

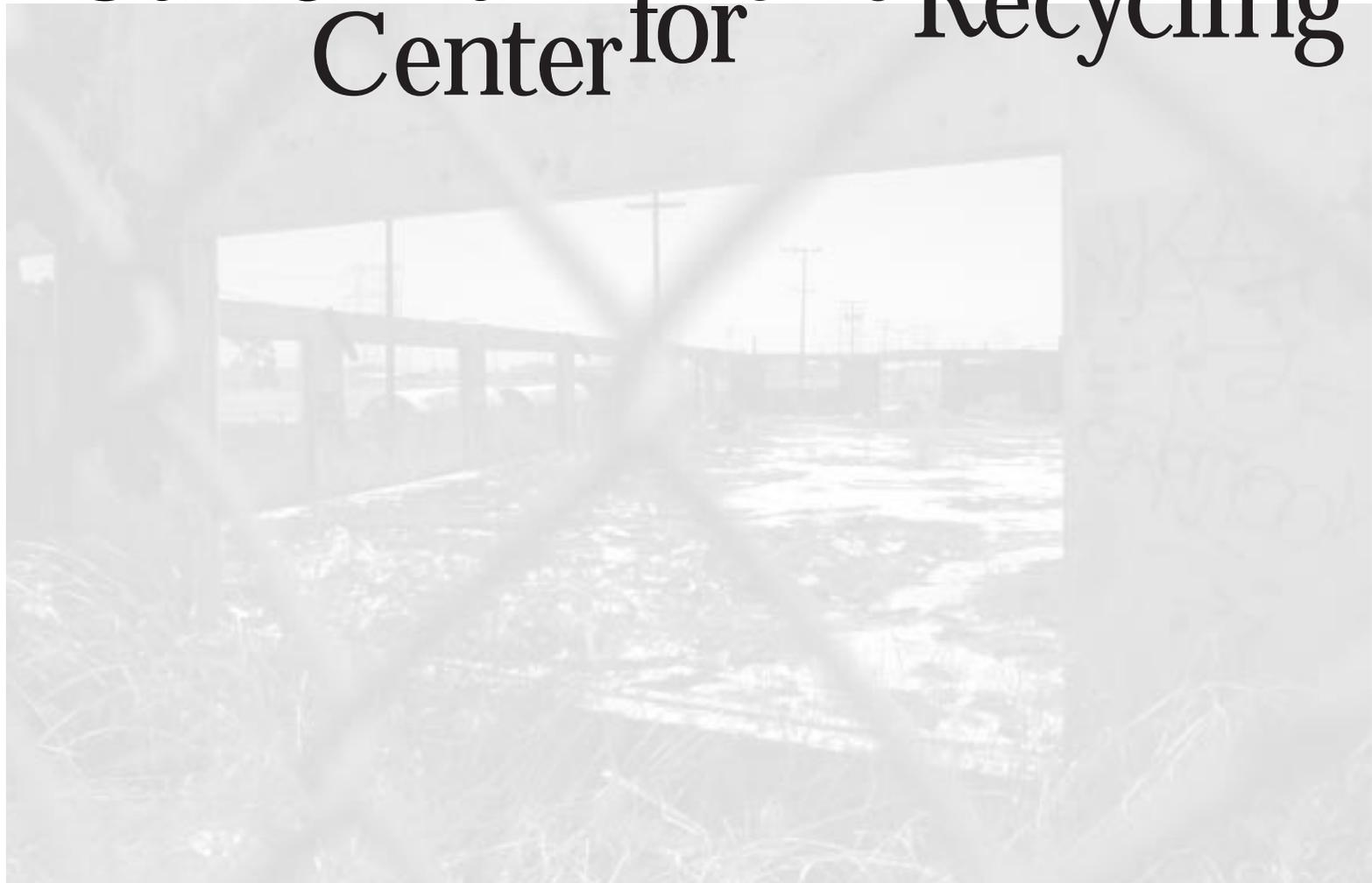
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POLICY PAPER SERIES

**Land
Recycling
and the
Creation of
Sustainable
Communities**

A Strategy for Ensuring
Prosperity and Quality
of Life For Californians
in the 21st Century

**California Land Recycling
Center for**



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About the California Center for Land Recycling (CCLR)

CCLR is one of a constellation of organizations focused on creating sustainable communities by identifying and implementing sustainable patterns of land use and development. Its mission is to encourage and facilitate land recycling in ways that revitalize urban areas, discourage urban sprawl and conserve greenspace. CCLR focuses on sites that are idle, abandoned, underutilized, or contaminated (or perceived to be contaminated), known as “brownfields.” Redeveloping urban brownfields improves living conditions for city dwellers that are at a disadvantage because of economic and racial segregation. It is with these goals in mind that CCLR objectively explores and advocates region-wide collaborative partnerships among private sector, public sector, and nonprofit organizations.

CCLR accomplishes its work through three programs:

1) Project Learning Program

In an effort to encourage brownfield development throughout California, CCLR provides a range of consulting and advisory services, small grants, and other resources to public agencies, developers, community organizations, lenders, and regulators.

2) Policy and Practices Program

CCLR’s experience with brownfield projects informs policy research and advocacy of reforms. The organization promotes reform of state and local land use and development policies to help “level the playing field” between brownfields and greenfields (undeveloped areas at the outskirts of metropolitan regions). The goal is to make land recycling an accepted, economically feasible pattern of development.

3) Information and Outreach Program

CCLR provides information and educational resources to organizations and individuals interested in land recycling and land use issues through our web site, publications and appearances at conferences and workshops.

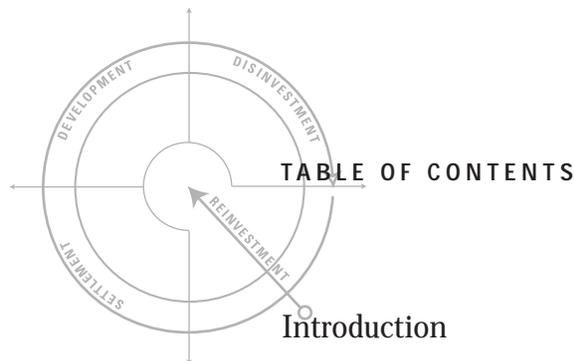
Land Recycling and the Creation of Sustainable Communities

A Strategy for Ensuring Prosperity and Quality of Life for Californians in the 21st Century

Written by

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With Edith Pepper and Michael Leccese



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Introduction

“Communities should be shaped by choice, not chance. We can keep on accepting the kind of communities we get, or we can learn how to get the kind of communities we want.”

Richard Moe, President
National Trust for
Historic Preservation¹

Picture a landscape that was once rugged and beautiful but is now miles upon miles of asphalt. What used to be a cornfield is now a shopping center; what used to be a two-lane country road is now a major artery through a housing subdivision. This is growth, American style—unplanned, low-density development in ever more distant suburbs, linked to the city only by new highways. Some call this progress. But for many, it evokes a sense of loss and diminution. The more our cities expand outward, the further we stray from what we really want: vibrant and livable communities, access to parks and natural areas, proximity to work, and quality time with our families and friends.

