

**UCLA EXTENSION PUBLIC POLICY PROGRAM
Annual Symposium Series on
THE TRANSPORTATION, LAND USE, ENVIRONMENT CONNECTION**

Growth and the Quality of Life

**October 24-26, 2000
UCLA Conference Center
Lake Arrowhead, California**

SUMMARY OF PROCEEDINGS

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Symposium Summary: The Transportation, Land Use, Environment Connection

THE FOLLOWING IS A LIST OF OTHER PUBLICATIONS IN THE UCLA EXTENSION PUBLIC POLICY PROGRAM'S SYMPOSIUM SERIES ON THE TRANSPORTATION, LAND USE, ENVIRONMENT CONNECTION:

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| December 1996 | ISTEA Reauthorization: Will It Refine, Redefine, or Forge New Policy Linkages ? |
| October 1995 | Putting Advanced Technologies to Work: Promises, Prospects and Policy Issues |
| October 1994 | Taking Strategies from Concept to Adoption to Implementation |
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| October 1992 | The Role of Pricing and Market-Based Strategies |
| November 1991 | Overview of Strategies for Making Connections Between Transportation, Land Use, Air Quality |

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FOREWORD

This report is a summary of proceedings from a policy and research symposium convened by the UCLA Extension Public Policy Program in October 2000 which examined the many issues of growth in the Western U.S., and especially in California.

The symposium was the tenth in an annual series convened to address the connections between transportation, land use, and the environment. Each year a specific theme is selected for detailed examination relating to the interrelationships among these three areas. Because of the major population and economic growth that is occurring, and that is projected to continue in the coming decades, Growth and Quality of Life issues were selected as this year's theme, and examined in the context of transportation, land use and the environment.

In 1997, we departed from prior symposia by introducing the economy as a "fourth prong" in the transportation, land use, and environment connection, focusing on the way our nation, state and local economies affect transportation needs, air quality impacts, and land use patterns. In 1998, we turned to examining economic changes expected into the 21st century, focusing on finance issues, specifically on how to pay for the future development and operation of the transportation system, and how the system of finance actually affects travel choices, land development, and environmental quality. Then in 1999, we examined the explosive growth in inter-regional passenger travel and transport of goods, along with the need for expansion of inter-regional transportation facilities and the implications for surrounding communities. Although growth and quality of life are broader and more diffuse topics, this year's symposium was viewed as a natural progression from what has been examined in previous years.

To ensure that the information and issues addressed in these programs are keyed to the needs of policy makers and practitioners, each annual symposium is developed with numerous representatives of the co-sponsoring and cooperating agencies and organizations involved with this series, which include governmental, business, environmental, and public interest groups. These organizations are identified in Appendix D of this report.

We'd like to acknowledge the special partnership that UCLA Extension has shared with UCLA's School of Public Policy and Social Research in developing this symposium each year, including the valuable contributions of our co-coordinator, Professor Brian Taylor in the School's Urban Planning Department. Special thanks also, to Dan Chatman and Lisa Schweitzer, who prepared this report. They are part of UCLA's Institute of Transportation Studies and Ph.D. students in the Urban Planning Department.

It is the hope of the symposium organizers that this, as well as the previous symposia that have been held will contribute to ongoing policy dialogues, and also to implementation of efficacious strategies for solving our transportation, land use, and environmental problems.

Joanne Freilich, Program Director
LeRoy Graymer, Founding Director
UCLA Extension Public Policy Program

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I. INTRODUCTION

Each year for the past decade, the UCLA Extension Public Policy Program has brought together decision makers, planning practitioners, and members of the academic/research community to spend three days engaged in a sustained, intense dialogue about the challenges they face. More so than any previous conference, this year's Transportation, Land Use, and Environment Connection Symposium centered on issues particular to the state of California. And with reason: over the next 30 years, California's population is projected to grow by about 20 million people from both immigration and natural increase. Although the particulars of the symposium applied primarily to California, the discussion transcended regional and state concerns to tackle a question at the heart of urban planning: *How can cities and regions – everywhere - accommodate new residents while protecting and even improving the existing quality-of-life?*

Housing new residents presents the first challenge. Given the floundering multifamily housing market—and neighborhoods that resist apartment complexes because of previous eyesores—one speaker predicts that Californians will face a housing shortage of 70,000 units a year. As new residents chase affordable housing, residential development spills from the urban areas into less developed areas, such as California's Central Valley, changing forever for both good and ill the Valley's rural landscape and lifestyle. As the crush for affordable housing pervades the state, developers who attempt master planned communities face bureaucratic delays, legal challenges from environmental groups, and ballot-box initiatives intended to protect local areas from the worst effects of unmitigated growth. Meanwhile development—even carefully planned development—has but a weak constituency among existing residents.

Affordability of both housing and personal travel takes on even greater importance when we examine the nature of the state's population growth. Many newcomers to the state will be recent immigrants, many of whom are young and need social services in addition to housing and transportation services. As regions disperse outward, existing communities of color also contend with spatial isolation from jobs and procedural inequities in growth management decisions. Polycentric city forms and dispersed development, along with variable neighborhood characteristics, further complicate the provision of mobility for low-income urban residents.

Countering the need to accommodate new residents is the equally compelling need to protect California's unique natural resources from the ravages that accompanied previous development. Wildfire destruction, utility crises, air quality well below federal standards, and scarcity of drinking water are likely to become more prevalent as consequences of human encroachment, overbuilding, and poorly planned development.

Fiscal sustainability, too, preoccupies local elected officials scrambling to serve their existing populations, manage growth, and protect their vulnerable (and erratic) revenue streams. Given existing property tax constraints and the increasing dependence on sales tax revenue, elected officials are encouraged to compete for commercial development in their own jurisdictions while trying to shift housing provision to their neighbors. In part because of these fiscal incentives, the idea of compact growth, touted as a solution to the environmental and fiscal stresses of dispersed development in many areas, is rarely reflected in land development.

Within this context, growth forces California's cities to look outside their borders. As individual cities grow, they agglomerate into regions, and sooner or later regional facilities such as airports and highways can no longer adequately serve the area's population. Cities face a “prisoner's dilemma:” if they were to cooperate, they would all be better off, yet cooperation and investment

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in a regional government seems a threat to their individual sovereignty and self-interest. Nevertheless, there are fledgling attempts at regional governance throughout the state, as local elected officials and state bureaucrats begin to forge partnerships.

This document contains the many stories about growth and development presented during the three-day symposium held at Lake Arrowhead, California from October 24th to 26th, 2000. Each of the ten sessions is presented in a separate section, with each speaker's contribution presented in order, followed by an account of comments and questions during the discussion period afterwards. Insofar as possible, we have presented this material without editorial comment or alteration.

Throughout the proceedings, it is evident that participants disagreed— strenuously, at times— about the proper ways to plan for growth. More important, however, was what the participants shared: their determination to make the most of the opportunity to forge better, more equitable ways to do so.

Dan Chatman
Lisa Schweitzer

II. Symposium Proceedings

Joanne Freilich opened the 2000 UCLA Extension Lake Arrowhead Transportation/Land Use/Environment Symposium with a summary of the series. Each year, the series focuses on a specific theme or topic that connects the three topic areas of transportation, land use, and the environment. In the previous nine years, it has examined topics such as finance, economics, interregional transportation, and goods movement.

This year, at a time of increasing attention to the large forecasted population growth in California, this symposium focuses on growth and its effects on transportation, land use, and the environment. The symposium is a unique opportunity to explore these types of issues, as it brings together policymakers, practitioners, and academics away from their day-to-day fray to engage in a sustained dialogue about urban and regional issues. She stressed that partnerships between academics and practitioners were a key part of the series, as reflected in the list of people who have been involved in its development.

Freilich encouraged the attendees to share their responses and comments (interaction of this kind is why this is called a symposium, not a conference) and to enjoy both the formal dialogue in the sessions and the informal, private discussions. Freilich noted that although there are numerous presentations grouped into sessions, there are no stand-alone topics; all presenters and attendees are encouraged to make connections between topics throughout the symposium.

SESSION 1: SYMPOSIUM OVERVIEW—THE NEXT WAVE OF GROWTH: SOMETHING NEW OR MORE OF THE SAME?

Brian D. Taylor, Associate Director, UCLA Institute of Transportation Studies and Associate Professor of Planning

Taylor noted that past years have been much more focused on a transportation-related or environment-related topic. This year's topic, growth, is more diffuse, but nevertheless must be discussed with reference to the nexus of transportation, land use, and the environment. This year's topic is also a bit more parochial than usual; in the past, the focus has been mostly on a national scale, and in this case the presentations will tend to occupy themselves with growth issues in California.

The scope of the symposium has three parts:

1. **Causes.** What social, economic, political, and technological factors will shape future patterns of investment, development, and human activity in California?
2. **Consequences.** How will this growth and change affect prosperity, urban form, travel, and environmental quality?
3. **Coordination.** How can the planning and finance of land development and transportation be effectively linked to mitigate the social and environmental costs of growth?

Over the next few decades, growth in California will equal the current population of Texas. Where are we going to put all these people (20 million Texans)? Where will they live, how will they travel, where will they work, and what will that mean for the environment?

California is already by far the most populous state. As an economy, California is substantially larger than many other countries, including Russia; as a country it would have been ranked ninth

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in gross domestic product in 1997. The rate of population and job growth has increased over time, quite quickly, and it is predicted to continue at a high rate.

While the projected increases in population are remarkable in absolute terms, they are less so in comparison with the growth history in the state. In past years the *rate* of growth has been substantially higher. Between 1850 and 1860, for example, there was a tenfold increase in population in California. In comparison, between 2000 and 2050, the Census Bureau projects that California's population will increase somewhere between 10 and 20 percent each decade.

The consumption of agricultural land and open space continues to be a concern in California, but comparing the state to nations around the world still makes California look fairly well off. It is not as dense as many other places.

California's growth is, in fact, fairly close to the world average. The growth rate is higher than the North American or European averages, but substantially smaller than average rates of growth in Africa, Latin America, and Asia.

To finish his contextual introduction, Taylor briefly reviewed California trends in population in relation to vehicle travel. In the past, households in California have tended to own more vehicles and make more trips, as more people move to low-density areas. In suburban areas, there are more trips and the implications for the environment are fairly clear.

Planning for growth presents a conundrum. Population, employment, and travel are expected to increase dramatically in the coming years—which potentially threatens the “quality of life” in the region. But if we do not welcome this growth with infrastructure investments and environmental mitigation, we will chase away new jobs and residents—which would also threaten the region's “quality of life.” Normative definitions of quality of life are important in resolving this paradox. Under what conditions does increased population growth have positive effects? If growth increases overall prosperity, how is this prosperity distributed? A presentation later in the day on “just growth” would address this latter question in some detail.

Understanding these issues requires, among other things, that we understand the impacts of technology on the value of proximity and the whole notion of access. The advantage of centrality does seem to be declining, and suburbanization continues apace. A related question is, how does an increasing rate of technological change affect relatively static land markets? A session on demographic and economic change will address some of the issues embedded in these questions.

Growth in California poses long-term challenges to land use planning and comprehensive planning, particularly given rapid, incremental changes in business technology and management. Ad hoc development problems can arise if we don't manage growth. Monday morning's session would address dispersed vs. compact growth (using case studies of Las Vegas, Nevada and Portland, Oregon) and their differing institutions and culture. A subsequent presentation on California's Central Valley would take up the theme of growth management.

On Monday afternoon, the larger question of institutional organization in relation to the management of growth issues would be taken up. On Tuesday, the symposium would turn to the environmental consequences of the effects of growth, followed by a look towards public finance and politics about growth and planning.

SESSION 2: DEMOGRAPHIC AND ECONOMIC CHANGES: HOW MUCH? WHAT KIND? WHERE?

Brian Taylor (Moderator), Associate Director, UCLA Institute of Transportation Studies and Associate Professor of Planning

William A.V. Clark, Professor of Geography, UCLA

Genevieve Giuliano, Professor of Urban Planning and Development, School of Policy, Planning, and Development, University of Southern California

John Landis, Professor of City and Regional Planning, UC Berkeley

This opening session examined recent past trends and future predictions for major population growth, economic change, and urban development in the West, with a particular focus on California. The presentations addressed the scale and spatial character of demographic growth, the changing character of jobs and employment, and land development implications.

William Clark began the session by asking - Where will all the new Californians live? In his presentation he focused on five topics: the global demographic context; how California is changing; why we anticipate so much growth; what that growth will look like; and where all of the growth will go.

From 1999 to 2010, the significant gains in world population will be in Africa, China, and Asia, driven in large part by high fertility rates. Despite its declining fertility rate, China will still add 200 million people in the next two to three decades, while India will pass China as the country with the largest population. As a result, California will likely experience increasing migration from places that up to now have produced relatively small flows of immigration.

The U.S. population is aging. As the age distribution matures, in 2020 the distribution “bulge” will be more pronounced at older age levels. However, at the same time there will be significant immigration composed of younger age groups. By 2030, the distribution will take on the classic rectangular structure of postindustrial society. The U.S. still has an expanding population at the younger portion of the age spectrum. Furthermore, older people in the U.S. are much more active than people in this age group were in the past. The changing age distribution has implications for budgetary priorities, education systems, and labor markets.

The growth in California needs to be put into perspective: it’s not new. There have been other growth booms, caused by the dustbowl migrations, post-World-War-II internal migration flows, the baby boom of the 50s and 60s—and every time there has been tension over these in-migrations.

In 1999, California had 34.1 million people, about one-eighth of the US population. By 2020, the state will have 45.4 million people, an increase of 34 percent. This growth rate is 1.8 times the anticipated national rate. By 2030, there will be 50 million Californians, with an increased share of the population composed of Hispanics and Asian-Americans. This will not be the same California as just a few decades ago; instead the state will be a mosaic of minorities. By 2020, the population will be 40 percent Anglo, 39 percent Hispanic, 15 percent Asian/Other, and 6 percent African American.

Clark noted that the population of public high school graduates will begin to reflect this diversity much sooner than the general population (in about eight years time), because the lower end of the age spectrum is largely nonwhite. In Los Angeles County, the Hispanic population over time will have a more pronounced bulge at the lower age groups; this is the opposite of the white non-

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Hispanic population, which is experiencing a pronounced bulge toward the top of the age distribution over time. Clark also pointed out that in the future this contrast in the age makeup of different ethnic groups will be associated with clashes over governmental spending priorities; for example, disagreements over whether budget surpluses should be spent on public schools or medical care for the elderly.

California receives about 30 percent of all immigrants arriving in the U.S. This is not only due to the economic opportunities and the networks of previous immigrants. California's image of freedom and flexibility, its apparent ability to change, to bounce back from recessions, is also quite attractive to newcomers.

Migration and fertility will continue to drive the growth of California's population. Between 1990 and 1998, the total population change in California came almost entirely from natural increase and from net foreign migration. What California will look like in the future will depend on the interplay between net foreign in-migration, natural increase, and net domestic migration. Retiree migration out of California raises issues about where growth will occur. Many more counties will have ethnic pluralities by 2010, including much of the Central Valley.

As for future regional growth, there are really two geographic areas in California. The urban cores will continue to grow, but 40 percent of the growth will occur where only a fifth of the population is located now. The Central Valley and its hinterland will receive about 2.2 million new residents, mostly in communities that have not received much growth up to this point. The other major new recipients of growth will be Riverside and San Bernadino counties, where about 2.3 million new residents are expected.

Where will the new residents work? Clark sees expanding edge cities as the likely answer; this has been the trend so far, and Clark sees little likelihood that the trend will change. The tension pulling apart the metro areas is likely to continue. In the end, dispersed centers will proliferate throughout the metropolitan areas.

Clark finished his comments with a caveat regarding growth prognostication, noting that forecasts during the past century have often missed the mark.

Genevieve Giuliano spoke on the changing nature of work in the context of "the new economy," and its consequences for transportation and land use in California. Much more powerful information processing and communications, and recently the emergence of the World Wide Web, represent an almost-revolution in community and interaction.

Among firms in the new economy, we have seen rapid growth of information technology-intensive industry sectors. This has been accompanied by rapid changes in industry structure and the technology of production. The way that products are manufactured and distributed in the new economy has shrunk the supply chain, with effects on freight flows throughout the country.

The nature of work in the economy is also changing. There is greater reliance on labor "flexibility," such as contract work, other kinds of temporary or short-term work, mobile work, and self-employment. With these come both high job mobility and high job uncertainty. In this context the "knowledge worker" has become more important and more advantaged.

There are two sets of theories about how all this will affect urban form. The first set claims that the new economy will *increase centralization*, because:

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- 1) No substitute exists for agglomeration/clustering when in technological innovation. Face-to-face contact, the creative milieu, and informal networks remain highly important. As the role of innovation increases in the economy, because of its increasingly technological focus, agglomeration might become even more important than it has been in the past.
- 2) History matters: urban areas have been in place for centuries, and they have the advantage of scale economies with the most highly-skilled workforces, as well as the advantage of infrastructure that allows communication and transport, such as the largest airports.
- 3) The largest cities are control centers of the global economy, in the sense that they contain many of the headquarters and decision-making complexes for the largest corporations. Thus, the argument goes, larger cities will have a continuing advantage and will continue to grow, increasing overall centralization.
- 4) Cities are centers for culture, the arts, and academia, and more broadly are generators of an “urban culture” which is in fact the origin of what has been called “cyberculture.” Cities retain a singular and arguably increasing attraction for people deciding where to live, as well as for cultural production firms such as film and media companies, fashion designers, and so on.

The second set of theories claims that *dispersion* is the inevitable result of the new economy, for several reasons:

- 1) There are numerous “agglomeration diseconomies,” such as traffic congestion, that make it increasingly expensive for firms and residents to locate in urban areas as those areas grow and densify. Meanwhile, virtual networks and the declining cost of communications continue to make living away from these areas easier for some firms and individuals. Another agglomeration diseconomy, from the firm’s perspective, is that labor costs in urban areas tend to be higher.
- 2) High-skill knowledge workers, who are particularly in demand in the new economy, have preferences for rural low-density living environments. If so, then employment will be drawn to urban fringes and rural areas, and more dispersion will happen. So called lone-eagle entrepreneurs may be an example of this.
- 3) The advent of the so-called “virtual economy” implies that the distinction between physical places and virtual places is declining with the mobility of capital and the decentralization of the decision-making process. The mobility of routine work means that many kinds of work can be located anywhere on the landscape, including abroad.

These competing theories raise a number of questions. At what geographical scale—cities, metropolitan areas, regions—do agglomeration economies and diseconomies occur? Which parts of industrial activity are sensitive to agglomeration economies and which are not? If we believe cities will continue to grow with lower average densities, is the pattern going to be one of dispersion (uniformly lower densities) or decentralization (a multiplicity of smaller centers)? In the global urban hierarchy, will some cities (such as “global cities”) have different roles? Will the benefits of the new economy impact cities unevenly? And finally, what does regional advantage or disadvantage consist of?

Giuliano turned to an analysis of growth in metropolitan statistical areas (MSAs) to investigate the question of whether agglomeration or dispersal seems to be the trend in the U.S. She sees no

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definite trends in average annual private employment growth in MSAs versus non-MSAs. Since 1992 there has been more private sector employment growth in non-MSAs; but that has turned around in the late 1990s. She also looked within metropolitan statistical areas, at large MSA core counties, large MSA non-core counties, and small MSA counties. Since 1992 the large core counties were behind the other two, but recently started to catch up. Giuliano concluded that the U.S. trend is not toward either agglomeration or dispersion, but toward both, depending on such factors as location and scale.

Turning to transportation, Giuliano pointed out that competing theories of the effects of the new economy on transportation are related to questions of urban form. Does increased availability of communication act as *substitute for* or as a *complement to* interactions between firms and individuals? This question is unresolved and there are arguments on both sides.

What do the data show about this question? Nationwide and in California over the past decade, total personal travel has grown as a function of the growth in gross national product, at a higher rate than population growth. Interestingly, while the growth in road vehicle miles traveled and total employment track very closely from 1981 to 1998 in California, air traffic substantially outpaces employment growth. These data imply that the new economy is at least as dependent on transportation as the old one, at least so far. It is hard to believe anything other than that transportation demand across all modes is going to continue to increase.

What does all this mean for California? Agglomeration economies are still very important. Silicon Valley is an important example of this. The continued importance of agglomeration means that growth will continue to cause housing shortages and localized congestion, which would be mitigated somewhat if the economic tendency was towards purely dispersed growth. However, within the urban regions that attract much of the growth, we can expect continued development of the fringe and a premium placed on high quality “rural” locations.

Finally, Giuliano predicted that demand for high-speed travel modes will increase, particularly air travel. Thus, from a transportation perspective, accommodating growth while preserving quality of life will be an airport problem as much as a highway problem.

In his presentation, John Landis spoke about the implications of rapid growth for the planning processes in cities, suburbs, and rural areas of California, focusing on projected shortfalls of housing production to accommodate growth.

California has added about five million people every decade for the past several decades. Unless there is some severe economic downturn, the state will reach a population of 43 to 47 million people by 2020, or between 15.5 and 17 million households. According to the forecasts, 60 percent of the household growth will happen in Southern California. Although the absolute amount of growth is higher in the metropolitan areas, the rate of growth is higher in places like the Central Valley. As a result, growth will feel like it is happening faster there.

The demographic makeup of the state is also changing. We have in-migration from other countries, so that we have a more square (rather than pyramidal) age distribution. Further, many ethnic groups are moving into suburban areas.

In order to create reasonable growth policies, we have to know whether we can even accommodate the projected growth physically. Unfortunately, there is evidence that homebuilding is lagging demand, especially in regard to multifamily housing. In California, single family and multifamily housing construction have historically followed the business cycle,

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But during the most recent expansion, while single family housing construction has increased, multifamily construction has not kept pace. So there are predicted shortfalls. If the projected new households are to live in houses, the state needs about 220,000 new units of housing per year; we have only seen that level of construction four out of the last 20 years. In fact, construction has been running at about half of the projected need, and so serious shortfalls in housing supply are occurring throughout the state.

The reasons for the shortfalls vary by region. For the coastal regions, there is a shortage of developable land because of environmental constraints and disincentives to infill development. In the Central Valley, the constraints come from the conflict between growth pressures and agricultural land uses.

