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Vehicle Miles Traveled and Sustainable Communities

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Vehicle Miles Traveled and Sustainable Communities

Dorothy J. Glancy*

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ABSTRACT

A critical look at California’s efforts to use vehicle miles traveled to forestall further suburbanization as a means to reduce greenhouse gas emissions reveals fundamental land use regulation issues. Transportation planning that reduces vehicle miles traveled by passenger cars and light trucks is part of California’s strategy to promote smart growth as a way to combat global climate change. Basing incentives for smart growth on reductions in vehicle miles traveled, California’s Sustainable Communities Act seeks to increase the density of residential development along public transportation corridors.

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Providing more affordable housing and discouraging suburban sprawl are integral to this effort to use regional transportation planning to reduce greenhouse gas emissions through disincentives for travel by personal vehicle.

I. INTRODUCTION

Legendary for fast automobiles, freeways, and fractured suburban life,¹ California is now transforming itself into an urbanized state of fifty million people.² Futurists envision Californians living in dense, mixed-use nodes interconnected by public transit. Ultimate goals to combat global climate change and to prevent urban sprawl underlie these projections of sustainable-development land use patterns.³ A key measure of progress toward these sustainability goals is decrease in vehicle miles traveled (VMT).⁴ This Article takes a critical look at California's reliance on reducing vehicle miles traveled as a mechanism and a metric for regional transportation changes designed to produce sustainable communities.⁵

The Sustainable Communities Act (often called SB 375)⁶ is the genesis of California's sustainable communities initiative that uses regional transportation plans to incentivize dense, mixed-use communities. Enacted to implement the California Global Warming Solutions Act of 2006 (also called AB 32)⁷, the Sustainable Communities Act commits California to specific practical strategies aimed at reducing greenhouse gas emissions⁸ to 1990 levels by 2020 and much

1. See, e.g., Michael Cabanatuan, *The Interstate Highway System at 50*, SFGATE, June 17, 2006, <http://www.sfgate.com/news/article/THE-INTERSTATE-HIGHWAY-SYSTEM-AT-50-America-in-2516919.php> (on file with the *McGeorge Law Review*) (describing the rise of the interstate system and suburban life).

2. STATE OF CAL., GOVERNOR'S OFFICE OF PLANNING AND RESEARCH, CALIFORNIA @ 50 MILLION: CALIFORNIA'S CLIMATE FUTURE—THE GOVERNOR'S ENVIRONMENTAL GOALS AND POLICY REPORT at 8–9 (draft, Sept. 2013), available at http://opr.ca.gov/docus/EGPR_ReviewDraft.pdf (on file with the *McGeorge Law Review*) (indicating that California's population is expected to reach 50 million by 2050).

3. *Id.* at 11.

4. *Id.* at 17.

5. A regional transportation plan under the Sustainable Communities Act is before the California Supreme Court in *Cleveland Nat'l Forest Found. v. San Diego Ass'n Gov'ts*, 231 Cal. App. 4th 1056 (2014), as modified on denial of *reh'g* (Dec. 16, 2014), review granted, No. S223603, 2015 WL 1063948 (Cal. Mar. 11, 2015).

6. This legislation is formally called the Sustainable Communities and Climate Protection Act of 2008 [hereinafter Sustainable Communities Act or the Act]. 2008 Cal. Stat. 5065.

7. 2006 Cal. Stat. 3419, 3424.

8. AB 32 identifies greenhouse gases as specific air pollutants that are responsible for global warming and climate change. 2006 Cal. Stat. 3419, 3419–20. AB 32 focuses on six greenhouse gases ("carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride"). *Id.* at 3421. Carbon dioxide remains the most prevalent greenhouse gas. *Global Greenhouse Gas Emissions Data*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/climatechange/ghgemissions/global.html> (last updated Sept. 9, 2013) (on file with the *McGeorge Law Review*). As of 2012, the transportation sector represented 37% of greenhouse gas emissions in California. NEXT 10, 2014 CALIFORNIA GREEN INNOVATION INDEX 9 (6th ed. 2014), available at

farther into the future.⁹ To achieve these greenhouse gas emission reductions, regional transportation plans seek to decrease the use of passenger vehicles and light trucks.¹⁰ The anticipated result of such an approach is attainment of the ambitious greenhouse gas emission reductions initiated in AB 32.¹¹

It will be decades before California knows whether the Sustainable Communities Act regional planning approach is effective in changing land development patterns through reducing vehicle miles traveled by passenger cars and light trucks. It also remains uncertain whether the Act's contemplated changes in transportation and land development patterns will actually reduce greenhouse gas emissions; much less positively affect global climate change. Regional transportation plans to reduce vehicle miles traveled by passenger cars and light trucks are, at present, just being launched.¹²

The Sustainable Communities Act seeks to change California's existing land development patterns characterized by sprawl development—low-density residential uses (car-oriented suburbs) extending into exurban areas. Instead, the Sustainable Communities Act foresees compact patterns of dense residential development in mixed-use walkable communities located along public transit corridors.¹³ Reductions in passenger car and light truck use, as measured by VMT, are a pivotal goal and measure of whether the state is making progress toward combatting climate change by curtailing sprawl. Indeed, the Sustainable Communities Act assembles an arsenal of regulatory measures, including regional transportation plans, local land use planning,¹⁴ increased investment in transit,¹⁵ and enhanced intercity public transportation, all designed to reduce the number of vehicle miles traveled by personal cars and light trucks.¹⁶

After a brief discussion of some of the relationships between transportation and urban design in Part I, this Article takes a close look at the Sustainable

<http://www.next10.org/sites/next10.huang.radicaldesigns.org/files/2014%20Green%20Innovation%20Index.pdf> (on file with the *McGeorge Law Review*).

9. See GOV. CODE § 65080(a) (West Supp. 2014) (“The plan shall be action-oriented and pragmatic, considering both the short-term and long-term future . . .”).

10. See 2008 Cal. Stat. 5065–66 (calling for the development of land use strategies to decrease the emissions associated with automobile and light truck use).

11. 2008 Cal. Stat. 5065. The 2008 statute sought long-term reductions in greenhouse gas emissions such as those articulated in Executive Order S-3-05, which articulated greenhouse gas emissions reduction goals through 2050.

12. The first of these regional transportation plans was immediately challenged under the California Environmental Quality Act (CEQA). The adequacy of the environmental analysis conducted in adopting the plan is now before the California Supreme Court. *Cleveland Nat'l Forest Found. v. San Diego Ass'n Gov'ts*, 231 Cal. App. 4th 1056 (2014), *as modified on denial of reh'g* (Dec. 16, 2014), *review granted*, No. S223603, 2015 WL 1063948 (Cal. Mar. 11, 2015).

13. See Mark Martin, *Sprawl Clashes with Warming in California*, SFGATE, May 27, 2007, <http://www.sfgate.com/green/article/Sprawl-clashes-with-warming-in-California-2591007.php> (on file with the *McGeorge Law Review*) (indicating that the changes called for by AB 32 will be “profound” and “difficult”).

14. 2008 Cal. Stat. 5074.

15. 2008 Cal. Stat. 5076.

16. 2008 Cal. Stat. 5067.

Communities Act's regional smart growth regulatory strategy in Part II. Since the Act's sustainability strategy depends on reducing vehicle miles traveled both as a means and as a metric for reducing greenhouse gas emissions, the Article turns to look at vehicle miles traveled in Part III. In Part IV, after considering reactions to the Sustainable Communities Act, both in public forums and in litigation, the Article concludes in Part V with some thoughts about the Act's likelihood of success in literally transforming how and where Californians live by regulating how many miles they travel in passenger cars and light trucks.

II. LINKAGES BETWEEN TRANSPORTATION, URBAN DESIGN AND SMART GROWTH

The growth and health of cities is inextricably linked with transportation.¹⁷ Ancient cities sprang up at transportation crossroads, where markets facilitated the exchange of goods carried long distances over customary trade routes.¹⁸ Agglomeration economies (network effects and economies of scale) are a modern expression of this ancient phenomenon.¹⁹ By today's standards, the ancient great cities were small, with populations rarely more than 100,000 and surface areas of eight square miles or less.²⁰ Even ancient Babylon likely had a maximum population of around 300,000 people. In comparison, some 21st century megacities have populations of over ten million people.²¹

A. Ideal City Size

Debate about the optimal size of cities dates back millennia. In the *Republic*, Plato indicated that a relatively small population was ideal.²² He later specified that the optimum population for an ideal city-state should be 5,040 households.²³

17. See generally Gilles Duranton & Matthew A. Turner, *Urban Growth and Transportation*, 79 REV. ECON. STUD. 1407 (2012) (analyzing the connections between interstate highways and city growth).

18. RUTHERFORD H. PLATT, *LAND USE AND SOCIETY, THIRD EDITION: GEOGRAPHY, LAW, AND PUBLIC POLICY* 35 (2014).

19. JAN K. BRUECKNER, *LECTURES ON URBAN ECONOMICS 2* (2011). Traffic jams were a common feature of ancient Rome. A. SCHADSCHNEIDER, D. CHOWDHURY, & K. NISHINARI, *STOCHASTIC TRANSPORT IN COMPLEX SYSTEMS: FROM MOLECULES TO VEHICLES* xvi (2011).

20. See, e.g., Kingsley Davis, *The Origin and Growth of Urbanization in the World*, 60 AM. J. SOC. 429, 430-31 (1955) (describing Babylon, Ur, Erech, and other ancient cities).

21. Phillip Kennicott, *Sizing Up a Mega-City*, WASH. POST, Aug. 4, 2008, <http://www.washingtonpost.com/wp-dyn/content/article/2008/08/03/AR2008080301850.html> (on file with the *McGeorge Law Review*). Shanghai and Beijing each have populations of over ten million people. *Id.* In comparison, the population of Los Angeles is around 3.8 million people. *Los Angeles (city)*, California, U.S. CENSUS BUREAU, <http://quickfacts.census.gov/qfd/states/06/0644000.html> (last visited Aug. 20, 2014) (on file with the *McGeorge Law Review*).

22. PLATO, *REPUBLIC* 64 (Robin Waterfield trans., Oxford Univ. Press 1994).

23. PLATO, *LAWS* 357 (R. G. Bury trans., Harvard Univ. Press, 4th ed. 1961). If there were roughly four- persons per household, that would amount to about 20,000 people.

For his part, Aristotle was also inclined to favor a limited population when he suggested that a city should be composed of “the largest number which suffices for the purposes of life, and can be taken in at a single view.”²⁴ Aristotle argued that a city needed to be large enough to be self-sufficient, but also small enough that the people actually knew each other.²⁵ In contrast, the Sustainable Communities Act envisions dense residential developments in compact mixed-use centers interconnected with other such centers located along public transportation corridors within very large urban areas.²⁶ Each sustainable community center would be a high-population mixed-use node interconnected within a much larger megalopolis.²⁷

After the Industrial Revolution brought faster, cheaper, and easier technologies for moving people and goods, transportation became an especially powerful engine of urban development.²⁸ Economic historians explain urban growth in the latter part of the 19th century as a direct consequence of expanded opportunities for trade and commerce in cities. These expanded opportunities were made possible by railroads, steamships and eventually highways for motorized vehicles that interlinked urban areas.²⁹ Faster, safer, and more abundant transportation technologies brought about expanded trade prospects.³⁰ Since these transportation enhancements enabled people to live in one geographical location and to work in another more distant location, cities began to expand across the landscape.³¹ Traveling by car many miles from home to work or from home to the marketplace became a feature of urban life that began to be measured by how many miles one traveled. Under the Sustainable Communities Act, these miles traveled by vehicle are not only measured, or at least estimated, but also regulated.³²

The Sustainable Communities Act seeks to take advantage of the concept of “economies of agglomeration,” which urban economists use to explain urban expansion that results from improved transportation. These economies of agglomeration are generated by a combination of both economies of scale and

24. ARISTOTLE, *Politics*, in THE BASIC WORKS OF ARISTOTLE 1127, 1284 (Richard McKeon, ed., 2001).

25. *Id.*

26. AMANDA EAKEN ET AL., NATURAL RES. DEF. COUNCIL & MOVE LA, A BOLD PLAN FOR SUSTAINABLE CALIFORNIA COMMUNITIES: A REPORT ON THE IMPLEMENTATION OF SENATE BILL 375 at 4 (2012), available at <http://www.nrdc.org/globalwarming/sb375/implementation-report/files/implementation-report.pdf> (on file with the *McGeorge Law Review*).

27. *Id.*

28. See Peter G. Goheen, *Industrialization and the Growth of Cities in Nineteenth-Century America*, 14 AM. STUD. 49, 52 (1973).

29. *Id.* at 56; WILLIAM L. GARRISON AND DAVID M. LEVINSON, THE TRANSPORTATION EXPERIENCE (2d Ed. 2014) at 141–51 and *passim*.

30. Goheen, *supra* note 28.

31. *Id.* at 60–61.

32. LOUISE BEDSWORTH ET AL., PUB. POLICY INST. OF CAL., DRIVING CHANGE: REDUCING VEHICLE MILES TRAVELED IN CALIFORNIA 3 (2011), available at http://www.ppic.org/content/pubs/report/R_211LBR.pdf (on file with the *McGeorge Law Review*).

network effects—two socio-economic characteristics that are, characteristically, concentrated in cities.³³ For example, businesses of particular types, such as law offices or department stores that are located close to each other in particular parts of cities, tend to find that their supply costs decline (since the area attracts more suppliers). They also tend to attract more clients or customers. In some cases, the prices charged by such concentrated businesses may be higher when they offer customers more selective choices as well as specialized expertise.³⁴ Clusters of special types of businesses, such as art galleries or diamond merchants, tend to attract a higher volume of potential customers.³⁵ Workers in the areas with a concentration of a particular type of good or service learn from each other’s “tricks of the trade,” that can make their services more valuable.³⁶ These types of increases in value and productivity are among the economies of agglomeration.³⁷

On the other hand, there are also “diseconomies of agglomeration” (e.g., lower business profits), which may occur when competition results in price wars or when social factors, such as crime, environmental pollution, or traffic congestion, lower the value of physical clustering in cities.³⁸ As long as the economies of agglomeration are greater than the diseconomies of agglomeration, a city will grow.³⁹ When the reverse occurs, a city will decline and shrink in size.⁴⁰

The Sustainable Communities Act would benefit from insights provided by contemporary research regarding the complex interplay between physical space, dynamics, and social relationships in urbanized areas. This complicated interaction is central to what Michael Batty calls “the new science . . . of cities” in his book of the same name.⁴¹ A geographer by training,⁴² Batty emphasizes the importance of understanding the network flows that characterize cities, even though, or perhaps because, these network flows are highly complex.⁴³ Batty argues that there is an intrinsic order of scale that determines a city’s form and how it functions.⁴⁴ According to Batty, cities and their myriad aspects can be measured and modeled; but cities are also in some ways unpredictable because

33. BRUECKNER, *supra* note 19, at 1–2.

34. *Id.* at 5–6, 19.

