Smart Growth Versus Sprawl in California

How State and Local Public Policies
Perpetuate Inefficient Development in
the World's Most Productive Agricultural Valleys

The Competition for Land in America

The second in a series of reports from

American Farmland Trust

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About American Farmland Trust

American Farmland Trust is a private nonprofit organization founded in 1980 to protect our nation's agricultural resources. AFT works to stop the loss of productive farmland and to promote farming practices that lead to a healthy environment. Its action-oriented programs include public education, technical assistance in policy development and direct farmland protection projects. William K. Reilly, Chairman of the Board. Ralph Grossi, President. For membership or program information, please call 202-331-7300 or visit AFT's Web page at **www.farmland.org.**

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A Report for American Farmland Trust
by Steven Moss
May 1999

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Foreword

Will Rogers once observed that they aren't making any more land. As the twentieth century comes to a close, America is engaged in an intensifying competition for the land. Bustling cities compete with mushrooming suburbs; the suburbs compete with open space, farms and forests; agriculture and forestry compete with wildlife habitat and the last remaining places of solitude. Our population continues to swell. Cars, computers and other technologies enable us to spread out over the land, altering it as never before. Meanwhile, recoiling from this "progress" and seeking to protect their environment, many Americans increasingly resist changes in the landscape.

Nowhere is the competition for land more intense than in California, the nation's most populous, fastest growing and most agriculturally important state. Growth is adding the equivalent of another San Francisco to the state's population every couple of years! Official forecasts project that the number of people occupying what is now the most uniquely productive agricultural region on the planet – the Central Valley – will triple within about a generation. Even if the increased population is housed in an efficient manner that minimizes the consumption of land, over a half-million acres of farmland, producing billions of dollars worth of agricultural products annually, will be forever lost. Worse yet, if current low-density development trends continue, the impact on agriculture, the state's equally unique natural environment, the cost of living and government finance could be devastating.

A ray of hope is that in California, as elsewhere in the United States, inefficient, low-density urban sprawl has some new competition from what has come to be called "smart growth" – typified by a more efficient, compact mix of residential and commercial development linked by a variety of transportation modes. But, as this report demonstrates, the competition between sprawl and smart growth is not a fair one. It is influenced, not just by an impartial free market, but very powerfully by the fabric of public policies affecting the value and use of land. And sprawl is clearly winning.

American Farmland Trust (AFT) has a vital interest in the outcome of the competition between sprawl and smart growth, which is being played out largely on the nation's farmland. More than half of all U.S. farm production, including three-quarters of the fruits and vegetables grown in this country, comes from land in metropolitan area counties. In California, the percentage of agricultural output from urban edge farmland approaches 90 percent. This land not only supplies us with fresh, high-quality, affordable food, it also provides open space for relief of urban congestion, habitat for wildlife, watersheds from which we drink, inspiring scenic vistas and a reminder of an American heritage few of us want to lose. And yet, every year, another million acres of U.S. farmland is paved over.

Why is this happening? How can it be avoided?

To find answers, AFT has sponsored a series of research projects to investigate the competition for land in America and how the choices being made by private landowners - affecting farms, cities and the environment - are being influenced by the policy decisions of government. This report on the competition between sprawl and smart growth in California is the second in the Competition for Land series. To learn more about this series and the other papers that have been or will soon be published, we invite you to visit AFT's Web site at **www.farmland.org.**

Edward Thompson, Jr.
AFT Senior Vice President for Public Policy
Erik Vink
California Policy Director

Executive Summary

Inefficient suburban development – low-density "sprawl" – is consuming far more of California's unique agricultural land than is necessary to accommodate its growing population. With the number of people living in the state's most important agricultural valleys expected to triple within about a generation, only a more efficient form of development that consumes less land per person – "smart growth" – can save the Golden State's unique farmland; land that not only supports the planet's most diversified, productive agricultural industry, but also provides wildlife habitat and other amenities that contribute to Californians' high quality of life.

Myriad public policies – from property taxation to development fees to zoning – skew the economics of land development in favor of sprawl and against smart growth.

Today, smart growth has a hard time competing with sprawl in the marketplace. But this is not simply the result of a free, impartial economic system in which consumers naturally choose low-density housing and "big box" retailers because they are cheaper and more convenient. Rather, myriad public policies – from property taxation to development fees to planning decisions – skew the economics of land development in favor of sprawl and against smart growth. These policies, and the attitudes that perpetuate them, must be comprehensively and systematically changed if California is to prevent sprawl from laying waste to what are arguably the world's most important agricultural valleys.

Steven Moss, a partner in the San Francisco-based consulting firm of M Cubed, was commissioned by American Farmland Trust to examine how public policies influence the efficiency of suburban development in the Salinas Valley – America's "salad bowl" – and the great Central Valley, the most productive, single agricultural region on Earth. Relying on interviews with many government, business, agricultural and other leaders, as well as his own economic research and analysis, Moss conducted a broad inventory of public policies. He identified and attempted to quantify those that appear to have a significant influence on the competition between sprawl and smart growth in a sample of local jurisdictions, including Fresno, Madera and Monterey counties, and the cities of Fresno, Madera and Salinas.

Included among the state and regional policies that exert a bias in favor of sprawl are: spending on infrastructure such as freeways and water supply systems that subsidize low-density development; the "fiscalization of land use" by Proposition 13, which causes local governments to continually seek revenue from new development regardless of its efficiency; electric utility rates that are not based on actual service cost differentials; overly narrow interpretation of non-point source water pollution abatement rules; and a failure to assess cumulative impacts of housing density under the California Environmental Quality Act. Local policies that most significantly promote sprawl include: failure to implement general land use plans; a preponderance of low-density zoning; subdivision standards that waste land; siting of schools and other public facilities at remote locations; and development fees that fail to reflect the public service cost differences between sprawl and smart growth.

Based on these findings, American Farmland Trust concludes that the state, regional and local policy bias in favor of sprawl in California is so systemic that only comprehensive policy reform can remove the obstacles to smart growth and lead to more efficient land use. Accompanying policy reform must be a fair test of consumer housing and commercial development preferences in the marketplace. AFT recommends the following initial steps toward meaningful policy reform:

- Adopt local general plans that favor more efficient development and enforce them in the zoning and development permitting process.
- Build efficiency into zoning and subdivision standards by permitting greater flexibility in housing configuration, setbacks and street widths.

- Reinforce general plans by appropriately siting public facilities and making infrastructure investments that encourage efficient development patterns.

- Remove artificial financial obstacles to smart growth by immediately reducing development fees on compact housing and eventually adjusting entire local fee structures to reflect higher costs of sprawl.

- Study reforms of local government finance that could ameliorate the pressure on them to attract development – any development – as a "cash cow."

- Study mechanisms for greater regional cooperation in land use policymaking to avoid competition that leads to sprawl.

- Study reforms of electricity and other utility rate structures that could take advantage of the cost savings of smart growth patterns.

- Put smart growth to a fair market test with pilot projects that guarantee developers a reasonable rate of return if they build more efficient housing and commercial projects.

Introduction

Californians have been consuming land throughout their 150-year history. The coastal cities of Los Angeles, San Diego and San Francisco have spread out, creating new seaboard and inland population centers. The Central Valley towns of Bakersfield, Fresno, Modesto, Stockton and Sacramento have likewise enlarged their domains, in many cases meeting coastal growth tentacles with their own fringe development. California's stretch has extended across the state's borders, to create economic and population boomtowns in Nevada, Arizona, Oregon and Utah. Californians, who once populated a thin coastal region and tiny foothill settlements, are now taking up a lot of space.

Population Growth and Inefficient Land Use

As explosive as it has been, population growth is only partially responsible for California's consumption of land. Inefficient development – large lot, single family homes serviced by extra-wide freeways and stretched-out shopping malls – has paved over far more acreage than has been reasonably needed to accommodate the increase in people.

California's remarkable population growth is responsible for much of this land consumption. Over the last half-century the state's population has more than quadrupled in size. Where once, one out of twenty Americans lived in California in 1940, today one out of every eight makes his or her home in the Golden State.[1] What's more, the state's population is expected to double again over the next four decades, with some regions – particularly the Central Valley – tripling in size.[2] At this rate, the state will add the equivalent of the population of Los Angeles every seven years.