Urban sprawl has become a fact of life in nearly every corner of this nation as people move “up and out” of cities in search of a “better life” in the suburbs. A factor that has profoundly shaped the development of the nation’s Western regions is the 19th-century doctrine of Manifest Destiny—the belief that the United States would inevitably expand westward to the Pacific. The rush that accompanied the opening of the West more than a century ago still feeds the deep-seated belief that land here is plentiful, cheap, and boundless. Professor Robert Burchell of the Rutgers University Center for Urban Policy and Research calls this perception that land is available in unlimited supply for development purposes the “prairie” philosophy. He notes that

people feel that it is “the responsibility of both political jurisdictions and [developers] to ensure that land is ready for development, regardless of cost.”²

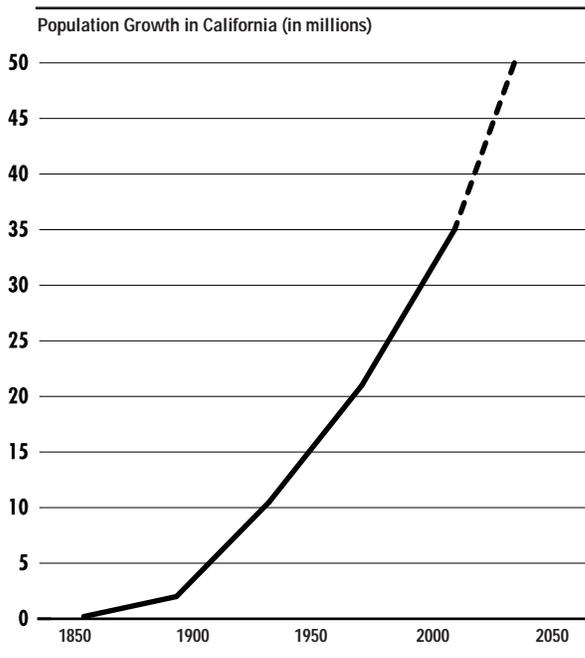
At the end of the 20th century, with the Western frontier a memory, this philosophy no longer makes sense. Yet it remains deeply rooted in the nation’s psyche. As a country, we are forced to grapple with these often-unstated assumptions when making land use decisions. But can we afford to let land use and development be left to laissez-faire capitalism? Does an individual have a right to use his land whatever he wishes, without regard for its effect on his neighbors? How wide a circle of impact should be considered? These questions frame one of the most important conflicts of our times, that of private property rights versus the individual’s obligation to society as a whole, an obligation typically manifested in the form of land use regulations.

As the impact of unchecked sprawl becomes more widely recognized, this conflict grows ever more divisive and impassioned. What we are seeing around the country, and increasingly in California, is consensus among historically unaligned voices—from town planners to business interests—that something must be done to more effectively guide growth in the next century. Without thoughtful planning, maintaining a high quality of life in California will become increasingly difficult.

The West is home to 15 of the fastest-growing American cities. As the debate over property rights rages, sprawl is literally blazing forward—up canyons, over mountains, across deserts—like an aggressive brush fire. California’s experience

is typical of the Western states. Rebounding from the 1980's recession, the Golden State is embarking on a new phase of growth that is expected to create more than 1 million new jobs by the end of the decade.³ With the jobs, of course, will come more people. By the year 2025, California's current population of 32 million is expected to increase by 18 million.⁴

This pace of growth is staggering. It has the potential to create enormous prosperity, or enormous problems. The outcome will largely depend on land use decisions made today. More striking than California's population growth is the rate of land consumption. Between 1970



and 1990, the population of the Los Angeles metropolitan region grew 45 percent, but its urbanized area ballooned by 200 percent.⁵ If we continue this pattern of low density, unplanned development, Californians can expect to lose 21 to 26 million acres (33,000 to 41,000 square miles) of currently undeveloped greenspace to urban sprawl over the next 30 years.

Given this pace of growth, Californians must make some hard decisions about where and how

new residents will be housed, educated, employed and entertained. Roughly 97 percent of Californians now live in what the Census Bureau defines as "urban areas," which total 8,175 square miles, or 5.2% of California's land area.⁶ Urban areas are defined as places with more than 2,500 residents, or with a population density of at least 1,000 people per square mile. In contrast, only 80 percent of New Yorkers live in such "urban areas." Yet on average, California's urban areas are developed to a density of less than 2 housing units per acre.⁷ This low density means that the growth projected for California in the first quarter of the next century and beyond could be accommodated without the loss of any additional open space, by simply using land more efficiently.

By using our land in a way that increases the average density in existing urban areas to an average of only 3 housing units per acre, all 18 million new residents could be housed without developing a single additional acre of open space.

Better planning for growth would also achieve benefits beyond land conservation. Putting more housing units on each acre of land decreases the land cost per housing unit, helping to provide more affordable housing. Higher concentrations of residents within walking distance of retail and entertainment businesses and public transit systems increase the viability of the businesses and the transit systems. Planned growth also increases the tax base for urban communities, boosting funding for services, schools, libraries, parks, and civic buildings.

As the 21st century is to begin, Californians have a choice: growth as a problem, or growth as part of a solution. Short-term, unplanned growth will inevitably result in a declining quality of life for all residents; sustainable growth will maintain and improve the quality of life in our cities, suburbs, and rural areas alike.

I. Sustainable Use of the Land

Land is a precious resource to be treasured, not a commodity to be squandered. Land is unique for its physical features (hills, valleys, waterways), the life it supports (plants, wildlife, and humans), and for its immovable nature. Substituting one piece of land for another is impossible, even if both are otherwise identical, because a fixed location is an integral and immutable characteristic of land.

And the land is finite. The earth's surface totals 197 million square miles, but only 29 percent of that is land. The earth's total land area is only 16 times that of the United States. The supply of land can never be increased in any meaningful way, regardless of demand.

As Will Rogers observed, they aren't making any more of it.

The way we use and develop the land must take these factors into account. For human habitations to be sustainable over the long run, our use of the land must be appropriate, respectful of the uniqueness of place, and mindful of its connection to the whole. Our decisions about use of the land must be made with a view to long-term benefits, not short-term gain. Truly, we do not inherit the land from our forebears as much as we hold it in safekeeping for our descendants.

Stewardship is a concept that goes to how we manage our resources, including land. As John Wise, Deputy Administrator of EPA Region 9 has pointed out, that while the concept of stewardship has in the past has been applied primarily to public lands, the need now is to develop new models of stewardship to address the issue of how we use private lands. In the past, according to Wise, we have mobilized public interests for private benefit, such as sales and leases of public lands for grazing, logging and mining; now we must find a way to mobilize private interests for the public benefit.



Only 29% of the earth's surface is land.

Thinking of a particular place as a “piece” of land, separate and apart from the adjoining land, and the land adjoining that, is to misunderstand the nature of the land. It is because of its uniqueness that land creates a sense of place and a feeling of connection to the rest of the earth. Lot lines and boundaries that we draw on maps help us order our use of the land, but there are no such demarcations on the surface of the earth.

Stewardship of private lands implies a need to balance constitutionally protected private property rights with social justice. Billionaire financier George Soros points out that, while laissez-faire ideology holds that free market mechanisms are self-sustaining and that its excesses correct themselves, the reality is that the deficiencies of unfettered free market thinking have impaired the ability of the state to act in the best interests of its citizens. Free market principles must be combined with “...some degree of altruism, some concern for our fellow human beings based on the principle of reciprocity.” According to Soros, such a society must “...recognize the roles of other than free market values.”⁸

The need has become clear for the development of mechanisms that can implement other than free market principles for the stewardship of both public and private lands, while honoring the constitutional protections for private property and free enterprise. While such a daunting task may be easier to conceptualize than to implement, it is nevertheless one which deserves our wholehearted efforts, for such mechanisms must form the foundation of new models of land use in the coming millennium.

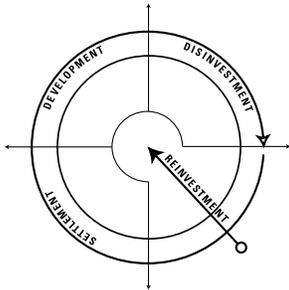
Urban sprawl—unplanned, low-density, automobile-dependent development—creates problems ranging from gridlocked traffic to incessant smog. It also cripples the cities and suburbs that are left behind. At the same time that it abandons existing infrastructure, it prompts spending for new infrastructure at sites increasingly distant from the urban core. Suburbs get most of the new jobs, yet public transit systems typically fail to correspondingly expand. The result is concentrations of unemployed and unemployable populations in urban areas; the decline of unskilled and

To maintain a high quality of life and sustained economic competitiveness, metropolitan regions need to address environmental, economic, and social equity issues in a holistic manner.

manufacturing jobs in cities has been matched by a lack of educational capacity to train underemployed residents. As tax revenue, private investment, and jobs follow housing to the suburbs, cities are forced to cope in a vacuum of economic opportunity. Many of the manufacturers that once anchored neighborhoods now sit idle and abandoned, often leaving a legacy of toxic contamination. These types of urban problems cannot be ignored from a social justice perspective, or a long-term economic one.

