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A R I Z O N A **P O L I C Y** C H O I C E S

Growth in Arizona: *The Machine in the Garden*





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A R I Z O N A P O L I C Y C H O I C E S

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Morrison Institute for Public Policy



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About *The Machine in the Garden*



Arizonans have been divided in their feelings about growth and what to do about it, especially during the past two decades. To complicate matters, the debate over the best responses to growth has been drawn along overly simplistic lines—the economy versus the environment. Arizonans who follow the myriad issues related to urban growth closely are becoming convinced that the discussion needs to be recast in a new light.

Scholar Leo Marx coined the phrase “the machine in the garden” in 1964 to describe the relationship between nature and technology. Considering much of the writing about Arizona’s growth, it seemed an apt title for this volume of *Arizona Policy Choices*. *The Machine in the Garden* presents growth policy choices for Arizona along a continuum: Yesterday’s Growth—the policies that have been used in the past; Today’s Growth—the “smarter” approaches from around the country; and Tomorrow’s Growth—cutting edge thinking about the economy and experiments in urbanism and governance.



Our approach is illustrated through original articles and reprints from national sources that are categorized according to the three points on the continuum. Morrison Institute for Public Policy is pleased to present this wide variety of viewpoints and to sponsor a lively “debate in print.” As you read the articles, ask yourself: What policies will serve Arizona best in the next century? How can we keep our economy strong and preserve what we value about the state?

Ten years ago, the Arizona Legislature asked Morrison Institute to write a book entitled, *Urban Growth in Arizona: A Policy Analysis*. It included the following description of Arizona’s future.

Arizona can expect more of the same relatively rapid growth which fluctuates according to economic cycles and is largely sprawling, mostly unplanned, and may be counter to the lifestyle interests—if not the pocketbooks—of most Arizonans. An object in motion stays in motion.

Ten years from now we hope that this volume of *Arizona Policy Choices* is viewed as a tool that significantly helped our leaders to shape the state's growth policies so that Arizona’s momentum truly benefits its residents.

Rob Melnick
October 1998



Arizona's Growth Continuum and Policy Choices

John Stuart Hall

Professor, School of Public Affairs, Arizona State University



Arizona's Growth Continuum and Policy Choices

John Stuart Hall, Ph.D.

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Growth has been a topic of resounding importance in Arizona since statehood. The facts of Arizona's astounding growth are fairly clear. But like all significant topics of public policy, the meaning of these facts demands further investigation. This issue of *Arizona Policy Choices* explores how the growth machine has functioned in the garden of our state, and it presents a new paradigm for future discussion.

For decades, observers of the state's public policy have discussed and debated the implications of amazing increases in population, jobs, and development. It was often said that "growth to Arizona is like cars to Detroit," a comment that reflected the generally accepted importance and inevitability of growth.

Naturally, growth of the magnitude experienced in Arizona also has raised questions and doubts. Any thoughtful person would wonder about the consequences of more than a quadruple increase in the state's population over the last four decades. Powerful, complex, and invasive, growth raises big questions that will not go away. Should sustained growth be viewed as evidence of the fulfillment of or the deferment of the "American dream?"¹ What is the price of progress? With characteristic eloquence, historian Marshall Trimble addressed the latter question:

Early pioneers braved sandstorms, droughts, hostile Apache, and blistering heat to carve out a living in the inhospitable environment. Building highways, cities, and dams, they learned to harness the rivers and create energy, thereby making the turbulent land inhabitable for large numbers of people. However, as with all things in the environs of nature, something is lost when something is gained.²

Despite the many obvious personal, economic, social, and environmental aspects of growth, the debate has been vastly oversimplified to be just developers versus environmentalists. It is through this very narrow frame that policy choices have been examined. This edition of *Arizona Policy Choices* moves beyond such a simple approach to growth and offers additional choices for discussion and action.

A Continuum of Choices and Ideas

Think about Arizona's growth as a continuum which runs from yesterday to tomorrow with an intermediate stop at today with choices and ideas all along the way. This overview presents the reader with our new framework for policy discussion and describes articles that illustrate the essence of a particular policy choice. Although not every one of the more than 30 articles in *The Machine in the Garden* is previewed

here, they all contain important, often provocative ideas and context.

Yesterday's Growth—The Market Reigned

Policy Choice: Let the Market Continue to Govern

Arizona was one of the nation's fastest growing states in recent decades because many key players believed that growth was beneficial. A recent study of growth in the Southwest determined that "the aggressive pursuit of growth dominated the policy agendas" of private and public leadership in the southwest for much of the twentieth century and that private sector leadership in Arizona was particularly assertive and effective in this role even when compared to the pro-growth stances of neighbors such as New Mexico, Texas, and California.³ The prevailing view was that growth was good for Arizona and, despite growth's multiple challenges, there were few naysayers.

The bottom line of this policy choice is that market-driven growth has been good to Arizona and should be continued and enhanced. Several contributors to this section emphasize the need to build on our existing growth patterns and processes.

Historian Peter Iverson's article in this volume makes the case that Arizona has always been an urban place, because economic and environmental factors required its residents to organize in communities. He sees no real change in this general theme:

More varied voices are heard now in regard to the price of progress, the consequences of construction. Nonetheless, the conventional wisdom, established a century ago, prevails. Growth remains linked to progress and prosperity, to individual freedom and voluntary separation from social and economic ills. Most Arizona citizens still accept the dichotomy offered by the *Gazette* a century ago. If dry rot appears to be the only alternative, then there can be little doubt about the contours of the future in this urban place called Arizona.

Growth in one form, such as population, begets growth in another, such as housing construction or service aspects of the economy. Authors Tom Rex of the ASU Center for Business Research and Patricia Gober, Professor of Geography at ASU, provide thorough and thoughtful descriptions of the economic and demographic aspects of urban growth in Arizona and Phoenix regional contexts. Both demonstrate that growth can be defined in different ways, but that its essential components—population, land area, housing units, jobs—are highly correlated.

Attorney and Arizona land expert Grady Gammage argues that as the "prototypical

post-industrial city” Phoenix should embrace its present form, and rather than importing standard growth management solutions from elsewhere, build on an understanding of the nature of desert communities and “capitalize on our multi-centered form to further disperse and diversify work activities.” Similarly, representatives of home builders (Tom Simplot) and agriculture (Rick Lavis) offer strong arguments in support of the power and promise of market forces. And, this policy theme—that individual choice and market forces should drive development decisions—is also promoted by Samuel Staley of the Reason Public Policy Institute in his provocative article about the virtues of suburban life.

Today’s Growth—The Smarter Growth Response

Policy Choice: Adopt New Tools and Processes to Manage Growth

As people have grappled with the challenges of growth in Arizona, a long list of ideas, tools, and processes has been explored. A centerpiece of this exploration is the so-called “smart growth” movement described in several of our articles. **The principle tenet of the smart growth position is that it is possible and desirable to manage growth in a way that sustains its benefits while minimizing its social, economic, and environmental costs.**

For some smart growth proponents, simply assigning this critical balancing function to either the market place or government alone is not enough. Rather, they suggest that insuring a proper balance between the costs and benefits of growth should be achieved by “enlightened” public management and governance of growth.

One way to govern growth more effectively is to build on existing institutions, processes and laws that are already active parts of Arizona’s growth management process. Arizona State University political scientist David Berman’s article provides an overview of existing state and local growth governance roles and responsibilities. He notes that in Arizona, as in other states, state government has delegated much of the responsibility for regulating land use and other growth-related policy issues to local governments. Berman describes many growth management techniques available to Arizona cities, the constraints that the state has imposed on them, and the fact that each local unit has tended to consider its own needs to the exclusion of others.

National growth policy expert John DeGrove’s article examines states’ responses to urban growth pressures and offers lessons for Arizona. Both Berman and DeGrove suggest that holistic state frameworks are needed to guide growth while sustaining the economy and environment. This concept is also a part of the theme pursued by attorney Steve Betts in his description of the state’s “Growing Smarter” legislation.

It is clear that smart growth requires collaboration among governments and other interests. This is illustrated by stories of growth challenges and responses told by Coconino County Supervisor Paul Babbitt, Bullhead City Mayor Norm Hicks, University of Arizona researcher Tanis Salant, and historic preservation expert Roger Brevoort. Similarly, Philip Langdon, writing for *Builder*, describes active and innovative growth management collaborations around the country.

According to environmental advocate David Baron of the Arizona Center for Law in the Public Interest, Arizona should get smarter via direct democracy in the form of a citizens initiative to develop growth boundaries. Finally, dean of the nation’s urban journalists, Neal Peirce assesses the smart growth movement and network and underscores the importance of “unconventional learning” among all participants if the movement is to succeed.

Tomorrow’s Growth—New Forces and the Future

Policy Choice: Craft Growth to Support the New Economy and Quality of Environment and Life

At the far end of the policy continuum explored in this edition of *Arizona Policy Choices* is the cutting edge. Here are some of the most creative ways of thinking about policies for tomorrow’s growth. As in the other sections, authors of these articles represent different backgrounds and interests. Yet they are linked by themes including the need to look more inclusively and comprehensively at growth and to focus on the issue of quality in light of new realities. They recognize that the growth machine can function in Arizona’s garden, providing it does more harmonizing than harm.

Strategies that are characterized in this policy choice are big and bold. This perspective attempts to align old concerns about balancing costs and benefits of growth with new economic, environmental, design, and governance realities. **The goal of this policy choice is to achieve significant and wealth-producing growth that is also community and region friendly, that helps communities compete in the global economy and achieve high quality of life standards while protecting land and the environment.**

One of the clearest statements about this “tomorrow’s growth” goal was made by Chattanooga Chamber of Commerce leader James Vaughn Jr., who said:

We believe some things must grow—jobs, productivity, income and wages, profits, capital and saving, information, knowledge, education. And others must not—pollution, waste, poverty, energy and material use per unit of output.⁴

Internationally known experts on the New Economy, Douglas Henton and Kim Welsh of Collaborative Economics, Inc. provide a compelling framework and logic for achieving this goal. They argue that the profound shift from an industrial economy to a knowledge-based economy has equally profound impacts on the structure of growth. Henton and Welsh describe a New Economy and realities for growth based on:

- Economic regions** conducive to economic clusters
- Distinctive quality of life** to attract knowledge workers
- Vital centers** to offer lively amenities and opportunities for interaction
- Choices for living and working** to increase diversity of careers and life paths
- Speed and adaptability** for quick access to decisions and resources
- Natural environment** as an important element of community

These values fit neatly with New Urbanist goals such as preserving heritage and developing a built environment out of a “dialogue of design” and goals of comprehensive and meaningful participation of *all* institutions and stakeholders.

Essentially, the authors of articles with this perspective argue that Arizona has reached a point of crisis that requires bold thinking. Therefore, this policy choice requires comprehensive, inclusive, and coherent approaches to deal with the extremely complex set of resources, challenges, and values covered by the growth umbrella. This alternative stands in stark contrast to “band-aid” measures that have so often proved ineffective in the past.

Former Salt River Project CEO and advisor to Governor Jane Hull, Jack Pfister contends that growth can be viewed as a raw resource with immense potential that needs to be carefully crafted. But, who will do the crafting? Not, according to Pfister, government alone, because of public skepticism about past government performance in this area. Rather, he calls for new craftsmanship composed of visionary leaders working with coalitions of dedicated citizens.

A starting point for crafting new growth governance processes in Arizona is provided by ASU’s Dickinson McGaw and former Paradise Valley city council member Sara Moya. Far more than a checklist is provided in their explanation of nine steps that could be pursued to form a coherent response to the challenges of growth.

In large part, connecting the New Governance and New Economy is about starting from common ground and working together to create better ways of growing. Morrison Institute director Rob Melnick’s article says this is one of the lessons that should be derived from Arizona’s recent competition between a citizens growth boundary initiative and the smarter growth initiative.

Arizona's Growth And the Power of Choice

This brief introduction provides an alert to the complexity and multiplicity of growth issues and policy choices that appear in this volume. Some significant points of agreement among authors are reached:

- No one seriously thinks we can stop growth. As author Vernon Swaback puts it, “with respect to both our local and global histories, other than by way of death, no one has ever succeeded in stopping growth.”
- Growth is multi-dimensional and complex, with impacts that spill over jurisdictional boundaries.
- Because growth effects often spill over, policy responses to growth should be larger and/or at least more coordinated than those developed by single local governments or other lone institutions.
- Governing growth will always require a perspective and process capable of balancing strong and independent values such as the pursuit of happiness, economic freedom, environmental preservation, and the sacred nature of the land.
- Arizona's historical growth and response patterns, coupled with forecasts of growth and problems of sustainability require proactive attention and clear responses to the question: “What are the policy choices we need to make now to ensure quality growth in the 21st century?”

Notes

¹ Anthony Downs, *New Visions for Metropolitan America*, Brookings Institution and Lincoln Institutes for Land Policy, 1994. Samuel Kaplan, *The Dream Deferred: People, Politics, and Planning in Suburbia*, Vintage Books, 1977.

² Marshall Trimble, *Arizona*, Doubleday, 1977. p. 377.

³ Amy Bridges, *Morning Glories: Municipal Reform in the Southwest*, Princeton University Press, 1997. Chapter 4.

⁴ Neal Peirce and Curtis Johnson, *Boundary Crossers*, University of Maryland, 1997.

Always an Urban Place

Peter Iverson, Professor of History, Arizona State University

Overview of Growth in Arizona: Critical Statistics

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State of the Desert Biome-Uniqueness, Biodiversity, Threats and the Adequacy of Protection in the Sonoran Bioregion

Gary Paul Nabhan and *Andrew R. Holdsworth* ©The Wildlands Project

Rural to Urban Land Conversion in Metropolitan Phoenix

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Growth Brings Uneven Benefits for Arizonans

Tom Rex, Research Manager, Center for Business Research, Arizona State University



Always an Urban Place

Peter Iverson, Ph. D.

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We prefer to portray Arizona as a rural environment. In art, photography, travel descriptions, and other imagery, Arizona is depicted primarily through the features of its extraordinary terrain. Painters are more likely to try to evoke the Sonoran landscape than downtown Tempe on Friday night. *Arizona Highways* features Monument Valley and the Grand Canyon instead of Peoria and Yuma. Postcards emphasize sky, not Sky Harbor. The land and sky of Arizona do demand attention. The inimitable Edward Abbey once put it this way: “Ninety per cent of my state,” he noted, “is an appalling burned-out wasteland, a hideous Sahara with few oases, a grim, bleak, harsh, over-heated, God-damned and God-forgotten inferno.” “Arizona,” he added gleefully, “is the native haunt of the scorpion, the sidewinder, the tarantula, the vampire bat, and cosenose kissing bug, the vinegarroon, the centipede, and three species of poisonous lizard: namely the Gila monster, the land speculator and the real estate broker.”¹

Abbey did his best to discourage growth. Despite his protestations—“Nobody in his right mind would want to live here”—growth, and particularly urban growth, has been a constant in the history of Arizona. Indeed, from the beginning, Arizona has been an urban place. And from the beginning the fate of “city” and “country” has been intertwined. People living in town have always used the resources from outside the city limits, whether it be for profit or for diversion. Those residing in more rural locales have always employed towns to purchase or trade for supplies, to sell their products, and to search for sin or salvation.² A harsh and demanding environment has always encouraged people to live in proximity to each other and to work together in organized communities.

These generalizations apply to the Indians (the true pioneers) and to those who followed. The Anasazi created impressive communities in the Four Corners area. By living and working together in compact settlements they enjoyed longer and better lives. Their ability to sustain relatively stable communities surely may be measured in their jewelry, pottery, and other forms of art possible only in a reasonably secure environment. The Hohokam carved out the first canals in what became Maricopa County; they employed irrigated farming and sustained a substantial population for centuries. The Hopis constructed their villages beginning at least a thousand years ago. One of these, Oraibi, is considered to be the longest continuously occupied community in the United States.

When the Spaniards entered Arizona, they established additional urban centers. Tubac and Tucson were both founded in the 1700s. Presidios offered greater security

to early civilians. In addition, missions such as Bac and Guevavi encouraged Indian resettlement into new communities that represented another form of urbanization. Potential and actual confrontations with Indian nations limited Spanish and Mexican farming, ranching, and mining. Prior to 1848 the Spanish and Mexican presence in Arizona remained primarily urban.³

The conclusion of the war with Mexico through the Treaty of Guadalupe Hidalgo in 1848 coupled with the Gadsden Purchase of 1853 ushered in the next chapter of Arizona history. The demographic expansion of Arizona depended significantly upon use of natural resources. Mining played a key role in this stage of urbanization. Gold brought both miners and merchants to La Paz and Prescott. Silver mines bearing such melodic names as the Lucky Cuss and the Tough Nut prompted the growth of Tombstone. Copper brought in corporations like Phelps Dodge and fueled the development of Clifton/Morenci, Bisbee, Globe/Miami, Jerome, Douglas, and other towns. In the process Arizona emerged as the leading copper producer in the country. The significance of mining is evident from the censuses for 1900 and 1910. Table 1 lists the ten largest towns in Arizona territory in these years:

Table 1: Top 10 Towns and Population in Arizona 1900 and 1910

1900	1910
1. Tucson (7531)	1. Tucson (13200)
2. Clifton/Morenci (6000)	2. Clifton/Morenci (12850)
3. Bisbee (5800)	3. Phoenix (11150)
4. Phoenix (5544)	4. Bisbee (9050)
5. Prescott (3559)	5. Globe/Miami (8500)
6. Jerome (2681)	6. Douglas (6450)
7. Nogales (2761)	7. Prescott (5100)
8. Globe (1495)	8. Nogales (3550)
9. Yuma (1409)	9. Yuma (2950)
10. Winslow (1305)	10. Jerome (2400)

Mining not only played a vital role in Arizona’s growth, but it also continued to diversify Arizona’s population. Immigrants from Mexico, England, Scotland, Ireland, and Germany contributed their skills to early development of the industry. Technological advances allowed copper mine owners to bring in men from other areas who may have lacked the knowledge about hard rock mining possessed by their predecessors, but who were willing to work for less money under adverse conditions. Czechs, Serbs, Italians, Spaniards, and others from southern and eastern Europe as well as Chinese came to the mining camps. There they helped build Arizona as they also suffered to varying degrees from the ethnic and racial hostilities of the era.⁴

Another people who had also known hostility contributed as well to 19th century



urban growth in Arizona. From their base in Salt Lake City and recruited through vigorous missionary efforts in England and Scandinavia, Mormons fanned into different sections of the region. They founded towns along the Little Colorado, the Salt, and the San Pedro, knowing that access to reliable water sources offered their best chance for survival. Some of their fledgling communities did not survive, but many endured and eventually prospered, including Snowflake (its name drawn from the LDS family names of Snow and Flake), St. David, Thatcher, and Mesa.⁵

The Mormons, of course, were not the only ones who established agrarian-based communities. Others began to build along the Rio Salado, recognizing the prescience of the Hohokam and realizing the opportunities for modern agriculture in this location. Either Englishman Darrell Duppa or Confederate army deserter Jack Swilling thus called one new town Phoenix. Swilling, the so-called father of Phoenix, is described in the most recent history of the state as “a morphine addict and a violent drunk who died in Yuma prison in 1878 after being accused of robbing a stage.” Thanks to the efforts of its first mayor, John T. Alsap, and other stalwarts, Phoenix quickly signaled that it intended to live up to its name, regardless of the character of one of its pioneering promoters. Established in 1870, it became the seat of the newly established county of Maricopa in 1871 and by 1889 it had succeeded in wresting the territorial capital from Prescott.⁶

Gaining a county seat, let alone the capital, represented a major step in guaranteeing future expansion for a particular municipality. Like all states, Arizona’s history is filled with examples of ambitious town founders whose dreams far exceeded the subsequent dreary reality of obscurity or extinction. When a territorial legislature divided up the spoils, communities vied with each other to obtain the best possible prize. After the state capital, the insane asylum seemed to promise the greatest financial return to a community, followed by the prison. The university and a school to train teachers appeared far less desirable. They would be tiny enterprises and as a Tucson bartender put it, “What do we want with a university? What good will it do us? Who in hell ever heard of a University Professor buying a drink?”⁷

Tucson attorney and territorial legislative representative C.C. Stephens returned to town with the news that Tucson had not reacquired the capital, that he had supported Phoenix’s bid for the asylum and Tempe’s effort to obtain the normal school, and that Tucson only had procured the university. For his troubles, Stephens was accused of “disloyalty” and lectured by the *Citizen* that he now was viewed with “loathing and contempt,” and that he made “a horse thief look respectable by comparison.” Stephens met with his constituents at the Opera House in an effort to defend his record but was routed from the stage by a torrent of tomatoes, rotten eggs, and, for good measure, a dead cat. Tucson nearly lost the university by refusing to donate land for the enterprise, before a last minute donation of forty acres by two gamblers

and a saloon owner saved the institution for the city.⁸

Urban rivalries of a century ago remind us that a number of developments of decades past echo into the present. The gospel of growth started to be preached well before our own time. The central role of the federal government, the importance of transportation, tourism, and health care, and the challenges of race relations and demographic expansion all loomed long ago. These parallels remind us that although the dilemmas and the opportunities of the present are formidable, they are not new. Indeed, they are formidable in part because they are rooted in the past.

Statehood, after all, was delayed by the impression that Arizona could not sustain growth. When Senator Albert Beveridge, chair of the Senate Committee on the Territories visited Arizona in 1901 to examine its viability for statehood, he judged its population too limited, its economy too undeveloped, its landscape a desert. The census figures of 1900 and 1910 remind us that Arizona's population did not exactly equal that of New York. Leading citizens in the state concurred that Arizona had to grow in order to gain some small measure of respect. The *Arizona Gazette* of Phoenix in 1894 equated growth with progress, declaring that nations, cities, and towns that did not expand were "marked for decay...Those which do not progress, go backward—there is no standing still. It must be either growth or dry rot." The *Gazette* admonished: "When opportunities for expansion present themselves they must be taken advantage of at once or the opportunities may not come again."⁹ Those opportunities included use of natural resources, promotion of tourism, and encouragement of individuals to relocate to Arizona.

The federal presence and continuing federal investment proved crucial to the evolution of territorial Arizona. Army camps and forts did more than offer protection and security to non-Indian residents; they furnished a market for farmers, ranchers, and other business people that permitted initially struggling little enterprises like Phoenix to grow. By the turn of the century, an expanding economy in the Salt River valley and other locations in the West depended upon a more reliable and consistent water supply. After prior private or local efforts failed, the federal government once again came to the rescue. Passage of the Reclamation Act in 1902 authorized the construction of major dams and accompanying canals. Thanks to the tireless efforts of local boosters like Benjamin A. Fowler, the Salt River Project, including Roosevelt Dam, became one of the first initiatives funded through the Act. Federal dollars thus underwrote urban growth in the early 20th century.¹⁰

When the Depression plagued Phoenix in the late 1920s and 1930s, the Works Progress Administration allowed for the construction of North Phoenix High School and Phoenix College, and the expansion of the Pueblo Grande Museum. The Civilian Conservation Corps helped develop Papago Park and South Mountain Park. Federal



investment made Encanto Park a pleasing reality and encouraged the city of Phoenix to buy Sky Harbor Airport; additional federal dollars allowed Sky Harbor to expand. In the Tucson area comparable funding built Sabino Canyon Dam, constructed the Mount Lemmon highway, and added to the runways at Davis-Monthan. Federal assistance made possible a science building, greenhouse, women's gymnasium and recreation building, an auditorium, a classroom building, the State Museum, and improvements to the farm at the University of Arizona.¹¹

The outbreak of the second world war funneled further federal funding into the Phoenix and Tucson metropolitan areas. Luke, Williams, and Davis-Monthan boosted the local economies but also inspired individuals to make Arizona their home when the war ended. Work in war industries prompted others to move to the state as well. After the war Federal Housing Administration and Veterans Administration loans permitted many of these migrants to own their first homes; without such federal assistance, far fewer would have taken this important step. In turn, the housing construction business constituted a vital component in the post-war boom in urban Arizona.¹²

In addition to aviation, trains and automobiles were critical elements in fostering growth. The arrival of the Southern Pacific and the Atchison, Topeka, and Santa Fe in the late 19th century not only allowed Arizonans to ship and receive goods, but permitted tourists and prospective residents to travel more comfortably to the territory. Both railroads elevated the fortunes of existing communities on its routes and created new towns. Automobiles quickly encouraged low-density settlements and suburbs.

Many newcomers were urban people, with no interest in becoming cowboys, miners, or farmers. With the advent of the automobile, they could explore more of rural Arizona. The Arizona Good Roads Association in Prescott published in 1913 a tour book boasting that "Engineers from the Office of Roads, at Washington and other highly qualified experts agree that Arizona has not only the best natural roads in the Union, but that here are to be found accessible deposits of the best natural road materials known." That is to say, you were essentially on your own, but things promised to improve in the near future.

In the 1920s *Arizona Highways*, initially a newsletter of the Highway Department, started to present current information about the state's road conditions and promote travel to and within the state. Residents in rural Arizona surely had mixed emotions about urban interlopers, but if these intruders were going to come, they at least wanted to achieve a profit from their presence. Tourism progressively became more essential to the local and state economy. Under Raymond Carlson's leadership, *Arizona Highways* blossomed in the 1930s as an exceptionally attractive reflection of Arizona. The Salt River valley in the same decade was dubbed the "Valley of the

Sun.” Technological innovation yielded the miracle of air conditioning, luring still more tourists and new residents, and making summers more bearable.¹³

Arizona’s dry climate beckoned people suffering from tuberculosis and other illnesses. Barry Goldwater’s mother, Josephine Williams, was one of countless individuals who came to Arizona for this reason. The health care industry began in territorial days, with St. Joseph’s and St. Luke’s in Phoenix and St. Mary’s and St. Luke’s-in-the-Desert in Tucson representing early hospitals that attempted to assist the afflicted. The less prosperous among the ill founded urban centers of their own in the form of tent colonies: Sunnyslope in Phoenix and Tentville near the University of Arizona campus in Tucson. Health seekers formed a significant portion of Scottsdale’s first residents. Winfield Scott numbered among those who realized that the search for good health could nourish town growth. Older residents of snowy climes also began to flock to southern Arizona in search of a more pleasant spot to wait out winter back home.

Not all the immigrants to Arizona lived happily ever after. Health seekers did not always locate what they had hoped to find. Many disliked the eternal summers or failed to obtain satisfactory employment. If Arizona started to become noteworthy for a population willing to make a new start, it then also illustrated that people who were willing to move to it were also willing to move on from it, either “back home” or to neighboring California. Arizona thus remained one of the states with the highest percentages of people born elsewhere. A more transient population found it harder to invest, financially and otherwise, in where they resided and in Arizona’s future.

For peoples of color, urban Arizona prior to the second world war did not necessarily resemble the promised land. Although boosters of tourism in the first decades of the 20th century realized the potential appeal of Indian country to visitors, few Native individuals actually resided in off-reservation towns and cities. Reservation border towns such as Flagstaff, Winslow, Holbrook, and Globe benefited from selling Indian arts and crafts and from trade with Indians, yet Indians frequently faced hostility and discrimination in these communities. Phoenix boosters were delighted to obtain a federal boarding school, but only a handful of students from the school remained in town after they completed their education.¹⁴

African American soldiers at Fort Huachuca numbered among the first Black residents in Arizona. The Black civilian population remained minuscule until after World War II. African Americans from the South, Oklahoma, and Texas found work but also segregation in Arizona. Small Black communities formed in towns like Eloy and Safford, centered on the cotton industry; African Americans also were recruited by Louisiana Pacific to McNary, where they worked in the timber industry. Others made their way to Phoenix, where the largest African-American community became situated.



In the early days of the territory, Mexicans and Mexican Americans in southern Arizona were an important part of the region's society and economy. In the 1870s many prominent Anglo men in Tucson, Yuma, and Florence married Mexican women. But with the arrival of more and more "Anglo" newcomers, Mexicans increasingly were pushed toward the lowest rungs of the socioeconomic ladder, particularly in Phoenix, where community leaders expressed pride in their town's emergence as an "American" city.¹⁵

The push of Mexican political turmoil and economic instability and the pull of irrigated agriculture accelerated migration of more Mexicans to Arizona in the early 20th century. At this time and throughout the twentieth century, Mexican Americans hardly constituted a monolithic group; more established and more prosperous Mexican Americans sometimes had mixed emotions about more recent arrivals from Mexico, believing that the newcomers only heightened discrimination against them. But regardless of education, income, and social standing, all confronted the indignities of segregation.

Chinese Americans came to Arizona to work in the mines and on the railroads. Pushed out of California, they found temporary residence in Phoenix and other towns, where they established truck farms, laundries, and other businesses. Chinese Americans constituted 4.6 per cent of Phoenix's population in 1880, but the Chinese Exclusion Act of 1882 and prejudice against their presence forced out most individuals; by 1910, only 110 Chinese Americans remained in Phoenix. This tiny but determined group continued, as did an equally limited Japanese American community, which also suffered under discriminatory land laws. The internment of Japanese Americans during World War II created Arizona's third and fourth largest towns at Gila River and Poston. Some of the internees remained after the war, working with others who had not been interned to work together toward what they hoped would be a more tolerant future.¹⁶

All peoples of color fought for the United States during the war. When these veterans returned, they contributed in a significant way to the effort to change deplorable conditions. Social change, of course, came slowly. But it did come, in the schools, at the ballot box, and in public accommodations. Their victories were recorded in an era of dramatic increase in the state's population. Consistent with the folk saying that with refrigeration came Republicans, Democratic dominance of state politics became a progressively more distant memory.

Because of immigration and annexation, Phoenix's population quadrupled from 106,000 in 1950 to 439,000 in 1960. "The growth figures," Abbey observed, "would shock even a banker." Tucson grew "from a population of 45,000 (counting dogs) in 1950" to over 300,000 in the 1970s.¹⁷ Such statistics initially delighted rather than

alarmed native sons like Barry Goldwater. In 1964, he commented: “Very few people my age have had the opportunity of seeing a country transformed the way I’ve seen Arizona.” Goldwater added:

Once it was wild land and desert and open spaces—and there’s still plenty of that. But I’ve seen this land transformed into productive land, with great industry and great people and great promise of a great future. Take Phoenix. I get the greatest thrill thinking that in a small way I helped it grow, that I had something to do with its growth. And yet I can go home, get away from the city itself and get out where there’s plenty of space and sunshine, and great, fresh pure air. I love walking in the desert, especially at night. Out there at night, the stars just saturate the sky. You feel close to God.¹⁸

As early as the 1970s, however, Goldwater began to reassess this uncritical embrace of growth. He remained proud of Arizona’s accomplishments, but he expressed publicly his regret over the ecological costs of Glen Canyon Dam, and he complained about the “brown crap” in the air. Yet he and others hesitated to endorse major alterations to established practices. Being able to drive, live, and golf where one wanted had become sufficiently entrenched in the cultural landscape that such traditions could not easily be altered.

Historians who view the matter of urban growth perceive mixed emotions and conflicting signals. In Mesa city planning director Frank Mizner noted, “Growth is almost a religion in Mesa. Nobody, with rare exceptions, stops to think about the negative impact of the growth.” Citing loss of farmland, more traffic, and the demand for more schools, Mizner worried about the tendency of people to ignore such consequences or to “deal with them in piecemeal fashion.” In the White Mountains, some local residents groaned about the latest land rush, while real estate agents celebrated the market for new homes “in the cool pines.” The buyers often were residents from Pima and Maricopa County, who thus continued to contribute to urbanization. The same scenario prevailed in places like Prescott, Flagstaff, and Sierra Vista. Even in Tucson, where local custom still endorsed disdain for developments north of Arizona’s Mason-Dixon line, the Gila River, one could observe a comparable procession of tile roofs.¹⁹

Half a century after the end of World War II, Arizona citizens faced variations on the same issues apparent before the war. Federal investment and involvement in the Central Arizona Project, public lands, and other key matters remained extremely important. Transportation continued to be at the center of questions about sprawl. Tourism still bolstered the local and state economy, and in the process, helped spur additional migration. Mayo Clinic and other health care institutions prompted people to come to Arizona. Peoples of color still confronted segregation, even if it had become *de facto* rather than *de jure*, but they, too, looked to urban centers as places



that offered their best chance for better jobs and a better future. On Indian reservations, the population became increasingly urban, as old subsistence economies waned, and the needs and demands of a contemporary wage work economy, including in some instances the opportunity to obtain employment in the new casinos, pushed people into town. Within major cities, recently arrived and established members of neighborhoods did not always see eye to eye. As they had in decades past, they often differed about a number of concerns. However, those who were members of “minority groups” encountered ongoing patterns of discrimination, both brought into the state and nourished by the unhappy local legacy of prejudice. Such divides constituted one of the most crucial of all the challenges apparent in contemporary Arizona society.

By century’s end, Arizona’s population reached four and a half million people. To paraphrase what Gerald Ford once said about Abraham Lincoln, if Albert Beveridge were alive today, such a statistic would cause him to turn over in his grave. More varied voices are heard now in regard to the price of progress, the consequences of construction. Nonetheless, the conventional wisdom, established a century ago, prevails. Growth remains linked to progress and prosperity, to individual freedom and voluntary separation from social and economic ills. Most Arizona citizens still accept the dichotomy offered by the *Gazette* a century ago. If dry rot appears to be the only alternative, then there can be little doubt about the contours of the future in this urban place called Arizona.

Notes

¹Edward Abbey, *The Journey Home: Some Words in Defense of the American West* (New York: E.P. Dutton, 1977), 147.

²See William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: W.W. Norton, 1991).

³See James E. Officer, *Hispanic Arizona, 1536-1856* (Tucson: University of Arizona Press, 1987).

⁴Thomas E. Sheridan, *Arizona: A History* (Tucson: University of Arizona Press, 1995), 145-186; James Byrkit, *Forging the Copper Collar: Arizona's Labor-Management War of 1901-1921* (Tucson: University of Arizona Press, 1982).

⁵See, for example, Charles S Peterson, *Take Up Your Mission: Mormon Colonizing Along the Little Colorado River, 1870-1900* (Tucson: University of Arizona Press, 1973).

⁶Sheridan, *Arizona*, 199; Bradford Luckingham, *Phoenix: The History of a Southwestern Metropolis* (Tucson: University of Arizona Press, 1989), 12-39.

⁷C.L. Sonnichsen, *Tucson: The Life and Times of an American City* (Norman: University of Oklahoma Press, 1982), 136.

⁸Sonnichsen, *Tucson*, 136-137.

⁹*Arizona Gazette*, February 4, 1894, and January 2, 1900, quoted in Luckingham, *Phoenix*, 48.

¹⁰Luckingham, *Phoenix*, 434-48. See also Karen L. Smith, *The Magnificent Experiment: Building the Salt River Reclamation Project, 1890-1917* (Tucson: University of Arizona Press, 1986).

¹¹Luckingham, *Phoenix*, 104-113; C.L. Sonnichsen, *Tucson*, 255.

¹²For the impact of the war on Arizona and the west, see Richard White, “It’s Your Misfortune and None of My Own:” *A New History of the American West* (Norman: University of Oklahoma Press, 1991), 496-533.

¹³This discussion is based on Peter Iverson, *Barry Goldwater: Native Arizonan* (Norman: University of Oklahoma Press, 1997), 21-24.

¹⁴See Robert A. Trennert, “Phoenix and the Indians: 1867-1930,” in G. Wesley Johnson, Jr., editor, *Phoenix in the Twentieth Century: Essays in Community History* (Norman: University of Oklahoma Press, 1993), 53-68.

¹⁵Luckingham, *Phoenix*, 31-35.

¹⁶Luckingham, *Minorities in Phoenix*, 79-118; Eric Walz, “Japanese American Communities in the Interior West,” Ph.D. dissertation, History Department, Arizona State University, 1998.

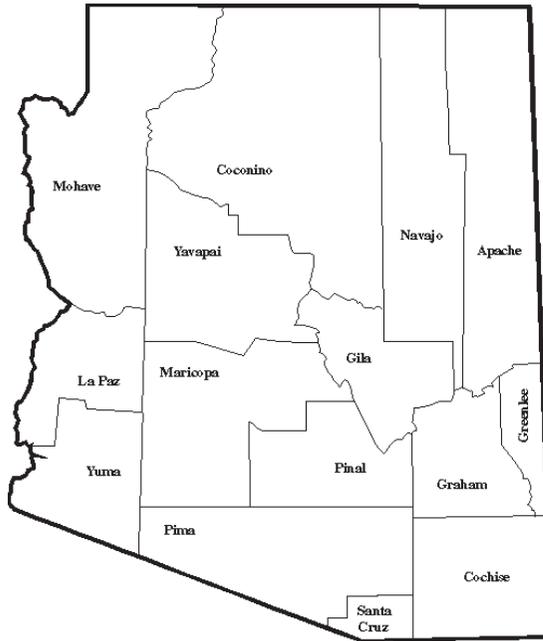
¹⁷Abbey, *Journey Home*, 148.

¹⁸Iverson, *Goldwater*, 189.

¹⁹See my chapter on “Building Arizona” in *Goldwater*, 189-220. For an analysis of the anti-growth movement in Tucson and Albuquerque, see Michael F. Logan, *Fighting Sprawl and City Hall: Resistance to Urban Growth in the Southwest* (Tucson: University of Arizona Press, 1995).

Overview of Growth in Arizona: Critical Statistics

Arizonans have gotten used to being the “fastest growing” whether that phrase is describing the state or specific counties and cities. The following data provide a foundation for the remainder of this volume.



State and County Population Change 1950-1995

	1950	1995	% change 1950-1995
Arizona	749,587	4,228,900	464
Apache	27,767	64,300	132
Cochise	31,488	112,300	257
Coconino	23,910	109,400	358
Gila	24,158	44,075	82
Graham	12,985	30,025	131
Greenlee	12,805	8,450	-34
La Paz	a	16,550	a
Maricopa	331,770	2,454,525	640
Mohave	8,510	124,500	1,363
Navajo	29,446	82,425	180
Pima	141,216	758,050	437
Pinal	43,191	139,050	222
Santa Cruz	9,344	33,875	263
Yavapai	24,991	129,500	418
Yuma	28,006	121,875	335

a. La Paz County was part of Yuma County until 1983

Source: *Arizona's Growth and the Environment*, Arizona Town Hall, 1996



Overview of Growth in Arizona: Critical Statistics

Population Density 1950 and 1995 (persons per square mile)

	1950	1995
United States	42.6	74.1
Arizona	6.6	36.8
Apache	2.5	5.7
Cochise	5.1	17.8
Coconino	1.3	5.9
Gila	5.1	9.3
Graham	2.8	6.8
Greenlee	8.6	4.6
La Paz	a	3.7
Maricopa	36.0	263.4
Mohave	0.6	9.5
Navajo	3.0	8.3
Pima	15.4	81.3
Pinal	8.0	25.4
Santa Cruz	7.5	26.8
Yavapai	3.1	15.7
Yuma	2.8	22.3

a. La Paz County was part of Yuma County until 1983

Source: *Arizona's Growth and the Environment*, Arizona Town Hall, 1996

Projected Population of Arizona's Counties

	1990	2000	2020	% change 1990-2020
Arizona	3,665,228	4,961,950	7,444,625	103.1
Apache	61,591	67,925	85,775	39.3
Cochise	97,624	121,825	150,000	53.7
Coconino	96,591	123,325	169,350	75.3
Gila	40,216	48,625	60,750	51
Graham	26,554	35,175	50,675	90.8
Greenlee	8,008	8,975	10,275	28.3
La Paz	13,844	20,350	29,075	110
Maricopa	2,122,101	2,954,150	4,516,100	112.8
Mohave	93,497	147,525	236,400	152.8
Navajo	77,658	88,900	111,950	44.2
Pima	666,880	854,325	1,206,250	80.9
Pinal	116,379	161,625	231,225	98.7
Santa Cruz	29,676	38,225	55,100	85.7
Yavapai	107,714	152,975	240,850	123.6
Yuma	106,895	138,025	290,850	172

Source: *Ensuring Arizona's Water Quantity and Quality into the 21st Century*, Arizona Town Hall, 1997

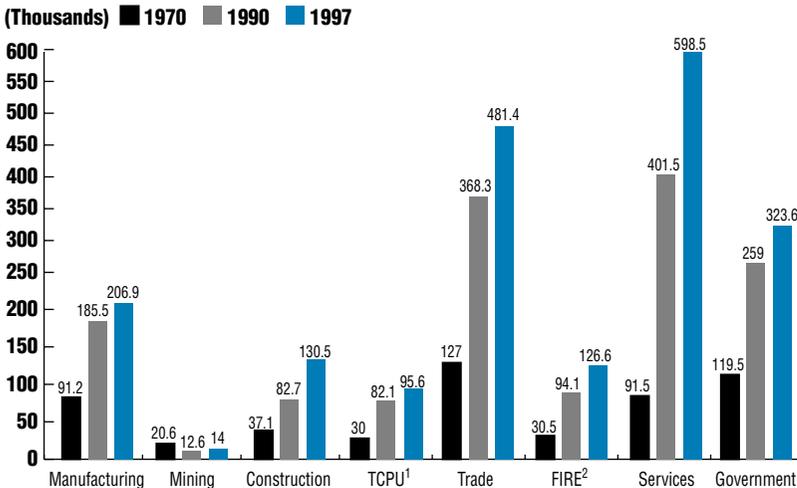
Overview of Growth in Arizona: Critical Statistics

Population of Selected Arizona Cities

City	1980 Population	1997 Population	% change 1980-1997
Phoenix	789,704	1,205,285	53
Tucson	330,537	458,675	39
Prescott	19,865	33,695	70
Yuma	42,481	65,130	53
Nogales	15,683	21,075	34
Payson	5,068	12,125	139
Bullhead City	10,719	27,800	159
Clifton	4,245	3,005	-29
Parker	2,542	2,975	17
Casa Grande	14,971	21,945	47
Springerville	1,452	1,895	31
Show Low	4,298	7,480	74
Safford	7,010	9,320	33
Sierra Vista	24,937	39,405	58
Flagstaff	34,641	58,145	68

Source: Arizona Department of Commerce, 1997

Arizona Non-Agricultural Wage and Salary Employment



¹Transportation, communications and Public Utilities

²Finance, Insurance and Real Estate

Source: Arizona Department of Economic Security



Overview of Growth in Arizona: Critical Statistics

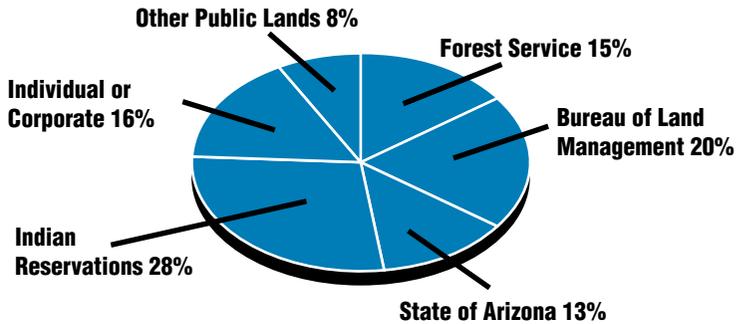
State Trust Land Uses, 1994 (Percent of total State Trust Lands)

*State Trust Lands are used for rights of way, commercial uses, agriculture, and institutional uses and similar purposes in addition to grazing.



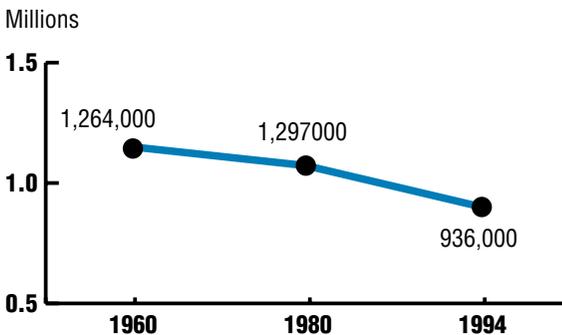
Source: *Arizona's Growth and the Environment*, Arizona Town Hall, 1996

Land Ownership and Administration in Arizona



Source: *Arizona's Growth and the Environment*, Arizona Town Hall, 1996

Acreage of Major Irrigated Crops in Arizona 1960-1994



Source: *Arizona Agricultural Statistics*, 1997

The Demographics of Urban Growth in Phoenix

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Phoenix is on the cusp of becoming one of the nation's largest urban areas. Between 1990 and 1997 Maricopa County or Greater Phoenix grew by 574,000 people, more numerical growth than in any other single county in the nation.¹ A 22.7 percent rate of growth moved metropolitan Phoenix from its 1990 status as the 19th largest to the 16th largest metropolitan area in the nation in 1996.² This explosive growth has altered local land, housing, and labor markets; transportation patterns; accessibility to open space; riparian habitats; and other aspects of the human, built, and natural environments of central Arizona.

Population growth is, by no means, the only indicator of urban growth. Cities grow in land area, housing units, and jobs, but population is related to all three. Although there is not always a one-to-one correspondence between land and population, cities do annex land in anticipation of future population growth. Phoenix-area communities annexed a total of 214 square miles, the land mass of El Paso, Texas, between 1990 and 1997. Growth in housing also is related to population growth. The number of housing units grew faster than the population from 1960-1990 because people's taste for more space and privacy resulted in smaller households. Since 1990, average household size has stabilized at approximately 2.6 persons per unit. Population and housing, at least for the Phoenix metropolitan area as a whole, now grow in tandem.

The strong association between jobs and population stems from their mutually reinforcing properties. Job growth stimulates in-migration, and population growth in turn creates a larger labor pool and market for local goods and services, creating more jobs in the process. The wild cards in this equation are elderly migrants who are generally immune to signals in the labor market but who do, in fact, stimulate job growth when they purchase food, housing, and clothing; eat in local restaurants, use financial services, and consume public services such as streets, libraries, and parks.

Three demographic forces determine the pace at which populations grow (or decline). First, the balance between births and deaths determines growth in the existing population base. Second, the difference between domestic in-migrants and out-migrants results in more residents from areas outside metropolitan Phoenix, but inside the United States. Third, the difference between international immigrants and emigrants accounts for growth from the rest of the world.

Natural Increase

Natural increase is simply the difference between the number of births and deaths in a population. During the recent past, natural increase has contributed between 20,000



and 25,000 persons annually to metropolitan Phoenix's population base.³ It accounted for about 30 percent of all growth between 1990 and 1997, ranging from a high of 45 percent in 1990-91 when domestic migration was on the wane to a low of 22 percent in 1994-95 when migration was on the rise. Even if migration were to drop to zero tomorrow, Maricopa County would continue to grow through natural increase.

1990 to 1997 Sources of Population Growth:

Total to Maricopa County: 574,097

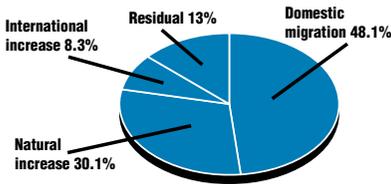
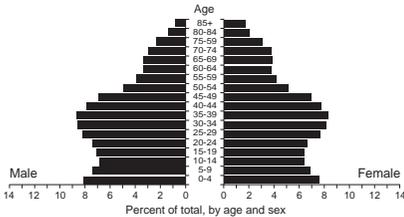


Figure 1

Total Population by Age and Sex, Maricopa County: 1996



involves the nature of the county's age structure (See Figure 1). Maricopa County's has a bulge in people aged 25 to 39 where the odds of giving birth are high, but a small number in older age groups where the likelihood of death is high. As a result, the population produces many more births than deaths. Modern populations with little or no natural increase do not have a reproductive-age bulge in their age-sex structures, and they are more top heavy with older people. Contrary to conventional wisdom, metropolitan Phoenix is not disproportionately composed of elderly persons. In 1996, Phoenix's proportion older than 65 years was exactly the same as that of the nation as a whole—12.7 percent⁴.

