralization. They might also result in more effective, equitable, and administratively efficient metropolitan governance, by leveraging the advantages of primarily state standard setting coordinated through regional planning and local implementation and permitting. This allows for (and taps the advantages of) limited overlap in and coordination of standard setting. But it also largely maintains the largely local and independent authority over land use.

385. OR. REV. STAT. §§ 197.319, 197.320 (2020).

386. Camacho et al., *supra* note 319, at 10488.

387. See CAMACHO & GLICKSMAN, *supra* note 12, at 43 (“[B]ecause it is about intergovernmental relations, unlike for the overlap and centralization dimensions, coordination can occur between functions (e.g., an agency in charge of standard setting can coordinate with another in charge of implementation).”).

388. See *supra* notes 335–336 and accompanying text.

389. Camacho et al., *supra* note 319, at 10488.

390. See *supra* notes 362–365 and accompanying text.

VII. CONCLUSION

This Article answers the longstanding call to move state and local government law away from the false dichotomy of local autonomy and state dominance.³⁹¹ It does so through three case studies of metropolitan governance, using a functional and dimensional framework that helps identify types of reallocations that largely maintain core advantages of relatively decentralized, distinct, and independent authority, while mitigating some of the associated risks. As the case studies illustrate, decentralization and centralization represent the poles of only one dimension of metropolitan governance. The regulatory choices are more varied than local autonomy or state dominance, and even more recent distinctions between floor and ceiling preemption.³⁹² By overlooking variations in the overlap and/or coordination of public authority, scholars and policymakers risk missing important tradeoffs associated with different institutional configurations.

The cases also suggest that tailored reallocations of authority can destabilize local expectations, thereby triggering enforced municipal self-regulation. The relevant mechanisms for fostering municipal compliance with regional or statewide standards differ markedly from the kinds of field preemption that have recently come to the forefront of debates concerning metropolitan governance and local government.³⁹³ Although these mechanisms entail fundamentally different rationales, and should be distinguished, scholars routinely conflate them.³⁹⁴

Moreover, the case studies point to several hypotheses about ways that reallocations of authority can destabilize entrenched patterns of metropolitan governance, and—in stark contrast with field preemption—do so without impeding the characteristic benefits of **decentralized**, **distinct**, and **independent** authority. First, the cases suggest that such destabilization may hinge largely on **centralized standard setting**. All three cases involve clear, numerical standards, although the standards also exhibit important differences. For example, unlike the TMDL-based standards in the stormwater case, the Massachusetts 10% standard for

391. See Briffault, *Our Localism II*, *supra* note 5, at 453–54.

392. See generally William W. Buzbee, *Asymmetrical Regulation: Risk, Preemption, and the Floor/Ceiling Distinction*, 82 N.Y.U. L. REV. 1547 (2007); Buzbee, *Interaction's Promise*, *supra* note 109.

393. See *supra* note 10 and accompanying text.

394. See, e.g., RICHARD SCHRAGGER, *STATE PREEMPTION OF LOCAL LAWS: PRELIMINARY REVIEW OF SUBSTANTIVE AREAS* 11 (May 2017), <https://www.abetterbalance.org/wp-content/uploads/2017/08/State-Preemption-of-Local-Laws.pdf> (characterizing Chapter 40B as a state law “preempting local authority to issue inclusionary zoning ordinances and/or requirements that private developers include affordable housing units in their projects”).

BMR housing is not a harm-based standard. This is because attainment of the 10% threshold by each municipality might not eliminate problems of housing affordability in the Boston metropolitan area. Indeed, the standard is not tailored at all. Rather, it appears simply to be high enough to be ambitious,³⁹⁵ but low enough to be broadly attainable,³⁹⁶ suggesting that a standard need not be tailored for it to trigger local action toward a regional goal. Although it is too soon to tell whether the TMDL-based standards in the stormwater case will have a similar impact, the rhetoric surrounding the ballot measure approving funding for needed infrastructure suggests that these standards have already triggered some meaningful action.³⁹⁷ These cases suggest that, unlike field preemption, centralized standard setting that establishes regulatory floors or ceilings can preserve significant space for experimentation, local knowledge, and regulatory diversity.³⁹⁸ This occurs not only because of overlapping state and local authority over standards, but perhaps more importantly because municipalities retain primary control over most other governmental functions.