35. *Id.* at 19.

36. *Id.* at 8.

37. *Id.* at 5.

38. Christopher H. Wheeler, *Evidence on Agglomeration Economies, Diseconomies, and Growth*, 18 J. APPLIED ECON. 79, 103 (2003).

39. *Id.*

40. *Id.*

41. MICHAEL BATTY, *THE NEW SCIENCE OF CITIES*, at xviii (2013).

42. *Prof Michael Batty*, UNIVERSITY COLLEGE LONDON, <http://www.ucl.ac.uk/bartlett/people/?school=casa&upi=JMBAT23> (last visited Aug. 20, 2014) (on file with the *McGeorge Law Review*).

43. BATTY, *supra* note 41, at 8, 16.

44. *Id.* at 16.

they are characterized by nonlinear dynamics that drift far from equilibrium.⁴⁵ Batty believes that the complex nonlinear dynamics of cities make urban areas difficult to control through traditional top-down planning efforts, such as those found in the Sustainable Communities Act.⁴⁶ If Batty is correct in his insights, the Sustainable Communities Act, and particularly its singular focus on vehicle miles traveled, is bound either to fail or to generate unintended consequences.

Like Batty, Geoffrey West and Luis Bettencourt also study agglomeration effects in their *A Unified Theory of Urban Living*.⁴⁷ Fascinated by the complexity and seeming unpredictability of modern urban dynamics, physicists Bettencourt and West⁴⁸ analogize a city to a biologic organism that is at once defined and confined by its infrastructure.⁴⁹ Using census data, Bettencourt and West have noted that when a city increases in size by 100% (i.e., doubles in size), it requires an increase in resources of only about 85%.⁵⁰ This 15% difference is a measurable result of agglomeration economies.⁵¹ Moreover, their research suggests that cities experience superlinear scaling: “[T]wice as many people are more than twice as productive . . . the increase [in production] is faster than a linear equation would predict.”⁵² At the same time, cities experience an increase in social problems, such as crime, traffic congestion, and pollution, in a roughly proportionate relationship to the cities’ growth in productive output and innovation.⁵³ If these models are correct, the dense urban nodes distributed along transit lines that would be incentivized by the Sustainable Communities Act may have drawbacks as well as attractions for future Californians.

45. *Id.* at 23–24.

46. *Id.* at 25–26.

47. Luis Bettencourt & Geoffrey West, *A Unified Theory of Urban Living*, 467 NATURE 912, 912 (2010).

48. Luis Bettencourt, SANTA FE INST., <http://www.santafe.edu/about/people/profile/Luis%20Bettencourt> (last visited Aug. 20, 2014) (on file with the *McGeorge Law Review*); Geoffrey West, SANTA FE INST., <http://www.santafe.edu/about/people/profile/Geoffrey%20West> (last visited Aug. 20, 2014) (on file with the *McGeorge Law Review*).

49. *Id.* at 912–13. Bettencourt and West specifically suggest an intriguing analogy between a metropolis and an elephant.

50. *Id.* at 912.

51. *See id.* (“This systematic 15% savings happens because, in general, creating and operating the same infrastructure at higher densities is more efficient . . .”).

52. Julie Rehmeyer, *Outstanding, Superlinear Cities*, SCIENCE NEWS, Dec. 6, 2010, <https://www.sciencenews.org/article/outstanding-superlinear-cities> (on file with the *McGeorge Law Review*) (citing Bettencourt et al., *Urban Scaling and Its Deviations: Revealing the Structure of Wealth, Innovation and Crime Across Cities* (2010), available at <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0013541>).

53. Bettencourt & West, *supra* note 47, at 913; *see also* Jonah Lehrer, *A Physicist Solves the City*, N.Y. TIMES MAG., Dec. 17, 2010, http://www.nytimes.com/2010/12/19/magazine/19Urban_West-t.html (on file with the *McGeorge Law Review*).

In considering relationships between vehicle miles traveled and sustainability of communities, one of the recent mathematical modeling experiments⁵⁴ is particularly instructive. This mathematical experiment suggests that the consequences of dense multi-use communities to be fostered by the Sustainable Communities Act are likely to be extremely unpredictable. Two French physicists, Barthelemy and Louf, conducted these experiments by modeling information gathered between 1994 and 2010 with regard to 9,000 cities and towns in the United States.⁵⁵ Their research indicates that road congestion has been the primary cause of cities generating suburbs (subcenters).⁵⁶ As noted above, agglomeration economies tend to attract workers into central cities.⁵⁷ But over time, “as a city grows and congested roadways make it increasingly difficult to get to the center, subcenters emerge along the outskirts.”⁵⁸ The two physicists explain their conclusion in terms of an interplay between the attractions of cities and the repulsive effects of traffic congestion (a key agglomeration diseconomy):

While agglomeration economies seem to be the basic process explaining the existence of cities and their spectacular resilience, this study brings evidence that congestion is the driving force that tears them apart. The nontrivial spatial patterns observed in large cities can thus be understood as a result of the interplay between these competing processes.⁵⁹

They add that increases in “the number of subcenters in a city scales sublinearly with its population.”⁶⁰ In other words, increase in the number of suburbs tends to be slower than a city’s population growth. These experiments regarding how and why cities spawn suburbs also suggest that there is an underlying out-of-equilibrium tendency that affects the behavior of cities. In other words, the same instability factors that caused 20th century cities to spawn sprawl are also likely to affect the new dense mixed-use nodes incentivized by the Sustainable Communities Act. In other words, the dense mixed-use nodes are likely to generate subcenters.

The implications of this recent mathematical study appear to suggest that the increased road and highway congestion contemplated by the Sustainable Communities Act as an incentive for people to move into dense mixed-use public transportation centers seems to be a factor that would predict increased suburbanization, rather than concentration of development in mixed-use transit-

54. Rémi Louf & Marc Barthelemy, *Modeling the Polycentric Transition of Cities*, PHYSICAL REV. LETTERS, Nov. 2013, at 1, available at http://www.researchgate.net/publication/258850753_Modeling_the_Polycentric_Transition_of_Cities (on file with the *McGeorge Law Review*).

55. *Id.* at 1.

56. *Id.* at 4.

57. *Id.*

58. Sarah Fecht, *The Traffic Effect*, SCI. AM., Feb. 2014, at 17.

59. Louf & Barthelemy, *supra* note 54, at 4.

60. *Id.*

served centers. The Sustainable Communities Act, described in detail below, establishes disincentives (in the form of increased traffic congestion and unavailable parking) for driving passenger cars and light trucks in order to cause people to abandon such driving. Studies such as those by Barthelemy and Louf suggest that these Sustainable Communities Act disincentives may have unpredictable results, such as creation of subcenters (sub-nodes) outside the incentivized densely residential mixed-use nodes.

Much of the advanced modeling research discussed above was not available in 2008, when the Sustainable Communities Act was enacted. Still, the results of this research may raise questions about the Sustainable Communities Act's focus on reducing vehicle miles traveled as a "magic bullet"⁶¹ solution to suburban sprawl. The research discussed above suggests that creating new highly dense mixed-use centers may also be subject to diseconomies of agglomeration. The research also suggests that, within the new mixed-use urban centers, once diseconomies of agglomeration reach a certain disequilibrium, people will move out and create even more new suburbs. Regulatory commands, incentives or disincentives may not in the end actually halt suburbanization. Moreover, measuring progress toward the Sustainability Act's environmental goals in terms of reduced vehicle miles traveled may turn out to be illusory or even counterproductive in terms of actually reducing greenhouse gas emissions and combatting climate change.⁶²

B. City Form

The ideal physical form of cities has been debated for a long time. Topological features, such as rivers and land contours, naturally affect the physical form of a city; so do human activities, designs and regulations.⁶³ Ebenezer Howard is famous for his late 19th-century campaign for an ideal city form located away from crowded and unhealthy urban areas, through the garden city movement.⁶⁴ Howard's garden cities were deliberately constructed subcenters, now decried as suburbanization and sprawl.

Le Corbusier was also concerned about living conditions in crowded cities. As an architect and city planner, Le Corbusier was a lifelong evangelist for his 1922 Contemporary City (Ville Contemporaine).⁶⁵ Le Corbusier organized his

61. GARRISON AND LEVINSON, *supra* note 29, at 141.

62. *See infra* Part IV.

63. *See, e.g.*, Bettencourt & West, *supra* note 47, at 912 (describing the unintended consequences of New York City's "planned shrinkage" strategy).

64. STANLEY BUDER, VISIONARIES AND PLANNERS: THE GARDEN CITY MOVEMENT AND THE MODERN COMMUNITY, at vii, 4 (1990).

65. *See* Charles Bessard & Nophadon Chatpannaphong, *Le Corbusier: The Hidden City*, ARCHITECTURAL THEORY, Apr. 2008, at 98, available at http://www.architekturtheorie.eu/archive/download/116/ARCHIT EKTURTHEORIE.EU%20Hidden_City%20100dpi.pdf?PHPSESSID=641a068f34cb84a8c1a69f38d9674a37 (on file with the *McGeorge Law Review*).

Contemporary City around a multimodal transportation hub with interconnected buses, trains, and highways.⁶⁶ Around this transportation hub, Le Corbusier placed a group of sixty-story cruciform skyscrapers clad in curtain walls of glass and set within large, rectangular, park-like green spaces.⁶⁷ This 1922 version of a Contemporary City was intended to foster travel by automobile as well as other forms of transportation.

There are countless examples in which deliberate suburbanization appeared to be an optimal form for progressive cities. In the United States, Robert Moses sought to “improve” the physical form of large cities such as New York through transportation projects that were vigorously opposed by Jane Jacobs.⁶⁸ These and other historical examples of attempts to impose particular physical forms on cities and urban areas suggest caution about seeking to compel what now seems to be an improved format for urban areas.

Looking toward the future, in *Smart Cities*, Anthony Townsend suggests a variety of forms for the cities of tomorrow.⁶⁹ In these smart cities, Townsend sees a “symbiotic relationship between cities and information technology.”⁷⁰ Ubiquitous computing will both internally and externally interconnect these future cities. An example is South Korea’s Songdo, under construction near Incheon airport.⁷¹ Built on 1,500 acres of reclaimed landfill, Songdo, as described by Townsend, is shaped like an arrow, with its end pointed in the direction of China.⁷² Held together and operated through ubiquitous computing, Songdo will have some of the smartest transportation and buildings available. Its interconnections will rely in part on continuous radio frequency identification (RFID) of vehicles, people, and other objects.⁷³ Such a future-oriented smart city seeks to maximize the benefits of interconnectivity, rather than to discourage the use of passenger cars and light trucks—part of the strategy adopted by the Sustainable Communities Act.

What we know about the development of cities from history, insights into how they seem to operate from mathematical models, and the potential for information technology to better manage urban areas combine to suggest that the Sustainable Communities Act may turn out to have many unanticipated consequences.

66. *Id.* at 109.

67. *Id.* at 101, 114.

68. Amanda Burden, *Jane Jacobs, Robert Moses and City Planning Today*, GOTHAM GAZETTE, Nov. 6, 2006, <http://www.gothamgazette.com/index.php/development/3402-jane-jacobs-robert-moses-and-city-planning-today> (on file with the *McGeorge Law Review*).

69. ANTHONY M. TOWNSEND, SMART CITIES: BIG DATA, CIVIC HACKERS, AND THE QUEST FOR A NEW UTOPIA 4 (2013).

70. *Id.*

71. *Id.* at 24.

72. *Id.* at 23–25.

73. *Id.* at 23–24.

C. *Transportation, Sprawl, and Smart Growth*

Even with all of the above-discussed and mathematically modeled uncertainties about the ideal attributes of cities and urban areas, some urban development patterns have been tagged as actively harmful to the public good. The Smart Growth and Sustainable Development movements of the late 20th century focused on sprawl as among the undesirable land development patterns that needed to be reconsidered and restrained.⁷⁴ Because of their natural resource wastage and economic inefficiency, scattered, low-density residential development in suburban and exurban areas have been targeted for reform. Such development patterns generate the need to require extensive travel, usually in passenger vehicles, to reach urban centers and even local retail, education and recreation resources.⁷⁵ The automobile and the interstate highway system are often held responsible for a panoply of urban and suburban ills (environmental pollution, aesthetic blight, emptying out of urban cores, economic cost to individuals and municipalities, highway deaths, etc.).⁷⁶

Ironically, the 20th century's investments in improved ground transportation in the form of highways, roads, and bridges, together with enthusiasm for personal on-demand transportation, has resulted in opposition to new land development as inimical to the public welfare.⁷⁷ Transportation-generated suburban and exurban land use patterns have, by the 21st century become sprawl—not only a flagrant blight on the natural landscape, but also a direct threat to global climate sustainability.⁷⁸ Since transportation appears to have caused sprawl, transportation planning seems a logical mechanism to prevent further proliferation of unsustainable land development.⁷⁹ That connection between sprawl and transportation is at the heart of the Sustainable Communities Act's efforts to curtail vehicle miles traveled.⁸⁰

The techniques adopted in the Sustainable Communities Act are applications of a 21st century version of Smart Growth. Beginning in the 1990s, a mix of proponents (landscape-architect planners, social planners, taxpayers urging greater fiscal responsibility, natural resource conservationists, environmentalists and many others) began to promote Smart Growth as a solution to economic,

74. See *Urban Sprawl*, UNITED NATIONS ENV'T PROGRAMME, <http://www.unep.org/geo/geo3/english/432.htm> (last visited Aug. 24, 2014) (on file with the *McGeorge Law Review*).