Higher-than-average fertility also contributes to the natural increase experienced by the Valley. One key population indicator is its total fertility rate, meaning

the average number of children that a woman will have given current age-specific birth rates. A population is at replacement fertility when the total fertility rate is slightly higher than 2.0.

Maricopa County's 1996 total fertility rate of 2.41 is well above replacement. Women are, on average, producing more children than are needed to replace themselves, and the next generation will be larger than the current one. These averages are somewhat deceptive, however, because fertility rates differ across racial and ethnic groups. The total fertility rate among non-Hispanic whites in 1996 was only 1.86, matched by Asians at 1.86, and followed closely by Blacks at 1.93. These groups are, in fact, at below replacement fertility. Without migration, their next generation will be smaller than the current one. An extremely high fertility rate among Hispanics has driven the countywide average up to 2.41. Current age-specific birth rates indicate a total fertility rate of 4.26 for Hispanic women—considerably higher than current levels in Mexico where the total 1998 rate is 3.1 according to the Population Reference Bureau.⁵ Hispanic fertility also results in an age structure with

many children and few elderly. This age structure is having a substantial impact on schools and services. Native American women also have higher-than-average fertility but, because they represent less than two percent of the county's population, their demographic impact is limited.

High fertility and population growth among Phoenix-area Hispanics has significant demographic and policy ramifications. Hispanics produce a disproportionate share of all births. Hispanic women account for 17.6 percent of metropolitan Phoenix's population in 1996 but produce 36 percent of all births. Despite the fact that non-Hispanic women younger than 25 years outnumber Hispanic women by a factor of 2.5 to one, there are more Hispanic than non-Hispanic births in this age group.⁶

High fertility among Hispanic women is changing the face of Phoenix area delivery rooms, child-care settings, and school districts. Some local school districts now have a predominantly Hispanic school-aged population at the same time that their voting-age population is predominantly non-Hispanic white. The willingness of local districts to adequately support public education will be challenged by the ethnic mismatch between their voting-age and school-age populations.

Domestic Migration

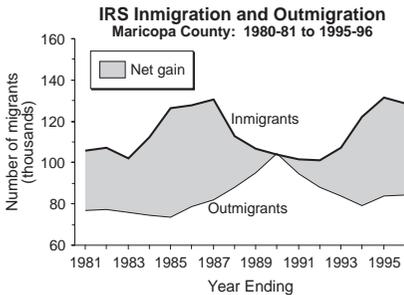
Migration from other U.S. locations is the main source of growth in the Phoenix metropolitan area. The migration experience—having moved here from someplace else—is one of the defining personal characteristics of those who live in the Phoenix region. In 1990, only one-third of the Valley's residents were born in the state, and most of these are children⁷. Two-thirds have made a long-distance migration at some point in their lives, a proportion far higher than what is found in places like New York, Chicago, or Pittsburgh.

Net migration, or the difference between in-migration and out-migration, results in population growth. Net migration to metropolitan Phoenix is a highly cyclical process, dependent upon national economic forces, the pace of economic expansion in Phoenix, and growth trends elsewhere. Demographers use Internal Revenue Service (IRS) data to assess migration annually. Each year, the IRS compares a household's address on its tax return with that on the previous year's. If the address matches, the household is considered a non-migrant. If the previous year's address was outside Maricopa County but the current address is inside the County, the household is considered an in-migrant. If the previous year's address was inside of Maricopa County, but the current year is outside, the person is designated as an out-migrant.

The peaks and valleys of domestic migration have been especially notable during the last 15 years (See **Figure 2**). The 1980s began with modest net in-migration. The national recession of 1981-82, characterized by high unemployment and soaring



Figure 2



interest rates, had a dampening effect on national mobility and migration rates. During periods of economic uncertainty and decline, people tend to stay put. The end of the recession brought increased mobility nationwide and large net migration to the Valley between 1984 and 1988. Economic problems in Phoenix at the end of the decade brought plummeting in-migration and rising out-migration. IRS records show out-migration slightly exceeding in-migration although the ASU Bureau of Economic Research did not show a situation that severe. The speedy return to favorable net-

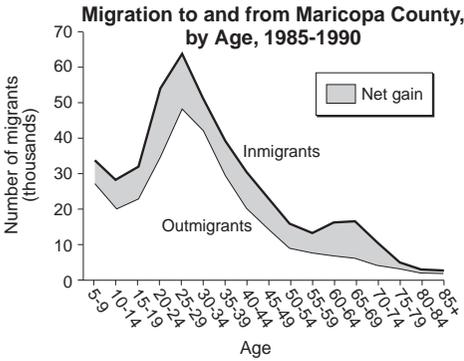
migration shows how quickly migration can respond to changes in the economy. By the mid-1990s, in-migrants again outnumbered out-migrants by a large margin.

The current migration picture is symptomatic of the health of the local economy and to conditions elsewhere. What happens in one place sends shock waves through the system affecting many others. California is by far metropolitan Phoenix's major migration partner. California contributes more in-migrants to the Valley than any other state, and it absorbs more of our out-migrants than any other. When California fell into a deep recession early in the 1990s and was slow to recover, migrants to Arizona and other western states increased, reinforcing the already bright in-migration picture here. Urban growth and in-migration in central Arizona were, in part, the counterpoints of urban decline and out-migration in California.

Migration, like natural increase, affects certain segments of the population more than others. One of the universal laws of migration is that younger people are more apt to move than are older people. Individuals make half of all of their lifetime moves by age 25. It is during these young ages that people leave their parents' homes to attend school, join the military, or take a job; leave college to find employment or change jobs; marry, and begin families. All these events are commonly associated with changes in residence. Movement rates are also high among young children who typically have parents in their 20s⁸. The heightened tendency for migration is seen among both in-migrants to and out-migrants from Maricopa County. The typical in-migrant is a young person in his or her 20s, and the typical out-migrant is a young person in his or her 20s.

Young persons also contribute more than any other age group to net migration, or the difference between in- and out-migration (See Figure 3). Between 1985 and 1990, net migration was highest among those between 20 and 29 years of age. Migration overall adds young adults to our population base and lowers the average age of our population. A secondary effect is to add elderly to our population base. Although people in their 60s are far less likely to move here, those who do are far

Figure 3



more likely to stay put than younger persons. Although greatest for young adults, the amount of in-and out-migration is high across all age groups, except the elderly. In the Phoenix area, like in most other western cities, people come and go with great frequency, leading to rapid through-put of the population. During an average year between 1990 and 1997, a total of 194,000 moves (114,000 in-migrants + 80,000 out-migrants) were needed to change the population by 35,000.

Rapid population growth in a region like Phoenix also results in high levels of internal mobility (See Table 1). Newcomers often initially select temporary accommodations and later move to more permanent residences within the same metropolitan area. In addition, growth begets local movement by creating new opportunities for current residents. These opportunities trigger chains of future adjustments and create a multiplier effect for the local housing market⁹.

Table 1: Annual Mobility Rates in Selected Metropolitan Areas: 1994 and 1995

Metro Area	Percent of household heads who moved in last year	
	All moves	Moves within Metropolitan Area
Dallas (1994)	24.6	19.9
Phoenix (1994)	23.8	17.0
Fort Worth (1994)	23.0	17.3
San Diego (1994)	22.2	17.8
Anaheim (1994)	20.1	15.4
Portland (1995)	19.8	14.5
Columbus (1995)	19.0	15.4
Kansas City (1995)	18.4	13.9
Milwaukee (1994)	17.6	15.2
New Orleans (1995)	14.8	12.0
Buffalo (1994)	13.0	11.1
Pittsburgh (1995)	10.2	8.6

Source: U. S. Bureau of the Census. 1994b and 1995

The implications of high mobility for a community are controversial. Some argue that high levels of migration and population turnover lead to personal isolation, lack of a shared history and sense of community, and the failure to invest in the future. Others see migration as freedom from the familiar, family obligations, and expected behaviors. Migrants are risk takers who seek out new places and opportunities. Innovation and new ideas result from the synergism of people with diverse



backgrounds and ways of doing business¹⁰.

Immigration

The component of population change in the Phoenix area that is the most complicated and difficult to measure is immigration from abroad. The Census Bureau estimates the number of net international migrants during the 1990s as between 6,000 and 7,000 per year¹¹. These estimates reveal that immigration *directly* accounted for 8.3 percent of the county's total population growth between 1990 and 1997, far less than the percentages for natural increase and domestic migration, but a substantial percentage nonetheless.

The Census' emphasis on *direct* immigration to the Valley is misleading because it ignores immigration's *indirect* effects on population growth through domestic migration and natural increase. Immigrants who settle elsewhere upon their arrival in the U.S., but later move to Phoenix, are called secondary migrants. They are included in domestic migration flows because they come here from other parts of the United States. The rapidly growing Mexican immigrant community in central Phoenix gives the impression that substantial secondary migration, estimated to be largely from California and Texas, is reinforcing the effects of the 6,000 to 7,000 added annually through direct immigration.

Immigration also has an indirect effect on population growth through its influence on birth rates and natural increase. Foreign-born women have substantially higher levels of fertility than native-born women because they bring with them fertility traditions of their native countries. In 1994, there were, on average, 64.7 births per 1,000 women between the ages of 15 and 44 in the United States as a whole. Among Hispanics this figure was 99.2 compared to 60.6 for non-Hispanics. Equally significant are differences between Mexican-born and U.S.-born women of Mexican ancestry. For every 1,000 Mexican-born women of childbearing age, there were 142.7 births compared to only 84.5 for U.S. born women of Mexican descent¹². Immigrant women in Phoenix undoubtedly play a major role in the elevated fertility levels of the local Hispanic population, and immigration's indirect effects on population growth through natural increase are probably quite significant.

Lessons from Demographics

Four major lessons can be learned from the demographics of urban growth in Phoenix. First, migration from other parts of the United States is only one component of population growth. While it is the major source of urban growth now, it has fluctuated greatly in the past and undoubtedly will rise and fall again in the future. Natural increase and immigration from abroad, while not as potent as domestic migration, are steadier contributors to population growth in the Valley.

Second, migration does more than deliver growth to the Valley; it has a churning

effect on the population as well. Migration in Phoenix is a highly inefficient process in the sense that a large number of people move to the Valley each year, and almost as many leave each year. As a result, the Valley contains a large transient population, people who stay briefly in route to some place else.

The third lesson is that we are not always the pilots of our own destiny. Migration responds to economic signals here and elsewhere. A substantial portion of our recent growth is related to out-migration from California. A decade earlier, during the mid-1980s, the state was the recipient of many migrants from Texas as the domestic oil and gas industry faltered and sent the Lone Star State's economy into a tailspin. Immigration from abroad is as much triggered by economic conditions in Mexico, India, and China as by economic opportunity here. In a free market economy and a democratic society in which people are free to move, the fate of any one place is intimately intertwined with others, especially places with which it has shared migrants in the past.

And finally, there is considerable momentum for future growth built into the current demographic situation. Births will outstrip deaths as long as migration continues to add young people to our population and as long as immigration from abroad adds people with significantly higher fertility than the native-born population. Internal migration, through its effects on the local economy, has strong self-reinforcing properties. Migration stimulates economic growth which, in turn, stimulates more migration. To be sure, there are times when these engines of growth slow down, but their positive feedback systems are so strong that it is difficult to see anything but moderate-to-high population growth in the Valley's future.

Notes

¹U.S. Bureau of the Census. Estimates of the population of counties and demographic components of population change: Annual Time Series, July 1, 1990 to July 1, 1997. PE-62, 1998.

²U. S. Bureau of the Census. Estimates of the population of metropolitan areas: July 1, 1996. MA-96-9, 1997a.

³U.S. Bureau of the Census. Estimates of the population of counties and demographic components of population change: Annual Time Series, July 1, 1990 to July 1, 1997. PE-62, 1998.

⁴U.S. Bureau of the Census, 1997b. *Statistical Abstract of the United States, 1997* (117th edition) Washington, D.C.

⁵W. P. O'Hare, "America's minorities" *Population Bulletin* 47(4): 1-46, 1998.

⁶U.S. Bureau of the Census, 1997c; 1996 Estimates of population by age, sex, and race—Arizona by county. Population Estimates Program, Population Division, Washington, D.C. and Arizona Department of Health Services, 1997.

⁷U. S. Census, 1990.

⁸Patricia Gober "Americans on the Move" *Population Bulletin* 48 (3): 1-40, 1993.

⁹Goodman, 1982; Moore and Clark, 1986; Gober, 1993

¹⁰Gober, 1993.

¹¹U. S. Census, 1998.

¹²U. S. Census, 1994.



State of the Desert Biome-Uniqueness, Biodiversity, Threats and the Adequacy of Protection in the Sonoran Bioregion

Executive Summary

Gary Paul Nabhan and Andrew R. Holdsworth

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This report highlights (1) what is unique about the Sonoran Desert bioregion with respect to its organisms, ecological interactions and landscapes and (2), what threatens the future of this region's biological diversity. It is based on the compilation of surveys of 54 field scientists who average twenty years of field experience in this region of the southwestern United States and northwestern Mexico.

Stressors: Threats to Biodiversity

Thirty-three of the field scientists responded to the portion of our written questionnaire which asked them to rank the ten most significant threats to the biodiversity of the Sonoran bioregion on the basis of their observations since 1975. The top ten threats, according to the tally of their responses, are as follows:

1. Urbanization's aggravation of habitat conversion and fragmentation;
2. The high rate of in-migration of newcomers to reside, work and recreate in the region, and their contribution to population growth and resource consumption;
3. Surface water impoundment and diversion from places where native vegetation and wildlife have access to it;
4. Inappropriate grazing of vegetation by livestock, especially when combined with conversion of plant cover to exotic pasture grasses;
5. Aquifer mining and salinization, the drop in water table, and their long-term effects on riparian vegetation and wildlife;
6. Lack of planning for growth;
7. Exotic grass planting;
8. Conversion to farmlands;
9. Recreational impacts;
10. Biological invasions.

Since World War II, the Sunbelt of the U.S. Southwest and Northwest Mexico has been the setting for the largest in-migration in human history. A century and a half ago, indigenous communities still outnumbered European colonial communities, both in number and in the amount of land and water they managed. Today, the economic activities of the region are dominated by individuals who have lived in the region for less than a decade. The region's population nearly doubled (+98%) between 1970 and 1990 to a total population of 6.9 million. The greatest increases in population occurred in coastal resort areas, state capitals, and along the border. Currently, there is no sign that human population growth rates in the region will taper off during the next few decades.

Between 1940 and 1990, the populations of Arizona, Baja California Norte, and Sonora shifted from being one half to two-thirds rural, to over three-quarters urban. The present inhabitants' unfamiliarity with desert land and water management poses profound threats for most land, water, vegetation and wildlife resources within a half-hour's drive of the region's largest metropolitan areas. The actual effects of this urbanization on biodiversity are many and mutually reinforcing, including the aggravation of the "urban heat island effect;" the channelization or disruption of riparian corridors; the proliferation of exotic species; the killing of wildlife by automobiles, by toxics, and by pets; and the fragmentation of remaining patches of natural vegetation into smaller and smaller pieces that are unable to support viable populations of native plants or animals.

Hydrological engineers in the Sonoran Desert have impounded and diverted water flows from virtually all of the region's major rivers by constructing 41 major dams and associated irrigation canals. Among U.S. Federal Register notices listing plants and animals as endangered species, water impoundment and diversion are among the most frequently cited threats mentioned. Inundating vegetation in reservoirs behind dams and changes in river flow are among the most severe pressures on threatened plants and nesting birds in the U.S./Mexico borderlands. The regional decline of 36 of the 82 breeding bird species which formerly used riparian woodlands is a case in point. In combination with water diversion, groundwater pumping has affected nearly all river valleys in Arizona's portion of the Sonoran Desert. In the heart of agricultural areas, groundwater overuse has been most precipitous, leading to ground subsidence, salinization and the demise of riparian forests.

With regard to grazing, overstocking still continues on public and private lands in Arizona and Mexico's CODECOCA statistics confirm that 2 to 5 times the recommended stocking rates occur with regularity on the Sonoran side of the border.

Adequacy of Current Measures to Protect Biodiversity

Although there are many stresses on the region's biodiversity, we have witnessed more areas decreed as protected (as international, national or state biosphere reserves) in the last decade than any other decade in the history of the Sonoran bioregion. In addition, there are now more resource managers working on both sides of the border than there were a decade ago, although many more need training to better manage their areas for biodiversity instead of for single species or for recreation. For each Sonoran Desert subregion, vulnerable species and areas, and areas that merit protection are listed.

When asked if protected area managers still allow activities which deplete biodiversity, twenty-five of the surveyed scientists answered yes, nine answered no, and seventeen answered that such harmful activities now occur less than before.



However, it is a hopeful sign that over one quarter of the respondents see fewer harmful activities occurring within protected areas today than before—meaning either before the decree of these areas, or for early-established parks and wildlife refuges, before 1975. A notable portion of the scientists felt that grazing was finally being addressed sufficiently in discussions between resource managers, ranchers and scientists. Others felt that the impacts of ecotourism and outdoor recreation were being sufficiently dealt with at the local level. However, a majority of the scientists felt that virtually no threat is truly being adequately addressed anywhere in the Sonoran biome where they have worked.

Emerging Conservation Needs and Priorities

When field experts conversant with the Sonoran bioregion were asked what they felt should be the number one priority for conservation, they responded in a variety of ways, noting policy issues, research and education needs, action strategies, as well as earmarking species, habitats or landscapes in critical need of conservation. The extensive list includes the need to shift away from social and economic systems that reward consumptive behaviors and short-term gain while damaging natural systems, manage irrigation tailwaters and sewage effluent to restore the wetlands of the Colorado River delta, and many other recommendations.

What's Next?

It is clear that there is much reported by the field scientists surveyed here that bears reflection, discussion, debate and action. It is also abundantly evident that scientists' attention is not spread evenly across the biotic communities of the bioregion—some habitats such as mangrove swamps, riparian gallery forests and semidesert grasslands south of the U.S. - Mexico border are irregularly visited by biologists and poorly monitored relative to their significance.

There are four problems identified as the emerging issues which still require considerable discussion if they are to be resolved for the region:

1. The need for urban planning and agricultural lands restoration to allow for continuous corridors for wildlife passage through urban areas where their movements are currently blocked.
2. The need for guaranteeing river flow into coastal lagoons and estuaries of the Gulf of California (including the Colorado River delta) to ensure nutrient and fresh water flow essential to nursery grounds for invertebrates, fish, and waterfowl.
3. The need to redirect the management of critical habitats in state parks, wildlife refuges and national monuments away from recreation or protection of single species or features; focus needs to shift to overall biodiversity and the integrity of habitats, so that the interactions between species and natural communities persist.
4. The need for planning that reduces impacts of coastal and island development in the Gulf of California region where endemism is the highest.

Rural to Urban Land Conversion in Metropolitan Phoenix

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At the forefront of public debate about the future of metropolitan Phoenix is the issue of growth. The Phoenix region's growth typically has been at the urban fringe and characterized by low population densities, leap-frog development, competition among municipalities for new development, and aggressive annexation. Open desert is being rapidly converted into homes, shopping centers, schools, industrial parks, and roads with enormous implications for indigenous plants and animals. Also, irrigated agricultural fields, some cultivated for a century or more, are turning over to urban uses with dramatic effects on the local ecology. The conversion of open land into suburbs can be tracked through housing completions and demolitions and population growth.

Geography of Residential Completions and Demolitions

Valley municipalities are required to report additions and subtractions to their housing stock by location, size, type of unit, and date of completion to the Maricopa Association of Governments (MAG). Between April 1990 and June 1997, MAG recorded 179,483 residential completions and 3,024 demolitions. New homes are the most visible sign of the urban growth process as they replace open desert and farm fields. Demolitions reflect urban decline and the conversion of land from housing to other urban land uses such as roadways.

Figures 1-3 show residential completions, residential demolitions, and net residential completions by traffic analysis zones (TAZ) between 1990 and 1997. In **Figure 1**, a TAZ is included in the highest category if there were more than 500 residential completions per square mile between 1990 and 1997. This is the zone where rural/urban land use turnover is most intense. It is the crest of a wave of housing construction that is preceded by a less intense zone where development is just getting started and followed by another less intense zone whose wave of intense activity is now past. Note the close correspondence between fringe development and the completed and proposed freeway system, the lack of any significant development in the southwestern quadrant of the Valley, and the lack of significant housing construction in the interior of the metropolitan area where it is extremely difficult for a developer to put together enough vacant land to meet our lower threshold of 500 units per square mile.



Figure 1 Residential Completions 1990-97

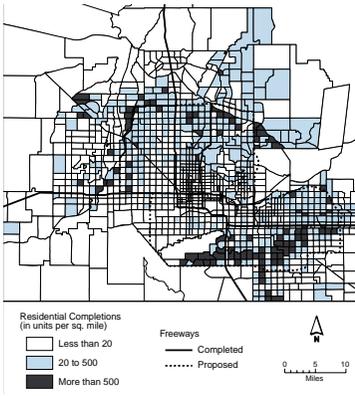


Figure 2 Residential Demolitions 1990-97

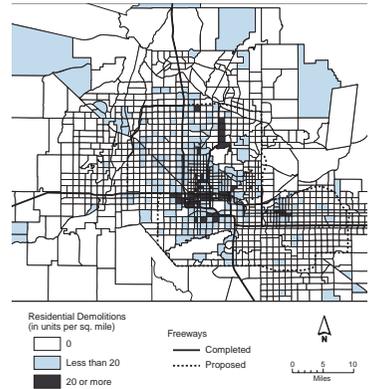


Figure 3 Net Residential Completions 1990-97

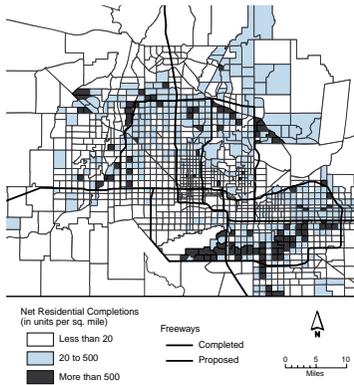
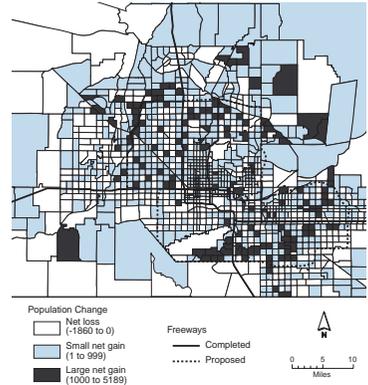


Figure 4 Population Change 1990-95



The demolition of 3,024 housing units between 1990 and 1997 (See **Figure 2**) demonstrates that urban change is not a one way street. Units are subtracted from the housing stock primarily because they are abandoned through decline or because they are in the path of a major infrastructure project. TAZs with the most demolition are concentrated in the path of the recently completed Squaw Peak Parkway, Loop 202, and I-10 Expressways and are sprinkled throughout inner city neighborhoods of Phoenix and Mesa. Demolition is a common process as strategically located residential land is put to more intensive use as a transportation corridor. In other areas, substantial demolition is a symptom of urban decay in which there is a decline in the demand for housing. The “suburbanization” of population and economic activity has robbed some inner-city neighborhoods of their economic vitality and has undercut the normal processes that lead to the replacement of inefficient housing units with more modern ones.

Net residential completion (**Figure 3**) is the difference between additions and subtractions to the housing stock. The distribution of net completions vividly illustrates the hollowing out of the inner city. Central or west Phoenix and older neighborhoods in Tempe, Mesa, and Scottsdale had little to no net growth in housing units. At the same time, growth has exploded at the outskirts of the built-up area, especially in the southeast Valley and the north and west sides.

Geography of Population Growth

The patterns of population change shown in **Figure 4** are complex, but they illustrate a number of points about the urban growth process. First, population change may or may not be linked to changes in the housing stock. Many of the TAZs with significant population gains are on the urban fringe, and growth there is clearly due to the flurry of new home construction. But, population growth can also occur for reasons other than new home construction. One major reason is racial and ethnic change. Hispanics, new immigrants in particular, tend to have large families. When they replace Anglos in a neighborhood, significant population growth can occur without any increase in the number of housing units. Ethnic change in west Phoenix has created pockets of high growth (more than 1,000 persons per square mile) in the midst of little new construction activity.

Similarly, population decline can occur without demolition. The aging of neighborhoods causes population declines. Because most of the housing in a given neighborhood was built at the same time and inhabited by people at similar stages of the life cycle, entire neighborhoods can be downsizing at the same time. This type of demographic change is common in areas ringing the inner city and in some older suburban neighborhoods.

A second lesson from Figure 4 is that population gains and losses occur all over the urban area for a variety of reasons. Metropolitan Phoenix may be among the fastest growing metropolitan areas in the nation, but this growth process is not a universal characteristic of the area. Of the 1,267 TAZs in the metropolitan area, 449 lost a total of 76,273 people.

What is universal is the capacity for change. Populations never stand still. In 1994, 23.8 percent of Phoenix-area households moved in the previous year, 17 percent of them within the metropolitan area itself.¹ A second destabilizing influence involves one of the simple and inexorable laws of demography—people grow old one year at a time. This aging process results in significant changes in family size and household structure. And third, ethnic turnover can drastically change the population characteristics of small areas within a very short period of time. These factors explain why small-scale population loss is so common in an environment of growth, why school districts need to build new schools in some areas while closing them in others, and why local



business must be constantly attuned to their ever-changing population bases.

Population and Land

In order to gain a clearer picture of the dynamic relationship between population and urban land and for the way different municipalities make use of their land resource, we compared land consumption rates and land absorption coefficients for 13 cities in Maricopa County.

Land Consumption Rate (LCR)

- LCR measures the urban land consumed per 1,000 people.

Land Absorption Coefficient (LAC)

- LAC is the change in urban land area per 1,000 change in population over a period of time.

In general this comparison shows how much urban land is being consumed for every 1,000 people being added to the population. “Urban land” was defined as TAZs where the population density exceeded 100 persons per square mile, excluding land that MAG characterizes as undevelopable open space. At this threshold, homes are beginning to be built, an urban infrastructure is in place, and traffic is on the rise. A Geographic Information System was used to determine whether or not each TAZ in our study area met the threshold for urban. Then the amount of urban land in a municipality and the number of persons living on that land were calculated. These data were used to calculate the LCRs, or the average amount of urban land for every 1,000 residents in each of the 13 municipalities in 1990 and 1995. An LCR differs from the usual measure of population density because it limits the land base to urban residential land only. Areas designated by MAG as undevelopable are excluded from the base. The result is an indicator of how intensively available residential land is being used.

LCRs differ quite substantially across the 13 municipalities included in this study (See **Table 1**). LCRs in 1990 ranged from a high of 2.4 in Goodyear to a low of .23 in Tempe. This means that each 1,000 residents of Goodyear consumed, on average 2.4 square miles of urban land while 1,000 Tempeans consumed only .23 square miles. Not surprisingly the lowest LCRs were in Phoenix and older suburbs like Tempe that evolved when higher residential densities were the norm. Besides Goodyear, high land consumption rates occurred in Fountain Hills and Paradise Valley because of traditional emphasis on very low density development.

Table 1: Land Consumption Rates in 1990 and 1995

City	1990			1995		
	Pop.	Land Area	LCR	Pop.	Land Area	LCR
Avondale	18,867	13.3	.71	22,858	13.3	.58
Chandler	94,793	43.5	.46	137,524	47.3	.34
Fountain Hills	10,012	14.0	1.39	13,802	13.9	1.00
Gilbert	34,571	26.3	.76	64,078	33.4	.52
Glendale	158,205	58.0	.37	187,496	66.5	.35
Goodyear	6,697	16.4	2.44	11,027	34.1	3.09
Mesa	321,796	105.5	.33	370,105	103.3	.28
Paradise Valley	12,259	14.3	1.17	12,638	14.3	1.13
Peoria	53,418	30.4	.57	76,445	33.3	.43
Phoenix	994,816	308.6	.31	1,146,069	333.9	.29
Scottsdale	130,668	63.1	.48	167,837	101.7	.61
Tempe	142,619	33.4	.23	152,670	33.0	.22
Surprise	6,148	4.9	.81	9,292	8.2	.88
Maricopa County	2,082,002	819.7	.39	2,487,512	991.2	.40

Source: Authors' calculations from MAG 1990 and 1995 population coverages

Land absorption coefficients measure the change in urban land area per 1,000 new residents between 1990 and 1995. High coefficients are recorded by communities that bring ever more land under development and low coefficients are indicative of communities where there is little new urban land. Here development occurs by filling in TAZs that were already designated as urban in 1990.

Low LACs are found in Avondale, Chandler, Fountain Hills, Mesa, Paradise Valley, Peoria, Phoenix, and Tempe (See Table 2). In these communities, urban land was largely fixed between 1990 and 1995. Additional population was funneled into existing urban land. Quite a different growth strategy pertained in Gilbert, Glendale, Scottsdale, and Surprise where development occurred by converting previously rural land to urban uses. In Scottsdale, every 1,000 new residents between 1990 and 1995 required 1.03 square miles of new urban land in contrast to Chandler where 1,000 new residents took only .09 square miles of new urban land.

Table 2: Land Absorption Coefficients, Total Land Area

City	Land Absorption Coefficient	City	Land Absorption Coefficient
Avondale	0	Paradise Valley	0
Chandler	.09	Peoria	.12
Fountain Hills	-.02	Phoenix	.17
Gilbert	.24	Scottsdale	1.03
Glendale	.29	Tempe	-.05
Goodyear	4.10	Surprise	1.03
Mesa	-.04	Maricopa County	.42

Sources: Authors' calculations from MAG's 1990 and 1995 coverages



Conclusions

Despite the high growth reputation of Phoenix, losses in population and housing are widespread across the metropolitan area. Intense activity occurs along a fairly well-defined line of new development at the urban fringe. Farther out appears to be a zone of moderate development which has not yet been inundated by new home construction. Closer in is an area whose period of intense development is now past.

Urban growth is not a monolithic process. In some communities, growth involves converting more land to urban uses. In others, there is more of a filling-in process taking place. Communities across the country are experimenting with managing growth along the urban fringe through such techniques as growth management boundaries, annual growth caps, and contiguous growth requirements. While Valley municipalities do not use any of these types of growth management tools, they are able to affect some control over development through other methods such as zoning ordinances, impact fees or exactions in kind for development, infill strategies, open space preservation, and annexation policies. For example, Phoenix has an urban infill strategy designed to encourage use of vacant or under used lots. This may work to redirect the location of new development away from the urban fringe of the city. Zoning codes delineate the kinds of development which can occur in specific areas, and sometimes there are even further restrictions. Notably, Scottsdale has an Environmentally Sensitive Lands Ordinance which encourages land uses “which are compatible with the environment.”

Communities that are building on new territory require more land for their growth than do cities where construction is largely confined to land that is already urban. The Central Arizona-Phoenix Long-Term Ecological Research Project's goal is to relate the character of new urban growth to municipal land use and development policies. To what extent do communities affect development patterns by their policies? Answering this question comparatively across the municipalities studied here will complement this article's findings regarding population growth and new urban land use and provide a more complete understanding of metropolitan Phoenix's dynamic and complex urban fabric.

Notes

¹ U. S. Census, American Housing Survey, Current Housing Survey, 1994.

Travel in Metropolitan Phoenix

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The growth of metropolitan Phoenix has created a low-density region where residents must travel to their often widely dispersed residential, work, shopping, and social destinations. Personal mobility is a core value of the individualistic Arizona lifestyle, but it raises concerns about increasing road congestion, limited alternatives to driving, and deteriorating air quality. Most travelers, however, have no choice but to use personal cars and trucks to get through their daily routines.

Four mobility trends are particularly important in metropolitan Phoenix at this time.

Continuing population and employment growth supports even larger increases in the use of personal vehicles.

Phoenix led the nation in the 1970s in population growth, labor force expansion, and increased use of personal vehicles to travel to work. In the 1980s, the rate of population growth continued with Phoenix second only to Orlando, Florida.¹ Personal mobility, as measured by the number of daily vehicle miles traveled, has grown at a rate of 4.3 percent every year since 1985². Thus in 1996, almost 59 million vehicle miles were traveled per day on interstates, highways, and arterial and local streets in metropolitan Phoenix. This travel volume equals an average of 22.72 miles per person with only 1 percent of all vehicle trips taken by public transit³.

When metropolitan Phoenix is compared with other western cities, the average miles traveled per person is lower, but the use of public transit lags and travel occurs disproportionately on a network of highways, arterials, and local streets⁴. Efforts to correct a gap in regional freeway capacity led to the passage in 1985 of a half-cent sales tax for a \$5.5 billion augmentation of the freeway system. While popular priorities have continued to support freeway construction, some communities, like Tempe, are improving transit services. Travelers in metropolitan Phoenix find themselves in the difficult situation of moving around during a major freeway construction effort, while the volume of travel continues to increase. Thirty-one miles of the planned 124 miles were completed by 1997. If all the planned increases occur in freeway and local street miles and bus services, the number of congested intersections and lanes will still grow⁵. Congestion that is concentrated now in the core of the metropolitan region will extend into the suburbs.

Distances between home, work, and social activities add to travel difficulties.

“With less than one third of the population of Los Angeles, the residents of the Phoenix metropolitan area log two thirds of the vehicle miles traveled in Los Angeles”⁶. Large residential developments are now located at the suburban fringe so that jobs,



entertainment, and shopping are some distance away. By 1997 each one-way trip averaged 7.63 vehicle miles. Regional one-way average travel times to work increased 5.6 percent to 23 minutes from 1980 to 1990.⁷

Commutes across city boundaries to work are the norm. For example in 1997 only 31.5 percent of Maricopa County residents lived and worked in the same city⁸. While over 74 percent of Phoenix residents worked in Phoenix, only 7.2 percent of Gilbert residents were employed in Gilbert. These contrasts suggest that broad travel imbalances will continue as the metropolitan area continues to expand outward.

The use of private cars and trucks, particularly in single-occupant trips, dominates metropolitan commuting.

In 1990, driving alone and carpooling accounted for 89% of work trips. This percentage has remained steady since 1970 (See Table 1).

Table 1: Means of Transportation to Work in Metropolitan Phoenix

	1990	1980	1970	1960
Drove alone	75%	70%	79%	82%
Carpooled	14%	19%	10%	Drove alone includes carpoled
Worked at home	3%	2%	2%	
Walked	3%	3%	4%	6%
Bus or Trolley	2%	2%	1%	4%
All other means (motorcycle, taxi, rail, bicycle)	3%	4%	4%	4%

Source: U.S. Census of Population 1960-1990

By 1997, participants in the Maricopa County Regional Trip Reduction Program used alternative modes of transportation for nearly 30 percent of their commuting trips⁹. Employees most commonly used carpools and a combination of compressed work week and telecommuting to reduce commuting mileage. However, private vehicles remain a necessity, not an option, for daily mobility for most residents. Travel by private vehicles, especially for women, makes it possible to juggle the daily demands of employment, household responsibilities, and child care. Even low-income workers find that access to a car is essential. Employed residents of one neighborhood in central Phoenix are heavy users of the automobile for their work trips. They travel by carpool more and drive alone less than metropolitan residents as a whole, but only slightly¹⁰. Unfortunately, automobile dependence also creates a gap in social and economic participation for those who cannot afford a vehicle or cannot drive.

Now residents can live at a distance from work and not pay a comparable price in travel time, but that may not be the case in the future. Some are looking for alternatives now. Travelers to inner-city work sites will continue to find that congestion in the

metropolitan core provides a considerable incentive to change their travel behavior. A positive “culture of commuting options” is emerging in some work sites at Sky Harbor International Airport for example. Many employees live in the new suburban areas and are interested in alternate commute modes such as carpooling and telecommuting. Current employees who use compressed workweek schedules live at distances of 15-17 miles from work along the Interstate-10 corridor serving Ahwatukee, Tempe, and Chandler.¹¹

Technological and traffic system improvements are being installed on existing freeways and major arterial highways with the goals of faster travel times and less congested routes. High-occupancy vehicle lanes, message information signs, rapid accident removal, and trip planning information technologies, ideally, will result in travel mode, time of day, and route shifts. The extent to which these improvements slow the rate of growth in congestion on the interstate system remains to be seen.

Present-day mobility reflects a dependence on personal vehicles that shows few signs of changing.

Arizonans appear to prefer an unregulated lifestyle that depends on personal mobility. However, the realities of urban travel are beginning to motivate residents to change their travel modes, routes, and times, shift residential and employment locations, and share rides with others with a common social bond or travel purpose. As policy choices are considered, it is important to note that these personal responses are not sufficient by themselves to overcome current growth trends toward an increased volume of travel and decentralized development patterns.

Notes

¹ Alan Pisarski, *Commuting in America II: The Second National Report on Commuting Patterns and Trends*. Lansdowne, VA: Eno Transportation Foundation, 1996. *Commuting in America*. Westport, CT: Eno Transportation Foundation, 1992.

² Mary Kihl, *Forging an Appropriate Transportation System for Arizona*. Arizona Academy, 1997.

³ *ibid.*

⁴ Morrison Institute for Public Policy. *What Matters in Greater Phoenix: 1997 Indicators of Our Quality of Life*, 1997.

⁵ Arizona Town Hall, 1997.

⁶ Arizona Town Hall, 1997.

⁷ U. S. Bureau of the Census. *1980 Census of Population and Housing, 1984 and 1990 Census of Population and Housing. Social and Economic Characteristics. Metropolitan Areas*. 1993.

⁸ Maricopa County Regional Trip Reduction Program, *1997 Annual Report*.

⁹ *ibid.*

¹⁰ Patricia Gober, and Elizabeth K. Burns, “Why Inner-City Job Linkages Won’t Work in Phoenix.” *Applied Geographic Studies* 2: 1-16, 1998.

¹¹ Elizabeth K. Burns, E. K. “Participation of Employed Women in Telecommute Options: Evidence from Inner-City Phoenix,” Paper presented at the Telecommunications and the City Conference, University of Georgia, 1998.



Growth Brings Uneven Benefits for Arizonans

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Growth can be defined in different ways, such as population gains, employment increases, or geographic expansion of a community. In Arizona, these measures largely coincide so that references to growth in this article refer to it generically.

The Need to Grow

Because the population continues to increase, other types of growth, such as employment, need to keep pace. Even if an area's population is not increasing from net in-migration, the number of jobs usually needs to increase because of rising workforce participation rates among women and because the number of young people entering the workforce exceeds the number of workers retiring or dying.

The number of new jobs needed in Arizona has been estimated to be approximately 21,000 per year; of these 13,000 are needed in Maricopa County with 4,000 in Pima County, and 4,000 in the balance of the state.¹ Between 1980 and 1995, an average of 61,600 jobs were created per year (figures in recent years have been even higher). Only in two recessionary years did job growth fall short of 21,000.

The fact that the number of jobs created has been about triple the number needed by the existing population is most of the reason for the state's rapid population growth. The more than 40,000 jobs per year in excess of those needed by the existing population have allowed many working-age people, especially those 18 to 29 years old, to move to Arizona. Most of these working-age migrants would not be in Arizona if they could not find a job. The state's experience fits with the findings of national studies that indicate that 60 to 90 percent of new jobs go to migrants.

Across the state, job growth has been greater than that needed to employ local residents entering the workforce except in isolated communities, especially Indian reservations. Despite the high numbers of new jobs, unemployment rates remain high, and workforce participation rates low, throughout much of the state beyond the Phoenix metro area. Low workforce participation rates usually reflect the inability of local residents to compete for the jobs being created. Migrants with more education, work experience, and job skills have filled many jobs in Arizona to the exclusion of local residents.

Costs and Benefits Of Growth And Urban Size

Since many of the costs and benefits of growth are difficult to quantify, personal perspective plays an important role in weighing the advantages and disadvantages of growth. Thus, determination of a generally accepted, scientifically defensible, optimal

city size or growth rate is not possible.

While the concepts of urban size and growth rate are not completely interchangeable, the costs and benefits of each are highly related. **Table 1** summarizes the generalized costs and benefits for each of three groups: the private sector (businesses), individuals (or households or families), and society as a whole (the public sector). Even within each of these three groups, costs and benefits do not accrue evenly among all members.

Table 1: Generalized Benefits and Costs of Urban Growth and Increased Size

	BENEFITS	COSTS
TO BUSINESSES	Improved market potential, including more customers and higher profits Improved productivity and efficiency Increased availability of business services and capital	Increased competition Higher costs, such as land, labor and utilities Higher taxes Greater travel time
TO INDIVIDUALS	Broader employment opportunities Higher incomes* Increased cultural and recreational choices Greater selection of goods and services Wider choice of housing	Higher taxes Increased cost of living, especially housing prices Psycho-social, including lifestyle changes, stress, and loss of sense of community
TO SOCIETY AT LARGE	Improvements to infrastructure and social services Public sector economies of scale Broadened tax base Healthier economy with a stable, diversified structure Psychological benefits from increased exposure and sophistication Increased rate of innovation and inventions Lower incidence of poverty*	Strain on public facilities Increase in social problems, such as homelessness and income disparity Higher costs of government, increased government size Urban sprawl and congestion of some public goods Traffic congestion and accidents Higher crime rate Air pollution Water quality and quantity Other environmental damage

* Associated with larger urban size, but not with the growth rate

Private Sector

Businesses generally are perceived to receive a strong net benefit from urban growth and increased urban size. This was verified in the Phoenix area in a survey conducted in 1987.² The survey was limited to business owners and senior managers living in metropolitan Phoenix. Eighty-five percent thought growth was beneficial to businesses



in the Phoenix area, compared to 12 percent who thought it was costly.

Survey respondents agreed that improved market potential (more customers) was by far the greatest benefit from urban growth. Other generally perceived benefits include higher profits; better availability of labor; increased availability of business services, including banking and capital; and improved productivity and efficiency.

Most of the benefits, however, have associated costs that reduce the net benefit. For example, greater travel time limits the net improvement in productivity for many firms. While a growing economy attracts labor from elsewhere in the country, it does not always bring in enough workers for all occupations. Labor shortages in certain occupations have occurred in the Phoenix area in recent years. Increased competition is a serious cost of growth to existing businesses. Examples exist from the Phoenix and Tucson metros of rapid growth attracting many national chains at the same time, driving local businesses and some chains entirely out of business.

More generally, except for monopolistic or near-monopolistic sectors, the benefits from growth are short term, with the market constantly adjusting to a new equilibrium between increased customers and increased competition. The higher profits perceived as a net advantage of growth may be offset by increased costs of doing business (such as land, labor, utilities, and taxes). Increases in costs generally have been moderate in Arizona.

The principal beneficiaries of urban growth and increasing urban size are those who possess monopoly advantage in the marketplace. Historically, banks, utilities, and newspapers have had little competition, but deregulation is changing this situation.

In addition, those who own fixed assets, such as land, receive a disproportionately large jump in value from the greater demand that accompanies urban growth. Further, individuals who own enterprises for which efficiency rises with size or who hold important nonduplicative positions, such as key private and public sector executives, are essentially isolated from increased competition and thereby prosper from urban growth.

Especially large landowners, and those who do business with these property owners, profit from growth and the associated increased intensification of land uses. This group has a very strong vested interest in growth. Thus, while growth leads to a significant net benefit to the business community as a whole, some entities reap tremendous benefits, while others face a net cost that may drive them out of business. Those business enterprises that serve a national or international market, such as many manufacturing firms, receive little net benefit from growth.

Individuals

Growth is felt to generally carry a slight net cost to individuals, households, and families already living in an area. This was verified in the 1987 survey in which 42 percent of respondents thought growth had a beneficial impact on individuals in the Phoenix area, while 49 percent felt the impact was costly.

Generally perceived benefits to individuals include broader employment opportunities, increased cultural and recreational opportunities, greater selection of goods and services, wider choice of housing, and higher incomes. Costs include higher taxes and an increased cost of living, especially higher housing prices.

As discussed below, higher incomes are associated with a larger urban area, but not with growth in recent years. Further, at least part of any increase in incomes is typically offset by a higher cost of living. In the Phoenix and Tucson areas, neither higher incomes nor costs have been significant results of growth. In communities such as Prescott and Flagstaff, however, growth in the 1990s has resulted in significantly higher housing costs.

The increase in choice of employment, shopping, entertainment, and housing are all significant benefits in less populous areas. These benefits largely disappear as populous areas continue to grow. Phoenix-area residents in recent years have received little benefit in any of these regards because growth generally has brought more of the same. The exception may be in employment opportunities for those in certain specialized occupations. In contrast, the Tucson area is probably still benefitting from growth, especially in employment and entertainment opportunities. It is in certain types of entertainment, such as major league sports, where benefits continue to accrue up to a population of around 1.5 million.

In less populous areas, increased choice and opportunities are a significant benefit of growth. However, psycho-social costs probably are greatest in smaller communities, since it is here that the character of the community is most likely to be changed by growth. While some residents may welcome the benefits and wish for their community to grow further, others may be living there precisely because of their desire not to live in a populous area. Except for this latter group, growth carries a strong net benefit to individuals in less populous areas. This benefit declines with size until it turns into a net negative in large urban areas.

While growth carries a net cost to most individuals already living in a large urban area, the same cannot be said for new migrants to the area. Most migrants initially view their move to be a substantial net positive personally—otherwise most would not undertake such a long distance move. Most migrants to Arizona perceive significant improvement in their quality of life, mostly due to climatic factors. While economic aspects are



important for most migrants, many are willing to sacrifice financially because of perceived amenities. Moreover, if the new residents purchase a new home at the fringe of the urban area, they generally benefit from the low land costs without being made to pay for the full cost of public services to their new home.

Society at Large

Growth is generally recognized to carry a slight net cost to society as a whole, much of which can be measured by effects on the public sector. The 1987 survey respondents saw the issue in this way, with 43 percent feeling growth provided a net benefit to society at large, while 48 percent felt it resulted in a net cost.

Improvements to the social and physical infrastructure are seen as a prime benefit from growth. Included here are more and better public services, such as medical care and education, as well as economies of scale. Other benefits frequently cited include a healthier economy due to more diversification and stability, a broadened tax base, an increased rate of innovation and inventions, and a lower incidence of poverty. Unfortunately, neither of the latter two benefits can be seen in Arizona.

A variety of societal costs result from growth. These include traffic congestion and air pollution. Other costs include the quality and quantity of water, environmental damage, higher crime rates, various social problems, urban sprawl and congestion, strain on public facilities, and increased government size and cost. While growth's effects on the public sector may be seen in cities of all sizes, most of the costs are greater in very populous areas than in less populous areas.

Studies have shown that population growth is associated with higher per capita spending by local governments. The increased per capita taxes borne by the entire community may come at the same time as declines in the quality of the public service.