As explosive as it has been, population growth is only partially responsible for California's consumption of land. Inefficient development – large lot, single family homes serviced by extra-wide freeways and stretched-out shopping malls – has paved over far more acreage than has been reasonably needed to accommodate the increase in people. For example, while Los Angeles's population grew 45 percent between 1970 and 1990, its developed area increased 300 percent.[3] If the state as a whole used land as efficiently as Alameda County, an East Bay jurisdiction with ample open space and considerable suburban development, the entire population of California could fit into San Bernardino County. Even a slight improvement in the efficiency of development, adding three homes per acre, could save a half-million acres of Central Valley farmland in the next generation.[4]

Between 1994 and 1996, more than 18,000 acres of California's irrigated farmland was lost to urbanization.[5] Some experts believe that if inefficient development of homes, businesses and roads continues to gobble up land, the state's $25 billion annual agricultural production could be threatened.[6] Low-density development also makes it difficult to preserve open spaces, and acts to destroy scarce habitat.[7] Likewise, spread-out living patterns engender a number of "externalities," including air, water and noise pollution.[8] Low-density sprawl ultimately results in "giant car parks outside soulless shopping malls; a populace so dependent on the car that the rush-hour freeways become anything but free; the loss of prime farmland ... to the bulldozer; and a shift in housing and jobs that has left poor city residents, because of inadequacy of public transport, virtually marooned."[9] Despite these costs, under status quo economic and public policy conditions, "sprawl" – dispersed, inefficient development – will continue apace.

The Influence of Public Policy on Land Use

In the frontier era in which land seemed limitless, it was the filling of space, rather than its preservation, that had the highest priority. The hunger to fill "empty"[10] places gave rise to the homesteading, mineral, timber and railroad policies of the nineteenth centuries, in which land was virtually given away to whomever would use it.[11] Although public land is rarely given away anymore, the public sector continues to offer a large number of incentives that act to encourage the inefficient consumption of land by low-density development. Some of these policies, like large lot zoning, are intentional.[12] Others may not be, for example, the creation of a transportation system that makes low-density development patterns almost inevitable.

This report attempts to identify and evaluate the influence of state and local policies on the efficiency of development in California, particularly in its most important agricultural areas.[13] To a limited extent, it tries to measure and quantify these impacts. Finally, based on this analysis, it makes recommendations for changes in policies to increase the efficiency of land consumption, so as to ensure that Californians can continue to enjoy their unique lifestyle without destroying the very land on which they live.

There is No Free Market For Land

It is well-accepted that the market – the collective outcome of individual buying and selling preferences — is the dominant influence on land use patterns.[14] Many Californians want to live in large homes with spacious yards, and as long as these homes are available and affordable, they will buy them. This is particularly true in the Central Valley, where land is cheaper than in coastal areas, making houses on large lots accessible to more families. According to Bevon Fung, supervising planner with the City of Fresno, "We don't have a market for high-density development. You can't sell something that the public doesn't want."[15] Developers want to sell what people are willing to buy.

However, there are compelling reasons to question the market's complete hegemony over land use outcomes. This is principally because a free market for land does not exist in the classic economic sense: "In economic theory, a perfectly functioning market requires many buyers and sellers, good information about prices and quality, and no external costs or benefits. The land market meets none of these requirements. The number of buyers and sellers of raw land is limited at any point in time. The rate of land appreciation is speculative ...The land market is rife with externalities."[16]

Buyer and seller activity is particularly limited in semi-rural areas. Since California's early-1990s recession, housing growth has been slow in Fresno and Madera, and that economic downturn, combined with a similar recession during the 1980s, "washed out a lot of small, potentially innovative developers," leaving fewer than 10 significant builders in the region.[17] Residential development in Fresno County has been dominated by "three to four families doing the same thing for two to three generations." These families have large landholdings, and low overhead, allowing them to hold on to

property indefinitely, and making it difficult for developers outside the region to break in.[18] Absent a large number of sellers, it is questionable whether a land market, as defined by classic economic theory, is fully functioning in the region.

Likewise, by not fully "internalizing" externalities associated with inefficient development – failing to require individuals to pay for the socially adverse consequences of their actions – government is implicitly subsidizing[19] that activity, thereby inserting itself into the so-called "free" market. For example, "communities that practice fiscal zoning create huge externalities in terms of congestion, inadequate labor supplies, and underemployment that must be paid for by the public at-large through either higher costs of living or taxes."[20]

The market and public policies coexist together in a complex dance performed to the tune of America's greatest philosophical debate: the primacy of the individual versus the needs of the community.

As with almost all markets, public policies can act to define, or at least influence, buyers' and sellers' preferences. This can occur directly or indirectly, through subsidies of one kind or another. For example, "suburban development is subsidized directly and through the tax code ... and government regulation of development introduces additional market distortions."[21] Implicit subsidies are provided as a result of the different public costs caused by land use patterns. A "house built in sprawling developments may cost 40 to 400 percent more to serve than if [it] were located close to major facilities, were clustered in contiguous areas, and incorporated a variety of housing types."[22]

The extent to which public policies sway the market depends on the kinds of policies at play in a given area, and the aggressiveness with which they are wielded by the relevant decision makers. In this sense the market and public policies coexist together in a complex dance, each one dependent on the other. Sometimes the market leads; sometimes it follows. This dance is performed to the tune of America's greatest philosophical debate: the primacy of the individual versus the needs of the community. Individuals want to make their own choices — farmers want to sell their land to whomever they choose; homeowners want to buy the house they want where they want it. However, where individual actions adversely affect the good of the community, collective responses – public policies – may be taken to limit harm to the community. For example, citizens are required to stop at red lights, even when they're in a hurry. Likewise, the public sector frequently supports private enterprise, making otherwise uneconomic activity possible, either intentionally or otherwise.

Study Methodology

To examine the influence of public policies on the efficiency of land consumption by residential and commercial development, this case study followed a number of analytic steps. First, the author conducted a literature review, focusing on the relationship between public policy and the density of development. This literature review was used to identify specific policies that

appear to affect the density of land consumption in California, and to develop insights about how these policies are made and implemented.

Second, case study locations were identified for in-depth examination of the selected public policies. Case study sites were selected based on the importance of their agriculture, their rate of population growth, apparent development patterns and a desire for geographic diversity. The sites ultimately selected were the City of Fresno and Fresno County, the City of Madera and Madera County, and the City of Salinas and Monterey County.

Third, the author collected policy and land use data, and conducted telephone and in-person interviews with public officials, developers and members of the farm community in each case study location. The purpose of these interviews was to develop a sense of each place and to further inventory influential policies. Finally, based on the literature review, data and interviews, descriptive and quantitative analyses were made of the impact of selected policies on the efficiency of land use.

Throughout the study the author was guided by a panel of experts, including Dena Belzer, principal, Strategic Economics; Peter Detwiler, principal consultant to the California Senate Local Government Committee; Dean Misczynski, director, California Research Bureau; and Al Sokolow, Cooperative Extension specialist, University of California, Davis. American Farmland Trust staff, including Erik Vink, California policy director, and Edward Thompson, Jr., senior vice president for public policy, also provided insights and expertise.

Characteristics of Case Study Jurisdictions

One hundred years ago Fresno and Madera Counties were part of a single large jurisdiction located in the geographic center of California.[23] Today, although the two counties maintain separate governments, they are part of an integrated regional economy dominated by Fresno. Residents of both counties shop, eat and frequently work in Fresno, and the Fresno Bee is the primary newspaper in the area. Both counties are dependent on agriculture, and the economy of both rises and falls with the success of each harvest.

Fresno is dominated by low-density sprawl, as well as ongoing decentralization of its urban core. The City of Fresno's downtown commercial vacancy rate is 30 percent, compared to a suburban Fresno vacancy rate of 11 percent.[24] Residential development in Fresno and Madera is typically low-density, consisting of one- or two-story homes built at less than five units per acre. Even commercial buildings rarely rise above three stories. Higher densities are closely associated with apartments in the public's mind, and "people don't move to the Central Valley to live in apartments."[25] But although the market appears to demand low-density sprawl, compact developments have generally proven to be financially successful and popular with homeowners.