A recent econometric model of the New York City regional economy analyzing the competitive position of local industries found that quality of life, rather than taxes or regulatory policies as anticipated, proved to be the most significant factor in the region’s long-term competitiveness and capacity for positive economic growth. A National League of Cities study further demonstrated how increasingly interdependent cities and suburbs have become, their fates intertwined in economic, environmental and social ways. It also found that regions whose cities and suburbs had relatively small disparities in economic, environmental, and social factors enjoyed higher (sustained) rates of job growth and offered a higher quality of life than those with greater such disparities. Primary among the factors that create such disparities is an unplanned and unsustainable pattern of land use.⁹

Growth can be retargeted to urban centers through a combination of restraints and incentives.



Economic growth can bring jobs, tax revenues, and public services to our communities. But growth that results in excessive and haphazard land consumption diminishes the quality of life for all Californians. For the sake of our descendants as well as ourselves, we must begin to rethink the creation and use of the built environment. We must consider adopting new approaches to planning, designing, and building the places we call home. If the new jobs and business expansion are not captured in existing urban centers, we will see continued consumption of undeveloped lands on the outskirts of metropolitan regions—greenfields—and suffer the attendant environmental, economic, and social consequences.

The alternative is far more appealing: to revitalize large and small urban centers, from villages to core cities, in the name of protecting regional greenspace resources and enhancing the livability of our communities. Growth can be retargeted to such centers through a combination of restraints and incentives. On the state level, meaningful land-use regulation must be made a priority when addressing civic opportunities and cooperation among regions must be encouraged. Planning for growth is critical, both as to where we build, and as to how we build. It must entail finding places appropriate for development and creating population densities that are both economically feasible and livable.

To maintain a high quality of life and sustained economic competitiveness, metropolitan regions need to address environmental, economic, and social equity issues in a holistic manner. Any plan that fails to consider all three elements will not survive over the long-term. Public transit, workforce training, city revitalization strategies, preservation of greenspace resources, and the creation of governance mechanisms must be considered in light of their combined impact on the quality of life for Californians. Sustainability provides an organizing principle for these new approaches.

II. Sustainable Communities: An Organizing Principle for Long-term Planning

Sustainable use of the land sets the groundwork for the creation of sustainable communities. The task is to create places to live and work—in an environmentally responsible way—that support a vibrant and enduring economy, and that are socially equitable. The goal must be to “tunnel through” current practices of land use and development to a new paradigm of development that achieves synergy among these environmental, economic, and social factors. Environmental responsibility, for example, enhances livability for everyone, furthering social equity and creating a stable social order, thus stimulating economic activity. Sustainable communities are able to sustain a high quality of life for all their residents.

Sustainable use of the land begins by consciously choosing which places should be developed, and which should not, and making long-term plans accordingly. Public policy and practices can then be shaped to encourage appropriate urban and architectural design, pedestrian-oriented core areas, and neighborhoods that balance appropriate density with open space. Importantly, decisions about land use, and the practices and policies used to implement them, must adapt to local changes in population and needs. Outmoded policies and practices cannot support sustainable communities.

Quality of life and sustainability are terms that require definition and elaboration. Quality of life—the “signature preoccupation of the decade,” according to *Time Magazine*¹⁰—requires public policy strategies that take into consideration and meld such concerns as land

conservation, urban revitalization, resource efficiency, transportation, public education, and public safety. Policies must address regions as a whole, plan for the long-term, and consider the area’s quality of life for years to come. Although sustainability as a planning concept owes its origins to the notion of biological carrying capacity, especially in relation to renewable resources such as fisheries and forests, it is an equally valid concept for planning for the use of nonrenewable resources like minerals and land.

“Sustainability is a strategy for improving the quality of life while preserving the environmental potential for the future, of living off interest rather than consuming natural capital.”

The National Commission
on the Environment

The National Commission on the Environment defines sustainability as “... A strategy for improving the quality of life while preserving the environmental potential for the future, of living off interest rather than consuming natural capital. [It mandates that] the present generation must not narrow the choices of future generations.” But the concept of sustainability goes beyond environmental issues to envision a society that “can persist over generations, one that is farseeing enough, flexible enough, and wise enough not to undermine either its physical nor its social systems of support.”¹¹

Beyond Sprawl, a 1995 study of growth and land use in California sponsored by a coalition of business, environmental, and affordable housing organizations, deftly clarifies the relationship



Regional plan for San Diego, California.
(Photo courtesy of Calthorpe Associates)

among land use, quality of life, and long-term economic viability: “California businesses cannot compete globally when they are burdened with the costs of sprawl. An attractive business climate cannot be maintained if the quality of life continues to decline and the cost of financing real estate development escalates. People in central cities and older suburbs cannot become part of the broader economy if sprawl continues to encourage disinvestment, and the state can neither afford to ignore nor fully subsidize these neglected areas.”

The study goes on to propose that “California must find a new development model. We must create more compact and efficient development patterns that accommodate growth, yet help maintain California’s environmental balance and its economic competitiveness. And we must encourage everyone in California to propose and create solutions to sprawl.”¹²

On the agenda for building sustainable communities one finds concern for land use and development planning, economic development, housing policies, public education, regional transportation, community health, culture and the arts, and the way our governmental entities are designed and run. The making of sustainable communities is clearly about a holistic vision of organizing and running our communities. It transcends urban development, addressing public policies and practices in the environmental, economic, and social spheres.

The beginning point for the creation of sustainable communities is sustainable use of the land. Decisions about how we plan and use the land have a long-term effect on the sustainability of our communities and our quality of life. As one rancher expressed it, an overgrazed meadow can be allowed to regrow, but once a meadow has become a subdivision, there is no way to grow it back.

Sustainable communities in urban, suburban, and rural areas must seek innovative ways of ensuring their long-term survival and instituting change by taking the following factors into account:

- **Land use:** Sustainable communities reduce wasteful land consumption by promoting compact and contiguous development patterns, by discouraging greenfield development, and by encouraging infill development (development of by-passed and underutilized sites in already-urbanized areas).
- **Density:** The way we perceive congestion is a function of the ratio of open space (including streets and other public areas) to private space (areas defined by building perimeters and inaccessible to the public, such as private homes, offices, etc.).¹³ Sustainable communities achieve higher population density without the perception of crowding, by ensuring that there is sufficient public open space.
- **Sense of place:** Sustainable communities promote a sense of place by reinforcing the unique and characteristic attributes of the community, and by taking measures to protect the area's quality of life.
- **Human scale:** Sustainable communities promote infrastructure designs sensitive to the human scale, opening up the possibility of walking to work, shopping, schools, and entertainment.
- **Community:** Sustainable communities promote community involvement and support a rich cultural and community life by building appealing public spaces and supporting civic architecture where different social and economic groups are likely to interact.
- **Public safety:** Sustainable communities take measures to reduce safety hazards for people and property. They invest in greenways and other natural open areas which can help

lessen flood risks, steer new construction away from areas of geologic risk, and use nontoxic and earthquake-safe building materials and designs, for example.

- **Pollution and resource efficiency:** Sustainable communities look for ways to reduce air and water pollution and minimize the consumption of nonrenewable resources.
- **Locally based decision-making:** Sustainable communities institutionalize the processes that engage stakeholder groups in the local community to collaborate on important decisions about the community.
- **Housing:** Sustainable communities help provide housing opportunities for residents of all economic classes, and especially for public and service sector employees such as police, teachers, and nurses, all of whom should have a stake in the community's quality of life.
- **Social equity:** Sustainable communities help close the gap between economic classes and inhibit racial segregation in metropolitan areas by providing residents equal access to schools, transportation, and meaningful job opportunities.
- **Urban revitalization:** Sustainable community design helps to revitalize urban areas. It encourages the establishment and health of businesses and services in urban core areas, helps to break up concentrations of poverty, and stimulates additional private investment. Land recycling in inner city areas must not, however, become a euphemism for gentrification and its all-too-common byproduct: the migration, rather than the resolution, of inner city problems. Sights must remain fixed on generating wealth and empowerment in the neighborhoods themselves, capturing and building upon each neighborhood's unique assets and its potential to initiate meaningful change.