75. U.S. ENVTL. PROT. AGENCY, *OUR BUILT AND NATURAL ENVIRONMENTS 2* (2d ed. 2013), available at <http://www.epa.gov/dced/pdf/b-and-n/b-and-n-EPA-231K13001.pdf> (on file with the *McGeorge Law Review*) [hereinafter *BUILT AND NATURAL ENVIRONMENTS*].

76. See, e.g., Cabanatuan, *supra* note 1; *Urban Sprawl*, *supra* note 74.

77. Cabanatuan, *supra* note 1.

78. See *BUILT AND NATURAL ENVIRONMENTS*, *supra* note 75, at 65–66 (indicating that greenhouse gas emissions, of which 27% are generated by the transportation sector, contribute to global climate change).

79. See *supra* notes 76–78 and accompanying text.

80. 2008 Cal. Stat. 5065.

natural resource and environmental challenges posed by sprawl.⁸¹ Urban planners, such as the American Planning Association, developed Smart Growth as a basis for regulatory actions. Smart Growth encourages use of regulatory measures, usually at the local level, to shape land development more intelligently from both environmental and economic perspectives.⁸² One particular feature of Smart Growth is not just managing, but restricting residential development to avoid the wasteful consequences of sprawl, including costly increases in miles traveled in personal vehicles.⁸³ At the same time, societal concerns about the impact of residential development restrictions on affordability of housing usually make promotion of affordable housing an integral aspect of Smart Growth, particularly in the context of infill development within already-developed areas.⁸⁴

By the early decades of the 21st century, Smart Growth became an aspect of Sustainable Development.⁸⁵ Broader than Smart Growth, Sustainable Development seeks to reduce impacts of land development on the environment—from local watersheds to global climate change.⁸⁶ Sustainable Development seeks to create less waste; to avoid consuming resource areas such as wetlands, forests, and agricultural lands; to consume less energy; and to emit less carbon dioxide and other air pollutants.⁸⁷ Reflecting the conviction that human settlements can be shaped so that they do not consume disproportionate amounts of land and resources, Sustainable Development is committed to creating healthier places for people to live, work, and play at the local level, while avoiding regional and global environmental problems.⁸⁸

Smart Growth/Sustainability movements often refer to ten principles, which are embraced in the Environmental Protection Agency's (EPA's) guidelines for Smart Growth:

1. Mix land uses
2. Take advantage of compact building design
3. Create a range of housing opportunities and choices

81. See Edward G. Goetz, *The Big Tent of Growth as a Movement*, in U.S. DEP'T OF AGRIC., POLICIES FOR MANAGING URBAN GROWTH AND LAND CHANGE 45 (David N. Bengston ed., 2005), available at http://www.nrs.fs.fed.us/pubs/gtr/gtr_nc265.pdf? (on file with the *McGeorge Law Review*).

82. BUILT AND NATURAL ENVIRONMENTS, *supra* note 75, at 79.

83. See *Smart Growth and Sustainable Development*, MUN. RESEARCH AND SERVS. CTR., <http://www.mrsc.org/subjects/planning/smartgrowth.aspx> (last visited Aug. 27, 2014) (on file with the *McGeorge Law Review*) (“Smart growth . . . encourag[es] more compact, mixed-use development (infill) within existing urban areas and discourag[es] dispersed, automobile-dependent development at the urban fringe.”).

84. See Goetz, *supra* note 81, at 50 (indicating that affordable housing advocates support Smart Growth).

85. See *Smart Growth and Sustainable Development*, *supra* note 83.

86. *Id.*

87. *About Smart Growth*, U.S. ENVTL. PROT. AGENCY, http://www.epa.gov/smartgrowth/about_sg.htm (last visited June 20, 2014) (on file with the *McGeorge Law Review*).

88. *Id.*

4. Create walkable neighborhoods
5. Foster distinctive, attractive communities with a strong sense of place
6. Preserve open space, farmland, natural beauty, and critical environmental areas
7. Strengthen and direct development towards existing communities
8. Provide a variety of transportation choices
9. Make development decisions predictable, fair, and cost effective
10. Encourage community and stakeholder collaboration in development decisions⁸⁹

These Smart Growth principles are at the heart of California's Sustainable Communities Act.⁹⁰ Principles 4 and 8 are the basis for discouraging travel by personal vehicle and thereby reducing vehicle miles traveled. Together, the principles are designed to shape long-term land development in California with a view toward promoting sustainable living that will help to preserve both the local and the global environment for future as well as present generations.⁹¹

III. THE SUSTAINABLE COMMUNITIES ACT

The Sustainable Communities Act is a curious combination of top-down regulation and bottom-up local responsibility.⁹² The Act requires application of regional planning to incentivize dense, compact, mixed-use land development along transportation corridors.⁹³ The desired outcome is regionally planned,

89. *Id.* These principles were developed by the Smart Growth Network. *Id.* The Smart Growth Network was formed in 1996 by the U.S. Environmental Protection Agency which brought together a number of non-profit and government organizations. *Smart Growth Network*, SMART GROWTH ONLINE, <http://www.smartgrowth.org/network.php> (last visited July 4, 2014) (on file with the *McGeorge Law Review*). The Smart Growth Network was established "in response to increasing community concerns about the need for new ways to grow that boost the economy, protect the environment, and enhance community vitality." *Id.*

90. *See, e.g.*, EAKEN ET AL., *supra* note 26, at 4 (describing the common features of sustainable community strategies that have been adopted under the Sustainable Communities Act, which largely mirror the EPA's Smart Growth guidelines).

91. *About Smart Growth*, *supra* note 87.

92. 2008 Cal. Stat. 5066 was enacted as SB 375. The Act requires metropolitan planning organizations to develop and incorporate a Sustainable Communities Strategy which will be the land use allocation in the regional transportation plan.

93. *See* CAL. PUB. RES. CODE §§ 21155(b), 21155.2 (West Supp. 2014) (describing the streamlined environmental review process enjoyed by transit priority projects).

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mixed-use developments that encourage affordable housing and discourage vehicle miles traveled in personal vehicles.⁹⁴

The first section of the Sustainable Communities Act contains a long list of factual findings and legislative declarations of purpose. The Legislature’s factual findings include:

- a. The transportation sector contributes over 40 percent of the greenhouse gas emissions in the State of California; automobiles and light trucks alone contribute almost 30 percent. The transportation sector is the single largest contributor of greenhouse gases of any sector.
- b. In 2006, the Legislature passed and the Governor signed Assembly Bill 32 (Chapter 488 of the Statutes of 2006; hereafter AB 32), which requires the State of California to reduce its greenhouse gas emissions to 1990 levels no later than 2020. According to the State Air Resources Board, in 1990 greenhouse gas emissions from automobiles and light trucks were 108 million metric tons, but by 2004 these emissions had increased to 135 million metric tons.
- c. Greenhouse gas emissions from automobiles and light trucks can be substantially reduced by new vehicle technology and by the increased use of low carbon fuel. However, even taking these measures into account Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32.
- d. In addition, automobiles and light trucks account for 50 percent of air pollution in California and 70 percent of its consumption of petroleum. . . .
- e. Current federal law requires regional transportation planning agencies to include a land use allocation in the regional transportation plan. Some regions have engaged in a regional “blueprint” process to prepare the land use allocation. This process has been open and transparent. . . .
- f. The California Environmental Quality Act (CEQA) is California’s premier environmental statute. . . .

. . . .

94. EAKEN ET AL., *supra* note 26, at 5–6.

- h. The California Transportation Commission has developed guidelines for travel demand models used in the development of regional transportation plans.⁹⁵

Interspersed throughout these findings are a number of statements of legislative intent, including:

- c. . . . [I]t will be necessary to achieve significant additional greenhouse gas reductions from changed land use patterns and improved transportation. Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32.
- d. . . . Changes in land use and transportation policy, based upon established modeling methodology, will provide significant assistance to California's goals to implement the federal and state Clean Air Acts and to reduce its dependence on petroleum.
- e. . . . The Legislature intends, by this act, to build upon that successful [regional transportation plan] process by requiring metropolitan planning organizations to develop and incorporate a Sustainable Communities Strategy which will be the land use allocation in the regional transportation plan.
- f. . . . New provisions of CEQA should be enacted so that the statute encourages developers to submit applications and local governments to make land use decisions that will help the state achieve its climate goals under AB 32, assist in the achievement of state and federal air quality standards, and increase petroleum conservation.
- g. Current planning models and analytical techniques used for making transportation infrastructure decisions and for air quality planning should be able to assess the effects of policy choices, such as residential development patterns, expanded transit service and accessibility, the walkability of communities, and the use of economic incentives and disincentives.
- h. . . . This act assures the [California Transportation] [C]ommission's continued oversight of the [regional transportation planning] guidelines, as the commission may update them as needed from time to time.

95. 2008 Cal. Stat. 5065–66. The currently applicable guidelines for travel demand models are published in CAL. TRANSP. COM'N, 2010 REGIONAL TRANSPORTATION PLAN GUIDELINES (Apr. 7, 2010), available at http://www.catc.ca.gov/programs/rtp/2010_RTP_Guidelines.pdf.

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- i. California local governments need a sustainable source of funding to be able to accommodate patterns of growth consistent with the state’s climate, air quality, and energy conservation goals.⁹⁶

It is notable that the words “vehicle miles traveled” are not used in the Legislature’s findings and declaration. Subsection (c), above, does refer to pollution from transportation (particularly from automobiles and light trucks) and subsection (h) refers to “travel demand models” which are usually based on vehicle miles traveled.⁹⁷ Nevertheless, a concept of vehicle miles traveled is woven into the fabric of the Act.⁹⁸

A. Three State Agencies Administer the Sustainable Communities Act

Three state agencies work together to administer the Sustainable Communities Act: the California Air Resources Board, the Department of Housing and Community Development (DHCD), and the California Transportation Commission.⁹⁹ These state agencies also interface with two Federal agencies. The United States Department of Transportation (USDOT) is a major source of funding for transportation projects and initially required creation of the Metropolitan Planning Organizations, which the Act transforms into broader regional land use planning agencies. In addition, the Environmental Protection Agency (EPA) is the federal Clean Air Act regulator that requires State Implementation Plans regarding air quality.

The Sustainable Communities Act requires the California Air Resources Board (CARB) to set regional performance metrics for percentage reductions in greenhouse gas emissions as of 2020 and 2035.¹⁰⁰ As described below, these regional performance metrics apply to regional metropolitan planning organizations (MPOs) already required under federal law to adopt long-range regional transportation plans.¹⁰¹ Under the Sustainable Communities Act, California’s metropolitan planning organizations perform two functions. First, the MPOs perform regional transportation planning as required by federal law. Second, these same MPOs also engage in broader regional land planning with regard to such matters as land development, population centers, and affordable housing within their respective regions.¹⁰² CARB supervises the state’s eighteen

96. 2008 Cal. Stat. 5065–66.

97. *Id.* at 5066.

98. *See infra* Part IV.

99. CAL. GOV’T CODE § 14522.1(a)(1) (West Supp. 2014).

100. *Id.* § 65080 (b)(2)(A).

101. *Id.* § 14522.1.

102. 2008 Cal. Stat. 5066; GOV’T § 65080(b)(2)(B).

regional metropolitan planning organizations¹⁰³ and approves the regional organizations' planning and modeling methodologies. CARB also has the power to approve or reject each regional organization's required Sustainable Communities Strategy.¹⁰⁴

Statewide allocations of reductions in carbon dioxide and other greenhouse gas emissions are also the responsibility of the California Air Resources Board.¹⁰⁵ The Sustainable Communities Act empowers the California Air Resources Board to establish a specific regional greenhouse gas reduction target for each metropolitan planning organization's region.¹⁰⁶ Initial greenhouse gas emission reduction targets for the automobile and light truck sector for 2020 and 2035 for each region were set by the California Air Resources Board in 2010 and will be updated over time.¹⁰⁷ The California Air Resources Board can either accept or reject a regional MPO's determination that the region has adopted a strategy that "would, if implemented, achieve the greenhouse gas emission reduction targets established by the [California Air Resources B]oard" for that region.¹⁰⁸

The California DHCD also has a role in administering the Sustainable Communities Act. DHCD had existing authority with regard to the mandatory housing elements of local government general plans.¹⁰⁹ Allocations of affordable housing units to be built in each region are integrated into the regional Sustainable Communities Strategy.¹¹⁰ These allocations are set by the metropolitan planning organizations in cooperation with regional councils of governments under a regulatory process managed by DHCD.¹¹¹ Government Code section 65584(d) requires regional housing needs allocations to be designed to "increas[e] the housing supply and the mix of housing types, tenure, and affordability in all cities and counties within the region in an equitable manner".¹¹² The Sustainable Communities Act requires as part of a region's Sustainable Communities Strategy an assessment of the supply of residential

103. See INST. FOR LOCAL GOV'T, UNDERSTANDING SB 375: REGIONAL PLANNING FOR TRANSPORTATION, HOUSING AND THE ENVIRONMENT 12 (2011), available at http://www.ca-ilg.org/sites/main/files/file-attachments/resources__Understanding_SB_375_Regional_Planning_Guide_0.pdf (on file with the *McGeorge Law Review*) (indicating that the Air Resources Board reviews the metropolitan planning organization's Sustainable Communities Strategy and may reject it if it does not meet greenhouse gas reduction targets).

104. *Id.*; GOV'T § 65080(b)(2)(J)(i)–(ii).