Salinas is an inland city located within Monterey, a central coast county. Monterey County's seaside environmental amenities – including Big Sur,

Carmel-by-the-Sea and Monterey – make it a popular tourist attraction. However, despite its efforts to promote itself as home of the author John Steinbeck, tourists mostly bypass Salinas and the city remains for the most part an old-fashioned central farm town.

Residential development in Salinas, while averaging just over five units per acre, is becoming increasingly compact. Where a decade ago the market appeared to require lots of 6,000 square feet or larger, demand has shifted downward to an average of 5,500 square feet, and 4,000 square foot lots are selling well. These smaller lots provide affordable starter homes for Bay Area commuters – Silicon Valley is less than 70 miles away – and fit an evolving urban lifestyle that eschews the time demands of maintaining a large house.[26] However, while average density in Salinas may be increasing, there are limits: "People won't buy townhouses. There isn't a developer in town who's willing to build attached homes."[27]

The land use in all three counties is dominated by agriculture as well as undeveloped mountains and foothills, which collectively occupy more than 70 percent of the land. By far the smaller fraction is comprised of cropland – 13 percent in Fresno County, for example – which is generally the target for new urban development in preference to the steep, more remote grazing and wild lands. Less than 3 percent of the study area is now developed.[28] But Fresno and Monterey counties are expected to grow rapidly over the next decade – twice as fast as the rest of the state – and, if the current inefficiency with which it consumes land continues, development could supplant one-third or more of Fresno's unique cropland.

Policy Inventory and Analysis

Dozens of local, regional and state policies have the potential to influence the efficiency of land use. As discussed previously, any policy, or lack thereof, that influences land supply, demand, or price could act to alter market outcomes. However, individual policies may have negligible effects, or impacts that cannot be separated from other policies or market forces. In this sense our analysis must separate a great deal of chaff from the wheat.

Because of the large number of potentially influential policies, different analytic screens were used in conducting this analysis. First, because of limited resources, federal policies were eliminated from consideration. Second, a large number of state and regional policies that could be of interest were identified, primarily based on the existing literature. Third, local policies were identified, again primarily through a review of the literature. Based on interviews with land use experts and others, those policies that appeared to have significant influences in the case study areas were more fully examined to provide illustrative examples through further in-depth interviews and analysis of available case study data. The findings from this evaluation are presented in the remainder of this section.

State and Regional Policies

Among the most important policies influencing the efficiency with which development uses land are:

- Infrastructure spending
- Proposition 13
- Utility rate regulation
- Water quality regulation
- California Environmental Quality Act (CEQA)

These are discussed in more detail below.

(1) Infrastructure Spending

One of the most important policy influences on development patterns and land values stems from public sector expenditures on transportation, specifically spending on highways.[29] Having paved road access significantly increases a parcel's value, and lands located near freeways sell for higher prices than those sited in remote areas.[30] Highways encourage inefficient development as a result of both direct and "market failure" (e.g., externalities) subsidies.[31] Where dollars are spent, on existing routes or new capacity, and the sizing of highway infrastructure can also affect travel times and costs. In California, there appears to be a bias towards new road construction. For example, despite the fact that 21 percent of the state's existing federal roads are in poor or mediocre condition, "almost half of the [transportation] money has been diverted to build new and bigger highways."[32] Likewise, while only 15 percent of the state's population lives in rural or non-urban areas, almost 25 percent of Intermodal Surface and Transportation Efficiency Act (ISTEA) funds are spent in these regions.[33]

In the urban United States, the automobile consumes close to half of the land area of cities; in Los Angeles the figure approaches two-thirds. As roads consume land, less acreage is available for other uses, and density tends to decrease.

Highways can act to define urban limits, replacing natural boundaries, such as rivers and mountains, in a kind of street-based zoning. For example, roads are frequently the dominant dividing line between urban and rural areas, and can separate compact areas from low-density neighborhoods.[34] Likewise, roads can act to channel development from urban centers to outlying regions. As one planner noted, "if you build a road to the city limits, you're building it directly to agriculture, ultimately enabling the urbanization of farmland."[35] That is, roads can act to delimit the land market, which is dominated by buyers and sellers who are "within driving distance" of a given location. Roads, parking lots and other areas devoted to cars also take up a lot of space. "In the urban United States, the automobile consumes close to half of the land area of cities; in Los Angeles the figure approaches two-thirds."[36] As roads consume land, less acreage is available for other uses, and density tends to decrease.

Although without roads low-density development could not occur, the circular process by which transportation decisions are made can act to blur the distinction between market-driven choices and policy-created markets. That is, it is not altogether clear which comes first, the market or the road. For example, according to one official, planned road development in Fresno and Madera does not represent over-building. "We're just catching up with market

demand."[37] However, as with sewer capacity, when the public sector "builds capacity in growing parts of the region, it is implicitly doing more than reacting to recent growth. It is also generating a cost structure for the near future, which encourages further growth. In effect, decisions that appear purely reactive in nature may also have pro-active impacts that amplify current growth patterns. The line between reactive policies and pro-active policies is very fine."[38]

Regardless of what drives road building, or whether it reflects planning or reacting, there would be no development market, or certainly the market would look quite a bit different, without public provision of highways. Public transportation policies make the low-density housing market possible. That is, publicly financed roads make less-expensive agricultural and rural lands accessible to development, and reduce the costs associated with living in outlying areas. That, in turn, enables Californians to purchase larger homes on more expansive lots, resulting in low-density sprawl.

Proposition 13 has had a dominating influence on local land use decisions, encouraging inefficient development in a variety of ways.

(2) **Proposition 13**

California's Proposition 13 has had a dominating influence on local land use decisions. Adopted in 1978, the measure limits the basic property tax rate to 1 percent, thereby severely restricting local government access to a substantial revenue source. Proposition 13 thus creates the need to develop new local tax mechanisms, most of which are now directed at squeezing dollars from development.[39] The resulting "fiscalization of land use" was described by U.C. Davis Professor Al Sokolow:

> The land development needed to accommodate new growth emerged as the principal means of expanding city revenues through fees on construction and the sales taxes produced by new commercial property. Incorporations and annexations in California increased sharply in the years after Proposition 13. Most spending in California communities for municipal public works improvements, and a sizable portion of increased spending on local government operations, now is supported by new development. As a result, local governments make land use decisions according to their revenue impacts.[40]

Proposition 13 encourages inefficient development in a variety of ways. For example, since initial property value largely determines future tax revenues, local policymakers have an incentive to approve larger, more expensive homes, which tend to occupy larger lots. Likewise, the Proposition 13-induced system of local fees and exactions can create an uneven playing field between jurisdictions and residential densities. Differences between local jurisdictions set up a dynamic in which, if a developer doesn't like the rules of the game in one locality, he or she can always shop for a better deal elsewhere. This kind of competition makes it difficult for individual localities to adopt rules that encourage efficient land use densities, even when their citizens would prefer them. In this sense, where economic development is a high priority, competition between local governments can force policymakers to make difficult trade-offs between policies which attract development and initiatives

that are intended to enhance community cohesion and environmental amenities.[41]

This regional competition is particularly intense in the Central Valley, where the desire for growth makes politicians especially susceptible to "movemail." As indicated by one Fresno area developer, "We can always go to another area if there's conflict in Fresno."[42] And as a city official pointed out, "Fresno cannot successfully promote infill, if developers can go to Clovis, Selma and the county to do standard large-lot subdivisions."[43] Regional competition can be particularly lopsided when a fairly large, urbanizing county – Fresno is the sixth largest city in the state – with a larger planning staff is adjacent to a small jurisdiction, such as Madera, where the county's planning policies have been described as "a carrot to developers."[44]

3) Utility Rate Regulation

Public utility rate regulation provides another source of state-sponsored distortion of the land market. Under current regulation, consumers are charged an average systemwide price for electric utility services, even when the marginal cost of providing the commodity varies by the density at various locations. For example, per meter service costs in the Central Coast and Fresno are more than 60 percent higher than in San Francisco, which is almost twice as densely populated as these areas.[45] Likewise, costs per mile of overhead transmission lines in the Central Coast – where population density is 25 percent higher than Pacific Gas and Electric Company's (PG&E) system average – are almost 10 percent lower than the system average.[46] Yet ratepayers throughout PG&E's system pay the same charges.