III. Unsustainable Development

“One subdivision, one shopping center, one office park at a time. But this is not planning; it is only a sequence of permits that consumes [land] and does not add up to a city.” Dwight Young¹⁴

Urban sprawl is characterized by inefficient land use that consumes land faster than the population is growing, and which is therefore unsustainable. It is the result of practices and policies developed to house soldiers returning from World War II, and is as inappropriate for the late 20th and early 21st centuries as the steam engine is for today’s transportation needs. These policies have forced metropolitan regions as a whole to pay for the inefficient consumption of land at the fringes. Cities suffer as a result.

An important characteristic of sprawl is segregated land uses. It segregates residential, retail, and office space uses as rigorously as it segregates housing for residents on the basis of income. The only connection is a maze of roads and highways. With walking and public transit options typically limited, driving becomes the essential mode of transportation.

Of the numerous factors fueling sprawl, the most important has been the rise of the automobile. Automobiles have profoundly altered the way we build and design our communities and have enabled us to live in far-flung locations and still be able to get to jobs and shopping. In many new communities, parking lots and garages

constitute the primary architectural attraction, eclipsing nearby buildings and homes. At the state and federal level, transportation decision-making is literally driven by cars, with the result being a continuing strong bias in favor of highway construction over alternative forms of transit.

Along with the automobile, the web of federal policies created after WW II, and still existing in most places today, has stoked the fire of sprawl. These policies, designed to encourage home ownership, unleashed a massive exodus to the suburbs within several years’ time—a move that has forever transformed the urban and rural character of this country. Unfortunately, many of these federal policies no longer support long-term interests; the times have changed, but many of our policies have not.



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Key federal policies and programs that need re-examining include:

- **Federal financing** of the interstate highway system, which has made inexpensive land at the urban fringe more accessible for development. Federal highway subsidies represent 44 percent of total capital spending.¹⁵
- **Low gasoline taxes** fail to reflect the true cost of driving as pollution and congestion take their toll.
- **Higher federal subsidies** for road building than for urban mass-transit systems. This has literally paved the way for suburban development.¹⁶
- **Federal assistance** for extending infrastructure and public services to the suburbs, such as sewer lines, schools, water systems, and gas and electric power.
- **Federal subsidization** of low-interest mortgages for veterans and borrowers of limited means for single-family homes, which stimulates subdivision projects.¹⁷
- **The federal income tax deduction** for mortgage interest payments, which rewards home ownership while it penalizes renters, most of whom are urban dwellers.

For years, American home builders and community developers have rationalized the perpetuation of the “business-as-usual” attitude by saying that they are only responding to market demands. The same mindset led Detroit automakers to continue to build inefficient, unsafe, and unreliable cars until foreign competitors offered smaller, more economical, and more reliable alternatives, nearly putting Detroit out of business. The fact is that people continue to buy three-garage houses in the suburbs because there is very little alternative

available for those in the market for a new home. And the evidence that Americans are ready for a change is mounting. According to *BUILDER Magazine*, a homebuilding industry trade journal, recent surveys indicate that “community” in the sense of a feeling of connectedness and involvement with one’s neighbors, is the amenity most desired by new homebuyers, yet most perceived to be lacking, in typical new subdivisions.

Policies as diverse as banking regulations and local land use ordinances work together to perpetuate sprawl. Treasury regulations implemented in the wake of the savings and loan scandal, and zoning laws designed to discourage development of low-cost family housing, for example, conspire to stimulate low-density housing. Large lot zoning (1 or 2 acres per home) began as a way to defer decision-making by local planning departments. When municipalities and counties realized that families with children put additional burdens on school systems and other services, and that family size was inversely related to house size (young families usually cannot afford the cost of larger houses), they simply kept the large lot zoning in effect. The result has been high land costs for California’s housing developers, driving them to build larger, more expensive houses on large lots. U.S. Treasury regulations dictate appraisal procedures for new housing which rely on unit measures (value per square foot of house and lot); the more square feet in a house, the higher the appraised value, the larger the construction loan, and the less cash the developer must risk.¹⁸



Celebration, Florida.
(Photo courtesy of
Walt Disney Imagineering)

The experience of the Walt Disney Company in the development of Celebration, a new 20,000-resident town in Florida, illustrates how successful alternative approaches can be. Celebration combines high-end and affordable housing for sale with economical rental units. The town's narrow, pedestrian-friendly streets are within walking distance of a town center with public buildings, parks, and retailers. According to a 1997 *New York Times* article, 5,000 potential buyers entered a lottery to buy one of 300 new homes in the community's first phase. Celebration continues to be the fastest-selling development in the Orlando area.¹⁹

The Nature Conservancy, with funding from The James Irvine Foundation, recently commissioned a series of eight focus groups in California to discuss sprawl and its impact. The participants included Caucasian and Latino homeowners and renters. Their perceptions of sprawl were generally negative and included associations with overcrowding, reduced open space, and lack of community. Reasons seen by the participants to build differently included the desire to save farmland, green space, natural habitats, and tax dollars, as well as to reduce traffic. The participants supported, among other things, creating zones to limit development and protect open space, instituting more comprehensive planning, and improving public transportation options.²⁰

After conducting a series of surveys using photographs, models, and questionnaires, Professor Anton Neleson of Rutgers University concluded that most Americans want an old-fashioned neighborhood where houses and stores are built around a traditional town square, where the streets are narrow, and the town's edge is well-defined and surrounded by open space and farms.²¹

IV. The Effects of Sprawl

The effects of urban sprawl on the environment, community well being, and the health of the state and local economies are felt immediately as well as over the long run:

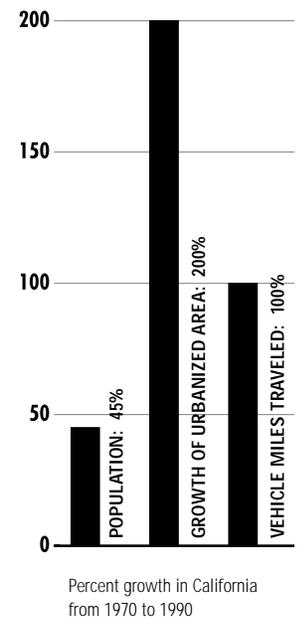
- **Duplication of infrastructure.** When new communities are developed at the urban fringe, new infrastructure, including utilities, roads, schools and other public services must be built, while old infrastructure in existing urban areas—previously invested public dollars—is underused and often abandoned. “The dual costs of providing new infrastructure for those who are moving outward, and maintaining the old infrastructure for those left behind, causes taxes and development costs to rise throughout the region,” according to Rutgers University’s Burchell. “This, in turn, causes a regional rise in costs of both doing business and residing in the area [all of which] makes companies and regions less competitive.”
- **Traffic congestion and air pollution.** Between 1970 and 1990, California’s population grew by 45 percent, but the total number of vehicle miles traveled by cars and trucks increased by 100 percent. According to federal highway officials, the traffic situation is only going to get worse. Congestion is expected to rise fourfold in the next 20 years.²² “Much of the nation’s population has been lured to [the suburbs] by the promise of space and security,” reports Equitable Real Estate Investment Management, Inc. “But many communities are now strangled by traffic congestion.” According to California officials, each day traffic congestion results in 400,000 lost hours, 200 tons of pollutants released into the air, and \$3.1 million dollars in added costs to the motoring public.²³ Of course the social costs,

“Two things that Americans hate are density and sprawl.”

Glenn Isaacson,
urban redeveloper

from commuter stress and frustration to a diminished sense of community and time lost with family and friends, are even greater.

- **Loss of irreplaceable open space and natural habitat.** Breathtaking landscapes, unparalleled natural resources, excellent quality of life—these are the reasons why people move to California in the first place. Each year, however, the state’s green space shrinks as development spreads. “Far from being just a luxury,” states the 1995 report *Beyond Sprawl*, “the value of open space is an important component in the state’s ability to attract and hold workers and investors.” It can be a critical habitat for birds and wildlife, as well. Over the past 200 years, 95 percent of California’s wetlands have been destroyed, and the few that remain are threatened.²⁴
- **Loss of agricultural land.** California’s \$24 billion agricultural industry provides 24 percent of America’s table food.²⁵ The state’s most prosperous agricultural region, the Central Valley, is expected to see a threefold population increase in the next 45 years as sprawl consumes farmland. Without wiser and more effective planning, sprawl will eliminate or indirectly affect more than half the irrigated farmland of the valley, reducing the value of the state’s agricultural products by \$2.1 billion annually. Put another way, the lost output would equal that of Oregon’s entire agricultural production. “The U.S. is squandering its best quality and often irreplaceable farmland,” the American Farmland Trust declared in its 1997 report *Farming on the Edge*. “As a country, we’re



limiting our options to deal with social, economic, food security, and environmental problems.”²⁶

Sprawl usually ends up costing towns more than it produces in revenue.