Roughly one third of the demand is in multifamily housing. But the market for multifamily housing is in bad shape, because there is a significant rent gap. The cost of providing a rental unit in a multifamily building is much higher (estimated at \$2,200) than the maximum rent you can get (about \$1,200). As a result, the market provides almost all very high-end or very low-end rental units; there are almost no middle market rents.

Infill development faces severe challenges as well. Using a simulation model, Landis showed that two-thirds of total new demand could be met by infill development, but developers can face fairly severe losses so that the feasible amount of infill development is only about 70,000 units.

Further complicating the process of responding to growth are lengthy land development processes. Developers face significant delays and uncertainty, and not due to the building permit process. Evidence shows that the Streamlining Act has worked. However, it has shifted the uncertainty to annexation (an open-ended process) and permitting. Residential initiatives are another wildcard to add to the uncertainty. Finally, capital improvements finance and planning are a mess. Cities rely too heavily on impact and development fees, and there is almost no long-term planning for infrastructure improvements.

The evidence shows that California's urban areas will increase their urban footprint even with housing shortages. They will continue to grow outward spatially in fairly dense layers, something Landis refers to as a "dense onion" pattern of development, reflecting the fact that California is the least "sprawled" state after Utah. But the dense onion development form is problematic because those people who live on the inner layers of the onion face reduced access to open space as people build around them. Also, the dense onion pattern overstresses infrastructure that is scaled to the previous layers.

Landis's simulation shows some substantial expansions of the urban footprint within the existing urban form. The issue in the Central Valley will not be absolute amount of growth, but the rate of growth and conflicts with current lifestyles in the Valley.

DISCUSSION

Discussion in this session drew from myriad aspects of the speaker's comments. Participants were interested in drawing attention to the growth issues in San Diego, technology, and affordable housing.

Art Madrid, Mayor of the City of La Mesa, asked why the presenters did not focus on San Diego in their presentations. John Landis responded that San Diego can be treated as a separate region, but in some respects it is fairly well integrated with Orange County and the Inland Empire. Also,

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San Diego is less hospitable to Central American immigration than Los Angeles County. San Diego is not expected to add nearly as much population as other areas of California. It is not as land-constrained as Orange County and LA, but it is becoming more land constrained, which points toward a future infill pattern of development. William Clark responded that San Diego County is simultaneously one of the top ten agricultural counties and also one of the major urban areas in the state, and is projected to grow to 4 million in the next two decades.

Pam Slater, a San Diego County Supervisor, noted that San Diego is unique; not only is it the fourth largest agricultural producer in terms of income, but it is also the laboratory for the NCCP, with a great deal of multi-species conservation and many wetlands. San Diego is trying to determine where to go in terms of growth management. A recent ballot measure to establish urban boundaries failed at the ballot box, but it will return to the ballot and may pass in the future. William Clark responded to the issue of turning away growth by noting that the City of San Diego saying that is not going to accommodate growth is a little bit like King Canute. It doesn't matter whether you decide to accommodate, the growth will come anyway. John Landis agreed with this assessment, pointing out that 60 percent of growth is natural increase, not immigration. He agreed that the area will start to run out of land more quickly with species conservation. Landis also noted that many areas resist growth because of the quality of new development; if we are to house the new increment of population, the construction industry has a responsibility to produce a better product less likely to offend the neighbors. But in the meantime houses are getting bigger; you see 3,000-square-foot single family houses on 4,000-square-foot lots.

Tom Horan, Claremont Graduate University Research Institute, changed the direction of the discussion by asking a question about telecommunication and transportation. He asked Genevieve Giuliano to respond to the idea that telecommunication is stimulating more efficient productivity and transportation. Giuliano said that better communication allows for more efficient use of all inputs, such as transportation. The transportation input per package is declining. Of course, as productivity increases, prices will go down, then we'll consume more; so the net effect isn't clear.

Tim Keenan, Council member from the City of Cypress, added that three years ago home grocery delivery was hardly heard of, and now homegrocer.com is ubiquitous. He wondered if this trend was more or less efficient. He then asked a question of the panel: Will increases in the cost of gasoline affect drivers? Genevieve Giuliano responded that the cost of fuel relative to income is the real issue, not nominal increases in price. Even with most recent price hikes, the price of gas as a share of the total price of travel (including cost of time) is actually pretty small. Also, demand for travel is highly inelastic in the short run. So she would not expect a dramatic effect. John Landis noted that 90 percent of urban growth in his model was explained primarily by two factors: the proximity of highways, and the availability of flat land, in every period, regardless of the price of energy. Over the past 30 years, gasoline price hasn't had much of an effect on spatial development patterns in California.

Finally, Steve Zimmer, Executive Vice President, Newhall Ranch Company, asked the panel to characterize the need for affordable housing and how this demand could be met. John Landis answered that 2 to 2.5 million households need affordable housing right now and can't get it. If nothing changes, that number will go to 3.5 million in the foreseeable future. William Clark responded that his book *California Cauldron* published in 1998 takes up the issues of population and housing in some detail.

SESSION 3: JUST GROWTH OR “JUST” GROWTH: THE LINKS BETWEEN LAND DEVELOPMENT, TRANSPORTATION, AND PROSPERITY

Don Shoup (Moderator), Professor and Chair of Urban Planning, UCLA

Martin Wachs, Director of the Institute of Transportation Studies and Professor of City and Regional Planning and Civil and Environmental Engineering, UC Berkeley

Evelyn Blumenberg, Assistant Professor of Urban Planning, UCLA

Carl Anthony, Executive Director, The Urban Habitat Program

In his presentation, Wachs discussed the history of transportation technology and urban density. With the industrial revolution, cities became dense and congested. Workers walked to work, and residential densities increased as manufacturing grew in importance. Urban densities became outrageously high by today's standards. In some parts of New York City in the 1800s, densities reached 700 people per acre. There was “people congestion,” i.e. crowding, not traffic congestion.

In the 1830s in Paris, a group of businessmen began to charge people for rides on horse-drawn wagons along certain boulevards. Thus public transit was born, and the idea caught on. In the United States, the cities of Boston, Philadelphia, and New York had public transit routes as early as the 1830s. But the fares were higher than the average worker's daily wage. Some affluent people, such as doctors, lawyers, and industrialists, used the new service to move their residences away from the congested inner city. The press for suburban development, at least for the elite, had begun.

Suburbanization was seen by people of all walks of life to be the solution to most urban ills. In 1909 at the first meeting of what would become the American Planning Association, Jane Addams and other social workers urged that suburban life should be an option for new immigrants, to speed their integration into American society and avoid the vices and disease of the central city.

The automobile became commercially viable even before the cities finished building the rail lines that they were so anxious to use to decentralize the urban cores. New York was so crowded and congested that auto ownership could only grow in the outlying suburbs; there was no place for cars in the central city. In contrast, by 1920 auto ownership rates in LA were ten times those of New York. This was possible as a result of the lower densities that were the streetcar's legacy. Lower densities were not, according to Wachs, the *result* of automobile ownership; they were the *cause*. As time went on, of course, we developed new suburban communities and lower densities away from the rail lines as well as adjacent to them, and the automobile made it possible to provide more uniform development patterns, unlike the streetcar suburbs that had been more clustered at transit stops.

Planners often maintain that the automobile created the suburbs and lowered densities. In contrast, Wachs argued that the automobile and rail lines, and the availability of piped water and centralized sewage treatment, *all* made suburban locations attractive.

Patterns of urban growth suggest that the relationship between mobility—whether provided by rail or by car—and density has always been pushing development in one direction: outward, towards lower density. Since the 1970s, a new generation of public intellectuals has tried to push the relationship between mobility and density the opposite way. While urban congestion and density were formerly thought to be the problem, urban critics now decry that sprawl is the problem. Sprawl creates air pollution, squanders energy, induces traffic congestion, gobbles up

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natural and agricultural spaces, and fosters residential segregation. And the solution proposed is higher urban density—a return to a denser, richer mix of land uses in city centers and urban growth boundaries to contain sprawl. To a generation not familiar with the hundred-year history of urban form and change, the problem has become the solution and the solution has become the problem.

Many of the speakers to follow, Wachs said, will argue for concentrating development and fostering growth at higher densities at transit stations. We are urged to invest in rail lines rather than highways because rail can move many more people per track mile than highways do per lane mile. And along with higher densities, the investments in rail, people tell us, will be far more efficient. But the historical evidence shows that *any* investment in transportation capacity or telecommunications tends to lower the cost of the travel and disperse residence. Wachs cited work done by Anastasia Loukaitou-Sideris that showed the City of Compton, predicted to have a urban renaissance and a residential and commercial growth center following the building of the Blue Line, shows no concentration of new development of *any* type at *any* Blue Line station. Another study done by Randy Crane and Marlon Boarnet studied development at many rail transit stations and found little or no land use changes. John Landis, Bob Cervero, and Betty Deakin studied BART and found that with the single and very important exception of downtown San Francisco along and south of Market Street, there has been little response in urban form at BART stations throughout the metropolitan area.

Wachs concluded that central cities are not dead or dying, or even in deep crisis. The successful ones are remaking themselves as centers of culture, tourism, business, and conventions. In regions where mobility is ubiquitous, can we really, Wachs asked, reverse the hundred-year trend toward lower density and suburbanization? A hundred years ago, our biggest mistake might well have been physical determinism, the belief that lower density could be the single most important lever in creating quality of life and economic progress. We now know that belief was misguided. Creating higher density and mixed uses, and urban limit lines, can be seen as a similar kind of physical determinism.

In contrast to Wachs's historical presentation, Evelyn Blumenberg presented a relatively recent story about metropolitan development and social equity in an era of rapid growth. She then connected this story to the question of transportation policy for the economically disadvantaged.

Blumenberg prefaced her remarks by noting that three years ago, academics and practitioners were trying to explain increasing income inequality. In July 1997, Laura Tyson wrote an article in the *Washington Post* in which she identified “two disturbing long run trends: stagnant or failing real earnings for the majority of workers and increasing income inequality among workers and households.” But more recently, the widening income divide between rich and poor is in remission. For example, according to the U.S. Department of Housing and Urban Development *State of the Cities 2000*, central cities have received a favorable share of the employment expansion in the last decade.

Blumenberg cautioned against getting lost in these aggregate measures. Across neighborhoods, metro areas, and ethnic groups, there are gaps in income. One can't assume the market will solve these problems of poverty and inequality; nor will the economic expansion last forever.

Declines in poverty and unemployment rates since 1993, as well as increases in median earnings, have been shared across ethnic/racial groups. The previous trend of real income decreases for men has also turned around. And central cities since 1993 have seen larger declines in poverty rates than non-central cities and non-metropolitan areas.

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No matter how it is measured, income inequality grew from the 1960s to the 1990s. But since the mid-1990s, Gini coefficients have remained relatively flat. While recent trends are hopeful, income inequality is still higher than at any other time in the postwar era. Poverty rates by group still have a long way to go before equality. Blacks have a poverty rate three times as high as white non-Hispanics. Most cities have much higher unemployment rates than the national average. One in five cities suffered significant population loss during this period, and one in three had poverty rates of 20 percent or more. In California, many central cities (including Fresno, Los Angeles, Salinas, and Stockton) have unemployment rates exceeding 7 percent along with poverty rates higher than 20 percent.

William Julius Wilson's work on Chicago described the characteristics of U.S. central cities from 1970 to 1990, including out-migration of the middle class; weakened financial and institutional resources; joblessness; increasing concentrations of poverty; growth of an urban underclass; and a spatial separation between the poor families living there and jobs located in the suburbs. Many of these characteristics still persist today, at least to some extent, in central cities across the United States. But for some cities, such as Los Angeles, these characteristics are not so pronounced.

What is the role of transportation policy in addressing social equity problems associated with central cities? Blumenberg's research on transportation and welfare-to-work is relevant here. Welfare recipients fluctuate between labor market participation and nonparticipation. How does availability of transportation enable their participation? In a recent press briefing, President Clinton stressed the importance of transportation in the context of allowing low-wage workers to own cars under welfare rules, saying "Transportation is critical to matching work force to jobs."

Welfare participants may not face a substantial spatial mismatch between home and work in Los Angeles, where the average commute of participants is 7 ½ miles. Although one can argue that more people would find jobs if they were nearby, Blumenberg believes that most low-wage job opportunities are in fact located in and around the central city, in large part because job openings are created through job turnover far more than new job openings. This is true in Boston as well.

Furthermore, in Los Angeles, most welfare participants live within a quarter mile of a bus stop. Most participants in Fresno also have good access to a stop. The major transportation problem for welfare recipients in these areas is borne by those who are reliant on public transit and do not live in job-rich areas. The commute from Watts to downtown Los Angeles is about 12 miles, which is a long and difficult commute on the bus. With a car, that commute isn't nearly as hard. As a result, most welfare participants use a car to get to work.

This suggests that targeting of transportation services could be done based on neighborhood characteristics. Within the dichotomy of job-rich and job-poor, there are also transit-rich and transit-poor areas. In job-rich, transit-rich neighborhoods, it makes sense to pursue transportation policies such as enhancing capacity, increasing off-peak service, and implementing distance-based fares. In job-poor neighborhoods, better bus service is probably not the answer. Other types of transportation service, such as non fixed-route service, auto ownership, and housing mobility programs or job development, might make more sense. Another example is providing subsidies for residential relocation, something that Los Angeles is trying out.

Blumenberg concluded by saying that there is no simple solution to the access problems that low-wage workers face. Effective policies should combine auto and transit strategies, depending on the location and characteristics of the neighborhood. The rising tide has lifted many boats, but we have a long way to go, and transportation programs ought to be in the mix of efforts to help people find and keep jobs.

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In his presentation, Carl Anthony addressed opportunities for and barriers to just and sustainable urban growth. He noted that advocates of urban growth boundaries and other growth management policies seldom address the effects of displacement and gentrification associated with their adoption.

At a number of locations in the San Francisco Bay Area, such as Hunter's Point, the Mission District, and East and West Oakland, a lack of housing affordability has been caused by growth constraints. Anthony echoed John Landis's observation that there is generally great local political resistance to infill development. When it comes to plans for transit oriented development and inner city development, residents want to have control over their neighborhoods and not permit it.

Fragmented decision making, lack of a metropolitan civic culture, and other problems of this kind influence social justice through a restriction on process; this can be thought of as procedural justice. There is no institutional process to allow fully inclusive regional decision making, which reflects a lack of procedural justice. The fact that there is no forum for many people in which to debate these issues is another problem of procedural justice. For example, the attendance at this symposium does not reflect the demographic makeup of the state. In addition to its implications for social justice, this fact also reflects a deficit of intellectual capital.

Another important issue of social justice that relates to just growth is the restriction of access to transportation and transportation planning. This has been a central element of the civil rights struggle for more than a century, since 1896 (*Plessy v Ferguson*). The 1964 *Brown v Board* decision had its inception in funding inequities for school buses. The Montgomery bus boycott gave rise to the career of Martin Luther King. The construction of freeways through disadvantaged communities and subsequent mobilization, as well as recent participation by communities of color in sustainability and environmental justice debates, are recent examples.

Spatial disparities between communities of color and job opportunities need to be addressed. But spatial mismatch is not just about jobs and residences. It includes spatially complex trips to multiple destinations and locations, such as taxi trips to the supermarket.

Emerging trends give us hope that there may be opportunities to pursue social justice and sustainable urban development. For one, confrontations between suburban communities and communities of color provide an opportunity to explicitly raise issues of procedural justice.

Second, there is increasing corporate interest in addressing social justice and environmental policy. In the Bay Area, the Santa Clara Valley Manufacturers Group and the Bay Area Council are committed to sustainability and social justice, as corporate interests are realizing that regions with large pockets of poverty aren't as competitive.

Third, there is growing awareness that suburban constituencies are not monolithic. Anthony has worked with Myron Orfield on a study of economic conditions throughout the nine-county Bay Area region, and they found a pattern of racial polarization, consisting of intensifying poverty in central cities (San Francisco, Oakland, and San Jose) as well as poverty spreading to suburban communities. Thirty-six of 97 mature suburban communities are declining socio-economically. In 1990, 12.2 percent of the region's children lived in poverty. In Oakland this figure was 32.1 percent. Twenty-six suburban cities had poverty rates greater than 10 percent. They found similar statistics with percentages of female-headed families.

Anthony made the following final observation and comment. As planners and decision-makers talk about the future of our cities, we tend to underestimate the role of people of color. This has

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lead to many surprises in the past. The migration of African Americans after the war, the destruction of legal apartheid and its effects on the metropolitan structure of the south, and the inner city rebellions of the 1960s with their effects on the inner cities, including urban abandonment, are all examples of ways that people of color have changed the regional landscape. Communities of color need to be taken into account in talking about the relationship between sustainability and urban justice.

DISCUSSION

A lively discussion that focussed on urban space followed the formal presentations. Lewison Lem of the U.S. Environmental Protection Agency agreed that Wachs's contention that compact development is ineffectual in addressing sprawl-related ills may hold at the *aggregate* level, but there are important elements about the potential for New Urbanism at the smaller scale or project level. It's true that the effect of compact developments on air quality is unclear. Similarly, new heavy rail investment may not have had an impact on the form of urban development in the aggregate. But some of the new policies are really still in process and we don't really know how they will work. Transit oriented development (TOD) is a good example; the EPA is working on trying to discover to what extent TOD might impact air quality at the *project* level; and if there is enough TOD, whether there would be a regional impact. Wachs responded that he is sympathetic to those approaches in principle, but as a researcher, he is skeptical based on the existing evidence. It is disturbing that people think we should extend the Blue Line to Pasadena on the basis of a potential, unproven economic development benefit. We should make good on what was promised to south central Los Angeles with the first investment before we sink billions of dollars into new investments.

Michal Moore from the California Energy Commission wanted to explore how increased globalization and the fast rate of startup and burnout among startup companies pull jobs outside the central city, where business can find easier access to land and capital. What does this mean for transportation and growth? Wachs replied that Moore's comments are entirely consistent with the trends that both Genevieve Giuliano and John Landis discussed in an earlier session. We will continue to see business concentration to some extent, but that there will be opportunities for new businesses and innovation at the edge. Those beliefs are fairly consistent with the existing trends; as a result, there seems little hope that businesses will re-concentrate exclusively in the center cities.

Norm King of the San Bernardino Associated Governments took issue with Carl Anthony's statement that newer cities are more racially exclusive. Inter-marriage between racial groups in middle-class, edge cities provides an example of how new cities may be more diverse than older cities, because the scale of places like Los Angeles leads to spatial isolation between groups.

SESSION 4: THE EFFECTS OF RAPID CHANGES IN INFORMATION TECHNOLOGIES ON THE FUTURE FORM AND FUNCTION OF CITIES

Don Shoup (Moderator), Professor and Chair of Urban Planning, UCLA

William J. Mitchell, Dean of the School of Architecture and Planning, Massachusetts Institute of Technology

Moderator Don Shoup introduced the evening's speaker by remarking that the last time William Mitchell came to Los Angeles, it was to discuss his book, *City of Bits*, the first book published in

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paperback, hardback, and on the web at the same time. He said it was a very good book, even if it failed to discuss parking.

Mitchell said that it has been six years since *City of Bits*, a comparatively long time in the digital world. When he wrote the book, there were no dot-coms and no Internet billionaires. When MIT Press offered the book for free on the web, people told them they were crazy, because no one would buy the book if they could get the text for free online. But the MIT Press found that the exact opposite was true. Readers previewed the book online, and as a result, they were willing to buy the book. It turned out to be the MIT Press bestseller that year. The online and printed version complemented each other; the physical book was a nice thing to carry around, and the online version was searchable and cross-referenced. The *City of Bits* experience illustrates a fundamental point about the unexpected complementarities between the physical and the virtual: in the digital world, there are no simple substitutions of one technology for another.

Digital networks are a new kind of urban infrastructure, similar to other types of infrastructure like water supply and waste disposal. Often digital infrastructure replicates the routes and nodes of earlier networks. For example, El Camino Real in Palo Alto is one of the oldest links of urban infrastructure in North America. It is a route originally put into place to connect missions and small settlements, and it later became an automobile route. A few months ago, Mitchell noticed a concrete scar on El Camino Real. The scar was due to the placement of a high-speed fiber optic backbone straight down that old route.

The consequences of digital network infrastructure mirror those of previous infrastructure networks. They selectively loosen spatial and temporal linkages among activities to produce the fragmentation and recombination of building types. Some traditional types disappear, while others are transformed, and new neighborhood and large-scale spatial patterns emerge. Digital information infrastructure is the latest wave in decentralization, transforming the character and distribution of urban activities as they fragment and recombine. And digital infrastructure does privilege some people (those with access) over others.

How should we be thinking about these issues? Mitchell suggested that, based on a cost-benefit calculus, people choose from different kinds of communication/interaction with an increasing economy of “presence”: local synchronous, synchronous dispersed, semi-synchronous dispersed, and asynchronous dispersed.

Architects and urban designers used to worry exclusively about local synchronous activities centered on face-to-face activities, in places like the traditional nine-to-five workplace. Because of digital technology, many activities have become dispersed. The Internet and the World Wide Web are dispersed and asynchronous—the opposite of the infrastructures that facilitated those local, synchronous activities that were traditionally so important.

The new asynchronous infrastructures affect markets, organizations, and communities, resulting in new patterns of fragmentation and recombination. Contributing to this wave of fragmentation is what Mitchell described as the miniaturization and dematerialization of many artifacts of daily life. Examples include music technology. Listening to music at home used to require a large, unwieldy vinyl disk. Then a compact disk came along. Now all you need to listen to music is a small computer file. There has been a separation of the music from its material substrate. In the long term, this has enormous implications for transportation, as transportation costs reinforce miniaturization and dematerialization.

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According to Mitchell, several things contribute to the selective loosening of spatial and temporal linkages:

- Digital networks,
- Miniaturization and dematerialization, and
- Large-scale sophisticated control systems that integrate transportation and distribution.

Looser spatial and temporal linkages cause many contradictory things to happen. Some activities become decentralized to achieve wider coverage or get to larger markets; others centralize to achieve economies of scale, and information spillovers. Still other activities float freely to take advantage of labor or technology.

To provide a concrete example, Mitchell showed how the urban bookstore fragments and recombines. Shakespeare and Company on Paris, for instance, has a banner, a prominent location, and a book display. Books are actually stored there, and the commercial function occurs face-to-face. But what happens with Amazon.com? It has decentralized and dispersed some activities, such as browsing and purchasing, to any place that has an Internet connection. But Amazon has centralized other functions, such as distribution and storage. Amazon has national distribution centers, such as that found in Alliance, Texas.