Ratepayers living in low-density areas receive an estimated $150 a year annual subsidy to their electricity bills, which is paid by Californians residing in areas where land use is more efficient.

Likewise, all customers finance capital improvements for electric distribution, even though in many cases these expenditures are dedicated to high-growth, low-density areas. For example, the expansion of north Fresno into southern Madera County has prompted PG&E to invest $2.7 million in distribution facilities, to be paid for by ratepayers at large.[47] In general, "electricity, gas, cable TV, commercial delivery service and postal delivery cost more for suburban and exurban development, and are partially paid for by central city and inner suburban customers."[48] As a result of utility regulation both low-density and "fringe suburban and exurban development is subsidized."[49]

Table 1 displays average residential electric bills in PG&E's service territory based on 500 kilowatt-hour (kwh) per month use.[50] As indicated in the table, ratepayers living in low-density areas receive an estimated $150 a year annual subsidy to their electricity bills, which is paid by Californians residing in areas where land use is more efficient. Over a 10-year period this subsidy would add up to $1,500, or about 1 percent of the average home value in the Central Valley.

Table 1
Density-Adjusted Annual Residential Electricity Bills[51]

	Cost of Service	*Average Bill*	*Subsidy (+) Penalty (-)*
Low-Density Housing	$890	$740	+$150
Compact Development	$590	$740	–$150

Policies directed at reducing non-point source pollution can have the unintended effect of encouraging low-density development.

(4) Water Quality Regulation

Non-point source pollution, or runoff from urban and agricultural land uses, is the primary cause of water quality problems in the Central Valley. However, state and federal policies directed at reducing non-point source pollution can have the unintended effect of encouraging low-density development. This is because the administration of these policies is based on the assumption that runoff should be minimized by each new subdivision, without consideration of the cumulative impacts of all the new developments in a watershed.

The simplest way to reduce non-point pollution is to limit the total amount of impervious surface (e.g., streets, driveways and rooftops). A subdivision with fewer houses per acre, i.e., lower density, will almost always have less impervious surface than one with more houses on the same acreage. As a result, from the perspective of a single subdivision, non-point source runoff is thus minimized by low-density housing. However, assuming that there is still a demand for the additional houses that could have been built in the subdivision, had it been higher density, they will be built elsewhere, perhaps in the same watershed. This additional development will require additional streets, driveways, etc., thus increasing the cumulative surface area covered by impervious surfaces, even though the number of houses remains the same. Therefore, when a broader, cumulative perspective is taken, more efficient housing patterns – not low-density sprawl – is better for water quality. A National Oceanic and Atmospheric Administration study confirms this finding, estimating that low-density sprawl is almost three times more polluting than compact development, everything else being equal.[52]

(5) California Environmental Quality Act

The Environmental Impact Report mandated under the California Environmental Quality Act (CEQA) is the primary vehicle through which policy officials are provided analytic information on the consequences of development. The CEQA process also enables citizens and interest groups to participate in the approval process for significant projects. When it was enacted almost 30 years ago, CEQA represented a substantial step forward in addressing the need to carefully examine the potentially adverse consequences of development.

While in general CEQA acts to empower citizens to participate in land use decisions, in many cases it may actually work against efficient development in two ways. First, EIRs frequently follow a cookie-cutter model, in which key potential impacts – such as changes in traffic patterns, air and noise quality,

and other possible outcomes – are presented without consideration of the more dynamic impacts of growth patterns. Although the cumulative impacts associated with a development are supposed to be examined under CEQA, the role of development density in the consumption of land and its environmental impacts is almost never evaluated. Second, citizens use CEQA to oppose compact development more often than low-density development. As a result, CEQA review often contributes to the additional time and expense that building compact development requires in the Central Valley.

Local Policies

Although federal and state government policies profoundly influence land use outcomes, most land use decisions are made at the local level. Home rule dominates land use politics. Unlike air and water, neither the federal nor state governments directly regulate land use decisions.[53] Although there are notable exceptions like the California Coastal Commission, opposition to state power or "regional government" has so far acted to assure local government primacy over land use issues. The sections that follow examine a number of important local policies that influence the efficiency of land use. These include:

- General plans
- Zoning
- Subdivision standards
- Public facility siting policies
- School policies
- Infrastructure financing and development fees

Throughout the Central Valley there are large differences between stated policy in general plans and what is produced by the review and approval of specific development proposals.

(1) General Plans

Local land use policies, as embodied in general plans, zoning ordinances, subdivision standards and development agreements, are at the heart of local land use control and act to delineate the local land market. As with ordinances that allow a produce market or a shopping mall, local land use policies determine the location of particular land markets (e.g., commercial, industrial or residential), the kinds of improvements that can be sold (e.g., building height), and minimum content standards (e.g., setback standards). Local land use policies can either directly affect the efficiency of land use or indirectly contribute to the mix of factors that influence land supply, demand and prices.

Required by California law, general plans are supposed to define a community's land use vision.[54] And, almost without exception, general plans indicate a strong preference for development within existing urban boundaries, rather than spread throughout the countryside. However, throughout the Central Valley, "there are often large differences between stated policy and what is produced by the review and approval of specific development proposals." [55]

In Fresno and Madera counties, general plans appear to be weakly implemented, providing a policy environment in which "developers get anything they want... They have ruled the roost."[56] The City of Fresno's "plans are of high quality, it's the implementation that's sorely lacking. They are

amended, ignored, or steps to implement them are not carried out, resulting in a poor result from a good plan."[57] In the City of Madera, "the General Plan is not always followed."[58] Likewise, "while the [urban services] boundary usually has some effect, it depends on the degree to which state and local governments are committed to maintaining the boundary against pressures from landowners or developers."[59] In Madera, developers are placing pressure on the city to expand its urban limit line, pressure that may ultimately be successful.[60]

The weakness of Fresno's and Madera's general plans may stem from the difficulties that these essentially rural communities have had in coping with the extensive demographic and economic change that is transforming them into urban areas. Compromises to the general plan in the City of Fresno may also be influenced by the fact that its "development department, as an enterprise department, has to generate its operating income and therefore tends to favor easy, high-income developments like subdivisions, which are more profitable."[61] This financial relationship between the department and development "results in short-term thinking, and a lack of vision."[62]

In contrast, policymakers in Monterey County and the City of Salinas are more supportive of their general plans. "Developers know that, if they propose annexation, unless it's immediately adjacent, the County will oppose it."[63] While some Fresno and Madera politicians may view their communities' rural character as a handicap, "Salinas is proud of being an ag town. The Valley is our bread and butter."64 In addition, Monterey County politicians are greatly influenced by the area's environmental qualities, and its environmentally oriented citizenry. Monterey Peninsula residents in particular "...have always been very concerned about the environment, and that's influenced county land use behavior."65

(2) Zoning

The efficiency of development, as measured by residential housing density, is directly affected by minimum and maximum lot sizes. As illustrated in Table 2, the City and County of Fresno generally require larger minimums than Madera or Salinas.[66] Large minimum lot sizes help explain why more than half of the residential housing built in Fresno in 1997 was developed at densities of less than five units per acre.[67] Salinas allows for the greatest overall densities, and provides greater flexibility in allowing developers to increase land use efficiency. For example, developers can reduce individual lot sizes in low-density areas as long as the average lot size for the entire development does not fall below 6,000 square feet, or approximately seven dwelling units per acre.[68]Although recently adopted policies in Fresno County allow some flexibility in development, this change may not result in significant increases in density. This is because the overall density of subdivisions must remain low, even though conditional use permits for planned developments on county lands permit clustering of homes on smaller lots.