Like the net impact on individuals, the effect of growth on society at large may be a net positive in less populous areas, but a net negative in larger urban areas. The divergence of continued net benefits to the private sector and to certain individuals while the net benefits to the other groups are disappearing results in the growth of an area beyond the size desired by a majority of its residents.

Growth And Prosperity in Arizona

Empirical evidence indicates that the more populous the area, the higher both incomes and costs tend to be. The net effect is higher wages and incomes even after considering living costs and taxes. Thus, the economic well-being of individuals tends to be highest on average in very populous metro areas and least in small communities. However, these higher incomes largely represent compensation for the "disamenities" (such as pollution) associated with large urban areas.

In contrast, however, empirical evidence from recent years does not reveal any relationship between the rate of population growth and incomes. While some individuals and companies benefit financially from growth, the prosperity of the community as a whole is unaffected. Similarly, growth has no significant effect on the unemployment rate. Despite rapid employment growth, unemployment rates do not fall relative to other areas since migrants fill the majority of new jobs.

Per capita personal income (PCPI) is a measure of economic well-being. Among the 50 states, increases in PCPI have had no relationship with population growth rates over at least the last ten years. Since the end of World War II, Arizona's population growth has been consistently among the fastest in the nation. Arizona's PCPI growth has been a bit below the national average, with the actual level of per capita personal income remaining far below the national average. Over the past ten years, Arizona's PCPI gains were among the weakest in the country.

Other measures of prosperity and economic well-being in Arizona have a record similar to that of the PCPI. Despite strong employment growth since the last recession, unemployment rates in 1997 were at least seven percent in ten of 15 Arizona counties, with the overall figure for the 13 less populous counties in excess of ten percent. The average wage in Arizona grew less than the national average throughout the 1980s and early 1990s; gains since 1993 have been slightly above average. Arizona's average wage was close to the national average in the 1970s, but now it is several percentage points lower. Slow wage gains have contributed to the slow growth in PCPI. They also have contributed to the state's poverty rate rising to a level well above the national average. The high poverty rate is associated with Arizona having one of the most rapidly widening income disparities in the nation, with the disparity one of the greatest in the nation.

Similar results are seen by metropolitan area. Nationally, the PCPI and population are significantly related, but change in population and change in PCPI are not related. The Phoenix area has consistently led the state on all measures of economic well-being, while the rural part of the state has had the greatest problems. These significant urban-rural disparities generally continue to widen in Arizona.

It is difficult to quantify the direct effect growth has had on these conditions. However, it is clear that during decades of rapid growth, economic well-being in Arizona did not improve more than the national average.

Sprawl Versus Compact Development

In this section, sprawl is compared to growth that is more managed and planned. The goal of the latter often is to achieve "compact" cities. Sprawl and compact development are at opposing ends of the continuum of forms of development. Thus, sprawl is a matter of degree and does not have a precise definition. While considered an aspect of



growth, sprawl can occur independent of population growth.

Generally, sprawl involves extensive areas of low population density. The low density results from some combination of leapfrog, scattered, and very low density residential development. A further characteristic is residential development (bedroom communities) without much else nearby. Thus, residents must drive extensive distances to employment, shopping, and entertainment. Sprawl may also incorporate commercial strip development. Another feature of sprawl is that a lack of functional open space may coincide with large tracts of undeveloped land.

Since sprawl represents one end of the continuum of forms of development rather than a distinctly different type, gray areas exist between what obviously is sprawl and what is not. Unfortunately, some use the term sprawl for essentially all suburban growth, even that without the above features. The result is confusion and differences of opinion that are semantic rather than real.

A certain amount of leapfrog development is a natural feature of growth. Private landownership means that some landowners closer to the urban center may choose not to develop their land while others farther out do develop their property. For example, a farmer nearing retirement commonly will wait to sell his land, while a younger farmer generally sells quickly and establishes himself in another area. With rapid population growth in Arizona, the bypassed closer-in land usually is developed in the not-too-distant future.

Similarly, retail and other commercial activities usually require a certain population base before locating in an area. Thus, newly growing areas frequently lack most services, but only for a relatively short time in most of Arizona. Further, some land needs to be left behind for such future and more dense types of development.

Thus, leapfrog development and a lack of services does not automatically equate to sprawl. Instead, such features need to be extreme—in distance or in number—and must be long lasting to be considered sprawl. In Arizona, most of these features do not last long because of rapid population growth. In contrast, leapfrog or scatter development without services may last a long time in slow-growing eastern and midwestern areas of the country. Ironically, while western metro areas frequently are cited as prime examples of sprawl, classic undesirable sprawl really is mostly a feature of older, slower-growing areas in the eastern two-thirds of the nation.

Compact development is at the other end of the continuum. It involves higher (but not necessarily high) densities through the use of more multi-family housing, cluster housing, and smaller lots for traditional single family housing. Unused or underutilized land within the developed area is minimized. Compact development generally is

achieved only through growth management or intensive planning. However, where land prices are high, some degree of compact development occurs naturally.

Sprawl frequently is cited as having greater costs than other forms of growth. Thus, planners have proposed taking more managed or planned approaches to urban growth to reduce these costs.

Growth management has been seriously discussed in Arizona only recently. However, the desire for more planning is not new. The 1987 survey of business leaders asked about the quality of the growth planning in the Phoenix area. Only 14 percent believed growth had been well planned, while 44 percent felt it had been poorly planned. Of those who thought growth planning had been mediocre or poor, public officials were felt to be primarily responsible for the inadequate planning and management.

Density and Geography

Population density naturally declines with distance from the urban center. The rapidity of the decrease, and the level to which it decreases, help to define sprawl. Further, a steady decline in density better defines sprawl than a decline punctuated with occasional increases. Such increases are an indication of suburban centers, likely with jobs, entertainment, and shopping.

The U.S. Census Bureau defines an “urbanized area” (UA) as the developed area of population centers with at least 50,000 residents. Between 1980 and 1990, the population density of the nation’s nearly 400 urbanized areas declined four percent. Two-thirds of the UAs experienced a decline in density. Most notably, while the population declined in nearly one in five UAs, the geographic size of most of these UAs still expanded. The decline in density was greatest in the middle of the country, where densities already were relatively low. Densities rose slightly in New England and substantially in the Pacific region in the 1980s. In 1990, UA population densities were least across the South, followed by the North Central regions. Densities were highest along the West Coast, followed by the Mountain region and the Northeast.

Densities and the change in densities clearly are highly correlated to land prices. Where prices are high—the West and Northeast—densities are high and either rising or falling only slightly. Densities also are highest and rising the most in the most populous urbanized areas, which also tend to have high land costs.

The Case in Arizona

In general, Arizona’s populous areas do not present a classic example of sprawl, in part because rapid population growth quickly overcomes most characteristics of sprawl. In addition, land prices are not as low as those in the middle of the country, meaning that the land tends to be developed more intensely and carefully. On the other hand, Arizona



communities are far from examples of compact growth.

While examples of low-density residential development some distance from any other development and without jobs or most services exist in the Phoenix and Tucson areas, these developments are relatively few. Some have already been engulfed by the rapidly expanding urbanized area.

In contrast, some of Arizona's smaller communities do exhibit many of the characteristics of sprawl. Many lack a town center and have residential development spread out over a large area with many intervening undeveloped areas.

Costs and Benefits: Sprawl Versus Compact Growth

As noted earlier, growth brings a variety of costs and benefits. The magnitude of some of these, particularly costs, may vary with the form of urban growth. In particular, many claim that sprawl increases many costs relative to other forms of growth.

The primary beneficiary of sprawl is the new homeowner. Purchasing a new home at the fringe is less costly, since land costs are lower. Similarly, businesses locating at the fringe also benefit from these lower costs, enhancing competitiveness. Among the costs largely borne by new residents at the fringe are higher commuting costs (gasoline, auto maintenance, and time). The outlying residents may also experience a longer response time for emergency services (police, fire, and ambulance).

Most of the costs of sprawl accrue to society as a whole, such as air pollution and traffic congestion. Many of these costs are widely debated. This includes the most commonly cited one, that the marginal cost of public services is higher in outlying areas and that these additional costs are not usually captured in development fees. Thus, taxpayers throughout the community help pay for the cost of infrastructure and services to the new development, including roads, sewer and water lines, and construction of schools. The growth at the edge experienced with sprawl usually is associated with the decline of the urban area's central core. However, this has not occurred to a substantial extent in Arizona.

Little disagreement exists that sprawl consumes more land than other forms of urban growth, but some argue against the significance of this. Prime agricultural land may be converted to housing developments while sensitive ecosystems may also be developed. Some of Arizona's growth has been on such lands.

Oregon as a Case Study

Oregon is the nation's leading example of growth management planning, including the use of urban growth boundaries (UGB). Community plans were passed during the 1970s and 1980s, with Portland's being adopted in 1979. This section examines

whether Oregon's growth management has had any obvious effects on four factors: population growth; economic performance; housing prices; and population density. This is done primarily by comparing Oregon to Washington, its most comparable state, and the Portland area to the Seattle area. While the state of Washington now has its own growth management act, community plans have been adopted only since 1994.

Washington and Oregon have alternated having faster population growth during the last 50 years. From 1979 through 1992, Oregon's population grew less rapidly than that of Washington. Whether the growth management plan contributed to the slower growth is unclear, as many factors influence population growth. In any case, over the last five years, Oregon's population growth rate has been identical to that of Washington.

One of the five counties comprising the Portland metropolitan area is in Washington and thus was not affected by Oregon's growth management plan. It has only been in recent years that the growth rate in Washington's Clark County became the fastest of the five counties. Thus, despite no UGB and the lure of no state income tax in Washington, the Washington portion of the Portland region has not grown at a much different pace than the Oregon portion since the passage of Portland's growth management plan.

Oregon lagged behind Washington in economic performance, as measured by per capita personal income, during much of the last 50 years. However, conditions have reversed since 1992.

Data on land and home prices indicate that those in Portland remain lower than those in Seattle. Within the Portland area, the price in the Oregon portion was marginally less than that in the Washington portion. However, research that compares home prices to incomes shows Portland to be one of the least affordable areas in the country. Cyclical economic factors, rather than growth management, has been the dominant influence on land and home prices in both states, driving prices lower in the 1980s and forcing them higher since the late 1980s.

The Portland urbanized area's population density in 1990 was about equal to that in Seattle. While considerably more dense than the national average, Portland's density was no higher than that in many western areas. The Portland UA was about ten percent more dense than the Phoenix UA. In contrast to the national decline, both Portland and Seattle had a slight rise in density in the 1980s. Many western areas, including Phoenix, had greater increases in density.

Notes

¹ *Arizona Business*, Center for Business Research, Arizona State University, July 1996.

² *Arizona Business*, Center for Business Research, Arizona State University, August 1987.

Phoenix and the Vision Thing

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Housing Marketplace Determines Design, Not Other Way Around

Tom Simplot, Deputy Director, Home Builders Association of Central Arizona

Let's Hear It for the Suburbs

Samuel R. Staley, ©Reason Public Policy Institute

Agriculture: Growth's Architect and Its Victim

Rick C. Lavis, Executive Vice President, Arizona Cotton Growers Association

Barriers Won't Help Growth

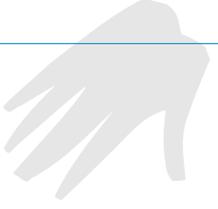
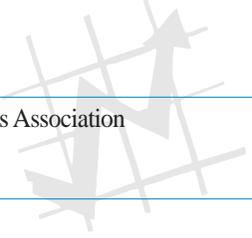
Patrick S. Sullivan, for *St. Louis Post-Dispatch*

The Counties That Growth Forgot

Brent Brown, Associate Professor, School of Public Affairs, Arizona State University

Restore the Focus on Planning

Larry Landry, ©Landry & Associates





Phoenix and the Vision Thing

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Visions are elusive. George Bush, mired in the minutia of governing, found it hard to articulate any lofty goal and admitted that the “vision thing” was not his cup of tea. Phoenix, obsessed with the business of growing, has not often paused to ask: into what? This year the debate about the Urban Growth Boundary (UGB) proposal to draw a boundary around cities has helped focus local attention on what is too often a vague dialogue about the relationship of growth, quality of life, and the nature of our communities. The UGB was a device not a vision, but for a place whose only vision has been to grow, a device may be a necessary construct to guide discussions.

Recently, the Maricopa Association of Governments organized a “visioning” meeting, intending to gain input by using high tech computers to tabulate responses to a range of questions by audience members holding little remote control boxes. Some participants became angry because they didn’t like the questions being asked—the technology seemed more important than the vision thing. Others did not like being asked to *predict* the future they thought they had been invited to help *shape*. It was not an auspicious start, but shared visioning can be difficult, especially when there is little common ground among its participants other than an expectation of growth.

The UGB proposal was to draw an arbitrary line around cities delimiting their maximum circumference, and to not change it without a public vote. While initiative petitions were circulating, the debate about the proposal contained very little substantive dialogue about how boundaries would make things better, very little explanation of what vision, if any, the magic line was intended to implement. The principal argument by proponents of UGBs seemed to be: “But we’ve just got to do something! Anything! We can’t trust those politicians!”

UGBs are a solution crafted for another place with a very different city form. Such boundaries are designed to protect a traditional, dense 19th century-style downtown area and to keep small traditional rural towns from being transformed into commuter suburbs. These are not our principal problems. We do not, and never really did, have a traditional downtown nor do we have many small farming towns in Maricopa County struggling to preserve a pastoral lifestyle. Despite rhetoric to the contrary, we also have little of the classically derided “leapfrog” phenomenon where new subdivisions spring up unexpectedly miles and miles beyond the urban fringe. Desert cities have a distinct pattern of growth. They expand relatively steadily on the edge

This article is adapted from the author's book *Phoenix in Perspective*, published by The Herberger Center for Design Excellence, College of Architecture and Environmental Design, Arizona State University.

because new development can occur only where the infrastructure of water delivery is available. There are a few exceptions, of course, but by and large we already grow in a logical progressive outward expansion.

Instead of importing a growth management device from the Pacific Northwest, any mechanism developed to guide future growth in Greater Phoenix should build on an understanding of the nature of desert communities. The best place to start is with our water resources, the thing which makes it possible for us to exist here at all. Because of the Salt River Project and Central Arizona Project, there are renewable water supplies available to Maricopa County which conceivably could support a population in excess of ten million people. Our development-oriented forebears who lobbied for these systems showed extraordinary foresight in planning for continued growth, and we also owe an enormous debt (in money and gratitude) to the federal government for actually building these plumbing systems. Historically we have not considered water as something to be utilized to manage growth. Rather, we treat water as a kind of tribal commodity we fight to protect at all costs. It is a commodity of which we can never have enough, even while simultaneously worrying that we are growing too quickly.

Ten million people is too many. Using all our water resources to support an urban population would leave us little margin for error. The number is uncomfortably high. Instead, we should make a conscious decision to establish a “planning horizon” for a population which we believe is the maximum to reasonably sustain an acceptable lifestyle in the Valley. The number is not an absolute limit to be enforced by “population police,” but it would become a framework for all planning and development decisions. Individual cities, through internal planning and dialogue with neighboring jurisdictions, could plan for future growth that would conform to the projection. We would make more deliberate choices about types of growth and development if we had criteria and targets to work against. The horizon would give us a reason to scrutinize and prioritize in a way we now do not. With the advent of a presumptive limit, we could no longer simply assume all growth is good. Rather, we would have to exercise a serious degree of influence on the quality and character of growth. This is a radical notion in a community that has held as its core value the desire to boom. As the horizon number gets closer, adjustments in settlement patterns and lifestyles would become necessary.

The question of how many people can live in Greater Phoenix is directly related to whether agriculture will survive in central Arizona. Right now, about half of the water in Maricopa County is still used for irrigated farming. Hundreds of thousands of acre feet of Central Arizona Project water is also being delivered to farms in Pinal County. Since water is a commodity which responds to market demand and pricing, it is likely that if we do nothing, all of that water will eventually move to urban uses,



which can invariably pay a much higher price. The loss of all farming in central Arizona would be tragic. Open space would vanish; the contribution of large agricultural parcels in cooling the climate would disappear. But most importantly, we would lose our connection to why people came here in the first place. From the Hohokam to Jack Swilling, the reason this place came to be was in order to grow crops, and it is a good place to do so. Preserving agriculture preserves our community's heritage and promotes "sustainability"—not because we could ever grow all the food to serve the people who live here, but because sustainability also comes from understanding, recognizing, and utilizing the resources of a place in shaping its settlement.

To insure this important resource is not lost, we should dedicate 500,000 acre feet of water to agriculture, to be used permanently for farming in central Arizona. This water might be used by Indian tribes, by non-Indian agriculture, or a combination of the two. The physical location of farming might shift, but the decision to dedicate this much water to agricultural use begins to help us establish a population horizon for Maricopa County: 7 million.

Seven million people is still more than twice our current population. It is a number which we might reach by the middle of the twenty first century. How can we accommodate such growth and still maintain a high a quality of life? Should we try to radically alter our current urban form by compacting all those people much more tightly together? Should we remake our city in the image of more traditional older urban areas of America? Should we strive for high density, fewer cars, rail transit, and less of that awful sprawl? In a word: No.

The Valley of the Sun has always been an open, affordable, low density city. We blossomed into a big city after the automobile, in an era when government policies were designed to encourage home ownership. Because of those policies, personal lifestyle choices, abundant land, and a climate in which living outdoors is possible for most of the year, we have an urban form in which a remarkably high percentage of our population (55%) lives in detached single family homes. Most of these homes exist within a confined range of densities, between two and a half and five units to the acre. Most of these homes are owned by the people who live in them—65 percent, one of the highest percentages in the world.

Today, nearly 1000 square miles of the county is built in this pattern. The urban area will grow more dense, as it does every day, with infill development, more multi-family housing, and higher density single family home development as a result of increasing land prices and construction costs. Many major metropolitan areas in the U.S. are losing density from one area of the city to another—that's what "sprawl" is really about. Phoenix is not following this pattern. Rather, we continue to grow on

the edge at the same time we infill and build urban cores. We cannot bulldoze our existing metropolis and rebuild it in the image of Manhattan. And the reality is: *we don't want to*. In Walt Kelly's immortal words, "we have met the enemy and he is us." We are living a lifestyle we like, we just wish so many other people didn't feel the same way.

It is the independently exercised choices of individuals which shape cities. Government has the power to influence, but not to control those choices. Phoenix has been the successful product of such influenced choices for the last fifty years. We should recognize and celebrate the result, not waste energy lamenting that we don't look like Boston. Our focus should be on how to continue to influence the trend of development in the future to retain those things that make Phoenix a place where people choose to live. Our power to influence is greatest when used in realistic increments. We should accept that we can, and we will, continue to grow in a pattern much like our current city—a community of detached single family homes; a relatively uniform density of between 2500 and 3000 citizens per square mile. If we reach a "population horizon" of 7 million in that pattern, we will have urbanized about 3000 square miles or about half of the land in Maricopa County.

It is possible to reach that horizon while preserving the lifestyle we enjoy, but only if we make a series of changes in the way we currently manage growth and development. A fundamental beginning is to embrace a degree of regional cooperation that we previously have not been willing to entertain. This is not a call to create a full scale regional government, for to be successful we must move ahead prudently, recognizing political realities and focusing on specific issues of regional development which offer opportunities and clearly visible benefits for the population county wide.

A starting point would be the implementation of the Maricopa Association of Government's *Desert Spaces*. That plan identified more than three million acres of potential open space to be preserved. This open space should be woven into the urban fabric of the city as we grow, not isolated in a belt outside of an arbitrary growth boundary. The open space should be connected, providing wildlife with migratory routes, and providing urban citizens with accessible desert they can see and appreciate. The Sonoran desert is the richest and most spectacular arid ecosystem in North America. It is the essential magic of this place. That magic cannot be captured on a fifty foot wide lot serviced by drip irrigation. By integrating sufficiently large desert parcels into our city as we grow we can help to mitigate the heat gain of urban mass. Retaining and incorporating desert spaces into the city is a far better way to inhabit this region than by trying to force our agglomeration into a tighter, denser urban form.

Fortunately, the mountain preserves of Phoenix and Scottsdale already provide a



strong foundation for this open space system. These cities' recent efforts to expand this system, and the state's Arizona Preserve Initiative are further steps toward such a goal. But even taken together, these are inadequate. We should ask the citizens of Maricopa County to dedicate tax resources, such as a county wide sales tax, for open space acquisition. We raised nearly \$300 million for Bank One Ballpark in a few short years. We should target \$2 billion for open space acquisition.

Next, we must reform the operation of the State Land Department. There are nearly 600,000 acres of land in Maricopa County held by the Land Department "in trust" for the benefit of funding education. Since the Urban Lands Act of 1981 this property has been "available" in some sense for ultimate development. In that period, urban trust land has been plagued by constant misunderstanding of its purpose, false starts, indecisive policy making, and political interference. The Land Department has been castigated for disposing of land too early and too cheaply; criticized for not preserving enough land as open space; blamed for furthering sprawl; chastised for not being aggressive enough in disposing of land to generate revenues to help Arizona's school children; investigated for being too "cozy" with developers; boycotted as "impossible to deal with" by the same developers. Through this relentless barrage of criticism the Department has careened from one policy to another depending on what criticism was leveled last.

Despite the problems, we should recognize that the State Land Department controls one of our greatest assets. These lands represent an opportunity to realize a vision of the future and protect our quality of life. Trust Lands should be treated as a laboratory for innovation. They should be used to demonstrate sensitive, creative, climatically appropriate development instead of used as a political battleground. The Land Department should be completely restructured to insulate it from political pressures and to allow the development of consistent policies and behavior which can survive the comings and goings of a given Land Commissioner or changes in Administration. The Department should be managed by a Board of Trustees appointed by the governor for staggered terms and removable only for malfeasance. Those Trustees should be given a mandate to realize the greatest possible revenue for the Trust while at the same time demonstrating innovative sustainable development practices. To be successful, they should be given the power to manage the agency as a quasi-public corporation, hiring employees outside the state civil service system and retaining enough revenues to operate.

A population horizon; a comprehensive, integrated and open space program; a State Land Department with a mission of developing innovative quality development. Good ideas, perhaps, but still short of a vision: these seem pieces of process, not a blueprint for the future. Perhaps that is the point. Cities do not exist by fiat, they evolve and change in response to a myriad of influences. Today we are witnessing the embryonic years of a cultural transformation every bit as profound as that

wrought by the rise of the automobile. The auto gave us “sprawl”—the ability to live and work in places connected only by ribbons of pavement, in a lifestyle of unparalleled personal mobility. Now we are moving from the city on wheels to the city on the wire. Working and living patterns have and will change as computer technologies proliferate. What our cities will look like when people can plug in and work from home, from Starbucks, from a telecommuting center, and at whatever time is convenient, we cannot yet predict. More density or less? Maybe both, since for the first time in human history our urban form may not be dictated principally by the means of available physical transportation.

Phoenix, the prototypical post-industrial city, should be at the forefront of this revolution. Instead of arguing over how to build the mass transit systems of the last generation of cities—designed to move large numbers of people downtown for work—we should talk about how to build a city to eliminate rush hour altogether. We should consciously capitalize on our multi-centered form to further disperse and diversify work activities. We should plan that the “cores” of our metropolitan area will be increasingly centered on social interaction, dining, shopping and meeting, while “work” itself will become less dependent on face-to-face interaction and the need for simultaneous concentration of large numbers of workers.

We should stop trying to turn Phoenix into a 19th century city, with the preponderance of jobs concentrated downtown, with fixed transit routes to feed preconceived locations, with boundaries constraining further low density growth. Our city is already closer to the future than that. Visions of the past are too easy; visions of the future are very hard. The viable vision *is* one of process which lets the future unfold.



Housing Marketplace Determines Design, Not Other Way Around

Tom Simplot

Deputy Director, Home Builders Association of Central Arizona

Fifty years ago, when hundreds of thousands of American men and women returned from serving their country in World War II, we faced a severe housing shortage. The unpleasant reality was that the people who had just given so much had no place to live. They could rent or they could live in the family home. Almost none of them could afford to buy a home.

We created a number of incentives—low interest loans, the Federal Housing Administration, and other programs—to encourage new home ownership. Unfortunately, there weren't any homes to buy. So we developed suburban America where large numbers of homes could be built on tracts of relatively inexpensive land. We weren't much concerned with how those houses looked, and American families were thrilled with the chance to buy more distinctive homes as their incomes and needs grew. But, they took great pride in those little “starter” homes.

Fifty years later, we are now confronted with a similar lack of truly affordable housing for young families. We met the challenge 50 years ago, but now we seem less interested in making sure housing is available than we are in how houses are designed.

What is especially interesting in the current debate over home design is that we seem to be seeking the same neighborhood atmosphere that existed when we last dealt with this problem. We have a vision of neighborhoods we have carried from our childhoods—streets lined with big trees and front yards filled with happy children who live in lovely homes with nice front porches. It's a nostalgic and comforting vision which, unfortunately, harkens back to a time that no longer exists. The notion that we can somehow restore neighborhoods just by changing home design is puzzling because it ignores the reality of modern American life, especially here in metropolitan Phoenix. All the front porches in the world cannot make working mothers sacrifice their careers, nor will they put children back in those front yards. In fact, because of our weather, the Valley is a back yard place where families are content to live with walls around their patios and pools. Design changes will make no difference to that reality.

The current design debate doesn't even reflect the wishes of most new home buyers or current home owners. The two current hot button issues—exterior design and high density developments surrounded by green space—were rarely mentioned in recent research among potential and current home owners conducted by National Family Opinion for *Professional Builder* magazine. Two of the biggest issues to new home buyers were overall home size and *interior* design. Exterior design factors didn't even make the list. And, both design and size took a back seat to new home buyers' greatest

concern, whether for first homes or not. That concern is cost, with nearly 70 percent of new home buyers citing affordability as their number one issue. Fully 60 percent of first-time buyers cite cost as the factor that has prevented them from buying until now, and more than half of those potential buyers are still priced out of the market.

The so-called neo-traditional developments—smaller homes, greater density, pocket parks, surrounding green space—have gained popularity only among empty nesters. Even retirees prefer the more traditional development and that tradition is preferred nearly two to one by both first-time buyers and those making a move-up purchase.

The problem here is fairly obvious. The changes now being proposed to individual homes and home developments do not reflect the marketplace, which has been the design standard on which home builders have depended for at least the last half century. The notion that we home builders can somehow force people into developments and designs, against their will and for our own financial advantage, has never been true. The average first-time buyer looks at no less than 16 homes before making a purchase. That's a pretty discriminating buyer to whom we must be responsive if we want to stay in business.

Additionally, there is a serious disconnect between what cities allow us to build and what some experts now tell us we should build. Lot sizes, exterior appearance, set-backs, landscaping, construction methods and a host of other restrictions require us to build a certain way in certain communities. Many of these standards must be changed, or at least loosened, to accomplish the kind of design diversity now being discussed. We certainly do not offer blanket opposition to new home design or to new ideas about land development. We do however offer the following suggestions:

- New home designs, whatever they may be, must include affordability as a priority or we will have eliminated millions of Americans from the opportunity to enjoy homeownership.
- Home builders will always be more responsive to the realities of the marketplace than we are to the desires of social engineers.
- New home designs will continue to reflect what home buyers tell us they want.
- Any changes must first come from municipalities which now essentially control both building methodology and design.

Like any other business operating in the free market, we will respond to the needs of the buying public. If people want front porches, homes set back farther from the street, garages accessible from alleys instead of the street, or any of the other changes now being suggested, we will meet those marketplace requirements, as we always have. But somebody better tell those who make the rules under which we currently function that those rules need changing. In the meantime, we will continue to adhere to the most important criteria—giving new home buyers a high quality product at an affordable price within the rules which have already been established.



Let's Hear It for the Suburbs

Samuel R. Staley

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My wife and I make a habit of packing up our kids and going for an evening stroll.

Our stroll says a lot about our neighborhood and the people who live here:

Joe, our next door neighbor, used-car dealer and all-around great guy, is inspecting a newly purchased car.

The next house down is a family of four with two young children about the age of our kids. He's a salesman, she's a nurse.

On the other side is a minister and his wife.

Behind us is a banker.

Other families on the street include an electrician, a factory worker, another salesman, a retired engineer and a teacher.

As we continue our walk, two kids in tow, acquaintances and strangers are outside playing with their children or working in their yards—the normal stuff of neighborhoods.

Anyone who wanders in will discover our neighborhood is safe, family-friendly, and all around pleasant. It's a good place to raise kids. I should know; we live just two streets away from where I grew up.

What's wrong with this picture? For the vast majority of folks in America, nothing. In fact, many aspire to these kinds of neighborhoods and living conditions.

Yet, to many urban studies professors and some politicians, this neighborhood and the town that hosts it represent the newest “social ill.” It's a suburb. It's part of the “urban sprawl” that soothsayers, particularly those in traditional central cities, think is ripping apart the fabric of American society.

The problem with this antisuburban view is that these cities—and they are cities—are not really the bland, faceless, non-communities described in social studies textbooks. People live here. People choose to live here, and they choose not to move out. In fact, suburban residents are less likely to move than their central city counterparts.

The failure to recognize these simple facts about suburban life is the source of one of the most profound misunderstandings of contemporary Western society. Suburbs exist because people want them and their wealth permits them to enjoy the fruits of their labor.

“Anti-sprawlers” are correct when they point to public policies such as subsidized mortgage rates, highway construction subsidies and below-cost pricing for utilities as contributors to suburban development. But even if these costs were fully accounted for, it would slow, not stop, the pace of *sprawl*.

The evidence of this is clear simply by looking across the ocean to Europe where energy prices are higher, housing is more expensive and mass transit is more convenient. Despite these barriers, Europeans have moved in droves to the suburbs (albeit in higher densities).

Even in the United States, most home and office construction now occurs outside traditional cities. More than half of the American population lives in a suburb and the suburbs are the primary job generators.

Why the hostility toward suburbs? Three reasons come to mind. First, suburban dominance is relatively new. Many people do not understand it. Suburbanization has been occurring for centuries, but suburbs have not dominated social and economic life until very recently.

Second, suburbs look different. They often do not have identifiable downtowns (although they may have older parts that are designated as “historical districts”). They also do not have large houses on postage-stamp size lots. They are designed for the automobile, not crowded high-density rail systems.

Third, suburbs are not easily categorized. They range from new to old, large to small, from the economically homogeneous to the economically diverse, from the ethnically homogeneous to the ethnically diverse. Few urban planners and sociologists have theories that can accommodate such diversity. In earlier decades, traditional cities had the same levels of diversity (or segregation), they just were all within one city’s boundaries.

Policymakers and citizens need to look beyond the architecture and into the soul of the suburb. Even a casual walk through our neighborhood—a very typical neighborhood—demonstrates that American society is alive, kicking and pretty routine in the “sprawling suburbs.”

It’s time to recast the urban policy mold and root in a fuller understanding and appreciation for the benefits of low-density, suburban living. The suburbs are not for everyone, but they obviously represent a step up for most American families.

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Agriculture: Growth's Architect and Its Victim

Rick C. Lavis

Executive Vice President, Arizona Cotton Growers Association

Wallace Stegner once described the western wilderness as the “geography of hope.” Of course, Stegner wrote about conservation. Yet, the West has become the “geography of hope” for countless Americans who moved West and for many more who think about coming.

Arizona’s growth has been relentless over the last 50 years, often coming in prolonged spurts. And with every spurt has come the noise of resentment, concern, criticism and the strain on the public infrastructure; i.e., roads, water, schools, and now, air.

Yet, Arizona has never experienced a no-growth-slow-growth political environment, although there have been occasional brushfires in places like Scottsdale, Tucson, and Flagstaff where discussions over growth could be described at best as “civil wars” or at worst “nasty.” Growth has been the engine of economic success for Arizona and it is likely to continue despite the rantings and ravings of those who question it.

This is not to say that the critics of growth don’t have a case. They do. The debate has always been over what to do about growth: whether to manage it, restrict it, or stop it.

Which brings us to Arizona agriculture and its unique and special place in the growth discussion. Arizona agriculture is both the original architect of growth and its first victim.

Clearly, irrigated agriculture helped to create Phoenix and its “Valley of the Sun.” By civilizing the land, it developed the ancillary businesses that would sustain farming and its growth which, in turn, spawned the initial “urbanization” of Phoenix. And as Phoenix flexed its muscles, agricultural land began to be city land. Steady disappearance of farm acres has become agriculture’s history. The disappearance of agricultural land was slow at first but picked up speed with the end of World War II and the massive influx of people looking for a new start and a different lifestyle. It continues unabated today.

For some in farming, development was a welcome event. The fragile nature of farming as an economic enterprise was becoming more costly with marginal returns. And so some would sell, with many among them realizing significant economic gains. Others wanted to maintain their farms in the hopes of passing them along to the next generation. But even they cherished the idea that their land was a “retirement fund” to be “cashed in” as their entitlement.

Agriculture then is of two minds when it comes to growth. Farmers are both developers and farmers. This crucible of farming and development drives agriculture’s view of growth.

Preserving “open spaces” as applied to agriculture and its amber waves of grain or the

green fields of cotton has a nice ring. But at what cost? To control growth, do we adversely affect agriculture and its economic opportunities? Restricting growth may be appropriate in the debate over development but it could run counter to the interests of agriculture. Agriculture exists, it has land that is cultivated. It can't go anywhere else.

Under Arizona's 1980 Groundwater Management Act, agriculture is *prohibited* from breaking out any *new* ground for agricultural production in the Phoenix valley. Agriculture cannot move away from onrushing urban encroachment. Unlike in the past, agriculture no longer has the flexibility to accommodate growth.

Development on the other hand is a future. It can be deferred or modified. Agriculture has no such luxury. It must plant on what it has to succeed, to survive.

Equally, what about those who wish to sell, who have to sell? What about those trapped by the economics of an ever more uncertain farm economy?

The debate over growth in Arizona is nothing new; the proposals for controlling or restricting it are.

Urban growth boundaries or even zoning changes could trap agriculture. Imagine growth boundaries that would prevent the sale of agricultural land to preserve "open spaces." Imagine policies that dictate use. Imagine policies that further restrict agricultural farming practices in the name of preserving someone else's "lifestyle."

Arizona agriculture is concerned, if not afraid, of what some have in mind for controlling growth. Certainly, there are policies that could prove helpful to agriculture; i.e., the purchase of development rights to preserve farmland. But what really scares agriculture in Arizona's urban areas are policies that limit agriculture's use of land if not the right to sell. It didn't take but a nanno second for the Arizona Cotton Growers Association to recognize that potential. It adopted a resolution, which says simply:

The Association strongly opposes any and all efforts to create urban growth boundaries or other regulations that impair agricultural property rights.

The Citizens Growth Management Initiative or the Growing Smart legislation offer Arizona agriculture very little protection. None. And protection is what this fragile industry must have.

Agriculture holds some keys to growth management, but so far it has not been invited to the table. Instead the process is defined more by imposing policy rather than through genuine citizen involvement. To partake of a few political crumbs is not the same as being real honest participants. Agriculture and its unique conditions deserve much more.

Economics and policy are changing agriculture. What is necessary in the debate over growth is to recognize those changes. Otherwise, growth policies will prove to be unrealistic.



Barriers Won't Help Growth

Patrick S. Sullivan

Home Builders Association of Greater St. Louis, March 15, 1998 for St. Louis Post-Dispatch

The recent series on urban sprawl had a very clear theme: Urban sprawl—or outward growth from the urban core—is inherently bad for metropolitan St. Louis, and more government intervention by way of growth management is fundamental to a solution. I question both basic premises.

The fear of urban sprawl results in citizens wasting valuable time in unproductive pursuits. The time would be better spent on making the declining urban areas competitive. We must look to individual freedom and the free market system—the fundamentals that have made America great—as the best ways to create the best life possible for the greatest number of people.

As for the fear of sprawl, two professors of planning and economics at the University of Southern California, Peter Gordon and Harry Richardson, wrote in the Winter 1997 *Journal of the American Planning Association*:

“America is not running out of open space, nor in any danger of having cities encroach upon reserves of ‘prime’ agricultural land... Low density settlement is the overwhelming choice for residential living.”

As for government intervention through growth management, Michael Walden, economics professor at North Carolina State University wrote in the February *Business Leader* magazine:

“The idea of managed growth implies that some set of individuals has a better knowledge about what should happen in the local economy than the thousands of consumers and businesses who are constantly interacting in the marketplace....”

“Our economy operates on the principle of competition. This competition ensures that consumers get the best combination of price and product based on their preferences.

“By its nature, competition, and hence economic growth, is messy and disorderly... All the changes...are impossible to predict. This realization casts severe doubts on managed growth.”

As early as 1983, Gordon and Richardson were urging government to facilitate consumer decisions. They wrote: “The appropriate role for planning agencies and local jurisdictions should be to facilitate the decentralization of jobs...and to discourage growth control initiatives. In other words, help the market to work rather than attempt to strangle it.”

The freedom these experts talk about has given America—and metropolitan St. Louis—a pretty good life, by and large. No area is free from all problems. Not even the great city of Portland, OR—often cited in the *Post-Dispatch* series as a model upon which to base our plans.

The series mistakenly gives Portland’s growth management tool known as Urban Growth Boundaries the credit. True, Portland has a great urban core and is situated in beautiful surroundings, but let’s look a bit deeper.

A 1998 traffic congestion study shows Portland’s traffic congestion as being much worse than St. Louis’. The beauty of the northwestern mountains and forests also gives that area a bit of a head start on us. That natural setting combined with the success of the free market creating an explosion of high tech jobs are the real reasons Portland was able to enliven its urban core.

In fact, studies by the University of Washington, Washington State University and Portland State University all find fault with Urban Growth Boundaries. Another critic is Alexander Garvin, professor at Yale University, a Planning Commissioner for New York City and author of *The American City: What Works and What Doesn’t*. He wrote for the *St. Louis Business Journal*:

“The conventional wisdom seems to be that in order to prevent further abandonment of the region’s urban core and inner ring of suburbs, state government must impose growth controls. In fact the suburbanization of America has been under way for two centuries; it cannot be stopped through restrictions on development. Such restrictions will only rechannel that suburbanization to areas...untouched by growth restriction.”

That means jobs—our jobs—could be moved elsewhere if we don’t let the marketplace work. How many remember that by 1980, General Motors made it clear that it would leave its plant location within the city of St. Louis? Thousands of jobs were at stake, and there was talk of moving the plant to Memphis or other out-of-state locations. Then in the early 1980s, GM moved to Wentzville, in western St. Charles County. What if our region had had Urban Growth Boundaries in 1980? GM might well have moved out of state. That scenario might even have been repeated this year with the thousands of jobs at stake in the MasterCard relocation. Incidentally, officials in Wentzville tell me that still today, most of the work force at GM drive daily to their jobs from their homes in St. Louis County and the city of St. Louis.

The *Post-Dispatch* series made a weak claim that suburban growth was not paying for itself. In a 1996 study, Steven Hayward, senior fellow with the Pacific Research Institute for Public Policy in San Francisco, wrote, “The nature of suburban growth is misunderstood. Increasingly, new job growth is occurring in the suburbs, as jobs follow



housing. Hence, most commuting today consists of short suburb-to-suburb trips rather than suburb-to-downtown trips ... the claim that 'growth doesn't pay for itself' is inaccurate."

As to Hayward's last point, 1997 studies corroborate his assessment. One is noted in this Texas A&M University press release: "New residential subdivisions not only pay their own way, but they actually generate income that can be used by cities to upgrade other neighborhoods. For some two decades, Texans have debated whether or not residential development is a benefit or a drain to the city treasury," says Mark Dotzour, chief economist for the Real Estate Center at Texas A&M University. "After studying 10 subdivisions... we know that new subdivisions actually generate surplus revenue for cities."

So if (a) urban sprawl and (b) allowing individuals with the economic means to freely choose to live where they want are not the reasons for declining urban areas, what are? Declining areas—wherever they are—have unsuccessfully competed for the consumer—especially the middle-income consumer.

The solution: Declining areas have to successfully compete. That can be tough. Some government programs can help declining areas in that competition. One great example is the September 1997 enactment by the Missouri General Assembly of a Historic Tax Credit for revitalizing older areas. That law hasn't had time yet to produce results but is being looked at eagerly by many housing developers.

Citizens within a region need to pool their resources to solve regional problems and to fund and manage true regional needs and treasures. Our region's leaders need to focus collectively on those aspects of our future and stay away from growth management schemes.

It would be good for metropolitan St. Louis if more people with economic means would choose to live in the inner core. It is completely possible to support efforts to revive neighborhoods in declining areas and also be against growth management controls.

Fundamentally, solutions are best found for the most people in a competitive environment where consumers are free to choose and with government limiting itself to protecting public health and safety. The more healthy we make our economy, the more people throughout the region will improve their personal quality of life.

Compete for the consumer in a free market. The answer is that simple and that complex.

The Counties That Growth Forgot

Brent Brown, Ph. D.

Associate Professor, School of Public Affairs, Arizona State University

Arizona's spectacular population growth since World War II is the envy of many other states. By most economic development standards, Arizona is one of the success stories of the post-World War II period. In fact, Hudson Institute in 1977 concluded in *Arizona Tomorrow* that "Arizona is developing one of the preferred lifestyles of the future. Arizona may indeed be a development prototype for post-industrial society."¹

This remarkable economic boom has benefited Arizonans especially in the Phoenix and Tucson metropolitan areas and emerging areas such as Flagstaff and Prescott. Other areas of the state have not shared equally in the post-war growth. For example the June 22, 1998 issue of *Time* identifies Yuma, Arizona as having the highest unemployment rate (27.1%) of all the nation's metropolitan areas.² The border counties of Yuma, Santa Cruz, and Cochise experience unique economic and growth problems and opportunities because of their proximity to Mexico. Gila, Graham, and Greenlee counties have economies that are still heavily dependent on mining operations. The world price of copper dictates their economic well being. However the area of the state that has consistently lagged the furthest behind in economic activity is the northeast, namely Apache and Navajo counties.

The economic and population figures for these two counties are pathetic when compared with the two major urban counties. From 1980-1996, Arizona's population increased 26 percent whereas Apache County grew at a rate of 19 percent and Navajo County at 16 percent.

The unemployment rates in these two counties persistently remain high. Apache County's rate for 1996 was nearly 18 percent and in Navajo County the rate was 15 percent. These numbers are depressingly high and give the region an Appalachian-like character.

Statistics for April 1998 indicate that over one third of Apache County's residents and almost a quarter of Navajo County's citizens are receiving Food Stamps. According to the last census, Apache County's per capita income was less than half the national average.³ By most statistical measures, these two counties rank at the low end of the economic scale for all counties in the United States. Ironically because Arizona's economy has performed well since the 1940s, the problems of the northeastern counties have often been ignored by state and national policy makers. Consequently, the economic pressures have become so intense that decision makers in the counties have chosen economic development avenues that local governments usually avoid. They have welcomed prisons, power plants, landfills, and casino gambling.



There are many reasons for the poor economic performance of these two rural counties. Some of the most important issues are discussed below.

Population and Isolation

A major reason why these counties are lagging behind is the long-time neglect of or misguided solutions for the problems of Native Americans by state and national governments. **Table 1** shows the large Native American population which comprises nearly 80 percent in Apache County and more than half of Navajo County. The population composition coupled with the remoteness of the Navajo and Hopi reservations partially accounts for the lack of attention paid by federal and state policymakers to resolving the structural poverty and social problems of the counties.

Table 1: County Population Composition 1990

Race/Ethnic	Apache County	Navajo County
Native American	50,032	43,836
White	13,024	37,092
African American	129	843
Asian/Pacific Islander	129	253
Other	1,161	2,276
Total	64,475	84,300
Hispanic Heritage (may be of any race)	2,708	6,137

Source: Arizona Department of Economic Security

Lack of Political Clout

Since statehood, the political strength of Arizona's rural counties has waned. In 1912, only 12 percent of Arizonans lived in Maricopa and Pima Counties. By 1998, these two counties accounted for 87 percent of the state's total population. This reversal of population concentration and the loss of political power due to reapportionment in 1996 have left Arizona's rural counties politically weak. For example before 1966 each Arizona county had two state senators. Now, the District Four senator represents all or parts of seven counties.

This small population base allows state and federal elected officials to ignore the area's constituents. The lack of attention has increased in recent years as families, such as the Goldwaters, Udalls, and DeConcinis, whose roots were deep in rural Arizona have passed from the political scene.

Another factor contributing to the political decline of rural Arizona is the fact that traditionally in many rural counties, registered voters have been mostly Democrats whereas Maricopa County has become more Republican. As Republicans began to dominate the Arizona Legislature and Congressional delegation, the out-counties started to suffer more and more neglect. Often when an elected official moves to help these counties, it is with a sense of *noblesse oblige* rather than a real commitment to the grave problems facing these rural areas. The condescending attitude of some elected

officials only increases the communication gap between policymakers in Phoenix and Washington and the counties' residents.

Federal Policy Impacts

Some federal policies are nonsensical when implemented in Navajo and Apache counties. The environmental attempt to save the spotted owl, for example, appears to be noble until one examines the consequences for the lives of Navajo and Apache county residents. Federal court action has shut down most lumber activities in Apache, Navajo, and Coconino counties thus eliminating almost all of the traditionally higher paying jobs. There has been almost no new manufacturing employment to replace these lost jobs. The animosity many rural residents feel towards the federal government is understandable when one considers that jobs are eliminated by decision makers who seem to be invisible and unreachable by the traditional electoral process.

Intergovernmental Conflict

Arizona is a very urban state. Rapid city growth has focused policymakers' attention on urban problems rather than rural ones. The small populations and the many federal jurisdictions have made it easy for state officials to label the economic problems of these counties as federal problems. Conversely, federal officials, especially in hard times, try to pass more and more responsibility to the State of Arizona. This political posturing would be comical if the consequences were not so serious. Nobody is willing to put together an intergovernmental approach to improving the situation. Some of the areas that need intergovernmental attention are: tribal governments versus the Bureau of Indian Affairs; EPA issues on reservation lands; Indian water rights; gaming regulations; and federal versus state obligations for Indian health and welfare.

Many problems facing Apache and Navajo counties defy easy solutions. Many of the residents of these counties are starting to recognize that problems will not be solved by other governmental jurisdictions, and signs of cooperation between local jurisdictions are starting to produce results. This process is helped by the fact that Apache County has been governed in recent years by a Board of Supervisors with a Navajo majority. This cooperation can serve as an example for future policymakers and help government jurisdictions start to build a process to encourage favorable economic growth. Washington, D.C. and Phoenix decision makers would be wise to give broad-based grant authority to these local jurisdictions and let them start to develop the capacity to solve their own economic problems.

Notes

¹ Paul Bracken, *Arizona Tomorrow*, Hudson Institute, 1977, p. 3.

² *Time*, 15 (24), June 22, 1998, p. B2.

³ Lay Gibson and Bruce Wright, *The Many Faces of Economic Development in Arizona*, Arizona Academy, 1990, p. 78.