What have these technologies done to work space? The American invention of the high-rise office tower was premised on clustering information resources and workspaces at a central location. But work patterns are becoming more complex, as work tools and information become available electronically. Full-time telecommuting is not particularly widespread, but work patterns have become much more flexible. As a consequence, we are seeing many interesting new forms of architectures. There is a building in Palo Alto, for example, with a ground floor housing dot-com companies, and an upper floor with apartments inhabited by the youngsters who run the dot-coms downstairs, riddled with futons and smelly socks. This arrangement is essentially a reinvention of a pre-industrial building type in the post-industrial world: the shop house, with the craftsman living atop his shop. At a micro scale, we have begun to link together work space, public space, and living space.

As a result, new living patterns emerge with some common themes, including

- Recombination of home and workplace,
- Home as an intensified delivery site,
- 24-hour live/work neighborhoods (reinvention of the professional neighborhood), and
- Small-scale local environments with global connections.

Delivery of goods has become more prevalent in the new economy. Online ordering is asynchronous and convenient, but delivery requires schedule coordination. So some places have developed specialized receptacles for package delivery. In some high-density housing structures in Singapore, there are digitally controlled lockers on intermediate, social floors.

Digital technologies also mean that traditional public spaces may no longer be as attractive as a focal point for interaction, and we have a shift to dispersed (private) rather than focused (public) interaction. These are enormous urban design challenges. The new digital infrastructure is producing already observable, important effects of fragmentation and recombination—new patterns of urban space. Urban design has traditionally focused on land use, established building types, and transportation. The rise of digital communications forces us to redefine the scope of urban design. Urban design in the Internet Age will have to contemplate new building types as well as land use, telecommunications as well as transportation, and also control systems. This offers new opportunities for sustainable relationships between urban and natural systems, through

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taking advantage of dematerialization, demobilization, demand management, and smart consumption.

In this context, the quality of place matters more than ever. New locational freedom intensifies rather than reduces demand for very special, high-quality places. The quality of place is increasingly important to urban and regional competitiveness—to an area’s ability to attract and retain highly mobile talent. An emerging urban model exploits the attractiveness of intense, urbane areas, such as South of Market in San Francisco, SoHo in lower Manhattan, and downtown Seattle. Interestingly, Amazon’s corporate offices occupy a large amount of office space in downtown Seattle. Why? Because the people that Amazon needs want to be in downtown Seattle. Another model is the scenic recreation model. There are fashionable French villages scattered around Paris where high-end knowledge workers live, because they value the qualities of those environments. Places like Aspen have developed in this direction. Majorca is making a pitch to be a center for research and development based on electronic work connections. People are not indifferent to place; unique attractions are more powerful than ever.

The ways that digital technologies work cause different problems and potentials in different places. Technologies selectively advantage some areas over others in several dimensions:

1. Global vs. second tier and third tier cities;
2. Cities with cultural and recreation attractions vs. those without such attractions;
3. Exporters of talent vs. importers; and
4. Nodes in new transportation patterns vs. backwaters.

Mitchell concluded by saying that now is an extraordinarily fun and exciting time to be thinking about what buildings, homes, and neighborhoods should be like. He stated that he has developed his ideas on this topic further in his new book, *Etopia*.

DISCUSSION

Although it was late in the evening, Mitchell’s talk motivated participants to discuss governance issues in the digital community. Madelyn Glickfeld, UCLA, commented on the equity issues that Mitchell raised. She expressed discomfort with the lavish corporate office buildings that the “talent” enjoys compared to the dismal conditions of back office labor. Mitchell responded that she was correct in her observation, and that new technology tends to be inequitable, as the wealthy are always able to afford to use it before anybody else. Technophiles are wrong-headed in thinking that technology is going to solve our equity problems.

Norm King, San Bernadino Associated Governments, asked if there were any reasons why “e-tailers” are not taxed like everybody else. Mitchell said he could not speak to the normative aspects of this question, but that the major problem with sales taxation is that the points of purchase and sale are dispersed, so that it is unclear which jurisdiction should get the tax revenue. Following up on the tax question, Genevieve Giuliano asked Mitchell to describe his perception of government’s role in the new economy. Mitchell said that government has been at the forefront of all these digital technologies. Packet-switching research, done by the Department of Defense and funded by the federal government, enabled the efficient use of supercomputers. The National Science Foundation played an instrumental role in development of the Internet and the World Wide Web, and then once the research had been done, left private companies to implement it. Mitchell said that these are examples of how government-sponsored research leads to innovations that become appropriated in unexpected ways, and that he expects this to continue.

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Rebecca Long of the Legislative Analyst's Office asked Mitchell to talk more about how he perceives the consequences of telecommuting. Mitchell responded that people tend to have one image of telecommuting—the employee working from home. But the actual behavior varies significantly, with people working on their laptops with wireless modems in airplanes and taxis, as they go to and from conferences like this one. The important point is that digital technology has transformed work habits; people are able to work closely with people they spend very little time with.

If this is true, LeRoy Graymer wanted to know, what holds digital communities and relationships together? Mitchell gave an example from MIT. AreaNet is a huge digital library that has created a collaborative digital workspace for researchers. The site is heavily trafficked, and those using the site hail from many countries. Essentially, the digital environment provides an area for informal, intellectual interaction that sustains the community. At the same time, MIT engaged in a huge building effort to increase the opportunity for face-to-face interaction in laboratory settings, to foster work-related synergy. With the advent of digital technology, face-to-face interaction becomes more formal—more special. These interactions are saved for important occasions.

In response to Mitchell's description of AreaNet, Dean Mysczinksi, California Research Bureau, asked about the future of libraries. Mitchell said that libraries' roles are shifting. There has been proliferation of valuable digital contributions to libraries, but information storage has decentralized. Encyclopedia Britannica, for instance, offered its product on CD, and it failed. So they now offer the information for free on the web with advertising to generate revenue. Despatialization will be a challenge for libraries, but the social function of libraries remains as important as ever.

SESSION 5: A TALE OF TWO CITIES: GROWING INWARD IN PORTLAND AND GROWING OUTWARD IN LAS VEGAS

Brian D. Taylor (Moderator), Associate Director, UCLA Institute of Transportation Studies and Associate Professor of Planning

Randall Crane, Associate Professor of Planning, UCLA

Kenneth Dueker, Professor of Urban Studies and Planning and Director of the Transportation Studies Center, Portland State University

David Calkins, Senior Policy Consultant, ENVIRON International Corporation

Brian Taylor reviewed the previous day's discussion and previewed the remainder of the symposium. The morning's session would examine the links between transportation and land use in two very different contexts: Las Vegas, a fast-growing, very auto-oriented city, and Portland, a city that has consciously tried to recreate the moderate scale and densities of a streetcar suburb.

Randall Crane began his session by listing a number of problems and challenges associated with growth: economic impacts, decentralization, intra-regional competition for tax base, income segregation, pollution, inner-city tax base degradation, fiscalization of land use, loss of community sense of place, and traffic. Crane made four observations about the growth management discussion:

- 1) The differences between dispersed and compact growth are many, complex, and confounding. There are distinguishable features of each form of growth in the abstract, but real-world development usually combines features of both.

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- 2) Planners understand less about the differences between compact and dispersed development than commonly supposed. Although there are clear differences between urban forms, we don't really have a good handle on the relative merits.
- 3) Planners seldom have enough information to give advice about the qualities of these forms in the abstract. So we are rarely informed sufficiently to favor one urban form over another without careful consideration of *local* facts.
- 4) Public officials tend not to like observation #3: they want the bottom line.

Popular planning solutions to growth are usually applied at the level of a specific development project, and include various best practices to address each set of urban growth problems, such as transit villages, urban growth boundaries, and fiscal impact fees. Also offered as solutions are broader governance themes. Prominent among such themes is "smart growth," which can be described as a set of best planning practices combined with a planning process having features of participatory deal making and transparent decision-making. Finally, planners have looked to design themes, featuring the New Urbanism, which includes pedestrian scale in neighborhood design, mixed use land development, and compact development. New Urbanism has been extremely popular because it has promised to address very tricky questions of traffic control and congestion. The proposals for walkable developments have a certain intuitive appeal. Whether we continue using these "solutions" depends on the long-term community vision.

Also, these solutions come with their own set of problems. It turns out that figuring out the actual costs and benefits of land development is very tricky. As John Landis pointed out during his talk, we have a working assumption that residential development does not pay its own way. But large development companies certainly don't think that way, and from an empirical perspective, it is far from clear that our assumption is true. Who actually pays the taxes: do current or future residents pay the taxes? What about the ability to shift taxation? There is much research to be done.

Among the most popular of the solutions mentioned by planners is denser, compact development for suburban areas, such as the village scale concept advocated by Peter Calthorpe; the promotion of infill development; and the adoption of urban growth boundaries. But some of these strategies appear to have outcomes opposite from those intended. Urban growth boundaries can make housing prices higher, not lower. And the traffic benefits of these proposed solutions are also unclear. Can you design things so that people drive less? Research shows that the links between compact development and traffic benefits is very weak.

Key ideas to keep in mind when evaluating development proposals include:

- **Cause and effect.** Planners want to know *what* is going to happen and *why* it is going to happen. Orange County, for example, has fairly compact development by suburban standards, and it is getting more and more compact. The reason for this is the land market relative to demand, not planning policy. Understanding cause and effect means disentangling the role of demand for land, land supply, and regulatory policies within the local arena, as much as possible.
- **Equity.** Once we know what is going to happen and why, we can look at the distribution of the costs and benefits of the growth. Understanding the winners and the losers in the growth game is not normative; it's just trying to figure out what is going on in the world. Deciding what to do *is* a normative, political process.

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Next the session moved to a presentation by Kenneth Dueker on growth in Portland. Portland is one city that has very much tried to demonstrate the cause and effects between land use and transportation. The context for growth management in Oregon is unique. No other large metropolitan area has such a strong land use planning authority at the state level, or such a strong regional government. The Land Conservation and Development Commission (LCDC) sets the policy for the Land Conservation and Development Department, which in turn manages the Oregon statewide land use system. The system focuses on protecting farms and forests through exclusive zoning, comprehensive planning, and urban growth boundaries. The Portland Metro regional government covers 24 cities in parts of three counties. Also exerting a powerful influence on Metro activities are the 1000 Friends of Oregon, who have been instrumental in keeping pressure on state and local governments to stick to the land use planning system.

The Transportation Planning Rule (TPR) in Oregon is a unique policy adopted in 1990, calling for a 20 percent decrease in vehicle miles traveled, and a 10 percent decrease in parking spaces. Metro has striven to meet this goal, and has gone through all kinds of planning and modeling processes to try to implement it. With very heroic assumptions about street connectivity, reduced parking requirements (and pricing), Metro's forecasts end up with a 1 percent increase in VMT, rather than the target reduction. So it has to go back to the LCDC to get allowances for best efforts.

Dueker displayed a map demarcating areas that are constrained for growth and areas of "urban reserve" that have been targeted to be brought within the urban growth boundary as needed. There was a lot of controversy over which of these urban reserve areas would be called in for development. Most of the urban reserve is in the southeast part of the metropolitan area, on what are called "secondary" lands, where there is not much market demand. Meanwhile there has been a great deal of demand in the high-tech areas of Hillsboro and Beaverton, but the LCDC has remained firm in its resolve that the secondary lands must be used before any other land is brought in.

Portland residents are concerned about growing congestion and housing affordability. On the Texas Transportation Institute congestion index, Portland ranks higher than Los Angeles, Sacramento, Seattle, or the U.S. average. Portland is also growing more rapidly than average with regard to housing prices. At one time, Portland was the most affordable city on the West Coast, but this is no longer true.

From 1980 to 1990, Los Angeles and Seattle increased their share of transit for commute trips. In Portland, the commute transit share decreased. However, Portland's economy was slower. Transit ridership gains have been about five percent per year, a 30 percent increase from 1993 to 1998. This rate is faster than the rate of population growth.

In the 2000 Regional Transportation Plan (RTP), Metro did two things that were rather unusual. It relaxed level-of-service (LOS) standards for measuring congestion, and it made some non-single-occupant-vehicle mode choice assumptions that bear examination. The RTP added only about 9 percent to its highway supply in lane miles, but planned a 50 percent increase in transit hours of service. Transit trips are growing by about 100 percent, but auto trips also are predicted to grow by 2 million in this 20-year period. Congestion in peak periods, even with a relaxed LOS assumption, is expected to increase from 198 miles to 684 miles, a 284 percent increase. Congested hours are expected to increase from 7,764 to 51,000. The total transit trips are predicted to increase from 172,000 to 388,000, but that is really only an increase from 3.5 to 5 percent in mode share.

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Does the urban growth boundary work to curb sprawl? Yes, it provides a hard boundary. And no, because it is moved every five years in order to ensure a 20-year supply of vacant land. Also, a lot of growth is being diverted to satellite communities outside of Portland. Portland has not confirmed any savings in urban infrastructure or service delivery costs due to compact development. In fact, higher density development downtown and along the light rail has been subsidized. The subsidy, people argue, is needed to ensure structured parking and high-rise construction, but the marketability of projects is not sufficient to overcome these costs. In short, Portland not been able to confirm the assumptions on which smart growth is based.

Finally, Dueker referred back to the discussion about whether compact development appeals to a niche or large market. Portland is building about 100 units in compact developments per year compared to thousands of permits. To the extent that Portland concentrates on the central city and does not try to reform the suburbs, compact strategies will probably work. But there continues to be a strong commitment to light rail, transit-oriented development, and closely managed growth despite the poor performance to date. In fact, the poor performance is seen as reason to redouble growth management efforts through high occupancy or toll lanes. But Portland doesn't have HOV lanes; it is poorly positioned for this option, having invested so heavily in light rail.

David Calkins began his presentation by noting that unlike Portland, the environment in Las Vegas favors growth. That environment has helped Las Vegas become by any statistical measure the fastest growing large metro area in the country. The City of Las Vegas lies within Clark County. Since 1940, the county population has doubled 82 times. Since 1980, it has tripled. During the 1990s, Clark County grew by 87 percent; the only comparable county in the country was Riverside, and it grew by only 30 percent. In 1996 32,400 units were permitted in Clark County, the same number that were permitted in Los Angeles, Orange and San Bernardino Counties combined. Housing prices have gone up 10 percent in the past year, and every 15 minutes, a new home is completed in Las Vegas.

Before beginning his description of Las Vegas from a governmental perspective, Calkins noted that all of the individuals he interviewed had a sincere desire to require good planning and careful development. They knew about the consequences of the rapid growth on the environment. That said, however, accommodating growth was the priority, and planners shared the belief that growth was inevitable and infinite. To planners in the area, money is the only limiting factor on growth. Clark County officials take pride in their speed of permitting compared to California. To sum up, one official said that "there is little regional thinking, but lots of regional action."

From the developer perspective, Las Vegas has an active homebuilder's association that is quite influential. It is willing to be part of the solution in reducing air pollution problem, and was very involved in the PM₁₀ discussion in the mid-1990s. Several of the stakeholders interviewed for Calkins' study talked about the "Nevada attitude" that surrounds and reinforces growth. The attitude sanctions gambling and prostitution in the name of capitalism, opposes taxes and regulations, panders to entrepreneurs and developers, ignores environmental concerns, and defies the federal government. However, Calkins said, he had to temper those observations with his sense that developers have a strong sense of civic pride.

After Proposition 13 passed in California, Nevada switched from property taxes to sales taxes as the major funding source for local governmental programs and services. Casinos and resorts provide the preponderance of local government funding, and residents expect casinos and resorts to subsidize the greatest share of growth-related costs. There is a confidence within the casino and resort industry that whenever there is a challenge to be met, local leaders will step up to the plate and handle it, whatever the problem. One example was when a federal sanction threat occurred

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over air quality. Developers put together a special task force to create PM₁₀ standards for the county. They hired a consultant to help them write the regulation, then they gave it to the county. Now that regulation forms the basis of the state's PM₁₀ implementation plan.

In terms of air quality, the EPA index has placed Las Vegas as the fifth-worst in the nation. The city is noncompliant with several pollutants, including PM₁₀ and carbon monoxide (and probably for 8-hour ozone, too, if EPA is allowed to set that standard). Three PM₁₀ plans have been rejected by EPA, and sanction clocks are ticking. Part of the problem is that air quality management is split between two agencies. The county health department has the regulatory responsibility, and a completely separate part of the comprehensive planning department has the responsibility for plan development.

Nevada Senate Bill 432 set up a subcommittee to investigate the many complaints about Las Vegas growth, and required an audit of Clark County and its growth, air pollution management program, future air pollution levels, funding for air quality programs, and regulatory effectiveness. Calkins' team interviewed 17 government officials, 13 members of the business community, three active citizens, and seven staff members working in both air quality divisions. It found considerable inter- and intra-agency stress between the comprehensive planning and air quality management agencies. These stresses have undermined public confidence. The study team recommended that these agencies should be consolidated into one agency held accountable for both policy and regulation.

In September 2000, the study team released its findings to the state legislature. The plan was approved by the six agencies that had to approve it, and now the proposal goes to the legislature. Since then, the air pollution control director and his deputy have resigned, as did the chief of the air quality division of the public health department. The state legislature has resolved to step in if Clark County cannot get its act together on environmental policy.

Future growth in Clark County is not predicted to slow. As long as there are open tracts of land, there will continue to be huge master-planned developments. Gated communities are extremely popular; Las Vegas has the highest percentage of people living behind gates and walls of any city in the US. Not unlike other areas, citizens have formed committees to analyze growth problems, but no one wants to suggest controls. A local state senator tried to establish an urban growth boundary, but that, too, failed to pass. Very recently, the Urban Land Institute suggested five steps for regional government in Las Vegas. Though the area is already working on the second step, regionalization is years in the future.

DISCUSSION

Ralph Bauer, City of Huntington Beach, and Peter Herzog, City of Lake Forest, both took issue with Crane's assertion that residential development may pay off for cities. Bauers stated that under Proposition 13, California takes \$7 million a year in property tax from Huntington Beach. Citizens clamor for more services and more capital-intensive projects, so cities try to attract big box retail, auto dealers, hotels, gated communities, office and industrial to increase their sales tax revenue. Everyone thinks housing is a money loser. Herzog stated cities are expected to do 30-year planning to look at growth and growth management, but cannot do it because of what the state has done with property taxes. It is counterintuitive to do long-term planning based on an unreliable source of income. Crane responded by saying that the question about who pays what sales taxes and whether housing in a community is "worthwhile" is not an open-and-shut question. Commercial developments, too, are sometimes difficult to evaluate in terms of their

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fiscal impact. Much depends on the situation in the local community, and it is not possible to generalize that housing is always a loss, or that commercial ventures make the cash register ring.

Pam Slater, San Diego County, returned to the problem for cities and counties, who are expected to provide services when the state takes away property tax revenues. This is a big problem that needs a ballot proposition. A second issue is that cities court big box stores, and they don't think it is fair to share the revenue with other jurisdictions that are providing the customer base for those stores. Slater also responded to Dueker's comments about the subsidies required for compact development, stating that the City of San Diego has had 4,700 housing starts downtown with no visible subsidy, except for infrastructure.

Slater also asked Dueker to talk about why Portland is experiencing increased congestion. Dueker responded that Portland has congestion because it is overinvesting in transit and underinvesting in roads. Crane added that residential density increases traffic congestion. When densities occur in Orange County, it's just market-driven; it is part of the cost of growth. But in cases where the densities are regulation driven, it's problematic to expect traffic benefits.

Finally, the discussion turned to alternative modes. Ann Geraghty, California Air Resources Board, asked Dueker to talk about walking and biking as part of livability. She noticed there were no numbers or analysis of those modes in Portland. How is Portland addressing different modes? And what about Las Vegas? Calkins said that the master planned communities in Las Vegas try to encourage walking and bicycling. Dueker said that Portland plans rely on walking and biking in addition to density and mixed land uses, but nobody has done a study on pedestrian traffic. Crane said that it is unclear about whether the design features meant to induce walking and bicycling actually result in changes in people's behavior. But one thing is clear: some people like pedestrian friendly environments. Maybe we will soon have better evidence on how environments affect behavior.

SESSION 6: RESPONDING TO RAPID URBANIZATION IN RURAL AREAS: THE CASE OF CALIFORNIA'S CENTRAL VALLEY

Joanne Freilich (Moderator), Program Director, UCLA Extension Public Policy Program
David Crow, Executive Director, San Joaquin Valley Air Pollution Control District
Elizabeth Deakin, Director of the University of California Transportation Center and Associate Professor of City and Regional Planning, UC Berkeley
Carol Whiteside, President, The Great Valley Center

Joanne Freilich noted that California's Central Valley is one of the most rapidly urbanizing rural areas in the United States. Two-fifths of California's growth in the next 20 years will occur in the Valley, which currently has one-fifth of the state's population. Furthermore, the Central Valley is the agricultural heartland of California, and symposium organizers felt it was critical to look at the growth in the Central Valley to examine spillover effects from metropolitan areas.

Carol Whiteside began by pointing out that the Cities of Fresno and Sacramento are among the top ten most populous places in the state, while Stockton, Modesto and Bakersfield are among the top 20. So there are already urban issues in the Valley. Many of these cities consider themselves to be built-out and would like to push development to other, less populated places in the Valley. Whiteside reported that her organization, the Great Valley Center, is expecting large amounts of immigration into the Valley. Many immigrants are young and have children, so some of the population effects are latent, as children aren't yet driving.

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Coastal residents, too, are moving to the Valley. The growth used to come mainly from those working in San Francisco into the northern part of the Valley, but recently many commuters are moving into Bakersfield and Kings County. With the opening of the 152 and 156 corridors, the map of development over time looks like a giant, oozing, lava flow. Longtime Valley residents are ambivalent about the growth. Despite problems of congestion and crowding, they know that the area needs economic development. Social and economic indicators show that unemployment, literacy, and hospitals all need additional resources; the Valley is a region that has been unrecognized and underserved for a long time. Many of those moving into the Valley are not affluent, so the area will have to find some way of providing services to people who are poor. Sometimes, governments in the Valley undervalue the natural resource and agricultural wealth of the area, but who has ever heard of an area that self-disciplines its development to protect its own natural resource base? Such protection has almost always come from people outside the area who recognize the preciousness of natural areas.