Land in Fresno County adjacent to the City of Fresno has historically been zoned for two-acre minimum rural residential lots, and a significant proportion of the land in the city's sphere of influence continues to be developed in this fashion. Seven percent of new housing built near Fresno in 1997 consisted of rural residential units.[69] In the past, 40- to 60-acre plots in unincorporated areas were easily subdivided into two-acre parcels. This large-lot zoning requirement was reinforced by the county's refusal to extend sewer infrastructure to the areas, which instead had to rely on wells and septic tanks. While rural residential developments were originally intended to serve as a low-density buffer between the city and outlying agriculture, development is now leapfrogging over these areas, which no longer serve their original purpose, but instead have become examples of extremely inefficient land use.

Table 2
Permitted Residential Densities in Fresno, Madera and Salinas

	Number of Single-Family Residential Development Districts	Range of Minimum Parcel Sizes	Range of Maximum Coverage [70]	Range of Required Open Space
Fresno County	8	6,000 sq ft to 5-acre	None; 30 - 40%	--
Fresno City	6	6,000 to 37,500 sq ft	30 - 45%	--
Madera County	6	12 DU/ac to 2 DU/10ac	10 - 30%	--
Madera City	2	3,000 to 6,000 sq ft	--	750 to 1,000 sq ft
Monterey County	4	20 DU/acre to 5-acre	25 - 60%	--
City of Salinas	2	4,000 to 6,500 sq ft	--	900 to 1,200 sq ft

The generally low-density requirements of zoning ordinances in these and other Central Valley jurisdictions impose another policy barrier to efficient land use, legalizing local bias against compact development without accounting for wider market preferences, and discouraging land use innovations that could serve the market for compact development. As with all land use policies, while the market may rule, at minimum zoning policies serve to prop up its dominion.[71]

(3) Subdivision Standards

Individual jurisdictions establish their own subdivision standards – setbacks, streets, bus turn-arounds, sidewalks, bike lanes and parking requirements – based largely on traffic expectations and safety concerns. These standards also indirectly influence the efficiency of land use. For example, streets and sidewalks can consume great quantities of space. Paved streets alone consume

almost 25 percent of the land space for a typical Central Valley development. By reducing street width and development setback requirements by one-quarter, communities can greatly increase the efficiency of land use, creating compact developments that have the same amount of open space as more traditional neighborhoods without compromising safety.

Table 3 displays development standards in each of the study areas. Unless these setbacks are graduated by lot size, the result will again be a bias against smaller lots. For example, the maximum setbacks in Fresno would consume over 60 percent of a square half-acre lot and 45 percent of a one-acre lot, but only 35 percent of a two-acre lot.

Table 3
Development Standards in Fresno, Madera and Salinas

	Height Limit	Front Yard Setback	Backyard Setback	Side Yard Setback
Fresno County	25 to 35 feet	20 to 50 feet	20 feet	5 to 20 feet
Fresno City	35 feet	20 to 50 feet	20 feet	5 to 15 feet
Madera County	35 feet	20 to 25 feet	10 to 25 feet	10 to 35 feet
Madera City	35 feet	35 feet	15 feet	5 feet
Monterey County	35 feet	20 to 30 feet	10 to 20 feet	5 to 20 feet
City of Salinas	30 feet	20 feet	10 feet	5 to 10 feet

(4) Public Facilities Siting Policies

Public sector siting policies, particularly of such keystone facilities as colleges and large office complexes, can alter local land values, and influence density patterns. Both public and private facilities can encourage infill, or alternatively, act to attract fringe development, which tends to use land less efficiently. And in some cases, state and local government building needs can represent a significant portion of regional demand for commercial space. For example, the state owns or leases over 530,000 square feet of office space in Fresno County alone.[72]

The recent siting of Valley Children's Hospital (VCH) in Madera County, just across the San Joaquin River from Fresno County, is an example of a facility – private nonprofit rather than public, but nonetheless illustrative – that will have a profound impact on future land use patterns in both counties. Although VCH will be located in Madera County, it is remote from the City of Madera and its placement represents the northern reach of the Fresno economy. If sited in the City of Fresno, the hospital could have anchored infill development within the existing urban area. Instead, the development stimulus prompted by VCH, coupled with existing land use policies that encourage inefficient development, are likely to stretch out Fresno's growth, creating low-density sprawl from the city center to the northern suburbs. The hospital will likewise

encourage leapfrog development from the City of Madera.

VCH chose to leave Fresno primarily because the land it will occupy was given to it by a landowner eager for the ensuing economic growth and the concomitant increases in land values and development opportunities. The hospital may also have been attracted by Madera County's strong desire for the development. As one hospital official said, "[The] county was very cooperative. They embraced us with open arms." [73] However, while this one land use decision will greatly influence both counties' future growth, it is unclear whether either jurisdiction has completely come to terms with its implications. Madera County in particular "may not have understood what it was getting involved in."[74] For example, it is unclear how the necessary infrastructure to support the hospital and ancillary residential and commercial development will be financed.

Although the land around VCH may ultimately be developed in a compact fashion, the creation of this new economic center will reinforce the ongoing hollowing-out of both Fresno and Madera. Businesses and residents who might otherwise have settled close to downtown will instead choose to locate on the counties' borders.

In contrast to remote facility location, downtown revitalization can act to encourage more infill development. Demand for compact city living is typically stimulated by attractive urban amenities such as movie theaters, coffee houses and restaurants. While all three cities we studied have redevelopment agencies, they have had mixed success, and in some cases have been criticized for taking actions that may have worsened downtown conditions. Salinas, which built a John Steinbeck museum, may have had the greatest success building upon its existing downtown area, but in no case study area is the central city drawing significant amounts of new residents from outlying areas.

(5) School Policies

Primary and secondary schools, which are administered and financed independently of general purpose local governments, also have an important influence on land use efficiency. School quality greatly influences housing patterns. Throughout the Central Valley, roadside billboards proclaim school quality as a reason to move to one community or another. As measured by student test scores, the higher quality high schools are located on the edge of or outside the City of Fresno. And there is a strong coincidence between high student test scores and above-average residential real estate values.[75] As a result, in the Central Valley schools are a powerful magnet pulling people out of cities like Fresno and into urban fringe areas where low-density sprawl prevails. If compact development in or close to cities is to be encouraged, improving city schools is an imperative.

Moreover, schools are significant consumers of land in and of themselves. Primary and secondary school facilities in Fresno County consume more than 1,455 acres; Madera County schools spread over almost 500 acres; and the City of Salinas uses up almost 300 acres for its schools. And the trend is toward larger school sites: an elementary school in Fresno with a student population of less than 800 students occupies a 15-acre site; a new junior high takes up 25 acres; and high schools up to 60 acres. The City of Clovis in Fresno County has a primary and secondary school complex that spans 120 acres! The size of school tracts is exacerbated by the need for large parking lots to serve a student body that commutes by auto because it is dispersed by inefficient development. To promote more efficient land use, schools themselves will have to be held accountable. Under current law, they are not required to follow local general plans, and simply have to notify local governments of their intentions. As a result, schools can be sited on remote farmland without reference to other community land use priorities.

Schools are not required to follow local general plans and can be sited on remote farmland without reference to other community land use priorities.

(6) Infrastructure Financing and Development Fees

Infrastructure financing policies can have a profound influence on land use efficiency. There is a strong relationship between residential density and the cost of providing infrastructure like water and sewer systems. The lower the density, the higher the costs.[76] Yet, in few instances is the price charged customers for public services graduated on the basis of its actual cost.

As Table 4 illustrates, the cost of providing utilities for low-density development can be significantly greater than for compact development, with capital costs for low-density (4 units per acre) storm sewers and sanitary sewer collection networks as much as 40 percent higher than those serving high-density development (16 units per acre).[77] For sewer systems alone, initial construction costs can be as much as $1,500 per dwelling unit per mile of distance.[78] Although these data are principally from out-of-state sources – this information has yet to be collected widely in California – it is likely that the same cost disparities between different development patterns exist in the Central Valley.