Restore the Focus on Planning

Larry Landry

©Landry & Associates, April 4, 1995 for *The Phoenix Gazette*

There are many inviting aspects in the Valley of the Sun which have made the Phoenix area one of the most popular places in America to visit and to live. If you list all the reasons you love living here, you will discover why so many others want to be here, too (including our children). The magnetism of this Sunbelt community is sparking yet another cycle of the growth versus no-growth debate that has existed since there were farms on Central Avenue. This debate, like growth itself, has its cycles—and the two cycles are interrelated. When there is a resurgence of new growth, the debate gets even hotter. As citizens of this community, we appear to be of two minds on this issue. We want to reap the economic rewards of tourism and a thriving business climate, but we also want the Valley to stay the way it is and stop growing. Polls show that the vast majority of Valley citizens want both growth and a safe, clean environment.

The current round in the recurring growth versus no-growth debate has however, become uglier and less civil. It is not uncommon to have hostile, angry, yelling, attacking exchanges at public hearings on land use or growth these days. A climate of fear, hysteria and abusive behavior does not produce rational decisions and responsible solutions to legitimate concerns about the environment, traffic congestion, air pollution, infrastructure, adequate public services and other serious issues. The critical question is not how to stop people and businesses from coming to the Valley so it can stay the way it is, but rather how do we responsibly plan not only for the people and businesses who will inevitably come, but also for our own children as they grow up and need jobs and homes.

Examine Misconceptions

To restore the focus on responsible planning, it would be helpful to examine misconceptions that are fostering fear and impeding reasonable solutions. One misconception which is rampant today is that the only way to stop growth and save the desert is to keep all vacant land in the Valley zoned at one-unit per acre or less. Even a cursory review of aerial photos and studies from across the country makes it obvious why this is such a false, and indeed insidious notion. Aerial photos of many outlying rural areas in Maricopa County with scattered home sites on one, five or 20 acres reveal large areas denuded of vegetation and bladed for horse corrals or other uses, property fenced in with no preservation of open space, washes, hillsides or public trails... To insist that the rest of the vacant land in the Valley develop in this manner would lead not only to more environmental degradation, but also to economic disaster. Sprawling, low density residential development cannot generate sufficient tax revenues to pay for the infrastructure, public facilities and services such as schools and law enforcement. The result is a drain on the financial resources of the cities, counties, and school districts and even more taxes on businesses and residents in urban development areas.

Many participants in today's debate also misunderstand, or misuse, the term "urban sprawl." Studies in other states that have faced growth issues have identified sprawl as development of significantly lower density (i.e. one unit per acre or lower) than typical metropolitan urban development, which is scattered over the countryside in a manner that increases dependence on automobile travel, that cannot be efficiently served by public utilities and other infrastructure systems, and that may threaten environmental resources. One-unit-per-acre development is widely recognized as an extremely inefficient land use pattern, as "urban sprawl" that consumes a vastly disproportionate amount of land to provide for a limited segment of community housing needs. A balanced approach to these issues begins with acceptance of certain realities and consensus objectives.

- First, we must accept that people are part of the environment; we should plan for increases in population and its impact on the demand for housing and services.
- Second, healthy communities need varied housing products to serve all of society.
- Third, it is desirable to have a mix of uses to provide retail services, employment uses, as well as parks, schools, open space and public facilities. From this foundation, we can be open to building creative solutions.

No Alternative

The alternative is to stick our heads in the sand, while we futilely hold up a stop sign. Responsible planning is the only real alternative to the deceptively simplistic slogans of "save the desert" and "stop growth" that are being sold as the equivalent of motherhood, apple pie, and the American flag by some. We must avoid the temptation of such easy, short-sighted answers.

An alternate form of development long recognized as beneficial by responsible planners is the master-planned community model. Recent studies and experience here and elsewhere indicate that master-planned developments which provide large-scale, municipal quality infrastructure and a range of residential, commercial, employment, recreation and open-space uses should be viewed as desirable components of growth that avoid the negative impacts of sprawl. The success of master planned communities all over the Valley in attracting residents and in providing responsible solutions for community needs makes this model an option for continuing the healthy, dynamic balance of a growing metropolitan area. For subdivisions and other development too small to be master planned, the general or area plans of local governments can guide and shape growth to achieve the same purposes.

No community in history has ever achieved a state of blissful homeostasis by bringing all growth and commerce to a standstill. The Valley will not be the first, and we must resist the tempting call to accentuate the negative and pursue a no-growth Shangri-La. Instead, we must struggle together to replace animosity with civility in our dialogue on the future of our community, to recognize the need to bring balance into the growth versus no-growth debate and, most of all, to plan responsibly for generations to come.



Smart Growth Takes Off

Neal R. Peirce, ©Washington Post Writers Group

State Responses To Urban Growth: Lessons for Arizona

*John M. DeGrove, Director, Joint Center for Environmental and Urban Problems
Florida Atlantic University/Florida International University*

Growing Smarter in Arizona

Steve Betts, Attorney, Gallagher & Kennedy

Initiative Gives Voters Control Over Growth

David S. Baron, Assistant Director, Arizona Center for Law in the Public Interest

Growing Smarter in Arizona: The Northern Arizona Experience

Paul J. Babbitt, Member, Coconino County Board of Supervisors

Sprawl—As Development Continues to Consume land, a Few Places are Experimenting with Alternatives to Uncontrolled Growth

Philip Langdon, ©Builder

The Growth Management Challenge in Arizona

David R. Berman, Professor of Political Science, Arizona State University

Arizona Must Recognize Limitations as it Grows

Sharon Megdal, President, MegEcon Consulting

From Rural to Suburban: Five Regions in Greater Arizona

Tanis J. Salant, Director of Government Programs, University of Arizona

Losing Ground: Land Fragmentation in Rural Arizona

James P. Walsh, Lawyer

Historic Preservation Rebuilds Communities

Roger A. Brevoort, Director of Historic Preservation, van Dijk Pace Westlake Architects

Growth Focuses Attention on Infrastructure, Public Safety, and Community

Norm Hicks, Mayor, City of Bullhead City

Valley Vision 2025: A Plan for the Next Generation

James M. Bourey, Executive Director, Maricopa Association of Governments



Smart Growth Takes Off

Neal R. Peirce

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Hear this from a leading American developer: “We’ve grown outward for 50 years; now it’s time for a turnaround. Growth is inevitable and necessary. But left unattended it will wreak havoc on our environment and civilization.”

The speaker, at a national “Smart Growth” conference in Baltimore in early December, was James Chaffin, widely respected for such developments as Snowmass Village in Colorado and Spring Island in South Carolina. He’s the new president of the Urban Land Institute, premier organization of the U.S. development industry.

Chaffin is steering the ULI to focus on issues most developers and home builders historically ignored or left to the politicians—restoring community and vitality to inner cities and their neighborhoods, recovering industrial brownfields, transit-oriented development, and metropolitan-wide cooperation to reduce fiscal disparities between rich and poor areas.

“Smart growth,” said William McDonough, dean of the University of Virginia School of Architecture, is the most important new planning and development strategy for the American landscape in several decades. It’s desperately needed, he said, to offset today’s “strategy of tragedy,” the random scattering of disconnected real estate developments with no thought to what they mean for the environment or human community.

Gov. Parris Glendening, author of a pioneering “Smart Growth” initiative that’s focusing Maryland state aid on existing cities and towns while denying funds for exurban roads, sewers or schools, said the goal is not “no growth” or even “slow growth.” Rather, said Glendening, the goal is “sensible growth that balances our need for jobs and economic development with our desire to save our natural environment before it is forever lost.”

ULI agreed to cosponsor the Baltimore conference with the developers’ sometimes nemesis the Environmental Protection Agency. Last year EPA Administrator Carol Browner, in what looked like a politically risky move, founded within her own agency a “Smart Growth Network” to unite and inform anti-sprawl advocates nationwide. The effort could easily have raised the ire of a Republican Congress fixated on free enterprise and private property rights.

But by the time the Baltimore conference convened Dec. 3, the “smart growth” concept was getting political legs. An impressive 750 people came from across the U.S.—roughly a third from government, a third from environmental groups and non-profits, and a third developers and home builders looking for some alternative from current patterns of far-flung, land-consumptive development.

And the conference's cosponsors hardly looked like a radical group. Among them: the Bank of America, the National Assn. of Realtors, the Fannie Mae Foundation, the National Trust for Historic Preservation, the National Assn. of Counties, the Congress for the New Urbanism, and two heavyweights of the great American construction machine—the American Public Works Assn. and the American Assn. of State Highway Transportation Officials.

Most fascinating of all, though, may be the EPA-ULI alliance. Twenty years ago EPA flirted with an anti-sprawl policy initiative and then dropped it like a hot potato. Environmentalists got into a tight regulatory mood, focused on air, water and toxics. As for the ULI's developers, they built subdivisions and malls but rarely thought much about true community as town and city builders had in all of earlier history.

The new alliance, finally, brings each camp back to a focus on land and human settlement. And at a propitious time: endless subsidy moneys for redundant suburban infrastructure are giving out; road traffic is swelling far beyond our capacity to site or pay for thousands of new freeway lanes. The old approaches are starting to self-destruct; new solutions are imperative.

Smart growth won't be easy: it will demand ingenious ways to revive troubled communities, reclaim brownfields, remake cheap commercial strips, and forge regional alliances to help poorer communities. And no one kids themselves: many local officials, builders, highway zealots will want to stick to narrow self-interested ways.

But if you're interested, the Smart Growth Network just opened individual memberships. (For information check www.smartgrowth.org or call Noah Simon, International City/County Management Assn. 202-962-3591, or Harriet Tregoning, EPA—202-260-2750.)

Clearly, this is a movement that will only succeed by unconventional learning. Famed New Urbanist architect Andres Duany, for example, reminded the Baltimore conferees that suburban development had raised standards of retailing, merchandising, crime and litter control. Older cities and suburbs, he argued, can't fall back on the informal, haphazard techniques of yesteryear. Rejecting suburban developers' wasteful land techniques is appropriate; rejecting their improved techniques would be foolishly shortsighted.

Rigid environmental regulations will be playing less of a role and smart growth coalitions will be increasingly needed, said Conservation Fund chairman Patrick Noonan. And all parties need to widen their horizons, he said—developers learning about recycling difficult land sites, for example, and environmentalists learning about efficient use of capital.

We'll have to be a lot smarter, in short, to make smart growth work.



State Responses To Urban Growth: Lessons for Arizona

John M. DeGrove, Ph. D.

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States' efforts to manage growth date from the early 1970s and coincide with the development of the environmental movement. Before then states generally relied on local governments for whatever planning and regulation took place. Typically, local governments had few planning, zoning, or other tools to guide development in their communities. This permissive approach began to change in the 1960s as environmental and other citizen groups, alarmed at what they considered unholy alliances between "rape, ruin, and run" developers and indifferent or compliant local governments, started to demand new systems for land use decision making. Since the groups wanting a different approach to land use planning tended to distrust local governments, they often supported a major role for state and regional authorities in land use decisions, especially for those that were perceived to have an impact beyond a specific area.

Growth Management: Phase One

The environmental concerns that drove the development of what became state growth management systems varied from state to state, but all had a significant concern for natural systems. For example, Hawaii's 1961 land use law focused on protecting and assuring the full utilization of the state's prime agricultural lands. A decade later, as Hawaii struggled to implement its system fully, other states began to adopt tools to oversee some local land use decisions.

Between 1970 and 1978 phase one of the evolution of growth management systems took place with legislation in a number of states. These included:

- Vermont, 1970
- California (for coastal areas only), 1971
- Florida (statewide, but selective), 1972
- Oregon (the most comprehensive), 1973
- Colorado, 1974
- North Carolina (for coastal areas), 1974
- Hawaii (building on 1961's law), 1978

Like Colorado, the Hawaii system has been weakened steadily, and in 1998 the legislature was under renewed assault by hostile public and private interests. Neither Hawaii nor Colorado can be classified as having a comprehensive system now.

Growth Management: Phase Two

The second phase of growth management development built upon earlier efforts, but it was significantly different from the first strategies. A rising tide of frustration and

concern with inadequate infrastructure, especially roads, motivated the initiatives of the 1980s. However as the politically volatile 1990s began, a resurgent concern for natural systems returned environmental issues to the top of the public policy agenda in those states that adopted growth management systems.

Phase Two includes states that reshaped growth management programs to address the concerns of the late 1980s and the 1990s, and others who moved to adopt state planning and growth management systems for the first time. Florida (1985) and Vermont (1988) went back to the drawing board to strengthen their systems. New Jersey (1986), Rhode Island, Maine (1988), Georgia (1989), Washington, (1990 and 1991), and Maryland (1992 and 1997) adopted comprehensive systems for the first time. Oregon continued the implementation of its system, but it came under attack by a hostile legislature in the mid-1990s. Other states considered the passage of growth strategies between 1988-1998, including Virginia, California, Pennsylvania, Michigan, and Minnesota. Only Minnesota managed to pass a law in 1997 that set the stage for a state land use framework. However, the 1998 Minnesota legislature did not carry out the scheduled strengthening of the statute, and the future will depend on support of the governor to be elected in 1998 and the continued consensus building by 1000 Friends of Minnesota.

Common Characteristics of Growth Management Systems

The growth management systems that have evolved over recent decades vary widely, but there are some common threads.

Consistency

Beginning with Oregon in 1973, consistency has been one of the common threads among states' systems. It is through the consistency requirement that the roles and responsibilities of state, regional, and local levels are defined. Typically a set of state goals and policies is articulated to frame the new system. Then, state agency plans, regional plans where appropriate, and local plans must be made to be consistent with the state goals. Sometimes the mandate for consistency is absolute, as in Oregon, Florida, and Rhode Island. In other states, such as Georgia and Maryland, the consistency requirement is less direct, but involves a system of incentives and disincentives that go far to assure that the new local or regional plans will be in line with the state framework. There is often some uncertainty as to whether the consistency concept will be fully applied. For example, bringing state agency functional plans completely into the system has proven to be especially difficult.

The consistency requirement also involves implementing regulations, and it is through these that the growth governance system is tilted toward a larger role for the state and often the regional level. Whether this undermines local governments' authority is a much debated point. However, evidence suggests that a new state/local partnership can

actually strengthen the authority of individual local governments.

The consistency requirement also underscores the breadth of the second generation of state growth strategies. While growth management systems do vary, they all address concurrency, compact urban growth patterns, affordable housing, natural resource protection, and economic development to some degree.

Concurrency

The proposition that infrastructure for growth should be “concurrent” with its impacts is the application of common sense and sound fiscal policy to planning and development. It has also proved to be very difficult to carry out, even with a clear-cut requirement. Florida and Washington have strong requirements for concurrency. Other state concurrency requirements are less absolute, but they all attempt to estimate present infrastructure needs and to meet the needs of new development over some time period, often 20 years. The numbers that emerge from this effort typically show the need for new revenues to close the gap between infrastructure requirements and existing resources. Solving this typically multi-billion dollar puzzle has been extremely painful, but the concept is taking deep root across the nation. The evidence is strong that failure to keep up with the infrastructure demands of growth leads to unsustainable economic and environmental systems.

Compact Urban Growth Patterns

Efforts to promote “livable” communities as an alternative to unplanned sprawl appear in every state that has adopted a managed growth system, and seem especially important to Arizona. Failure to promote alternatives to single occupancy vehicles to contain sprawl seems sure to destroy much of the Sonoran desert and other landscapes in Arizona.

State strategies to address sprawl and promote more sustainable patterns range from regulatory systems (Oregon) to incentives and disincentives (Georgia and Maryland) to a mix of the two. Even stringent regulatory systems must include some incentives and disincentives to assure success over the long haul. The resurgence of support for combating sprawl is closely linked to a clear recognition of its *fiscal* impact in addition to environmental and social costs. Researchers, including Robert Burchell, are comparing the costs of infrastructure needed for sprawl development and for the more compact communities that are beginning to appear in increasing numbers across the nation. These “people” and “environment” friendly communities, often identified with the “new urbanism” represent a choice in urban growth patterns that deserves close attention from Arizonans.

Protection of Natural Systems

The protection and wise utilization of important natural systems is the other side of the

compact development/anti-sprawl concept. Sprawl development patterns consume large amounts of land per capita, needlessly sacrificing a range of natural systems. The belief that environmental protection would take a back seat to such issues as transportation was much discussed and believed by many in the mid-1980s. But, the public's concern for the environment has assured natural resource protection a prominent place on the growth management agenda. It should be stressed that the strong support by Arizona's citizens illustrated by opinion polls, and some willingness to support funding to purchase natural systems, may be the key to Arizona finding a way to grow in a sustainable fashion without adopting a state land use law with urban growth boundaries.

Economic Development

The importance of economic development to growth management/smart growth came into focus in two states that developed their systems during the early 1990s recession. Washington and Maryland placed major emphasis on economic development as a goal and provided policies and funding for implementation. Even fast growth states such as Arizona have some areas that need economic development, in addition to redevelopment and infill to revive urban areas that have declined in the face of sprawl.

Affordable Housing

Growth management systems often are accused of driving up the cost of housing. The facts often do not support that charge, as we will see from the examples of Oregon and Florida. Certainly no growth management/smart growth system can claim to be in the best interest of a state or region if it does not provide for affordable housing.

Growth Management Experiences in Oregon, Florida, Washington, and Maryland

Oregon

Oregon's experience with SB100, the state land use law adopted in 1973 which required all urban areas to establish urban growth boundaries, and with the Portland Metro Region contains important lessons for Arizona. One is the successful effort to build and sustain broad-based support for land use planning and implementation statewide. While this effort has been led by 1000 Friends of Oregon, it includes groups that typically oppose land use regulation such as the Oregon Farm Bureau, many local farm bureaus, Oregon Forestry Council, and homebuilder groups. Even more directly related to Arizona has been the extensive outreach effort in the Portland region guided by Portland Metro, the only elected regional government in the nation. The move to develop and implement a 50-year urban growth strategy, *Vision 2040*, led to an extensive effort to build support for infill, redevelopment, and development along public transportation corridors. This has resulted in a growth strategy that has public, state agency, and local government support at the implementation stage.

The significance of Oregon's experience for Arizona focuses on the challenge of



developing strategies for public transportation, land use, and air quality for the Tucson and Phoenix regions where current development patterns threaten the economic and environmental future of all of Arizona. Efforts to build support among residents to reverse sprawl patterns through well designed development in designated areas and along transit lines, combined with a large network of open spaces and a strong jobs/housing strategy, all have major significance for the booming Phoenix and Tucson regions.

Florida

While Florida's growth management system includes the components of a comprehensive system, the state's record of implementing that system is mixed. The failure to sustain funding for the concurrency requirement is particularly negative. That failure, in turn, has made it harder to reverse sprawl development patterns, a shortcoming with which the Florida system is still struggling. Florida's success in funding acquisition of environmentally sensitive lands and earmarking dollars for affordable housing however offers positive lessons for Arizona.

Florida's funding to protect vital lands started in 1972 with the first effort to establish a comprehensive growth strategy. Voters approved a constitutional amendment calling for a \$200 million Environmentally Endangered Lands (EEL) program supplemented by a \$40 million outdoor recreation land purchase program. In 1979 the successor to the EEL program, the Conservation and Recreation Lands (CARL) program, was established, with earmarked funding first from severance taxes and later from documentary stamp taxes. A Save Our Rivers program was established in 1982 and administered through the state's five water management districts. A 1990 opinion poll showed that 88% of Floridians believed that the state should give more attention to the environment, and 63% favored spending more money on environmental protection. In that year, the legislature approved Preservation 2000, the most generously funded environmental land acquisition program in the nation, including the federal government. Preservation 2000 commits the legislature to provide funding annually to support a \$300 million bond issue. In spite of a major recession and a legislature increasingly hostile to government programs, the needed funding has been provided every year. The next bonds will bring the total for the decade to \$3 billion, with another \$1 billion from the CARL and Save Our Rivers programs, or a total of \$4 billion over the decade. The Preservation 2000 funds are channeled largely to the land accession programs described above. Almost 1,000,000 acres of land have been acquired through the program by 1998, and matching funds acquired from local governments for some of the program's components had leveraged almost another \$1 billion by counties and cities that had issued their own voter approved bonds.

Why is all of this significant to Arizona? My impression is that the citizens of Arizona and Florida share a strong interest in preserving and protecting unique

environmentally sensitive open spaces. The potential for an integrated, large-scale program for Maricopa County and the Tucson region seems very good. If Arizona then moves to encourage moderate density mixed use communities and a sufficient, integrated public transit system, Florida's earmarked funding program for affordable housing could be a significant model for Arizona. In 1992, Florida passed the Sadowski Affordable Housing Act, which provides 20 cents on each hundred dollars of the real estate transfer tax for affordable housing programs. These funds now yield more than \$200,000 annually, and are leveraged significantly in carrying out the program. Two-thirds of the dollars go to local governments, and the other third is administered at the state level.

Washington

If Oregon and Florida can be described as more "top down" than "bottom up," Washington's growth management system constitutes a creative mix of the two. Enacted in two separate but closely related statutes in 1990 (HB2929) and 1991 (HB1025), a system has emerged that relies heavily on incentives and disincentives to achieve its goals. A partnership with the federal Department of Transportation dictates that virtually all federal and state transportation funds must be used for projects that meet the goals, policies, and objectives of the state's growth management system. As in Oregon, the marriage of transportation and land use to support desired development patterns inside designated urban service areas (Washington's equivalent of growth boundaries) and limit invasion of natural areas is at the heart of systems. The system has been given added substance by regional hearing boards appointed by the governor.

For Arizona, the success of the Puget Sound Regional Council in addressing regional issues represents a significant experience for those who are encouraging new approaches to growth. Whether the Washington system can produce a sustainable region in the face of very substantial growth pressures that are projected to continue into the next century remains to be seen. These factors will help create livable urban communities that are well designed, compact, and linked by public transportation systems. If this system succeeds over time, there is much to interest Arizona, assuming that policy choices are made that depart even modestly from the *laissez-faire* approach to managing growth that has characterized Arizona to date.

Maryland

The significance of Maryland's attempt to manage its growth lies in the effort to protect a nationally significant resource, Chesapeake Bay, from pollution. The Chesapeake Bay is much prized by the citizens of Maryland, just as the unique Sonoran Desert is prized by the citizens of Arizona. States have been slow to put effective systems in place because of the fierce resistance by local governments and agricultural and development interests to any meaningful regional or state land use controls.



Sprawl patterns of development in Maryland are generating pollution that threatened the short and long-term survival of the Bay as a resource necessary to the environmental and economic health of the region. Maryland's facing up to the fact that the ambitious goals of the Economic Development, Resource Protection and Planning Act of 1992 probably could not be implemented without significant changes led to the 1997 passage of Governor Glendening's Smart Growth Initiatives. Maryland's extensive outreach effort and the governor's strong support resulted in a system that relies heavily on state agency support to draw most development into designated areas. Local governments are not required to play the game, but state funds in education, transportation, housing, economic development, and other areas will go to those that meet the priority funding criteria. The governor has issued an Executive Order that reinforces his determination to channel state funding only into priority funding areas. The effort tip-toes around the home rule issue by not mandating that local governments participate.

The initiative was led by the Governor who communicated the damage being done by unplanned sprawl to the natural and urban areas in Maryland. The Smart Growth/Priority Funding Areas program can be by-passed by local governments, but assuming Governor Glendening is re-elected and commits substantial political capital to implementing the system, it may succeed in containing sprawl and building sustainable communities without a "top down" system. Can Arizona's citizens continue to document the damage to natural and urban systems and thus put in place a Smart Growth System for Arizona? Support for such a move seems to be building in the state.

Arizona's Growth Management Challenge for Sustainability

Arizona's challenges are so substantial that some movement in the direction of a proactive approach to massive growth is very likely in the near future. Consider that Arizona started the century with 123,000 people; expanded to 500,000 by 1940; in the post-WWII period grew to 1.3 million by 1960; and topped 4.2 million by 1995. The growth projections, both in sheer numbers and location, are stunning with more than 7 million expected by 2020.

The location of that growth is awesome. Much of the current population, and the projected growth, is concentrated in just two counties, Maricopa and Pima. These massive growth pressures would be difficult to manage with the best state and regional planning/land use/growth management/smart growth system, and clearly Arizona does not fit into that category. So what can be done to deal with such growth pressures so as to have a sustainable Arizona in the decades ahead? The definition from the President's Council on Sustainable Development provides some clues to how to begin the movement from growing "dumb" to growing "smart." Whether or not the Citizens Growth Management Initiative will be revived in 2000, the Growing Smarter proposal that will be on the ballot in 1998 may well do more harm than good if passed.

“Sustainable” Defined

“A Sustainable United States will have a growing economy that provides equitable opportunities for satisfying livelihoods and a safe, healthy, high quality of life for current and future generations. Our Nation (state) will protect the environment, its natural resource base, and the functions and viability of Natural Systems on which all life depends.”

Source: *Sustainable America: A New Consensus*

Final Report of the President’s Council on Sustainable Development February 1996

Short of major new smart growth initiatives via the ballot or otherwise, there are steps that can be taken that will amount to win-win outcomes for all the key stakeholders in Arizona: developers; environmentalists; local governments; state agencies; federal agencies, and others.

Protect Desert Areas

The first step involves protecting your unique desert arroyos, washes, hillsides, boulder fields, desert spaces, and related open space areas.

Plans aimed at protecting these areas are plentiful, but an integrated approach that joins efforts of all the relevant actors in the Maricopa and Pima regions has not moved to the implementation stage. Finding the funding and coordinating the efforts first in the major growth regions and then statewide are the challenges. There are some limited success stories, such as 34 wash areas protected in Tucson by city ordinance and Scottsdale’s Environmentally Sensitive Lands ordinance, which use incentives and density transfers to encourage landowners and developers to participate. Even more significant is Scottsdale’s voter approval to purchase some 4,000 acres for the McDowell Mountain Preserve using an increase in sales tax.

Fund Land Preservation

Of all the open space approaches however, the two most significant are the Maricopa Association of Governments (MAG) *Desert Spaces Plan* proposed in 1995 and the Arizona Preserve Initiative. The MAG plan would create a regionwide network of protected washes, canals, scenic roads, cultural parks, and other open spaces. The key to the success of this proposal is to achieve coordination between local governments and state and federal agencies to create interconnected open space resources that cross jurisdictional boundaries. Can funding be found to implement such a broad scale protection effort? Every citizen survey gives a resounding “yes” to this question, although defenders of the status quo argue otherwise. It will take a major public outreach effort, and the dollars involved are large—*billions*, not *millions* as in the current Growing Smarter proposal. The payoff in providing a network of environmentally sensitive open spaces is equally large. In work with MAG’s Blue Ribbon Committee, I saw real support from local governments, citizens, and



developers for such an approach.

A statewide effort with great promise that died aborning deserves to be revived. Former Governor Symington's Arizona Preserve Initiative, put forward in December 1995, would have provided funding for preserving 700,000 acres of state lands, including 33,745 acres in the Tortolita Mountains northwest of Tucson, another 57,750 acres in the Boboquivari Mountains, southwest of Tucson, and 85,000 acres in Maricopa County. A key component of the proposed legislation would have given the State Land Department authority to classify Trust Lands as environmentally sensitive for future conservation and to lease land for preservation as an alternative to requiring their sale or lease for the traditional maximum benefit. This landmark legislative proposal had other elements that were important to a sustainable future for Arizona. It could go far toward putting in place the integrated open spaces that could be extensive enough to establish *de facto* urban limit lines in the highest growth areas in the state. Its rough rejection by the legislature should not discourage advocates of a sustainable future for Arizona from regrouping to build support for such a measure at the earliest possible time.

Create New Development Models

The second proposal goes directly to modifying the sprawl patterns of development that to date have dominated Arizona's growth. Unmanaged sprawl in the face of the population growth anticipated over the next several decades will *not* yield a sustainable future for Arizona, either for your environment *or* your economy. Recent work contrasting the fiscal cost of providing the infrastructure for sprawl development patterns, much more rigorous in methodology than anything previously available, documents the high fiscal cost of sprawl. Examples of these assessments include a number of studies by Robert Burchell and his colleagues at Rutgers University, a 1995 study published by the Lincoln Institute of Land Policy edited by Dwight Young and titled *Alternatives to Sprawl* and a landmark 1995 study in California titled *Beyond Sprawl: New Patterns of Growth to Fit the New California*, a joint venture by Bank of America, the California Resources Agency, Greenbelt Alliance, and the Low Income Housing Fund. The message is that sprawl is costly and that it picks the pocket of taxpayers to favor developers providing unplanned development at the urban fringe.

I recognize that sprawl is a fact of life in Arizona, California, and most other states. What can be done in Arizona to change the present predominant development patterns?

Create Choices for Arizonans

First, fully fund and implement the network of open spaces called for above. That done, Arizona needs to address the issue of how to create *choices* to sprawl in your development landscape. A fully developed plan for what I have in mind is the Civano project in Tucson. As proposed, this project illustrates all the best elements of the "New Urbanism" school of development. Its projected 5,000 population on 820 acres of State

Trust Land illustrates moderate densities designed as an integrated small town environment where commercial, cultural, and civic activities are clustered. A jobs/housing balance, affordable housing, pedestrian-friendly environment, state-of-the-art water conservation, and more make Civano a good model for alternatives to sprawl. Can it be done without a “command and control” state land use system? That remains to be seen, but many more places like Civano are needed to provide *choices* to the present predominant sprawl development pattern. A creative set of public sector incentives that allows public/private partnerships will have to be part of the picture.

The kinds of policy options advocated here can become a reality as Arizona grows into the next century. Nothing less than the environmental and economic health of the state is at stake. The cost of doing little or nothing to change development patterns and protect open space will be far greater than the admittedly substantial costs of implementing these recommendations.



Growing Smarter in Arizona

Steve Betts

Attorney, Gallagher & Kennedy

Growth has been an intensely debated topic in Arizona for a long time. Realizing the need for a proactive, balanced program that manages Arizona's explosive growth without stifling our vibrant economy, Governor Jane Hull and community, business, and government leaders joined together to develop an appropriate answer for Arizona. The governor convened a series of meetings among legislators, state and local officials, environmentalists, land use planners, citizens, and community and business leaders. The result of these events was a program known as Growing Smarter which the Arizona Legislature passed in May 1998. The Growing Smarter Act is a landmark piece of growth management legislation for Arizona. It particularly strengthens community planning and addresses residents' desire for the preservation of open space.

Specifically, Growing Smarter includes:

- reforming the planning and rezoning processes in cities, towns and counties by adding new elements to community plans and requiring conformity of rezonings to such plans
- increasing public participation and requiring a supermajority vote for the adoption and amendment of community plans
- improving the coordination of State Trust Land planning with community planning
- providing \$220 million in matching funds over 11 years for the purchase of open space
- establishing a study commission to develop consensus on a comprehensive long-term growth management strategy for Arizona.

Planning Documents

Cities prepare "general plans" for their municipalities.

Counties prepare "comprehensive plans" for unincorporated areas.

Strengthens Urban Planning

In our state, municipal, and county general and comprehensive plans were designed to serve as guides to future development. Unfortunately these documents have had no "teeth" for enforcement, consideration of growth impacts, or coordination with State Trust Land plans. The Growing Smarter Act amends Arizona's statutes to make local plans more effective through the following requirements.

General/Comprehensive Plan Conformity

The act assures the public that community general/comprehensive plans will be much stronger than in the past. Plans must be adopted every ten years after *mandatory* public participation processes. Any rezoning request must conform to the applicable

community's general/comprehensive plan or a plan amendment must be approved by a two-thirds supermajority vote of the city council or county board of supervisors. Growing Smarter clearly provides for referring the adoption of general/comprehensive plans and plan amendments to the voters. Communities and counties are required to bring their general and comprehensive plans into compliance with the new planning reforms by 2001.

Open Space Planning

In general and comprehensive plans, cities, towns, and counties must inventory and analyze the community's open space opportunities and needs. Then, they must create policies and strategies to promote a *regional* system of integrated open space and recreational resources.

Planning for Mixed Uses

Local governments are directed to identify growth areas suitable for future expenditures of public transportation and infrastructure funds in their plans. This provision of Growing Smarter is designed to support a planned concentration of mixed uses and integrated open space areas.

Environmental Planning

General/comprehensive plans must contain communitywide policies and strategies to address the environmental effects associated with future development.

Cost of Development

New development is required to pay its fair share toward the cost of additional public facilities and services needed to support the project. The general/comprehensive plans now must include specific strategies to ensure that the costs of development are shared fairly by all in the community.

State Trust Land Plans

The State Land Department is one of the most important players in Arizona's growth. The State Land Department must now create conceptual land use plans (including open space area planning) which are coordinated with general and comprehensive plans. The legislation also requires the department to produce annual projected five-year disposition/development plans for all Trust Lands within urban areas. An oversight committee for the State Land Department, appointed by the Governor, will review these plans and their coordination with local entities.

Acquisition/Preservation of Open Spaces

The preservation of meaningful open spaces in urban and rural areas is often the overriding concern among citizens who are frustrated by rapid growth. Although many communities have demonstrated a willingness in the past to pay for the acquisition of



open spaces (i.e., the Phoenix Mountain Preserve and the McDowell Mountains in Scottsdale), increased land prices and fiscal constraints have greatly restricted these programs. The Growing Smarter Act addresses the funding of open space through the creation of a multi-million dollar fund.

Long-Term Open Space Acquisition Matching Funds

Growing Smarter refers to the November 1998 ballot the question of whether \$20 million in state general fund revenues should be appropriated to the State Parks Department's public conservation account each year for 11 years. These state funds would then be matched with other local governmental or private funds to purchase or lease State Trust Lands, or their development rights, through the Arizona Preserve Initiative (API) program. In order to retain open space areas or enhance wildlife habitat or natural resources on State Trust Lands or other lands, the purchase of development rights or crop/grazing rights is possible under certain circumstances.

State Land Open Space Dedications

Some State Lands statutes are changed to merge the API program with the State Land Department's development disposition program to provide for the purchase and dedication of open space areas as part of the development of planned communities on State Lands.

Growing Smarter Study Commission

The legislation creates a 15-member Growing Smarter Commission with representatives of many interest groups appointed by the Governor and the Legislature to study growth problems and solutions from both urban and rural perspectives and report to the Governor and the Legislature by September 1, 1999. A Governor-appointed advisory committee made up of experts in various fields complements the commission. The Growing Smarter Commission will explore the following areas in particular.

Broader State Land Department Mandate

Changes to the State Trust mandate that requires the land to generate the greatest amount possible for schools and other beneficiaries may permit some of these lands to be set aside for long-term conservation. Development disposition credits and transfers are two options the commission will study to allow greater leeway with Trust Lands.

Land Exchange Authority

Arizona's Constitution would have to be amended to permit land exchanges between the State Land Department and federal or local governmental agencies to conserve sensitive lands or create meaningful open spaces. This option will be explored by the commission as will permitting land exchanges by the State Land Department with private landowners where appraisals show equal value and the trade is in the best interest of the Trust.

Reform Local Land Use Statutes

Reforms and amendments to municipal and county planning, zoning, and land division statutes will be considered to promote a more sensitive and rational development of land.

Development Rights and Conservation Easements

State programs or incentives for the purchase of development rights and conservation easements on agricultural or ranch lands will be explored.

Regional Planning

Ways to make regional planning laws and procedures more effective will be a part of the commission's work.

Urban and Rural Growth Patterns

The current patterns of urban and rural growth have positive and negative effects on Arizona's communities. The commission will explore alternative planning and growth management techniques and tools and analyze the need to modify state statutes governing the financing of municipal and county infrastructure and services. The effectiveness of current growth management systems will be assessed.

Infill Incentives

Incentives to encourage infill and redevelopment of land in designated areas could help strengthen the tax base of areas that already have public services and infrastructure. The commission will look at incentive programs and their applicability for Arizona.

Rural Economic Policies

The situations of urban and rural communities in Arizona often differ markedly. The commission will look at state and local policies that could improve the economic viability of traditional rural land uses and increase rural economic development.

The Growing Smarter Act will make a difference in Arizona's future because as Governor Hull said, "It is clearly an Arizona solution to an Arizona challenge."¹

Notes

¹ "Governor Celebrates the Passage of Growing Smarter," News Release, June 12, 1998.



Initiative Gives Voters Control Over Growth

David S. Baron

Assistant Director, Arizona Center for Law in the Public Interest

Arizonans are right to be alarmed about the way our state is growing. By some estimates, development is chewing up the desert at the rate of an acre an hour. Phoenix now occupies more land than Los Angeles, and the population is doubling every 20 years. In 1997 almost 32,000 building permits were issued in the Valley alone, a construction binge unprecedented in our history.

All of this is destroying our natural heritage and quality of life. Scientists say that urbanization is the number one threat to biodiversity in the Sonoran desert. Air quality is suffering, with Phoenix rated “serious” for three different air pollutants and brown haze enveloping large parts of the state. There are economic consequences as well. Sprawl is costing taxpayers billions of dollars for new roads, schools, water lines, and other facilities to serve distant new development.

Unfortunately, elected officials are unable or unwilling to address the problem. Instead of thoughtfully managing growth, they constantly change plans and zoning in response to developers’ requests. There is no self-discipline and no overall vision for how our cities should grow. As a result, we have massive new subdivisions being approved miles from existing urban centers with no thought given to the taxpayer costs and environmental damage.

It’s time for change, and at long last a serious alternative is on the table. A group of concerned citizens has developed a statewide urban growth management initiative that is now planned for the year 2000. The Citizens Growth Management Act (CGMA) would require cities and counties to adopt legally binding growth management plans within two years of enactment. The plans would set urban growth boundaries outside of which “upzonings” and new water and sewer service would be limited. A major goal is to protect natural areas, wildlife habitats, and scenic vistas.

Plans would also require developers to pay the full cost of new roads, schools, and other facilities to serve their developments. Each community would decide how to calculate these costs, but in the end development would have to pay for itself. In addition, plans would contain provisions to:

- protect air and water quality
- safeguard neighborhoods, natural open space, and environmental values within growth boundaries
- ensure that new road proposals are evaluated for urban growth impacts.

A key requirement of CGMA is that plans and major amendments be approved by the voters. This would give local residents ultimate control over how their communities grow. It would also give the planning process the credibility it needs to work. It would represent a true community consensus on growth, and provide far greater stability and certainty than the current system. Exceptions of up to 20 acres would be allowed without voter approval on a four-fifths vote of the governing body. The grounds for such exceptions would have to be laid out in the plan.

CGMA would also give cities and counties greater power to regulate subdivision development. Lot splits of four or more would become subject to subdivision regulations, and local governments could regulate even smaller lot splits if they choose to do so. The creation of 36-acre “ranchettes” would no longer be exempt—the threshold would be raised to 160 acres. These provisions would go a long way toward curbing wildcat subdivisions, rural sprawl, and the “ranchettification” of outlying areas. The State Land Department would be required to comply with local land use plans to the maximum extent allowed by the Arizona Constitution and Enabling Act.

This is not a no growth or even a slow growth proposal. It is a proposal for managed growth, with a substantial dose of voter control. We can continue to grow, but we have to do so in a manner that respects our natural heritage and does not require taxpayers to subsidize sprawl. CGMA is also sensitive to private property rights. It contains explicit provisions protecting existing uses and barring actions that would amount to a taking.

The developers are predictably claiming that growth boundaries will make housing unaffordable. Experience has shown, however, that sprawl does not make housing affordable. Los Angeles has some of the worst sprawl in the world, and its housing costs are among the highest in the world. In Portland, Oregon, which has a growth boundary, housing costs are below the median for the West. According to Coldwell Banker’s Home Price Comparison Index, a house in Portland costs only about one percent more than a comparable house in Phoenix. The Portland experience also shows that growth management is good for business. Portland is a vibrant, thriving community because it has worked on improving established areas of town rather than spending millions to promote sprawl.

In the spring of 1998, the Arizona Legislature passed the Governor’s “smart” growth proposal in an attempt to head off the citizens’ initiative. “Growing Smarter” was written largely by developer lobbyists and is more of a developer protection act than a growth management program. It does nothing to limit sprawl, does not require full cost impact fees from developers, and continues existing curbs on local power to regulate subdivisions. It requires a two-thirds vote of the governing body to decrease intensity of development or delete planned road projects. It prohibits local governments from requiring site-specific environmental reviews. And it requires the



State Land Department to prepare development plans for all urban lands in the state, a step that may actually speed up growth.

Growing Smarter also requires a two-thirds vote of the governing body to adopt or amend land use plans. Although this may make amendments a little harder in the larger cities and counties, it will have no effect in rural counties with only three supervisors. Moreover, there is little to prevent plans from being riddled with exceptions, or from being written in such vague and general terms as to circumvent the need for amendment.

The portion of Growing Smarter being referred to the ballot is even more questionable. It is being touted by its proponents as a \$20 million per year program to buy state lands for conservation. But the proposal would also prohibit the state from ever requiring local growth management plans containing mandatory impact fees; air and water quality controls; environmental impact reviews of new roads; or growth boundaries (even informal ones) as part of growth management plans. This effectively bans a wide range of planning tools that are recognized by professionals as legitimate growth management options. It makes a mockery of promises by Growing Smarter's sponsors that they will objectively study growth management options over the next two years. Further, it represents a cynical attempt to manipulate the voters by telling them that they have to reject effective growth management if they want money for open space.

The smart growth bill shows once again that we cannot rely on the political establishment to adopt effective growth management programs. The driving force for serious growth management will have to come from the people. This is why the Citizens Growth Management initiative deserves everyone's strong support.

Growing Smarter in Arizona: The Northern Arizona Experience

Paul J. Babbitt

Member, Coconino County Board of Supervisors

Uncontrolled and irresponsible growth is perhaps the greatest problem faced by state and local governments today. As many communities in the West sprawl outwards with little regard for planning, quality of life suffers and urban infrastructure becomes difficult to sustain. Recent efforts by citizens and the Arizona Legislature have sought to alter the way in which communities plan for growth by providing a framework for responsible, managed growth that can continue well into the 21st century.

Although the issue of growth management in Arizona most often refers to Phoenix and its neighboring communities, growth is of no less concern in northern Arizona, especially in the City of Flagstaff and Coconino County. However unlike our neighbors to the south, growth management has, for the most part, been an integral part of city and county planning efforts. Because of northern Arizona's natural aesthetic and cultural value and its relatively small population, the region tends to be more sensitive to growth and, as a result, has embraced the practice of planning for responsible growth to a greater extent than have many other Arizona communities.

In June 1998, Governor Hull signed the "Growing Smarter" legislation which reworks the planning requirements of cities and counties and provides funds for the purchase of State Trust Lands for the preservation of open spaces among other provisions. Growing Smarter is an attempt by Arizona state government to restrain irresponsible and shortsighted growth by providing counties and municipalities with greater planning authority without urban growth boundaries. Growth management plans are to be written to address ten-year goals with protections against arbitrary changes whose motivations may be short-term gains rather than the good of the community.

Coconino County, City of Flagstaff, and the new Flagstaff Metropolitan Planning Organization (FMPO) are well ahead of the Growing Smarter movement. Over the past decade, the city and county planning departments have made great strides toward ensuring responsible growth. The FMPO was created in accordance with federal guidelines for the availability of transportation planning and construction funds to cities with populations over 50,000. This quasi-governmental organization is responsible for transportation planning; its authority resides within the state, Coconino County, and the City of Flagstaff. Currently, the city, county, and FMPO are establishing a land use and transportation plan for the region within their jurisdictions. This joint planning effort represents an attempt to consolidate past, fragmented land use and transportation plans in one new cohesive regional plan. Such coordination between government and quasi-government entities should serve as a model for communities that want to rein in out-of-control growth.



Growing Smarter

Growing Smarter seeks to reform the planning and rezoning procedures used by county and municipal governments to enact growth management plans. Based on population, certain provisions are required in general (city) or comprehensive (county) plans. Growing Smarter places much importance on public participation in promulgating new land use plans, as well as on the provision of open space and the coordination of the local processes with State Trust Land planning. The legislation's focus on municipal and county planning and zoning reform is an attempt to promote a more sensitive and rational development of the land at the local level, rather than having general mandates passed down from the state government.

Requirements for city and county planning organizations differ from one another in Growing Smarter. In the case of Flagstaff, the growth management plan must include provisions for open space, growth areas, environmental planning, and the assurance that developers pay a fair share of the costs of expanding public services. Coconino County must address population density, infill and compact development, air quality, and the promotion of a broad variety of land uses in its comprehensive growth management plan. Also, both entities must include plans for transportation services that are coordinated with the land use plans.

Cities and counties are not limited to the act's requirements; in fact, growth management planning in the City of Flagstaff and Coconino County long has included all of the provisions set forth in the Growing Smarter legislation. In the past, the city or the county developed separate plans for such needs as open space and mass transportation in isolation from one another. Flagstaff and Coconino started joint planning efforts in the mid-1990s. The most prominent of these regional plans, which was finished early in 1998, is *Flagstaff 2020*. This massive cooperative effort included the city and county, plus Northern Arizona University, Northern Arizona Council of Governments, Flagstaff Metropolitan Planning Organization, Friends of Flagstaff's Future, Grand Canyon Trust, Flagstaff Chamber of Commerce, Coconino Community College, and Northern Arizona Home builders Association. The process depended heavily on public participation and addressed a multitude of issues from environmental protection to economic development. The project created a memorandum of understanding among participating organizations and set a framework for future growth in the community. *Flagstaff 2020* set goals and objectives for growth rather than specific programmatic responsibilities.

The preservation of open space and greenways is of particular importance to residents of the Flagstaff region. The Greater Flagstaff Area Open Spaces and Greenways Plan, which is scheduled for adoption by the county and city in late 1998, provides a non-binding planning framework for communities to consider in future development. The final plan will be recognized by the City of Flagstaff and Coconino County and the

U.S. Forest Service, National Park Service, and Arizona State Land Department. The acceptance of this plan will contribute greatly to the region's efforts to arrive at a responsible and environmentally sensible growth management plan.

Flagstaff 2020 and the Open Spaces and Greenways Plan demonstrate that cooperative growth management plans are much more comprehensive and avoid the jurisdictional complications of plans that are created in isolation. Since the acceptance of *Flagstaff 2020* the need to formulate a workable plan for future growth in the region has surfaced. Through a joint city/county planning committee, issues arose that led to the formation of the Regional Land Use and Transportation Task Force, which is responsible for coordinating specific land use and transportation policies that may help realize the vision set forth in *Flagstaff 2020*.

Regional Land Use and Transportation Plan

The city, county, and Flagstaff Metropolitan Planning Organization have joined forces to create a comprehensive growth management plan for the region. This plan encompasses future land use issues and the transportation infrastructure that ties the region together. Specific issues to be discussed include housing, open lands and recreation, community form and design, the environment, and economic opportunity.

Of particular interest is how the region will approach future development outside its current boundaries. In creating a planning framework, the task force is formulating three scenarios that represent how Flagstaff might look in 20 years. The scenarios estimate the region's future development based on a variety of growth trends; these trends show the effects of unrestricted growth spread out beyond current boundaries, compact development characterized by the infill development of the regions previously developed land, and the development of concentrated areas around the region to serve a more diverse area of population centers.

This systematic approach toward creating a growth management plan is compatible with both the city and the county's jurisdictional responsibilities and includes the goals and visions taken from such efforts as *Flagstaff 2020*. In short, the Regional Land Use and Transportation Plan is intended to be an all inclusive growth management plan for both the City of Flagstaff and Coconino County, as well as coordinated with federal and state transportation planning through the FMPO.