105. GOV'T § 65080(b)(2)(A).

106. *Id.*

107. See *id.* ("No later than September 30, 2010, the State Air Resources Board shall provide each affected region with greenhouse gas emission reduction targets for the automobile and light truck sector for 2020 and 2035, respectively.")

108. *Id.* § 65080(b)(2)(J)(ii).

109. *Id.* §§ 65582(c), 65584(b) (West 2010).

110. *Id.* § 65080(b)(2)(B)(iii).

111. *Id.* § 65584(b) (West 2010).

112. *Id.* § 65584(d).

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units for all types and income levels of housing.¹¹³ Each municipality within a region is required to incorporate in its mandatory General Plan Housing Element the Sustainable Communities Strategy's specific allocation of affordable housing units to that municipality.¹¹⁴ The DHDC can approve or reject a municipality's Housing Element, required to be revised on a five- or eight-year cycle.¹¹⁵

The California Transportation Commission is a third state agency involved in administering the Sustainable Communities Act.¹¹⁶ The Sustainable Communities Act requires the Transportation Commission to maintain guidelines for metropolitan planning organizations (MPOs) with regard to their regional transportation plans.¹¹⁷ In particular, the California Transportation Commission provides "travel demand models [that are] used in the development of regional transportation plans."¹¹⁸ These travel demand models account for:

1. [t]he relationship between land use density and household vehicle ownership and vehicle miles traveled in a way that is consistent with statistical research[,]
2. [t]he impact of enhanced transit service levels on household vehicle ownership and vehicle miles traveled[,]
3. [c]hanges in travel and land development likely to result from highway or passenger rail expansion[,]
4. [m]ode splitting that allocates trips between automobile, transit, carpool, and bicycle and pedestrian trips[, and]
5. [s]peed and frequency, days, and hours of operation of transit service.¹¹⁹

Transportation Commission guidelines govern the formation of the regional transportation plans,¹²⁰ which are used as the basis for allocating federal and state funds for transportation projects within an MPO's region.¹²¹

113. *See id.* § 65584.01 (describing the process of assessing existing and projected housing needs); *id.* § 65080(b)(2)(B)(iii) (requiring identification of areas sufficient to meet the housing needs predicted in accordance with section 65584).

114. *Id.* § 65583.

115. *Id.* §§ 65585, 65588.

116. *California Transportation Commission (CTC)*, CAL. TRANSP. COMM'N, <http://www.ctc.ca.gov/about.htm> (last visited July 8, 2014) (on file with the *McGeorge Law Review*). The Transportation Commission is a separate transportation organization from the more familiar California Department of Transportation (Caltrans), which engages in highway transportation infrastructure design and construction. *What is Caltrans?*, CAL. DEP'T OF TRANSP., <http://www.dot.ca.gov/hq/paffairs/faq/faq53.htm> (last visited July 26, 2014) (on file with the *McGeorge Law Review*).

117. GOV'T § 14520. *See infra* note 124 and accompanying text.

118. *Id.* § 14522.1.

119. *Id.*

The Transportation Commission's 2010 California Regional Transportation Plan Guidelines currently coordinate measures necessary to comply with both state and federal legal requirements for transportation funding.¹²² Before the Sustainable Communities Act was enacted in 2008, federal statutes and regulations already required regional transportation plans. For example, federal requirements regarding conformity with regional transportation plans were part of the USDOT's metropolitan transportation planning rules.¹²³ In addition, Federal Clean Air Act conformity requirements apply in all nonattainment areas based on these same regional transportation plans.¹²⁴ Federal conformity requirements are designed to ensure that federal funding and approval are given to transportation plans, programs, and projects that are consistent with air quality goals established under a State Implementation Plan (SIP).¹²⁵ The United States Department of Transportation's Metropolitan Planning Regulations,¹²⁶ together with the EPA's Transportation Conformity Rule,¹²⁷ require every regional transportation plan to meet four criteria:

1. Regional emissions analysis,
2. Timely implementation of Transportation Control Measures,
3. Financial constraints analysis, and
4. Interagency consultation and public involvement."¹²⁸

The Sustainable Communities Act requires the three state agencies described above, as well as various federal agencies with interests in the process, to play different roles in managing regional transportation planning: the California Air Resources Board manages greenhouse gas emission reductions; the Department of Housing and Community Development manages affordable housing requirements; and the California Transportation Commission sets standards for planning and funding of California transportation projects from transit to road realignment. Of these agencies, only two, the California Air Resources Board and the California Transportation Commission, directly use vehicle miles traveled in

120. See *infra* Part III.B.

121. CAL. TRANSP. COMM'N, 2010 CALIFORNIA REGIONAL TRANSPORTATION PLAN GUIDELINES 3 (2010), available at http://www.catc.ca.gov/programs/rtp/2010_RTP_Guidelines.pdf (on file with the *McGeorge Law Review*) [hereinafter 2010 PLAN GUIDELINES].

122. *Id.* at 17–18, 20–21.

123. 23 C.F.R. § 450.300–.338 (2014); 49 C.F.R. § 613.100 (2013).

124. Clean Air Act, 42 U.S.C. § 7506(c) (2006).

125. 23 U.S.C. 109(j) (2012). “For MPO nonattainment regions, the MPO, FHWA, and FTA are responsible for making the RTP conformity determination.” 2010 PLAN GUIDELINES, *supra* note 121, at 20.

126. 23 C.F.R. § 450.300–338.

127. 40 C.F.R. § 93.100–129 (2013).

128. 2010 PLAN GUIDELINES, *supra* note 121, at 20–21.

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their regulations under the Sustainable Communities Act.¹²⁹ The third, the Department of Housing and Community Development, works with projects affected by vehicle miles traveled but is not required to use the concept in carrying out its Sustainable Communities Act responsibilities.¹³⁰

B. Regional Planning Process

The concept of vehicle miles traveled primarily affects transportation planning performed by metropolitan planning organizations (MPOs). California has eighteen MPOs that encompass most of the population centers in California.¹³¹ These regional agencies were initially established as creatures of federal law for transportation purposes.¹³² The Sustainable Communities Act gave the MPOs additional important state-law responsibilities.¹³³ Some MPOs are congruent with counties.¹³⁴ Others comprise multiple counties.¹³⁵ There are also a number of special exceptions. For example, in complying with the Sustainable Communities Act, the Association of Bay Area Governments (ABAG) cooperates with the Metropolitan Transportation Commission (MTC) in co-producing the San Francisco Bay Area Sustainable Communities Strategy called “Plan Bay Area.” Plan Bay Area applies to the nine counties surrounding San Francisco Bay.¹³⁶ In a different fashion, the Sacramento MPO, the Sacramento Area Council of Governments (SACOG) excludes from its Sustainable Communities Strategy some sparsely settled counties in the Sierra Nevada mountains.¹³⁷ These modified MPOs are different from the MPOs used solely for transportation planning and funding purposes.

MPOs are federally required and funded transportation policy planning organizations composed of representatives of local governments, transportation agencies, and state officials.¹³⁸ MPOs manage federal transportation funding for transportation projects and programs within their respective metropolitan regions.¹³⁹ They also play a role under the Clean Air Act.¹⁴⁰ Parts of California are

129. *See infra* Part IV (discussing the use of vehicle miles traveled).

130. *See infra* Part IV (discussing the use of vehicle miles traveled).

131. 2010 PLAN GUIDELINES, *supra* note 121, at 6.

132. *Id.*

133. CAL. GOV'T CODE § 14522.1 (a)(1) (West Supp. 2014).

134. *See* 2010 PLAN GUIDELINES, *supra* note 121, at 7 (showing a map of California MPOs).

135. *See id.*

136. *Plan Bay Area*, ONE BAY AREA, <http://onebayarea.org/plan-bay-area.html> (last visited July 8, 2014) (on file with the *McGeorge Law Review*).

137. *See About SACOG*, SACRAMENTO AREA COUNCIL OF GOV'TS, <http://www.sacog.org/about/> (last visited July 8, 2014) (on file with the *McGeorge Law Review*) (describing the members and reach of SACOG).

138. 23 U.S.C. § 134 (2012).

139. *Id.* § 134(i)(2)(E); *see also* 2010 PLAN GUIDELINES, *supra* note 121, at 6 (“MPOs receive annual federal metropolitan planning funds from the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA)”).

not under the aegis of any MPO.¹⁴¹ In regions without MPOs, counties operate as regional transportation planning agencies (RTPAs) and are required to adopt regional transportation plans.¹⁴² In these less urbanized RTPA areas without an MPO, the Sustainable Communities Act's required Sustainable Communities Strategy does not apply.¹⁴³

The Sustainable Communities Act requires each MPO to draft and adopt a Sustainable Communities Strategy as an integral part of its regional transportation plan.¹⁴⁴ An extensive public participation process is an essential part of producing a Sustainable Communities Strategy.¹⁴⁵ Local governments within an MPO's region provide input into the regional Sustainable Communities Strategy and cooperate with the Strategy's adoption by the region. However, local agencies do not deal directly with the California Air Resources Board with regard to the acceptance or certification of the region's Sustainable Communities Strategy.¹⁴⁶ After an MPO adopts a Sustainable Communities Strategy, the primary roles of local governments are to adopt local plans and regulations and to approve local development projects that are consistent with regional planning goals and requirements. The Sustainable Communities Act also authorizes local streamlining or exemptions from the California Environmental Quality Act (CEQA) for certain types of local affordable housing in projects that are consistent with the regional Sustainable Communities Strategy.¹⁴⁷

Each MPO's Sustainable Communities Strategy contains several required parts.¹⁴⁸ First, the Strategy provides an analysis of transportation policies and measures, such as discouraging vehicle miles traveled by passenger vehicles and light trucks, which are designed to reduce greenhouse gas emissions from automobile and light truck sources in the region.¹⁴⁹ Second, the Strategy adopts plans designed to contribute to achieving regional greenhouse gas emission reduction targets approved by the Air Resources Board.¹⁵⁰ Third, the Strategy assesses how to provide housing for all income levels of the regional population,

140. 23 U.S.C. § 134(i)(3).

141. See 2010 PLAN GUIDELINES, *supra* note 121, at 7 (showing a map of California, including "Non-MPO Rural RTPA Areas").

142. See CAL. GOV'T CODE § 29532 (West 2008) (providing for payment of designated transportation funds to regional transportation planning agencies or other designated entities); 2010 PLAN GUIDELINES, *supra* note 121, at 6 (describing the preparation of regional transportation plans by MPOs and RTPAs in California).

143. Compare GOV'T § 65080(b)(2)(B) (requiring an MPO to prepare a Sustainable Communities Strategy) with *id.* § 65080(b)(2)(C) (making preparation of a Sustainable Communities Strategy by a RTPA permissive).

144. GOV'T § 65080(b)(2)(B); see also INST. FOR LOCAL GOV'T, *supra* note 103, at 11.

145. GOV'T § 65080(b)(2)(E).

146. See INST. FOR LOCAL GOV'T, *supra* note 103, at 11 (describing the relationship between the Air Resources Board and metropolitan planning organizations).

147. CAL. PUB. RES. CODE § 21155.2 (West Supp. 2014).

148. GOV'T § 65080(b)(2)(B).

149. *Id.* § 65080(b)(2)(B)(vii); see also INST. FOR LOCAL GOV'T, *supra* note 103, at 11.

150. GOV'T § 65080(b)(2)(B)(vii); see also INST. FOR LOCAL GOV'T, *supra* note 103, at 11.

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projected eight years into the future.¹⁵¹ The Sustainable Communities Strategy is a portion of the MPO's regional transportation plan, which is required to be internally consistent.¹⁵² This regional transportation plan must be internally consistent and serves as a prerequisite for transportation funding within the region.¹⁵³

The Sustainable Communities Act requires the Sustainable Communities Strategy to demonstrate how the region will achieve the greenhouse gas emission reduction targets assigned to it by the California Air Resources Board, if there is a feasible way to achieve these targets.¹⁵⁴ More specifically, the Sustainable Communities Strategy is required to perform all of the following functions:

- i. identify the general location of uses, residential densities, and building intensities within the region;
- ii. identify areas within the region sufficient to house all the population of the region, including all economic segments of the population, over the course of the planning period of the regional transportation plan taking into account net migration into the region, population growth, household formation and employment growth;
- iii. identify areas within the region sufficient to house an eight-year projection of the regional housing need for the region . . . ;¹⁵⁵
- iv. identify a transportation network to service the transportation needs of the region;
- v. gather and consider the best practically available scientific information regarding resource areas and farmland in the region . . . ;
- vi. consider the state housing goals . . . ;
- vii. set forth a forecasted development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies, will reduce the greenhouse gas emissions from automobiles and light trucks to achieve, if

151. GOV'T § 65080(b)(2)(B)(ii)–(iii); *see also* INST. FOR LOCAL GOV'T, *supra* note 103, at 11.

152. GOV'T § 65080(b).

153. *Id.* § 65080(b)(1).

154. *Id.* § 65080(b)(2)(B)(vii); *see also* INST. FOR LOCAL GOV'T, *supra* note 103, at 11.