Table 4
Capital Costs for Alternative Residential Development Densities[79]
(Dollars per Dwelling Unit)

	Low-Density (5 DU/acre)	Compact (10 DU/acre)	Sprawl Penalty*
Streets	$8,255	$6,550	26%
Utilities	$10,215	$6,635	54%
Schools	$16,610	$14,080	18%
Total	$35,080	$27,265	29%

* Additional cost of low-density as percentage of compact development

As discussed earlier, in post-Proposition 13 California local infrastructure financing to a great degree focuses on development fees. That is, localities attempt to finance development-related infrastructure costs – roads, sewer, water, and the like – through specific assessments on the development creating the demand for infrastructure. State law provides that these assessments cannot exceed the "estimated reasonable cost" of the infrastructure demanded. Theoretically, this should encourage efficient use of land by forcing low-density development, which costs proportionately more to service, to pay higher fees than compact development that is cheaper to serve.

But development fees are generally not graduated on the basis of the density of new subdivisions,[80] as illustrated by Table 5. Further, fees are intended to cover the capital cost of infrastructure, but they do not pay for operating expenses. In many cases, these costs increase as land use efficiency declines. For example, expenses are higher for operating school buses and maintaining longer sewer lines serving highly dispersed communities. The result of these fee policies appears to be that less efficient development is subsidized, while more compact development is penalized.

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Table 5
Fees Levied on a 2,500 Square Foot Single Family Dwelling[81]

Fee Categories	City of Fresno	County of Fresno	City of Madera	County of Madera	City of Salinas	County of Monterey
Building Permit	$440	$873	$1,700	$358	$1,980	$1,587
Plan Check	$440	$568	$1,055	$179	$1,228	$984
Energy Surcharge	$57	$142	$179	$45	$208	$167
Other Permits	$575	$639	$36	$84	$42	0
Planning Fees	0	$17	$17	$45	$20	0
Fire/Police	$374	0	$122	$335	0	$50
Schools	$4,600	$4,600	$4,275	$4,275	$4,275	$4,275
Sewers/Water	$2,830	0	$667	$150	$834	$668
Parks	$456	0	$692	0	$1,712	$1,372
Storm Drainage	$200	$250	$388	0	$897	$719
Roads	$12	0	$206	$854	$1,280	$1,026
Total	**$9,984**	**$7,089**	**$9,336**	**$6,325**	**$12,476**	**$10,848**

Development fees further encourage inefficient land use patterns by imposing a significant financial risk on local government that development will not pay its way when it does not occur within the originally projected timeframe. The level of the fees charged developers are usually set on the basis of the amount of development expected to occur within the jurisdiction during a specific period of time. If that growth occurs more slowly than planned, the locality

must find alternative methods of paying for the infrastructure. The alternative is to reduce the level of public services because, under Proposition 13, it cannot raise property taxes. This dynamic can prompt local governments to become slaves to their planning forecasts and to allow, or even encourage, whatever development is proposed in the jurisdiction, regardless of its efficiency.

NIMBY Opposition to Compact Development Also Discourages Smart Growth

The land use policymaking process is often exploited by those who oppose increases in housing density. NIMBY – "not in my backyard" – opposition to compact development is endemic throughout the United States, and, according to the project interviews, the citizens of Fresno, Madera, Monterey and Salinas are no exception to this antagonism. The concern of those who mount such opposition is that higher-density development will inevitably entail lower-income housing and that this will spawn increased crime and ultimately reduce property values. While in San Francisco, San Jose, and parts of Los Angeles, higher density may reflect higher property values, in most Central Valley cities this is not yet the case.

In all of the study communities, obtaining approval for mixed-use and compact developments tends to be more costly and time-consuming than for low-density construction. Moreover, politicians' attitudes toward compact development tend to be "no, you can't do that."[82] Moreover, because compact development breaks from traditional approaches with set standards, these developments receive a more detailed review from planning staff and raise the overall level of political scrutiny. As one developer said, "Infill is a nightmare. It can be successful in the marketplace, but the policy process is impossible. I could never get the Dominion [a successful mixed-use development in Fresno] done today."[83]

Opposition to compact development results in hard dollar costs to this type of housing pattern. Based on the time value of money, and strong evidence that communities make it very difficult to build compact housing, opposition to compact development may add from $2,000 to over $4,500 to the cost of a home in the different case study areas.[84]

Conclusions and Observations of American Farmland Trust

When AFT first decided to examine how public policies influence the efficiency with which development consumes land in California – in effect, the competition between sprawl and smart growth – we realized it would be a daunting task. As our investigation proved, the policy framework for development in the state is, indeed, highly complex and varies widely from place to place. Nonetheless, by concentrating on what many leading officials and land use experts identified as the most influential policies, and focusing on several of the state's most productive agricultural areas, this study sheds new light on the subject.

One inescapable conclusion of this research is that, if it ever existed, anything resembling a free market for land in California has long since disappeared. The buying, selling and improvement of land has been so overlaid with public policies that influence their economic return that the policy environment – regulations, government spending, taxes and fees – exerts a huge influence on the market. Though the law of supply and demand still functions, laws passed by state and local policymakers are equally, if not more important to an understanding of how and why development in California since at least World War II has generally been so inefficient in its consumption of land.

Virtually every policy that was examined favors low-density sprawl over more compact, efficient development of land, primarily through hidden subsidies to sprawl. Either these subsidies are paid for by residents of older, more compact developments or their cost is shifted onto future residents of sprawling communities in a kind of fiscal Ponzi scheme. No matter who eventually pays the piper, it is clear that today sprawl is perpetuated by a vast array of subsidies. If policies were changed to internalize more of the costs of sprawl, the development of California's world-class agricultural valleys would almost certainly be more efficient in its use of land.

Virtually every significant policy we examined favors low-density sprawl over more compact, efficient development of land, primarily through hidden subsidies to sprawl.

However, no single public policy emerges as having an overwhelming influence on development patterns. The subsidy to sprawl conferred by each individual policy appears to be relatively small, but the cumulative impact is truly significant. This suggests that to effectively promote smart growth, policy reform must be comprehensive, addressing each significant policy contributing to land use inefficiency.

Finally, it is clear that the public policies subsidizing sprawl in California were not made in a political vacuum. While developers, builders and others with a direct, financial interest in land use patterns have certainly influenced these policies, they have acted in response to what they perceive to be consumer preferences for housing and commercial development – as, of course, have elected and appointed government leaders. Since consumer preferences, profits, politics and public policy are inextricably linked, it will be necessary somehow to align them all in the direction of smart growth, if more efficient use of land is to make significant inroads against sprawl. Of all these factors, consumer preferences may be the most critical to test by offering homeowners and businesses more smart growth development choices.

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AFT's Policy Recommendations

Based on Moss's investigation and analysis, it is clear that policy reforms will be necessary to improve the efficiency of development in California and, thus, to avoid or mitigate the costs of sprawl – particularly the wasteful and needless loss of the state's unique agricultural resources. Some immediate reforms are suggested by the findings of this research; others should be studied in more detail before being implemented. Though most policy review should occur at

the community level, state agencies should also re-evaluate the policies identified in this report.

Policy Reforms

Adopt and Enforce General Plans Encouraging Smart Growth

Perhaps the most important action that can be taken to promote greater land use efficiency is for local governments to adopt and stick to general plans that strongly favor more compact development. Plans that are broken by repeated changes in zoning or city annexation may be worse than no plans at all, giving the illusion of smart growth without the reality. In some cases, the failure to enforce plans is a matter of political will or lack thereof; in others, particularly growing rural jurisdictions, there may be a lack of planning staff capacity. The expertise and sophistication of planners can be improved by professional training. Political accountability can only be assured by citizens who understand the problem and care enough to get involved in the process – and not just as NIMBYs.

To effectively promote smart growth, policy reform must be comprehensive.

Build Efficiency into Zoning and Subdivision Standards

The efficiency of development can be promoted by allowing greater flexibility in requirements that result in land consumption, beginning with the permitted density of residential and commercial building. Report findings suggest that standards like building setbacks and street widths can also be reduced to promote efficiency without compromising community quality or public safety. As earlier AFT studies have shown,[85] even a marginal increase in efficiency could save hundreds of thousands of acres of farmland and eliminate billions in public service costs.