- **Fiscal burden on local governments.** Sprawl usually ends up costing towns more than it produces in revenue. New homes require new sewer and utility lines, public services, schools, and roads. All of which costs more than the property taxes generate. “In most communities, costs beyond the neighborhood level are not fully passed on to the consumer as part of buying a house,” writes James Frank in *The Costs of Alternative Development Patterns*.²⁷ “The costs associated with distance from central cities...are almost completely ignored in pricing schemes like impact fees. The inevitable results are to stimulate over consumption of housing in costly-to-serve circumstances and to subsidize the more costly locations with the less costly ones [i.e., downtown areas].”
- **Local governments are forced into self-destructive competition.** California voters have consistently fought high property taxes at the ballot box. The most sweeping initiatives have been Proposition 13 (1978) and Proposition 218 (1996), both of which placed strict limits on the collection of property (and most other) taxes. While this has eased the tax burden, it also has reduced public revenue streams to a trickle, forcing cities and towns to eliminate many important programs. To counter these losses, local governments pursue alternative funding sources in the form of sales tax revenues. Big-box retail and auto dealerships become appealing neighbors because they represent revenue sources to local governments. But in order to attract these projects, towns have to compete with each other to offer tax breaks and other financial inducements. The result is not the hoped-for revenue gain, but rather long-term burdens, in the form of increased demand for public services and limited tax revenues.
- **Abandonment of urban areas.** Sprawl not only affects rural areas, it creates a vacuum of economic opportunity in downtowns as dollars and jobs flee to the suburbs. The result is a donut-city, vibrant at the perimeter but increasingly hollow at the core. Poorer residents are priced out of suburban housing markets by large lot zoning which keeps housing prices high, and are forced to remain in urban areas far from where the new jobs are located.²⁸ With such high concentrations of poverty, property values plummet. Cities are forced to reduce social services at a time when the need for them is actually increasing. This scenario has turned many American cities into havens of crime, blight, and hopelessness.
- **Abandonment of older, inner-ring suburbs.** By leap-frogging into ever-greener pastures, sprawl also contributes to the decline of older, inner-ring suburbs that were once favored but can no longer compete well for private investment dollars. The 1990 census reports that more than one-third of American suburbs face problems typically considered “urban” problems, such as eroding tax bases, loss of a sense of community, plummeting housing prices, and rising poverty and crime. “It wasn’t supposed to be this way, this early,” wrote Timothy Egan in a 1996 series on Western sprawl in *The New York Times*.²⁹ What is clear is that sprawl exacts a toll on everyone in the metropolitan region, from the city dweller to the suburbanite and rural resident.
- **Eroding sense of community.** Sprawl alters the very fabric of our communities. A lack of connection to place, to one’s neighbors, and to the land one lives on creates a sense of isolation and alienation. It also drains interest in civic participation. No one pretends that the cookie-cutter subdivisions springing up on the fringe are communities. Most Americans actually consider them the antithesis of their “American dream.”

V. Redirecting Growth: Alternatives to Sprawl

Integral to the creation of sustainable communities is the redirection of growth in population and businesses to areas that are already urbanized. Land recycling is based on the same common sense logic as materials recycling. Places, like natural resources, represent a shared investment that should be reused and recycled, rather than discarded. Land recycling helps clean up and revitalize inner cities by returning abandoned, idle, or underused sites to productive use, creating jobs and boosting local tax revenues. By accommodating development that would otherwise occur in greenfields, land recycling also helps to protect open space, natural habitats, and agricultural land.

Land recycling represents a sustainable use of the land. It creates opportunities to build truly livable communities: efficient, compact, vibrant urban neighborhoods integrated with public transit systems, which offer a mix of uses as well as affordable housing. It opens up the opportunity for community involvement, an essential strategy for empowering residents and ensuring that new developments meet their needs. In these and other ways, land development can represent part of the solution to the growth-related problems facing California.

The principal features of a new paradigm of land use and development for 21st century California begin with reoriented public policies and practices that encourage intelligent land use and development. The foundation of such policies is comprehensive, long term planning which coordinates development and transportation. Such planning begins with the designation of conservation and growth zones; it protects

“Recycling isn’t just about cans and bottles; it’s a concept that applies equally well to land. Strategies for redeveloping industrial properties and older communities are crucial to prevent further environmental degradation and the spread of urban blight.”

The Chicago
Brownfields Forum³⁰

conservation zones, while encouraging and facilitating growth and development in designated growth areas. The removal of obstacles to development in urban areas with existing infrastructure, and the recycling of formerly used land and buildings, is as important as the creation of obstacles to development of greenfield sites. Incentives should also be created for the inclusion of designs, materials and construction methods that adhere to the principles of conserving energy, material, and water resources.

- **Designation of conservation and growth zones.** Sustainable use of the land begins with making conscious choices about which places should or should not be developed. Areas inappropriate for development include those that pose physical hazards, such as flood plains and earthquake fault lines, and those worth preserving, such as critical natural habitats, and places that should be accessible to the public for recreation.³¹
- **Protection of conservation zones.** Urban growth boundaries, greenbelt and conservation easements, and the use of ecological zoning can protect conservation zones. Cluster development, in which buildings are situated close together to allow for large areas of the site to remain undeveloped, is an application of this concept on a small scale.

- **Concentration of growth in areas with existing infrastructure.** One of the most important ways we can help manage growth in California is to redirect it away from greenfields and into already-developed urban neighborhoods. Inner cities are already served by public services, utilities, roads, and public transit networks. They offer easy access to jobs, shops, and other amenities. Some of these sites border desirable waterfront areas.

Real Estate Research Corporation (an affiliate of ERE Yarmouth) recently noted that “Over the next 10 years, the graying baby-boom generation will be facing grandparenthood in empty nests surrounded by big, fast-growing lawns ... lots of yard work and a rusting basketball hoop over the garage.” The firm predicts an exodus back to the city: “Watch many 50-year-old boomers, with or without aching backs, start returning to (vibrant) cities for shorter commutes and easier-to-care-for living quarters.”³²



The Denver Dry Goods in downtown Denver, converted from a 100-year-old department store into affordable housing, offices and retail stores. (Photo courtesy of Affordable Housing Development Corporation)

- **Redevelopment of brownfield sites.** The many empty lots and abandoned buildings in inner cities that are contaminated (or believed to be contaminated) fall into the category of brownfields. Brownfields constitute 5 to 10 percent (260,000 to 520,000 acres) of California’s urban real estate, not including closed military bases.³³ At the current urban area density of less than 2 housing units per acre, California brownfields alone could accommodate a million or so new families and still fit within the definition of “urban area.” At higher densities appropriate to core areas, and while ensuring the presence of adequate amounts of open space, these brownfield sites could house 10 to 20 million families without consuming any additional green space.
- **Removal of obstacles to infill development and the reuse of formerly used land and buildings, and creating incentives to develop them.** Abandoned land and buildings can be viewed as untapped deposits of economic opportunity; well-located brownfields offer utilities, access to workers, and an established public transit system. Data suggest that many groups—particularly young, working individuals and the elderly—prefer to live in cities. Experience in England and other countries indicates that appealing housing choices in close-in locations are increasingly the preferred choice of aging baby boomers. Projects that offer a variety of housing types and sizes in different price ranges, along with easy access to a variety of retail and entertainment resources are being met with strong demand.

Redevelopment of brownfields still poses a range of challenges, however, which have historically tarnished their appeal, particularly in contrast to greenfield sites. Developers worry about safety risks from environmental contamination, the proximity of economically depressed neighborhoods, and the specter of a

protracted and rancorous permitting process. While these risks are often more perceptual than real, the perception alone can sufficiently discourage redevelopment.