155. *Id.* § 65080(b)(2)(B)(i)–(iii). Item (iii) refers to the mandatory regional housing needs allocation (RHNA) managed by the Department of Housing and Community Development through the councils of governments pursuant to California Government Code section 65584.

there is a feasible way to do so, the greenhouse gas emission reduction targets approved by the state board; and

- viii. allow the regional transportation plan to comply with Section 176 of the federal Clean Air Act (42 U.S.C. Sec. 7506).¹⁵⁶

Four of these Sustainable Communities Strategy requirements, (i), (ii), (iii) and (vi), are related to the regional housing needs allocation which is the responsibility of a region's council of governments.¹⁵⁷ This regional housing needs allocation, as approved by the Department of Housing and Community Development, is integrated into the region's effort to meet greenhouse gas reduction targets.¹⁵⁸ Since the MPO's regional transportation plan is required to be internally consistent, the housing needs allocation and the reductions in greenhouse gas emissions are required to work together and cannot be at cross-purposes.¹⁵⁹ For example affordable housing opportunities are expected to limit vehicle miles traveled. Because the allocation of transportation funding within a MPO's region has to be consistent with the regional transportation plan, both the housing allocation and the transportation plan are preconditions for the allocation of transportation funding for projects in the MPO's region.¹⁶⁰

In instances where achievement of greenhouse gas emission reduction targets set by the California Air Resources Board are not feasible, the MPO is allowed to adopt an alternative planning strategy (APS).¹⁶¹ The alternative planning strategy explains the impediments to achieving the greenhouse gas emissions reduction targets, describes how alternative development strategies would achieve the targets, and shows how an alternative development pattern would provide the most practicable way to achieve the greenhouse gas emission reduction targets.¹⁶² Unlike the Sustainable Communities Strategy, the APS is not part of the regional transportation plan.¹⁶³ Rather, the APS is a separate document that is not tied to transportation funding and is not required to be internally consistent.¹⁶⁴

The Sustainable Communities Strategy is not intended to be an aspirational or theoretical exercise. It is a mandatory process for all MPOs that must be submitted to the California Air Resources Board for acceptance or rejection.¹⁶⁵

156. *Id.* § 65080(b)(2)(B)(iv)–(viii).

157. *Id.* § 65080(b)(2)(B)(i)–(iii), (vi).

158. *Id.* § 65080(b)(2)(B)(vii); *see also* INST. FOR LOCAL GOV'T, *supra* note 103, at 11.

159. *Id.* § 65080(b); *see also* INST. FOR LOCAL GOV'T, *supra* note 103, at 11.

160. *See supra* note 125 and accompanying text.

161. GOV'T § 65080(b)(2)(H).

162. *Id.*

163. *Id.*; *see* INST. FOR LOCAL GOV'T, *supra* note 103, at 12.

164. GOV'T § 65080(b)(2)(H), *see* INST. FOR LOCAL GOV'T, *supra* note 103, at 12.

165. GOV'T § 65080(b)(2)(B), (b)(2)(I)(ii). For an example of a Sustainable Communities Strategy that gained approval by the CARB, *see* CAL. AIR RES. BD., EXECUTIVE ORDER G-14-028 (Apr. 10, 2014) (on file with the *McGeorge Law Review*).

The California Air Resources Board cannot amend or otherwise change an MPO's submitted Sustainable Communities Strategy; the Board can only accept or reject it.¹⁶⁶ The function of the Sustainable Communities Strategy, in addition to the educational process of adopting it, the Strategy provides the required basis for transportation funding.¹⁶⁷ Once the California Air Resources Board approves the Sustainable Communities Strategy, only transportation projects that are consistent with the approved Sustainable Communities Strategy will be eligible for funding.¹⁶⁸

In addition, an approved Sustainable Communities Strategy makes certain transit priority projects that are consistent with the Sustainable Communities Strategy eligible for exemption from CEQA. Because CEQA requirements are often costly and time-consuming, such an exception provides a substantial incentive for transit priority projects.¹⁶⁹ Both complete and partial streamlining exemptions from CEQA environmental review are available for "transit priority projects."¹⁷⁰ Complete exemptions from CEQA review are available for "sustainable communities project[s]" that meet a long list of requirements.¹⁷¹ Typical requirements include having existing utility services, meeting energy efficiency and water conservation standards, including affordable housing (or paying an affordable housing fee), and being reasonably sized (occupying less than eight acres and fewer than 200 residential units).¹⁷² For these transit-oriented "sustainable communities project[s]," that are intended to reduce vehicle miles traveled, CEQA environmental review is not required.¹⁷³

Partial exemptions from CEQA requirements are available for transit priority projects that do not meet the extensive requirements for complete exemption under the Sustainable Communities Act.¹⁷⁴ Transit priority projects that are consistent with their region's Sustainable Communities Strategy (or Alternative Planning Strategy) and have adopted every practical mitigation measure can be eligible to be evaluated through a "sustainable communities environmental assessment," instead of CEQA review. This "sustainable communities environmental assessment" substitute for CEQA analysis does not require

166. Gov'T § 65080(b)(2)(I)(ii).

167. See 2008 Cal. Stat. 5066 (addressing "funding . . . to accommodate patterns of growth consistent with the state's climate, air quality, and energy conservation goals").

168. INST. FOR LOCAL GOV'T, *supra* note 103, at 8.

169. CAL. PUB. RES. CODE §§ 21155–21155.3 (West Supp. 2014).

170. *Id.* § 21155. A "transit priority project" is a housing development with access to public transit. *Id.* The project has to be "at least 50 percent residential" and have a density of 20 units per acre. *Id.* The location must "be within one-half mile of a major transit stop or . . . transit corridor . . .". *Id.*

171. *Id.* § 21155.1.

172. *Id.*

173. *Id.*

174. *Id.* § 21155.2.

evaluation of growth-inducing impacts, cumulative or project specific impacts from car and light-duty truck trips, and residential density alternatives analysis.¹⁷⁵

C. Local Government Impacts

The impact of a Sustainable Communities Strategy on local governments within the region has generated local concern. The Sustainable Communities Strategy is not the equivalent of a regional general plan that would require all local government general plans to become consistent with the regional plan. The Sustainable Communities Strategy does not directly require local governments to take particular actions in planning, regulating, and permitting land development.¹⁷⁶

However, an approved Sustainable Communities Strategy has immediate consequences for local governments. When a local government seeks transportation funding for a local transportation project, availability of that transportation funding will be contingent on the consistency of the local project with the region's Sustainable Communities Strategy.¹⁷⁷ Likewise, if a local government within a MPO's region seeks to avoid CEQA environmental review of a local project, the project will have to be consistent with the Sustainable Communities Strategy.¹⁷⁸ These are very substantial incentives for local governments to bring their local land use regulatory activities in line with the regional Sustainable Communities Strategy, once the Strategy has been approved by the California Air Resources Board.

D. Local Control Issues

California law places considerable discretion with regard to land development in the legislative bodies of local governments. The California Constitution articulates what is called the Municipal Affairs Doctrine in article XI, section 7: "A county or city may make and enforce within its limits all local, police, sanitary, and other ordinances and regulations not in conflict with general laws."¹⁷⁹

As a general rule, absent a matter of distinct statewide concern, local decisions about land development are to be respected.¹⁸⁰

175. *Id.* § 21159.28.

176. CAL. GOV'T CODE § 65080(b)(2)(K) (West Supp. 2014).

177. *Id.* § 65080(b)(1).

178. PUB. RES. §§ 21155–21155.3.

179. CAL. CONST., art. XI, § 7.

180. *See, e.g.*, *IT Corp. v. Solano Cnty. Bd. of Supervisors*, 1 Cal. 4th 81, 89 (1991) ("The power of cities and counties to zone land use in accordance with local conditions is well entrenched."); 76 OPS. CAL. ATTY. GEN. 145, 147 (1993) ("Traditionally, land use control in California has been a matter of local concern."); *Big Creek Lumber Co. v. Cnty. of Santa Cruz*, 38 Cal. 4th 1139, 1151–52 (2006).

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On the other hand, a number of aspects of local land use regulation have been determined by the Legislature to be matters of statewide concern.¹⁸¹ Examples include subdivision regulation general plan requirements and California Environmental Quality Act determinations.¹⁸² However, with regard to land planning, local determinations regarding most land-use matters in general have been carefully preserved.¹⁸³ The Sustainable Communities Act reflects such respect for local government decisionmaking about local land development:

Nothing in a Sustainable Communities Strategy shall be interpreted as superseding the exercise of the land use authority of cities and counties within the region. . . . Nothing in this section shall 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.¹⁸⁴

Nevertheless, some local land development decisions are required to be consistent with Sustainable Communities Strategies (or, in some cases, alternative planning strategies), if local transportation projects are to be eligible for state or federal funding.

To be realistically feasible, local projects require financial resources available through state or local transportation funding.¹⁸⁵ Virtually all transportation funding in California is now managed by the California Transportation Commission based on regional transportation plans. Eligibility for federal and state funding distributed through the California Transportation Commission requires consistency with the applicable Sustainable Communities Strategy, if the locality is within one of the eighteen MPO regions.¹⁸⁶

Just how consistent local land use decisions and transportation projects must be with the regional transportation plan and the Sustainable Communities Strategy is not clear. The Sustainable Communities Act provides an obscure definition of “consistent” in Government Code section 65080.01(d): “‘Consistent’ shall have the same meaning as that term is used in Section 134 of

181. *See generally* Isaac v. City of Los Angeles, 66 Cal. App. 4th 586, 600 (1998) (describing the three-part test to determine when a matter of “statewide concern” preempts local legislation).

182. *See generally* The Subdivision Map Act, CAL. GOV'T CODE §§ 66410–66499.58 (West 2009 & Supp. 2014); The California Environmental Quality Act, PUB. RES. §§ 21000–21177 (West 2007 & Supp. 2014).

183. CAL. GOV'T CODE § 65060.8 (West 2010) (providing that regional plans “shall be advisory only and shall not have any binding effect on the counties and cities located within the boundaries of the regional planning district for which the regional plan is adopted”).

184. CAL. GOV'T CODE § 65080(b)(2)(K) (West Supp. 2014).

185. ECON. ANALYSIS BRANCH, DIV. OF TRANSP. PLANNING, CAL. DEP'T OF TRANSP., TRANSPORTATION FUNDING IN CALIFORNIA 4–6 (2014), *available at* http://www.dot.ca.gov/hq/tpp/offices/eab/fundchrt_files/Transportation_Funding_in_CA_2014.pdf (on file with the *McGeorge Law Review*).

186. *See supra* notes 116–121 and accompanying text.

Title 23 of the United States Code.”¹⁸⁷ Unfortunately, “consistent” is not defined in Section 134 of Title 23, which deals with metropolitan transportation planning.¹⁸⁸ With regard to the regional planning process, section 134 requires consideration of projects that will “promote consistency between transportation improvements and State and local planned growth and economic development patterns.”¹⁸⁹ Section 134(j)(3)(C) states: “*Consistency* with long-range transportation plan. Each project shall be *consistent* with the long-range transportation plan developed under subsection (i) for the area.”¹⁹⁰ Section 134(j)(7)(B) states:

Publication of annual listings of projects.— . . . An annual listing of projects, including investments in pedestrian walkways and bicycle transportation facilities, for which Federal funds have been obligated in the preceding year shall be published or otherwise made available by the cooperative effort of the State, transit operator, and MPO for public review. . . . The listing shall be consistent with the categories identified in the [Transportation Implementation Plan].¹⁹¹

Just how much congruence the Sustainable Communities Act requires between local land use planning (e.g., the general plan) and the regional transportation plan will be required before a local transportation project will be eligible for federal or state funding is not clear from the language of either the federal or the state statute. As a result, background principles, such as California’s constitutionally based municipal affairs doctrine, requiring deference to local control over local land-use planning and development, may seem a likely outcome.

Deference to local decision making about land-use matters appears to wax and wane over time. In the early 1970s, what was then called the “quiet revolution in land use control,” saw local government’s traditional control of land-use planning and decision making being taken back by states or delegated by states to regional agencies (such as MPOs) with supervisory authority over local governments.¹⁹² A recent decision of the California Supreme Court may indicate something of a counter-revolution, in which there appears to be a

187. Gov’t § 65080.01(d).

188. 23 U.S.C. § 134 (2012).

189. *Id.* § 134(h)(1)(E).

190. *Id.* § 134(j)(3)(C) (emphasis added).

191. *Id.* § 134(j)(7)(B).

192. FRED BOSSELMAN & DAVID CALLIES, COUNCIL ON ENVTL. QUALITY, THE QUIET REVOLUTION IN LAND USE CONTROL 1 (1971).

resurgence of emphasis on deference to local government decision making regarding local land use and development matters.¹⁹³

The California Supreme Court decided in favor of local control in considering whether California statutes regarding medical marijuana preempt a local government's ban on such facilities. The Court unanimously upheld against preemption challenges a local zoning regulation that prohibited facilities where medical marijuana is available.¹⁹⁴ Relying on California Constitution article XI, section 7, noted above, Justice Baxter's opinion for the court refers to two earlier decisions that upheld local decision making against state preemption challenges: *Big Creek Lumber Co. v. County of Santa Cruz*¹⁹⁵ and *IT Corp. v. Solano County Board of Supervisors*.¹⁹⁶ In *Big Creek Lumber*, the court ruled:

Land use regulation in California historically has been a function of local government under the grant of police power contained in article XI, section 7 of the California Constitution. 'We have recognized that a city's or county's power to control its own land use decisions derives from this inherent police power, not from the delegation of authority by the state.'¹⁹⁷

The concept that municipalities have inherent powers that are recognized by the state, in addition to delegated police powers, is at odds with the notion that a regional transportation plan, such as a Sustainable Communities Strategy, can lawfully dictate local land use planning and regulation decisions. In *Inland Empire Patients*, Justice Baxter ruled that "'when local government regulates in an area over which it traditionally has exercised control, such as the location of particular land uses, California courts will presume, absent a clear indication of preemptive intent from the Legislature, that such regulation is *not* preempted by state statute.'¹⁹⁸ After deciding that California's medical marijuana laws did not expressly preempt local land use regulations, such as zoning, the Court also ruled that there was no implied preemption because it was possible to comply with both state and local laws.¹⁹⁹ Based in part on the special status of local land use regulations, the Court saw no conflict between state and local laws.²⁰⁰ Justice Baxter's opinion explains that the Court's presumption against preemption of local land use laws is "supported by the existence of significant local interests

193. See *City of Riverside v. Inland Empire Patients Health & Wellness Ctr.*, 56 Cal. 4th 729, 762 (giving California cities and counties the right to "allow, restrict, limit, or entirely exclude" medical marijuana dispensaries "under their traditional land use and police powers").

194. *Id.*

195. 38 Cal. 4th 1139 (2006).

196. 1 Cal. 4th 81 (1991).

197. 38 Cal. 4th at 1151 (footnote omitted) (quoting *Devita v. Cnty. of Napa*, 9 Cal. 4th 763, 782 (1995)).