Reinforce Plans with Appropriate Public Facilities Siting and Infrastructure Investments

Public investments in infrastructure and major facilities like hospitals and schools can powerfully influence the direction and density of growth. They too must follow the blueprint set out in general plans, if smart growth is to become a reality. Review of such investments, either through the general plan process or, perhaps, through CEQA, would appear to be a necessary step to assure that the siting of major public facilities reinforces rather than undercuts smart growth planning. Such review should include the cumulative effect of private development that may be induced by such facilities.

Remove Financial Obstacles to Smart Development

Simply mandating compact development will not produce it. Counterproductive policies that impose costs on and, therefore, discourage smart growth, must also be eliminated. One of these is a development fee structure that subsidizes low-density residential housing and penalizes more compact development. Reform could begin by reducing the fees on compact housing by an appropriate amount; a comprehensive re-assessment of local fees should then be conducted to establish a fee structure that reflects the true costs of servicing housing at different densities. Another relatively simple reform to reduce the cost of permit delays could be to streamline the approval process for efficient development. If housing or commercial development located in

designated smart growth zones meets certain minimum standards, to be determined by the community, a presumption of its approval would arise, with a limited opportunity for rebuttal by potential opponents.

Research on Additional Reforms

Study Reform of Local Government Finance, Proposition 13 and the "Fiscalization of Land Use"

Clearly, local government finance policies – particularly Proposition 13 – have had unintended and perverse effects on land use patterns in California, virtually forcing local jurisdictions to seek new development, regardless of its efficiency, to meet revenue demands. In so doing, they have put communities in a position of continually playing fiscal "catch up" by increasing the costs of servicing the inefficient development that has predominated. Since it is as powerful a symbol as an influence on land use, it is probably an understatement to suggest that Proposition 13, as well as related government finance policies, will require additional, thorough study before any practical reform is possible through the necessary process of constitutional change.

Study Mechanisms for Greater Regional Cooperation in Land Use Policymaking

Abetting the competition for local revenue from development, and the tendency to relax land use standards, is the fragmentation of land use policymaking authority among myriad jurisdictions. Though greater regional cooperation is a politically sensitive issue – raising the threat of a loss of community autonomy – it simply cannot be dismissed as a subject deserving further study as a means of promoting more efficient land use patterns.

Study Reform of Electric and Other Utility Rate Structures

Additional study will also be necessary before changes could be adopted in the pricing of electricity and other public services to reflect the true costs of providing such services to development at different densities. Attention to the rate structure as it influences consumption of the services themselves has resulted in meaningful reform of, for example, electricity rates through such innovations as time-of-day pricing. Similar attention to how rates affect the consumption of another fundamental resource – land – could also result in beneficial changes to achieve greater efficiency in this important regard. An opportunity to address these issues exists in the current process by which electricity pricing and distribution reforms are being considered.

Policy Experimentation

Put Smart Growth to a Fair Market Test

Since it is an open question whether policy leads or follows market preferences, the policy reforms discussed above may not be sufficient to produce widespread increases in the efficiency of development patterns. There remains the risk that, despite policy changes to re-orient market incentives and disincentives, consumers will nonetheless continue to favor low-density sprawl. Developers have been raising this concern for years and do not want to assume the entire risk that smart growth will fail the test of the marketplace. Thus, one of the most important things that could be done to promote more

efficient, smart growth may be to test the market for it by offering to share the risk of market failure with those who now bear it.

This could be accomplished through a system of insurance or indemnities, paid for by taxpayers, that would basically guarantee developers and/or builders a reasonable return on their investment if they produce more efficient housing and otherwise exercise due diligence in building and marketing their product. Under such a system, if smart growth advocates are correct that there is, indeed, a viable market for more efficient development, this system would have little or no public cost. Nor would there any longer be an excuse for developers and builders to resist either compact development or the policy changes that will encourage it. On the other hand, if the market for efficient development is weak, only some kind of public subsidy to share the risk with builders will produce the smart growth needed to save California's agricultural valleys.

One of the most important things that could be done to promote more efficient, smart growth may be to test the market for it by offering to share the risk of market failure with those who now bear it.

One or more local pilot projects to test this concept would obviously be a more prudent first step than an attempt to implement a full-scale state or local program. Before any such public investment in risk-sharing is made, the factors influencing the market will have to be understood more completely. But the lessons learned from actually trying to implement such risk-sharing projects could be one of the most instructive steps – for developers as well as policymakers – that could be taken to promote smarter, more efficient use of land in California.