According to Whiteside, the area needs a constituency to recognize the need for environmental regionalism, and it needs a forum in which to begin a dialogue on regional issues. A forum is more important than a structure in this case; it is not realistic to think one regional structure can address the myriad regional issues facing the Valley or any other region. Developing such a regional forum presents a challenge in a state with phobias regarding property rights and regional government.

Five issues will define the Central Valley over the next ten to 15 years:

- **Economics.** The cost-of-living disparity between the metro areas and the Valley will continue to make it an attractive place to develop.
- **Transportation policy.** The widening of Interstate 5 corridor, the Valley's nine airports with underused capacity (very attractive in an e-commerce world) will enhance mobility and dispersion throughout the Valley.
- **Poverty and racism.** There are two possible growth scenarios in the Valley. In one, the population in the Valley will continue to grow very strongly. In the other, white flight from the Valley will change the socioeconomic mix, so that the population numbers are not as high, but the poverty rates will grow.
- **The Location For Other People's Unwanted Land Uses (LFOUL) Syndrome.** The Valley has a disproportionately large share of prisons and other facilities that provide only low-wage jobs. It would be a tragedy to take valuable farmland away in order to put up more of these types of facilities.
- **Food security.** Finally, food security from the rich agricultural production in the Central Valley should be everyone's concern. The Central Valley region provides about 25 percent of food and fiber for the entire United States.

Unfortunately, the rate of population change in the Valley has been outstripping the institutional capacity to plan for change. This is a problem for both transportation and land use in the Valley, and it complicated by the fact that there are 17 counties, several air districts, and several Caltrans districts, with little communication among them.

Betty Deakin continued the focus on the Central Valley by outlining five key transportation and land use issues there:

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- 1) **Commute traffic.** The Valley's farm-to-market roads comprise a sparse and dispersed network, which has enabled commuter travel throughout the Valley. Because these routes were not designed for high-speed traffic, the situation has become dangerous, leading to conflicts between agricultural trucks and commuter vehicles.
- 2) **Goods movement.** Getting goods through the cities to the ports has become a major issue. Congestion around the ports impedes products on their way out into the market. And unfortunately, officials from the Valley are not consulted on congestion management issues, even though this congestion exerts a direct effect on the Valley's economic well-being.
- 3) **Airports.** The Central Valley has nine airports. Only one, in Sacramento, has much traffic. The other eight are still underutilized. The decision about what needs to happen to those airports, if they need to be expanded or whether they simply schedule more flights, may become very fractious, very quickly.
- 4) **Congestion.** Some people say that Sacramento faces growing congestion, but it is a long way from having the levels of stop and go traffic that Los Angeles and San Francisco face. This does not mean that increased traffic will not annoy current residents. As growth continues, the potential for congestion on many of the low-capacity roads in the Valley will grow, too.
- 5) **Finance.** The state does not send much money to the Central Valley, and the growth has thus far outpaced funding.

In addition to specific transportation issues, the Valley faces other growth challenges. Other types of infrastructure, such as electric power and water availability, will also be a future challenge. Equity, too, looms large on the horizon for the Valley, where there are many farm workers who work for very low wages. The Valley has been a modest income area for a long time. Farm workers, especially, face some pretty dire transportation costs and safety issues. They often drive junkers and clunkers, and they are often transported in unsafe vehicles. Given that recent development in the Central Valley has averaged about three units per acre, transit is not a reasonable alternative. There will be recreational uses of bike and pedestrian modes, but for the most part, we are talking about sprawl-style development in the Valley. Alternative modes are not viable given our development choices thus far in the Valley.

These transportation issues are all tied to several land use strategies and environmental issues. Farmland loss is one such complicated issue. It is not that we are running out of agricultural land, but it is the case that the Valley is losing unique, rich land. Further, development is fragmenting and scattering farms so that it becomes impractical to farm, because you can't shell almonds because of the noise nuisance, or spray pesticides because of the hazard to people. Activities that support farming as an industry, such as canning businesses and farm implements dealers, have also struggled and gone out of business.

While conservation easements and endangered species habitat conservation are being widely discussed with agricultural interests, the region has no overall plan. Conservation efforts are opportunistic, so that it is not clear what is being conserved is really what *should* be conserved.

Farmland and habitat conservation are not the only land use issues. Many of these towns have emptied-out centers and abandoned parcels due to economic changes. As a result, there are opportunities for infill and redevelopment on land that is fairly inexpensive.

Although the Valley faces these serious issues, it has also has some great opportunities, including:

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1. **Partnerships through planning.** Now is the time to bring people into formal and informal groups through both governmental and private leadership. Governmental leadership (at the state level downward) will be critical to the Valley, because it controls the fiscal rules.
2. **Context-sensitive designs.** Growth provides opportunity to do things better. Caltrans has the opportunity to design environmentally sensitive transportation infrastructure in a way that preserves nature.
3. **Community input.** The opportunity exists in the Central Valley to renew communities and reflect their values in transportation and land use.

From this point, the discussion turned to air pollution problems in the Valley and a presentation by David Crow. Although air quality in the Valley has been improving, San Joaquin has been classified as a serious nonattainment area for ozone and particulate matter. By 2005, the area must attain standards for ozone; if it does not, the consequences are profound. The sanctions in the federal Clean Air Act for missing attainment add up to an ad hoc moratorium on growth. The curtailment of federal highway dollars, for example, will hit hard, because this area did not get its infrastructure dollars 30 years ago. If the Valley misses its next attainment date in 2005, the consequences will be devastating to the local economy with its 14 to 15 percent unemployment rate.

The local air district is charged with meeting attainment standards, but its legal authority is limited. It is responsible for emission reductions on stationary sources, mostly businesses, of which there are about 8,000 in the Valley. The district has worked very aggressively along with local industry on the air quality problems, yet it finds that the improvements it has achieved are eroding with population growth. Currently, 60 to 70 percent of emissions in the area are attributable to mobile sources.

Crow believes that future air pollution control efforts need to focus on two areas: the application of technology to control emissions, and targeting the emissions of heavy-duty vehicles. While the majority of emissions are from mobile sources, a disproportionate share comes from heavy-duty vehicles. Diesel particulate exhaust, a carcinogen, comprises almost 70 percent of air-borne toxins. So the biggest opportunity for emissions savings comes from heavy-duty on-road and off-road engines.

Freilich asked each member of the panel to briefly discuss the institutional capacity of the governments in the Central Valley. Whiteside responded that most councils of government in the Valley single-county entities. Except for large cities, small cities don't have the budget to send people to conferences or to training. Governments do not tend to employ GIS systems, planners, or economists. The nonprofit sector, too, is under-funded and under-resourced. Deakin said GIS capabilities typify the paucity of institutional resources in the Valley. There exists a wealth of GIS data available about the Central Valley, but no local governments actually use it for their general plan updates. One of the major problems is that officials have little incentive to change institutions and current methods. Inertia is easy, change is disruptive and likely to get an official in trouble. Coalition building might enable regional governance without creating a regional government structure. Crow agreed that local districts are aware of the need for regional government, but a homogenized regional government probably doesn't make sense for the Valley yet.

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DISCUSSION

Governance issues pervaded the comments and questions that followed. Crow's final comment spurred Janet Huston, Executive Director of the Orange County League of California Cities, to state that cities recognize the need to work on a regional basis, but more and more decisions are made at the neighborhood level. She asked the panel to talk about how to plan in ways that are sensitive to both neighborhood and regional issues. Whiteside responded that neighborhood-region governance makes a lot of sense. City and county boundaries often don't relate to people's life space, which are more typically defined by neighborhood institutions, such as schools and parks, and regional issues, such as transportation, air quality, and water quality. Crow responded that officials should participate in both regional and neighborhood decision-making, by empowering neighborhoods while recognizing that some issues transcend neighborhoods. Deakin said that things that help at the neighborhood level include community dialogue, good design, and funding for neighborhood improvements such as sidewalks, bike routes, and traffic calming.

Michal Moore, California Energy Commission, said that every decision maker at a local level has a choice whether to allow growth on the fringes. Why do decision makers continually make the choice to allow growth at the periphery rather than in the core? Moore argued that the answer is fiscal incentives. How can we expect local officials to implement any of the ideas we generate at this and other conferences when so many fiscal issues are outside of their control? Whiteside agreed that economics will drive the growth in the Valley. In an area with poverty and development issues, the growth management discussion is very different than in an affluent area. Political constituencies shapes the political process, and offering the right incentives to those constituencies will bring pressure to bear on decision makers so that they can understand the tradeoffs that happen with growth.

Dean Taylor, Southern California Edison, commented that tremendous opportunities for governance exist in the Valley. What if the UC system made a long-term commitment to educate the newspapers, nonprofits, and council members, to help growth management efforts in the Valley? Whiteside responded that her organization, the Great Valley Center, already tries to link outside resources to the Central Valley. The residents of the Valley are not likely to listen to a bunch of Bay Area or LA dilettantes. The powers that be have to understand that it will not be effective to come in and tell officials in the Valley what to do.

John Landis asked if high speed rail is a good deal, now or in the future, for the Valley. If so, how should it be financed? Crow responded that the analysis of rail in the Central Valley needs to examine more than just mobility and moving people around, as there are clear socioeconomic and cultural issues. Regarding finance, Crow suggested that rail interests should form a coalition with airlines. Whiteside said that she thinks high-speed rail in the Valley is inevitable because of the air quality problems. Already, an environmental impact review has begun on a test segment; the EIR process, Whiteside suggested, for these types of investments could be the forum for long-range planning in the Valley. Deakin said that rail is expensive, and it's slower than air travel. She wanted to see more analysis before a commitment is made to rail.

Water resources were the last topic of discussion. Nancy Sutley, California EPA, asked about how both water quality and water supply issues will affect how the Valley develops? Whiteside responded that water is a huge question for development; right now there is a lot of tension between agricultural users and other users. The San Joaquin Valley Water Coalition has just gotten organized and will hopefully work to coordinate water issues among at least the eight counties in the Valley.

SESSION 7: MANAGING THE MEGALOPOLIS: HOW LARGE METROPOLITAN REGIONS ARE INSTITUTIONALLY ORGANIZING TO ADDRESS GROWTH ISSUES

LeRoy Graymer (Moderator), Founding Director, UCLA Extension Public Policy Program

Hon. Mark DeSaulnier, Supervisor, Contra Costa County

Hon. Tom Mullen, Supervisor, Riverside County

Hon. Byron Wear, Councilmember, City of San Diego

LeRoy Graymer introduced the panel by adding three more “C’s” to the conference themes: context, cases, and capacity-building. Context (yesterday’s discussion) was meant to convey a sense of what is going on in California, such as demographic and economic growth. Moving from context, the previous two sessions examined some specific cases that linked growth to transportation. In this session, we look to our elected officials to talk about capacity-building in a regional setting.

In the Bay Area, regional governance is quite a challenge. There are five regional areas, nine counties, 102 cities, and more special and school districts than anyone could imagine, all of them trying to govern over six million people. Attempts have been made at regional government, including Bay Vision 2020, which have been presented and shot down. To no small extent, these efforts have failed because of concerns over losing local control.

Recently, the nine Bay Area counties have been working with five regional agencies, environmental groups, the business community, and the Unity Council. The effort has centered on county-by-county workshops that enable counties to determine their own growth visioning projects designed according to their needs. The group is hoping to get Peter Calthorpe of Calthorpe and Associates to facilitate these workshops. Contra Costa County (where DeSaulnier is a supervisor) and 19 cities have been working on a similar process to develop alternative growth strategies. They first spent a lot of time putting together a GIS parcel-based map. Then city officials were asked to define (according to their standards) underutilized and vacant land.

None of the cities or neighborhoods involved in either initiative want the regional agency to impose requirements upon them; instead, all involved want each county to develop its own scenarios. The most difficult part will come after the county-level strategies are finished and they must figure out how the scenarios fit together at the regional level. The first step is getting consensus from all the city planning directors to let go of just a little bit of control. In Contra Costa County, cities have become more aggressive about identifying underutilized and vacant land, because they have realized this information provides a roadmap to economic development and private developers.

The last program that DeSaulnier discussed was the Interregional Partnership. This was a pilot project addressing the overflow of residential development from the Bay Area out to bordering counties. People are traveling great distances to get to affordable housing and work in the Bay Area. (Housing prices drop \$4,000 per mile leaving Silicon Valley east, according to a study done by MTC). Again, the first goal is to agree on alternative growth scenarios. The second step is to implement management plans. The group has expanded and now includes Contra Costa, Alameda, Santa Clara, San Joaquin, and Stanislaus Counties.

A significant aspect of the Partnership is jobs-housing zones, for which \$650,000 has been allocated. Under this program developers of affordable housing can qualify for incentives in both infill and compact forms in zones that need housing. In places like Stockton and Modesto where

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there is high unemployment, it is anticipated that job zones will be designated where incentives will be given to employers to get companies to locate their back-office operations.

So the story in the Bay Area involves working at a local level to develop and mold growth scenarios that everybody can live with. Eventually, what the Bay Area will have to deal with is the reality that the region will grow out from its current nine counties to a super-region of over 19 counties that, in 40 years, is projected to have a population of about 17 million people (the current population of Los Angeles). The encouraging aspect of this cooperative effort is the opportunity it provides for new ways to govern; but even so, it is going to be difficult.

Tom Mullen began his talk about Riverside County by describing it as the fourth largest county in the country, hosting an extraordinary number of endangered species. The county will double its population from 1.6 to about 3.2 million in the next 20 years, with much of the growth concentrated in the westernmost part.

As an inland county, Riverside does not have the transportation infrastructure that was developed many years ago elsewhere in Southern California. Building and planning transportation infrastructure has ended up taking decades. For example, the last 20 miles of the 30 Freeway are finally being built, but the first public hearings on that project were in 1946. In order to avoid such heavy delays, Riverside County decided to approach the process differently by treating endangered species as infrastructure. Environmental groups, building associations, farmers, and others were all brought in to figure out a design for the transportation and environmental system in Riverside County to create an integrated General Plan, Transportation Plan, and Multi-Species Habitat Protection Plan. The County set up an accelerated, 24-month timeframe for the development of four new transportation corridors plus an arterial system based on rapid transit. It has tried to make all of the corridors wide enough to accommodate transit and utilities. The habitat component will cover about 150 out of 182 listed species in the state. The full, integrated plan covers 2,500 square miles, an area larger than Orange County.

Before the technical studies, the County conducted extensive community symposia, polling, and focus groups. Three advisory groups informed the process, one for each aspect of the plan. The entire process is stakeholder and data driven; Riverside County was committed to bottom-up planning.

The other critical aspect was getting federal and state partners. The effort had great help from Mary Nichols, California Resources Agency, and David Hayes, the Department of Interior, who helped bring together all the governmental actors. The planning effort has required weekly meetings. Every Tuesday, staff members from the state and federal agencies along with the 42 contractors doing the hands-on planning work gather to push the effort forward. Mullen reported they are in the 16th month of the 24-month process, meant to be completed by May 2001.

San Diego Councilmember Byron Wear discussed the San Diego region's attempts to reconfigure its own regional governance structures. The prospect of legislation to create a regional government spurred collaboration among elected officials in the San Diego area. The legislation would have created a new regional bureaucracy called RITA, designed to do the job that some claim current governments in the San Diego region have failed to do. While some elected officials felt threatened by the legislation, others saw it as an opportunity to address infrastructure problems in the San Diego region. Thus, they formed the group that Wear was representing, known as the Joint Area Negotiation Team on Consolidation (JANTOC).

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The first task for JANTOC was to list the issues that need to be addressed at the regional level, such as public transportation, intermodal terminals, railroads (i.e., downtown rail going through residential areas), the inadequate regional airport, transit-oriented development, a lack of affordable housing, and the accountability of local officials in regional decision making. Also important was addressing the fiscalization of land use.

Some of the principles for regional governance that guided the San Diego effort were:

1. Transportation problems should not be addressed exclusively by transportation means; San Diego needs to start looking at “smart growth.”
2. Land use and transportation decisions should be made by the same set of decision-makers.
3. Transit must remain an integral part of the transportation system.
4. Communications within the jurisdictions and public should be enhanced.
5. Differences within the region must be reflected in regional transportation decisions; there is no one-size-fits-all solution.

The elected officials evaluated a set of alternative regional governance structures. They considered the status quo and examined the regional models in other regions, including Portland and Atlanta. But before they could evaluate between the several options they developed, they had to agree on the purpose of regional governance:

A region is best defined as a collection of economically, socially, culturally, and environmentally connected communities. Good regional decisions must by definition, be good for the communities that compose the region; therefore, regional decisions must be made by representatives of the constituent communities acting together.

The JANTOC proposal would attempt to address regional issues by consolidating regional transportation planning, airport and port planning, and the Board of Directors for SANDAG with other regional planning agencies. This contrasts with the RITA proposal which was to dissolve SANDAG and merge the two transit agencies, the Unified Port District, air pollution control district, and the infrastructure control district. The RITA Board would be nine directly elected board members. Along with the elected officials, the ex officio members would include the mayors of all the cities, along with a representative from the county Board of Supervisors. A second alternative was the Portland model with an expanded Board of Supervisors (a total of nine members) to oversee the activities of the combined agency.

While the question of just how to approach regional governance in San Diego is debated, Wear cautioned that what works out in San Diego may not be the best option elsewhere. There are many local considerations, and in the San Diego region, several important issues remain:

- **Land use.** How far can a regional agency go, given how strongly local governments feel about local control of land use? Options include regional development review, funding withholding (Atlanta model), planning requirements, regional land use authority, and incentives.

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- **Ports.** Are port functions too specialized to be included in a regional body? In most other cities, ports are operating independently.
- **Efficiency.** Can a consolidated agency do the job better than the existing set of agencies?

How would these new institutional arrangements be implemented? One transitional strategy is to create a regional efficiency commission (REGIS) to implement charter changes and consolidation evaluations. REGIS has been one of the first opportunities for the state to become involved in reworking regional governance; as a result, it is the focal point for coordination and information dissemination on San Diego's regional process. All the organizations that currently exist will continue until August of 2002. REGIS members hope to have a recommendation on how to formalize governance and consolidation by then. Ultimately, it will go to the voters of San Diego. If the voters are satisfied, and the effort works, the San Diego experience may provide a model for the rest of California.

DISCUSSION

Discussants wanted to address how regional collaboration can be sustained through more difficult economic times, how we can expect regional governance to function differently from earlier regional efforts in California, and whether consolidated regional agencies will in practice deliver the hoped-for efficiency gains.

Steve Erie, from UC San Diego, asked how members elected district-by-district can be expected to promote regionalism. Wouldn't it be better to have at least some board members elected region-wide? Wear responded that political realism impelled his group to emphasize consolidation and efficiency in government. How and where each board member is elected has been less of a concern.

Elliot Parks, San Diego Association of Governments, said that he had participated in designing an institutional structure option including regional representation. The model that he and his peers set up was to select candidates at the primary level by district, and then have them run at the regional level in the general election. Often, however, it becomes difficult to find funds for these types of campaigns. So, what happens is that those who know how to get that type of campaign finance are the ones who run, and these typically are people who have held office elsewhere.

Norm King drew an important distinction between the regional efforts in Riverside, and those in San Diego and Bay Area. Riverside County's efforts were to produce a specific plan, while the efforts in the other areas are to develop a structure and process. What assumptions are behind the belief that policies will be different if we rearrange government structure, given that transportation funding and basic legislation are fixed? Wear responded that San Diego has failed miserably at locating an airport, for a variety of reasons. This is an example of the need for an organization or an approach that looks for the ideal regional-level solution for regional resources. Among some (not all) elected officials there is the belief that the MPO level should focus on regional-level projects, projects that bring rewards to scale. DeSaulnier responded that in the Bay Area, many constituents feel like there is no one in charge at the regional level. He also mentioned that one of the long-term goals of the regional agency will be to redirect growth into infill areas.

King pressed both Wear and DeSaulnier for more specific answers. He wanted to know what *tools* would be used at the regional level to accomplish these goals. DeSaulnier acknowledged that the efforts in the Bay Area are baby steps, necessary to preserve the coalition they have

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forged, which might fall apart if the process begins to look too top-down. Ultimately they hope for the development of a collaborative dialogue among governments regarding regional-level issues. It's frustrating for anybody—elected officials included—to figure out which jurisdiction does what in the Bay Area.

Pete Hathaway, from the California Transportation Commission, commented that Wear took a grand circle tour to look at *successful* regional governments like Portland. But just north of San Diego is the Los Angeles MTA, integrated regionally—and not universally considered a success. The regional organization has so much power and money that special interests have balkanized the organization. Why will things be different in San Diego? Wear responded that much depends on how the agency is structured and making sure that the public is involved. The point is not to create a bureaucracy, but to forge a method for making regional decisions. The goal is not necessarily consolidation for its own sake; part of the organizational model should be delegation, too.

Paul Lewis, Public Policy Institute of California, commented that during boom times, the genie of regional collaboration comes out of the bottle, but it disappears during recessions, when the competitive instinct between jurisdictions becomes strongest. What is there in regional collaboration efforts that can be sustained in the next recession? Are carrots (incentives) enough to promote regionalism? What about sticks? What keeps the cities vested in the process? In the Bay Area, DeSaulnier said, the hope is they can tie regionalism to existing programs, and then once the consensus has been forged, they plan to look for legislative authority.

Given the difficulties of reaching a regional consensus, Linda Wilshusen, Santa Cruz County, asked how state-level efforts can empower regional models. Wear said that a major help would be to reward those agencies that are working regionally to convince others to do the same. Mullen argued that state-level mechanisms work fairly well. But when we get into regional joint power agencies, the representation of stakeholders becomes too diffuse to effectively represent local interests.

Madelyn Glickfeld, UCLA, like King, expressed some skepticism about the viability of regional growth management. Having observed several cycles of growth management rhetoric, what seems different about these efforts is the notion of regionalism bubbling up, rather than being imposed. But she is not convinced that the public believes that large-scale governmental reform is necessary to fix problems. Can we ever get beyond the model of collaboration and cooperation to a point where local cities really give up some of their land use powers? Mullen responded that the state has to move to reduce local control over land use if it wants any form of growth management. DeSaulnier said that the basis for regionalism is that local people do not have the authority to create these reforms on their own. Wear said that Glickfeld's question was a good one, but in his mind, politics is a ground game, where you pick up a couple of yards every play, and attempting to go too far often sets you back.