In most respects, the standards set for the regional plan meet or exceed those included in Growing Smarter, but Growing Smarter complements and enhances the Regional Land Use and Transportation Plan. The authority held by local governments to promulgate long-term growth plans is greatly enhanced by provisions within the Growing Smarter legislation. However, the legislation also places restrictions on changes to the final plans, requiring a two-thirds vote of the



City Council and/or the County Board of Supervisors.

The legislation also encourages compact growth that favors infill development in an attempt to restrain urban sprawl. Cooperation between local and state governments concerning the coordination of local land-use planning and State Trust Lands is integral with the Growing Smarter legislation. This coordination is accompanied by funding to help balance state and local plans. At this point, it would appear that primary control will rest in the hands of the local governments, with support from the state level.

The regional planning initiative taking place now represents an approach not specifically addressed in Growing Smarter, namely joint preparation of a long-range growth management document by city and county governments. Flagstaff and Coconino County's efforts are unique in Arizona. To us, the value of such an approach is clear: by ensuring that those who will be affected by a plan are included in the development process, the Regional Land Use and Transportation Plan can serve as a comprehensive guide for responsible growth in the Flagstaff region.

Sprawl—As development continues to consume land, a few places are experimenting with alternatives to uncontrolled growth.

Philip Langdon

Reprinted from the July 1998 issue of *Builder* magazine ©Hanley-Wood, Inc.

Across much of America, urban sprawl is becoming a fiercely contested issue—one with potentially big consequences for developers and home builders.

In Maryland, state officials say half a million acres of farm and forest land could be consumed by development in the next quarter-century. So Gov. Parris Glendening is attempting to channel development into established communities or “priority” areas where roads, sewers, and other public services are planned—thus protecting rural areas from uncoordinated growth.

In New Jersey, Christine Todd Whitman, who first won the governor’s office as a tax cut champion, now is trying to make preservation of open space a critical state goal. If carried out, her initiatives could put half the state’s two million acres of undeveloped land off-limits to construction.

In the West, “urban growth boundaries” are proliferating. The Seattle area established an urban growth boundary in 1994. One after another, 11 communities in the San Francisco Bay area have adopted growth boundaries since late 1996. The Portland, Ore., area has resisted every effort to radically change its nearly 20-year-old boundary, despite complaints from the building industry that the limited land supply is driving up housing prices. Even a state as traditionally pro-development as Arizona debated (but ultimately rejected) whether a growth boundary was an idea whose time had come.

Where Will America Build?

Efforts to rein in sprawl—an increasingly popular idea with voters—could change the rules of the game for developers and home builders. In regions that put tight restraints on outward expansion, large tracts for single-family construction will become harder to get. Land prices will rise more quickly. Lot sizes will shrink. And as these changes occur, the building industry will have to seek its opportunities elsewhere—in scattered parcels that builders previously passed over, in urban centers and old industrial areas waiting for renewal, in mixed-use projects, and in low-density commercial strips that could be redeveloped much more intensively.

Why is sprawl becoming a rising issue? Conventional wisdom claims the following to be the key reasons:

Massive incursions on the countryside.

The pace at which development is marching outward from existing urban centers



disturbs millions of Americans who prize unspoiled countryside. Metropolitan Chicago, for example, grew in population by a mere 4% between 1970 and 1990, but spread its inhabitants across 35% more land, according to the Northern Illinois Planning Commission.

Across the country, an estimated 400,000 acres of prime agricultural land are lost to development each year, says the American Farmland Trust. Many unique or highly productive farming areas are now threatened—in California's Central Valley, Virginia's northern Piedmont, the southern Wisconsin-northern Illinois drift plain, the Texas blackland prairie, Oregon's Willamette Valley, and Washington's Puget Sound area, among other places.

The Trust's 1997 report, "Farming on the Edge," points out that when prime land is converted to housing tracts and other development, farmers use poorer land in other locations and are compelled to boost productivity with chemical fertilizers that pollute streams and harm aquatic life. Mike Burton, Portland's metro government executive, says support for his region's growth boundary springs in part from an awareness that "much of the agricultural land in the Willamette Valley is unique in combination of soil, climate, and growing conditions."

Loss of habitat.

If much of a landscape is carved into house lots—even generous-sized house lots interspersed with bits of woodland and wetland—the habitat becomes so fragmented that it can no longer support its native wildlife. For instance, a study for the Maine Environmental Priorities Project determined that when development cuts swaths of the state's countryside into blocks of fewer than 20 acres each, survival of bobcats, minks, fishers, turkeys, hawks, bald eagles, and many other species is threatened.

Edge cities.

"During the 1980s, most major metropolitan areas developed commercial and employment centers at or near their outer boundaries, creating 'edge cities,' often with suburbs of their own," the Farmland Trust observes. Traffic congestion has become an annoying and pervasive part of suburban life.

Tax burdens.

"The story used to be 'Growth is good; it's economic development,'" observes John Fairhall, an editor who oversees *The Baltimore Sun's* coverage of suburban Howard County, Md. "Now it's 'Growth has costs. You have to build more roads and infrastructure.' You can see the change coming."

Forsaken urban centers.

The shift of employment has weakened the old downtowns and left poor urban

residents at a greater disadvantage for finding jobs. When looked at as a package, sprawl, with its combination of environmental costs, economic costs, traffic, tax burdens, and urban deterioration, looks more and more like a bad deal.

The problems often associated with growth, however, are sometimes exaggerated in the mainstream media. Therefore, it's important to keep things in perspective. For example, less than 5% of the country's land mass is urbanized, and even at a loss rate of 400,000 acres a year, the United States is not even close to losing its ranking as the most productive agricultural land in the world.

Other issues—such as how to meet the inevitable demand for new housing—should also be part of this discussion. All too often, however, the fact that about 1.4 million new-housing units are needed each year to house a population that is projected to increase from 262 million in 1995 to nearly 300 million by 2010 gets lost in the debate.

The positive aspects of urban growth—higher incomes, better employment opportunities, more tax revenues, and increased demand for goods and services throughout the local economy—also get muted by the more visible problems of congestion and pollution.

And finally, while the market is growing for infill and high-density developments, particularly among baby boomers and Americans nearing retirement, polls show that the majority of Americans still want what they have always wanted—a single-family home. And for most of them, that home will be most affordable at the edge of the urban market.

The Portland Vision

One of the best examples of a no-sprawl environment—and of the opportunities and risks it presents builders—is metropolitan Portland, Ore. As the Oregon state government requires, the Portland area has had an urban growth boundary since 1979. The boundary encompasses 364 square miles, or 233,000 acres.

The premise of a growth boundary is simple. Outside the line, development is discouraged. Inside, development is encouraged through infrastructure construction, faster permit approvals, allowance of higher densities, and other policies and practices aimed at making it easier to build in designated areas.

Oregon's builders value the government's commitment to foster development inside the growth boundary and to encourage higher density. "The Oregon planning system has some pro-development aspects," says Jon Chandler, governmental affairs director for the Oregon Building Industry Association. The system, he points out, delivers these advantages to the building industry:



- “It’s almost impossible to get a building moratorium.”
- “All the land is zoned [for residential or other purposes]. Land is presumed developable, so you have ‘some moral high ground to stand on.’”
- A “120-day rule” limits the amount of time the government can wait before acting on a project application. The 120-day rule “doesn’t work all the time,” Chandler notes, but if the government lets more than that length of time pass, the applicant can ask to get back half the fees paid.
- An expedited process promises a 63-day turnaround on applications for higher-density projects.
- An appeals process, presided over by a state Land Use Board of Appeals, has been established to make final decisions in contested cases.

Compared with builders and developers in other parts of the country, “I think we have an easier time of it,” says Chandler. Opponents who want to say, “not in my back-yard” are put at a disadvantage. “Are there delays? Sure,” he says. “The neighbors have a shot at you every step of the way. Neighborhood groups can appeal. But you tend to win.”

The Portland metro government’s unwillingness to substantially expand its region’s boundary over the years has generated a lot of friction between the building industry and a variety of other interests. The boundary is supposed to contain a 20-year supply of developable land. When the region’s economy was in the doldrums in the 1980s, there was plenty of land available. Builders had no trouble acquiring the land they needed inside the boundary. But in the 1990s, as the economy heated up and the population grew more rapidly, that situation changed. Builders have been campaigning to enlarge the boundary by 10,000 acres, but suburban mayors, metro council members, and others have opposed an expansion of that magnitude. Some interest groups, such as agribusiness, have opposed any expansion at all.

Meanwhile, Portland-area housing prices have shot up in recent years; builders blame that on the restrictive growth boundary. “Ten years ago Portland was one of the 10 most affordable cities in the country,” says Kelly Ross, governmental affairs director of the Metropolitan Portland HBA. “Recently we’ve bounced between number two and three of least affordable. The main reason is the cost of land. Raw land prices have increased 400% in the last five years.”

A similar phenomenon is occurring around Seattle. “Housing costs are escalating about 1% a month in the Puget Sound area,” says Gary Lawrence, a fellow, at the University of Washington’s Institute for Public Policy and Management. “Builders have taken the position that the growth boundary is what’s responsible for the increase in housing costs in King County [Seattle].”

Joe Molinaro, NAHB’s director of land development services, cautions urban planners

about jumping on the Portland bandwagon. “Evidence is mounting that the Portland experience may not be working as well as first purported,” Molinaro notes. “The increase in Portland housing prices is well documented. Also, higher densities called for within the boundary are becoming more difficult to achieve as established residents fight new infill development that is at densities higher than in their own neighborhoods.”

Some independent analysts question whether the growth boundary is the main reason for the jump in housing prices. Ethan Seltzer of the Institute for Portland Metropolitan Studies says Salt Lake City and Denver have experienced similar price increases—despite their lack of growth boundaries.

“Any time you have high demand, housing prices will rise, and rise rapidly,” says Tasha Harmon, executive director of Portland’s Community Development Network. Harmon argues that as land prices have escalated, builders have shifted toward erecting luxury houses, which are out of reach of many middle-management employees and production workers.

In a booming economy, it seems unlikely that builders in Portland and Seattle would meet the housing needs of moderate-income residents even if growth boundaries suddenly vanished. “The housing that would be built beyond the urban growth boundary would be upper-income, large-lot housing,” Lawrence says. “It wouldn’t get at the need for affordable housing.”

The Zoning Strategy

The cost squeeze afflicting middle-income families in the Portland and Seattle areas has led to calls for government intervention. The remedy Harmon espouses is “inclusionary zoning”—a requirement that a certain proportion of the units in any new housing development over a specified size be moderately priced. Harmon notes that Montgomery County, Md., outside the nation’s capital, has had inclusionary zoning for 20 years. She reasons that if, according to, an inclusionary zoning ordinance, “20% of what you build has to be starter homes,” the land naturally becomes worth less money—“to you and to every builder.” In her view, inclusionary zoning helps temper the rise in land prices and helps ensure that people with ordinary incomes can get decent, affordable housing.

The Portland HBA’s Ross notes that the Metro Council is encouraging voluntary, incentive-based measures to produce affordable housing and “will consider mandatory inclusionary zoning if there is not significant progress in having them implemented by the end of 1998.”

Growth boundaries, and the planning and zoning standards that complement them, are



causing the development density to increase. In Portland, the average lot size for single-family houses (including townhouses) dropped from 13,000 square feet in the late 1970s to 7,400 square feet in 1995-96, and it continues to decline. As land has become more costly, builders have used it more sparingly.

To cope with the higher cost of land, Gary Pivo, chair of the University of Washington's Department of Urban Design and Planning, says governments can take a number of actions. "Allow subdivisions to reduce street widths or to cluster densities," he suggests. Let developers get a density credit for the portion of the property they leave undeveloped because of wetlands; that density could be transferred to a buildable part of the terrain. Eliminate unnecessarily tough standards for curbs and gutters, Pivo says, and allow other density-increasing techniques, such as zero-lot-line design.

"There are a lot of things under way around the country" to reduce housing prices, Pivo says. Those techniques may be greatly needed as communities limit development in outlying areas. Tough restraints on sprawl eventually force builders to revise their way of operating. For some single-family home builders in the Portland area, the type of house they do really doesn't work anymore, says David Lawrence, assistant city manager of Hillsboro, a fast-growing community west of Portland. "What they have to pay for land takes them out of the market they've been in; they can't get the size of lot that fits the house they're used to building." As a result, says Lawrence: "Niche builders have to decide whether they can move up a notch or two in quality or move into infill development."

In fact, some are doing that and more. "Builders are looking at a wider range of products now, like small-lot single-family," says Seltzer. Public projects, such as the extension of Portland's light-rail rapid transit line to Hillsboro and other western suburbs, are giving them incentives to develop certain areas in a more compact, less automobile-dependent manner. "On the Westside rail line, close to 6,000 residential units have been completed near station areas," says Seltzer. This figure becomes even more impressive when you consider that the line won't open until September of this year. The units include apartments, row houses, and small-lot, detached houses.

The same shift toward dense, mixed-use development is occurring in the Seattle area. One example is Trammell Crow Residential's LionsGate development in the previously undistinguished downtown of Redmond, Wash., east of Seattle. LionsGate mixes rental apartments on three levels with ground-floor commercial spaces that face public sidewalks in traditional urban fashion. The project's success has led Trammell Crow to start several new developments in the area.

In Portland, builders are examining how they can create housing in business areas, industrial districts, and existing neighborhoods. "We're looking at filling in the holes in

the fabric,” says Gary Reddick, the CEO of Sienna Architecture. “The Portland area is so healthy, it’s happening in every quadrant of the inner-city neighborhoods. It’s being pushed very enthusiastically by the city, the Planning Department, and Metro [the Portland area’s three-county regional government].” Sienna projects currently in the works include construction of three to four stories of condo-condominium units over a concrete podium; walk-up apartments along sidewalks (with parking expanded by placing a new deck over an existing parking lot); and addition of three or four floors of housing to the top of existing buildings. The basements of existing buildings often end up accommodating parking. Old warehouses are being turned into housing—a part of the market that Reddick says is much larger than developers had initially expected.

Blending new and old, and mixing housing, working, and shopping, produces places with character, Reddick believes. “What we’re making is incredibly rich, experientially interesting neighborhoods.” Plenty of demand exists for these developments, he says. It comes mainly from adults ranging from young couples without children to older people who are shedding the large houses. “These projects are, in many instances, garnering the highest sales figures per square foot of anything that’s being done.”

New Frontiers

The new frontier for builders and developers lies more in the existing cities and suburbs than on raw land at the edge. As Seltzer puts it, improving on sprawl is more than a matter of how to “do better subdivisions at the margin. It’s how to get better function out of what’s already been done. In a lot of ways, it’s how to deal with everything that has been built since World War II.”

Growth boundaries, says Jim Sayer, executive director of San Francisco Bay area’s Greenbelt Alliance, have “shifted the debate away from rampant growth vs. no growth to ‘how do we grow better?’ People are starting to look at the quality of development, not just the numbers. People were fed up with the quality of development, with big developments that were characterless. People are being more thoughtful about development.”

In the end, that may not make a builder’s or developer’s job any easier. But it could make it more satisfying and ultimately more beneficial.



The Growth Management Challenge in Arizona

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In a March 24, 1998 news release, Arizona Governor Jane Dee Hull noted, “We are truly at a crossroads...It is time to open our minds and look thoughtfully at how we want to grow.” From 1950 to 1990, Arizona was the second fastest growing state in the nation as it moved from some 750,000 people to 3.7 million residents. The population now numbers over 4.5 million. In 1996 Phoenix became the sixth most populous U.S. city. Phoenix is also a sprawling city. Phoenix’s land area grew from 17 square miles in 1950 to 330 square miles in 1980 to the present 469 square miles, two more than Los Angeles. Many have been left wondering if it can sustain further growth. Many fear that Phoenix will become another Los Angeles—in terms of sprawl, traffic, and pollution—without better controls. In Tucson, the fear has been of becoming another Phoenix. Local governments in much of the rest of the state also face the task of financing infrastructure and services to support many more citizens and of planning to avoid the ill effects of development.

To many Arizonans the underlying problem is sprawl, that is, low-density, automobile-dependent development that spreads out over the landscape. This type of growth gobbles up land, increases the cost of providing roads, schools, and other facilities, and makes financing mass transportation difficult. Residents, thus, are forced to drive almost everywhere. As the population spreads further and drives more, traffic congestion and air pollution become problems while more roads are built. Sprawl also contributes to the decline of rural areas, the disappearance of farmland and wildlife habitat, and the loss of scenic views. Sprawl is a policy problem that becomes particularly intense when the economy is strong. While incomes are improving, people look for their first homes or improved housing and developers scramble to accommodate these demands on relatively inexpensive land at the edge of cities.

Arizona is hardly unique when it comes to growth management. The objective of the most recent concern with land use planning and controls has been to manage growth better. Growth management looks to steer development in desired directions, promote infill, and protect open spaces. Major reforms around the nation include urban growth boundaries beyond which only limited development can take place and the coordination of development with the provision of adequate infrastructure. In many parts of the country problems caused by poorly planned development have created pressure to shift planning and oversight responsibilities from localities to states or regional planning agencies.

What can state and local governments in Arizona do to control growth? How have governments in Arizona done on growth management? Given the state’s political

traditions, what might be done to improve their performance?

Growth Management in Arizona

As in other states, Arizona's state government has delegated much of the responsibility for regulating land use and coping with growth to local governments. Land use planning authority is exercised by county and municipal governments. These governments have several tools to control population growth. Growth may be encouraged or discouraged, for example, by governmental purchase of land and by decisions regarding the expansion of facilities like roads and sewer lines. Within general limits, local governments can experiment with such ideas as development moratoria and high-density zoning. Moratoria on development can be achieved in the short run by blocking the issuance of building permits or by refusing to extend water and sewer services. Through the adoption of "adequate public facilities" requirements, localities may control development by limiting building permits to areas that already have enough public facilities to serve the development. They also may create special zoning districts to respond to local conditions and concerns. For example, overlay zones for natural resources, open space preservation, historic preservation, or economic development may be created. Local governments have the power of eminent domain to acquire land for public use; cooperate in regional activities; and spend funds to acquire land to be retained as open space.

Localities operate within legal and political constraints. Courts long have recognized that local governments can regulate the uses of private property in the interests of public safety, health, or welfare. Yet, there are limits to this power. Local land use regulators may find that they have exceeded the power delegated to them by the state enabling legislation or have, through their regulation, violated due process rights, the guarantee of equal protection, or the right to travel. Zoning and other land use regulations may be so burdensome that they amount to illegal taking of private property for public use without compensation. Politically, much of the public input local officials receive on planning and zoning matters concerns turf protection, that is, efforts to keep undesirable people, activities, or facilities out of one's neighborhood. Citizens often complain that they are left out of development decisions and denied the opportunity to challenge a zoning move that has brought an unwelcome facility into their neighborhood. With a mixture of economic and social objectives, neighborhood groups mobilize against LULUS (locally unwanted land uses) such as public housing units or half-way houses. Proposals to locate such facilities give rise to the NIMBY (not in my backyard) syndrome. For the nervous politician, it's often a case of NIMTOF (not in my term of office).

Municipalities and counties are required by state law to adopt comprehensive, long-range, land use plans and zoning ordinances to implement them. They also must impose additional controls on land use through subdivision regulations. Historically, however, Arizona's statutes regarding land use plans have been poorly implemented.



The state does not review plans to enforce the law. The actual performance of Arizona's municipalities and counties regarding growth management is spotty at best. Some jurisdictions have not adopted plans despite the state mandate. In others, plans are given only lip service and zoning and subdivision controls are often imposed without reference to a plan. Historically, developers often have been able to lobby city councils or county boards to change plans put together by commissions or to override the more restrictive decisions of planning boards. Because of the variation in land use control among Arizona's cities and counties, developers have been able to shop around and gravitate to areas with the fewest controls or lowest impact fees, if any at all, on proposed projects.

Citizens in Phoenix, Tucson, Scottsdale, and elsewhere have complained that developers have gone too far, creating heavy burdens on government services and threatening air quality and desert preservation. A number of cities in metropolitan areas are making greater efforts to promote infill and preserve open spaces. To discourage sprawl some jurisdictions charge higher permitting and hookup fees for sewer service for projects on the outskirts of town and lower ones for projects in the heart of the city. Proposals for differential fees in Tucson have set off warnings that such restrictions conflict with people's desire to live in the wide open spaces and add to housing costs. Going further to control growth, Sedona voters in 1996 adopted a citizens' slow growth initiative to limit building permits. This action was later invalidated by the courts. Flagstaff has something comparable to a growth boundary in its urban service district, an area outside of which it does not provide services. Several jurisdictions have demonstrated a concern to preserve scenic areas and open space. Scottsdale voters, for example, in 1995 and 1996 approved preservation programs for the McDowell Mountains and Sonoran Desert. The Pima County Board of Supervisors in 1998 adopted a desert protection plan devised by environmental and neighborhood groups. Yet, while one finds considerable sentiment for preserving open spaces, one finds little sentiment for higher density living. Local officials in Arizona as elsewhere seem far more likely to hear demands for lowering a development's density than demands for increasing it. Responding to this sentiment, Arizona governments have allowed lower density development than called for in their official plans and allowed urban areas to expand far more rapidly than expected.

Recently, the legislature has acted to address some of the criticisms of local planning. Under the Growing Smarter law that goes into effect late in 1998, cities, towns, and counties have to adopt or renew land use plans for 10-year periods and amendments to the general growth plans need a two-thirds vote of city council or county board of supervisors members (rather than, as in the past, a majority of members). A section calls on each governing body to "adopt written procedures to provide effective, early, and continuous public participation in the development and major amendment of general plans." The new law also requires that zoning standards be in conformity with

the general plan and requires cities and towns to adopt general plans with specific points or elements. Among these are the protection of open space, strategies for efficient transportation and well-timed expansion of infrastructure, such as sewers. While the legislation mandates some important changes in existing practices, there is no state agency to monitor compliance. Arizona still has a low-key approach to growth management.

The most basic problem with relying on local units for growth management is that each is likely to consider its own needs first and only incidentally the needs of the broader metropolitan area or region. Failing to think regionally, one city may give its blessing to a development that has major adverse effects on the well being of a neighboring jurisdiction. When it comes to control, imposing a moratorium may help a rapidly developing city, at least in the short run. This action, however, is not likely to do anything to help neighboring jurisdictions and, indeed, may prove harmful to them and to the region as a whole. Similarly, while cities might solve certain service problems within their boundaries, those problems which transcend municipal or even county boundaries, such as pollution and traffic congestion, require a regional approach to land use planning. Cooperation is sometimes frustrated by long-standing feuds and rivalries between local units or because various units see their own problems as unique or are suspicious of each other's special agenda. Local officials also actively compete for such resources as land, population, industry, and taxes. Regarding taxes, the emphasis on the sales tax as a source of municipal revenues has encouraged intense competition for the location of regional shopping centers. The desire to secure a center may lead to wasteful competition in the region as a whole and play into the hands of businesses shopping around for a location.

Reformers have long cited the need for adjustments in Arizona's metropolitan areas to facilitate an effective regional approach to growth management. Over the years many academics and practitioners have argued that new metropolitan or regional levels of government should be created either to replace local units or to assume functions that are regional in nature. Regional special districts and authorities could also be established to handle each regional growth problem separately. However, such entities tend to be invisible, largely unaccountable governments. The preferable approach would be vesting responsibilities in a unit of government such as the county which is highly visible to the public. Thus far, however, voters have not gone along with "home rule" efforts intended to improve the status of county governments in the Phoenix and Tucson metropolitan areas.

Local officials in Arizona, as elsewhere, tend to favor a voluntary approach to regional problems. Voluntary regional councils of governments (COGS) have been the principal vehicle for coordination. Since the early 1970s six COGs in various parts of the state have helped promote uniformity in the planning and programming of various activities.



They often perform coordinating activities that are required by federal transportation and other programs. Some, such as the Maricopa Association of Governments (MAG) have pursued an aggressive regional agenda and played a strong role in planning activities. Currently, for example, it is heading a project to produce a vision for the year 2025 that governments in the valley can endorse. Bodies such as MAG do not have the power to enforce decisions. Yet, as they gain the confidence of their members and develop staff facilities, they can progress toward becoming regional policymaking and action councils.

Politics, Culture, and Policy Directions

Growth management in Arizona and elsewhere has been a highly contentious issue. Policymakers have been challenged to reconcile the demands of many interest groups. Growth management is controversial because it involves the imposition of controls over the right of individuals and businesses to use their land as they wish and questions the traditional allocation of responsibility between state and local governments. Decisions are also important because they affect the life styles, health, and prosperity of many.

In Arizona and much of the West, land has been perceived as plentiful. There has been a tendency for people to want to spread out. Moving out is partly how people have defined success. Developers have found relatively cheap land outside of established population centers, built secluded single-family dwellings on large lots, and offered a carefree countryfied lifestyle, removed from the problems of the crowded cities. Developers argue that they have given people what they want. Compact, high-density living has been difficult to sell. To a considerable extent, so too has been mass transit.

In Arizona growth management has also had to struggle with the values of individualism, economic development, and localism. Arizona as one of the last frontiers in the movement west has long been a place associated with frontier freedoms. Individualism and material accumulation are often included in the list of frontier values.¹ The first of these encompasses the freedom to think and act as one pleases. It also includes the value of self-reliance. The emphasis on material accumulation carries with it a high value accorded to entrepreneurial freedom, a willingness to undertake risks, an optimistic view of one's chances of getting ahead in life, and an exploitive attitude toward natural resources. One scholar has linked the popular adherence to the frontier themes regarding the unfettered development of natural resources to the difficulty the state has had in putting together a consistent policy on environmental quality.² In the individualist spirit, Arizonans have been mistrustful of government officials telling them what to do. This is especially true when it comes to regulations affecting their property rights. Lawmakers have to find a way of protecting private property rights while also allowing governments to regulate land use in the interests of the general welfare.

In the frontier tradition, growth control in Arizona has also had to exist in an environment where state and local governments have focused on doing what they can to promote economic development. This has been true even as the ill effects of economic development, such as air pollution and traffic congestion, have become manifest. Arizonans try to cope with growth while asking for more of it. There is considerable fear that increased controls will discourage further development. Yet, support also exists for the notion that without some controls, further economic growth may suffer. To many calling for action on an issue like air quality, including members of the business community, environmental protection is consistent with economic development because a high quality of life makes the area more attractive to investors. In the Arizona political environment the most feasible growth control reforms are those that can be clearly promoted as necessary to maintain economic development.

Another obstacle reformers have to come to grips with is the strong tendency in Arizona to look at land use control as a local rather than state or even regional activity. Several questions, however, have to be faced about the ability of local governments to do the job. Given the parochialism of local units, regional or statewide interests are difficult to attain. The history of reform in other states with a strong tradition of localism indicates that states will not take drastic measures until it is clear that local governments are not up to the task. "Top down" comprehensive planning by the state (like Florida's) can be the consequence of the continued perceived failure of localities to control growth. To minimize state involvement, more of the growth control function could be shifted to a broader regional government or governing agency. Regional agencies can "provide an important link between state and local governments by balancing the desire to keep power relatively decentralized while accounting for more-than-local interests."³

Several other types of policy decisions at the state level also have an effect on growth management. The state, for example, is directly involved in growth management by its control over State Trust Lands. Policies regarding incorporation and annexation also affect future local planning. The best laws would be those that make annexation relatively easy and incorporation relatively difficult. These help prevent the proliferation of new municipal governments, and thus, minimize the problem of fragmented local authority. They also allow cities to avoid discordant land uses on their boundaries, keep jurisdictional service boundaries, and expand settlement patterns in proper alignment. The incorporation of more towns on the periphery of a large city such as Tucson makes it more difficult to conduct regional planning, and makes it easier for developers to shop around for the least restrictive controls.

Many people in Arizona appear frustrated with problems like traffic congestion and pollution and, thus, are likely to support greater growth management controls. On the other hand, tightening controls on growth becomes more complicated because it



conflicts with lifestyles and values dear to the heart of many Arizonans and many political leaders.

Thus far there has been only a limited effort on the part of localities to control the timing of development or channel it into areas that are already developed. Local officials, even if so inclined, have found it difficult to encourage high density planning. Existing arrangements also make it difficult to address broader regional or statewide concerns relating to growth management. In the metropolitan areas where growth problems are more advanced, there is no entity to prevent ruinous competition among neighboring cities. Nor is there any way to ensure that cities consider the effects of their developmental decisions on neighboring cities. More effective planning on a regional or metropolitan basis could reduce these problems. Local officials seem to be faced with a strong desire for low density living. Changing opinion on this topic would require an intense public education campaign focusing on the importance of cleaner air, less traffic, and more efficient public services. On the plus side there seems to be considerable support for action designed to preserve open spaces. Within the limits imposed by the attachment to low density living, Arizona localities still could do much to minimize the amount and effects of sprawl by promoting mixed land uses and increasing regional planning.

The future of growth management is largely in the hands of the state government. It could impose rigorously enforced and detailed planning mandates under which all local plans must fold into regional plans and the regional plans into a state plan. Alternatively, it could require regional planning which recognizes that Arizona is relatively decentralized and locally diverse. A "one size fits all approach" is not appropriate, and state mandates need to be accompanied by ample technical and financial assistance to jurisdictions that need help. The state also could, as in Maryland, use the power of the purse, to control sprawl. This would follow an extensive study of how state expenditures regarding highways, schools, water facilities, and other projects encourage or discourage certain land uses.

Notes

¹ See, for example, the list of frontier values compiled by James Shields and Leonard Weinberg, "Reactive Violence and the American Frontier: A Contemporary Evaluation," *Western Political Quarterly* 29, March 1979, 84-101.

² Mark Pastin, "Ethics: Pluralism or Conflict," *Culture and Values in Arizona Life*, Arizona Academy, 1987, 43-54.

³ Ndubisi Forster and Mary Dyer, "The role of Regional Entities in Formulating and Implementing Statewide Growth Policies," *State and Local Government Review*, Fall 1992, 117-127.

Arizona Must Recognize Limitations as it Grows

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Much of the current debate on growth is concentrated on how we collectively should shape Arizona's growth. Consideration of water resource limitations, transportation infrastructure planning issues, and the need for governmental coordination are important to this debate.

Water Resources

While we think of the vast land areas of Arizona, the state is highly urbanized. Due to the rapid growth of Maricopa County, the proportion of the state's population living in Maricopa and Pima Counties is expected to grow from about 76 percent in 1990 to 79 percent in 2040. Although Maricopa County has long been served surface water through the Salt River Project, Pima County has historically relied on groundwater.

Recognizing the critical importance of water to the state's future, Arizona established itself as a leader in managing water resources. In 1980, the state passed the Groundwater Management Act (GMA) creating the Arizona Department of Water Resources (ADWR) and four Active Management Areas (AMA)—Phoenix, Pinal, Prescott, and Tucson—where groundwater depletion had emerged as a critical concern. In 1994, the Santa Cruz AMA was formed by separating it from the Tucson AMA.

AMAs are defined by hydrological boundaries and have groundwater management goals specified by law. The Phoenix, Prescott, and Tucson AMAs have achieving *safe-yield* by the year 2025 as their management goal. *Safe-yield* is defined by ARS § 45-561 as a goal which attempts to achieve and thereafter maintain a long-term balance between the annual amount of groundwater withdrawn in an active management area and the annual amount of natural and artificial recharge in the active management area.

The Santa Cruz AMA's goal is to maintain safe-yield and to prevent local water tables from declining. The management goals of the Pinal AMA are to allow development of non-irrigation uses and to preserve existing agricultural economies as long as is feasible, while preserving future water supplies for other uses.

The management plans for each of the AMAs also specify water conservation requirements and limitations on water use, which in most cases become more stringent over time. ADWR is currently in the process of adopting its third overall management plan for the years 2001 to 2010.

The Central Arizona Project (CAP) is an important component of Arizona's water supply. A key purpose of the federal project was to provide water to sustain municipal



growth in Maricopa, Pinal, and Pima counties. The CAP was also to supply water for agriculture so that farmers would substitute a renewable source for limited underground water supplies. Finally, the CAP was meant to provide water for Indian tribes. The CAP is an important component of the Phoenix, Pinal, and Tucson AMAs' efforts to utilize renewable water supplies in place of groundwater.

According to the Arizona Town Hall report, *Ensuring Arizona's Water Quantity and Quality into the 21st Century*, the agricultural sector used 80 percent of all water in Arizona in 1990, with the remainder going to municipal and industrial purposes. That proportion is expected to decline to about 66 percent by 2040. In certain parts of Arizona, including the Tucson AMA, use of water by the mining industry also is considerable. The Phoenix and Tucson AMAs are expected to have difficulty achieving safe-yield by 2025 in part because of their substantial growth. Some of the water supply and use implications of urban growth patterns are considered in this article.

It has long been acknowledged that in certain parts of Arizona, agricultural use of water will give way to municipal and industrial uses. Farming activities use more water per acre than residential and commercial uses. For example, as Salt River Project farmland is sold for urban development, there is likely to be a net decline in groundwater overdraft. In Marana, new housing could displace farming activity, replacing agricultural water use with municipal use. Alternatively, it could be located in ironwood forests, adding additional water demands on the aquifer. The water implications of growing where there is pristine desert versus irrigated farmland may be vastly different. This should be considered as communities plan for growth.

We cannot—and should not—deny our desert environment and the need to use our water resources wisely. We need to educate our new and old residents and visitors about managing our water resources. For example, local governments for years have had ordinances requiring golf courses to use effluent or reclaimed water. The importance of golf resorts to residents and the tourism industry is recognized. However, officials often miss the opportunity to inform the public about the regulation of water use by golf courses in the AMAs.

Uneven Supply and Delivery

In some AMAs, the question is not whether there is adequate water to serve the expected population growth, but whether water of the proper quality and in sufficient quantity can be delivered over the long term to the location of the demand. Within an AMA, there may be waterlogged areas and places where water supplies must be imported to service new demand. This is true for the Phoenix AMA, where groundwater is readily available in the Buckeye area, while the Cave Creek-Carefree-Scottsdale region faces limitations on groundwater availability.

Unlike the Phoenix AMA, which has Salt River Project water resources as well as CAP water, the Tucson AMA's only renewable water supplies are CAP water and effluent. The City of Tucson holds the largest municipal CAP allocation in Arizona, but it is using very little of it due to problems with integrating CAP water into its water supply system. Water tables in Tucson Water's central well field are declining, but there are voter-approved limitations on how CAP water can be delivered by the utility. Some of the most rapidly growing parts of the Tucson AMA, including those served by smaller municipal and privately owned water providers, also are served by wells where water tables are declining rapidly. Yet the costly infrastructure to deliver CAP water to these areas is not in place and constructing it will require the financial and planning cooperation of multiple entities.

Water for New Development

The Arizona Department of Water Resources' Assured and Adequate Water Supply Rules insure that adequate water supplies are available for new developments. The rules are tailored to each AMA and require that new municipal demands utilize renewable water supplies. Each new development must be reviewed and granted a "certificate of assured water supply." If a Phoenix or Tucson AMA water provider (most often a municipality) is given a designation of assured water supply, which enables it to meet *new* demands without each development going through the certification process, renewable water supplies must be used to serve much of the *existing* demand as well. The use of renewable water supplies can be indirect. Laws allow credits accrued for storage in one location to be "redeemed" for pumping in another location. This indirect use can mean lower costs for the water customer than direct use, but it can also result in continued pumping of groundwater in areas where declines are of concern.

Water Banking and Recovery

Much water is stored by the Arizona Water Banking Authority, the Central Arizona Water Conservation District, and water providers. There also could be significant banking of water in Arizona by California and Nevada. However, the recovery of stored water and proposals to make the criteria governing location of recovery wells more stringent are still major issues. Any attempt to change the recharge and recovery rules could affect growth and is likely to be met with resistance. In addition, alternative mechanisms for meeting the requirements of the Assured and Adequate Water Supply rules have introduced some more complications.

Solutions to complicated problems are not easy to develop but are required if we are to ensure the water future of some areas. While to some this all may seem Byzantine and the worry unnecessary because water supplies do, in the aggregate, appear to be sufficient to accommodate significant growth, it should not be taken for granted that these water supplies will necessarily be available where they are wanted when they are needed.



Non-AMA Water Issues

What about water regulation and growth in non-AMA parts of Arizona? For example, Sierra Vista is facing water challenges as it grows. Payson, which sold its allocation of CAP water, is another community concerned about water resources because of growth. At the October 1997 Town Hall on water, fears about forming additional AMAs and extending the regulatory reach of the Department of Water Resources surfaced. The need to consider local circumstances was emphasized. Consider the following from the Town Hall Report:

If safe-yield is going to be required in any specific watershed, it will have to be applied within an appropriately defined hydrologic system. Arbitrary political boundaries do not necessarily coincide with the hydrologic reality of watersheds where moving water crosses boundaries. For this reason, local and regional communities must play a larger role in self-determining their approach to reaching ideal groundwater use levels, keeping in mind the overall state goal of a sustained water supply. We may need to accept the fact that certain areas may not agree that a sustained state supply is the goal, and we must assure that this does not adversely impact other areas. A balance must be reached between local decision making and statewide goals.

That what is right for one region may not be appropriate for another is reflected in the Groundwater Management Act and in subsequent management plans. For example, the water management goal established in 1980 for the Pinal AMA is significantly different from that of the other AMAs formed at the time. It is not clear, though, what it would mean for certain areas to disagree with having a sustained water supply as a state goal. The desire to avoid regulation must be balanced with the need for water planning activities.

Inside and outside AMA boundaries, the difficulties small water systems face in satisfying water quality regulations have been addressed to some extent by the state legislature. The divergent system of rate regulation within the state has also been problematic. The Arizona Corporation Commission regulates the rates and profits of privately owned water companies. The revenues and rates for municipally operated water providers are determined by local elected officials, be they the governing body of the city or town or the elected board of a water district. The Corporation Commission's approach to recovery of costs of using CAP water has led some private water companies to consider relinquishing their CAP subcontracts because of the uncertainties regarding cost recovery. Better coordination across government agencies, particularly the Arizona Corporation Commission and the Department of Water Resources, would facilitate better water resource planning and management. Accomplishing such coordination, however, has been elusive.

Appropriately defining the hydrologic system is important. Sierra Vista's water use has implications for the San Pedro River ecosystem. The Santa Cruz AMA was formed because it believed separating itself from the Tucson AMA enabled it to more appropriately chart its water course. Nogales, Arizona's water future depends considerably on what happens in Mexico.

While we tend to think of urban areas as large, established cities, urban centers are in formation in what we tend to think of as rural communities. Many small and large communities in Arizona face water challenges. Some may not want to admit that water is a constraint on growth. But, as we ponder how much growth and what type we *wish* to accommodate, we should also ask how much growth *can* we accommodate. Communities need to acknowledge the limitations associated with their water supplies. We must be realistic and responsible in planning for growth because water fundamentally affects our ability to accommodate more people.

Ensuring that good quality water is available where the people are is costly. Moving people around is costly, too. Some issues related to transportation planning and growth are discussed in the next section.

Transportation Infrastructure

In Arizona, we rely heavily on roads to move people and resources throughout the state. Roads are built in response to growth and in advance of growth. Building roads requires monetary resources and, despite a dedicated source of funds for roadways, demand for roadway construction and improvements outpaces resource availability. During my six years on the state Transportation Board, there were two complaints that were constantly voiced: 1. Every region of the state believed it needed more state resources allocated to its transportation needs; and 2. Every region of the state believed other regions of the State were being treated better in terms of the allocation of state transportation dollars.

The primary reason for these perceptions is that the Arizona's transportation needs are much greater than available resources. The state's rapid growth and increased economic activity have led to increased traffic on our roadways. An Arizona Department of Transportation (ADOT) study reported that state, county and city road needs were \$17.4 billion for the period 1996 through 2005. The available revenues for that same period were estimated to be \$8.6 billion, resulting in an estimated shortfall of resources of \$8.8 billion.

Roads are necessary to accommodate growth. ADOT is responsible for building and maintaining roads of major regional significance in the state, including interstate highways. Whereas road building is following growth, it is also leading growth. How well do we incorporate transportation into our growth planning activities? Given that



both the Growing Smarter legislation and the proposed Citizens Growth Management Act addressed transportation planning, the answer would seem to be not well enough. However, as the following discussion will show, there will still likely be a gap in coordinating transportation planning, because it appears that there is little to *ensure* that the local governments coordinate with each other in a meaningful way, and there appear to be no provisions requiring that local governments take into account the impact of their growth plans on state highways and interstates.

The Growing Smarter legislation requires cities and towns of over 2,500 to include in the general plan a growth area element and a cost element, defined as follows:

A growth area element, specifically identifying those areas if any, that are particularly suitable for planned multimodal transportation and infrastructure expansion and improvements designed to support a planned concentration of a variety of uses, such as residential, office, commercial, tourism, and industrial uses. This element shall include policies and implementation strategies that are designed to:

- a. Make automobile, transit and other multimodal circulation more efficient, make infrastructure expansion more economical and provide for a rational pattern of land development.
- b. Conserve significant natural resources and open space areas in the growth area and coordinate their location to similar areas outside the growth area's boundaries.
- c. Promote the public and private construction of timely and financially sound infrastructure expansion through the use of infrastructure funding and financing planning that is coordinated with development activity.

A cost of development element that identifies policies and strategies that the municipality (county) will use to require development to pay its fair share toward the cost of additional public service needs generated by new development...

The legislation also requires that the governing body "consult and advise with public officials and agencies, the county, school districts, associations of governments, public land management agencies, other appropriate government jurisdictions, public utility companies, civic, educational, professional and other organizations, property owners and citizens generally to secure maximum coordination of plans and to indicate properly located sites for all public purposes on the general plan." In addition, at least 60 days before adoption of the general plan or amendment to the general plan, the planning agency "...shall submit a review copy for information purposes to: 1. the planning agency of the county in which the municipality is located; 2. each county or municipality that is contiguous to the corporate limits of the municipality or its area of

extraterritorial jurisdiction; 3. the regional planning agency within which the municipality is located; 4. the department of commerce or any other state agency that is subsequently designated as the general planning agency for this state; and 5. any person or entity that requests in writing to receive a review copy of the proposal.” Furthermore, the Growing Smarter legislation includes provisions regarding major amendments to the general plan. Included in the list of major amendments is the following: “establishment of a new, or deletion of a planned freeway, expressway, parkway or limited access arterial street shown on the general plan.” It is unclear if actions on the part of ADOT to add or delete a freeway, expressway, parkway or limited access arterial street would require an amendment to a local government’s general plan.

The provisions cited pertain to cities or towns with populations of 2,500 or more. The Growing Smarter amendments to the comprehensive planning requirements for counties contain similar consultation and notification requirements. However, some things are required only of counties with population greater than 100,000, with other planning elements required of counties with populations greater than 200,000. Regarding transportation, counties with population greater than 100,000 must (others may) include in the county plan “planning for circulation consisting of the general location and extent of existing and proposed freeways, arterial and collector streets, bicycle routes and any other modes of transportation as may be appropriate, all correlated with the land use plan...” Counties with population greater than 200,000 according to the most recent decennial census are required (others may) to plan for growth areas in the same manner cited above for cities and towns, and they must include a cost of development element.

The proposed Citizens Growth Management Act, if put on the ballot and approved by the voters, would require each city, town, and county with a population of 2,500 or more to “set policies and requirements to ensure that proposals for new roads and additional road lanes are evaluated for their urban growth impact before approval...” In addition, developers would be required “to pay the full cost of additional public facility needs that will be created by new commercial, industrial, and subdivision projects. For each type of public facility, the plan shall specify in detail how the costs will be calculated, and when the county or municipality will collect payment therefor.” Under this proposal or under the fair share provisions included in the recently enacted Growing Smarter bill, determining the fiscal responsibilities of new development—whether it be related to transportation infrastructure or other public facilities—will generate heated debate.

The proposals for addressing transportation planning and infrastructure costs appear to address situations where the local governments have approval authority over the roads. What is less clear is how these requirements would affect planning and paying for roads under the jurisdiction of the Arizona Department of Transportation. Over time,



state highways have become main streets and interstate highways have become commuter corridors. Individual government jurisdictions are making decisions that impact significantly the traffic on state highways and interstates. Planning for the increased need for state-funded transportation infrastructure is essential. Town and city elected officials tend to concern themselves with what is occurring within their boundaries. County elected officials tend to affect growth issues only in unincorporated areas. Individuals are making location and travel decisions and then complaining about the traffic conditions. As local funding mechanisms are developed, people also need to be concerned about the adequacy of statewide funding mechanisms.

The Need for Coordination

Obviously, water availability and transportation infrastructure are just parts of a complex puzzle that must be assembled when developing plans for growth. While the Growing Smarter legislation contains some requirements for coordination across levels of government, it was acknowledged that additional issues must be addressed. The legislation calls for the creation of a Growing Smarter Commission. A subcommittee report to the Growing Smarter Commission is required on the “necessity to establish and implement more effective regional planning laws and procedures in urban areas...” Individual jurisdiction land use decisions have implications that cross political boundaries. People regularly cross political boundaries when they travel. Air molecules and hydrologic basins do not stop at political boundaries. Yet, it is at the local government level that planning is done. Consequently, the level at which governmental planning is done may itself be a constraint to more effective regional planning. Where truly coordinated planning is necessary, we see a fragmented, sometimes adversarial approach. At a time when regional solutions are necessary, parochialism seems to be becoming stronger. Local control is important, but regional cooperation is necessary.

Meeting regional needs resulting from and/or in anticipation of urban growth requires concerted, long-term efforts. Regional collaboration is essential to formulating sound policy. It must be admitted, however, that even with regional cooperation, achieving fundamental goals such as significant reductions in traffic congestion and groundwater overdraft will be difficult and costly.

Arizona communities face diverse needs and opportunities. Arizona is a growing state; it also is an aging state. Cities are bursting at the seams while their cores are aging and sometimes deteriorating. Concerns about sprawl, which are endemic to the West, have increased. The need for good planning is obvious; the ability and willingness to do it, however, are more elusive. While it is important that Arizona communities are able to customize their plans to meet their needs, it is also imperative that they coordinate so regional goals can be achieved. We cannot stop growth, but we can shape it. And if we try hard enough, we can form something desirable.

From Rural to Suburban: Five Regions in Greater Arizona

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Much of the nonmetropolitan growth in Arizona is concentrated in areas close to metropolitan areas and suggests an extension of urban encroachment. New evidence shows, however, that widespread growth is occurring in rural areas. Between 1960 and 1970, some rural communities grew because of nearby large institutions, such as military bases and colleges. For other communities, there was migration of older people into growing rural areas¹. Moreover, manufacturing was not necessarily the leading impetus for rural growth; the areas with expansion of employment in trade, services, and other non-goods-producing sectors were more likely to gain in population.

Advances in communications and technology facilitated the separation of production processes organizationally and geographically. With growing congestion, rising land prices, unionized labor, and increasing social tensions in metropolitan areas, nonmetropolitan places offer an attractive alternative. Tourism is one of the major catalysts of rural economic development as more urban visitors look for options to urban environments. Nonmetropolitan areas close to metropolitan areas or those with good highway access to metropolitan areas typically grow faster than those in remote locations, but in Greater Arizona remoteness does not necessarily stymie growth; Mohave County, one of the most remote areas in Arizona, is the fastest growing county in the state.