Second, the cases suggest how remedial *enforcement* innovations can catalyze municipal action toward metropolitan goals. In the case of Chapter 40B, the builder's remedy ultimately impelled localities to find ways to permit BMR and mixed-income housing on their own terms.³⁹⁹ The statute includes a safe harbor for planning, but municipalities cannot avoid the builder's remedy simply by planning, due to the relatively brief duration of the safe harbor (one to two years) and the requirement to demonstrate measurable increases in BMR housing stock.⁴⁰⁰ The Los Angeles MS4 case combines third-party enforcement with an innovative liability regime involving joint responsibility.⁴⁰¹ This joint responsibility regime could connect the fates of all municipalities with commingled discharges, creating an impetus for collaborative planning and projects.⁴⁰²

On the other hand, the cases also suggest how incorporation of *planning* safe harbors can undermine innovative remedies. The potential

395. See *supra* note 196 and accompanying text.

396. See *supra* note 197 and accompanying text.

397. See *supra* notes 299–301 and accompanying text.

398. Cf. Buzbee, *Interaction's Promise*, *supra* note 109, at 155–64.

399. See *supra* notes 196–207 and accompanying text.

400. See *supra* note 171 and accompanying text.

401. See *supra* notes 297–98 and accompanying text.

402. See, e.g., *supra* note 301. A similar regime for BMR housing, wherein a builder's remedy would be available in *any* municipality in a metropolitan area until 10% of the regional housing stock consisted of BMR units, might also foster the inter-municipal **coordination** that is largely absent from the Massachusetts case.

safe harbor afforded by the WMP/EWMP planning process, for instance, may limit the urgency of municipal coordination and innovation.⁴⁰³ In circumstances under which the alternative planning process is quite manipulable and poorly enforced, as has been the case for WMP/EWMPs, the impetus for municipal self-regulation is substantially weaker. Notably, there is no remedy available for regulators or third parties in the SB 375 case (and therefore no rationale for a safe harbor), suggesting one possible reason for the shortcomings of this regulatory regime.

Third, the cases point to the importance of creating opportunities for third-party intervention in metropolitan governance, while also raising significant concerns. In both the housing and stormwater cases, third parties (developers and NGOs, respectively) have played pivotal roles in promoting enforced municipal self-regulation. Depending on preexisting configurations of rights and responsibilities, empowering third parties with the incentive and capacity to promote public ends may be essential to effective metropolitan governance. Nevertheless, the reliance on private parties to overcome the pathologies of localism underscores existing democratic deficits and raises vexing problems of accountability.⁴⁰⁴

For decades, policymakers and scholars of local government law called repeatedly for the formation (or reformation) of metropolitan governments,⁴⁰⁵ but such reforms have proven to be elusive in practice.⁴⁰⁶ More recent calls for “metropolitan governance” have failed to provide a comprehensive framework for describing and assessing such authority, and/or neglected the role of formal legal strategies in inducing effective governance.⁴⁰⁷ In contrast with recent calls for an expansive presumption against intra-state preemption,⁴⁰⁸ this Article demonstrates how careful analysis of governmental functions can reveal opportunities for regulatory innovation that promote regional goals while preserving (and perhaps even enhancing) the benefits of local democracy.

403. See *supra* notes 292–294 and accompanying text.

404. See *supra* notes 116–117 and accompanying text.

405. See, e.g., Ford, *supra* note 4; Frug, *Beyond Regional Government*, *supra* note 8. See generally ACIR, REGIONAL DECISION MAKING, *supra* note 28; STEPHENS & WIKSTROM, *supra* note 29.

406. See *supra* notes 34–37 and accompanying text.

407. See *supra* notes 38–45 and accompanying text.

408. Cf. NAT’L LEAGUE OF CITIES, PRINCIPLES OF HOME RULE FOR THE 21ST CENTURY 26 (2020), <https://www.nlc.org/sites/default/files/2020-02/Home%20Rule%20Principles%20ReportWEB-2.pdf>.