- **Design and construction which recaptures patterns that have proved successful in creating livable neighborhoods.** While many people say that they dislike density, the fact is that low-density sprawl fails precisely because it lacks density. We can build more charming and livable urban spaces by increasing the average density in the lowest density areas—the suburbs—and decreasing average density in urban areas. The trick is to provide adequate open space.

Designing livable neighborhoods has been the focus of much debate and experimentation over the past two decades. Some of the results of this work, such as the ideas of the Ahwahnee Principles (see next page), and models of the New Urbanist movement (also referred to as traditional neighborhood design), draw on the proven and successful community forms of the past that seem to have been forgotten in the postwar suburban boom. Since much of this work has focused on the design of the physical environment, it has so far neglected social issues and community building. Additionally, many of the communities developed with these principles have been in greenfield locations. An approach to neighborhood design which combines New Urbanist principles with land recycling, green building technology and other sustainable community principles, would have the potential to transform and sustain California's urban areas as vibrant, livable communities.

- **Design and construction that adheres to green building for conserving energy, material, and water resources.** Like New Urbanism, green building technology focuses more on the infrastructure's

Ecological development is community design and construction that draws on ecological principles in order to more closely integrate the built environment with the natural environment. A 1996 publication of the Urban Land Institute set forth the following principles for ecological development:³⁴

1. Choose the development site intelligently.
 2. Respect the uniqueness of the place.
 3. Choose materials to maximize durability, minimize waste, and eliminate the use of toxic substances.
 4. Design on a human scale.
 5. When designing communities, allow for individual expression, healthy change, and the evolution of a unique character of place.
 6. Integrate design, materials, and systems.
 7. Factor the local climate and culture into the design.
 8. Minimize disturbance of the site.
 9. Use materials wisely.
 10. Optimize the building shell.
 11. Optimize the efficiency of systems.
 12. Plan for water conservation and recycling. Operate buildings in an environmentally responsible way.
 13. Take the lead in implementing the principles of ecological development.
-

physical form than on the community that uses it. But it offers important ideas and models for sustainable urban communities. Buildings consume some 40 percent of the materials used in the world each year, and account for a third of total world energy consumption.³⁵ By designing buildings to consume less electricity through passive solar design, natural daylighting, and energy efficient technologies, total energy consumption could be reduced by 80 percent or more. This translates into fewer coal burning power plants, reduced air pollution, and less contribution to global warming. By designing buildings to use less water through efficient faucets, toilets, and other appliances, we reduce the consumption of ground water

and rivers. By building for durability and adaptability, we create buildings that do not have to be demolished in 20 or 30 years when they are functionally obsolete or beyond repair. By choosing nontoxic products we reduce indoor air pollution and health risks associated with the buildup of illness-inducing volatile organic compounds in tightly sealed buildings. And by designing buildings to work

more closely with weather and other natural processes, we help put the inhabitants more closely in touch with nature, even in the most urban of settings.

- **Reorient public policies and practices to protect long-term quality of life.** Create a new paradigm for land use and development that incorporates these practices into public policy in a coordinated, statewide manner. Policy initiatives could be implemented at the state and local levels that cover the following aspects of land use:

The Ahwahnee Principles were created by a group of six architects who have been leaders in developing innovative land use planning designs: Andres Duany and Elizabeth Plater-Zyberk, Stefanos Polyzoides and Elizabeth Moule, Peter Calthorpe, and Michael Corbett. Convened in 1991 by the Sacramento-based Local Government Commission, the architects were asked to develop a set of land use principles that would provide an alternative to sprawl-like development. The principles were presented to 100 locally elected officials at the Ahwahnee Hotel in Yosemite National Park and met with enthusiastic praise. Since then, over 120 cities and counties throughout the state have adopted them, in whole or in part, into their general plans.³⁶ The Ahwahnee Principles can be summarized as follows:

- **Community Principles**

All planning should be in the form of complete and integrated communities that have mixed uses, pedestrian-oriented downtown areas, access to public transportation, recreational parks and open space, and a diversity of housing types. Towns should have a defined edge (i.e., greenbelt), and they should provide for the efficient use of energy.

- **Regional Principles**

The regional land use planning structure should be integrated within a larger transportation network that is built around transit rather than freeways. Regions should be bounded by a continuous system of greenbelts, and all regional institutions and services should be located in the urban core.

- **Implementation Strategy**

Local plans should be updated to incorporate the above principles. Rather than allowing piecemeal development, local governments should take charge of the planning process by clearly deciding where new growth, infill, and redevelopment will occur.

1. **Development priorities.** Comprehensive and far-sighted land use and planning is needed to inventory and designate areas appropriate for both conservation, and development.
2. **Transportation.** Integrated planning for cars, public transit systems, bikeways, and pedestrians must be initiated.
3. **Planning.** Regional-scale planning must be initiated to coordinate economic, environmental, and social concerns, and to minimize overlapping programs that end up being repetitive and wasteful.
4. **Affordable housing.** Mechanisms must be created to stimulate private sources to invest in and promote affordable housing.
5. **Funding.** Market mechanisms must be created to motivate private investors and developers to look toward urban areas rather than greenfield locations.
6. **Governance.** Ways must be found to strengthen community-based decision-making for planning and development decisions. Local decisions need to be made at the grass roots level, within the context of coordinated statewide sustainability goals, and with adequate incentives for making them succeed.³⁷

VI. Brownfields: Perception versus Reality

Land recycling has the potential to transform not only communities but also entire regions; it can trigger significant economic revitalization of urban areas while reducing the pressure to develop rural land. This powerful combination represents a particularly important tool for California, where the public call for more rational growth is getting louder.

An effective land recycling strategy requires action on several fronts. It involves removing incentives that fuel sprawl-like development, and reflecting the true costs of sprawl in the price of greenfield development, including the costs of air quality and water quality degradation, as well as traffic congestion. It requires the creation of smart alternatives to low-density sprawl, such as transit-based, traditional neighborhoods and mixed-use communities and the removal of obstacles to brownfield site cleanup and land recycling (be they legal, regulatory, financial, institutional or technical). An effective land recycling strategy also demands strong incentives for public and private investment in brownfield sites, especially those in the inner city.

Land recycling is more about land redevelopment and economic development than about toxic contamination. Clearly, however, contamination represents one of many obstacles on the way to redevelopment. Many formerly-used sites are contaminated to some degree, and those with even minor contamination problems often get trapped in a legal labyrinth created to deal with more serious toxic waste sites. How to deal with the potential costs, uncertainty, and liability that contamination on a recycled site can pose is a critical consideration when attempting to encourage the reuse and recycling of sites.

Brownfields: What Are They?

The U.S. Environmental Protection Agency (EPA) has defined brownfields as “abandoned, idled or underutilized industrial and commercial sites where expansion or redevelopment is complicated by real or perceived contamination that can add cost, time or uncertainty to a redevelopment project.” The federal Office of Technology Assessment adds that brownfields tend to be poorly located, have old or obsolete infrastructure, and feature other intangible factors linked to neighborhood decline. All pose obstacles to redevelopment.³⁸

State and federal agencies create public lists of only those sites that fall within certain categories; many obsolete and privately owned properties do not make it onto such lists. Nor do “residential brownfields”—older public housing projects and slum apartments that may not be contaminated, but which are nevertheless perceived to be impaired. Most brownfields can be found in inner cities and older suburban areas, although many rural facilities, including a large number of closed timber mills and defunct mining operations, are also considered brownfields.

A broader definition of brownfields might be: residential, commercial, or industrial land or buildings in already-developed urban, suburban, or rural locations which have been passed over for development or redevelopment due to actual or perceived contamination of the soil, water or structure, or because of intangible factors related to the site's location.

Greenfields, in contrast, are undeveloped lands on the outskirts of metropolitan regions that offer prime targets for future development. Most development occurs in greenfields because it is so much easier to do, and because public transportation, housing, tax, and insurance policies all support and subsidize it.

Land recycling is more about land redevelopment and economic development than about toxic contamination.

The U.S. Congress passed the Superfund law (the Comprehensive Environmental Response, Liability and Compensation Act of 1980, or CERCLA) in response to the Love Canal situation, in which an entire neighborhood was destroyed by toxic contamination. Under Superfund and related laws, both government agencies and third parties can sue the owner or operator of a site for cleanup of subsequently discovered contamination, as well as for damages for bodily harm and reduced property values, even if that owner or operator did not cause the contamination.