Population increase and economic growth are generally signs of overall regional prosperity, but prosperity also brings new pressures and issues to a community. Growth spills across jurisdictional boundaries as do issues and impacts, thus addressing growth is often a multi-jurisdictional endeavor. Growth in Greater Arizona also brings regional approaches to ease the transition from rural to suburban and to resolve conflicts. Through recent interviews with city and county officials and other data, this article explores the pressures and issues and how local governments are responding to them in five regions of Greater Arizona:

- Sierra Vista and Cochise County
- Flagstaff and Coconino County
- Prescott and Yavapai County
- Kingman and Mohave County
- Yuma and Yuma County.

Sierra Vista and Cochise County

Cochise County is an important agricultural area where specialty crops and livestock form a major part of the economy. The county is also home to Fort Huachuca, one of



the largest civilian employers in southern Arizona, and to a busy port of entry at Douglas. Communities once dependent on mining such as Tombstone and Bisbee are now tourist destinations, and Douglas has become a center for maquila operations. Several national park facilities and the state's newest park, Kartchner Caverns, adorn the county. Sierra Vista is the largest of Cochise County's seven incorporated municipalities, comprising 33 percent of the county's population. The other six are Benson, Bisbee, Douglas, Huachuca City, Tombstone, and Willcox. The county has two community colleges, branches of two private universities, and a branch of The University of Arizona in Sierra Vista.

Growth Indicators

Growth in Cochise County is somewhat below the state average of 25.5 percent and above the national average of 7.6 percent. Between 1990 and 1997, the county's population increased 22.6 percent to 115,000 and the City of Sierra Vista's increased 19.5 percent to 38,300. (See Table 1) Forty percent of the county is privately owned, giving Cochise County the largest property tax base of any Arizona county and over double that of the state's 17 percent average. Sierra Vista's below average population growth belies a phenomenal increase in taxable sales and building permits between 1990 and 1996: 65 percent in sales and 547 percent in permits. At the same time, public school enrollment increased by only 18 percent and net assessed valuation by 17 percent. The city appears to be experiencing regional prosperity while maintaining a semi-rural lifestyle. Because of Fort Huachuca, per capita income in 1997 was higher in Sierra Vista than in the rest of Cochise County.

Table 1: Sierra Vista/ Cochise County

	Population 1997	% change 1990-1997	Area (square miles)	Population Density (Persons per square mile)	Taxable Sales Growth 1990-1996	Building Permit Growth 1990-1996	% Privately -owned Land	Unemployment Rate 1997
Sierra Vista	38,300	19.5%	134	286	65%	547%	NA	6.4%
Cochise County	115,000	22.6%	6,215	19	NA	NA	40%	8.3%

Growth Trends and Issues

Sierra Vista's growth has been steady, especially in residential growth. City officials claim they face the same issues as all jurisdictions, namely achieving a balance between preservation and economic growth and between commercial and residential. Sierra Vista officials acknowledge the difficulty in keeping up with the infrastructure needs that growth generates. People moving in from larger cities want paved roads, street lights, and more police protection; they cause a dilemma when current residents do not want to pay for these new services. Indeed, a large segment of Sierra Vista's population growth comes from California retirees who have realized big capital gains from the sale of their homes, pay cash for their Sierra Vista residences, and "still have

money left in the bank.” They drive up values in new construction and alter the market by creating demand for smaller houses than are typically built in Sierra Vista.

Twenty years ago residents had more interest in staying small and rural, but the arrival of national discount stores forged an acceptance of growth, and commercial growth in Sierra Vista has been steady in terms of square footage. New stores include a second, larger Kmart, a WalMart, a Target, some grocery chains, a Safeway expansion, and potential arrivals Checkers Auto and Walgreens. Industrial development in Sierra Vista consists of off-post defense contractors.

Growth in rural areas puts special pressure on county roads, and wildcat subdivisions create “infrastructure nightmares” for the county. Wildcat subdivisions occur when landowners split large lots into five or fewer lots. These lot splits do not fall under county and state subdivision regulations, which means that lot splitters do not have to meet county standards for paving, water and sewer lines, curbs, gutters, and sidewalks, and storm drainage systems. Part of the problem for Cochise County stems from the fact that new residents in wildcat subdivisions do not understand the difference between a “county-dedicated road” and a “county-maintained road,” and expect the county to pave their dirt roads.

Cochise County, like Sierra Vista, receives tax benefits from growth. Sales tax revenues have increased, but these additional revenues still do not cover the costs of infrastructure and administrative overhead to accommodate the growth. Accordingly, the county is also seeking growth that is balanced among industry, goods and services, residential, and location. Sierra Vista enjoys the greatest job base and the lowest unemployment rate in the county, so there is disparity in supply and demand in the job market throughout the county; that disparity is reflected in patterns of growth.

Local Government Responses

Sierra Vista has initiated efforts to insure that current residents do not bear the costs of new development. The city currently levies an impact fee for parks only, but is considering a new impact fee for transportation. This city is also considering new planning and zoning options and a watershed management option. A plan called “Vista 2010” encompasses long-term traffic circulation projections and a long-range effluent recharge project. Sierra Vista also has plans with the county, the state, and the federal government regarding water. For example, a joint city-county task force is looking at growth and watershed management issues. Task force members wrestle with finding “commonality” in a county where some areas are extremely rural. Watershed management is the biggest issue facing the task force, and Sierra Vista officials call it “a positive move, with six commissioners committed to making some sense out of this mess.” Other city responses include a strategic plan for the old part of Sierra Vista and a partnership with Cochise College for producing the



annual “Sierra Vista Economic Focus.”

Cochise County officials agree with city officials that watershed management dominates growth issues. The sustainability of Fort Huachuca is at stake. A June 1998 report of the Commission for Environmental Cooperation addresses the need for recharge, basins, consumption reduction, and discontinuance of agriculture uses in the San Pedro Basin. Yet, with the majority of growth occurring in the San Pedro Basin and a recent reactivation of farming there, the county is thrust into a major role. As Cochise County Supervisor Mike Palmer explains, “Growth in Cochise County is a passionate issue; it parallels the intensity of feeling expressed over private property rights.” Many fear that too much growth will jeopardize the existence of Fort Huachuca over water capacity, and the county is trying to redirect growth away from the basin to other parts of the county. The county’s Office of Economic Development was expanded to add a grants component for attracting funds to improve infrastructure in other areas of the county and to act as a conduit for economic development information for other jurisdictions.

Cochise County added 13 law enforcement officials in 1997 and a fourth division of the Superior Court in 1996; one temporary court commissioner has been hired to help with court backlog. Further, the county is considering adding a third public defender office to handle dependency cases.

Cochise County has not implemented development impact fees, but enters into participation agreements with developers who agree to contribute their fair share to road construction when the development warrants it. Sierra Vista and Cochise County also have agreements to assist with planning and zoning in the areas surrounding the city limits in anticipation of annexation.

Prescott and Yavapai County

Though relatively remote, Yavapai County has easy access to Phoenix and northern Arizona. The mainstays of the county’s economy—ranching and mining—have been supplanted by tourism and light industry. The county’s rich cultural heritage and natural beauty include a former territorial capital, a unique mining town, a resort, lakes, mountains, and Indian ruins. The City of Prescott is the largest of Yavapai’s eight incorporated municipalities, representing 24 percent of the county’s population. The other municipalities are Camp Verde, Chino Valley, Clarkdale, Cottonwood, Jerome, Prescott Valley, and part of Sedona. A two-year community college, affiliated with Northern Arizona University and two private colleges bring educational diversity.

Growth Indicators

Yavapai County’s population between 1990 and 1997 increased faster than the state’s, growing by 31.9 percent to reach 142,000. Prescott’s growth was just above the state’s rate at 26.7 percent, reaching 34,000 in 1997. (See Table 2)

Table 2: Prescott/Yavapai County

	Population 1997	% change 1990-1997	Area (square miles)	Population Density (Persons per square mile)	Taxable Sales Growth 1990-1996	Building Permit Growth 1990-1996	% Privately -owned Land	Unemployment Rate 1997
Prescott	34,000	26.7%	34	1,000	43%	64%	NA	4.5%
Yavapai County	142,000	31.9%	8,125	17.5	NA	NA	25%	4.0%

Growth Trends and Issues

Growth in Prescott cannot be considered without looking at growth in the “tri-city area,” which includes Prescott Valley and Chino Valley. These communities, growing faster than Prescott, are driving the county’s and the region’s high growth rate. Growth issues for Prescott often stem from growth in this region, though Prescott remains the hub of the county. Most of the population increase is settling east and north of Prescott, but it still draws the affluent and retired, especially from southern California. Housing prices have risen dramatically in the last few years, fueled by growth and by the fact that “the easy land” was developed 100 years ago. In spite of Prescott’s high density, two large areas remain undeveloped inside city limits, and they are being master-planned. Prescott’s style of planning includes a significant citizen participation component. Comments the planning director, “Citizen participation lengthens the process but facilitates longer-range planning.”

The greatest concern of city officials, however, is the “cutthroat competition” in the tri-city region. For example, a retail center just outside the Prescott boundary that was developed by the Yavapai-Prescott Tribe has siphoned off \$3-\$4 million in tax revenues from the city. Traffic congestion is another major concern. Indeed, the city’s and the area’s road system have not caught up with traffic growth, and conflicts arise between residents who want to keep the city rural and those who want to travel with ease. As Mayor Daly notes, “This conflict really symbolizes the trade offs involved when an area is undergoing character-changing growth.” Residents are challenging the city council’s plan to rezone 50 acres of land on Highway 69 for a mall, called a “sales tax preservation issue” by the city. Opposing the location, not the mall, the Mall Rezoning Referendum Action Committee collected enough signatures to put it on the November 1998 ballot. Another divisive community issue is the development of hilltops, which symbolizes the struggle between personal property rights and the common good.

Yavapai County’s growth is the second highest for a county in the state. “We’re not rural anymore, but we’re certainly not urban,” Yavapai County Supervisor Bill Feldmeier claims. “We’re not stand alone in terms of employment because hundreds of people still drive to Phoenix to work every day. Suburban is more accurate.” County growth is taking place in Verde Valley and along the corridor between I-17 on Highway 69 to Prescott and north beyond Chino Valley all the way to the national forest. This



growth is having “extreme effects” on the county’s transportation capabilities because new residents want their dirt roads paved. However, growth has had an impact on the county’s criminal justice system, though crime is attributed as much to drugs as to growth. The county also experiences impacts on health care and is concerned about its high proportion of newcomers over the age of 65: 27 percent now and projected to reach 33 percent by 2022.

Local Government Responses

The challenge for Prescott is to provide cost effective and tax equitable services. The city’s density helps with economies of scale, and comprehensive impact fees are covering the costs of new infrastructure. The city council, placing a low priority on its property tax, halved the tax rate in the 1990s. Concern over sales tax revenues has spurred tri-city officials to work together. They have participated in two Arizona Public Service’s “Focus Futures” and in the Arizona Department of Commerce’s Main Street Program. But tribal participation is paramount, and getting it has been difficult. County sales tax revenues, however, benefit from sales throughout the county. Even though cities and towns lose tax revenues from tribal enterprise, the county views such commercial opportunities as “helping to keep the money of locals in the county and to make the county more attractive to visitors.”

Another response, along with long-range planning and economic development cooperation, is the widening of Highways 89A and 69 to accommodate traffic. Prescott officials also plan to review present rules in hopes of mitigating the bad visual effects of development and encourage the “smart use” of hilltops so that dwellings are less visible. As the mayor stated, “The people of Prescott are now in a mind to put together a plan. They passed a bond issue for \$15 million to purchase two lakes, and perhaps we will be able to purchase more land.”

Yavapai County has levied a one-half cent sales tax, dedicated to a regional road fund (80 percent) and to the general fund. In addition, Yavapai County has a new development impact fee for roads effective in September 1998.

Kingman and Mohave County

Mohave County’s economic foundations were ranching and mining until Laughlin, Nevada became a gaming center and Interstate 40 was completed through Kingman. The county contains 1,000 miles of shoreline along the Colorado River and has become an important center for water sports. Part of the county called the Arizona Strip is extremely remote. Kingman is the county seat; other municipalities include Bullhead City, Colorado City, and Lake Havasu City. The most populous is Lake Havasu City with 38,000, or 28 percent of the county’s population. The county’s institution of higher learning is the Mohave Community College system, which is affiliated with Northern Arizona University.

Growth Indicators

At 42.8 percent, Mohave County was the fastest growing county in the state between 1990 and 1997. (See Table 3) The City of Kingman grew even faster in that time period: 44.8 percent. The city's building permits increased by only 15 percent, however, and enrollment in public schools dropped 2 percent. Though relatively small compared to other cities profiled in this chapter, Kingman's "urban fringe" contains another 17,000 people just outside the limits under the jurisdiction of the county.

Table 3: Kingman/Mohave County

	Population 1997	% change 1990-1997	Area (square miles)	Population Density (Persons per square mile)	Taxable Sales Growth 1990-1996	Building Permit Growth 1990-1996	% Privately -owned Land	Unemployment Rate 1997
Kingman	18,000	44.8%	28	643	89%	15%	NA	3.4%
Mohave County	136,000	42.8%	13,479	10.1	NA	NA	17.2%	4.1%

Growth Trends and Issues

Phenomenal growth in taxable sales, as explained by Kingman City Manager Lou Sorensen, occurred once WalMart opened a store in Kingman. "Commercial development has just never declined since." With a manageable growth rate of 5 to 7 percent a year, Kingman has been able to keep up with infrastructure needs and does not experience the problems associated with wildcat subdividing. There are no big lots left to split and the city is not being pressured or exerting pressure to annex its fringe. Kingman tried to annex the 17,000 residents of the Butler area in 1995 but was met with hostility. A Regional/Urban Design Team report recently urged the city to annex its bedroom communities. Earlier studies indicated an annexation would experience a shortfall of \$2 million to service the areas and the city would need to levy a primary property tax to make up the loss. According to officials, newcomers do not necessarily bring with them new demands, but medical facilities and shopping needs for retirees are strained. Though the city's planning and zoning system is adequate for the growth, successful citizen initiatives have prevented higher density.

Mohave County has been called a sleeping giant. For many years growth fluctuated, but when the mines closed down, the community "woke up" to the need to diversify its economy, and began pursuing new industries. Most of the new industrial growth in the county has occurred at the Kingman industrial park and south of the city limits. Typical to counties, Mohave County reaps the economic benefits from growth but suffers from inadequate roads, particularly in terms of access to the new facilities south of Kingman. Power supply has also been inadequate for industrial development, and so the county has begun to identify areas as either appropriate or inappropriate for industrial development. The pattern of development just outside of Kingman is scattered; subdivisions are popping up a substantial distance from maintained roads, water, and from parcels along I-40, making capital expansion expensive.



Wildcat subdivisions are problematic for Mohave County, and the board of supervisors has selectively stopped issuing building permits in an attempt to regulate lot splits. Mohave County does not charge impact fees, but officials are considering adopting them so that existing residents do not pay for new development. With 17 percent of county land in private ownership, officials “examine competing demands for land use carefully.” Another concern with its shrinking tax base is the fact that the county has never been fully funded through federal Payments In Lieu of Taxes. Impacts on the county’s criminal justice system have also occurred with residential growth, but people traveling through the county tend to cause the greatest problems. A lingering misperception that the casino industry in Laughlin is growing draws many people who do not have the means to support themselves. Further, the Mohave County Board of Supervisors spends a great deal more time on land use issues. “The rules and regulations that govern a growing community and the problems associated with the growth, such as health, welfare and roads, are much greater now than they were 10 to 12 years ago,” explains Mohave County Supervisor Carol Anderson.

Local Government Responses

Kingman has doubled the number of sworn law enforcement personnel from 20 to 40 since 1990 and increased total city staff from 150 to 250. The city is also adding new parks. Fortunately, Kingman’s growth in taxable sales sustains its general fund at a level that finances expanding general services. The city also has improvement districts for curbs, gutters, sidewalks, sewer and water, all financed through improvement district bonds property tax. Residents approved a road bond issue in 1993 for \$4 million. Kingman’s weak revenue link is the Highway User Revenue Fund (HURF), shared gasoline taxes from the state. Officials term their share of HURF a “baby sister approach” because Kingman has the largest volume of gas purchases in the county but too small a population to receive its fair share.

Mohave County has developed regional authorities for economic development and water. Because of wildcat subdividing and the propensity of lot splitters to begin their projects farthest from infrastructure and build in, county officials recognize the need to adopt a policy that would direct new development closer to existing infrastructure. Also, the board is developing area plans to supplement its general plan and to designate areas as good and bad for industrial development. An area plan is already in place for the Arizona Strip communities of Littlefield, Beaver Dam, and Scenic, a hot spot for growth in the county.

Mohave County does not have a sales tax or development impact fees, but residents can create special assessment county improvement districts and the county also has several special districts. Under discussion is the reactivation of an old jail district. Meanwhile, the county has acquired and remodeled an old armory facility to provide additional jail beds and holding cells; two years ago a fifth division of the Superior Court was created, and a sixth division has been approved. A juvenile detention facility will be

constructed, and two prosecutors were added to the county attorney’s office.

Flagstaff and Coconino County

Coconino County is endowed with natural, cultural and recreational wonders that make it a destination of travelers worldwide. Flagstaff, the county seat, is a center for higher education with Northern Arizona University and Coconino Community College, and it is also becoming known as a center for high altitude sports training. Tourism is a major part of the county’s economy, along with government and ranching. The city comprises 49 percent of the county’s population. Other incorporated communities are Fredonia, Page, part of Sedona, and Williams.

Growth Indicators

With a population of 118,000, Coconino County’s growth between 1990 and 1997 was 21.6 percent, just below the state average of 25.5 percent. (See Table 4) Flagstaff’s 26.8 percent was somewhat above, reaching 58,000 in 1997. Coconino County is the state’s largest county in area (and second largest in the continental U.S.); its population density, however, ranks 11th among Arizona counties. Just over 13 percent of the county is privately held, with Indian reservations claiming the greatest share at 38.1 percent.

Table 4: Flagstaff/Coconino County

	Population 1997	% change 1990-1997	Area (square miles)	Population Density (Persons per square mile)	Taxable Sales Growth 1990-1996	Building Permit Growth 1990-1996	% Privately -owned Land	Unemployment Rate 1997
Flagstaff	58,000	26.8%	64	905	50%	24%	NA	6.6%
Coconino County	118,000	21.6%	18,608	6.3	NA	NA	13.3%	8.4%

Growth Trends and Issues

Growth in Flagstaff has been steady in the last several years, but the price of growth has been high. Flagstaff’s high cost of housing is compounded by an abundance of low paying jobs that service the tourist industry. Further, traffic woes plague residents, students, and visitors; driving the city’s traditional narrow streets is made difficult by the presence of railroad tracks and the lack of separated grade crossings. Flagstaff’s 64 square miles still contain undeveloped tracts of land, some protected by an “urban growth boundary.” Land use issues come before the council and generate a measure of conflict, as some developments “battle their way through the process.” With effective growth policies and regular discussions on managing growth and development, the council is able to keep conflict “civil.” One positive trend in employment is growth in higher-paying self-employment jobs.

The fastest growing area in the county is northeast of Flagstaff, a place called Doney Park. Other growth hot spots are Page and its overflow neighbor nearer the Utah



border, unincorporated Greenhaven. Tuba City, on the Navajo Reservation, has become the county's second largest city with nearly 9,000 residents. The City of Flagstaff has not annexed surrounding areas, and the one incorporation attempt in recent years in Tusayan was blocked in court because the court determined the bill was special legislation. According to officials, the county's court system has experienced the greatest impact, followed by the sheriff's department, which has been forced to send inmates to jails in other counties at a cost of \$1 million a year. County officials also are concerned with the disproportionate share of low-paying jobs in greater Flagstaff, a condition that one official terms a "locked-up job market."

Local Government Responses

Flagstaff officials take a pro-active approach to land use issues, facilitated by the "determination of the general populace to preserve the quality of life in Flagstaff." The Open Space Greenways Plan, adopted by the city, the county and state and federal agencies, seeks to preserve open space when land use decisions are being made. The "2020 Visioning Document," opened the way for a regional planning project that will identify areas of growth and then recommend land uses consistent with the document. Voters also approved a \$12 million bond to develop parks and recreational facilities over a 13-year period. The City of Flagstaff developed the Affordable Housing Plan that sets policies, goals, and objectives for providing lower cost housing for buyers and renters. For example, higher density rezonings through development agreements set aside from 20 percent to 50 percent of the development at a certain price range.

The city and county jointly funded a metropolitan planning organization study to create a regional plan that includes a transportation improvement program component. Under study is the feasibility of widening roads and constructing overpasses and arterial roads, all expensive options. The area west of Flagstaff is zoned for urban kinds of development, and city officials have begun to study annexation in response to resident interest. Lastly, the city adds roughly two patrol officers a year as well as some temporary magistrates to keep up with population growth.

Coconino County's general plan is effective as policy, but not being a map plan, the board of supervisors has created 10 additional area plans. Other county efforts to deal with growth include participation in the regional planning process and in the Open Space Greenways Plan. Fiscal tools include a one-half cent sales tax and a .03 percent jail district sales tax. Coconino County has also added a fifth division to the Superior Court and three sheriff's deputies for Doney Park, Parks, and Timberline-Fernwood. Three more have been approved for Doney Park-East, Kaibab Estates, and Mormon Lake. The county also has improvement districts for road construction and maintenance for residents whose private roads have not been taken care of by developers.

Yuma and Yuma County

Yuma County is separated from Mexico and California by the Colorado River. Much of the county is desert, but its valley region is rich farm land and sustains agriculture as a vibrant part of the economy. Yuma County is also home to military installations, community colleges, and a branch of Northern Arizona University. During winter months the county's population nearly doubles in size with the arrival of snowbirds. The City of Yuma is the commercial center of the county and contains half of the population. The other incorporated municipalities are San Luis, Somerton, and Wellton.

Growth Indicators

Growth in Yuma County during 1990-1997 fell below the state average, at 20.9 percent. The City of Yuma's growth rate was still lower, at 14.3 percent. (See Table 5) The City of Yuma has the highest density in Arizona outside the Phoenix and Tucson areas: 2,165 persons per square mile (considerably higher in the winter months).

Table 5: Yuma/Yuma County

	Population 1997	% change 1990-1997	Area (square miles)	Population Density (Persons per square mile)	Taxable Sales Growth 1990-1996	Building Permit Growth 1990-1996	% Privately -owned Land	Unemployment Rate 1997
Yuma	65,000	14.3%	30	2,165	43%	-19%	NA	14.7%
Yuma County	130,000	20.9%	5,522	24	NA	42%	10.5%	27.9%

Growth Trends and Issues

The city's growth has come mainly from annexation and retirees. An aggressive annexation policy will expand the city's area by many square miles: large tracts of undeveloped land to protect the military bombing range from encroaching development and to link Yuma with a new commercial port of entry east of San Luis; and east of the city near the community college and the foothills. The arrival of franchise stores such as Pier One Imports, Circuit City and Barnes and Noble Books signals the growing commercial importance of Yuma. Growth issues include traffic management during winter months, infrastructure financing, and controlling the placement of development.

Since the county's land use plan was drafted in 1988 the county slowly evolved from rural to suburban. According to Yuma County Manager Wally Hill, "The county is constantly changing in character, and we need to get out in front of it." Farms that once grew crops are now "growing houses," a phenomenon that has spawned clashes between residential and agricultural uses. Newcomers now complain about noise, chemical spraying and farm odors, to such an extent that once a state legislator had to intervene in a school siting issue. Wildcat subdividing is problematic, as developers split single parcels



into five lots “one at a time.” As the Yuma County Planning Director remarked, “A well will go dry. A line will break. There will be no replacement or repair mechanisms in place. In some cases, people are left without water.” Yet development has been “fairly orderly” because the board of supervisors follows the county’s general plan. Further, the county’s HURF revenues have been sufficient to take care of increased road maintenance.

Local Government Responses

The City of Yuma growth policies prevent “leapfrog” development and enable the city to build infrastructure to economies of scale. The city also levies water and wastewater capacity charges and “tap-in fees,” ensuring that newcomers pay for capacity, existing users do not bear a disproportionate share, and rates are kept low. The city’s aggressive annexation policy includes impact two areas: the area to the east, an emerging suburbia, will require new schools; and the area to the south, which will have a new road and a new port of entry. Because of these proposed annexations, City Manager Joyce Wilson posits that “We’ve defined what this city will be like in 50 years.” It connects the city with federal land and strategically redefines the city and the region. “We hope we have reduced the possibility that Yuma turns into the Phoenix valley area,” she adds.

Yet, Yuma wages a continual struggle to keep up with impacts on roads and utilities because of their big fixed costs. The city has the ability to form capital improvement districts, and certain areas have done so. The city also started a pro-rata fee system in Yuma Valley and will expand it. It is called the “You Touch It, You Build It” plan in which developers build roads and then home buyers pay back the developer as they move in. Development responses to population growth include RV parks, short-term resorts, retail stores, and new local taxes, such as a one-half cent road tax.

To address the new climate of growth in Yuma County, the board of supervisors will update the general plan in fiscal year 1999. The greatest impact on county operations, however, has been in the law-justice area. The probation department is under the greatest stress. The county is building a new adult probation facility through a lease-purchase agreement funded half by the general fund and half by a special revenue fund. Further, Yuma County added a fifth division to the Superior Court and expanded its public defender office. In fiscal year 1999 two prosecutors and one auto theft investigator in the sheriff’s department will be added. Until now, the number of felony cases had declined because, according to Sheriff Ralph Ogden, “The criminal justice system hasn’t the capacity to handle an increase.” Yet, the county jail experiences a 10 percent growth per year in jail population, far greater than the county’s growth. In spite of new facilities, “We’ll need another jail in seven or eight years,” predicts the sheriff. The health department will also be consolidated in a new building, financed through certificates of participation, and county improvement districts, financed through the secondary property tax, abound. The county operates special districts but does not levy a development impact fee.

Commonalities Among Regions

The five highlighted regions have several commonalities. They are located far from metropolitan areas but have moderately good access to Tucson or Phoenix. Yuma/Yuma County and Kingman/Mohave County are the farthest from metropolitan Arizona, but the four U.S. interstates that crisscross Arizona have brought opportunities to these more remote communities and have helped hasten their growth. Left out of the interstate link is Prescott/Yavapai County, but location does not seem to have retarded its appeal. All communities have at least one community college as well as other choices in higher education. All have physical attributes that attract tourists and snowbirds, and tourism clearly has benefited those local governments. Further, these communities have survived the demise of mining and ranching, and are developing other aspects of their growing economies. Agriculture remains a major component in two of the counties.

Growth in these ten Greater Arizona communities has outpaced the national average from two- to seven-fold and in six has surpassed the state's average. All of these jurisdictions are using or planning to use a variety of responses to accommodate suburbanizing trends. Their responses broadly fall into the categories of fiscal tools, process-related tools, services, and policies. (See Table 6)

Table 6: Local Government Responses to Growth

Fiscal Tools	Process Tools	Services	Policies
impact fees	IGAs	more police/deputies	update general plan
sales taxes	forecasting	more staff	no dedicated roads
increase property tax	strategic planning	more economic development	no permits
road/land bonds	master planning	more courts	prevent leapfrog
charges and fees	Focus Futures	more probation officers	annexation
improvement districts	Main Street	more jail beds	buy open space
special districts	partnerships	more prosecutors	
certificates of part.	citizen participation	widen roads	
		public defender	

Local governments employ a variety of tools to get or stay ahead of growth pressures. Fiscal and policy responses are circumscribed by state law, while process responses are comparatively unrestricted. Service responses can be either expanded or reduced and are usually a matter of governing board discretion. Cities clearly have greater capacity to handle growth. They have higher densities, economies of scale, more regulatory powers, more control over the direction of growth, and more fiscal tools, especially in development impact fees and sales taxes.

Newcomers want more basic services and are sometimes misled by developers, especially in unincorporated areas. Citizen complaints then come before the board of supervisors. Clearly, the placement of new growth is important; some communities have policies to direct it, some do not. Suburbanization presents special problems for



counties, which do not have the land use regulatory powers of municipalities, forcing counties to rely more on intergovernmental agreements, spend more on infrastructure, and engender irate citizens. Counties lack infrastructure or the authority to upgrade it in some areas, resulting in constituent demands that they cannot meet and retarding industrial development. Moreover, counties, having large tracts of undeveloped land, experience wildcat subdivisions which they cannot regulate. As one county manager lamented, “When you can’t afford to hire police officers and prosecutors and pay for indigent health care, paving streets and highways in areas that grow up as wildcat subdivisions isn’t in the realm of possibility.” Moreover, 1998 legislation (HB 2621) further restricts the ability of counties to manage growth and development appropriately.

The experiences of these communities indicate the disadvantage that counties have when faced with suburbanizing growth in their unincorporated areas. Counties do not have all the tools that cities have to insure that growth pays for itself. At issue is the phenomenon of wildcat subdividing, which counties cannot regulate. Often, newcomers are unaware that full services are not provided to the development. As one county representative puts it, “Lot splits can look like subdivisions, but they may not even come with a guarantee of an assured water supply, which is a requirement for county subdivisions.” Further, many new parcels do not provide access, which prevents emergency vehicles such as fire and ambulance from entering. All of the cities examined here use development impact fees to mitigate the costs of public infrastructure, but none of the counties employs that tool. Officials explained that impact fee authority for counties applies only to one area and requires a convoluted process, whereas cities have much broader and easier avenues. Revenues from the sales tax, local and state-shared, certainly benefit both cities and counties, but counties are limited to one-half of one cent and also do not receive a share of the state income tax as cities do. City growth issues, especially the loss of sales tax revenues to other jurisdictions and the conflict among residents over land use, can be addressed through process-related tools and generally require more political will, commitment and skill than new state authority.

Suburbanizing trends are occurring in unincorporated areas as well as inside municipal boundaries. Counties would be better able to address these pressures if they had the same tools that cities and towns do, especially the ability to regulate lot splits and to assess development impact fees as broadly. When asked what additional authority from the state Arizona municipalities might need to address growth pressures more effectively, Cathy Connolly, executive director of the League of Arizona Cities and Towns, advises: “Give counties better control over land use. Unregulated development near municipal boundaries causes problems for cities, too.”

Notes

¹Pavlakovic, Vera K. “The Many Faces of Arizona’s Economy: Uneven Development in an Integrated System.” *The Many Faces of Economic Development in Arizona*. Arizona Academy 1990. p. 77.

Losing Ground: Land Fragmentation in Rural Arizona

James P. Walsh

Lawyer

Westerners—both new and old—love to brag about the wide open spaces that characterize, even define, our landscapes. In addition to the esthetic and often symbolic nature of these vistas, open landscapes promote healthy ecological systems. We are beginning to understand how large, open tracts of land offer a better chance for the successful conservation of natural systems. Development for human habitation and commerce fragments these landscapes with roads, utility lines for electricity and water, buildings, dams, fences, and other manmade barriers. Eventually species that depend on the unbroken expanse of space and the resources associated with it, like water, are threatened and even eliminated. Bears, mountain lions, and other large mammals are usually the first to go, but even the smaller birds and aquatic species are impacted by the loss of habitat in urbanizing areas.

Ironically, Arizona is very “urban” with over 80 percent of the population living in Maricopa and Pima Counties. Growth is a familiar phenomenon in these established urban centers. But in recent years, Arizona’s growth has leapt into rural areas of the state. Prescott, Flagstaff, and Sierra Vista, for example, are witnessing the proliferation of “ranchettes”: 36 to 40 acre parcels carved out of former ranches. These developments are encouraged by Arizona’s legal system that requires no county planning or zoning approval for this size development. On top of that, property owners can split property five times without any oversight or approval from anyone. Coupled with economic pressures on the ranching industry in particular, these legal anomalies are fueling a large sell off and ultimate division of the wide open spaces we love so well.

How did we get into this crisis? The lack of adequate planning and zoning laws is just one of the roots of the problem. Rural Arizona land ownership is a patchwork of private, federal, and tribal land. Many Arizona ranches are “public land” ranches with grazing leases or permits on State Trust Land or federal land. Ranches are managed as “units” so that any impact on the public portion can affect the ranch’s overall economic viability. If federal land management policies that are sensitive to the requirements of laws like the Endangered Species Act restrict the use of the land for grazing, ranches are put in economic jeopardy. If State Trust Land is reclassified and leased commercially or sold outright for development, the ranch is gone.

State trust land presents a special problem. When Arizona became a state, the United States gave the new state about 11 million acres “in trust” for special beneficiaries, primarily schools. The state constitution and the federal law known as the Enabling Act require that these lands be managed for the beneficiaries’ interest. Courts have interpreted this to mean that the best and highest economic use must be sought. In



many cases, the result is the conversion of grazing and agricultural land into shopping centers and residential subdivisions. Private land and State Trust Land used in ranching often consist of the broad valley bottoms between mountain ranges. Here are also found the grasslands and perennial streams so vital to many of Arizona's threatened and endangered species. Loss of these ranches to development is tantamount to the loss of the open landscape so vital to a functioning ecosystem.

Finally, the declining vitality of ranching collides with rising real estate values in rural Arizona. Higher property and estate taxes combine with mounting debt to pressure many ranchers into the decision to subdivide or sell the ranch. Development becomes the path of least resistance. Unlike other areas in the country, Arizona has not yet had the political will to engage in a publicly funded effort to save ecologically significant ranch land for ranching. Recent legislative efforts like the Arizona Preserve Initiative and this year's referendum to provide funding for open space acquisition may signal a change in public and political attitudes on this score.

One solution worth exploring to reverse the trend toward land fragmentation in Arizona is the practice of conservation ranching. The environmental movement over many years has pointed out the problems of overuse of our natural resources, including past overgrazing and abuse of both public and private lands. Confrontations between ranchers and conservationists have been the norm, accompanied by litigation and generally acrimonious relations. In the meantime, important progress in range management such as rest/rotation grazing has occurred in recent years. Restoration of overgrazed areas is being attempted in a number of ways with varying degrees of success. Protection of riparian areas is now part of the management of many ranches. Ranching in many areas of rural Arizona can now be seen as an ecologically sustainable land use with the added benefit of preserving the open spaces needed by humans as well as other species.

To make ranching work as part of the solution to rural urbanization and habitat loss will require tools which have been proven effective in other states, but have not yet been adopted in Arizona. Among these are a statewide purchase of development rights program with public matching funds to relieve the pressure to develop private and State Trust Land without economically punishing ranchers or the beneficiaries of the state trust. The management of State trust lands must be reformed to allow for protection of this important asset and conservation as a purpose. A system to compensate ranchers for specific publicly beneficial efforts, especially those that benefit habitat and promote conservation, should be developed. Plus, more incentive options should be created in conjunction with scientists and environmental groups to help ranchers to adopt and improve conservation-based management.

Federally, the Endangered Species Act (ESA) is a hotbed of controversy and

confrontation. Not much can be done to change it at the state level. Despite its importance in safeguarding our natural heritage, the implementation of the law may have created some unintended consequences which could be addressed at the administrative level. Administrative streamlining of the ESA would help to reduce the unproductive constraints on ranchers and other natural resource managers.

To save the wide open spaces of Arizona, we need to enlist that icon of the West, the rancher, to pursue a common goal of preventing land fragmentation and the loss of open space habitat.



Historic Preservation Rebuilds Communities

Roger A. Brevoort

Director, Historic Preservation, van Dijk Pace Westlake Architects

When reminded of “historic preservation” Arizonans used to think about museums or perhaps a one-of-a-kind landmark or a distinctive old neighborhood. There was a general acceptance that some structures and areas are important because of their intrinsic historic value. But not much happened as a result. The strongest public interest in preservation was usually generated by highly publicized clashes between those who wanted to “save” a historic property and those who had a different development project in mind. The implicit assumption among many was that a new building is inherently better than an old one. Progress, in and of itself, was a good thing. Fortunately, those old assumptions and perceptions are changing. The current discussion of infill or “urban” development as an alternative to sprawl and the increasing interest in strong downtowns have focused attention on the importance and impact of historic preservation.

Increasingly, Arizonans see historic preservation as a restored building or a commercial revitalization project in the heart of their communities. Historic preservation is no longer an east coast phenomenon that has nothing to do with their everyday lives. Indeed, historic preservation is a critical force in the economic resurgence and growth of communities of all sizes throughout Arizona. Historic preservation deserves a prominent place in public policies and private development because of its economic potential and contribution to the livability and desirability of communities. Of course, historic and cultural value and architectural significance are still vitally important, but their value now has an economic dimension.

Preservation as Public Investment

Numerous communities in Arizona have benefitted when public and private investments have been made in preservation. Much attention is given to the America West Arena as the catalyst for jumpstarting the rise of downtown Phoenix in the mid-1990s. However, the influx of affluent residents to the central city historic districts began a decade before the arena’s completion. The economic impact of the rebirth of the historic Orpheum Theater in 1997 has also been significant. In the Orpheum’s first year, increased retail activity more than offset the \$14 million dollar public investment in the theater. Historic preservation has played a significant role in reshaping the central city’s image and reputation and is a contributing factor to the resurgence of downtown.

Phoenix, despite its image as a “new” city, leads many other cities in public funding for historic preservation. In recognition of Phoenix’ innovations, the National Trust for Historic Preservation honored the City of Phoenix’ Historic Preservation Bond Program in 1997. The award recognized the cumulative impact of the \$15 million

Historic Preservation Bond Fund, passed by the voters in 1989, which is still the nation's largest local bond program for historic preservation. Bond-funded projects range from the acquisition of the Tovrea Castle and most of the surrounding grounds, to restoring the interior finishes of the Orpheum Theater, and the rehabilitation of the J. W. Walker building as part of the city's new municipal courts complex.

In addition, the Historic Preservation Bond has reaped major benefits as a stimulus for reinvestment in neighborhoods. The Exterior Rehabilitation Program provides funds for matching grants for property restoration in nineteen residential historic districts. Since the program was initiated in 1992, two dollars of private funds have matched each public dollar. Over time, these expenditures have had dramatically positive effects on property values in established neighborhoods.

Preservation Success Stories

Smaller cities and towns are also experiencing positive benefits from historic preservation and the retention of community identity in the face of strong growth pressures. It is now critically important for communities to have a strong downtown image to support tourism in general and "heritage" tourism in particular. Prescott's Victorian architecture and "Whiskey Row" are major tourist draws. Jerome and Bisbee are legendary as mining towns. The names of communities like these that have invested in preservation evoke a strong historic/architectural image. The converse is true for towns like Payson, where franchise/chain development has overwhelmed the towns' few surviving historic remnants.

Clifton

The Town of Clifton is another community where public and private preservation initiatives have achieved substantial success. Clifton used federal Community Development Block Grant funds to rehabilitate the railroad depot in the early 1990s. The decision to do so was controversial at the time because there were many other community needs. However the project reawakened local pride and renewed interest in key structures. Subsequently, Clifton's long-threatened Greenlee County Courthouse was restored rather than replaced, and private sector rehabilitation activity is now occurring on Chase Creek, the town's original commercial street that had been vacant for many years.

Williams

One of the best examples of private sector preservation is in Williams. The purchase and rehabilitation of the Frey Marcos Hotel by the Grand Canyon Railroad has reestablished Williams as an important gateway to the Grand Canyon. But the story is more than the arrival of the railroad. The appearance and image of Williams has been revitalized over the past ten years. Helped by a local preservation ordinance and strong sign regulation, the downtown area has been reclaimed, offering an attractive



environment to the influx of tourists, and the city now seems to be facing more challenges from growth than from its former fear of continuing decline.

Clarkdale

One particularly enlightened rural community in terms of recognizing the importance of preserving its identity as a means to remaining vibrant is the Town of Clarkdale. Founded in 1917 to become the “smelter town” for the mines in Jerome and recently listed on the National Register of Historic Places, Clarkdale is a textbook example of an early 20th century company town. In recent decades, Clarkdale, partly because of a lack of growth, was spared from the forces that usually erode town centers. Now, in the face of significant growth throughout the Verde Valley region, concerned Clarkdale residents have organized a Revitalization Task Force to ensure the town center is protected and eventually restored without detriment to its character, and to implement planning policies that will restrict franchise operations and new businesses to areas “down slope” from the town center. This strategy is a clear choice of the residents wanting to protect their downtown asset. The town recently convinced the United States Postal Service to rehabilitate the historic post office in the center of town, thereby keeping it as the center of daily life. The town’s premier landmark is the Clark Memorial Clubhouse which the town hopes to upgrade for continued use as a community center and meeting facility. Local leaders are vigilant in watching for and educating any new owners of commercial buildings along the pristine one-block downtown street. The important point is that the leaders have made historic preservation the focus of revitalization efforts, and are actively creating policies to protect the community image.

There should be little debate about the positive role that historic properties play in bolstering the image and character of downtowns and neighborhoods. Whether one is in Phoenix, Denver, Seattle, San Diego, or Santa Fe, historic ambience is a key attribute of the visual environment. In all cases, the core areas have retail activity, tourism, and convention business, all within the urban center. There may be marketplaces, theaters, courthouses or churches, but there is always a key visual focus to the communities. Countless factors contribute to successful revitalization, but the preservation of landmark buildings and districts is a common trait. In Arizona, our challenge is to ensure that opportunities for historic preservation continue to be encouraged by political support and incentives. The results reach well into the urban economy and build the types of communities that residents and policymakers want to have.

Growth Focuses Attention on Infrastructure, Public Safety, and Community

Norm Hicks

Mayor, City of Bullhead City

Our region is known as the Tri-State Area because Arizona, California, and Nevada share a common border. Bullhead City is located on the east side of the Colorado River across from the unincorporated casino-resort community of Laughlin, Nevada. To those not familiar with the Tri-State Area, Bullhead City is the lesser known of the two communities even though its population is almost four times larger than Laughlin's.

Bullhead City has nearly 30,000 residents. In 1980, just over 10,000 people called Bullhead City home; by 1990 the figure was just over 21,000. In less than two decades, the city's population has tripled. Bullhead City offers an example of how rapid growth affects a small community, especially in areas such as infrastructure, public safety, and a sense of community. More people mean more public services at a substantial cost to old and new residents alike.

To fully appreciate how Bullhead City has been impacted by growth, some attention must be devoted to the city's origin. Members of the Mohave tribe were the area's first residents. In the late 1800s travelers, including William Harrison Hardy, came through the area en route to the California gold fields. Hardy returned to the area and built a ferry boat landing near the center of today's Bullhead City to supply miners working in the nearby Black and Cerbat Mountains. Over time the adobe structures of Hardyville dissolved into the surrounding riverbank, but not before the area had become known to more settlers.

In 1953, the U.S. Bureau of Reclamation completed construction of the Davis Hydroelectric Dam. This dam was just one in a string of projects along the Lower Basin of the Colorado River from Page to Yuma. By the time Davis Dam was completed, the area had become a popular location for fishing and water recreation. Visitors began buying mobile homes on small lots so they could be close to the river.

Incorporation of a Boom Town

In the mid 1960s, entrepreneur Don Laughlin foresaw the area's potential and purchased property for what is now the Riverside Resort and Casino on the Nevada side of the river. Bullhead grew steadily throughout this period, and residents finally voted to incorporate on August 24, 1984. In the first few years after incorporation, Laughlin experienced exponential growth in its casino resort industry and fostered double-digit increases in Bullhead City residential and commercial real estate. Boom town development, however, had a devastating effect on the already burgeoning infrastructure needs of the newly established city. Bullhead City government struggled to meet these requirements.



In the efforts since incorporation to solve its problems, Bullhead City has had its share of tumult. The council and I, as mayor, have devoted a great deal of attention to resolving the infrastructure problems in a professional manner. We appointed a highly talented and capable city manager in May 1996, who subsequently recruited professional department directors and key management support staff.

Infrastructure for Growth

Bullhead City's rate of growth has slowed somewhat recently to a more manageable level, thus allowing the development of an annual budget that permits the city to "chip away" at its infrastructure needs. Improvement districts enjoy favorable bonding rates, and a resolution would tackle the serious wastewater problems associated with high density population using septic systems next to a nationally known navigable river. But the cost is staggering. In the current budget year, the city will spend approximately \$42 million to connect only one quarter of the population to sewers. The Water Infrastructure Finance Authority (WIFA) has underwritten \$22.3 million, with the balance paid with Highway Use Revenue Funds and \$11 million in Municipal Property Corporation bonds repaid through user fees. This is a huge undertaking for a city with a population of 28,989. The city's total sewer requirement for the remaining residents will approach \$150 million.

The average cost to sewer customers within this first sewer improvement district is \$4,800 and that is considered a bargain. These residents live in the oldest part of the community where the growth originated. The costs have had a devastating impact on them because many live on fixed or low incomes. Every possible resource has been sought for these residents to reduce their financial burden. For example, low interest loans through WIFA and various other grants helped some residents. The process has taken two years of preparation to arrive at a point where construction can begin.

The remainder of the city's population will be served by additional sewer improvement districts which will be formed before the current effort is completed. Concurrently, a private nonprofit sewer district was formed, and its board contracted with the city to operate its plant in preparation for city assumption. Negotiations are underway for the city to take over this district within the next year. Also in early 1997, the city finalized the acquisition of a private company's sewer division in an effort to maximize opportunities to consolidate capital outlays between the company and the municipality.

Growth presents infrastructure concerns in other areas also. For example, transportation corridors to accommodate the more than 5 million guests who frequent the Tri-State Area have been needed for nearly a decade. The Arizona Department of Transportation has been deeply involved in area transportation planning and construction. Adequate access may become a reality within the next decade assuming there are no periods of radical growth. Major construction on State Highway 68 between U.S. 93 (the

CanaMex corridor that passes through Kingman) and Highway 95 in Bullhead City is currently underway. Then, there is the widening project of State Highway 95, which connects Bullhead City to Interstate 40, twenty miles south in Needles, California. Actually, the connection at I-40 has not been funded by the State of California yet, which leaves an unplanned corridor for major north-south access to Bullhead City. An alternative route is being discussed, but it will require another source of funding if it is to be constructed. The alternate route cost could easily exceed \$60 million and the greatest hope for construction would be for economic development to spawn an improvement district.

Public Safety for a Growing Area

Resort communities along borders typically attract a number of undesirable criminal elements, thus placing a tremendous need on the city to staff an above average size police department with the latest equipment and technology. This places an extraordinary burden on the city budget, but represents the will of the citizens. Over the past several years, the city has been successful in recruiting an excellent professional police staff, although the development of the department has brought new demands to the city budget. Sixty percent of Bullhead City's personnel costs are dedicated to the police department; their annual budget in \$7,186,552 with capital costs of \$973,192.