Endnotes

[1] Department of Finance, *California Statistical Abstract*, 1997.
[2] California Department of Finance, Demographic Research Unit, Report 93 P1, April 1993.
[3] Henry L. Diamond and Patrick F. Noonan, *Land Use in America*, Island Press, Washington, D.C., 1996.
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[5] Dale Kasler, "Urban Growth Nibbles at State Farmland," *The Sacramento Bee*, August 6, 1998.
[6] Pablo Lopez, "Growth Imperils State's Food Output, Study Says," *The Sacramento Bee*, October 31, 1997.
[7] Kenneth R. Schneider, "The Destruction of Urban Space," *Traffic Quarterly*, 24,1: 59-76, 1970.
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[10] Empty of westerners, that is. Much of California was already occupied by indigenous peoples.
[11] These nineteenth century policies substantially gave rise to today's dominant development patterns. For example, railroads were built on the flat bottomland of the Central Valley, rather than in early foothill settlements. As a result, growth was spurred on the Valley's prime agricultural land, and has been moving eastward, back towards the hills, ever since.
[12] Zoning is the division of a jurisdiction into districts in which different regulations are applied. Zoning regulations are generally divided into two classes: (1) those that regulate building height or bulk, e.g., structural and architectural design; and (2) those that prescribe the use to which the land can be put, e.g., residential or commercial. See Daniel J. Curtin Jr., *Curtin's California Land Use*, Solano Press Books, Point Arena, California, 1997.
[13] In this respect the study's guiding principle is that higher density, as measured by population or homes per acre, consumes less land than lower density, and, all else being equal, is an attractive means of protecting land, particularly farmland. Likewise, smaller lot sizes tend to cost less. Reducing lot sizes from a generous 10,800 square feet to an ample 7,200 square feet could save $3,600 per unit in land costs and $3,750 in utility fees. Modest lots would also reduce the costs of street maintenance, garbage pick-up and other municipal services. See Minnesota Planning, Metropolitan Council and the Minnesota Housing and Finance Agency, "Making the Connection: Linking Housing, Jobs, and Transportation," Minneapolis, December 1993; American Farmland Trust, "Density-Related Public Costs," Washington, D.C., 1986.
[14] William A. Fischel, *The Economics of Zoning Laws*, Johns Hopkins University Press, 1985.
[15] Fung acknowledged that the market may change over time, as increasing numbers of "empty nesters" and seniors demand lower-maintenance, more convenient, and thereby higher-density housing. [Interview with Steven Moss, December 10, 1997.] This prediction is seconded by economists, who claim that "40- and 50-something baby boomers...are giving up the bucolic burbs for the hipness of hoods. Some are young retirees or people approaching retirement. Many are 'empty nesters,' parents who have raised their children and sent them off to adulthood. Demographers and real estate specialists contend their numbers, just a trickle now, may surge dramatically through the next decade." Corrie M. Anders, "Suburban Flight," *San Francisco Examiner*, January 11, 1998.
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[25] Harris, op.cit.
[26] Based on an interview with Ed DeMers, former Monterey County planning director, December 15, 1997.
[27] Interview with David G. Swanson, planning manager, City of Salinas, December 15, 1997.
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[30] David Brownstone and Arthur De Vany, "Zoning, Returns to Scale, and the Value of Undeveloped Land," *The Review of Economics and Statistics*, 1991.
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[32] Surface Transportation Policy Project, *Crying Wolf*, October 1996.
[33] This could be the result of two factors: greater allocation to rural roads, and/or higher construction costs in rural areas, particularly related to low-density development. See Surface Transportation Policy Report, *Getting a Fair Share*, July 1996.
[34] DeMers, op.cit.
[35] Interview with Rayburn Beach Jr., senior planner, City of Fresno, December 16, 1997.
[36] Michael Southworth and Eran Ben-Joseph, *Streets and the Shaping of Towns and Cities*, New York: McGraw Hill, 1997.
[37] Interview with Barbara Goodwin, executive director, Council of Fresno County Governments, December 10, 1997.
[38] Thomas F. Luce Jr. and Barbara L. Lukermann, *Regional Sewer System Rate Structure Study*, December 7, 1992.
[39] Property tax rates do differ by jurisdiction as a result of incremental policies. For example, the City of Fresno's ad valorem property tax rate is 1.12 percent, compared to Salinas's rate of 1.02 percent. See Kosmont & Associates, Inc., op.cit.
[40] Alvin D. Sokolow, "State Rules and the County-City Arena: Competition for Land and Taxes in California's Central Valley," Publius: *The Journal of Federalism* 23, Winter 1993.
[41] For example, communities in the Central Valley may vie to be the location for prisons, landfills or hazardous waste disposal facilities – land uses that "better-off" communities might eschew – because of their limited ability to attract other economic investments. In these cases competition between localities can further force local governments to provide even greater concessions to the facilities (e.g., tax breaks).
[42] Kashian, op. cit.
[43] Karen Humphrey interview with Nick Yovino, planning manager, City of Fresno, April 12, 1996.
[44] Interview with Robert Stanfield, general manager, Madera Irrigation District, November 18, 1997.
[45] PG&E Date Request Number AECA3, 1999 General Rate Case, February 25, 1998.
[46] Ibid.
[47] PG&E, 1999 Test Year General Rate Case, Workpapers-Application, Capital Expenditures.
[48] Office of Technology Assessment, *The Technological Reshaping of Metropolitan America*, September 1995.
[49] Ibid.
[50] Actual use will vary by location, and will likely be higher in the Central Valley due to air conditioning use in the summer than on the Central Coast.
[51] These calculations are based on PG&E data indicating average household electricity bills and a 20 percent difference in marginal costs to serve compact versus low density housing. See PG&E citations above, and "Market Fact Guide 1998," *The Business Journal*. The calculation also assumes that there are a roughly equivalent number of low-density and compact development households throughout PG&E's service territory, from apartments in San Francisco to ranchettes in Stanislaus County.
[52] Dana Beach, "How Federal 'Non-Point Source' Programs Promote Sprawl," *New Urban News*, January-February 1999.
[53] Exceptions to this are areas with large concentrations of state or federally owned lands.
[54] Under California law (Government Code Section 65300), "each city must adopt a comprehensive, long-term general plan for the physical development of both the city and any land outside the city's boundaries that it judges to relate to its planning. The plan shall consist of a statement of development policies and must include...objectives, principles, standards, and plan proposals." See Curtin, op. cit.
[55] Alvin D. Sokolow and Colin Laird, "Municipal Density and Farmland Protection," *Research Paper Number Three*, Agricultural Issues Center, University of California, December 1996.
[56] Interview with Georgiana Vivian, principal, Valley Research and Planning Associates, December 11, 1997.
[57] Karen Humphrey interview with Al Solis, director, Fresno City Development Department, July 15, 1996.
[58] Interview with Dan Hendriks, City of Madera planner, November 10, 1997.
[59] Rachelle Alterman, "The Challenge of Farmland Preservation," *APA Journal*, Spring 1997.
[60] Interview with Steven Geringer, attorney at law, November 19, 1997.
[61] Karen Humphrey interview with Art Farkas, executive director, Downtown Association of Fresno, May 23, 1996.
[62] Goodwin, op.cit.
[63] Interview with Alan Stumpf, redevelopment project manager, City of Salinas, December 15, 1997.
[64] Interview with David G. Swanson, planning manager, City of Salinas, December 15, 1997.
[65] Dale Kasler, "Urban Growth Nibbles at State Farmland," *The Sacramento Bee*, August 6, 1998.
[66] All of the areas allow "density bonuses," that permit reductions in lot sizes. However, the effectiveness of this policy is unclear.
[67] City of Fresno Development Department, Planning Division, Fresno General Plan Land Use Alternative 10z, February 1997.
[68] Memorandum from David G. Swanson, planning manager, Community Development Department, City of Salinas, January 26, 1998.
[69] City of Fresno, 1997, op.cit.
[70] Some jurisdictions do not have a maximum coverage requirement, but they do specify the amount of land to remain without structures. In these cases as long as setback and open space requirements are met, the remaining part of the parcel can be covered with a structure.
[71] Zoning can also influence land values. For example, parcels zoned for governmental uses — such as for schools — tend to have lower land value. This may reflect the public sector's ability to extract below-market prices through their control of zoning rules. Likewise, since all undeveloped land is initially zoned for agricultural use in the case study counties, lower land values may reflect the costs required to obtain development rights through the zoning process. See Brownstone and De Vany, op.cit.

[72] Department of General Services, *1995 Statewide Facilities Plan and Asset Management Strategy*, September 1995. All of the study areas require road widths of 50 to 60 feet. Although exceptions to this requirement are made, particularly in the case of planned developments, obtaining these waivers takes time, and money.

[73] Interview with Pat Brekaman, director, Administration, VCH.

[74] Ibid.

[75] Federal Reserve Bank of Dallas, 1996.

[76] See, for example, American Farmland Trust, *Density Related Public Costs*, 1986.

[77] Walter Isard and Robert E. Coughlin, *Municipal Costs and Revenues Resulting from Growth*, Wellesley, Massachusetts, Chandler: Davis, 1957.

[78] Luce and Lukerman, op.cit.

[79] In 1994 dollars. James A. Frank, *The Costs of Alternative Development Patterns*, The Urban Land Institute, 1989.

[80] Fee levels are almost always determined by outside consultants. No central agency examines these analyses, or compares the basis for fee estimates among jurisdictions. Thus, it is unclear whether similar methodologies are used across localities or whether the level of fees depends on which consultant was hired.

[81] Salinas figures based on home value of $199,250. Energy surcharge fee reflects the costs to insure that new construction meets California Energy Conservation requirements. Fee values vary both as a result of different area-specific topologies and choices about what items should be subjected to a fee. See Letter to Steve Moss from Deanna Stafford, office assistant II, Engineering and General Services, Madera County, November 26, 1997. Madera County fees based on $1.71 per square foot charge for schools; Letter to Steven Moss from Dennis Ellis, staff analyst, Public Works & Development Services Department, County of Fresno; fax from S. Wittenberg, City of Fresno Development Department, to Steven Moss, March 26, 1998. School fees subject to state cap.

[82] Karen Humphrey interview with Roger A. McIntosh, Martin-McIntosh, June 14, 1996.

[83] Interview with Leo Wilson, Wilson Development, December 16, 1997. Mixed-use, high-density development has the most chance of policy success if it "is preplanned and people buy SFR [single family residential] knowing higher-density housing will eventually go in; for example, the Dominion development in Woodward Park. Master planned communities are also easier to finance and have a greater chance of success. You can avoid fights later by full disclosure in the beginning and getting signed agreements from early SFR buyers not to oppose later multi-family or commercial. I put in a single-family development of 8-9 units per acre on the [City of Fresno] consent calendar because I had worked with the neighbors ahead of time and concerns were negotiated away. Because of pre-approval of the entire planned community, the City Council did not support the NIMBY's objections. I also post property that is to be developed so people know, and if I'm doing a wall-development, I complete and landscape the outside wall, and complete a lot of the interior infrastructure before I sell a house so people know what they're going to get and what it will look like." Karen Humphrey interview with Kevin Castanos, principal, Wathen-Castanos, April 16, 1996.

[84] Based on the assumption that local opposition, from both politicians and NIMBYS, delays compact construction by one year, at an inflation cost of 2 percent. This excludes finance-related expenses, as well as the costs associated with any necessary General Plan Amendments, which could add another several thousand dollars to the tab. See M Cubed, *Fiscal and Economic Impacts of Proposition 224*, March 1998.

[85] American Farmland Trust, *Alternatives for Future Growth in California's Central Valley: The Bottom Line for Agriculture and Taxpayers*, October 1995.

American Farmland Trust