Although designed with noble goals, Superfund has had some unintended consequences for urban areas. As a result of the law, private and public sector developers were scared away from contaminated sites by conflicting regulations, uncertainty regarding the cost and time involved in cleanup, and concerns about long-term liability risks. Why should developers bother with such sites when greenfields are so much more profitable, with less risk, and supported by numerous public programs? The Superfund stigma resulted in recyclable urban sites across the nation, with even the possibility of contamination, becoming dead zones. That situation is rapidly changing.

The term “brownfields” was introduced when the EPA and state agencies set out to mitigate the negative effects of Superfund. In 1992, EPA “archived” or delisted the least contaminated sites—all but about 1,500 of the sites on the original Superfund list. EPA’s emphasis shifted from punishing polluters to encouraging redevelopment of delisted sites in a manner which resolved health concerns while creating needed jobs and housing in inner city areas.

Consider the factors that discourage redevelopment of brownfields:

- **Market factors:** The old real estate maxim applies here: location, location, location. Sites located in or near distressed urban areas raise concerns about crime, safety, the presence of a skilled labor force, and school quality, among other things.
- **Environmental liability risks.** Most states, including California, followed EPA’s lead and instituted state laws equivalent to Superfund. Under current federal and most state Superfund laws, liability attaches to any current or past property owner (with some exceptions), regardless of who actually contaminated the site. This has thrown a chill on many projects even in the presence of regulatory reforms designed to encourage redevelopment. In many cases, owners of contaminated properties conclude that it is less risky and cheaper to “mothball” a facility than it is to conduct a site assessment that could trigger large cleanup costs and potential liability.
- **Uncertainty and cost.** Tens of thousands of dollars can be spent to determine what is on a site before any commitment is made to proceed with a project. When contamination is discovered, however, it can often be cleaned up cheaply and quickly. But reluctance to spend money on initial assessments leaves brownfield sites in development limbo.
- **Complicated and confusing regulatory requirements.** A morass of vague, overlapping, and sometimes conflicting requirements at the state, federal and local levels forces developers to bring in lawyers and consultants to make sense of what is required to redevelop a site.
- **Difficulty obtaining project financing.** It is nearly impossible to obtain private front-end financing for cleanup, and long-term financing

for cleaned-up sites is often on terms more onerous (lower loan-to-value ratios or higher rates) than those for greenfield sites due to a fear of default and loss of collateral on the part of lenders.

- **Concerns about community opposition.** Brownfields are often in urban areas where people are living nearby. Community members may oppose a project, raising the possibility of additional delays and increased costs.
- **The lure of greenfields.** Brownfields must compete with attractive suburban and rural greenfield locations. Given the real or perceived additional risks and costs of brownfield development, the rational economic choice is more often than not in favor of the greenfield site, especially when lenders and investors are pushing in that direction.

But now, consider the opportunity those large tracts of “diminished-value” land in California’s urban, suburban, and rural areas present. There are at least 400,000 recyclable sites in the United States, and more than 38,000 are in California. And these numbers only reflect sites that appear on public inventories. Estimates of how additional sites would alter the total do not always agree, but they do all point to one conclusion: brownfields represent a significant real estate asset. Conservative estimates put the total acreage of brownfields at 5 to 10 percent of the nation’s total urbanized area, with some metropolitan areas hosting a far greater percentage than others.³⁹

The feasibility of developing these sites ranges widely. On one end of the spectrum are sites with high land value and relatively low cleanup costs. These are usually found in desirable locations and have a readily identifiable and economically feasible end use. They have relatively minimal contamination (where the



There are at least 400,000 recyclable sites in the United States, and more than 38,000 are in California.

contamination is of a type that is relatively easy to treat, and the cost involved is minimal relative to the land value) and can usually be redeveloped without public assistance. On the other end of the spectrum are sites with low land values, no readily identifiable uses, and high cleanup costs. Most such sites are found in distressed inner city locations and are likely to yield the greatest benefit to local communities if redeveloped. Cleanup and redevelopment of such sites requires significant public subsidy.

Between these two extremes are the marginal sites. To make redevelopment of the site feasible, the public sector needs to get involved, investigating and possibly cleaning up the site. Public investment of this type, in a marginal site, can produce a ripple effect and stimulate private sector interest and investment in the neighborhood.

Contamination is only one of numerous factors that affect the redevelopment of urban areas. Pollution must be put into perspective, placed along with other line items in the pro forma. Brownfield development is about policy reform that offers incentives to redevelop marginal sites, and leverages public dollars with private investment to revitalize our cities and suburbs.

Brownfield Success Stories ⁴⁰

Many communities have begun to discover the transforming potential of brownfield reuse. New neighborhoods, parks, office buildings, and shopping areas are sprouting up where old rail yards and vacant lots used to be. Abandoned historic buildings are being adapted for new life. Some inner-ring suburban neighborhoods, until recently bleeding out jobs and residents to the outer suburbs, are now being revived as places that encourage walking and public transit.

In California, private developers and the public sector have already tackled land recycling on a large scale. The following success stories provide the economic, environmental, and social justification for coordinated, large-scale brownfield projects in all metropolitan regions.



Marina Village, Alameda, California.
(Photo courtesy of KenKay Associates)

Alameda. A former shipbuilding yard in Alameda was converted into a 206-acre mixed-use community called Marina Village. Marina Village now embraces 178 residences, 1 million square feet of office space, research and development facilities, a restaurant, a school, an inn, and a yacht club with more than 1,000 boat berths. It offers access to mass transit and the waterfront, combining uses in a way that

preserves the livability of its residential areas. Built in phases over 13 years, Marina Village won the Urban Land Institute's 1991 Award of Excellence.

San Francisco. In San Francisco's Potrero Heights neighborhood, the site of a collapsed railroad tunnel was stabilized and converted into market-rate townhouses and apartments. The project also includes artist spaces and a terraced native-plant garden called Stallion Park. Now fully occupied, the project won the American Institute of Architects' 1996 Merit Award.

Los Angeles. Not far from the epicenter of the 1992 riots in south central Los Angeles, a dilapidated 320-foot-long factory has been converted into a striking new office building. The Samitaur Building now houses a Fortune 500 company and could ignite large-scale revitalization in the neighborhood.

Sacramento. A 240-acre vacant rail yard north of downtown Sacramento is being redeveloped into a neighborhood with housing, shops, parks, open space, and schools in walking distance from one another. The project creates opportunities to improve regional public transportation by putting more residents within walking distance of stations, and by increasing access to the Sacramento River waterfront. The city is also rezoning another 1,000 acres of underused industrial land near the rail yard and encouraging the development of various types of businesses and services there.

VII. Tools and Lessons: What Works

The hurdles to redeveloping brownfields as a land recycling strategy are formidable, but they can be overcome if the proper economic incentives are in place. Public and private investment, channeled by a combination of market forces and intelligent public policy, will ultimately move land recycling forward.

Today's success stories feature a combination of local sponsorship and workable, community-supported end uses for recyclable sites.

Approaches which are working include state voluntary cleanup programs, risk-based cleanup (site planning and building design that incorporates site cleanup into the design and construction process), community-based decision making, strategies to minimize liability, partnerships which leverage private investment with public resources, incentives for redevelopment, and the involvement of nonprofit organizations. Ultimately, though, public policy reforms must provide the foundation for ongoing, large-scale land recycling.

- **Voluntary cleanup programs.** State cleanup programs designed to spur redevelopment of brownfield sites offer purchasers and lenders guidance on cleanup standards and protection from liability, help clarify regulations, and in some cases provide financial assistance. Michigan, Pennsylvania, and New Jersey have the country's most progressive voluntary cleanup programs and can claim notable success in spurring redevelopment, especially of industrial sites.



- **Risk-based cleanup.** This systematic approach involves identifying the types of contamination present on a site, assessing and managing the risks of exposure, and minimizing the impact of the contamination, rather than completely removing it. Risk-based cleanup offers the advantage of finding out about critical issues up front, and eliminating unnecessary testing or treatment. But greater certainty often comes at the cost of more work and planning at the beginning of the project, as well as the challenge of working with the local community to avoid the perception that the cleanup is less than optimal from a health standpoint. Community stakeholders sometimes take the position that nothing less than a complete removal of contaminants will do; risk-based cleanup can provide a framework for informed communication and decision-making in collaboration with the community, but to date the perception of it as a cost-cutting measure has limited its conflict resolution potential.