198. 56 Cal. 4th at 743 (quoting *Big Creek Lumber*, 38 Cal. 4th at 1149).

199. *Id.* at 761–62.

200. *Id.* at 762.

that may vary from jurisdiction to jurisdiction.”²⁰¹ In an interesting concurring opinion, Justice Liu points out that nevertheless, “state law may preempt local law when local law prohibits not only what a state statute ‘demands’ but also what the statute permits or authorizes.”²⁰²

The Sustainable Communities Act indirectly requires consistency with the Sustainable Communities Strategy on the part of local governments within the region. The extent to which those incentives are sufficient to preempt local decisionmaking is not clear. Whether land use decisionmaking is fundamentally a matter for local control or, instead, is appropriately exercised at the state level is a basic issue yet to be decided. To the extent that California courts continue to follow doctrines that assert inherent local government powers over how land should be used within local boundaries, as in *Inland Empire Patients*,²⁰³ deference to local land use decisionmaking may complicate implementation of the Sustainable Communities Act. For example, suppose that a town decides to attract passenger-vehicle travel to the town’s retail sector by requiring all land development in the city to provide free parking facilities for every projected user of the development. Assume that the town then requests funding for a transportation project to rebuild an obsolete and unsafe town bridge. If the city is within a region in which the MPO has adopted a Sustainable Communities Strategy that requires reduction of vehicle miles traveled, it is not clear what would be the result. The Sustainable Communities Act overall purpose of reducing greenhouse gas emissions by curbing vehicle miles traveled, that is reflected in the Sustainable Communities Strategy, may prevail. Alternatively, the town’s local land use policy of increasing vehicle miles traveled could be protected as a local decision about local municipal affairs, which deserves respect and deference under the State constitution.

IV. VEHICLE MILES TRAVELED

Among the Sustainable Communities Act’s most curious features is the statute’s focus on vehicle miles traveled as both a primary goal as well as a metric for greenhouse gas reduction.²⁰⁴ In the Sustainable Communities Act, “vehicle miles traveled” refers only to miles driven by passenger cars and light trucks, a subset of the total number of miles traveled by all vehicles.²⁰⁵ The 2013

201. *Id.* at 755.

202. *Id.* at 763 (citing *Cohen v. Bd. of Supervisors*, 40 Cal. 3d 277, 293 (1985); *Great Western Shows, Inc. v. Cnty. of Los Angeles*, 27 Cal. 4th 853, 867–68 (2002)).

203. *See supra* notes 198–202 and accompanying text.

204. CAL. GOV’T CODE § 14522.1(b)(1)–(2) (West Supp. 2014) (requiring the use of vehicle miles traveled as a factor in determining guidelines for the development of regional transportation plans).

205. USDOT’s Bureau of Transportation Statistics collects and publishes information about miles traveled by all vehicles for the Highway Performance Monitoring System (HPMS). *See infra* note 219 and accompanying text. None of these measurements contains the specialized vehicle miles traveled metric used in the Sustainable Communities Act.

amendments to CEQA (SB 743) later directed the Office of Planning and Research (OPR) to develop and “recommend potential metrics to measure transportation impacts that may include, but are not limited to, vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated.”²⁰⁶ The 2014 proposed draft guidelines related to this section use “vehicle miles traveled” to refer “to distance of automobile travel associated with a project.”²⁰⁷ With so many distinct meanings for vehicle miles traveled, the concept seems to confuse both the public and policy makers.

Why the Sustainable Communities Act uses vehicle miles traveled (defined as miles traveled by passenger cars and light trucks) may never be completely known. Enacted two years earlier, AB 32 did not even mention vehicle miles traveled.²⁰⁸ According to William Fulton’s blog in the *California Planning and Development Report*, by January 2008, vehicle miles traveled was included in the provisions of the Sustainable Communities Act, described as a “preferred growth scenario,” to implement AB 32.²⁰⁹ The California Air Resources Board had been struggling with implementing AB 32’s ambitious commitment to reduce greenhouse gas emissions.²¹⁰ Fulton reports that a keynote speaker at the annual Land Use Law and Planning Conference noted that, in implementing AB 32, the California Air Resources Board was considering three ways to reduce greenhouse gas emissions from transportation: “[r]egulating vehicles,” “[r]egulating fuels,” and “reducing vehicle usage as measured by [vehicle miles traveled].”²¹¹ Under the Sustainable Communities Act, the California Air Resources Board has used all three methods—vehicle regulation, fuel regulation, and transportation regulation measured by vehicle miles traveled.²¹²

Before the Sustainable Communities Act was enacted, vehicle miles traveled played a role in California’s legislative and regulatory arena for some time.²¹³

206. PUB. RES. CODE § 21099(b)(1) (West Supp. 2014).

207. This definition is in provided the proposed new Guidelines section 15064.3(b). GOVERNOR’S OFFICE OF PLANNING & RESEARCH, UPDATING TRANSPORTATION IMPACTS ANALYSIS IN THE CEQA GUIDELINES: PRELIMINARY DISCUSSION DRAFT OF UPDATES TO THE CEQA GUIDELINES IMPLEMENTING SENATE BILL 743 at 13 (Aug. 6, 2014), available at http://www.opr.ca.gov/docs/Final_Preliminary_Discussion_Draft_of_Updates_Implementing_SB_743_080614.pdf (on file with the *McGeorge Law Review*) [hereinafter CEQA GUIDELINES UPDATE DISCUSSION DRAFT].

208. 2006 Cal. Stat. 3419.

209. William Fulton, *Should California Restrict Driving In Order to Cut Greenhouse Gas Emissions?*, CAL. PLANNING & DEV. REPORT (Jan. 27, 2008, 10:27 PM), <http://www.cp-dr.com/node/1910> (on file with the *McGeorge Law Review*).

210. See *id.* (describing “a plea for help” issued by California Air Resources Board senior policy advisor).

211. *Id.*

212. See generally CAL. AIR RES. BD., CLIMATE CHANGE SCOPING PLAN (2008), available at http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf (on file with the *McGeorge Law Review*) (describing “clean car standards,” and a “Low Carbon Fuel Standard,” among other planned measures); GOV’T § 14522.1(b)(1)–(2) (requiring the use of vehicle miles traveled as a factor in determining guidelines for the development of regional transportation plans).

213. See generally CAL. ENERGY COMM’N, GLOBAL CLIMATE CHANGE: POTENTIAL IMPACTS & POLICY RECOMMENDATION 11 (1991) [hereinafter CLIMATE CHANGE RECOMMENDATION].

California legislation related to air pollution began to refer to vehicle miles traveled measurements of traffic flows in the context of travel demand management in the 1990s. In 1988, enactment of AB 4420 (Sher) directed the California Energy Commission to study the potential impacts of global climate change on the state, including its transportation system.²¹⁴ The Energy Commission's 1991 report, *Global Climate Change: Potential Impacts and Policy Recommendation*, suggested a broad range of policies and strategies for reducing greenhouse gases.²¹⁵ The eighth of the Energy Commission's recommended strategies was "Reducing vehicle miles traveled in personal vehicles, through promoting improved and expanded transportation alternatives, vehicle miles traveled fees, and other highway use fees."²¹⁶ Environmentalists criticized increases in vehicle miles traveled as a surrogate for sprawl—land abuse in terms of pavement, resource waste, air pollution, fossil fuel use by elitist car owners, and other reasons. After publication of the California Energy Commission's 1991 report, reducing vehicle miles traveled was widely considered to be a potential regulatory means for greenhouse gas emission reduction.

Concern about environmental consequences of transportation is not new. One of the main virtues claimed for the early automobile was that the new machines avoided the deleterious effect of horse manure on urban atmospheres.²¹⁷ Vehicle miles traveled has a long history predating environmental concerns about global climate change. As early as the 1920s, when vehicles were fewer and vehicle miles traveled were shorter, vehicle miles traveled data was collected as a measure of economic activity.²¹⁸ The Federal Highway Administration in the USDOT began collecting information from states about vehicle miles traveled in 1945.²¹⁹ USDOT now uses vehicle miles traveled data, primarily from the Highway Performance Monitoring System (HPMS),²²⁰ both for determining

214. *Id.* at 1; 1988 Cal Stat. 5336.

215. CLIMATE CHANGE RECOMMENDATION, *supra* note 213, at 9–24.

216. *Id.*

217. EDWIN G. BURROWS & MIKE WALLACE, A HISTORY OF NEW YORK CITY TO 1898 (1999). Since each horse on average produces between 15 and 35 pounds of manure per day, the streets of nineteenth-century cities were covered by horse manure. *Id.* Everywhere in urban air, there were huge numbers of flies, a pungent odor (especially in warm weather) and dried and pulverized manure blowing around. *Id.* For example, in 1900 New York had about 100,000 horses that produced 2.5 million pounds of horse manure per day. *Id.* Removing it was a huge, dusty and smelly problem. *Id.*

218. See, e.g., BUREAU OF THE CENSUS, U.S. DEP'T OF COMMERCE, *Motor Vehicles—Estimate of Travel by Motor Vehicles: 1921 to 1945*, Series K 236-238b, in HISTORICAL STATISTICS OF THE UNITED STATES 1789-1945, at 223 (1949) (listing miles traveled in the United States each year).

219. Office of Highway Policy Information, *Highway Statistics Series*, U.S. DEP'T OF TRANSP. FEDERAL HIGHWAY ADMIN., <http://www.fhwa.dot.gov/policyinformation/statistics.cfm> (last visited Oct. 10, 2014) (on file with the *McGeorge Law Review*).

220. MICHAEL GRANT ET AL., U.S. DEP'T OF TRANSP., FED. HIGHWAY ADMIN., HANDBOOK FOR ESTIMATING TRANSPORTATION GREENHOUSE GASES FOR INTEGRATION INTO THE PLANNING PROCESS 65–66 (2013), available at http://www.fhwa.dot.gov/environment/climate_change/mitigation/publications_and_tools/ghg_handbook/ghghandbook.pdf (on file with the *McGeorge Law Review*).

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Corporate Average Fuel Economy (CAFE) fuel efficiency standards²²¹ and for measuring road usage for federal highway purposes.²²²

The EPA has used vehicle miles traveled as a basis for regulating mobile air pollution sources, particularly tailpipe emissions.²²³ According to the EPA's 2001 report *Our Built and Natural Environments*,

[T]rends in vehicle travel indicate that numerous factors including demographic and market shifts, contributed to recent increases in VMT. Studies also show that increases in VMT cannot be entirely explained by those factors and that changes in development patterns have had a particularly significant impact on VMT growth. Furthermore, because additional road capacity can be absorbed quickly by induced traffic, adding capacity alone is not likely to solve the problem of rapidly rising VMT.²²⁴

The Sustainable Communities Act targets what the EPA calls “induced traffic”—additional personal vehicle use caused by improvements in highway and road capacities.²²⁵

On the surface, vehicle miles traveled seems an unusual surrogate for greenhouse gas emissions. For example, zero-emissions passenger cars and light trucks generate vehicle miles traveled, but do not emit greenhouse gases.²²⁶ Hybrid vehicles contribute fewer emissions than vehicles powered by internal combustion engines.²²⁷ Moreover, greenhouse gas emissions from heavy vehicles, such as trucks and busses, are not counted for the purposes of the Sustainable Communities Act.²²⁸ Sustainable Communities Strategies count only vehicle miles traveled by passenger vehicles and light trucks.²²⁹ Not even medium-sized

221. See, e.g., *id.* at 81–82 (discussing using vehicle miles traveled in conjunction with CAFE standards).

222. See *FHWA Strategic Plan*, U.S. DEP'T OF TRANSP., FED. HIGHWAY ADMIN., <https://www.fhwa.dot.gov/policy/fhplan.htm> (last visited Oct. 10, 2014) (on file with the *McGeorge Law Review*) (describing measuring “demand and use of transportation facilities” in vehicle miles traveled).

223. See, e.g., ELLEN KINEE ET AL., REVISED METHODOLOGY FOR THE SPATIAL ALLOCATION OF VMT AND MOBILE SOURCE EMISSIONS DATA, available at <http://www.epa.gov/ttnchie1/conference/ei10/modeling/stella.pdf>.

224. U.S. ENVTL. PROT. AGENCY, *OUR BUILT AND NATURAL ENVIRONMENTS* 25 (1st ed. 2001), available at <http://www.epa.gov/smartgrowth/pdf/built.pdf> (on file with the *McGeorge Law Review*).

225. See *BUILT AND NATURAL ENVIRONMENTS*, *supra* note 75, at 22 (explaining “induced traffic”).

226. See *Emissions from Hybrid and Plug-In Electric Vehicles*, U.S. DEP'T OF ENERGY, http://www.afdc.energy.gov/vehicles/electric_emissions.php (last visited Oct. 11, 2014) (on file with the *McGeorge Law Review*) (indicating that although electric vehicles produce “zero tailpipe emissions, . . . emissions may be produced by the source of electrical power, such as a power plant”).

227. See *id.* (indicating that conventional vehicles produce eighty-seven pounds of greenhouse gas emissions in a 100-mile trip, while a hybrid produces only fifty seven pounds of greenhouse gas emissions for the same trip).

228. See CAL. GOV'T CODE § 65080(b)(2)(B) (West Supp. 2014) (requiring a Sustainable Communities Strategy to address emissions reduction targets for automobiles and light trucks only).

229. *Id.*

delivery trucks, such as those used to deliver products are included.²³⁰ The Sustainable Communities Act's focus on passenger vehicle and light trucks reflects the categories of vehicles used both in the Clean Air Act and the 1975 Energy Policy and Conservation Act (P.L.94-163) that established CAFE standards for passenger cars.