Dean Misczynski, California Research Bureau, stated that in earlier attempts at region-wide habitat planning, some claimed that the recommendations of biologists were often ignored. Mullen responded that Riverside County specified that their process had to be exclusively data-driven and nonpolitical. The University of California in Riverside has a biodiversity department, and the data that came from the process was not controversial. Dan Silver, Endangered Habitats League, added that in the case of Riverside County independent scientific input came from a formal university panel evaluating methodologies.

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LeRoy Graymer summarized the main points of the session. In California, there is not going to be a one-size-fits-all solution to regional governance. The task in regionalism is to build constituency groups and create an organization that they feel connected to. Further, regional governance requires elected officials who respond to regional-level problems at the local scale—all brought together on a timetable. And there is the imponderable dimension; if we are in a world where change is incredibly rapid, as Mitchell and Giuliano have suggested, then even a shotgun timetable for structural change might get left behind. Do you change the structure of conflict—or merely its venue—with regional governance?

SESSION 8: PROTECTING ENVIRONMENTAL ASSETS IN AN ERA OF GROWTH: A ROUNDTABLE DISCUSSION

Joanne Freilich (Moderator), Program Director, UCLA Extension Public Policy Program

Lynn Terry, Deputy Executive Officer, California Air Resources Board

Mary Nichols, Secretary for Resources, California Resources Agency

Dennis Dickerson, Executive Officer, Los Angeles Regional Water Quality Control Board

Steven D. Zimmer, Executive Vice President, Newhall Ranch Company

California has been quite successful as a state in reducing air pollution. In fact, California is a model for the nation, if not the world. The state has managed to reduce peak ozone, particulates, and toxics at a time when population, vehicle travel, and the economy have all grown significantly. While the state is a success story, it won't be as easy in the future as it has been. More improvement is needed. Peak ozone levels in Los Angeles area are still not at the U.S. or California standards, and they may not get there in the next five years. The future poses some steep challenges to the state:

- **Legal challenges.** By 2005, San Joaquin, Sacramento and Ventura have to attain ozone standards. By 2006, the state is to meet federal PM₁₀ standards in the South Coast and the San Joaquin Valley. By 2010, the state needs to make the federal attainment level for ozone.
- **Population growth.** It is not a simple matter to offset continued population growth in the state concurrent with overall reduction efforts.
- **Tackling particulate pollution and ozone.** More and more, the Air Resources Board is finding that it has to integrate its approach to particulates and ozone. They cannot be traded off against each other.
- **Community health issues.** While the Board expands the scale of its studies to take dispersion and airsheds into account, it must keep in mind that broad regional pollution levels may not describe the exposure in particular communities. Particularly in terms of toxics, it is becoming clear from both a public health and environmental justice standpoint that all communities are not the same.

The South Coast SIP provides an example of these challenges. The SIP does meet all the federal and state requirements, and it is a huge challenge to meet those requirements. The assumptions underlying the SIP are a 13 percent increase in population and a 20 percent increase in vehicle miles traveled. South Coast must reduce NOx and ROG by half by 2010; also they need to pursue incentive programs to get new, cleaner vehicles in the fleet.

Always making aggregate emission improvements in California difficult is the huge population growth, which in turn leads to an increase in vehicle trips, refueling, lawn and garden equipment,

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recreational equipment, consumer products, architectural coatings, dry cleaning, and energy consumption, all of which increase emissions. Every person we add increases the demand on air resources and the need to do more to reduce emissions.

The Board has had a program in place regarding consumer products, which comprise about 30 percent of ROG emissions from nonmobile sources. The 1994 SIP called for 85 percent reduction by 2010. The program has regulated over 80 product categories and hundreds of products, which is a major demand on time and resources. But even with this program and the regulations, growth in consumption will overcome reductions, and we will probably see an increase in emissions from consumer products sources by 2015.

A major new focus is community health, where the most important issue is the cumulative impacts of multiple toxins from mobile, stationary, and occupational sources. As part of this initiative, the Board is investigating the health effects specific to vulnerable populations, especially children and the elderly. New GIS-based systems can be used to understand what the risk is in individual communities, and then make that information available to locals and community groups. It's been surprising to find that despite some distrust of government, once communities feel they have the information, they don't necessarily want to adopt a control strategy and put people out of business.

Different land use types have an impact on travel and pollution. Some data on the typical suburban type community shows that urban development is associated with fewer vehicle miles traveled (VMT) than suburban development. Even if we were to reduce regional VMT by only 3 to 5 percent, that could reduce maybe up 5 to 8 tons per day.

Technology has helped a great deal in reducing pollution. Cars and light trucks are 99 percent cleaner than in the 1970s. However, they still produce 40 percent of ozone precursor emissions. Heavy-duty diesel trucks saw an 80 percent average reduction in emissions from 1985 to 1992. Also, there have been major breakthroughs in terms of reducing grams of NOx from individual engines. The Board does have support from engine manufacturers. Low-sulfur fuels are the next technological step.

Finally, Terry said that although California has made significant progress, per capita emissions need to continue to decrease. Zero or near zero-emissions technology is really the goal. Both near and long term strategies are needed to meet attainment deadlines and maintain clean air, even though long-term thinking is not terribly popular in the political context. It can be an uphill battle not to continually focus on the next attainment deadline.

Mary Nichols changed the direction of the session to focus on open space and natural resources. California's growth is causing the loss of agricultural land at a rate of 50,000 acres per year, or about six acres per hour. We also lose about nine acres per hour of forestry land. Those rates are increasing; they are twice as fast as before 1990. California has about a third of the forest cover that we had in pre-European times. About a third has been cut or plowed under, and the other third is so fragmented it doesn't work as habitat or forest any more.

This also represents a loss of water resources, because the loss of forestry cover impacts hydrology. Anywhere from 10 to 30 percent of fresh water that could be coming into the urban area is not, because of the lost forest cover. The loss of forested land also complicates fire protection, and risk management. The forest fires that occurred throughout the western U.S. this summer finally resulted in public sector recognition that there is too much residential intrusion into forest lands. In many respects, our Department of Forestry is probably at the cutting edge of

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growth management, due to the fire issues associated with the land use and growth decisions taken by local governments.

Ninety percent of California's wetlands are gone, and 95 percent of coastal wetlands. But we have recently documented that we have 41 wetlands left in Southern California, and there are plans to acquire land and/or work with landowners to maintain and restore those wetlands as habitats.

One of the largest ecosystem restoration projects is the CalFed/Bay Delta program, made up of projects to restore endangered species, improve water quality, and provide greater flood protection. Over seven years, the program is estimated to cost \$8 billion in state and federal money. Most of our habitat problems *can* be addressed, but financial resources have to be made available. We cannot address the devastation that exists in California without funds for restoration.

California recently passed two major bond measures, Propositions 12 and 13, which will yield \$4 billion for land and water conservation, half of which will go to urban areas. For five or six years prior to the passage of the bond measures, a number of activists and individuals inside and outside of government were laying the groundwork, examining funding resource issues for natural areas. These people worked over the years to amass information about how to save open space, what its benefits were, how to talk to people about it, and how to garner public support. Once the leadership was in place, they had the tools and information they needed to get the bonds passed. There was tremendous support from the private sector and from cities and counties, all of whom recognize that this is a crucial time for intervention into open space.

With the passage of the bonds, California has some working capital for open space programs, and can also fund a range of market-based initiatives to businesses and developers to provide open space. But the bonds are only a small part of the needed resources.

Concurrent with the work on finance, Nichols developed a partnership with the private sector and local governments called the California Continuing Resource Investment Strategy Project (CCRISP). CCRISP is a multi-year, stakeholder-based process to develop maps and tools to identify the most valuable open space and habitat resources and the most pressing threats to those resources. Then the goal is to develop the tools needed to strategically intervene.

The partnership is not easy. It is difficult to prioritize in a stakeholder-based process; people have multiple competing values, and there is a dearth of information about what open space resources there are in areas that haven't been developed. It is also difficult to request easements or accept regulation when the level of regulation is not coherent spatially. In order to address these issues, we have to adopt a comprehensive approach. In a way, this is the flip side of smart growth. CCRISP's efforts, if successful, can tell you where growth should *not* be happening.

Finally, government conservation efforts must bring in the private and nonprofit sectors to help support their work. CCRISP is looking for funds and partners from the nonprofit sector. Many people are doing relevant mapping work independently, which would be a boon to CCRISP. Government is meant to be fair and equitable; its rules make it less flexible and responsive than the private and nonprofit sectors. The bonding between government and the private sector can lead to gains for both.

Dennis Dickerson discussed recent developments in urban runoff and storm water regulations. In the 1970s, most water pollutants came from publicly owned treatment works (POTWs). Now, the

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POTWs are doing a good job treating water, and most major pollutants come with urban runoff and rainfall events.

Stormwater impacts include a number of transportation sources, in addition to increased loading of trash, sediment, oil and grease, and metals. Significant quantities of pollutants are released during rain events. Trash is flushed out, which is not only a nuisance but also affects wildlife, due to ingested toxins and entanglement in particular.

There are two main approaches to deal with stormwater pollutants. The total maximum daily load (TMDL) program determines how much of a pollutant can be added to a waterbody without exceeding a standard. TMDLs are only necessary in water bodies that are listed as 'impaired' according to federal criteria. So particular basins are only allowed to discharge to a certain standard—a kind of a balancing act. TMDLs are being established for individual pollutants over the next four years, and they are likely to have huge impacts on growth and sewage plants.

The other major approach is the Standard Urban Storm Water Mitigation Plan (SUSMP). This is a guidance document for the selection of best management practices, such as public education, eliminating illegal point source discharges/connections, implementing public facility controls, and—a really significant item—new construction controls. The SUSMP is an attempt to ensure that potential adverse water quality impacts are addressed during project planning, so that construction incorporates new, less polluting systems. In other words, huge expanses of pavement and really wide streets are not encouraged.

Development categories covered by the SUSMP include subdivisions with 10 or more homes, commercial development bigger than 100,000 square feet, auto repair shops, hillside developments, commercial parking lots, and environmentally sensitive areas. With all the growth that is occurring in California, we are seeing a dramatic increase in discharge rates from development. One reason we see a massive increase in runoff is that almost everything in Los Angeles and the southern coast is concrete. The water flows very quickly off the concrete, and flushes materials out into the ocean. Dickerson said that we need to find ways to include greenbelts, grassy swales, and catch-basin filters into new developments. These are low-cost ways of addressing the problem.

Steve Zimmer brought two hats to wear for his presentation. For some people, he is a hero—a guy in a white hat—trying to provide much-needed, decent housing in an area that desperately needs it. But for the NIMBY folks and 'no growthers,' Zimmer says he is a villain, the guy in the black hat, rubbing his greedy hands together as he ruins land to serve his own unadulterated greed.

How can California continue to grow and build needed housing while protecting environmental assets? The need for housing in California is a reality. When we talk about housing, we are not talking about strangers, or a bad influence; many of the people who will want housing are our children and grandchildren.

What we need, according to Zimmer, are good, master-planned communities which take the regional context into account. But there are risks to planning this way: increased scheduling costs, longer planning horizons, changing rules, and political issues all make master-planned communities an easy target. The development of Newhall Ranch has required an eight-year process costing \$10 million that endured changing personnel and politicians from numerous agencies, 16 planning commission meetings, 250 public meetings, and three supervisor approval meetings, after which the development company got sued anyway. The resulting administrative

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record has 67,000 pages. Regardless of the planning process that a developer follows, there is always a vocal minority that does not want the project to go forward.

One of the other major challenges to master-planned communities is the large number of single purpose agencies, such as those for schools, parks, libraries, fish and game, and fish and wildlife. Each of these agencies puts the developer under the microscope, and then provides contradictory instructions and regulation. The developer becomes a facilitator and mediator. This regulatory burden on new development is inequitable. Regulations restrict and raise the cost of new development, while many of the problems that the regulations are trying to address are most problematic in existing housing.

The master plan for the Newhall Ranch community addresses many public needs, including air quality, open space, trails, and water quality. The Specific Plan covers 12,000 acres, with a river corridor, 50 miles of trail, and compact development to create a smart village. The development will contain 21,615 homes for 63,000 people. One of the problems is that people seem to assume that all these units are coming tomorrow. In fact, the company is looking at 30 to 35 years until build-out. Newhall Ranch is committed to providing a good jobs/housing balance; 10 percent of the units will be affordable units in village-style clusters, with walkable schools, library, and parks. Fifty-one percent of the land is in permanent open space. The Company is building, paying for, and equipping all the fire stations, the wastewater treatment plant, the schools, and the libraries.

Zimmer offered several recommendations to the agencies which want to see more good, master-planned development.

- **Support and incentives.** Agencies need to support well-planned projects that meet regional needs. It is not enough for agencies not to stand in the way or offer no opposition. When something is being done according to regional goals, agencies should step up and stand by good development when it is being done.
- **Balance and coordination.** Conflicting policies and directives protect nothing and no one, and serve merely to hold up even well-planned development.
- **Special programs, dedicated personnel.** Large-scale, master-planned developments should not be treated administratively like smaller projects.
- **Certainty.** Going through many staff members and discussing the same issue time and time again wastes time and money. Developers are businesspeople, and some stability is necessary in order to keep profits viable.
- **Accelerated schedules and priority.** When a development fits into the comprehensive goals and plans in a region or a community, the agency should do everything it can to get it through permitting. Accelerated schedules provide a powerful incentive to the development community to do better quality construction and planning.

DISCUSSION

The discussion on air quality focussed on the potential for VMT reductions through smart growth, and emissions reductions through technology. Kevin Finney, the Coalition for Clean Air, asked Terry if ARB has proposals for tackling a reduction in VMT? Terry said growth can't be dealt with from purely an air quality standpoint, and ARB is not going to be able to move alternative

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growth forms on air quality alone. But looking at *all* the impacts makes smart growth seem sensible. As an agency, ARB wants to bring the air quality information to the table, but it's only one of the benefits of growth controls.

Alan Lawrence, California Transportation Commission, clarified some of the technologies available to help stem some air quality problems associated with population growth and vehicle use. With recent technology—green diesel fuels, new diesel engine technology, CNG buses, new fuel cells, new hybrid auto engines—it may be possible to offset increased use. Another opportunity is to manage the existing transportation infrastructure more efficiently. In the ports of Los Angeles and Long Beach, for instance, 10,000 trucks go in and out every day. If we could divert 20 percent of those trips into off-peak hours, a SCAG study shows that it could potentially reduce 7,000,000 hours of travel and 40 tons of air pollutants. Terry responded that she did not mean to imply that it's not possible for new technology to offset population growth. The point is that per capita emissions need to decrease in order to get to the health-based standards, even without growth. We are banking on the technology, it's extremely promising.

Water resources and stormwater runoff questions were directed to both Dickerson and Zimmer. Byron Wear asked Dickerson if he would advocate tearing up channels. Dickerson said that channelization is something that various organizations are promoting for the restoration of the Los Angeles River. There are some soft-bottom parts to the channel that promote wildlife and habitat. Nichols said that watershed planning is needed all over the state for water quality purposes and also habitat issues, and CCRISP will be developing model watershed programs. Watershed planning, she added, is a movement that has come from the grassroots up. The Los Angeles River restoration idea didn't come from the state but from local groups.

Mike Parness, City of San Clemente, followed up with a question about the enforceability of TMDLs. Where do you look when the trash shows up on the beach? Dickerson said the communities that are part of the municipal urban stormwater permit are responsible for implementing the TMDL. In the trash area, Dickerson's organization did a pilot TMDL on trash in the upper San Gabriel River. There, the issue was that forest service did not provide enough trash receptacles and as a result, huge amounts of litter were being left in the river system. The TMDL for that area requires the forest service to implement certain specific measures such as signage and additional trash receptacles.

Susan Lien, San Bernadino Associated Governments, commented that Newhall Ranch is really the first development to come under the microscope regarding reliable water supply. How is Newhall Ranch going to handle this? Zimmer said the challenge of long-term viability is an issue, and the company will probably go out and get more water from external supplies. Nichols added that clearly the Newhall case points to the fact California does not have a state water plan to meet future water needs in every part of the state. Nichols said that she believes California has enough water for the foreseeable future, but not in the right places at the right level of quality, and with insufficient transportation mechanisms. We're going to need a higher level of planning for water, and the state has to play a leadership role.

Dan Silver, Endangered Habitats League, said that the Newhall Ranch project illustrates the difference between San Diego and Los Angeles Counties. Los Angeles County is still doing project-by-project stuff, which produces these contentious results. There is a better way, and that is to include project approval within a more comprehensive approach. Nichols added that regional scale plans with multi-stakeholder processes are the only way to get around the project-by-project approach.

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Joshua Shaw, California Transit Association, wanted to discuss Newhall Ranch in the light of the transit versus auto issues that have been raised throughout the symposium. What does Newhall contemplate for the role of public transit? Zimmer said his company is reserving right-of-way for Metro Link and is working actively with City of Santa Clarita, which has a great transit system. In addition, they hope to reduce travel by balancing jobs and housing within the development.

SESSION 9: GROWTH AND FINANCE: CITIES, REGIONS, AND FISCAL POLITICS

Brian D. Taylor (Moderator), Associate Director, UCLA Institute of Transportation Studies and Associate Professor of Planning

Hon. Myron Orfield, Representative, Minnesota House of Representatives and author, *Metropolitics*

Chris McKenzie, Executive Director, League of California Cities

William J. Fulton, Editor and Publisher, *California Planning and Development Report*, and author, *The Reluctant Metropolis: The Politics of Urban Growth in Los Angeles*

Brian J. Smith, Acting Deputy Director of Planning, California Department of Transportation

This session examined various aspects of the fiscal pressures on, and constraints to, planning for growth: fiscal zoning, opportunities for interjurisdictional tax sharing, ballot box planning and finance, and fiscal implications of state transportation infrastructure in California.

Myron Orfield started his presentation on “Paying for Growth: Cities, Suburbs, and the Future of Metropolitan Governance” by discussing evidence for a pattern of social and economic land use polarization in California.

There is a variety of types of suburban regions. These regions consist of older suburbs or older stressed bedroom communities, for about 25 percent of such suburban regions; rapidly growing bedroom communities, 10 to 15 percent; congested employment centers, 20 to 25 percent; and affluent estate cities; about 5 percent. These different slivers of America experience different types of stresses. Orfield believes that all these kinds of regions, (in particular the first three), are better off pursuing regional cooperation on taxes and land use policy.

Orfield provided maps of several California regions, highlighting two factors to illustrate the pattern of social and economic polarization: Black and Hispanic children in elementary schools (as surrogates for other stresses and social strains), and total local fiscal capacity. The share of schoolchildren of Black and Hispanic backgrounds are an early indicator of high concentrated poverty in those areas, Orfield said.

In the Los Angeles region in 1997, there were dense clusters of poverty in the core and inner ring suburbs. From 1992 to 1997 in Los Angeles County, a large share of elementary schools experienced significant increases in the percentage of non-Asian minority elementary students. These changes in the inner suburbs of LA are happening much more quickly than the changes that happened in central city areas in the past. Statewide, this phenomenon is occurring almost twice as fast as in many other places in the country.

Looking at total fiscal capacity, the interior part of the Los Angeles region includes fiscally stressed older inner ring suburbs and bedroom communities, such as Bell, Bell Gardens, Hawthorne, Bellflower, Compton, and Lynwood. These areas face demographic changes and growing social needs with a low fiscal base and poor services. Older communities can't compete for new residents or businesses given high levels of taxation combined with relatively poor services.

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There is a similar pattern in San Diego; core areas, which tend to have the highest percentage of non-Asian elementary students, also tend to have low fiscal base. Again there is a similar pattern in San Francisco; the East Bay in particular has schools changing rapidly with relatively low fiscal capacity.

The Central Valley will soon experience spectacular growth, and currently provides an example of the traditional pattern of older central cities with significant poverty and high levels of segregation, such as Sacramento, Stockton, Modesto, and Fresno. In this historically agricultural area it is easier to build on productive and valuable farmland in peripheral areas than to concentrate development within core cities. Meanwhile the older central cities have dwindling bases of local assessed property value bases and at the same time face increasing social needs, surrounded by growing areas with strengthening fiscal capacity.

These problems are deepening statewide. California used to be a place of moderate segregation for Hispanic students; now the state is overtaking New York in the isolation indices for Hispanic students. In fact, measures of spatial unevenness for students are all increasing in California. Poor schools have a very hard time competing in the American economy, in terms of educational attainment and movement on to college. As we become more socially separated, we'll see increasing downward mobility.

Orfield returned to his theme that central cities, older inner ring suburbs, growing bedroom communities, and edge cities have reason to cooperate with each other. Older suburbs are more fragile, without the staying regenerative power of inner cities, because there is not as much infrastructure already built. Growing bedroom communities find it difficult to finance new infrastructure based on just housing development, unless that housing is at a very high end, in part because of the California property tax structure. Even in areas where commercial and industrial development is concentrating, with strong mixed tax base, have an incentive to cooperate with the older suburbs and bedroom communities. Because commercial development is becoming more and more concentrated in the U.S., congestion and loss of green space has become a big problem, often giving rise to growth control initiatives and ordinances. Orfield believes it is easy in principle in California to find a tax sharing system in which most communities would benefit, because commercial/industrial development is so consolidated.

In Minnesota, coalitions have been formed between older suburbs and bedroom suburbs that have ended up allowing for revenue sharing. Fully developed communities have realized it is not in their interest to pay for infrastructure to serve new development at the fringe, because infrastructure costs are more expensive there. There are cost savings associated with capturing growth within the older parts of the urbanized area.

Increasingly in the wealthier communities, congestion and vanishing green space have upset local constituencies who have begun to mobilize against growth. The challenge is to make sure that what comes out of this is something that is responsible from a regional perspective. When cities act unilaterally to impose growth limits, the result can be as bad or worse than doing nothing. Such actions tend to accelerate the pace of sprawl and development by pushing it outside of densifying areas.

It is important to take smart growth concepts and channel them into a regional framework, in order to both protect regional assets and stimulate reinvestment within the core. Too many ballot initiatives are simple "NIMBY"-ism.