- **Community-based decision-making.** Ensuring that a given cleanup plan will benefit the community can cause a clash between concerns for public health and safety, and project feasibility. Plans to build an affordable housing project on an old gas station site that has contaminated soil, for example, may not be feasible if the community insists that all the petroleum-contaminated soil be removed. Finding the solution often requires facilitated collaborative problem solving. Involving the community from the beginning of planning can not only alleviate concerns among residents, but can also serve to satisfy feasibility objectives, and ultimately make a promising project work.



Community workshop in progress.
(Photo courtesy of Calthorpe Associates)

- **Limitation of liability.** Administrative reforms have provided relief from concerns about potential Superfund liability, while retaining the leverage to enforce cleanups by flagrant polluters. Insurance which caps cleanup costs and insures against undiscovered future contamination is available, though its practical use is limited by its cost and often restrictive underwriting. Additional protections for innocent purchasers and lenders would help calm fears about Superfund liability.
- **Public/private partnerships.** Private investment is vital to large-scale cleanup and urban revitalization. Yet there are restrictions on private developers that no amount of capital can overcome. Public agencies do not have the capital to do the job themselves, but they do have the power to assemble, plan, and entitle large land tracts in preparation for private investment. Working together in partnership, public/private coalitions can leverage public investment with private capital, and accomplish together what neither could have achieved alone.
- **Incentives for redevelopment.** Various tax benefits can help offset the cost of cleanup. Such benefits include the new federal Internal Revenue Code Section 198, enacted as part of the 1997 budget, which allows for the deduction of cleanup costs as they are incurred (rather than capitalizing them like other improvements), and programs such as Chicago's real estate tax relief for cleaned-up brownfield properties.
- **Nonprofit involvement.** Nonprofit organizations can perform vital functions in land recycling and urban revitalization. Community-based non-profits can help engage community stakeholders and ensure that community needs are met. They can also help assure business and development sector participants that the community will support efforts to redevelop brownfield sites. Issue-oriented non-profits such as CCLR can bridge the gap between public and private sector participants, to form effective partnerships and generate projects that are likely to succeed.
- **Public policy reform.** Administrative and regulatory reforms need to be made in an integrated manner, with coordinated provisions for liability protection, regulatory certainty and funding. Statutory reforms should protect innocent parties against Superfund liability and third party actions, effectively delegate federal enforcement authority to the states, encourage voluntary cleanup programs, and make cleanup standards more realistic and regulatory procedures easier to understand.

Recycling Brownfields for Use as Parks and Open Space

Land recycling not only opens the door to sprawl-free economic growth, it presents a chance to create new urban parks and undeveloped open spaces. In Sacramento, El Paseo Nuevo will focus on a new green space to be surrounded by such civic amenities as a library, a day care center, and a church. The redevelopment of Sacramento's Southern Pacific rail yards will create a new waterfront park. In Whittier, the Trust for Public Land has joined nonprofit organizations and local governments in reclaiming former oil fields for the purpose of carving a 3,000-acre open space network throughout southeastern Los Angeles County.



Combining Brownfield Reuse with the Creation of Traditional Neighborhoods ⁴¹

When coordinated with traditional neighborhood design and transit improvements, land recycling can foster the types of sustainable communities that sprawl so effectively destroys. Traditional neighborhood design revives the best aspects of older neighborhoods and commercial districts. Elements of this type of design include streets that accommodate pedestrians, placement of schools, jobs, shops, and other services within walking distance of homes, encouragement of a mix of business uses and housing types, and plans for compact growth. Around the country, communities are finding innovative ways of revitalizing depressed areas by combining brownfield reuse projects with traditional neighborhood design schemes that preserve the area's historic character.

Mountain View, California. Over the past 10 years, Mountain View has completely rebuilt its downtown. By repairing the streets, building a new city hall, and redesigning the train station, the town of 60,000 has attracted \$150 million

of private investment to its core. Once empty storefronts now bustle with new businesses. On 18 acres next to downtown, an old shopping mall was razed and replaced with townhouses oriented toward pedestrians and transit connections.

Suisun City, California. Down-at-the-heels Suisun City forged a swift and remarkable comeback recently by converting vacant industrial property into new homes and businesses. Rated the Bay Area's "worst place to live" in 1989, the city of 26,000 has since attracted millions of dollars of private and public investment. Using redevelopment powers and tax-increment financing, Suisun City has rebuilt its very image along with its waterfront and Main Street. It has created new pedestrian and transit-oriented neighborhoods. The city's tax base has improved to the point where it can start building new parks and recreation facilities. The town's population is expected to increase 15 percent by the year 2,000.

The Crossings, Mountain View, California. (Photo courtesy of Calthorpe Associates)

Conclusion

As California moves into the next century, we are beginning to recognize that current land use and development patterns in our state cost us in countless ways.

We, and generations of taxpayers to come, will be paying for the true costs of such development for years, from polluted air and water to burdensome highway construction and maintenance. Pressure is growing on governments and business to reform public policy and find intelligent ways of managing land use. Even mainstream investors are starting to realize that unrestrained free market mechanisms will perpetuate sprawl at the expense of declining and abandoned cities until all the costs of development are internalized. The 1997 report *Emerging Trends in Real Estate* notes that “real estate investors should be extremely concerned about the future of the suburbs. Suburban America is a rapidly evolving and de-stabilized market.”⁴²

Can technology and economic growth correct the errors of yesterday and lead the way to the sustainable communities of tomorrow? Quality of life is central to economic viability. Better land use decisions can preserve open space while simultaneously stimulating economic development in urban areas. Better urban planning can make denser, mixed-use communities more livable. Better building designs can reduce consumption of material, electricity and water, while creating more comfortable and productive places to live and work. But these strategies will not be effective if they are not implemented.

Economic growth is vital to sustainability. It can create jobs, tax revenues, public services, savings for investment, and personal and community wealth. But not if a laissez-faire approach to market mechanisms prevents and equitable distribution of the benefits to all segments of the population. Implementation of a sustainable future depends on the ability of urban core areas to attract private investment capital. Such investments cannot be mandated, but they can be stimulated through various types of incentives, while disincentives can be created to deter the continuation of business-as-usual.

Technology and economic growth can pave the way to a sustainable future only if they are incorporated into a holistic plan for long-term prosperity which combines bottom-up, locally implemented solutions to achieve region- and state-wide sustainability goals. Without such a plan, our growth will inevitably lead to more problems and a declining quality of life throughout the state. The creation of sustainable communities in California in the 21st century will depend on our ability to envision common goals, to plan their implementation, and to invest wisely.

Land recycling is the vital tool for making California a more livable place for all its residents in the years to come. Land recycling can form the centerpiece of a more sensible, and sustainable, approach to land use and development. Its intelligence lies in its ability to channel resources into areas that are already developed while simultaneously protecting California’s open spaces and bountiful

The creation of sustainable communities in California in the 21st century will depend on our ability to envision common goals, to plan their implementation, and to invest wisely.

agricultural areas. The wisdom of redeveloping brownfield sites, from old manufacturing plants to coal gasification plants, corner gas stations, dry cleaning plants, and abandoned inner city housing projects, is hard to challenge. It brings jobs to inner city neighborhoods, helps people get off welfare, encourages clean air throughout the region by giving people transportation options other than driving, preserves productive land, and aids the agricultural community. This is not “anti-growth.” It is pro smart growth, a way to insure that we can continue to grow in the future by using land wisely.

Continued long-term prosperity for California depends on our ability to sustain a high quality of life for all our residents. Land use and development decisions are the foundation upon which sustainable communities can be built. Land recycling to preserve open space and revitalize urban communities is a sustainable strategy for land use and development that can ensure quality of life and prosperity for the benefit of future generations. The times call for the adoption of a new land use paradigm—founded on land recycling—which tackles common problems through collaboration and economic incentives, which will revitalize our cities, protect and restore our open space, and invigorate our economy.

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