It is important to realize that Sustainable Communities Act calculations of vehicle miles traveled are not based on literally counting actual cars or the miles a real vehicle travels.²³¹ Rather, vehicle miles traveled is a synthetic number representing an estimate of traffic volumes within a geographical area on a monthly or yearly basis.²³² For example, Caltrans collects statistics, called traffic counts, regarding usage of the state's highway system in terms of traffic volumes.²³³ Traffic volume reports that include vehicle miles traveled are submitted to the Federal Highway Administration's Highway Performance Monitoring System (HPMS).²³⁴ Both USDOT and the EPA rely on HPMS for estimates of transportation usage.²³⁵ The data is collected in particular geographic areas and then extrapolated to create state-wide patterns used to model traffic volumes and vehicle miles traveled for various vehicle categories and areas.²³⁶ The number of vehicle miles traveled by passenger cars and light trucks is not directly proportional to overall greenhouse gas emissions. Moreover, for the purposes of the Sustainable Communities Act, each percentage reduction in greenhouse gas emissions assigned to a particular MPO does not require that same percentage reduction in vehicle miles traveled.²³⁷ Vehicle miles traveled data is simply more complicated than that. Realistic measurements of greenhouse gas emissions from vehicles for the purpose of implementing the Sustainable Communities Act has proved challenging for the California Air Resources Board, which relies on models and estimates.

A 2009 report from the UCLA School of Public Affairs, *Measuring Vehicle Greenhouse Gas Emissions for SB 375 Implementation*, reminded that “[m]easurements of greenhouse gas emissions from city or regional vehicle travel

230. *See id.* (specifying “light trucks”).

231. *See Welcome to Traffic Census: Traffic Counts*, CAL. DEP'T OF TRANSP., <http://traffic-counts.dot.ca.gov/> (last visited Oct. 11, 2014) [hereinafter *Welcome to Traffic Census*] (describing the use of sampling at a limited number of traffic sites to calculate vehicle miles traveled).

232. *See id.* (providing monthly reports of vehicle miles traveled over California State Highways by all types of vehicles).

233. *Id.*

234. *See* 23 C.F.R. § 420.105(b) (2014) (“The State DOTs must provide data that support the FHWA’s responsibilities to the Congress and to the public.”).

235. GRANT ET AL., *supra* note 220, at 65–66.

236. *See Welcome to Traffic Census*, *supra* note 231 (describing the use of sampling at a limited number of traffic sites to calculate vehicle miles traveled).

237. *See* CAL. GOV'T CODE § 65080 (b)(2)(A)(i) (West Supp. 2014) (indicating that the Regional Targets Advisory Committee may recommend a combination of factors and methodologies in setting greenhouse gas reduction targets).

should be accurate, consistent, and transparent.”²³⁸ After noting that “VMT-based metrics appear to have many problems,” the UCLA report asked, “[w]hy is the focus on VMT?” and pointed out: “The [VMT] data is currently available through existing planning processes. MPOs produce this data through regional models that both forecast demand on specific routes and measure vehicle miles traveled. Measurements that are more appropriate for AB32 scoping plan implementation, such as CO₂-e/Passenger Mile Traveled, are not currently available.”²³⁹ In the end, the monograph concluded with a warning:

Measuring regional greenhouse gas emissions from transportation incorrectly could create incentives counter to those intended by SB 375. If the goal is to reduce greenhouse gas emissions by addressing connections between land use and transportation, then there are better methods of measuring performance [than vehicle miles traveled] that would improve incentives for local governments.²⁴⁰

Over time, the precision and quality of the Sustainable Communities Act’s concept of vehicle miles traveled has apparently not improved. A February 14, 2014 report prepared for the California Air Resources Board and the California Environmental Protection Agency, *Quantifying the Effect of Local Government Actions on Vehicle Miles Traveled* concluded:

This research has shown clearly that there is considerable heterogeneity in both Californians’ VMT and their estimated VMT response to changes in land use and transport system characteristics. These differences can be explained by categorizing neighborhoods. Looking forward, we suggest that studies of current policy “natural” experiments with before-after data collection be conducted, as these would provide a more direct link between on-the-ground actions and their VMT results.²⁴¹

Later in the report, the authors note:

Estimating the effect of local-level actions on VMT is difficult for three basic reasons: the relationship between these actions and VMT is often indirect, data on VMT is rarely collected in a way that facilitates

238. UCLA SCH. OF PUB. AFFAIRS, MEASURING VEHICLE GREENHOUSE GAS EMISSIONS FOR SB 375 IMPLEMENTATION 1, available at <http://www.arb.ca.gov/cc/sb375/rtac/meetings/070709/commentaddendum.pdf> (on file with the *McGeorge Law Review*).

239. *Id.* at 4.

240. *Id.* at 5.

241. DEBORAH SALON ET AL., INST. OF TRANSP. STUDIES, UNIV. OF CAL., DAVIS, QUANTIFYING THE EFFECT OF LOCAL GOVERNMENT ACTIONS ON VEHICLE MILES TRAVELED 12 (2014), available at <http://www.arb.ca.gov/research/apr/past/09-343.pdf> (on file with the *McGeorge Law Review*).

estimating the effect of a particular action, and robust research designs are extremely difficult to implement in this area.²⁴²

In short, under the Sustainable Communities Act, vehicle miles traveled is imprecise both because it considers only miles traveled passenger cars and light trucks and because of calculation difficulties. As implemented under the Sustainable Communities Act, vehicle miles traveled is a much more nuanced and complicated concept. The California Air Resource Board's methodology for reviewing greenhouse gas reductions reported in regional Sustainable Communities Strategies focuses on travel demand models that consider "trip generation, trip distribution, mode choice and traffic assignment," and not solely or even mainly on anything like any actual vehicle traveling any actual miles.²⁴³ As used in implementing the Sustainable Communities Act, vehicle miles traveled is an artificial construct that represents travel-demand-based models of transportation-related emissions.²⁴⁴ It is notable that the statute takes considerable pains to require disclosures and approval of methodologies when greenhouse gas reductions are forecast or reported based on vehicle miles traveled.²⁴⁵

In the meantime, the various notions of vehicle miles traveled (defined in different ways in different contexts) continue to be used in legislative measures and proposed regulations. At the federal level, vehicle miles traveled is associated with proposed highway usage fees.²⁴⁶ Declines in gasoline taxes, in part because of declines in vehicle usage, point toward the need to replace the Highway Trust Fund's reliance on gasoline taxes for revenue.²⁴⁷ In generating funds for maintenance of roadway systems, vehicle miles traveled fees seem to

242. *Id.* at 105.

243. CAL. AIR RES. BD., DESCRIPTIONS OF METHODOLOGY FOR ARB STAFF REVIEW OF GREENHOUSE GAS REDUCTIONS FROM SUSTAINABLE COMMUNITIES STRATEGIES (SCS) PURSUANT TO SB 375 at 7–10 (2011), available at http://www.arb.ca.gov/cc/sb375/scs_review_methodology.pdf (on file with the *McGeorge Law Review*).

244. *See id.* at 16 (describing VMT as "key model outputs").

245. *See* CAL GOV'T CODE § 65080(b)(2)(J) (West Supp. 2014) ("Prior to starting the public participation process . . . , the metropolitan planning organization shall submit a description to the state board of the technical methodology it intends to use to estimate the greenhouse gas emissions from its Sustainable Communities Strategy. . . . The state board shall respond to the metropolitan planning organization in a timely manner with written comments about the technical methodology, including specifically describing any aspects of that methodology it concludes will not yield accurate estimates of greenhouse gas emissions, and suggested remedies. The metropolitan planning organization is encouraged to work with the state board until the state board concludes that the technical methodology operates accurately.").

246. *See, e.g., Road Pricing Defined*, U.S. DEP'T OF TRANSP., FED. HIGHWAY ADMIN., http://www.fhwa.dot.gov/ipd/revenue/road_pricing/defined/vmt.aspx (last visited July 21, 2014) (on file with the *McGeorge Law Review*) (discussing charging VMT fees for roadway use).

247. *See* JEFF KHAU ET AL., TRANSITIONING FROM THE GASOLINE TAX TO A FEE ON VEHICLE MILES TRAVELED 2 (2014), available at http://www.calchamber.com/GovernmentRelations/Documents/05-2014_Transitioning-from-Gas-Tax-to-Vehicle-Miles-Traveled-Fee.pdf (on file with the *McGeorge Law Review*) (advocating replacing the California gas tax with a VMT fee).

be an attractive revenue alternative.²⁴⁸ USDOT has studied such road use charging for many years and conducted pilot programs in Oregon and Iowa.²⁴⁹ Because charging for road use requires calculating the exact vehicle miles traveled by a specific vehicle within a state, it usually requires installation of some type of onboard device that uses GPS to capture the distances the vehicle has driven.²⁵⁰ As a result, privacy groups may oppose vehicle miles traveled fees on the grounds that they require collection of personal information about a driver's whereabouts and movements.²⁵¹

In 2013 the California legislature enacted CEQA amendments in SB 743 that required some form of vehicle miles traveled as a potential metric for measuring transportation impacts in connection with transportation analysis for transit-oriented infill projects.²⁵² This legislation tasked the Governor's Office of Planning and Research (OPR) with "establishing criteria for determining the significance of transportation impacts of projects within transit priority areas."²⁵³ OPR studied various forms of vehicle miles traveled to be included in CEQA guidance about what used to be called level-of-service (LOS) traffic impacts.²⁵⁴ In OPR's draft guidance published in 2014, OPR settled for simply using "vehicle miles traveled" but measured it in a whole new manner by "distance of automobile travel associated with a project."²⁵⁵

The most recent OPR planning survey (reporting 2012 results) illustrates how local jurisdictions appear to be reducing greenhouse gas emissions through smart growth measures, such as those contemplated by the Sustainable Communities Act.²⁵⁶ Over 70% of the local jurisdictions in the survey report that they are planning to reduce greenhouse gas emissions.²⁵⁷ Among the most frequently used strategies is to reduce parking requirements as a way to discourage vehicle use and, therefore, vehicle miles traveled.²⁵⁸ Nearly 40% of

248. See generally *id.* (analyzing the benefits of a VMT fee system).

249. *Road Pricing Defined*, *supra* note 246.

250. *Id.* But see KHAU ET AL., *supra* note 247, at 25 (describing alternate methods of measuring VMT that do not require the use of a GPS device).

251. See SEAN SLONE, COUNCIL OF STATE GOV'TS, FOCUS ON: VEHICLE MILES TRAVELED FEES 6 (2010), available at http://www.csg.org/policy/documents/TIA_VMTcharges.pdf (on file with the *McGeorge Law Review*) (predicting that privacy advocates may object to VMT programs on the basis that it might enable government or law enforcement monitoring of individual travel).

252. 2013 Cal. Stat. 95.

253. CEQA GUIDELINES UPDATE DISCUSSION DRAFT, *supra* note 207, at 13.

253. 2006 Cal. Stat. 3419.

254. *Developing Alternatives to Level of Service*, GOVERNOR'S OFFICE OF PLANNING AND RESEARCH, http://www.opr.ca.gov/s_sb743.php (last visited July 21, 2014) (on file with the *McGeorge Law Review*).

255. CEQA GUIDELINES UPDATE DISCUSSION DRAFT, *supra* note 207, at 13.

256. GOVERNOR'S OFFICE OF PLANNING & RESEARCH, 2012 ANNUAL PLANNING SURVEY: RESULTS 5-13 (2013), available at http://opr.ca.gov/docs/2012_Annual_Planning_Survey_fullreport.pdf (on file with the *McGeorge Law Review*).

257. *Id.* at 2.

258. *Id.* at 5.

the jurisdictions in the survey reported the use of parking reductions in infill projects.²⁵⁹

The short-term report card on the Sustainable Communities Act's reliance on vehicle miles traveled is inconclusive. The vehicle miles traveled measurement seems to be an obscure factor in relation to greenhouse gas emissions reductions. The concept of vehicle miles traveled tends to be indeterminate because which vehicles are counted varies among regulatory settings. Of much greater concern is the potential for misleading policy makers and the public regarding important environmental matters.

V. REACTION TO VEHICLE MILES TRAVELED RESTRICTIONS

Reaction to the Sustainable Communities Act's regional efforts to reduce vehicle miles traveled appears mixed, both in the arena of public discourse and in the legal arena. Although the Sustainable Communities Act is a relatively new statute that is only just beginning to be noticed by most Californians, it is clear that the Sustainable Communities Act raises issues about which Californians care a great deal.

A. Public Feedback

Over the past two or three years, there have been numerous regional town hall meetings designed to facilitate public participation in adopting Sustainable Communities Strategies in regions around the state.²⁶⁰ Some of these meetings have been colorful and quite volatile.²⁶¹ Anti-tax and anti-regulatory groups, libertarians, and advocates of local control have vigorously objected to Sustainable Communities Strategies that use vehicle miles traveled as a tool for forcing and measuring changes in local transportation and land-use patterns.²⁶²

259. *Id.* at 5.

260. *See, e.g.*, Josh Stephens, *SB 375 Draws Ire of Tea Party*, CAL. PLANNING & DEV. REPORT (Aug. 1, 2011, 8:01 AM), <http://www.cp-dr.com/node/3011> (on file with the *McGeorge Law Review*) (referring to recent regional and statewide planning sessions); Zusha Elinson, *Planning Effort is Enlivened by Tea Party*, N.Y. TIMES, May 26, 2011, <http://www.nytimes.com/2011/05/27/us/27bcteparty.html> (on file with the *McGeorge Law Review*) (describing a meeting hosted by the Metropolitan Transportation Commission and the Association of Bay Area Governments).

261. *See, e.g.*, Stephens, *supra* note 260 (describing a "disrupt[ion]" at a meeting by Tea Party activists); Elinson, *supra* note 260 (describing the antics of "vocal critics" at a meeting to set priorities for a Sustainable Communities Strategy).

262. *See, e.g.*, Stephens, *supra* note 260 (recounting the objections of self-identified Tea Party members); Elinson, *supra* note 260 (recounting the objections of Tea Party member Heather Gass); John Anthony, *Berkeley and the Tea Party—Together?*, SUSTAINABLE FREEDOM LAB, <http://sustainablefreedomlab.org/latest-news/berkeley-and-the-tea-party-together/> (last visited June 18, 2014) (on file with the *McGeorge Law Review*) (describing both liberal and conservative opposition to the One Bay Area plan).