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No place outside of New York is more unequal than California, which imposes more strain on poor communities than anywhere. Rapid, diverse growth in the context of the existing tax system could result in even more reactionary policies, along the lines of unilateral growth controls, or could be the incentive to achieve something more equitable from a regional perspective. There are many ways to begin doing the latter, such as modifying existing land use and tax mechanisms to make them regionally functional; using money in the system more efficiently; and adopting policies to “share the growth” among local jurisdictions in a region. In California, particularly, new development has to be of fairly high value just to cover the additional costs that local governments incur to provide services—particularly if it is residential development. A system of tax sharing can say to bedroom communities, we ask you to provide housing and respect urban limit lines, but you’ll get help with revenue to serve those households.

A final conclusion emerging from the pattern of social and economic polarization in California is that housing subsidies should not be directed only to poor areas. Housing policy should try to diversify and provide housing near where jobs are.

The next presentation was by Chris McKenzie, who discussed how the current tax system affects the financing of city services. The pattern of growth in California is a problem of cities. In 1974, 76 percent of the population of California was in incorporated places; in 1998, it was 81 percent. So growth is happening more inside cities than outside them.

What’s wrong with the current fiscal system? There are a number of problems, including the decline of predictable discretionary funding for key city services—especially for planning, streets and roads. This revenue instability hampers good governance. And there is a disconnect between service costs and revenues in urban development.

There has been a decline in predictable funding for cities and counties. Property tax, a stable funding source that does not change much from year to year, was 15 percent of city revenue in 1975; it is down to 7 percent today. State and federal dollars are down from 21 to 13 percent during that period. About half of state fund transfers to cities consists of the vehicle license fee, which is essentially a locally-based revenue, with the rest made up by the gasoline tax and some other local revenues.

Cities in California lose \$740 million each year as a result of policy changes since 1980. Historic programs with shared revenues have been cut back to meet state obligations. Voter enactments have constrained the ability of local governments to replace this lost revenue. Service charges and impact fees have gone up to reflect the decline in other fund sources.

Some cities have become more reliant on sales tax revenue. But the sales tax does not have a reliable future, due to a shift to a service-oriented economy, and the increasing prevalence of Internet and catalog retail. Thus sales tax is not the best partner in terms of long term financing. The state legislature is aware of this, and so proposals to swap local sales tax for property tax revenues taken by the state have not been met with enthusiasm.

The governance consequences of this revenue instability are many. Much infrastructure investment has been deferred, and there is scant focus on projects that are long-term investments. There has been a decline in community planning and regional cooperation as cities try to meet their bottom line and compete over sales tax dollars. And fiscal dependence on state government has discouraged innovative long-term solutions, because the legislature has tended to impose so many conditions on fund transfers, and discretionary spending has thus declined substantially as a share of revenues.

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From 1977 to 1998 there were increasing local expenditures on police and fire services statewide, amid a growing concern for public safety. But during this period there was also declining property tax revenue due to Proposition 13, as well as reduced state and federal support. City fund balances dropped. So spending on other services, such as parks and recreation, libraries, and planning, declined on a per capita basis. Hundreds of general plans and housing elements are out of date, and we are unprepared to deal with growth as a result of this.

The changed fiscal system has introduced a “cost and revenue disconnect.” As a result of the shift in property tax, most non-retail development will not bring in sufficient revenue to cover the cost of serving it. For example, in a recent study the California Legislative Analyst’s Office showed that a new \$350,000 housing unit could be expected to generate \$219 per year in property tax revenue in Clayton, and \$327 in Walnut Creek. This revenue barely covers the cost of police services, estimated at \$200 per resident per year on average in the state. It is unfortunate that even though property tax is the most appropriate source of revenue to pay for property-related services, it is no longer fully available to local governments.

Regarding this issue of the property tax, there have been some recent legislative proposals and studies, and commission upon commission has studied the issue, but there seems to be little political will in the legislature to make a change. Some proposals would return property tax allocation control to local government. Others would create new development incentives.

Recently the League of California Cities, the California State Association of Counties, (CSAC), and special districts have come together to create a list of recommendations that would begin to address these fiscal issues and the problems they cause. One idea was to create a housing incentive program to transfer additional property tax to cities when they allow housing to be built. Other ideas included pilot projects for local revenue reorganization; constitutional protection of particular local fund sources; and a freeze at current levels of property tax transfers from local agencies to the Educational Revenue Augmentation Fund.

So where are we going today? There was a recent allocation of \$200 million in the 2000-2001 budget to begin to cover the \$4 billion hole caused by historical shifts of property tax to schools. This allocation was based partly on population and partly on losses due to that shift. But true structural reform was recently vetoed by Governor Davis. At the moment, the cities have little trust in the state legislature or the governor. Reform is needed but the legislature is unlikely to be the agent of that reform. It is difficult for the legislature to give up control of funding, notwithstanding a \$14 billion dollar surplus. In summary, the League and CSAC are moving toward a litigation strategy, which is unfortunate.

William Fulton’s presentation was on “ballot box zoning” trends in California, a state which is unique when it comes to growth control. There are statewide growth-related ballot measures in other states, but only in California do we have local ballot measures all of the time. There is endless debate about whether this is good or bad. Clearly ballot box zoning is direct democracy. But it has been pointed out that these local measures take land use planning to an emotional level, defeating the idea of land use planning as an integrative activity.

As Madelyn Glickfeld pointed out in her groundbreaking work in the late 1980s and early 1990s, most growth management does not take place at the ballot box. About 85 percent of growth management in the period Glickfeld researched was done by ordinance. But the local measures are disproportionately influential in shaping the political debate about growth, because an election gets more publicity than four votes on a Monday night.

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As Glickfeld and Levine pointed out in their research, there are different types of growth control. There has been a shift from numerical caps on growth to restrictions on geographical expansions on growth. In many locales which formerly employed numerical caps, new urban growth boundaries are being proposed, because it turns out that suppressing growth with numerical limits does not reduce urban sprawl. Only the City of Tracy in the past several years has tried a new numerical cap.

The *California Planning and Development Report* has been tracking 600 local growth ballot measures since 1986; the database also includes the geographic location and whether the measure passed or failed.

The number of growth-related ballot measures dropped dramatically in the early 1990s and then rebounded, following the economy. There seems to be a greater number of measures in even-numbered years. This year, including the pending November measures, there will be 67 growth-related ballot measures, more than any year since 1990.

The measures are quite geographically concentrated. Between 1986 and 2000, more than half appeared in four Southern California coastal counties and four San Francisco Bay Area counties. These are also the eight coastal counties that had the greatest absolute increases in population.

The measures are both slow-growth and pro-growth, and most of them are on city rather than county ballots. Passing slow-growth and pro-growth measures is difficult, because passage of a growth restriction may include provisions to vote on particular developments in the future. If such a subsequent measure is approved, it shows up in the database as a successful pro-growth measure.

For this analysis Fulton defined the slow-growth success rate as the percentage of passage of slow-growth measures combined with failure of pro-growth measures. This rate is going down, dropping from 60 percent in the late 1980s to about 50 percent today. The reason isn't that slow growth measures pass less often; in fact, they pass as often as they ever did. The rate has gone down because in areas with requirements for voter approval of future development, specific development proposals have been subsequently approved at a high rate.

Different regions show slightly different trends. The Bay Area has the most measures, and this has increased over time. San Diego has a lot of ballot measures, but many of them are pro-growth (i.e. voter approval of specific development projects). In general, the Southern California area has been more pro-growth in the 1990s.

As noted previously, urban growth boundaries (UGBs) have become a more important part of the growth management landscape. Also, in 1995, the California Supreme Court upheld the legality of initiative amendments making redesignation of existing agricultural land, or open space, conditional on voter approval. [These amendments are often referred to as SOAR measures, after the Save Open-Space and Agricultural Resources initiatives passed in Ventura County.] The 1995 court decision resulted in a dramatic increase in the prevalence of this type of measure on local ballots. UGBs and SOAR-type measures often appear together, and have become more common. However, they have been even more geographically concentrated than growth-related measures as a whole—about 70 percent of these measures have appeared in Alameda, Ventura, and Sonoma counties, where there are disputes between agricultural and urban interests.

The City of Ventura was where the first SOAR measure was passed in 1995. The measure was put there by residents of the first phase of a development opposing the second phase of that same

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development. In San Luis Obispo County a SOAR measure is currently under debate. It would mandate votes to allow growth in undeveloped areas.

The clear message of SOAR proponents in San Luis Obispo has been: “Don’t trust the supervisors—trust yourself.” Meanwhile, the anti-SOAR faction has had a muddled message: we already followed a plan, so this measure isn’t needed; but if SOAR passes, we’ll have to follow the plan, and that will be bad for you. In political terms it’s hard to argue that voters should vote against their own right to vote on something.

What matters is what happens after the election. A SOAR measure is a sledgehammer; average voters walk out of the voting booth saying “problem solved.” But this is just the beginning of the policy discussion. In Ventura County there have been two sides to the ensuing debate. On one side, proponents of density and “urban villages” want to channel growth to existing urban areas. On the other, there are people who voted for SOAR to rid the county of excess people, and are not interested in accommodating growth at all.

Another outcome is the subsequent micromanaging measures on the ballot. In Ventura County, there have been measures to approve development of a nursing home in an orchard and a church in a flower field. When these get approved by voters, the planning commission has to figure out how to integrate the development with an uncertain future pattern of development, not knowing if any of the property surrounding these parcels will ever be developed.

Planning and land use ballot box decision making don’t fit together very well. In many cases SOAR will lead to poorly-done, piecemeal zoning. But if you view ballot box zoning as a way to frame the policy debate it can be positive. There has been a community wide General Plan process in Ventura recently, and this wouldn’t have occurred if SOAR had not changed the rules.

Fulton ended by pointing out that the increased prevalence of ballot box zoning will probably continue to be confined to the coastal counties, making these counties yet more different than inland counties in California, and adding to the east-west split.

Brian J. Smith next gave a presentation on the finance of transportation infrastructure in California.

Population growth will place huge demands on already congested areas and the transportation infrastructure serving these areas. California has the four most congested areas in the country. It is estimated that each day in the state about 400,000 person hours are spent in congested traffic, which can be valued at \$3 million per day.

The 2000 funding estimate for the state provides \$6 billion to address transportation infrastructure over a four-year period, including \$2.5 billion for regional projects and \$1.5 billion for interregional projects. There is an additional \$3.6 billion programmed for operations, safety, and rehabilitation. There are 17 counties in California that have imposed local sales tax measures to pay for transportation infrastructure. These counties spent about \$3 billion on transportation in 1998. None of these estimates include money that is being collected from local developers to provide infrastructure through development impact fees; nor do these figures include funds spent on the development of high speed rail.

A state infrastructure commission is currently preparing a report with a broad focus on some of the same issues examined during this symposium, including transportation, water, and education. And during the past year, the congestion relief plan allocated \$6.8 billion in nontraditional

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transportation funds, with an emphasis on transit in urban areas. However, based on a report from a statewide commission on transportation finance, the bigger picture is that there is about \$117 billion in unmet transportation infrastructure needs.

Our current methods of transportation planning are not perceived as responsive by the public. If we really intend to raise the big money that we say we need to, we need better public acceptance and appreciation of the planning process. This means we need to do a better job of involving all aspects of the public. Carl Anthony noted earlier that our group of attendees here at the symposium does not reflect the ethnic diversity that is out there. Recent controversies involving environmental justice and Title VI in current programs, including at the federal level, provide a clear indication that there is a widespread perception that the planning process is not inclusive of all segments of the community.

We also need to keep in mind that growth and sprawl are people—men and women trying to get to work and find an affordable place to live; kids traveling to school; deliveries being made to the grocery store. Most of those activities cannot be replaced by cyberspace.

Planners have to better define mobility from the user's standpoint, and clearly indicate how users will benefit from proposed infrastructure improvements. We have to do a better job coming up with performance measures that actually mean something to people, in order to build better credibility with people we're asking to pay for those improvements.

We also need to find ways to explain to people the benefits of intelligent transportation systems, forms of demand management, and the like. These projects are not as visible and tend to be explained in techno-speak. As a result, it is often difficult for the layperson to understand why they should support spending state money on such solutions.

Neighborhood scale issues must be built into transportation plans. Projects that respect the preservation of the sense of community will stand a better chance of being funded and built, and therefore have a chance to provide regional benefits.

We are entering an era in which environmental costs will be more directly reflected in project costs from the beginning, instead of following the more typical chronology in which a project is begun, an environmental problem is identified, and a mitigation is grudgingly proposed. In the past, environmental mitigations such as sound walls and changes of alignment have not added more than 5 percent to capital costs. These costs will increase in the future. For example, there is an increased need to protect water quality due to runoff during construction, as well as costs of providing permanent water quality mitigation. Planning agencies will have to understand that their project costs are going to go up due to these requirements, and plan accordingly.

Riverside County's efforts to incorporate general plan, transportation plan revisions, and species conservation at the same time is the right way to go. In the absence of such planning, transportation plans are being asked to fully carry both direct and indirect costs, including costs associated with development in the area of the transportation project. The Riverside model may be the only way to equitably allocate environmental costs between a transportation project and the development the project serves.

The state's resources agencies need to engage in active partnering with transportation agencies to build credibility and legitimate environmental costs.

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The Alameda Corridor, a \$2.5 billion project intended to improve access to the Ports of Long Beach and Los Angeles, is an example of this kind of partnership. It incorporated creative financing: over \$1 billion in revenue bonds, a \$400 million loan from the U.S. Department of Transportation, \$400 million from the ports, a contribution of \$350 million from the Los Angeles County Metropolitan Transportation Authority, and \$150 million from other state and federal sources.

The project helps the ports ensure their continued viability with better freight movement, bringing tremendous economic benefits to the regional, state, and national economies. The rail line was put in a trench to decrease existing congestion due to trains, as well as minimize existing impacts on neighborhoods of freight movement. There are bridges across the trench to maintain local circulation and preserve community continuity. One of the bridges will allow for a community brownfield redevelopment project to occur someday.

Smith mentioned this project in particular because there were tangible, understandable benefits associated with it, not only transportation benefits but also local community amenities. This contrasts it with the 710 freeway project, with another big price tag, a project that hasn't been approved or funded. The government hasn't been able to explain to people what the return on that investment would be, and whether the sense of community would be preserved or enhanced if the project were constructed. In order to expect citizen support for such projects, we must be more inclusive in the process of planning, better with our explanations of the benefits, and more creative with our financing.

DISCUSSION

Brian Taylor asked Myron Orfield for a definition of total fiscal capacity. Orfield said he had spent some time trying to come up with a good comparable measure, and in the end used every source of revenue available to the municipal unit, divided by the number of households.

Lewison Lem, Senior Policy Analyst at the U.S. Environmental Protection Agency, wanted to know why Orfield's mapping relied on the percentages of elementary students that are racial minorities as an indicator of poverty. He commented that this seemed easy to misinterpret as a statement that minority groups are associated with negative economic or social outcomes. Orfield explained that there are two groups that are uniquely discriminated against in the housing market: African Americans and Hispanics. Both groups' indices of dissimilarity are very high. Because poor areas become segregated, and segregated areas become poor, the use of that surrogate statistic is a powerful quick way to think about a process of polarization and decline. In response, Lem suggested instead using the percentage of students on the school lunch program; this might be as useful and also avoid misinterpretation.

Madelyn Glickfeld, UCLA Institute of the Environment, wondered whether racial isolation is really greater in California than in other states. She pointed out that interracial marriages account for upwards of 20 percent of all marriages in California, primarily between Asians, Pacific Islanders, Hispanics, and non-Hispanic whites. How can this be reconciled with data about greater isolation? Orfield agreed that the intermarriage statistic is true, but that the schools are nevertheless becoming much more isolated. For example, research from the Harvard Center for Civil Rights shows that Hispanic children every year for the past 15 years have become more isolated in poor schools in California. Also, the work of Douglas Massey has shown that there is increasing Hispanic residential segregation in California.

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Jan Debay, Newport Beach City Council, asked for Orfield's opinion about the California school voucher initiative. Orfield responded that school vouchers may give children a chance to leave segregated school districts, but he was not familiar with the particular California proposition. There has been a big debate over a voucher system in Milwaukee. The important question is, does such a system provide an opportunity for poor kids to go to middle class schools? Most voucher systems have mostly allowed middle class kids to go to private school.

Ralph Bauer, Huntington Beach City Council, observed that the state government and legislature has become more centralized and dictates to local governments far more than ever before; in some cases local entities are powerless to engage in the kind of revenue tax sharing discussed here.

Randy Crane, UCLA, noted that McKenzie and Fulton were saying respectively that cities can't get money from the state and residents don't trust local officials. It sounded like local governments are under siege from both sides, and also that maybe there is no constituency for growth. Fulton responded by asking the audience: How many of you elected local officials feel under siege? A city official in the audience said that cities are trusted more than counties or the state. A county official in the audience responded that her county is trusted more than cities in her area. Fulton added that it's probably easier for people to figure out what their city does because cities provide direct services to voters, while, as Mark Baldassare has written, counties spend money doing things that many middle class voters don't want done. McKenzie said that the trust factor probably is stronger at the local level. But as the state has taken property tax away from cities, they have been forced to cut services, which may decrease trust. Fulton responded to McKenzie's comment by noting that the people of the state of California decided that the property tax should be allocated by the state and not cities, which may or may not imply something about trust in local officials.

Art Madrid, Mayor of La Mesa, said that cities and counties have been fighting among each other over local revenues for a long time. He attributed conflicts to the influence of sophisticated special interests driving wedges between local agencies.

Michal Moore, California Energy Commission, said it was mysterious why 400-plus cities and 58 counties have not organized themselves, called in the legislature, and flexed their muscles. He asked Chris McKenzie about his strategy regarding the fact that there are many state funds set up individually and constitutionally protected, making up a substantial portion of the state budget. This makes it difficult to work to return revenue to the cities and counties. McKenzie replied that the League of California Cities is plotting an incremental strategy. There is a legal dispute about whether the state is allowed to take local government property tax and use it to pay for schools. Their first step will be to get more control over discretionary revenue and then start talking about those categorical programs.

Byron Wear, San Diego City Councilmember, suggested that the League, CSAC, and corporate interests could get together to put a measure on the state ballot returning revenue to local governments. McKenzie responded that they have been talking increasingly seriously about this, even though it would do little to improve intergovernmental relations.

Bev Perry, Mayor of the City of Brea, said that cities and counties don't have control over revenues but are experiencing tremendous pressure from growth. Under these conditions, how can we accommodate growth, save open space, and preserve quality of life? Bill Fulton replied that even though locals are afraid of an organized state government, the big state players have to be involved because it is a state-level issue. In response to Fulton's comment, Brian Smith noted

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that in the transportation arena, there has been a devolution of decision making from the federal and state levels to the regional and local levels. There are some fundamental decisions that the local level has to make, including land use decisions. The story can't be reduced to a problem of arguing about who has the money.

David Crow, Executive Director of the San Joaquin Air Quality Management District, asked Brian Smith about the administration's position on AmTrak and light rail. Smith replied that the majority of the governor's congestion relief plan is focused on transit, and does contain some money for rail of various kinds.

Norma Glover, Newport Beach City Council, stated that when she first got on the South Coast AQMD Board, they had some difficulties with state legislators. She visited every legislator representing the four-county area to educate them about the AQMD, and found this process useful.

SESSION 10: SHAPING GROWTH: CAN IT BE DONE? SHOULD IT BE DONE? BY WHOM?

LeRoy Graymer (Moderator), Founding Director, UCLA Extension Public Policy Program
Trixie Johnson, Research Director, Surface Transportation Policy Project
Dean Mischynski, Research Director, Mineta Transportation Institute at San Jose State University and former Councilmember, City of San Jose

LeRoy Graymer introduced this session by noting that the morning panel covered a disparate set of issues, and had a different tenor and tone than the discussions of the previous days. In part this was due to the fact that participants were discussing the question of the distribution of money among jurisdictions. As a result the discussion lost some of its regional focus. This provides another illustration of why it is so difficult to address regional issues, generally, in a cooperative fashion. How do you tie together the positive and negative aspects of growth to achieve the cooperative arrangements we discussed yesterday, while dealing with issues of funding to provide local services?

Trixie Johnson provided a summary of much of the material presented during the previous three days of the Symposium. What were the overarching themes of this symposium? What were some lessons? What were the challenges we heard about, and possible next steps?

Can growth be shaped? According to Brian Taylor the state is going to add 20 million Texans, and Steve Zimmer suggested thinking about them as our children and grandchildren. Either way, Texans or grandchildren, we're in trouble. John Landis introduced the idea of communities developing in a "dense onion" pattern, a pattern that has problematic aspects, and from Marty Wachs that rail doesn't necessarily increase the density of development, so that it can't necessarily be used to channel growth in any particular way. Bill Mitchell told us that in a digital world, there is no one in charge, and that brings up the question of whether management and planning can occur at all. Carol Whiteside suggested that economics is driving everything, which again is one of those amorphous forces we don't control. Finally, for many, planning for growth takes too much time to have any relevance in a world that is moving so quickly.

So does this mean that growth cannot be managed? Ken Dueker says that you can manage growth, if you are growing at Portland's rate. In other sessions we heard that if your alternative is a lawsuit, growth management can happen; so there do appear to be incentives. The presentation on the Central Valley suggests that a region can say yes to management of growth, if everyone

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believes that in the absence of planning for growth, the results are not going to be pretty. In some cases, we don't have a choice: we must shape growth.

So perhaps growth can be shaped. Should it be shaped? The presentation on Las Vegas suggests the answer to that question is yes. Not many of us would envision Las Vegas as the desired future of our cities. Betty Deakin talked about saving agricultural land; without managed growth, agricultural users may not have access to markets through ports, due to conflicts over highway infrastructure. This is an example of how planning needs go far beyond the planning boundaries typically considered. It's also not good planning to build on prime farming land, and farm on marginally productive land. These are some reasons to shape growth.

Furthermore, it seems that many important issues can't be managed except by shaping growth. Examples of this range from habitat preservation to infill development. We clearly learned that planning seems to work well when dealing with environmental issues. Lynn Terry talked about planning and its ability to reduce vehicle miles traveled; Dennis Dickerson addressed planning the built environment in order to mitigate urban runoff. Another example is the intrusion of urban growth into forested areas. The increased fire threats that result could be prevented through growth management and good planning.

Many participants have referred to the durability of the built environment, and the result that if planning is not done properly, we must live with the consequences for a long time.