Building a Stronger Community

The deterioration of some older parts of the community is another concern that is affected by the need to cope with continual growth. The residents in these areas have been impacted financially through inclusion in the first sewer improvement district, and they live in high-density neighborhoods with homes on smaller lots. Yard neglect is common and community pride struggles for survival. An action zone has been formed in one section of the community in an attempt to obtain assistance through a grant from the Arizona Department of Commerce. This possible state assistance has the potential to breath life into a withering section of our city. The city's focus on these neighborhoods has ignited a sense of hope in its residents. With financial help, these communities could enjoy improved security through better lighting, housing, and recreational programs. Many who reside outside these neighborhoods have pledged to assist with work programs aimed at home and neighborhood cleanup.

Under the auspices of Harrah's Laughlin Hotel and Casino, a number of local merchants have joined together to support home remodeling and yard landscaping for two homes per year. They have plans to expand the effort to four or more per year in the future. Patterned after the "Christmas in April" program which has been seen in larger urban areas, this program is named Harrah's Helping Hands. To date, six homes have been completely renovated. All of them were selected because of the high degree of need by the owners, all of whom were financially or physically incapable of helping themselves. It has been an immensely gratifying experience; no amount of space



devoted to this written account could adequately describe its effect on the recipients and the entire community or how much it's been appreciated.

With economic development so strong in the state's metropolitan centers, Bullhead City has struggled for a place in the sun. Economic diversity is one of the most formidable challenges that the Bullhead City government has faced. The greatest success of the past five years has been the retention of WalMart and its decision to build a Super WalMart store within city limits.

Faced with the reality that WalMart was headed outside the city, the mayor, city manager, and community development director visited WalMart's corporate headquarters and developed financial incentives to keep an improved facility in town. After several months of relentless efforts by key members of city staff, a public announcement was made by WalMart that the new facility will remain within Bullhead City's boundaries. This added tax revenue is crucial to the financial survival of a city which does not have municipal property taxes. We hope this will be the first of many other success stories.

The Airport Authority is a nonprofit corporation which has been developing and operating the Laughlin/Bullhead International Airport for the past eight years. After five years of operation, the airport was completely self-sufficient financially. The airport has tremendous economic vitality potential and is a bright opportunity for the local area.

As is the case in many communities within our state, Bullhead City council members and I hold full-time jobs. Our service is based on a desire to maintain our communities as good places to live and work. Growth is a challenging issue for elected officials, but one which is vital to our community's future.

Valley Vision 2025: A Plan for the Next Generation

James M. Bourey

Executive Director, Maricopa Association of Governments

The high quality of life of the Phoenix metropolitan area has been a tremendous magnet attracting new residents from throughout the United States and other countries. The area has absorbed this rapid growth over the last few decades. Growth has accelerated to the point where Maricopa County was the fastest growing county in the United States. With growth, many municipalities adopted land use controls to ensure quality development. However, the metropolitan pattern of development and the adequacy of the regional public facilities have never been addressed comprehensively. This is due, in part, to the strong tradition of local control over land use and development.

Throughout the 1970s, 80s, and 90s, many studies explored the need to build community consensus about what the region should be like in the future and a plan for it. Many people believe that without these the Phoenix metropolitan area is destined to lose the high quality of life for which it is known. Clearly the region's citizens are very concerned about the tremendous growth of the area and the strain it is putting on public facilities. It is increasingly apparent that without a comprehensive regional approach, supported by local governments, citizens will address growth through ballot initiatives. An unprecedented effort has begun to meet the challenge of developing a vision and plan for the future of the Phoenix region.

Visioning for Regions

Regional leaders throughout many areas of the country recognize that the success of the central city, suburbs, and all parts of the metropolitan area are inextricably intertwined. The next step for many regions has been to develop a plan or "vision" for their future. These plans vary in scope, source of leadership, and focus. Regional visioning efforts have been championed and funded by either the public or private sector but usually not both. The results have been defined to a significant degree by the groups driving the effort. It can be argued that one key to success is to have the involvement and support of both the public and private sector and a broad base of citizen involvement.

The breadth of issues examined as part of these visioning efforts also varies widely. Many deal primarily with issues of growth, land use, and infrastructure. Others go beyond physical planning. It appears that including all aspects of the quality of life of a region helps to make the vision appealing to a cross section of the community. Visions also vary in the degree to which they include specific implementation strategies. Efforts that identify concrete strategies to implement the plan often make more of a lasting contribution.

As Valley leaders considered what would make sense for this area, they conducted an



extensive study of planning efforts in other regions. A Blue Ribbon Committee looked at the need and best way to develop a plan for the Valley. After studying processes in Atlanta, Denver, Portland, San Diego, and Seattle in detail, the committee began to develop a process that would meet the needs of the Phoenix region.

Metropolitan Phoenix Context

The phenomenal growth and development of the Phoenix metropolitan area has been discussed and studied a great deal over the past thirty years. Regional plans have been developed for transportation, solid waste, water quality, air quality and human services, but there has never been a broad-based regional planning effort to address the area's growth or decide how to sustain and enhance its quality of life.

In order to consider a plan for the future, it is important to understand the extent of this huge metropolitan area within Maricopa County's approximately 9,200 square miles. While the population is approximately 2.7 million people, only about ten percent of the county's land area is considered to be developed.

Maricopa County, according to the U.S. Census Bureau, added about 575,000 residents between 1990 and 1997. The City of Phoenix, with approximately 1.2 million people, is estimated to be the sixth largest city in the country. All indications are that this growth will continue. The Arizona Department of Economic Security projects that the county will be home to almost 5 million people by the year 2025.

This growth has been fueled by a high quality of life, a unique environment, a strong economy, and an affordable cost of living. Many people are concerned about maintaining the high quality of life given the rate of development and the stress it is putting on public facilities in the region, particularly transportation and education. It is estimated that by the year 2025 the region will need 360 new elementary, 112 new junior highs, and 80 new high schools. There also is a critical concern about the loss of open space and the natural desert character of the landscape.

It is in this context of high growth and strained public facilities that the Maricopa Association of Governments (MAG) began a process to develop a plan for the future of the Valley. MAG is a voluntary, non-profit organization of the local governments in the region. The policymaking body, the Regional Council, is made up of the mayors of the 24 cities and towns in Maricopa County, the heads of the two major Indian communities and the Chair of the County Board of Supervisors. For transportation policy purposes, the local member of the Arizona Department of Transportation Board and the Chair of the Citizens Transportation Oversight Committee serve as members.

MAG began this planning process with the establishment of the Blue Ribbon Committee in 1995. This committee of 30 civic leaders was charged with coming up

with an approach to developing a plan for the region. In January 1997, they recommended an extensive process for developing a vision focused on the year 2025, which the Regional Council unanimously adopted.

Valley Vision 2025

While the MAG Regional Council is the initiator and lead sponsor of the vision development, the effort is a public-private partnership. Based on a review of the processes in other regions, it is evident that public-private efforts are the most successful. MAG has provided better than \$500,000 of funding for the effort. The remaining funds are coming from grants and private sector contributions.

The vision is intended to include a comprehensive perspective on all aspects of the region's quality of life as shown below by the ten categories of issues.

NATURAL FEATURES

Air Quality
Water Resources
Geology
Preservation
Wildlife Habitat
Environmental Resources
Vegetation

PUBLIC UTILITIES

Solid Waste
Wastewater
Water
Energy
Telecommunications
Pedestrian

CIVIC INFRASTRUCTURE

Community Values
Families
Faith Communities
Public Participation
Individual Responsibility
Partnerships
Non-profit Infrastructure
Media

URBAN FEATURES

Urban Form
Neighborhoods
Growth
Open Space
Land Use
Infill
Noise Pollution

TRANSPORTATION

Mobility
Access
Transit
Street system
Freeways
Bicycles
Aviation
Ridesharing
Telecommuting

CULTURAL

Historical Resources
Cultural Resources
Arts
Archeological Resources
Recreation/Leisure
Racial Relationships
Population Profile
Global Relationships

HUMAN SERVICES

Health
Education
Social Services
Housing

PUBLIC SAFETY

Crime Prevention
Fire Prevention
Public Hazards

ECONOMY

Sustainability
Market Dynamics
Business Climate
Business Climate
Economic Opportunity
Employment
Prosperity
Technology
Global Markets
Capital Formation
Economic Development

GOVERNANCE

Public Finance
Local Government
Regional Governance
Privatization

The process adopted by the Regional Council includes several essential components. The Regional Council appointed a broad-based Valleywide committee that represents all geographic areas and sectors to insure extensive committee and public participation. The committee consists of approximately 80 members representing 50 different interest groups. This committee provides the overall direction and guidance for the effort.

In addition to the regionwide committee, "collaborative groups" were established in each of the jurisdictions in the county. These 27 groups form the backbone of the public



input process. They will link local areas and their citizens with the overall vision effort.

Valley Vision 2025 Process

- Formation of Vision Committee and Collaborative Groups
- Development of a Regional Environmental Scan
- Citizens Summit/Collaborative Meetings
- Drafting of the Vision
- Regional Forum
- Revision of Vision Statement
- Formation of Implementation Strategies
- Adoption Process
- Formulation of Implementation Actions
- Measurement of Results

The Citizens Summit was the first major public input opportunity for the planning process. Approximately 400 Valley residents attended this public event at which a summary of the environmental scan was presented. In addition, the audience participated in a future preference survey in which they responded to a series of 28 questions about the possibilities for future development and change in the region. This approach was just the start of the public input process. A much more open-ended and broad-based citizen input process is necessary. Extensive meetings convened by all of the collaboratives will be used to get residents' input. A draft vision addressing each of the issues will then be developed by the Vision Committee and collaborative groups.

The draft vision statement will be presented at a Regional Forum where business and civic groups may respond to the recommendations. The input received during this process will lead to revisions and modifications to the vision.

Specific implementation strategies will then be developed. It is vital that this effort be an action-oriented process that leads to real implementation of the vision. It is anticipated that this planning process will be complete during the year 2000. Thus, the plan for the next 25 years will be ready for adoption shortly after the turn of the millennium.

The plan adoption process will be by far the most extensive of any plan in the history of the Valley. Adoption by the Regional Council would be the first step. It is vitally important that civic groups throughout the Valley also endorse the vision and participate in its implementation. This would include groups such as Greater Phoenix Economic Council, Greater Phoenix Leadership, and chambers of commerce as well as many other civic groups. The actions by local governments and civic groups will be the key to the plan's implementation.

An important follow up to the development and adoption of the plan will be the

measurement over time of the success of implementing the vision. This community-based measurement effort already has a model in the *What Matters in Greater Phoenix* series produced by Morrison Institute for Public Policy.

While Valley Vision 2025 is a work in progress, a few lessons already can be drawn from the work. As people are asked to prioritize their issues, growth and development clearly have been critical. People are very concerned about the capacity of the public infrastructure to support development. This is particularly true for transportation and school facilities. Also a high priority is given to preserving open space and the natural characteristics of the environment. Air quality is similarly a major concern of area residents.

It is very clear that growth and development can be highly charged emotional issues with both anti-growth and pro-growth advocates ready to fight for their views. This can make it difficult for some to provide their opinions about what type of development should take place.

It is also evident that while many people want to contain development, preserve open space, and continue to benefit from the results of a growing area, they are not ready to accept the higher densities and more compact development that would be required. Additionally, it is interesting to note that as the debate heats up on growth control, some developers, with interests in more centrally located land, are beginning to recognize that controlling growth on the periphery could have very positive consequences for their projects.

One of the greatest challenges will be to ensure that the vital choices facing the region will indeed be made. While it is desirable to achieve a consensus whenever possible, it is also important that consensus not water down the recommendations to the point where they do not provide sufficient guidance for the future. This is particularly challenging in a region like this one where a majority of residents are very pleased with the quality of life. While many know that this quality of life is threatened, there is not a sense of crisis that would help to push compromise in the decision making process.

Valley Vision 2025 is an unprecedented effort in the history of the region. It faces distinct challenges. Pulling together the public and private sectors to work together on developing such a comprehensive planning process for the Valley will be difficult. However, the time is certainly right. Many say that it is even late. Yet when one considers that we could almost double our population by the year 2025, it cannot be too late. We have an outstanding opportunity to make a real difference for the future of this region for the next generation and those that will follow.



The New Economy and Growth

Doug Henton, President, Collaborative Economics, Inc.

Kim Welsh, Director, Collaborative Economics, Inc.

Home from Nowhere[®]

James Howard Kunstler

The Art and Craft of Growth

Jack Pfister, Distinguished Research Fellow, School of Public Affairs, Arizona State University

The Emerging Built Environment

Vernon D. Swaback, AIA, AICP, President, Vernon Swaback Associates

Reviving Cities: Think Metropolitan

Bruce J. Katz, [©]The Brookings Institution

Nine Steps to Growth Leadership

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Sara Moya, Doctoral Candidate, School of Public Affairs, Arizona State University

To Conserve Farmlands: An Amazing California Alliance

Neal R. Peirce, [©]Washington Post Writers Group

Growing Smarter and the Citizens Growth Management Initiative: Early Lessons

Rob Melnick, Director, Morrison Institute for Public Policy, Arizona State University





The New Economy and Growth

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Everyone in Arizona wants a vibrant economy. Thus, bringing people together from business, government, education, and the community to address any threat to economic growth is a laudable activity. Unfortunately when the topics are growth management and livable communities, there is disagreement about what is good and bad for the economy. A threat to one industry may be an important ingredient for success to another. Similarly, a positive business environment may be defined differently for a knowledge-intensive economy dependent on technological innovation than for an industrial economy that is built on assembly line manufacturing in large, stable firms.

Why with Arizona's burgeoning economy would anyone be talking about threats now? Simply because Arizona wants to be as much of an economic winner in the next century as it has been in this one. In ways that may be surprising, urban growth management and the livability of communities have a lot to do with where Arizona will end up.

Despite a wide variety of views about growth among industries, the first and most fervent criticism of any growth management strategy is invariably "the business community's" concern that any action would stop economic development. It is often assumed that the business community speaks with one voice. However, especially where the "New Economy" is concerned this perception does not fit with reality. To paraphrase former Congressman Morris Udall, where you stand on the economy and growth depends on where you are and where you are headed. As a part of a discussion of growth, Arizonans need to think about the New Economy and its implications for the state's cities and regions.

Defining the New Economy

In the past, we usually thought about the regional economy as either the Fortune 500 corporations that shaped the future or the mom-and-pop establishments that served us locally. Then, the economic landscape began to change. First came the chains that replaced homegrown retailers with the likes of WalMart, Costco, and Home Depot. Then came the breakup, merger, or downsizing of most of the Fortune 500 companies that had seemed so dependable in the past.

In the wake of fierce global competition and the rise of information technology, a New Economy has emerged. When we look at the regional economy today, we see fast-growing, entrepreneurial firms with unfamiliar names in place of the Fortune 500

This article was adapted from the authors' report for The James Irvine Foundation.

giants. We see an increasing number of home-based businesses, “tele-workers,” and contingent workers who carry their “portfolio” of skills to different places of work. We see growing industries and declining industries side by side as communities experience the incessant waves of what Joseph Schumpeter called “creative destruction.” We see networks of firms sharing a common workforce and collaborating around some projects while competing vigorously for other market opportunities. In short, we are living in a new economic era that is unlike the world we once knew.

However, the perception that the New Economy is synonymous with “high tech” has prevented a real understanding of it. The New Economy is not just microchips or a new set of companies. Rather, it is a new set of competitive advantages that is available to *all* industries. The New Economy is about speed, quality, flexibility, knowledge, and networks. It is about applying knowledge to a wide range of products and services, from agriculture and apparel to business services, retail, and software.

Speed: In the New Economy, “time to market” is the name of the game. The quicker the product or service reaches market, the more successful the enterprise. Firms must learn how to translate innovative ideas into marketable products faster than their competitors. “Transaction costs”—the cost of getting things done—become more important than “input costs,” the cost of materials and labor.

Quality: Competing on quality is the rallying cry in the New Economy. By competing on quality and not cost, firms are able to get a premium for their work that translates into higher profitability and higher wages for workers.

Flexibility: Firms need to be able to react to changes in markets, technology, and competition quickly. One way firms achieve flexibility is that they focus on what they do best and contract out the rest. They develop a web of relationships with companies and individuals that deliver products and services to each other just in time.

Knowledge: Knowledge embodied in people is a major source of competitive advantage. The successful enterprise creates and uses knowledge. In the New Economy, the knowledge, skills, and experience held by individuals have greater value than capital equipment or even capital itself.

Networks: A defining characteristic of the New Economy is the networking of firms. Small, medium, and large firms collaborate on some projects and compete on others in a process of continuous networking. These firms share a common pool of talent and intellectual capital within a geographic area.

The Shift to Flexible Specialization

What these features of the New Economy add up to is a profound shift in economic



model—from the mass-production system in place since the 1940s to a new model of flexible specialization (See Figure 1).

Figure 1: Comparing Economic Eras

Era	Basis of Competitive Advantage	Where We Work	How We Work	Place
Knowledge <i>(1990s-future)</i>	Flexible specialization Knowledge Quality Speed Flexibility Networks	Variety Large, decentralized companies Fast-growth “gazelles” Home-based businesses Independent contractors	Variety, integration Portfolio workers Reintegration of work and home	Integrated region Economic regions Distinctive quality of life Choice for living and working Speed & adaptability Natural environment
Industrial <i>(1940s-1980s)</i>	Mass production Low cost Quantity Stability Capital equipment Control	Factory model Large organizations, vertically integrated	Certainty, separation Hierarchy Distinct workplaces Separation of work and home Single career path Lifetime employment	Dispersion and isolation Subdivisions Technology parks Office parks Greenfield plants Edge cities Shopping centers
Early Industrial <i>(1880s-1930s)</i>	Small-scale production Expertise Quality Customization	Crafts Craftspeople Work from home Midsize companies	Integration Integration of work and home	Connected, walkable places Walkable neighborhoods towns, and villages City centers Factory-gate neighborhoods Streetcar/railway suburbs
Agricultural	Manual Labor Weather	Small-scale farms	Integration of home and work	Independent towns and villages

In a system of flexible specialization, networks of diverse firms work together to innovate and compete in fast-changing markets. These constellations change quickly as new opportunities and pressures arise. The emphasis of each network, and of the individual firms that compose it, is on decentralization, specialization, and learning.

This model stands in stark contrast to the vertically integrated, centrally controlled, and independent organizations that dominated our economy from the 1950s through the 1970s. These companies were built on entirely different sources of competitive advantage which were more appropriate for the less-open world of that time: low cost, high volume, stability, control, and capital. (See Figure 2)

Figure 2: Employment in the New Economy 1995

	(millions)
Firms > 500 employees	25.7
Firms 100-499 employees	32.3
Firms < 100 employees	69.1
Part time workers	22.2
Self-employed	8.9
Contingent (temporary) workers	2.3

Sources: Bureau of Labor Statistics, County Business Patterns, Current Population National Association of Temporary Services

The New Economy and the New Nature of Work

The shift to the New Economy is changing the nature of work itself. Two features of work life in the New Economy—rise of the “portfolio” or “craft” worker and reintegration of work and home life—are particularly important for thinking about the implications of the New Economy for the livability of communities.

In the New Economy, workers build careers by developing a portfolio of skills that can be applied to various types of projects. Knowledge workers take their skills and intellectual capital to different projects much like the craftspeople of an earlier era took their knowledge and tools to different jobs. In the mass-production economy, people had to go to a work site because they used equipment that was housed in a central place. In the New Economy, the means of production is the personal computer. Networked computers have begun to make the need for distinct and separate workplaces obsolete. Frances Cairncross, author of the *Death of Distance*, observes that in the near future “the home will once again become, as it was until the Industrial Revolution, the center for many aspects of human life rather than a dormitory and place to spend the weekends.”

What does the new economy want from the livable community?

At each stage in our country’s economic evolution, economic change has led to a fundamental reconfiguration of the places where we live and work (See Table 1). The most recent industrial era has been characterized by dispersion and isolation of work and living activities in office parks, subdivisions, shopping centers, and edge cities. This change represented a radical departure from the walkable neighborhoods, vital city centers, and close streetcar suburbs at the turn of the century.

Table 1: What does the New Economy value about places?

- Economic Regions that provide a habitat for clustering
- Distinctive Quality of Life to attract knowledge workers
- Vital Centers to offer lively amenities and opportunities for interaction
- Choices for Living and Working to increase diversity of career and life paths
- Speed and Adaptability for quick access to decisions and resources
- Natural Environment as an important element of community



As the new knowledge era continues, the pace of economic and social change is increasing. Successful “economic communities” are places with strong, responsive relationships between the economy and the community that provide companies and communities with sustained advantage and resilience. Community and business leaders will need to work harder than ever to understand and to maintain the dynamic relationship between their economy and community.

These values are rooted both in the new basis of competitive advantage and in the new nature of work (See Figure 3).

Figure 3: Features of an Economic Community

Economy	Work	Place
Flexible Specialization	New Nature of Work	Livable Region
Knowledge	Portfolio workers	Distinctive quality of life
Quality	Reintegration of Home and work	Vital centers
Speed	De-centralized workplaces	Choice for living/working
Flexibility		Speed and adaptability
Networks		Natural environment

New Economy Values Economic Regions

The New Economy and the changing nature of work place a premium on regions because the networks at the heart of the flexible specialization model function most effectively when they are clustered geographically. Industry clusters are concentrations of competing, complementary, and interdependent firms and industries that create wealth in regions through exports to other regions. Clusters typically spill over multiple cities and even counties. Clusters are important for the communities in a region because they drive local support and service industries (for example, construction, retail, restaurants).

Arizona's Industry Clusters

- Bioindustry
- Environmental Technology
- Food, Fiber and Natural Products
- High Technology
- Mining and Minerals
- Optics
- Plastics and Advanced Composite Materials
- Senior Living
- Software
- Tourism
- Transportation and Distribution

These industries, together with their suppliers and others whose services are essential to their economic well-being (known as foundations), make up Arizona's clusters. These industry clusters form the core of the Governor's Strategic Partnership for Economic Development, the state's long-term economic development strategy.

Geography is important to clusters because firms and people gain from being able to share a specialized workforce, suppliers, and networks. Close proximity reduces the “transactions costs” that are critical to the success of fast-moving firms. Geographic clustering remains the most powerful mechanism for transferring and augmenting personal knowledge.

In many regions, a fundamental mismatch exists between the organization of the New Economy and the structure of public decision making. Now more than ever, the economy must be viewed from the regional level. Cities and many other jurisdictions make decisions about land use, public works, and regulation that affect how the region functions. But who takes responsibility for making sure the region works for the economic drivers that benefit all cities and neighborhoods?

Through new forms of collaboration, a “New Regionalism” is emerging that provides all of the stakeholders—businesses, governments, citizens—with opportunities to set a direction and solve problems that cut across jurisdictions. As an organic, place-dependent entity, the New Economy needs communities that care about the livability of the entire region and can work together to make it happen. New Economy companies are well suited to provide some of that new regional leadership, because they do not see the boundaries that are usually barriers to regional actions.

The New Economy Values Distinctive Quality of Life

Livability and quality of life concerns are becoming more important with economic change. People—particularly skilled workers and entrepreneurs—choose to live in places that offer attractive career opportunities and an attractive lifestyle. Companies increasingly move to or start up where the talent for the New Economy wants to live. Research shows that quality of life is an especially important screening factor for firms in technology businesses and others which employ skilled workers in knowledge-based services and production. For most firms retention of current workers is even more important than the recruitment of new migrants. The perception of a declining quality of life leads to lower retention of skilled residents according to a growing body of research.

In the New Economy, quality of life is a community’s most valuable economic asset, one which can be improved or degraded. Just as companies now compete on quality, so too do communities. In the old economy, growth typically was associated with degradation of quality of life. In the New Economy, growth will change—but must not reduce—the quality of life. Communities need to consider how economic change and growth can actually *enhance* quality of life.

The New Economy thrives on change, yet wants certainty that quality of life will be preserved. Land use chaos and unmanaged development in particular are turnoffs. Companies want communities to be clear about their future direction. As Bill Agnello,



vice president, Real Estate and the Workplace for Sun Microsystems, explains, “Regions need to decide what they want and then tell us. Do they want to grow out, grow up, or not at all? It’s too hard and too inefficient for us to guess.”

The New Economy Values Vital Centers

The New Economy values the vital centers of regions, towns, and neighborhoods. These centers promote the interaction and creativity on which the New Economy depends. Creativity is encouraged by environments that allow for connections among people. The proximity, density, and “publicness” of strong centers stimulate interaction through places and services that support planned meetings and encourage chance encounters. Physical places that promote “sociability” have become a critical component of the New Economy. Successful places develop centers where people can come together easily. “We could work anywhere,” said Zachary Zaidman, founder of a \$2 million game company in San Francisco’s Multimedia Gulch, “But you want to be where the excitement is, where people are doing the same thing, where there is this creative energy.”¹

The scale of the modern workplace fits with downtown-type centers. An assumption underlying New Urbanist thought has been that “massive big box retailers and workplaces dominate the American economy.” Although these organizations are visible, they are not the drivers of the New Economy. The New Economy matches better than the old with the type of mixed-use, downtown environments advocated by New Urbanist thinkers. As the economy decentralizes, small companies and specific workgroups of larger companies fit more easily into town centers. Neither polluting nor dangerous, New Economy work can take place in the homes and buildings in the town center—as it did in the pre-industrial crafts age.

Like lawyers, accountants, and other downtown types who work in high-rises, all a software developer needs is a desk and a computer—whether the developer works for a big company or a small start-up firm. Many software companies are two to ten-person operations that require little physical space. For example, from 1993 to 1997 employment in San Jose’s downtown software industry increased from 50 to 2,800 workers. This increase resulted from a concerted strategy of incubating software start-ups, attracting expansions of several large “anchor” software companies, and rejuvenating downtown streetlife. Demand has increased for a new wave of apartments and condominiums to accommodate the workers who now want to live downtown as well.

An opportunity exists for the New Economy to fit with the New Urbanist goal of preserving heritage also. Small software companies seem ideal for old, oftentimes eccentric downtown space. As Andy Brandt, president of Inroad Software, explains about Boulder, Colorado, “You could be looking at an old Victorian house, and you’ll find a gaming operation in the basement.”² In Montreal, New Economy firms are taking over an

abandoned marine-fitting warehouse on the city's waterfront. A nearly abandoned group of warehouses and manufacturing buildings south of Market Street in San Francisco is now "Multimedia Gulch," a thriving neighborhood of more than 35,000 workers.

In addition to valuing urban centers, the New Economy values the work-life integration that can occur in mixed-use neighborhood and town centers. Management guru Peter Drucker predicts that the future organization of work will be more akin to that of pre-industrial cities, with a mixture rather than separation of living and working places. The physical structures of our community must make cohesion of working and living easier and more attractive.

The New Economy Values Choice

The New Economy values choice of places to work and live within regions, and choice among regions. Not only is today's workforce more diverse by typical measures—gender, age, race, ethnicity—but people no longer experience life in lock-step, predictable patterns. Not only do people need to choose among many options for living and working, but they increasingly value having the choice. A principle for the New Regionalism is to "provide people with meaningful choices about where and how they live, recognizing that citizens of every region have a wide range of needs, values and goals for themselves and their communities."³ This principle fits with the realities of the New Economy.

The New Economy argues for a more integrated mix of housing within communities, so that people can remain connected to places and relationships as their lives change. Seattle Mayor Paul Schell is using choice as an organizing principle for Seattle's strategy. "We are building a city of choices," he explains. "No single solution is for everybody."⁴ He accepts that people's choices in housing, transportation, education, recreation, and working styles will differ dramatically.

Fortunately the New Economy need not be just in one place. Any region can participate in the opportunities created by the New Economy by creating distinctive habitats that can grow high-value businesses. The goal is to be able to contribute something unique and different. Some regions may position themselves as R&D wellsprings, others as high-value, quick-turnaround centers for a particular industry or industries. Some regions will leverage their geographic position or entrepreneurial bent. Still others will be conduits for flows of information, goods and services, or financing.

New Economy Values Speed and Adaptability

The New Economy has moved into a new time dimension, and values communities that move there too. The game is to reduce the time it takes companies to make changes and access resources in a community.



For example in the early 1990s, Silicon Valley's decision process for permit approvals, whether the answer was yes, no, or maybe, was incredibly slow. Explained Robert Perlman, vice president of Intel, "The eighteen months it took to get a building permit to expand an existing facility in Silicon Valley exceeded the time it took to design a new chip or to build a new facility elsewhere." With the help of volunteer process improvement experts from the private sector, Silicon Valley cities have reengineered processes and reduced permit turnaround times while maintaining community safeguards. Today, public-private teams are piloting a Smart Permitting system that allows companies to file applications for building permits on-line. Companies, planners, architects, and builders then work on-line to make modifications and monitor their projects' status. Companies need to be able to reconfigure buildings quickly to meet changing needs. To keep pace with the New Economy, buildings should be capable—physically and legally—of being used in different ways over the short and the long term.

Firms also value mobility within a region. Although information now flows electronically, companies still need to move people and products. Congestion is more than a source of frustration. It is a significant quantifiable economic cost.

Last, New Economy companies value advanced communications infrastructure. Companies want to cluster together and to connect to the outside world. Every worksite in every building should be connected to high-speed data networks, telephony, and video. Pre-wiring is now emerging in residential construction so that work can come to people, instead of people going to their work.

New Economy Values The Natural Environment

The New Economy values the natural environment as an important quality of life asset. Knowledge workers value access to greenspace in and around developed areas. This reality opens the possibility for the New Economy to work in concert with community leaders concerned about environmental preservation. For example, companies dependent on knowledge workers have been some of the biggest advocates of Portland's protected greenspace. As Bill Calder, a spokesperson for Intel, told the *New York Times*, "This is where we are headed worldwide. Companies that can locate anywhere will go where they can attract good people in good places."

Increasingly, the New Economy recognizes that protecting the natural environment is in its long term self-interest. In Austin, the Chamber of Commerce recently released a study that described the healthy environment as one of the area's prime economic assets, one whose preservation should be a paramount concern. The opportunity is to tap the leadership and resources of the New Economy to address environmental challenges.

In California, the Sierra Business Council, an association of 400 businesses in the rural foothills of California's Sierra Nevada mountains, is focused on an "economic future

grounded in environmental quality.” The Business Council developed the Sierra Wealth Index to describe the financial, social, and environmental “capital,” that is the foundation of the region’s economy. More recently, the Business Council developed a set of principles for sound physical development of the region. In the New Economy, businesses can emerge as advocates for the environment.

The New Economy brings the potential for growth that is compatible with environmental preservation and conservation. This change is a shift away from the quantitative growth model that emphasized that “more is better.” As the President’s Council on Sustainable Development observed: To achieve our vision of sustainability, some things must grow—jobs, productivity, wages, profits, capital and savings, information, knowledge, education—and others—pollution, waste, poverty, energy, and material use per unit of output—must not.

Rural areas can participate in exciting New Economy activities that are attracted to their special environment and lifestyle. People have always been attracted to places of natural beauty. But now the New Economy makes it possible for people to work in out-of-the-way places. The key is preserving the attractive natural environment while enjoying the new form of economic vitality.

The “cleaner” nature of the New Economy also makes it possible to locate homes, workplaces, and recreational areas closer together. Before the industrial age, work was performed in homes and buildings near the center of town. The industrial age brought heavy machinery that required special power plants and factories that were noisy, dirty, and often dangerous. Because of the different nature of work in the New Economy, less need exists to separate dirty workplaces from clean homes.

Principles for Linking the New Economy to Livable Communities

The New Economy is based on new ways of doing business and new ways of working. What does this mean for civic leaders and state policy makers? The following ten principles provide direction for leaders throughout Arizona.

Know The Economy—Get Beyond the Downtown Chambers

The New Economy is complex and goes way beyond the large companies, retailers, business service providers, and real estate developers that are most visible in most communities. Get inside and understand what is really driving economic vitality. Talk to the invisible companies and workers, find out how their world is changing and what they need to be successful in your community.



Be Regionable—The New Economy Needs Livable Regions

Companies and people cluster geographically because they gain from being in the same place. Clustering typically occurs across political boundaries. Understand the economic regions in each area of Arizona. Challenge cities and neighborhoods to build livable communities and livable regions.

Recognize That Knowledge Loves Quality

The New Economy values quality of life, because it values people. People—particularly skilled workers and entrepreneurs—choose to live in places that offer attractive career opportunities and an attractive lifestyle. View quality of life as a valuable economic asset, and manage it for its long-term contribution to communities and the state. Send a consistent message that quality of life will be preserved and enhanced.

Be Fast and Flexible

The New Economy has moved into a new time dimension, and values communities that move there too. Companies need to be able to reconfigure buildings and create new facilities quickly. People need fast access to regional resources and the ability to connect with advanced communications infrastructure. Consider ways to speed up permitting processes while safeguarding public interests. Focus on improving regional mobility.

Appreciate the Value of Vital Centers

The New Economy values the vital centers of regions, towns, and neighborhoods. These centers promote the interaction, accessibility, and creativity on which the New Economy depends. They also can allow more cohesive work-living arrangements. Develop the vital centers that are attractive to workers and entrepreneurs. Use design to improve integration of working and living spaces.

Learn the Value of Fitting In

The small scale of some New Economy workplaces fits well into mixed-used downtown environments. Software and other PC-based services are increasingly attracted to downtown locations for their accessibility and liveliness. Consider how small companies and workgroups of larger companies can integrate into downtown centers and contribute to their vitality. Develop housing for New Economy workers attracted to centers.

Choose Choice

People in the New Economy work in different ways and at different hours. People no longer experience life in predictable patterns. Design communities to accommodate the increasingly diverse work and life paths that characterize the New Economy.

Help People Get Together

The New Economy values face-to-face interaction. Physical places that promote sociability have become critical for building strong economies and communities. Create and integrate the kinds of places where people meet.

Discover Entrepreneurs by Day—Environmentalists by Night

The New Economy values the natural environment as an important quality of life asset. Tap the leadership and resources of the New Economy to address environmental challenges and support quality growth. Define the type of growth that benefits people, moving beyond “more is better.”

Realize that Creativity Wins

The new source of competitive advantage is creativity—creating new products and better ways of getting work done. Creative people want to be where the action is. They are attracted to distinctive places that are open to new people and ideas. Build on what is special about each community and the state. Differentiate it from others. Work to embrace new ways of living and working, to blend the talent and enthusiasm of newcomers and oldtimers.

Notes

¹See Kenneth, Howe, *Business Around the Bay*, (San Francisco Chronicle, March 4, 1996).

²Macht, Joshua, *It takes a Cyber Village*, Inc., Tech 1997, No 4.

³Following a 1995 Meeting of the Congress for New Urbanism, Harry Dodson, Robert Yaro, and Armando Carnonell issued a New Regionalist Challenge to the New Urbanists. The four key principles can be found in Fulton, William, “The New Urbanism: Hope or Hype for American Communities”, 22.

⁴See Neal Peirce, *Building a City of Choices*, (Washington Post Writers Group, February 14, 1978).



Home From Nowhere[®]

James Howard Kunstler

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Americans sense that something is wrong with the places where we live and work and go about our daily business. We hear this unhappiness expressed in phrases like “no sense of place” and “the loss of community.” We drive up and down the gruesome, tragic suburban boulevards of commerce, and we’re overwhelmed at the fantastic, awesome, stupefying ugliness of absolutely everything in sight—the fry pits, the big-box stores, the office units, the lube joints, the carpet warehouses, the parking lagoons, the jive plastic townhouse clusters, the uproar of signs, the highway itself clogged with cars—as though the whole thing had been designed by some diabolical force bent on making human beings miserable. And naturally, this experience can make us feel glum about the nature and future of our civilization.

When we drive around and look at all this cartoon architecture and other junk that we’ve smeared over the landscape, we register it as ugliness. This ugliness is the surface expression of deeper problems—problems that relate to the priceless issue of our national character. The highway strip is not just a sequence of eyesores. The pattern it represents is also economically catastrophic, an environmental calamity, socially devastating, and spiritually degrading.

It is no small irony that during the period of America’s greatest prosperity, in the decades following the Second World War, we put up almost nothing but the cheapest possible buildings, particularly civic buildings. Compare any richly embellished firehouse or post office built in 1904 with its dreary concrete-box counterpart today. Compare the home of a small-town bank president of the 1890s, with its massive masonry walls and complex roof articulation, with the flimsy home of a 1990s business leader, made of two-by-fours, Sheetrock, and fake fanlight windows. When we were a far less wealthy nation, we built things with the expectation that they would endure. To throw away money (painfully acquired) and effort (painfully expended) on something certain to fall apart in thirty years would have seemed immoral, if not insane, in our great-grandparents’ day.

The buildings our predecessors constructed paid homage to history in their design, including elegant solutions to age-old problems posed by the cycles of weather and light, and they paid respect to the future in the sheer expectation that they would endure through the lifetimes of the people who built them. They therefore embodied a sense of chronological connectivity, one of the fundamental patterns of the universe: an understanding that time is a defining dimension of existence—particularly the existence of living things, such as human beings, who miraculously pass into life and then inevitably pass out of it.

The antithesis to this can be seen in the way we have built things since 1945. We reject the past and the future, and this repudiation is manifest in our graceless constructions. Our residential, commercial, and civic buildings are constructed with the fully conscious expectation that they will disintegrate in a few decades. This condition even has a name: “design life.” Strip malls and elementary schools have short design lives. They are expected to fall apart in less than fifty years. Since these things are not expected to speak to any era but our own, we seem unwilling to put money or effort into their embellishment. Nor do we care about traditional solutions to the problems of weather and light, because we have technology to mitigate these problems—namely, central heating and electricity. Thus in many new office buildings the windows don’t open. In especially bad buildings, like the average WalMart, windows are dispensed with nearly altogether. This process of disconnection from the past and the future, and from the organic patterns of weather and light, done for the sake of expedience, ends up diminishing us spiritually, impoverishing us socially, and degrading the aggregate set of cultural patterns that we call civilization...

So, whether we adore suburbia or not, we’re going to have to live differently. Rather than being a tragedy, this is actually an extremely lucky situation, a wonderful opportunity, because we are now free to redesign our everyday world in a way that is going to make all classes of Americans much happier. We do not have to come up with tools and techniques never seen before. The principles of town planning can be found in excellent books written before the Second World War. Three-dimensional models of the kinds of places that can result from these principles exist in the form of historic towns and cities. In fact, after two generations of architectural amnesia, this knowledge has been reinstalled in the brains of professional designers in active practice all over the country, and these designers have already begun to create an alternate model of the human habitat for the twenty-first century.

What’s missing is a more widespread consensus—a cultural agreement—in favor of the new model, and the will to go forward with it. Large numbers of ordinary citizens haven’t heard the news. The consensus that exists, therefore, is a consensus of fear, and that is obviously not good enough. We need a consensus of hope.

In the absence of a widespread consensus about how to build a better everyday environment, we’ll have to replace the old set of rules with an explicit new set—or, to put it a slightly different way, replace zoning laws with principles of civic art. Here, then, are some of the things citizens will need to know in order to create a new model for the everyday environment of America.

The New Urbanism

The pattern under discussion here has been called variously neo-traditional planning, traditional neighborhood development, low-density urbanism, transit-oriented



development, the new urbanism, and just plain civic art. Its principles produce settings that resemble American towns from prior to the Second World War.

1. The basic unit of planning is the neighborhood. A neighborhood standing alone is a hamlet or village. A cluster of neighborhoods becomes a town. Clusters of a great many neighborhoods become a city. The population of a neighborhood can vary depending on local conditions.

2. The neighborhood is limited in physical size, with well-defined edges and a focused center. The size of a neighborhood is defined as a five-minute walking distance (or a quarter mile) from the edge to the center and a ten-minute walk edge to edge. Human scale is the standard for proportions in buildings and their accessories. Automobiles and other wheeled vehicles are permitted, but they do not take precedence over human needs, including aesthetic needs. The neighborhood contains a public-transit stop.

3. The secondary units of planning are corridors and districts. Corridors form the boundaries between neighborhoods, both connecting and defining them. Corridors can incorporate natural features like streams and canyons. They can take the form of parks, nature preserves, travel corridors, railroad lines, or some combination of these. In towns and cities a neighborhood or parts of neighborhoods can compose a district. Districts are made up of streets or ensembles of streets where special activities get preferential treatment. The French Quarter of New Orleans is an example of a district. It is a whole neighborhood dedicated to entertainment, in which housing, shops, and offices are also integral. A corridor can also be a district—for instance, a major shopping avenue between adjoining neighborhoods.

4. The neighborhood is emphatically mixed-use and provides housing for people with different incomes. Buildings may be various in function but must be compatible with one another in size and in their relation to the street. The needs of daily life are accessible within the five-minute walk. Commerce is integrated with residential, business, and even manufacturing use, though not necessarily on the same street in a given neighborhood. Apartments are permitted over stores. Forms of housing are mixed, including apartments, duplex and single-family houses, accessory apartments, and outbuildings. (Over time streets will inevitably evolve to become less or more desirable. But attempts to preserve property values by mandating minimum-square-footage requirements, outlawing rental apartments, or formulating other strategies to exclude lower-income residents must be avoided. Even the best streets in the world's best towns can accommodate people of various incomes.)

5. Buildings are disciplined on their lots in order to define public space successfully. The street is understood to be the pre-eminent form of public space, and the buildings that define it are expected to honor and embellish it.

6. The street pattern is conceived as a network in order to create the greatest number of alternative routes from one part of the neighborhood to another. This has the beneficial effect of relieving traffic congestion. The network may be a grid. Networks based on a grid must be modified by parks, squares, diagonals, T intersections, rotaries, and other devices that relieve the grid's tendency to monotonous regularity. The streets exist in a hierarchy from broad boulevards to narrow lanes and alleys. In a town or a city limited-access highways may exist only within a corridor, preferably in the form of parkways. Cul-de-sacs are strongly discouraged except under extraordinary circumstances—for example, where rugged topography requires them.

7. Civic buildings, such as town halls, churches, schools, libraries, and museums, are placed on preferential building sites, such as the frontage of squares, in neighborhood centers, and where street vistas terminate, in order to serve as landmarks and reinforce their symbolic importance. Buildings define parks and squares, which are distributed throughout the neighborhood and appropriately designed for recreation, repose, periodic commercial uses, and special events such as political meetings, concerts, theatricals, exhibitions, and fairs. Because streets will differ in importance, scale, and quality, what is appropriate for a part of town with small houses may not be appropriate as the town's main shopping street. These distinctions are properly expressed by physical design.

8. In the absence of a consensus about the appropriate decoration of buildings, an architectural code may be devised to establish some fundamental unities of massing, fenestration, materials, and roof pitch, within which many variations may function harmoniously.

The new urbanism advances specific solutions. . .—both for existing towns and cities and to mitigate the current problems of the suburbs. Commerce is removed from the highway strip and reassembled in a town or neighborhood center. The buildings that house commerce are required to be at least two stories high and may be higher, and this has the additional benefit of establishing apartments and offices above the shops to bring vitality, along with extra rents, to the center. Buildings on designated shopping streets near the center are encouraged to house retail businesses on the ground floor.

A build-to line determines how close buildings will stand to the street and promotes regular alignment. Zoning has a seemingly similar feature called the setback line, but it is intended to keep buildings far away from the street in order to create parking lots, particularly in front, where parking lots are considered to be a welcome sign to motorists. When buildings stand in isolation like this, the unfortunate effect is their complete failure to define space: the abyss. In the new urbanism the build-to line is meant to ensure the opposite outcome: the positive definition of space by pulling buildings forward to the street. If parking lots are necessary, they should be behind the



buildings, in the middle of the block, where they will not disrupt civic life.

Additional rules govern building height, recess lines according to which upper stories may be set back, and transition lines, which denote a distinction between ground floors for retail use and upper floors for offices and apartments. (Paris, under Baron Haussmann, was coded for an eleven-meter-high transition line, which is one reason for the phenomenal unity and character of Parisian boulevards.)

The new urbanism recognizes zones of transition between the public realm of the street and the semi-private realm of the shop or the private realm of the house. (In the world of zoning this refinement is nonexistent.) Successful transitions are achieved by regulating such devices as the arcade, the storefront, the dooryard, the ensemble of porch and fence, even the front lawn. These devices of transition soften the visual and psychological hard edges of the everyday world, allowing us to move between these zones with appropriate degrees of ease or friction. (They are therefore at odds with the harsh geometries and polished surfaces of Modernism.)

The arcade, for instance, affords shelter along the sidewalk on a street of shops. It is especially desirable in southern climates where both harsh sunlight and frequent downpours occur. The arcade must shelter the entire sidewalk, not just a portion of it, or else it tends to become an obstacle rather than an amenity. Porches on certain streets may be required to be set back no more than a “conversational distance” from the sidewalk, to aid communication between the public and private realms. The low picket fence plays its part in the ensemble as a gentle physical barrier, reminding pedestrians that the zone between the sidewalk and the porch is private while still permitting verbal and visual communication. In some conditions a front lawn is appropriate. Large, ornate civic buildings often merit a lawn, because they cannot be visually comprehended close up. Mansions merit setbacks with lawns for similar reasons.

Architectural Codes

The foregoing presents the “urban code” of the new urbanism, but architectural codes operate at a more detailed and refined level. In theory a good urban code alone can create the conditions that make civic life possible, by holding to a standard of excellence in a town’s basic design framework. Architectural codes establish a standard of excellence for individual buildings, particularly the surface details. Variances to codes may be granted on the basis of architectural merit. The new urbanism does not favor any particular style.

Nowadays houses are often designed from the inside out. A married couple wants a fanlight window over the bed, or a little octagonal window over the Jacuzzi, and a builder or architect designs the room around that wish. This approach does not take into account how the house will end up looking on the outside. The outside ceases to matter. This is

socially undesirable. It degrades the community. It encourages people to stay inside, lessening surveillance on the street, reducing opportunities for making connections, and in the long term causing considerable damage to the everyday environment.

The new urbanism declares that the outside does matter, so a few simple rules re-establish the necessary design discipline for individual buildings. For example, a certain proportion of each exterior wall will be devoted to windows. Suddenly houses will no longer look like television sets, where only the front matters. Another rule may state that windows must be vertical or square, not horizontal—because horizontal windows tend to subvert the inherent dignity of the standing human figure. This rule reinstates a basic principle of architecture that, unfortunately, has been abandoned or forgotten in America—and has resulted in millions of terrible-looking houses.

Likewise, the front porch is an important and desirable element in some neighborhoods. A porch less than six feet deep is useless except for storage, because it provides too little room for furniture and the circulation of human bodies. Builders tack on inadequate porches as a sales gimmick to enhance “curb appeal,” so that the real-estate agent can drive up with the customer and say, “Look, a front porch!” The porch becomes a cartoon feature of the house, like the little fake cupola on the garage.

Why do builders even bother with pathetic-looking cartoon porches? Apparently Americans need at least the idea of a porch to be reassured, symbolically, that they’re decent people living in a decent place. But the cartoon porch only compounds the degradation of the public realm.