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Some meetings designed to gather input from the public in drafting and adopting a regional Sustainable Communities Strategy have been picketed and disrupted.²⁶³

Early in the Sustainable Communities Strategy discussions, Josh Stephens of *California Planning & Development Report* wrote:

Environmentalists and many fans of cities hail SB 375 [the Sustainable Communities Act] as an important step towards both curbing global warming and creating more pleasant cities. But Tea Party activists nationwide have fought against local and regional planning efforts, often invoking the United Nations' "Agenda 21" sustainable development effort as the enemy. In California, Tea Party representatives have increasingly turned up at regional and statewide planning sessions—including a recent SB 375 "One Bay Area" workshop in Concord, where they disrupted the meeting by challenging its premise.²⁶⁴

By the end of the workshop,

Many speakers in Contra Costa County claimed that One Bay Area [the region's Sustainable Communities Strategy] had arisen out of nowhere and was being imposed on an unsuspecting public. The difficulty for MTC [the Metropolitan Transportation Commission] and other regional planning agencies, of course, is that they are seeking to implement a state law that was adopted in 2008, no matter whether the Tea Party likes the law or not.²⁶⁵

In 2011, the *New York Times* reprinted a story initially published in the *Bay Citizen* about a meeting called to discuss the Sustainable Communities Strategy for the San Francisco Bay Area,²⁶⁶ called "Plan Bay Area."²⁶⁷ Heather Gass, who identified herself as a member of the East Bay Tea Party, "peppered the urban planners with questions and comments."²⁶⁸ Then,

When planners asked audience members to rank the importance of open space like parks, Ms. Gass exploded. "Open space also includes people's private property," she said. "You cannot ask people to vote on something that violates others' private property."

Lou Hexter, who was leading the exercise, tried to placate her, saying quietly, "It's good to hear everyone's opinion, but we need to—."

263. Stephens, *supra* note 260.

264. *Id.*

265. *Id.*

266. Elinson, *supra* note 260.

267. *Plan Bay Area*, *supra* note 136.

268. Elinson, *supra* note 260.

“Back off!” Ms. Gass yelled.

At one point, the host felt the need to ask everyone to take a “time out.”²⁶⁹

In Los Angeles, the UCLA Institute of Transportation Studies sponsored a discussion entitled *The Tea Party and Property Rights Activists: Pushing Back Against Agenda 21 & Sustainable Communities Planning*.²⁷⁰ The purpose of the 2013 meeting was to discuss the:

[O]pposition Tea Party and property rights advocates have directed at local and regional sustainability planning efforts. “Some perceive that this Sustainable Communities planning reacts to the United Nation’s 1992 document called, ‘Agenda 21: the Rio Declaration on Development and Environment.’ The Tea Party and property rights advocates suggest that the U.N. seeks to restrict individual property rights on how [United States] citizens may develop land and live.”²⁷¹

Not all of the opposition to Sustainable Communities Strategies comes from the right. John Anthony at the Sustainable Freedom Lab noted that the editor of the local *Berkeley Daily Planet* wrote:

“What fascinated me was the tenor and passion of public comments. [There was a] surprisingly harmonic convergence of left and right . . .”

- At the single meeting, the left argued that, if you are going to mandate housing near public transit, then it has to be housing for everyone, not just upscale condos only the rich can afford.
- Those on the right voiced concern that the over-arching control exercised by the regional government would diminish local authority and trample individual choices.
- Community members of Slavic descent expressed fears that this plan echoed familiar communist strategies and one woman, “describing herself as an old leftist and a hippy, [cited] worries about the government spying on us.”²⁷²

269. *Id.*

270. *The Tea Party and Property Rights Activists: Pushing Back Against Agenda 21 & Sustainable Communities Planning*, UCLA (Nov. 26, 2013), http://www.lewis.ucla.edu/event/the-tea-party-and-property-rights-activists-pushing-back-against-agenda-21-sustainable-communities-planning/?instance_id=21 (on file with the *McGeorge Law Review*).

271. *Id.* The discussion was led by Professor Karen Trapenberg Frick whose research is published as Karen Trapenberg Frick, *The Actions of Discontent: Tea Party and Property Rights Activists Pushing Back Against Regional Planning*, 79 J. AM. PLAN. ASS’N 190 (2013).

272. Anthony, *supra* note 262.

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Anthony noted that “[t]here is an emerging alliance between left and right based on healthy self-concern. As people feel the harsh effects of government policies, it is harder to pigeonhole the responsible programs into convenient left or right ideological lockboxes.”²⁷³

A 2013 regional news blog about local politics in northern California reported growing skepticism about Sustainable Communities Strategies in prosperous suburbs, including Lafayette, where residents formed a movement called “Lafayette First” to oppose the changes portended by the Sustainable Communities Strategy.²⁷⁴ The author concluded:

As time passes and individual communities assess the impact of the One Bay Area Plan [Sustainable Communities Strategy] on their cities, is opposition [likely to] continue to grow against it? Will people . . . “[c]ontinue to be hypnotized [by] soothing platitudes of [s]mart growth, affordable housing, walkable sustainable neighborhoods, high opportunity communities and paying your fair share” which characterizes the rhetoric of the ABAG/MTC crowd?

Only time will tell. The battle is just beginning.²⁷⁵

B. Litigation

In addition to heated public debate, Sustainable Communities Act requirements have generated a certain amount of litigation to stop implementation of the Act.²⁷⁶ Much of this litigation takes the form of petitions for writs of mandate based on CEQA violations.²⁷⁷ So far, a number of reported lawsuits have been filed that involve the Sustainable Communities Act. As many as half of these lawsuits have focused on vehicle miles traveled aspects of SB 375. One of the lawsuits involving vehicle miles traveled is based on the alleged inadequacy of the affordable housing aspects of the Sustainable Communities Strategy, as well as the inadequacy of a general plan housing element.²⁷⁸

273. *Id.*

274. Richard Eber, *Grass Roots Movement Against Plan Bay Area Erupts in Lamorinda*, HALFWAY TO CONCORD (Sept. 24, 2013), <http://halfwaytoconcord.com/movement-against-plan-bay-area-lamorinda/> (on file with the *McGeorge Law Review*).

275. *Id.* (italics omitted).

276. *See, e.g., ABAG, MTC Settle Plan Bay Area Lawsuit With BIA*, Cal. Planning & Dev. Report (Mar. 3, 2014, 10:27 PM), <http://www.cp-dr.com/node/3445> (on file with the *McGeorge Law Review*) (describing the settlement of one such lawsuit); *Urban Habitat Program v. City of Pleasanton*, 164 Cal. App. 4th 1561 (2008).

277. *See, e.g., Verified Petition for Writ of Mandate and Complain for Declaratory and Injunctive Relief, Bldg. Indus. Ass’n Bay Area v. Ass’n of Bay Area Gov’ts* (2013) (No. RG13692098), available at <http://www.mydocsonline.com/pub/hbancstaff/BIA%20v%20ABAG%20MTC.pdf> (on file with the *McGeorge Law Review*); *Urban Habitat*, 164 Cal. App. 4th at 1566.

278. *Urban Habitat*, 164 Cal. App. 4th at 1567.

One of these challenges to the Bay Area's Sustainable Communities Strategy, Plan Bay Area, brought by the California Building Industry Association, has settled.²⁷⁹ The settlement agreement required the regional MPO to adopt:

1. A "Regional Housing Control Total" that assumes no increase in in-commuters over the baseline year and will not be based on historical building permit numbers.
2. "Robust" monitoring of regional development patterns , [sic] including tracking the number of permits issued inside "preferred development areas" versus outside those area. [sic]
3. A feasibility analysis prepared in consultation with stakeholders.
4. A more open process on the methodology.²⁸⁰

Other legal challenges against Plan Bay Area continue.²⁸¹

The California Supreme Court has granted review of one of the cases involving the Sustainable Communities Act.²⁸² The Court has limited the issue to be briefed and argued: "Must the environmental impact report for a regional transportation plan include an analysis of the plan's consistency with the greenhouse gas emission reduction goals reflected in Executive Order No. S-3-05 to comply with the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.)?"²⁸³ The Court of Appeal had upheld a trial court ruling that invalidated the San Diego Association of Government's (SANDAG's) Sustainable Communities Strategy on grounds of invalid environmental review under CEQA.²⁸⁴ Taking pains to note that the substantive validity of the Sustainable Communities Strategy itself was not at issue, the trial court ordered SANDAG to revise or supplement its EIR.²⁸⁵ The specific issue to be decided by the Supreme Court will be whether CEQA requires analysis and mitigation of greenhouse gas emissions in 2050 that would result from SANDAG's regional transportation plan (a part of the MPO's Sustainable Communities Strategy). The transportation plan provided analysis and mitigation only for greenhouse gas

279. See ABAG, *MTC Settle Plan Bay Area Lawsuit With BIA*, *supra* note 276.

280. *Id.*

281. See Michael Cabanatuan, *Lawsuit Settled Over Bay Area Plan for Land-Use, Transit*, SFGATE (Mar. 1, 2014, 6:54 AM), <http://www.sfgate.com/bayarea/article/Lawsuit-settled-over-Bay-Area-plan-for-land-use-5279421.php> (indicating that three lawsuits challenging Plan Bay Area are still pending).

282. *Cleveland Nat'l Forest Found. v. San Diego Ass'n of Gov'ts*, 2015 WL 1063948, No. S223603 (Mar. 11, 2015) [hereinafter *Order Granting Review*].

283. *Id.*

284. *Cleveland Nat'l Forest Found. v. San Diego Ass'n of Gov'ts*, No. 2011-00101593, slip op. at 13 (Cal. Super. Ct. Dec. 3, 2012) [hereinafter *Trial Court Opinion*].

285. *Id.* at 13.

emissions in 2020 and 2035,²⁸⁶ but did not analyze or mitigate increasing greenhouse gas emissions in 2050.²⁸⁷ The trial court ruled that SANDAG's CEQA analysis was inadequate because it did not respond to the standard for long-term greenhouse gas reduction in Governor Schwarzenegger's Executive Order S-03-05, which requires 80% reduction of 1990 greenhouse gas levels by the year 2050.²⁸⁸

The trial judge described SANDAG's EIR as "impermissibly dismissive" of the Executive Order.²⁸⁹ Refusal to analyze 2050 greenhouse gas impacts under the 80% long-term reduction standard set by the Executive Order was unlawful under CEQA according to the trial court.²⁹⁰ SANDAG had crafted a regional transportation plan to meet the California Air Resources Board's assigned reduction targets for 2020 and 2035.²⁹¹ However, it failed to address rising unmitigated greenhouse gas emissions from the regional transportation plan that would dramatically increase after 2035.²⁹² The trial court colorfully described SANDAG's response which "has been to 'kick the can down the road' and defer to 'local jurisdictions'" for mitigation.²⁹³

The California Supreme Court agreed to review the Court of Appeal decision affirming the trial court.²⁹⁴ The Supreme Court will decide whether SANDAG's EIR for its Sustainable Communities Strategy was required to address the emissions situation that would result from the Strategy in 2050.²⁹⁵ Substantively, the plaintiffs criticized the Sustainable Communities Strategy because it called for the construction of new highway lanes at the expense of development of new rail lines and other forms of public transit. Moreover, the Strategy's choices favoring highways was made, according to plaintiffs, without consideration of long-term impacts analysis and mitigation alternatives that CEQA and the Executive Order require.²⁹⁶

The California Supreme Court's decision in *Cleveland National Forest Foundation* is difficult to predict. At stake is how much of a reduction in greenhouse gas emissions from personal vehicles is required to satisfy not only the Sustainable Communities Act, but also CEQA. As Hassan Ikhata, executive director of the neighboring Southern California Association of Governments (SCAG), commented about the litigation, "The worst thing that could happen to

286. *Id.* at 9.

287. *Id.* at 11–12.

288. *Id.*

289. *Id.* at 11.

290. *Id.* at 11–13.

291. *Id.* at 9.

292. *See id.* at 13 (noting SANDAG's failure to address the "'upward trajectory' in per capita GHG emissions").

293. *Id.* at 12.

294. Order Granting Review, *supra* note 282.

295. Trial Court Opinion, *supra* note 284, at 21.

296. *Id.* at 14–15.

the implementation of SB 375 is to have these lawsuits, because the MPOs have made great progress in moving the thinking of our [local political] leaders.”²⁹⁷ Clearly, the credibility of Sustainable Communities Strategies and the bases for adopting them are at stake.

VI. CONCLUSION

It is too soon to tell whether vehicle miles traveled and the Sustainable Communities Act analyses will help communities to become more sustainable in the long run. Beyond debate about the Sustainable Communities Act’s time horizons, there is also apparent disagreement about its goal of bringing about Smart Growth in dense communities along public transportation corridors. Development of more dense residential uses, including affordable housing, in compact mixed-use centers associated with access to public transportation remains a future still under consideration by Californians.²⁹⁸

In the meantime, application of vehicle miles traveled as a measurement and means of preventing global climate change has not yet been fully accepted, partly because the concept is not well understood.²⁹⁹ To some Californians, reducing vehicle miles traveled by passenger cars and light trucks (some of which are no-emission or low-emission vehicles) seems an odd way to reduce greenhouse gas emissions and prevent global climate change.

Although efforts to alter transportation preferences away from personal vehicles and toward public transportation may work in the long run, such a change will require Sustainable Communities Strategies that actually provide public transit as well as discourage use of personal vehicles. What is interesting about California’s Sustainable Communities Act is its long-range optimism that it can change the minds and preferences of Californians about where they want to live and how they want to travel.

297. Josh Stephens, *California’s First Sustainable Communities Strategy Comes Under Fire*, CAL. PLAN. & DEV. REP. (Feb. 11, 2012, 11:18 AM), <http://www.cp-dr.com/node/3120> (on file with the *McGeorge Law Review*).

298. *See supra* Part III.

299. *See supra* Part IV.

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