So the real question is not should growth be shaped. We agree that it should be, or we wouldn't be here. But by whom should it be shaped? The answer seems to be, by just about everybody.

There is a clear role for the federal government, particularly when it comes to environmental issues. Only the federal government can impose certain kinds of incentives and deadlines to move state and local planning in the right direction. The federal government is also extremely important for its control of vehicle fuel efficiency and fuel standards. The federal government has made it easier for states and local governments to manage growth by providing flexible transportation funding, and will continue to play an important role in the management and provision of California water resources.

There is also a huge role for the state to play in growth management. In Oregon, the state stepped in and took an active role in the implementation of growth boundaries and creation of agencies to manage growth. The California state government could play a similar role. The Hertzberg commission may be an example of this. State players performed an important function in San Diego through RITA. State implementing legislation is another important kind of state involvement. For example, if the San Diego Board of Supervisors wants to increase its size, such legislation is required. In general, growth management efforts would benefit greatly from having state agencies at the table, providing both accountability and flexibility to enable these efforts to succeed, and increasing cooperation.

We need state agencies to perform their designated functions in a responsible fashion. The state is providing large amounts of funding to provide environmental mitigation in the course of developing the new University of California campus in Merced, which is a positive example. But sometimes state agencies claim that they are not required to adhere to the kinds of regulation that are imposed by the state government on local agencies. Finally, the state can also play an important role in growth management by funding good models of regional planning.

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The metropolitan region is the place where it all has to happen, and where the dialogue must begin. We have the land use authority at the local level; are we willing to give up a little of power to get a better overall result? The verdict is out, and there is little trust at the local level that ceding this power to a higher level would be rewarded. Often local officials exercise their power in ignorance; some officials aren't aware of issues outside their own cities. Finally, there are many immediate pressures to do things hastily, and often then local officials must face their publics, who often have a long memory for bad planning.

The private sector and the economy are extremely important. Advisory panels composed in part of private sector representatives are becoming more prominent. Non-governmental organizations are a valuable partner in facing particular problems because of their ability to act much more quickly than local governments.

Another level is that of the individual. It was stated that the new knowledge worker prefers a rural lifestyle, but in the Bay Area many young tech workers want to have a downtown, urban location. The decision of the Adobe corporation to locate its new facility downtown is an example of responding to the preferences of its workers; so sometimes individuals do make a significant difference in the built environment. Individuals also make decisions as voters. William Fulton's presentation on ballot-box planning is an example of how this is becoming more prevalent. Citizens are also being asked to vote more often on funding, through sales tax and bonds measures. In this state such measures now have to pass with a two-thirds majority, making the individual voter even more important.

Finally, we need leaders, constituencies, partnerships and coalitions who can be held accountable in this whole process.

What should we do next? There are two kinds of next steps: for policy makers and practitioners, and for academics and analysts.

For practitioners and policy makers, there are a number of items. There has been a call to improve the general plan process and regulations. Mary Nichols made very clear that the state water plan needs to be revised. We need stable local government finance, and more funding in general to respond to not only needs related to new growth, but rehabilitation and expansion related to growth that has already occurred. We need to build constituencies and frameworks for governance. It didn't come up in this symposium, but we also need to coordinate the federal/state planning processes for transportation and air quality, so that they are on the same cycles. This morning we heard about the need for performance measures. And finally we need to remember to speak in the language of real people.

For researchers and analysts: the impacts of new urbanism and heavy rail on air quality are still not clear. We have been assuming they will make things better, but nobody knows for sure. A lot of research on sprawl and density are not resolved. Another question is, does housing pay in cost/benefit terms for local governments? What role should this question play in local housing development? The traffic benefits of transit-oriented development, a number of governance issues, the cumulative impact of multi-source pollution and multiple toxins, are all questions that come up for researchers to address in this complex world. But amid all these questions about the rapid rate of change, one just has to remember: California has never been a very stable state.

Dean Mischynski prefaced his remarks by stating that he felt the symposium had been like boot camp, with that same weird sense of camaraderie, and that he was ready to share his odd way of thinking about transportation in California.

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California's freeway-highway system followed from a model that electrified our thinking and moved us into the direction of freeways—the autobahns in Germany. The state studied those, as well as other early parkways in other states, a process which culminated in the freeway plan of 1959, the most logical transportation plan the state has ever had. The intent of this plan was to provide a high level of urban mobility in the state for the next twenty years.

In Los Angeles, the current freeway system is a grid. The original plan was to add a number of other parallel freeways, a plan which made logical sense if you ignored certain other realities. In the San Francisco Bay Area, there were to be several roads down the peninsula, a road all the way around San Francisco itself, and a six-lane freeway leaping across the bay from the Presidio to Angel Island and thence to San Rafael. In Sacramento there were to be several beltways. Of course, many of these roads were never built. It turned out, by the time of Governor Reagan, that state officials refused to take the heat for raising the gas tax to actually build the roads. Then it turned out that the places where the roads were going to go had people in them, who learned to express, and share, their anger. Soon afterwards, air quality issues became a factor. So the Century Freeway was the last freeway in a major urban area in California.

What would it take in Los Angeles and Orange Counties to build a system to reduce congestion? We know roughly how many vehicle miles traveled (VMT) a single lane can carry and remain at a barely acceptable level of service (LOS D). Given total VMT in the two counties right now, accommodating all of it at this low level of service would require 350 miles of new eight-lane freeway.

In the Bay Area, the length of time to get from place to place is increasing very rapidly. Ordinarily, in the history of how urban areas develop, we would just get rid of the old urban areas and move on somewhere else. But this time one of these areas is Silicon Valley, the most magically productive source of jobs and wealth the world has ever seen. This is due to a strange intellectual and economic ecology that has developed there, that may or not may not be replicable somewhere else. Everyone agrees this is worth preserving.

For this reason the most serious transportation problem in the state is what to do about the San Francisco peninsula. This is an area that was developed on the promise of that 1959 freeway plan. Since then, densities have increased to the point where the roads are congested but it's still not dense enough to support trains or other traditional mass transit. Academics keep arguing that trains will not work, and they are right; but this is not helpful, because then what do you do at this very awkward stage? Probably what will happen is a great deal of dithering by public officials, by reorganizing themselves, by building the odd train here and there that won't help very much.

At least for the next generation, the important adaptations will be by the private sector, which is accustoming itself to the immobile metropolis. The building in Palo Alto that Bill Mitchell mentioned earlier, with the dot-coms below and apartments with dirty socks above, is an example of one reaction to the immobile metropolis: avoid having to go anywhere. Another example is that we are beginning to see firms opening five offices around the Bay Area in order to have reliable access to their customers. Finally, one of the most important industrial trends in the world is the disintegration of production, rationalizing of functions to the places where they make sense. So particular functions are leaving the Bay Area, and some of those functions will go to Boston and Singapore, but many of them will go to the Central Valley. In all likelihood, the future of the Central Valley is to be a colony of the Bay Area and Los Angeles.

The second issue is the rest of the state outside of the congested urbanized areas. There is still room to build freeways in places like the Central Valley and Riverside County. The design

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question is, is there a way to avoid the trap that the Bay Area and Los Angeles are in, building a society premised entirely on freeways to the point where the freeways no longer work? It seems likely that even in the rest of the state we will do the same things all over again. But it is worth recognizing the possibility that another solution can be reached.

Conclusions and Final Thoughts by Symposium Participants

Dan Silver stated that the most interesting thing he had heard was that the League of California Cities is interested in putting something on the ballot to return revenue to local governments. But from an environmental perspective, giving cities and counties more money to do more bad things doesn't necessarily result in good planning. He wondered whether the League would be willing to link more money to growth management and better planning.

Lee Harrington, Los Angeles County Economic Development Corporation (LACEDC), noted that he had not heard much about how to continue to "grow the pie" in order to avoid sprawl. In Los Angeles County, there is almost half a billion square feet of obsolete manufacturing space, supporting jobs at about \$6 to \$8 per hour. This is a local "rust belt" corresponding to the high poverty areas Myron Orfield showed on his maps of Los Angeles. The LACEDC did a study of the economic development potential of redevelopment in this area, and showed that it could accommodate industry providing jobs in the \$15 to \$20 range in sectors with good growth potential. By investing about \$1.5 million per acre, the state could provide incentives for this development that are currently missing because of the fiscal emphasis on retail development by local governments. Where the local labor market is very trainable, and the infrastructure is available, land can be reused in a way that holds off further suburban sprawl. This scenario holds for parts of Santa Ana, Anaheim, Contra Costa and Alameda counties, as well as for Los Angeles.

Madelyn Glickfeld said that she thought Misczynski stopped his talk just when he had got everyone interested. The problems that were discussed today have no connection to city, county, or state boundaries, and so we are not set up to deal with them. Robert Kaplan has concluded that our future will probably involve the dissolution of some states and some process of re-agglomeration into areas of interest that can respond to these problems; areas with common cultures and common regional characteristics. Have we reached the point where radical change is necessary at every level of government?

Dean Misczynski responded that the structures do need to be changed. On the other hand, government types always want to talk about changing governance, because that is what they know about. But in the meantime there is no vision for the physical form of California. What sort of transportation system might actually work? People offer theories but there is nothing like a consensus about it. This problem may be more important than existing governmental structures, because a change in governmental structure may or not give us this vision.

Misczynski also noted that, regarding the issue of giving local government more money, the state has been taking more and more local money since the 1860s. Historically, the only way that movement has been reversed has been through constitutional revision, in 1879, and 1911 to 1915. The initiative process provides a way of doing this. On the other hand, there are also many important intra-local questions, things that divide local governments, such as the allocations of sales tax and property tax, and the fiscalization of land use—most issues are things that the cities cannot agree upon among themselves. These important conflicts will not be solved by more money.

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Anne Seeley, California Department of Health Services, said that the Department is a huge stakeholder in this process of growth and quality of life in the state. There are many unintentional injuries relating to traffic, and these are the number one source of health care costs in the state. Pedestrians and cyclists are disproportionately the victims of such incidents. The Department is also interested in combating obesity by encouraging more walk and bike trips. It is estimated that the health care costs of obesity reach \$8 billion per year, not including associated diseases such as cancer, diabetes, and heart disease. The Department is mobilizing to become a bigger partner in growth management, using tools similar to the anti-tobacco and seatbelt campaigns, and providing communities with the information they need to accelerate desired changes in quality of life.

Jim Sperring, Commissioner at the Metropolitan Transportation Commission (Bay Area), said there has been a lot of talk at the symposium about how new growth has encroached on prime agricultural land. In his county, many sugar beet and tomato farms have been closing down because of cheaper importation of those products, and many of those farmers would like to develop their land if they cannot operate their farms profitably. Many cities in rural counties have grown up around agricultural communities, so they have to grow into prime agricultural land in order to maintain contiguity and compactness. That's an unresolved conflict. Finally, there seem to be three layers of "smart growth" that have been dealt with at this symposium: local, regional, and state/federal. The roles and responsibilities of each need to be more clearly distinguished to facilitate coordination.

Keith Killough, Deputy Executive Officer at the Los Angeles County Metropolitan Transportation Authority, said that there are many agency staff who came to this symposium looking for answers, and he is not sure that they got many. Most of the discussion has revolved around money. The priority for most local officials is how to increase revenues, and that is at odds with growth management as it's been described here. One of our most effective growth management tools has been largely ignored in this conference: the Proposition 111 congestion management plan (CMP). Many counties have opted out of this to avoid having to deal with it. He would like to see a statewide movement to reinvigorate the CMP.

Brian Taylor said that he does research on the changing nature of transportation finance, and he was struck by how participants at this symposium separated the tremendous effects of growth and its effects on housing and transportation, from the revenues needed to cope with the effects of growth. The fact is that growth and revenues are directly related. For example, the collection of money to pay for transportation infrastructure influences how people choose to travel; over time, we have seen an erosion of the clear nexus between them. The gasoline tax used to be a more important source of funding for transportation infrastructure, so that to a large extent users paid for the infrastructure on a per usage basis. But recently, other general tax instruments have become more important as sources of funding for transportation infrastructure. We need to recognize that the way we collect revenues affects the way growth occurs, the same way it affects the way travel occurs. So when we move to a sales tax to fund transportation, it shouldn't surprise us that the consequences of that are not altogether positive.

Norm King said that the symposium was useful, but in some respects it was deceptive and delusionary. We need to be personally accountable for the costs we inflict on others. We charge too little per mile per road user; we construct rail for affluent people; we want to preserve land without buying it. Relying on "smart growth" to solve problems is delusionary because in the absence of appropriate pricing, overuse of resources will almost certainly go on. So we ought to at least pay for the full cost of what we consume, and ought to help poor people pay for what they

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consume. People will respond that this is not politically acceptable, but that response is not sufficient. It is the right thing to do.

Art Madrid said that given over 7,000 agencies, special districts, and commissions across the state, consolidation could increase efficiency. The League has talked about this issue in the past. Those are the dollars that we need to utilize more effectively.

David Crow said that transportation infrastructure is priced incorrectly, leading us to make incorrect generalizations about relative costs by mode. We take the cost per mile to construct a freeway and compare it to the cost per mile for light rail, and say that's the total cost. But we should look at what the citizens pay to avail themselves of that mode. The price of admission for use of the highway is over \$20,000 for car, insurance and gas, while the price of admission for non-highway infrastructure is a backpack.

Janet Huston, Orange County Division of the League of California Cities, said it seems that a common theme has been the effects of fragmentation of governance on our ability to plan for growth. But a recent study by the Public Policy Institute of California compared the number of units of government to other parts of the country, and it was a big surprise that California actually has one of the lowest fragmentation rates in the country. It would be helpful to acknowledge this as a starting point for discussions of this problem. Another theme often raised at this symposium is that cities haven't been doing a good enough job of planning. This is an opportunity for academic planning programs to get involved. Are planning schools teaching their graduates to think in long-term regional ways and work collaboratively?

LeRoy Graymer wrapped up the symposium by addressing three C's: communication, connection, and community.

In a world of rapid change, each of us has a responsibility to communicate better with our dispersed constituents. We are all part of the information and learning structure of the world, which depends on our continued efforts to communicate well and widely.

Can we find ways to connect this anticipated population growth to revenue related to that growth, in such a way that the revenue can more directly feed back into addressing the problems of growth? Similarly, is it possible to tie growth in the economy to funding of the problems that it creates for its own continuity? Another issue of connection is about maintaining the efficiency of demand and supply. It is important to connect the demand for services with paying for those services, recognizing that you have to deal with those who would get left behind in a market. The more connections we can make, the more efficient we can get.

The last C is community. We can do things in isolation increasingly, a la Bill Mitchell. The sense that we are part of a human community is difficult, but our elected officials, many of them gathered here, are the best shot we've got in creating community. Thanks to everyone who attended.

III. CONCLUSIONS

Policy makers face many challenges in attempting to manage growth, including traffic congestion, water and air pollution, loss of community sense of place, uncertain economic impacts, and the possibility of increasing segregation by income and race/ethnicity. Policy makers must address two basic questions in order to begin to tackle these problems. First, which policies, if adopted, could have positive effects? Second, how could such policies ever be adopted on a wide scale, given a fragmented political and institutional context, with apparently little incentive for change?

Defining “quality of life” is an extremely important first step in the process of understanding the broad impacts of a given policy. How important is reducing traffic in relation to preserving open space? What about providing clean water and air versus creating jobs? While these goals may not always be mutually exclusive, there are tradeoffs involved. Different effects of growth may or may not be mitigated by a given set of policies. Greenbelts and grassy swales might, or might not, both decrease storm water runoff and make neighborhoods more walkable. Compact development might, or might not, reduce VMT while protecting open space. And any complete evaluation of policy must also take implementation costs into consideration.

It is also important to distinguish between the intermediate and final impacts of policy. For example, does an urban growth boundary result in a more compactly developed city? Second, if compact development (along with an improved transit infrastructure) is successfully achieved in a city, will traffic and air quality improve as people use their cars less frequently? The symposium made it clear that the latter question remains largely unanswered. Even with some of the most “progressive” land use and transportation policies, total personal vehicle travel continues to rise in Portland, Oregon, where there has been significant investment in light rail and an urban growth boundary has been in place for decades.

A next stage in the process of planning for growth is reaching a consensus on what policies ought to be pursued. On the one hand, there seemed to be widespread agreement during the presentations that municipalities should pursue “smart growth” policies, comprehensive planning and inter-jurisdictional cooperation. As in the past, this Arrowhead symposium saw much discussion of the necessity for regional cooperation when dealing with transportation, water quality, and environmental issues; and some suggested that there might even be fiscal incentives to stimulate this cooperation. On the other hand, city officials were hesitant to wholeheartedly endorse courses of action for which they feel themselves poorly equipped given the fiscal constraints and incentives that they face.

Once there is some agreement on the value of a particular growth policy agenda, the second basic question to be addressed is how the policy can be adopted and implemented. Efforts toward regional cooperation on land use decision making have occurred in the San Francisco Bay Area, Riverside County and San Diego County. The Bay Area process has so far been limited to growth visioning projects at the county level. In Riverside County, cooperation on a transportation corridor plan was pursued in part to avoid long delays experienced in the past. In San Diego, part of the impetus for a regional governance plan was the proposed creation of a new regional bureaucracy through ballot initiative, a development that some elected officials felt threatened by and wanted to head off. These examples lead to the conclusion that sticks, and not just carrots, are often important in motivating regional cooperation.

The question of accommodating and planning for growth, unlike the topics addressed in many previous Arrowhead symposia, is one that relies heavily on local governance structures and

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cooperation among local governments. The land use power is the primary policy mechanism affecting the distribution and form of new growth, and in California (as in almost all states) this power resides with city and county governments. An important unanswered question is whether true regionalism can occur without local governments surrendering some of their discretion over land use.

Finally, an important part of the symposium was a focus on issues of representation, equity, and justice when planning for growth. Some growth management policies, such as urban growth boundaries, may cause housing affordability problems. Other existing planning policies, such as exclusionary/fiscal zoning, environmental constraints on otherwise developable land, and density limitations, may both disproportionately impact low income households and make it harder to accommodate growth. A large part of the growth management challenge is to understand these impacts more fully.

Many of the presentations at the symposium also drew connections between issues of equity and regional governance. Full regional decision making requires an inclusive process of peer relationships between localities. Just as some corporate interests are beginning to reach the conclusion that regions with large pockets of poverty aren't as competitive, so the regional governance discussion has begun to include equity issues among important questions about growth management and quality of life in a region.

A fairly well defined policy and research agenda emerged from these presentations and discussions. Conventional “best practices” of planning—such as a participatory process, adoption of a long-term view, and sufficient funding—are necessary parts of the solution. It is also clear that regulation and legislation at the state and federal level have played an extremely important role in motivating the successes that have occurred, such as the improvements in air quality and instances of regional cooperation. The continuing challenge for both policy makers and academic researchers is to embrace the complexity of the problem, as articulated at this symposium, while responding expeditiously and cooperatively to the challenges of growth.

APPENDIX A:

SYMPOSIUM PROGRAM

GROWTH AND QUALITY OF LIFE: THE TRANSPORTATION/LAND USE/ENVIRONMENT CONNECTION

<i>October 22-24, 2000</i> <i>UCLA Conference Center at Lake Arrowhead</i> 850 Willow Creek Road Lake Arrowhead, California
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SUNDAY AFTERNOON, OCTOBER 22

1:30 pm **SYMPOSIUM OVERVIEW-THE NEXT WAVE OF GROWTH -
SOMETHING NEW OR MORE OF THE SAME?**

Brian Taylor, Associate Director of the Institute of Transportation
Studies, and Associate Professor of Urban Planning, UCLA

2:00 pm **DEMOGRAPHIC AND ECONOMIC CHANGE: HOW MUCH?
WHAT KIND? WHERE?**

This opening session examines recent past trends and future predictions for major population growth, economic change, and urban development in the West, with a particular focus on California. The presentations address the scale and spatial character of demographic growth, the changing character of jobs and employment, and land development implications.

Moderator: Brian Taylor

**Understanding the Demographics of Population Growth: Where Will
All of the New Californians Live and Work?**

William A. V. Clark, Professor of Geography, UCLA

**Changing Work and the New Economy: Implications for
Transportation and Land Use in California**

Genevieve Giuliano, Professor of Urban Planning and
Development, School of Policy, Planning and Development,
University of Southern California

How Much Land? How Much Density? The Implications of Rapid Growth for Cities, Suburbs, and Rural Areas in California

John Landis, Professor of City and Regional Planning, UC Berkeley

3:30 pm Break

3:45 pm **JUST GROWTH OR “JUST” GROWTH: THE LINKS BETWEEN LAND DEVELOPMENT, TRANSPORTATION, AND PROSPERITY**

Embedded in debates over the scale, character, location, and fairness of metropolitan growth are assumptions regarding the causes of both suburban expansion and inner-city decline. The causes and consequences of social and economic inequities in metropolitan development are examined, with emphasis on the role of transportation and land use policies in shaping these patterns. How is the spatial distribution of metropolitan wealth and poverty changing over time, and what are roles of land use and transportation policy in these changes? What are the opportunities and obstacles for realizing economically and environmentally sustainable infill development in the coming years?

Moderator: Donald Shoup, Professor and Chair of Urban Planning, UCLA School of Public Policy and Social Research

Compact Cities and Sprawling Suburbs: The Past and Future Influence of Transportation Systems on Urban Development

Martin Wachs, Director of the Institute of Transportation Studies and Professor of City & Regional Planning and Civil & Environmental Engineering, UC Berkeley

Will the Rising Tide Lift All Boats? Metropolitan Development and Social Equity in an Era of Rapid Growth

Evelyn Blumenberg, Assistant Professor of Urban Planning, UCLA School of Public Policy and Social Research

Opportunities and Barriers to Just and Sustainable Urban Growth

Carl Anthony, Executive Director, The Urban Habitat Program

Discussion Among All Participants

5:15 pm **Check-In and Opening Reception**

6:30 pm **Dinner**

SUNDAY EVENING, OCTOBER 22

7:45 pm **THE EFFECTS OF RAPID CHANGES IN INFORMATION TECHNOLOGIES ON THE FUTURE FORM AND FUNCTION OF CITIES**

The continuing rapid pace of technological change profoundly affects all of our lives, the conduct of business, and the workings of cities. The cumulative effects of ongoing technological advancements on the future form and function of cities is expected to be significant. This keynote presentation explores the future of cities in light of rapid changes in information technologies. What will the coming “cities of bits” look like? How will they function? How will the nature of mobility change? And finally, will these changes alter the way that we should plan for land use and transportation in the decades ahead?