In America today flat roofs are the norm in commercial construction. This is a legacy of Modernism, and we’re suffering because of it. The roofscapes of our communities are boring and dreary as well as vulnerable to leakage or collapse in the face of heavy rain or snow. An interesting roofscape can be a joy—and a life worth living is composed of many joys. Once Modernism had expanded beyond Europe to America, it developed a hidden agenda: to give developers a moral and intellectual justification for putting up cheap buildings. One of the best ways to save money on a building is to put a flat roof on it. Aggravating matters was the tendency in postwar America to regard buildings as throwaway commodities, like cars. That flat roofs began to leak after a few years didn’t matter; by then the building was a candidate for demolition. That attitude has now infected all architecture and development. Low standards that wouldn’t have been acceptable in our grandparents’ day, when this was a less affluent country, are today perfectly normal. The new urbanism seeks to redress this substandard normality. It recognizes that a distinctive roofline is architecturally appropriate and spiritually desirable in the everyday environment. Pitched roofs and their accessories, including towers, are favored explicitly by codes. Roofing materials can also be specified if a community wants a high standard of construction.



Architectural codes should be viewed as a supplement to an urban code. Architectural codes are not intended to impose a particular style on a neighborhood—Victorian, neoclassical, Colonial, or whatever—though they certainly could if they were sufficiently detailed and rigorous. But style is emphatically not the point. The point is to achieve a standard of excellence in design for the benefit of the community as a whole. Is anything wrong with standards of excellence? Should we continue the experiment of trying to live without them?

Getting the Rules Changed

Replacing the crude idiocies of zoning with true civic art has proved to be a monumentally difficult task. It has been attempted in many places around the United States over the past fifteen years, mainly by developers, professional town planners, and architects who are members of the new-urbanist movement. They have succeeded in a few places. The status quo has remarkable staying power, no matter how miserable it makes people, including the local officials who support it and who have to live in the same junk environment as everybody else. An enormous entrenched superstructure of bureaucratic agencies at state and federal levels also supports zoning and its accessories. Departments of transportation, the Federal Housing Administration, the various tax agencies, and so on all have a long-standing stake in policies that promote and heavily subsidize suburban sprawl. They're not going to renounce those policies without a struggle. Any change in a rule about land development makes or breaks people who seek to become millionaires. Ban sprawl, and some guy who bought twenty acres to build a strip mall is out of business, while somebody else with three weed-filled lots downtown suddenly has more-valuable property.

I believe that we have entered a kind of slow-motion cultural meltdown, owing largely to our living habits, though many ordinary Americans wouldn't agree. They may or may not be doing all right in the changing economy, but they have personal and psychological investments in going about business as usual. Many Americans have chosen to live in suburbia out of a historic antipathy for life in the city and particularly a fear of the underclass that has come to dwell there. They would sooner move to the dark side of the moon than consider city life.

Americans still have considerable affection for small towns, but small towns present a slightly different problem: in the past fifty years many towns have received a suburban-sprawl zoning overlay that has made them indistinguishable from the sprawl matrix that surrounds them. In my town strip malls and fast-food joints have invaded what used to be a much denser core, and nearly ruined it.

Notwithstanding all these obstacles, zoning must go, and zoning will go. In its place we will re-establish a consensus for doing things better, along with formal town-planning codes to spell out the terms. I maintain that the change will occur whether we love suburbia or not.

Fortunately, a democratic process for making this change exists. It has the advantage of being a highly localized process, geared to individual communities. It is called the charette. In its expanded modern meaning, a “charette” is a week-long professional design workshop held for the purpose of planning land development or redevelopment. It includes public meetings that bring all the participants together in one room—developers, architects, citizens, government officials, traffic engineers, environmentalists, and so on. These meetings are meant to get all issues on the table and settle as many of them as possible.

The object of the charette is not, however, to produce verbiage but to produce results on paper in the form of drawings and plans. This highlights an essential difference between zoning codes and traditional town planning based on civic art. Zoning codes are invariably twenty-seven-inch-high stacks of numbers and legalistic language that few people other than technical specialists understand. Because this is so, local zoning- and planning-board members frequently don’t understand their own zoning laws. Zoning has great advantages for specialists, namely lawyers and traffic engineers, in that they profit financially by being the arbiters of the regulations, or benefit professionally by being able to impose their special technical needs (say, for cars) over the needs of citizens—without the public’s being involved in their decisions.

Traditional town planning produces pictorial codes that any normal citizen can comprehend. This is democratic and ethical as well as practical. It elevates the quality of the public discussion about development. People can see what they’re talking about. Such codes show a desired outcome at the same time that they depict formal specifications. They’re much more useful than the reams of balderdash found in zoning codes.

An exemplary town-planning code devised by Andres Duany, Elizabeth Plater-Zyberk, and others can be found in the ninth edition of *Architectural Graphic Standards*. The code runs a brief fourteen pages. About 75 percent of the content is pictures—of street sections, blocks, building lots, building types, and street networks. Although it is generic, a code of similar brevity could easily be devised for localized conditions all over America.

The most common consequence of the zoning status quo is that it ends up imposing fantastic unnecessary costs on top of bad development. It also wastes enormous amounts of time—and time is money. Projects are frequently sunk by delays in the process of obtaining permits. The worst consequence of the status quo is that it actually makes good development much harder to achieve than bad development.

Because many citizens have been unhappy with the model of development that zoning gives them, they have turned it into an adversarial process. They have added many layers of procedural rigmarole, so that only the most determined and wealthiest



developers can withstand the ordeal. In the end, after all the zoning-board meetings and flashy presentations and environmental objections and mitigation, and after both sides' lawyers have chewed each other up and spit each other out, what ends up getting built is a terrible piece of sprawl equipment—a strip mall, a housing subdivision. Everybody is left miserable and demoralized, and the next project that comes down the road gets beaten up even more, whether it's good or bad.

No doubt many projects deserve to get beaten up and delayed, even killed. But wouldn't society benefit if we could agree on a model of good development and simplify the means of going forward with it? This is the intent of the traditional town planning that is the foundation of the new urbanism.

Human settlements are like living organisms. They must grow, and they will change. But we can decide on the nature of that growth—on the quality and the character of it—and where it ought to go. We don't have to scatter the building blocks of our civic life all over the countryside, destroying our towns and ruining farmland. We can put the shopping and the offices and the movie theaters and the library all within walking distance of one another. And we can live within walking distance of all these things. We can build our schools close to where the children live, and the school buildings don't have to look like fertilizer plants. We can insist that commercial buildings be more than one story high, and allow people to live in decent apartments over the stores. We can build Main Street and Elm Street and still park our cars. It is within our power to create places that are worthy of our affection.

The Art and Craft of Growth

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The table in the board room of the Salt River Project headquarters is long and shaped like a trapezoid. It was made from a eucalyptus tree that grew along a canal in Tempe. After years of enjoying the beautiful, immense tree, the farmer who owned the land reluctantly decided to cut it down because it consumed too much water. The wood was milled into rough planks and cured for several years before a local craftsman transformed the eucalyptus into the long and elegant table. Today, besides being a handsome, unique piece of furniture, the table serves as a testament to the power of some of the valley's important natural resources: the soil, sunshine, and water which combined to nourish the tree.

The transformation of the tree into a functional artwork is an analogy that applies to the Valley's growth. Like the farmer's tree, abundant soil, sunshine, and water have provided the nourishment for the Valley's urban "branches" which now extend to once unimaginable places. More than twenty municipalities and 2.5 million people now exist in a region that contains more land than the state of New Jersey.

In addition, just as the farmer viewed his large tree after several decades, many Valley residents are looking at more growth in the region as too costly and consumptive. Others, however, are undaunted by the large and continuous in-migration. They believe that the open spaces surrounding the region are opportunities to turn unfinished raw land—like the rough planks—into a beautiful, finished shape and form.

The table–urban growth analogy works well until we look at the human design and construction elements present in the Valley. Here the analogy breaks down in light of several strong contrasts. The design and building of the table occurred in ideal circumstances: a detailed plan was drawn, the wood was cut and milled with precision tools; and after the planks were carefully matched, the craftsman sanded, finished, and assembled the pieces into the table.

Clearly, our growth does not enjoy similar favorable circumstances with regard to planning, tools, and assembly. The first and most obvious dissimilarity is in planning. With multiple governments in this large swath of geography, we are too complex and diverse to create only one workable urban plan. A plan for Phoenix will not work for Cave Creek or Sun City, just as a plan for Tempe will not work for Litchfield Park or Carefree. In addition, each of Maricopa County's jurisdictions already has its own land use plan, often created and modified over many years with substantial citizen input. To try to supersede those with one single plan—even if desired by the municipalities—would undermine years of work and public trust. Thus, perhaps the most we should



expect is that the plans work together, and that the plan and design of one jurisdiction does not adversely impact that of another.

For many years, the Maricopa Association of Governments (MAG) has been responsible—with limited power—for trying to ensure that municipal plans do not conflict with one another. However, following a sustained period of unequaled growth in Maricopa County, it is time to pause and take a critical look at how well the MAG function is working. Clearly, we need to establish objectives for the regional planning process that maintain and respect the plans of the individual jurisdictions. Then, we should evaluate how well the current process is meeting them. If the objectives are not being met, we need to change the regional planning process. One obvious problem is that the state and federal governments are not full partners in the region's planning process. As large property owners in Maricopa County, they should be actively involved.

In addition to our planning shortcomings, the tools we use in our urban design cannot be considered analogous in effectiveness to those used in the construction of the table. While many people today are expressing anxiety about the rate and quality of the growth occurring in Maricopa County, most have only limited knowledge of how we compare to other parts of the country. For instance, while recent polls have shown the popularity of the phrase “urban growth boundaries” only a small percentage of people can speak to the details and possible ramifications of such a concept.

The recently-enacted Growing Smarter Act is a new tool for the Phoenix metropolitan region and the state that has great promise. Before we accept any simplistic solution to the complexities of creating a sustainable region and state—such as urban growth boundaries—we should apply our best efforts to involve our citizens in developing a comprehensive set of new strategies and tools in the hope of improving upon the status quo. Growing Smarter establishes a study committee to develop a comprehensive long-term growth strategy that should provide a framework for public dialogues on how Maricopa County and Arizona should grow in the next century. Growing Smarter provides us with a unique opportunity and tool. We must use it wisely.

The third issue in which the eucalyptus table–urban growth metaphor reveals a disconnect is in craftsmanship. In order for any new tools (including Growing Smarter) to produce a desirable result, we must use them with more political skill than the record suggests we have used other tools in the past. Just as the raw eucalyptus lumber achieved its full potential through the talents of a skilled craftsman, this region cannot expect to do as well without visionary leaders working with coalitions of dedicated citizens. Unfortunately, the overwhelmingly negative public perception of past government performance is creating skepticism about the future, and citizens have responded to a lack of leadership by looking toward simplistic, less flexible solutions such as urban growth boundaries. If we are unable to develop new tools and

demonstrate the political will to use them well in the next century, we will be doomed to sub-optimal solutions.

In thinking about this urban region's future, we should also be careful not to limit our focus to just urban form. Livable cities and regions involve much more than the physical environment. In a recent study, *What Matters in Greater Phoenix*, Morrison Institute for Public Policy identified nine major factors that the region's citizens see as comprising their quality of life: education, public safety and crime, health/health care, environment, families and children, economy, transportation–mobility, community, and arts–culture–recreation. These important factors interact in a complex matrix, and provide yardsticks by which we can measure our own well being.

Considering this as background, it is time for each of us to envision ourselves as a craftsperson. If the nine major quality of life factors and the multitudes of individual municipal plans were delivered to your shop in the form of rough planks, what tools and solutions would you apply to assemble a high quality of life for Valley citizens? This is the question we should be asking ourselves.

It is a fact that the seemingly abundant raw materials that this region possesses are driving much of our urban growth. For too long, we have asked only a short-sighted question: How quickly can we use these raw materials—sunshine, land, and water—to our benefit? If the farmer with the eucalyptus tree had thought in those terms, he would simply have cut the tree into mulch. The correct question, in my opinion, is the same one asked by the farmer: Wouldn't we be better off to turn this raw material into a beautiful, functional work of art?



The Emerging Built Environment

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I moved to Arizona more than four decades ago from a crowded neighborhood in the heart of Chicago. I have many wonderful memories of childhood, but I don't ever remember seeing the sky. That experience was one of the many joys of coming to Arizona. While still a teenager, I felt this to be a land of beauty, mystery, and freshness.

The past 40 years for me have been a time of intense involvement in the design of the built environment. Notwithstanding that I am no longer a teenager, Arizona remains for me a place of beauty, mystery, and on-going exploration, in which tomorrow holds the promise of something ever richer than the past.

When thinking about policy choices for the future, there is one consideration upon which all else depends. Will we make increasingly informed decisions and commitments to sustainable values, or will we become increasingly polarized with decisions based only on short-term costs? Will we foster a political process capable of making difficult choices with long-term benefits or will we be diminished by timid decisions and short-term compromises?

Everything I think and feel has been shaped on the field of battle. I know and love this state and that forms the basis of everything I have to say. I know first hand the difficulty inherent in forging community consensus. I've had that role in places like Kohler, Wisconsin, Sedona, and Fountain Hills, and for two years I directed a program known as "Scottsdale Visioning." My firm is currently under contract with the Maricopa Association of Governments to assist 26 municipalities, the county, and two Native American communities in the quest to achieve a shared vision for the future. My first large-scale encounter with the design and dialogue of the built environment occurred in 1973-74 as the planner for the 1040 acres surrounding the Arizona Biltmore Hotel in Phoenix. A more recent engagement has been the planning of the 8,300 acre DC Ranch in Scottsdale. Drawing from these and other similar experiences, I offer the following twelve observations to all who would think about the built environment.

- For planning purposes, we should assume that, for at least the next quarter century, the forces that brought most of us here will continue to attract people in record numbers.
- For political purposes, we should acknowledge that our rate of growth will inspire more demands for local and statewide initiatives to counter the technological and market forces that are shaping our land use and circulation patterns.
- The majority of news coverage and most initiative and legislative actions will focus

on the increasingly polarized stand-off between those defending their rights to develop “more of the same” and those vowing to “stop the insanity.”

- With respect to both our local and global histories, no one has ever succeeded in stopping growth, other than by way of death.
- Anything that can be easily measured will always seem most important. Familiar examples include setbacks, numbers of stories, density, population caps, and growth limit lines.
- While more difficult to measure, the most productive dialogue will focus on concerns of quality rather than quantity, the most basic being our “quality of life.”
- Quality of life discussions must go beyond personal preferences to include what can be learned from human settlements the world over, what has stood the test of time, and what hasn’t. We may disagree on color but we would be well served to avoid disagreeing on the laws of gravity. The most significant decisions regarding the design of the built environment are closer to the laws of physics than they are the vagaries of fashion.
- At its best “listening to the people” is the most comprehensively representative voice of the citizenry designing its own future. At its worst “listening to the people” can be a cover-up for a lack of political will, as well as an invitation for special interests to distort or even hijack the debate.
- The duality of the future requires that we understand the difference between the timely and the timeless. Political pressures are “timely.” What seems wrong today may turn out to be good for the community tomorrow. The reverse is also true. Also timely are codes, ordinances, and policies, all of which should be subject to change. What is timeless is the fact that this is a precious environment, much of which should be preserved, and of equal importance, all developed areas should be designed in keeping with the indigenous character of the area.
- As we grow in numbers we will all be called upon to cooperate far more than in the past. There will be an ever-increasing need for a regional vision. When we were few in number, it mattered little how we each lived. We are no longer inhabitants of the wild west.
- While technology can help, conservation of resources will continue to be mainly behavioral. Everything from reducing per capita water use to reducing the number of passenger miles driven will remain more a matter of personal choice and behavior than technological innovation.



- “To whom much is given, much is expected.” Arizona’s landforms and atmospheric effects constitute an environmental gift that we all enjoy. To conceive of anything but creating one of the finest built environments the world has ever seen would be an abuse of this remarkable place and time.

The Dialogue of Design

The successful design and development of our future will not spring off anyone’s drafting board or out of a computer. It will start in the hearts and minds of citizens who recognize that our future growth requires more than timidity, more than argument, and that it isn’t likely to be stopped. Anyone who says it’s too late to create a sustainable, beautiful future should simply be recognized as a non-participant.

The dialogue of design requires an ability to support incremental victories. Arizona’s environment is a living laboratory of cause and effect. Everything is being tried. Our imaginations, our technical skills, and our entrepreneurial willingness all exceed what our current confrontational dialogue permits or what outdated codes and ordinances allow.

Rich and varied plans can be too easily discredited in the arena of public debate. Community provisions, such as parks and school sites, neighborhood centers, paths and trails, varied lot sizes, and shared open spaces can be opposed in favor of the easier-to-approve provision of larger same-size lots which cover the entire site.

What should be appropriately narrow, topography-hugging roadways too often get engineered into excessively wide bands of paving with awkward straight and curved segments that sacrifice design artistry in favor of code-like clarity.

Public input and ordinance scrutiny are needed to eliminate the worst, but they can just as easily discourage the best. The result is a mediocrity for which no one has had to be accountable. Because we have so much of it, the mediocre now looks normal.

When we get past the unhelpful notion that “nothing matters but density,” we can begin to learn the lessons that surround us. Some streets feel better than others. Why? People walk more in some neighborhoods than others. Why? Some developments blend more with their natural settings than others. Why? Both nationally and globally, some communities maintain their values over generations. Why? Some people demand their rights because they’re “taxpayers,” and others contribute to society because they’re “citizens.” Why?

Where Do We Stand Today?

The inescapable reality is that it is the accumulation of our individual decisions and actions that ultimately becomes our shared experience. Older cities, like Chicago and New York, have urban forms that were established long ago. What makes Arizona’s emerging settlements so exciting is our uncommon rate of growth coupled with the fact

that our history is so recent. Everything needed to understand the evolution of our built environment has occurred within a single generation.

As we seek to understand our past while contemplating the future, we face two overriding choices. We can either judge ourselves by comparing what we're becoming to an array of existing older cities, or we can believe that what's happening here is an entirely new form of built environment. This new form neither imitates Los Angeles—which we say we don't want to become—nor the high density regions ringed with suburbs that typify traditional midwestern and eastern cities.

Some things we know with certainty. We have decentralized patterns with many urban nodes. We are a place that has difficulty imagining public transit becoming a major part of our life, and yet we have concerns that a total dependence on the automobile will lead to an unworkable future. Our road building will not keep pace with our population growth or our pattern of land use.

Envisioning the future would be easy if we could simply point to other places that we want to emulate. If that were possible we would have agreed to do so by now. In fact, we represent a unique opportunity with few direct or helpful comparisons to be found in other places.

Urban growth is high on our list of household topics. It dominates the news and will continue to do so, yet the answers we seek are all yet to be discovered. We are a space-loving people. Given the choice, we tend to prefer more land for personal use rather than less. We are an independent, freedom-loving people, not inclined to reestablish the core cities that so many of us came from. Rather than return to our past, most of us would say we've never had it so good.

Our feelings of being in a wonderful place are confirmed by the growing number of people who join us each year. Yet, few of us feel comfortable when thinking about what we are becoming. And while we may care mainly about our own neighborhoods and our own cities, many of our most significant issues are regional. Issues that have nothing to do with city boundaries include the financing of infrastructure, air quality, water supply, transportation, scenic corridors, drainage patterns, wildlife habitat, health and safety, and economic vitality.

As we look ahead, we must avoid being overwhelmed by the complexity of the future. Our task is to become better equipped with a deepened understanding of cause and effect while finding ways to inspire each other to give our best. Individually and collectively we are at a pivotal moment. Like it or not, great change is happening on our watch. We have little choice but to consider carefully any and all long-term commitments that are necessary for the well-being of this and all generations to come.



Reviving Cities: Think Metropolitan

Bruce J. Katz

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It's the new conventional wisdom: After 50 years of decline, American cities have been reborn as safe and exciting places, certainly to visit if not to live. Urban crime and unemployment rates are at their lowest since the early 1970s. City budgets once on the brink of collapse are routinely balanced. Downtowns left for dead now sport gleaming new stadiums, convention halls, entertainment centers, and residential complexes. The landscape of urban neighborhoods is changing as high-rise public housing comes down, entrepreneurs discover neglected markets, and the decades-old restorative work of community development corporations and local churches bears fruit.

There is much to celebrate in cities across the country. There is much to build on for the future. Yet any notion of a deep and sustained urban revival is premature. If you want to see the real center of American economic life, do not head to Times Square in New York City, or the Rock and Roll Hall of Fame in Cleveland, or Camden Yards in Baltimore. Instead, get in your car, because you will need one, and drive 10 to 25 miles out from downtown USA to the land of new suburban prosperity. Almost all of America's metropolitan areas are experiencing remarkably similar patterns of growth—a rapid conversion of farmland and open space to a dizzying array of housing subdivisions, shopping centers, and office parks. This decentralization of people, businesses, and jobs is the real story about America's economy and society. The positive signs of revival in our cities pale in comparison.

The Dark Side of Metropolitan Growth

These larger patterns of metropolitan growth are fiscally, socially, and environmentally damaging and unsustainable. The benefits of the new economic prosperity are not shared equitably. Rapidly developing new suburbs—built since the 1970s on the outer fringes of metropolitan areas—are capturing the lion's share of employment and population growth. These jurisdictions enjoy a nirvana of low taxes and high services as they limit the development of affordable housing and exclude families with moderate means (particularly racial and ethnic minorities) from living in their neighborhoods or attending their schools.

Caught on an unlevel playing field, cities and older suburbs find it difficult to compete with these new suburbs for businesses and middle-class residents. As companies and families move out, the tax bases of cities and older suburbs shrink, leaving these places without the financial wherewithal to grapple with concentrated minority poverty, joblessness, family fragmentation, and failing schools. (Older suburbs are defined as suburbs that grew most rapidly in the years following World War II, and that are located near central cities.)

The costs of sprawl, however, extend beyond the realm of fiscal disparities and racial and social separation. Increasingly, residents of new suburbs are reacting to other costs such as worsening traffic congestion, overcrowded schools, and diminished open space. And everyone in a region is affected when a sense of community disappears.

The current metropolitan growth trends are fueled by a complex mix of market forces, consumer preferences, and government subsidies and policies. The restructuring of the American economy and advances in technology have diminished the value of a dense urban location for certain businesses. Failing schools, the perception and reality of crime, bloated bureaucracies, and inadequate services have pushed middle and working class families out of the cities, and keep other families from moving in.

Yet these push factors are not the whole story. Federal and state policies continue to underwrite the expansion of new suburbs and the decline of cities and older suburbs.

Transportation expenditures disproportionately pay for the expansion of roads into the countryside, making new suburban commercial strips and housing subdivisions economically feasible, while existing infrastructure in cities and older suburbs is neglected.

Tax subsidies for homeownership disproportionately flow to new suburban jurisdictions, given the higher rate of homeownership in these places and the greater likelihood that suburban homeowners will itemize their deductions. These homeownership subsidies also affect settlement patterns by enabling developers to build bigger homes on bigger lots. Environmental and other regulations make the redevelopment of urban land prohibitively expensive, further tilting the economic playing field in favor of sites in the new suburbs.

Perhaps the worst thing that federal and state policies have done to cities and older suburbs has been to concentrate populations of poor people within their borders. Until recently federal housing policies focused almost exclusively on serving the very poor in neighborhoods isolated from the economic mainstream. Even federal housing vouchers—designed to give low-income families choices in the rental market—have been impeded by an administrative system organized around parochial political jurisdictions rather than the real geography of the metropolitan housing market. State laws compound the problem, allowing suburban communities to practice exclusionary zoning and bar affordable housing within their borders. This traps low- and moderate-income families in decaying inner-city and older suburban neighborhoods and denies them the benefits of good schools and good services.

These policies, combined with middle-class flight, mean that cities and their older suburbs are home to a disproportionate share of a region's poor people. The general



poverty rate in cities rose almost 50 percent, from 14.2 percent to 20.6 percent, between 1970 and 1995. Moreover, poor people are increasingly located in high poverty neighborhoods, which intensifies social problems. According to Harvard Professor Paul Jargowsky, the number of persons residing in high-poverty neighborhoods just about doubled between 1970 and 1990. Some 8 million individuals now live in neighborhoods where the proportion of poor people is over 40 percent. Nearly one third of these people are children; an overwhelming proportion of them are African-American or Hispanic.

The growing spatial isolation of the urban poor and the continued exodus of middle class families and low-skilled jobs to the outer fringes of metropolitan areas makes the rhetoric of comeback cities ring particularly hollow. In fact, the combination of these and other factors fuels a powerful dynamic of urban decline that is hard to break. Concentrated poverty is directly related to higher crime, failing schools, and additional demands on services. Addressing these challenges leads to higher taxes. Taken together, these conditions compel businesses and residents to leave for new low-tax suburbs and keep new businesses and residents from moving in. The flight of people and firms further concentrates poverty. And so the cycle continues.

The Federal Metropolitan Agenda

If cities are to have a chance in the new economy, the federal government, like the states, must get into the metropolitan game. It should embrace, encourage, and reward state and metropolitan efforts to enact and implement smart growth reforms. It should recognize the importance of instilling metropolitan thinking into federal policies and programs.

Fortunately, there are several signs that the federal government increasingly understands this. Since 1991, for example, the nation's transportation law—the Intermodal Surface Transportation Efficiency Act (ISTEA)—has given metropolitan planning organizations the responsibility to devise regional transportation strategies and some of the resources and flexibility necessary to carry out these plans.

Yet much more needs to be done at the federal level to reverse the polarizing trends we see throughout the country and create a level playing field for cities, older suburbs, and new developing suburbs. There are several opportunities this year to preserve or even strengthen the metropolitan role in federal policies. The recent reauthorization of ISTEA now shifts the federal focus to implementation and oversight. Congress is also moving to reauthorize housing and job training programs. All of these issues—transportation, housing, workforce development—cross jurisdictional lines and are natural candidates for metropolitan solutions.

Transportation

A smart federal metropolitan agenda will mean, first and foremost, realizing the potential of transportation policy to drive more responsible and sustainable growth patterns. The new transportation law builds on the original ISTEA framework—at funding levels 40 percent higher than existing law.

A good statutory framework, of course, is only half the battle. Since the enactment of the original ISTEA, few states and metropolitan areas have taken significant advantage of the ability to flex highway funds for transit and other purposes. Given this track record, many states and metropolitan areas may actually use the expanded resources in the new law to embark on expensive road-building projects in the new suburbs. If history is any guide, these projects will do little to relieve metropolitan traffic congestion. Instead, they will further undermine older established economies and accelerate the decline of another ring of suburbs.

The sad fact is that a business as usual culture still dominates many state and local transportation bureaucracies. In places like Chicago, governance remains balkanized among individual highway, transit, and planning agencies. In places like Detroit, separate urban and suburban entities administer the public bus system, impeding the ability of urban low-income residents to reach suburban jobs and economic opportunities. In many metropolitan areas, central cities and older suburbs are not fairly represented in metropolitan transportation decision making.

To achieve a metropolitan-oriented transportation policy, the federal government must finish administratively what it has started legislatively. The Department of Transportation needs to take an active, vigorous role in administering the law. It must specifically ensure that state and metropolitan transportation entities: (1) are governed in a fair and equitable manner; (2) welcome and respect community participation; (3) comply with civil rights laws in their operations and investments; and (4) make useful information about their funding decisions available regularly to the public. It must also give transportation agencies better guidance as they try to integrate transportation with other metropolitan priorities such as land-use planning, economic development, and welfare reform. Finally, it must develop analytic tools to assess the impact of large road construction projects on the economic vitality and social fabric of older communities.

Housing/Job Training

Congressional efforts to overhaul the nation's housing and job training programs also present opportunities for metropolitan collaboration. For example, the current housing voucher system—administered by a duplicative, fragmented set of 3,400 local bureaucracies—impedes the ability of low-income recipients to understand, let alone exercise choice in, a metropolitan housing market. Congress could remove these impediments by placing administrative responsibility for housing vouchers with



metropolitan entities (whether public, quasi-public, or nonprofit). At a minimum, Congress should require all housing agencies in a metropolitan area to have the same rules, which will make it easier for low income people to choose where they live, and help deconcentrate poverty in urban areas.

Congress should also accept the Administration's recommendations to give low income families greater access to suburban housing markets through stronger enforcement of anti-discrimination laws and expanded use of vouchers.

The existing workforce development system also does little to connect residents of urban neighborhoods to the opportunities in the larger metropolitan marketplace. As Congress considers the consolidation of dozens of job training programs, it must ensure a role for community institutions and intermediaries that perform job networking functions for residents who are isolated from the mainstream economy. Congress should closely examine some promising innovations in hard-pressed cities like Philadelphia and Newark, where community institutions are working with suburban corporations to identify regional economic sectors that face labor shortages (e.g., healthcare in Philadelphia, automotive repair in Newark) and devise recruitment and placement strategies that benefit metropolitan employers and neighborhood residents.

Long-term Goals

Federal efforts in transportation, housing, and job training represent a beginning, not an end, for national engagement. The bottom line is that federal programs rarely recognize the metropolitan realities of how people live. Over time, the federal government must provide incentives for parochial political jurisdictions to use federal funds in ways that promote metropolitan solutions and, where appropriate, give regions the authority to set their own priorities and the flexibility to apply federal programs and resources accordingly.

More importantly, the federal government must systematically examine the spatial impacts of major spending programs, tax expenditures, and regulations—beyond the policies mentioned above. Are central cities and older suburbs treated fairly in the allocation of all federal resources, particularly resources that attract substantial private sector investments and create wealth? If not, why not? Do federal regulations outside the environmental realm tilt the playing field against the redevelopment of urban land or investment in urban neighborhoods? If so, why? Answering these basic questions—and correcting policies that distort the market—will go a long way towards putting cities and older suburbs on an equal footing with their neighbors in the new suburbs.

Nine Steps to Growth Leadership

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Since its territorial days, Arizona has pursued growth and economic development with a passion. However, Arizonans are beginning to recognize that growth is a mixed blessing. Arizona is now facing the dark side of growth: urban sprawl, traffic congestion, air pollution, crime, violence, and a lack of regional problem solving. We offer nine steps that citizens and policymakers should take toward an effective growth policy for Arizona.

Step One: Clarify the Growth Problem

Growth management has to begin with an understanding of the problems associated with growth. Unfortunately, this is harder than it appears. Problems are constructed through our own understanding of reality. For example, environmentalists tend to see growth as a threat to habitat and talk about it negatively whereas developers usually view growth as a business opportunity and talk about it positively. As such interests in society diversify, policymakers find it increasingly difficult to clarify the growth problem.

Policymakers gain greater clarity and understanding of the problem by reviewing local and national studies on growth. For example, the Maricopa Association of Governments periodically has issued reports examining a variety of growth-related problems: *The Urban Form of Phoenix* (1975, 1995), *Peer Regions* (BRW, 1996), and *Valley Vision 2025* (1998). Morrison Institute for Public Policy published analyses of urban growth 1987, 1995, 1996, and 1997. The *Arizona Republic* and the *Tribune* published series on sprawl in 1998 and 1995 respectively. Neal Peirce issued reports on quality of life in the Phoenix area in 1987 and 1997.

National urban experts John DeGrove (1992), Anthony Downs (1989), and Nelson and Duncan (1995) also have provided valuable resource reports on growth. These national studies identify the following factors as causes of unlimited low-density growth:

- Dynamic economies create affluence that allows people to purchase single-family homes on large lots located far from their places of work.
- Warm climates and scenic landscapes attract people seeking active, low-density lifestyles.
- National transportation policy provides funds for highways that facilitate movement from central cities to suburbs and outlying areas.
- Federal mortgage programs support investment in new rather than old housing.
- Tax policy favors homeownership with deduction of interest paid on loans.



- Undervaluation of land increases land speculation and leapfrog development.
- Restrictive land use controls in urban areas make rural areas more attractive for development.
- Pricing policies for new infrastructure based on average costs rather than marginal costs encourage sprawl.
- Businesses favor low-rise workplaces in park like settings with large, free parking lots for workers.
- Many small but strong local governments in metropolitan areas protect local control of land use policy and complicate regional problem solving.

On the effect side of growth, the national studies identify the following impacts of growth.

- Traffic congestion increases as more cars move among homes, jobs, and other destinations.
- Air, water, and solid waste pollution increase with more people and industry.
- Communities compete to gain high revenue generators such as shopping centers and expensive single-family residences and avoid undesirable facilities like prisons and landfills.
- Central cities and older suburbs gain low-income households, while newer suburbs have more middle and high-income households.
- With little affordable housing in suburbs, distances increase between homes and jobs for low income people.
- Open space and agricultural land are purchased for development.
- Cities work to capture as many of the benefits of growth as possible and shift the costs of growth to other cities in the region.

These studies acknowledge that urban sprawl is neither an accident of nature nor an inevitable occurrence. Sprawl is the product of the actions of individuals, businesses, and governments. To change sprawl, policymakers need to examine which causes and effects of growth can be affected by policy.

Step Two: Assess Attitudes, Values, and Laws

Policymakers also need to assess growth-related attitudes, values, and laws in the state. Policymakers gain this type of information through surveys, focus groups, town halls, legislative actions, elections, administrative actions, and court rulings. This type of information helps policymakers assess whether policy options are politically feasible, administratively manageable, and legally enforceable. Such assessments have been conducted by universities, governmental agencies, the media, and private, nonprofit groups such as the Greater Phoenix Economic Council and Valley Forward.

Step Three: Develop Resources for Growth Planning

Effective growth management policy does not develop without effort and cost. Financial, technical, and administrative resources are necessary for effective growth planning to occur. Funding is required for research, planning committees, vision committees, public forums and consultants. Plus, dedicated financial resources are a visible demonstration of a community's commitment to planning for growth.

Technical resources are the basic building blocks of growth planning strategies. Technical expertise in a wide variety of areas is necessary: decision-making, mobility, environmental issues, urban form, citizen participation, politics, population and economic projections, and legal issues, to name a few of the specialized areas.

Administrative resources include coordination of efforts, communication with citizens, mechanisms for judging compatibility of plans, marshaling of resources, and legalities. Administrative resources frequently are invisible to the outsider, but such support is a crucial element in the success of growth management.

Step Four: Involve Citizens, Leaders, and Stakeholders

The development of effective policy requires the participation of citizens, leaders, and stakeholders. Without citizen support, the policy lacks legitimacy. Without leadership, the policy lacks vision, goal setting, and management. Without stakeholder involvement, the policy lacks political support and administrative feasibility.

To gain the support of citizens, policymakers need to involve them long before they ask for their votes on referenda and initiatives at election time. The forms of public involvement are limited only by our democratic imagination. The tests of citizen involvement are whether people have an opportunity to register their views and whether policymakers listen and take citizens opinions into account.

To gain the support of leaders, policymakers need to identify and involve them as early as possible in the process. A major challenge is to develop leaders who will identify with the "region" rather than just one municipality or interest group.

Stakeholders are individuals, groups, and organizations that have interests that can be impacted by growth management policy. Effective policymaking always requires involving those whose interests are affected by it.

Step Five: Improve Intergovernmental Coordination

Growth problems are regional problems, and as such, they cannot be solved by units of government working in isolation. Governments must work together to address the problems of growth. We believe that governments can work together more effectively if coordination of decisions, policies, and laws is improved.



Land use decisions in Arizona are made by a variety of jurisdictions: municipal government (for incorporated areas); county government (for unincorporated areas¹); state government (for state land²); federal government (for federal land³); Indian communities (for reservation land); public school districts; and by quasi-public entities. Additionally, various laws and regulations govern land use in Arizona, including U.S. laws,⁴ Arizona laws,⁵ Arizona Executive Orders, county ordinances, and municipal ordinances.

The Growing Smarter Act is an example of a program that transfers authority for land use decisions from local governments to the state level. When land use planning cuts across jurisdictional boundaries, coordination among jurisdictions becomes difficult. New governance structures that encourage cooperation are needed as is a higher level of trust among elected officials and community and business leaders.

Step Six: Envision Desired Urban Form

Arizona citizens, leaders, and stakeholders need to decide what type of urban form they want. Urban form is the look of a community, the way its elements fit together.

The Maricopa Association of Governments undertook an urban form study for the metropolitan Phoenix region in 1995. Four different scenarios were analyzed for their effects on mobility, air quality, infrastructure costs, and quality of life. During the projected 30-year period of development from 1990 through 2020, there was no significant change using any one of the scenarios. The conclusions to be drawn from this study appear to be that a longer time frame is necessary before the effects of the four scenarios take place.

Anthony Downs in his book *New Visions for Metropolitan America* discusses four possible urban forms: 1) unlimited low-density growth; 2) limited-spread mixed-density growth; 3) new communities and green belts; 4) bounded high-density growth.

Peter Calthorpe, author of *The Next American Metropolis*, proposes a *transit-oriented development* urban form that encourages individuals to walk and use public transportation. Urban transit-oriented development is located near major transit stations. It contains retail, office, and high-density residential uses. Neighborhood transit-oriented development is located further from major transit stations. It contains less commercial space and medium density residential. Secondary areas are further still from major transit stations. They contain single-family dwellings with minimal commercial.

How should Arizona regions decide which urban form is best for them? MAG and a number of Arizona cities have already embarked on “visioning” processes to determine the best, most desirable urban form.

Step Seven: Design a Growth Management Policy

Having clarified the problem, provided resources for planning, and constructed a process for envisioning a desired urban form, policymakers are prepared to design a growth management policy. Growth management is not a static practice but has evolved through at least three policy phases: growth control, growth management, and sustainable growth. Each approach to growth has spawned a set of tools and techniques for accomplishing its goals. (These phases and tools are discussed in John DeGrove's and David Berman's articles in this volume.)

Step Eight: Communicate, Build Consensus, and Authorize

Policymakers need to build consensus and a majority coalition of support for any growth management policy in order for it to be authorized and implemented. The policy process is a competitive marketplace of ideas and dollars. For a growth management strategy to succeed, it will have to be marketed and sold. Sponsoring policymakers need to campaign for it and discuss it with the press, media, and community and stakeholder organizations. The public and authorizing officials need to see growth as a problem that will worsen if nothing is done, but that is solvable by this policy proposal.

Policymakers have windows of opportunity for ideas whose time has come. It appears from many polls and reports and from the passage of *Growing Smarter* that the public sees growth as a problem now. Perhaps growth management is an idea whose time has come for Arizona.

Step Nine: Implement, Evaluate, and Oversee

Having enacted a growth management plan, policymakers need to ensure its implementation, evaluation, and oversight. Administrators must have resources and an organizational strategy to implement the plan.

Provisions should be made for ongoing evaluation of the plan through internal and external processes. Performance measures should be developed and monitored, and the burdens and benefits of the policy throughout the region should be explored. Agencies should be learning organizations that use information to self-correct and improve performance. Authorizing bodies such as the legislature should exercise oversight of growth management to ensure that policy objectives are being met and to make adjustments as they are needed.

Notes

¹There are 87 incorporated municipalities and 15 counties in Arizona.

²State land includes State Land Department land, state parks, Department of Transportation land, and Game and Fish Department land.

³Federal land includes Forest Service land, Department of Defense land, Bureau of Land Management land, National Parkland.

⁴Examples include the Clean Air Act of 1970, amended 1990; the National Environmental Policy Act of 1970; and the Clean Water Act, amended 1977.

⁵Examples include the Groundwater Management Code of 1980; and the Urban Land Act of 1982.



To Conserve Farmlands: An Amazing California Alliance

Neal R. Peirce

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It has to be one of the most remarkable grassroots alliances the nation has ever seen—builders and environmentalists, farm and business interests, forces historically at sixes and sevens, suddenly agreeing that overheated, land-consumptive growth needs to be corralled. The coalition has taken shape in Fresno, America's No. 1 farm county (\$3.3 billion in yearly farm sales). It's called the Growth Alternatives Alliance; its just-issued report is called *A Landscape of Choice*.

The message: unfettered, unplanned expansion is a deadly threat to the world's most productive agricultural region. Assertive action is needed to preserve farmland, establish an urban growth boundary, focus on compact urban development.

The Alliance's members include the Fresno County Farm Bureau, Fresno Chamber of Commerce, Fresno Business Council, the American Farmland Trust, and amazingly, the Building Industry Association of the San Joachin Valley.

Statewide, the builders oppose any or all ideas to limit the land they can build on. But Jeffrey Harris, their San Joachin Valley executive, says the *Landscape* report isn't for limiting growth; instead it shows the options to "entice" home buyers to make smarter decisions.

Clearly, this alliance doesn't expect to be brushed aside. It's boldly telling all the legislative bodies in Fresno County that it expects acceptance and enactment of its land-conserving platform during a "Build a Better Community Week" September 21-30. The local political establishment, rocked by over two years of "sting" operations and trials alleging private developer payoffs to politicians, may be in a poor position to resist.

There are also compelling reasons for Fresno County to look afresh—and hard—at its land use. Though its fields provide a phenomenally rich yield of vegetables and fruits, an avalanche of population growth is projected, from 776,000 people today to 2.5 million in 2040. Acre after acre of the precious farmland is being gobbled up. The American Farmland Trust, very active in the area under field representative Gregory Kirkpatrick, produced a 1995 study showing that if Fresno County's current low-density sprawling growth pattern continues, almost a quarter million acres of farmland, land that now yields hundreds of millions of dollars worth of yearly farm sales, would be lost by 2040.

Fresno and other Central Valley counties could face the rapid urbanization that dethroned agriculture, created wall-to-wall subdivisions, and destroyed agriculture in Los Angeles, Santa Clara, and other California counties that once flowered with crops and orchards.

“This time, there’s no more farmland over the hill. We can’t move agriculture (from the coast to the Central Valley) like we did last time. The Valley has a chance to be different—if we have the political will,” says Carol Whiteside, director of the Great Valley Center.

Urban growth boundaries are the Alliance’s most startling proposal. They would be open to change by local authorities, and not as air-tight as those in Oregon. Yet merely announcing growth boundaries would be a generation ahead of today’s “anything goes” or “Who financed my last campaign?” land policies.

Just as heartening are the complementary policies urged by the Fresno Growth Alliance. For example: New neighborhoods, built at the urban fringe, should be compact, transit-and pedestrian-friendly, with narrow streets. Existing neighborhoods should be retrofitted to create lively activity centers. Schools could become multi-purpose community service facilities, including child care, health and neighborhood parks. Across the region, downtown and village centers should be built up. All neighborhoods should have a mix of single and multiple family housing—an end, in other words, to single-price and single-class housing complexes. Zoning standards that limit heights, or require surplus acres of commercial parking, should go back to the drawing boards. Fresno’s business-environmental coalition has embraced, in short, most of the New Urbanist, community-friendly planning values developed in California and nationwide in the last decade.

Former Fresno Mayor Daniel Whitehurst suggests there have been some fascinating “positive discoveries.” On one side, “home builders have come to realize the importance of agriculture to the Valley’s future economy.” On the other, farmers have begun to see that revitalizing cities, introducing transit and master-planned communities, is “one of the best ways to curb urban sprawl.”

The “tough part,” Whitehurst notes in an introduction to *Landscape of Choice*, will come when real-life conflicts arise: a single-family neighborhood tries to shout down apartments next door, or a powerful farm family or builder is told “no” to development on “prime ag” land.

Those conflicts are inevitable, of course, in any community anywhere that gets serious about thoughtful land use. What’s exciting in Fresno County’s new Growth Alternatives Alliance is that major elements of the local “establishment,” business leaders included, are on board. Political leaders will find it a lot tougher to obfuscate or run for cover. Conversely, when they do stand up for wise land stewardship, they’re likely to find allies that were never there before.



Growing Smarter and the Citizens Growth Management Initiative: Early Lessons

Rob Melnick, Ph. D.

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In the first half of 1998, new ground was broken in Arizona's debate over what to do (or not do) about urban growth. An analysis of what happened during that time provides us with valuable lessons which we can apply as the discussion about the state's growth continues.

Last winter the Arizona Center for Law in the Public Interest, with support from several other organizations, stepped into the proverbial breach—and directly into the face of the business community—with the introduction of the Citizens Growth Management Initiative. This initiative made a *bold* statement and very publicly announced that “the people” have a new position on growth—enough is enough; Arizonans are not going to let unbridled growth continue to take its toll on that which they value about the state. Fundamentally, passage of this initiative would have planned, limited, and otherwise put an end to the way growth had historically occurred in Arizona's cities and towns and would give citizens substantial control over how their communities grow.

This was a sea change in the way previous policy discussions on growth had originated. For one thing, the initiative was clearly confrontational. It as much as said that the people were mad-as-hell-and-not-going-to-take-it-anymore. It was also draconian, by some measures, because it called for the establishment of growth boundaries around virtually every city and town in the state. And, its claims to represent the voice of the people were substantiated by public opinion polls that strongly suggested that Arizonans favored such an initiative and would vote for it if it reached the ballot.

The prospect that this initiative might pass into law created a very strong reaction among some business and political leaders. For one thing, they believed that growth boundaries would hurt business and economic development. For another, they thought that such a mandate was simply bad public policy and would create adverse national publicity for the state. And, they were distraught by the very notion that a group such as the Arizona Center for Law in the Public Interest was now setting the terms of the debate over growth.

So, the opposition took action.

Since the Governor had apparently been developing a legislative proposal to address urban growth *before* the citizens initiative became prominent, she joined with legislators to craft what came to be seen as an alternative—the Growing

Smarter Act. Compared to the citizens initiative, Growing Smarter is a much less aggressive policy response to urban growth (and virtually *prohibits* growth boundaries), but it addresses similar issues. And, it had very strong support from certain segments of the business community.

Both measures steered their way toward the public and its policymakers with much fanfare, but the citizens initiative didn't make it all the way around the track. Its supporters could not get the substantial financing necessary to collect the 170,000 signatures required to put it on the ballot. By contrast, a version of Growing Smarter ultimately passed into law, and one aspect of it will go before the voters as a referendum.

The key players spent a lot of time and money making their respective cases. There were perceived winners and losers and, thus, there were hard feelings over how this competition has turned out thus far. But, by any account, the democratic public policy process worked.

It is important to recognize the early lessons that emerged as a result of the collective actions of both sides.

More Players

As Growing Smarter was being crafted, the Center for Law in the Public Interest (and, by association, certain environmental special interest groups) was consulted for acceptability. This gave them direct access, by some accounts, to the political mainstream of the state without the threat of litigation. Prior to this, the Center and its concerns over the negative impacts of growth in the state had been much more marginalized. Thus, the political players on this issue expanded.

A Catalyst for Change

The citizens initiative precipitated the development of new public policy on urban growth. And, although the Center clearly takes exception to much of what Growing Smarter offers, the Act signaled an acknowledgment by the business and political communities that business as usual on urban growth was not going to cut it anymore.

A Different Debate

The fear that the citizens initiative could pass into law—and there is simply no other way to put it—helped many business and political leaders in the state recognize that the debate over growth had changed significantly and that their interests would be best served by figuring out new ways of dealing with growth issues. In short, business leaders and politicians were made to realize that working together with groups that want to slow or limit growth is perhaps the best



road map to the future. No longer is this simply a match of the business community's determination and financial resources versus the community's opposition: now, shared values will *have* to be explored.

The Role of Citizens

The business community and many "pro-growth" political leaders became acutely aware that the negative consequences of growth are very important to Arizonans and, given the chance, the people could very well *impose* their will. This is probably the most important lesson and the point of departure from now on.

Despite all its faults and perhaps a less-than-perfectly-level playing field, the system worked. Arizona's citizens, leaders, special interests, and the media all participated in a profound exchange of competing ideas, values, and standards. Such discourse is the basis for informed decision making and we are better off, and possibly wiser, about the growth issues facing our state, as a result.

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