Moderator: Donald Shoup

CITY OF BITS?

William J. Mitchell, Dean of the School of Architecture and Planning, Massachusetts Institute of Technology

Discussion Among All Participants

9:15 pm **Informal Reception and Continued Discussion**

MONDAY MORNING, OCTOBER 23

8:45 am **A TALE OF TWO CITIES: GROWING INWARD IN PORTLAND AND GROWING OUTWARD IN LAS VEGAS**

Portland, Oregon and Las Vegas, Nevada have pursued radically different models of growth and development over the past decade. Policy makers and planners in Portland have conscientiously and explicitly managed a growing economy by limiting suburban expansion, encouraging higher-density, infill development, and emphasizing rail transit over highway development. Las Vegas, on the other hand, has taken a more *laissez faire* approach in accommodating explosive population growth in recent years. The session first examines the underlying assumptions in debates over compact versus dispersed growth. This is followed by two presentations comparing and contrasting how Portland and Las Vegas have addressed growth in recent years, focusing especially on measurable effects on transportation and the environment.

Moderator: Brian Taylor

Sorting Out Causes and Effects in Debates over Dispersed Growth versus Compact Development

Randall Crane, Associate Professor of Urban Planning, UCLA School of Public Policy and Social Research

Managed, Compact Growth in Portland, Oregon: Transportation and Land Use Outcomes and Prospects

Kenneth Dueker, Professor of Urban Studies and Planning, and Director of Transportation Studies Center, Portland State University

Market-Driven, Dispersed Growth in Las Vegas, Nevada: What Have Been the Transportation and Environmental Outcomes?

David Calkins, Senior Policy Consultant, ENVIRON International Corporation

Discussion Among All Participants

10:15 pm **Break**

10:30 pm **RESPONDING TO RAPID URBANIZATION IN RURAL AREAS: THE CASE OF CALIFORNIA'S CENTRAL VALLEY**

California's Central Valley is the most productive agricultural region in the world, and is also one of the most rapidly urbanizing areas in the U.S. This session examines efforts to cope with rapid Central Valley growth in population and employment, with an emphasis on creative solutions being sought for the challenges posed by growth: the loss of agricultural land, the demand for job opportunities and new, affordable housing, the need for new investments in transportation infrastructure, mitigation of severe air pollution, and protection of natural resources.

Moderator: Joanne Freilich

David Crow, Executive Director, San Joaquin Valley Air Pollution Control District

Elizabeth Deakin, Director of the University of California Transportation Center & Associate Professor of City and Regional Planning, UC Berkeley

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Carol Whiteside, President, The Great Valley Center

Discussion Among All Participants

Noon **Lunch**

MONDAY AFTERNOON, OCTOBER 23

1:30 pm **MANAGING THE MEGALOPOLIS: HOW LARGE METROPOLITAN REGIONS ARE INSTITUTIONALLY ORGANIZING TO ADDRESS GROWTH ISSUES**

The San Francisco Bay Area, Metropolitan Los Angeles, and the San Diego Region all face enormous challenges in coping with growth, worsening traffic congestion, demands for affordable housing, pressures on open space, and environmental degradation. This session examines efforts in each of these regions to develop new cooperative arrangements and/or new institutional structures to regionally address growth issues and needs. It also evaluates the effectiveness of these efforts for lessons that can be gleaned for our regions.

Moderator: LeRoy Graymer

Alliances, Partnerships and Coalitions in the San Francisco Bay Area

Honorable Mark DeSaulnier, Supervisor, Contra Costa County

The Riverside County Integrated Project: Integrating Land Use, Transportation, and Environmental Planning

Honorable Tom Mullen, Supervisor, Riverside County

Proposals for Institutional Restructuring of Regional Governance in San Diego

Honorable Byron Wear, Councilmember, City of San Diego
(Invited)

Discussion Among All Participants

3:00 pm **Free Time**

5:30 pm **Reception**

6:30 pm **Dinner**

MONDAY EVENING, OCTOBER 23

7:45 pm **PROTECTING ENVIRONMENTAL ASSETS IN AN ERA OF GROWTH: A ROUNDTABLE DISCUSSION**

Environmental issues raised in the preceding sessions become the primary focus here. Panel presentations in this session address specific policy, programmatic, and institutional strategies needed to sustain environmental quality in this era of vigorous growth. Each talk will focus on a particular environmental aspect of growth – air quality, open space and natural resources preservation, and water quality. A major developer also discusses issues for builders in complying with environmental regulations, as well as the relationship of environmental enhancements and the value of development.

Moderator: Joanne Freilich

**More People, More Jobs, More Traffic: The Mounting Challenge to...
...Air Quality**

Lynn Terry, Deputy Executive Officer, California Air Resources Board

...Open Space and Natural Resources Preservation

Mary Nichols, Secretary for Resources, California Resources Agency

...Water Quality

Dennis Dickerson, Executive Officer, Los Angeles Regional Water Quality Control Board

**Building to Meet Demand and Protecting Environmental Resources:
A Developer's Perspective**

Steven D. Zimmer, Executive Vice President, Newhall Ranch Company

Discussion Among All Participants

9:15 pm **Informal Reception and Continued Discussion**

TUESDAY MORNING, OCTOBER 24

8:45 am **GROWTH AND FINANCE: CITIES, REGIONS, AND FISCAL POLITICS**

Developing adequate infrastructure to accommodate projected population and economic growth promises to be very expensive. Yet the current politics of public finance heavily influence patterns of development, and also make it difficult for policy makers and planners to finance massive public investments infrastructure. Presentations in this session examine various aspects of the fiscal pressures on and constraints to planning for growth: fiscal zoning, opportunities for interjurisdictional tax sharing, ballot box planning and finance, and fiscal implications of state transportation infrastructure in California. Collectively, these presentations examine some strategies to better plan and pay for growth in the coming years.

Moderator: Brian Taylor

Paying for Growth: Cities, Suburbs, and the Future of Metropolitan Governance

Honorable Myron Orfield, Representative, Minnesota House of Representatives & Author, *Metropolitica*

The Fiscal Zoning Game: Options for Coping with the Fiscalization of Land Use

William J. Fulton, Editor and Publisher, California Planning and Development Report & Author, *The Reluctant Metropolis: The Politics of Urban Growth in Los Angeles*

Ballot Box Planning and Finance: Mitigating Growth One Election at a Time

Christopher McKenzie, Executive Director, League of California Cities

Transportation Needs, Wants, and Plans: Paying for Expanded Transportation Infrastructure in California

Brian J. Smith, Acting Deputy Director of Planning, California Department of Transportation

Discussion Among All Participants

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10:30 am **Break**

10:45 am **SHAPING GROWTH: CAN IT BE DONE? SHOULD IT BE DONE?
IF SO, BY WHOM?**

In this closing session, three speakers will offer – from different perspectives -- short interpretive summaries of the “lessons learned” from the preceding sessions, the challenges ahead in planning for rapid growth and change in the coming decades, and the question of whether and how growth should be shaped. They will be challenged to reflect on next steps for policy makers and practitioners, and to suggest a new agenda for researchers and analysts. We conclude with an open forum among all participants offering final thoughts about future directions.

Moderator: LeRoy Graymer

Trixie Johnson, Research Director, Mineta Transportation Institute at San Jose State University and former Councilmember, City of San Jose

Dean Mischynski, Director, California Research Bureau, California State Library

Conclusions and Final Thoughts by Symposium Participants

12:15 pm **Concluding Lunch
Steering Committee Meeting**

APPENDIX B:

SPEAKER BIOGRAPHIES

Carl Anthony is an urban planner, and founder/executive director of The Urban Habitat Program (UHP). Mr. Anthony and UHP have provided important links between environmental and social justice advocates by encouraging the environmental justice movement to include principles of sustainability and bringing a vision of social justice to traditional environmentalists. Carl was a member of the Presidio Council for the National Park Service advising on the conversion of the Presidio. From 1991-1997 he was President of Earth Island Institute. He also served on the National Environmental Justice Advisory Council of the US Environmental Protection Agency, and chaired, from 1993-1995 the East Bay Conversion and Reinvestment Commission, a nonprofit created as a national pilot project to guide federal policy in the conversion of military bases. He serves on the Association of Bay Area Government's Regional Planning Committee, Bay Area Alliance for Sustainable Development, California Center for Land Recycling, Oakland Metropolitan Forum, and the Trust for Public Land, and is an appointee to the California Legislature's Speaker's Commission on State and Local Government Finance.

Evelyn Blumenberg is Assistant Professor of Urban Planning at UCLA. Dr. Blumenberg's research centers on issues of poverty and economic inequality. Her research focuses on the labor market as an institution in which inequality is reproduced and where interventions such as local economic development, employment and social policies have the potential to narrow gender and racial disparities and reduce the number of people living poverty. Specifically, Dr. Blumenberg has investigated the relationship between the spatial structure of urban areas and economic equality; gender issues in the context of U.S. local economic development planning; neighborhood economies and welfare dynamics; welfare reform and the California labor market; interagency-collaboration; and transportation and welfare reform. Professor Blumenberg teaches courses on planning history and theory, urban policy, gender and urban planning, and social policy.

David Calkins is an independent environmental consultant, specializing in international air quality and transportation issues. He has extensive experience with federal, state, and local environmental and transportation agencies. This year, Mr. Calkins has served as principal investigator for ENVIRON International on the funding requirements and institutional roles of air quality and transportation programs in Clark County (Las Vegas), Nevada. The study was at the request of the Nevada State Legislature, and the recommendations to re-organize air quality activities into a single agency are currently being considered by governmental officials in Clark County. Mr. Calkins served 31 years with the US EPA and its predecessor agencies, and directed the air programs office at the San Francisco regional office from 1982-1994. He has worked with six United Nations agencies in managing environmental studies and conducting training, as well as working two years on a Congressional commission examining clean air legislation.

William Clark is Professor of Geography at UCLA, and has focused his research on understanding and modeling changing metropolitan regions. He has been especially concerned with demographic change at both local and metropolitan scales and the links between demographic change and changing housing markets. A substantial part of his research has focused on residential mobility and housing choice, including studies of the impacts of housing change on commuting and job choice. An extension of his work on demographic change considers the way in which recent large-scale immigration is influencing local neighborhoods. Two recent books have brought together the work on mobility and tenure choice and the impacts

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of large-scale international migration. *Households and Housing: Choice and Outcomes in the Housing Market* (Rutgers, 1996) examines residential mobility behavior in the US and Dutch housing markets, and *The California Cauldron: Immigration and the Fortunes of Local Communities* (Guilford Press, 1989) examines the local impacts of large-scale international migration into California.

Randall Crane (Moderator) is an Associate Professor of Urban Planning at the UCLA School of Public Policy and Social Research. Professor Crane is a former Fulbright Scholar who studies urban development problems – including the provision of urban services, environmental governance, and the costs and benefits of local government regulation. A consultant for the World Bank and the governments of Kenya, Indonesia, Mexico, and Yemen on infrastructure planning and local government reform, his current domestic projects focus on the causes and impacts of suburban sprawl, water governance, housing and poverty, and travel behavior. His book with Marlon Boarnet, *Travel by Design: The Influence of Urban Form on Travel*, will be published by Oxford University Press this fall. It is the first systematic examination of how land use and the built environment might be used to influence automobile travel. Crane's next book will explain what needs to be explained about sprawl.

David L. Crow was appointed Executive Director/Air Pollution Control Officer of the San Joaquin Valley Unified Air Pollution Control District in December 1991. Under his leadership, the Joaquin Valley's eight air pollution control agencies were consolidated into a single, unified district by July, 1992. Mr. Crow's career in public administration has spanned more than twenty years, and includes positions as Director of Policy Development, Deputy County Administrative Officer, and Director of Budget for Fresno County, as well as Acting City Manager for Foster City, California.

Elizabeth Deakin is Director of the University of California Transportation Research Center and a member of the City and Regional Planning Faculty at UC Berkeley. Her research focuses on land use and transportation issues.

Mark DeSaulnier is the most senior member of the Contra Costa County Board of Supervisors, having served since 1994. Prior to that he was the Mayor of Concord, California. Supervisor DeSaulnier serves on the boards of the Metropolitan Transportation Commission, the Bay Area Air Quality Management District and the Association of Bay Area Governments. He is also a member of the California Air Resources Board. He is the co-author of the *Contra Costa County Smart Growth Action Plan*, a co-developer of the Bay Area Smart Growth Strategy and a co-founder of the Inter-Regional Partnership (the IRP), a consortium of five counties jointly addressing smart growth and quality of life issues. The IRP is now a state-funded pilot project.

Dennis A. Dickerson was appointed as the Executive Officer of the Los Angeles Regional Water Quality Control Board in June 1997. LARWQCB preserves and enhances the quality of water for the Los Angeles and Ventura Counties. Before joining the LARWQCB, Mr. Dickerson served as the California Air Resources Board's Deputy Ombudsman for Southern California where he helped to facilitate a series of Air Quality Management System Stakeholder Forums and provided ombudsman assistance to individuals seeking support in resolving concerns with air quality issues. Concurrently, Mr. Dickerson also supported Cal/EPA's effort to develop regulations implementing legislation (SB 1299) which calls for the creation of a pilot program to test the establishment of Permit Consolidation Zones. Before joining the ARB, Dickerson served as an Ombudsman with the California Department of Toxic Substances Control and published the monthly publication, the *Toxics Update*. He assisted in the establishment of permit assistance centers in San Diego and the Inland Empire, coordinated permit reform task forces reviewing the

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power generation and aerospace industries, and established a computer bulletin board for Cal/EPA. He worked in the private sector for a number of years, most recently as Director of Construction Permitting for NERCO Mining Company in Portland, Oregon.

Kenneth J. Dueker is a Professor of Urban Studies and Planning and Director of the Transportation Studies Center at Portland State University, and is an experienced educator and researcher in transportation. He directed the Center for Urban Studies at PSU from 1979 to 1998. His areas of interest include: transportation and land use interactions, travel and parking behavior, and Geographic Information Systems – Transportation. He has chaired the Transportation Research Board Subcommittee on Geographic Information Systems - Transportation. He is a past-president of the Urban and Regional Information Systems Association (URISA) and was a co-editor of the *URISA Journal* from 1989 to 1999. He is also the year 1999 - 2000 president of Oregon URISA chapter.

Joanne Freilich (Symposium Co-Coordinator) is Program Director of the Public Policy Program at UCLA Extension where she develops and implements conferences, seminars, and courses for policy leaders and professionals in areas including: urban policy planning, land use, governance, transportation, economic development, environmental quality, mediation, public infrastructure finance, and international public policy. She has been with the UCLA Extension Public Policy Program for 11 years. She previously served as a principal planner with the Southern California Association of Governments from 1973 through 1989 where she specialized in air and water quality, transportation, and land use planning.

William Fulton is a journalist, urban planner, researcher, pundit, and best-selling author. Mr. Fulton is regarded as one of the nation's leading commentators on urban planning, metropolitan growth, and economic development. He is president of Solimar Research Group Inc., a public policy research firm dealing with metropolitan growth, urban planning, and economic development issues throughout California and nationwide. The firm is currently engaged in research projects with a wide variety of partners, including the Brookings Institution Center for Urban and Metropolitan Policy, the Lincoln Institute of Land Policy, the Southern California Studies Center at the University of Southern California, and the Morrison Institute of Public Policy at Arizona State University. Mr. Fulton is economic development columnist for *Governing* magazine, founding editor of *California Planning & Development Report*, a monthly land-use newsletter, and writes frequently for the Sunday Opinion Section of *the L.A. Times*. He is a well-known book author as well. The second edition of Mr. Fulton's well-known text, *Guide to California Planning*, was published in August. His *L.A. Times* best-seller, *The Reluctant Metropolis*, will be published in paperback next year by Johns Hopkins University Press. His newest book, *The Regional City*, co-authored with the New Urbanist architect Peter Calthorpe, will be published this fall by Island Press.

Genevieve Giuliano is a Professor in the School of Policy, Planning, and Development, University of Southern California. Professor Giuliano's research interests include: relationships between land use and transportation, transportation policy evaluation, and impacts of information technology on transportation and travel behavior. Recent projects include impacts of changes in the organization of work on travel and location patterns; evaluation of new technology in public transit; mobility patterns of low income and minority households, and international comparisons of metropolitan growth and travel patterns. Professor Giuliano is a faculty fellow of the Lincoln Institute of Land Policy, serves on the Editorial Boards of *Urban Studies* and *Journal of Transport Statistics*, and is a member of the Executive Committees of the Association of Collegiate Schools of Planning and of the Transportation Research Board. She has participated in

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several National Research Council committee projects, most recently on the Committee for Evaluation of the CMAQ Program.

LeRoy Graymer (*Symposium Co-Coordinator*) is Founding Director of the Public Policy Program at UCLA Extension, which he established in 1979. The program addresses public policy issues of state, national and international importance through numerous conferences, seminars, workshops, and facilitation activities. Graymer was formerly Associate Dean of the Graduate School of Public Policy at the University of California, Berkeley, and Vice President and Professor of Political Science at California State University, Dominguez Hills. Recent work includes a special research project for the Hewlett Foundation on California governance reform options.

Trixie Johnson directs the research program of The Mineta Transportation Institute, at San Jose State University, managing thirty individual projects valued at over \$2 million. Prior to the Institute, Ms. Johnson served two terms as a member of the San Jose City Council (1991-1998). Her council service included two years as Vice Mayor, and several years as the Chairperson of the city's Transportation, Development and Environment Committee. Ms. Johnson is recognized as a land use and environmental specialist with experience in issues of water quality and supply, air quality, solid waste, hazardous waste and pollution prevention, sustainable development, and electric deregulation. Among her political activities were: chair of the Bay Area Air Quality Management District; chair of the Environmental Quality Committee and board member of the League of California Cities; and vice-chair of the Energy, Environment and Natural Resources Steering Committee of the National League of Cities. Ms. Johnson was a founding board member of the Santa Clara County Transportation Authority (VTA) and Congestion Management Agency. She served as Vice-Chair of the CalTrain board (commuter rail) and was a member of the American Public Transit Association's Legislative Committee. Ms. Johnson has also served on the San Jose Planning Commission and in the Santa Clara County Planning Department.

John Landis is Professor of City and Regional Planning at the University of California, Berkeley, where he teaches graduate courses in planning history, urban economics, housing, project development, land use planning, and computer mapping. Professor Landis has published more than two dozen book chapters and articles in such journals as *Access*, *Urban Studies*, *Environment and Planning B*, and *Mortgage Banking*. His article, "Imagining Land Use Futures," won the 1995 award for best feature article in the *Journal of the American Planning Association*. Professor Landis' recent research has focused on a wide variety of housing and growth policy issues, including housing production and affordable housing, the environmental

Christopher McKenzie assumed the position of Executive Director of the League of California Cities in June 1999. He most recently served as executive director of the League of Kansas Municipalities, where he also acted as the organization's chief lobbyist.

Mr. McKenzie has 25 years of experience in local and state government, including that of County Administrator and County Counsel for Douglas County in Kansas, and work in policy analysis and planning for Kansas' Division of State Planning and Research. He has taught graduate level courses in local government at the University of Kansas and Wichita State University.

Dean Misczynski is the founding director of the California Research Bureau in the California State Library. The Bureau, which began in 1991, is modeled on the Library of Congress' Congressional Research Service. It provides policy research services to both houses of the California Legislature and to the Governor's Office, covering subject areas ranging from water supply and quality to local finance and education. Mr. Misczynski also served as principal consultant with California's Senator Office of Research and as consultant to the Senate's bonded indebtedness committees for several years. He is well known for his work on the Mello-Roos

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Community Facilities Act and various assessment district acts. He co-authored *Windfalls for Wipeouts* (about property “takings” and how to pay for them) with the late UCLA law professor Donald Hagman.

William Mitchell is the Dean of the School of Architecture and Planning at the Massachusetts Institute of Technology. He was formerly Director of the Design Studies Program at the Harvard University Graduate School of Design, and Head of UCLA's Architecture/Urban Design Program. His scholarly interests include design theory, computer-aided design, and electronic media. He also consulted, co-founded a software company, and served as President of The Urban Innovations Group in Los Angeles.

Tom Mullen is Chairman of the Riverside County Board of Supervisors. In 1991 he served as Director of Intergovernmental Affairs for the Riverside County Transportation Commission where he worked to provide funding for transportation improvements in the region. From 1993 until taking office in 1995 as County Supervisor, Mullen served as Director for External Program Development for the College of Engineering and the Center for Environmental Research and Technology (CE-CERT) at the University of California Riverside. Supervisor Mullen's strong commitment to transportation infrastructure has secured over \$240 million in funding for safety improvements and congestion relief at the 91/215/60 Interchange, the Box Springs Grade and the 60/215 Interchange. He spearheaded the design and implementation of the Riverside County Integrated Project (RCIP)—an innovative consolidation of planning for open space, land use and transportation corridors. RCIP will furnish unique opportunities for commerce, job creation, conservation, transit and economic development in the coming years. He serves as chairman of the Riverside County Transportation Commission and member of the March Joint Powers Authority. His honors include: Management Leader of the Year, 1998, from the Anderson School of Management, University of California Riverside; the Excellence in Government Award from a major regional economic development organization, 1997; and the Good Government Award from the Riverside County Chapter of the Building Industry Association, 1997.

Mary D. Nichols was named by Governor Gray Davis as California's Secretary for Resources in 1998. The Secretary is the administrative head of the agency and a member of the Governor's Cabinet. The agency oversees 19 state departments, boards, commissions and conservancies, including the Departments of Conservation, Fish and Game, Forestry and Fire Protection, Parks and Recreation, Water Resources, and the California Coastal Commission. Most recently, Nichols served as the Executive Director of Environment Now, a private foundation dedicated to the protection of the California environment. In 1993, she was nominated by President Clinton and confirmed by the Senate to be the US Environmental Protection Agency's Assistant Administrator for Air and Radiation. Nichols served as a senior staff attorney and director of the Los Angeles office of the Natural Resources Defense Council from 1989 to 1993. She was appointed by Governor Edmund G. Brown, Jr. to the attorney seat on the California Air Resources Board in 1975, and was named chair in 1978. She also served as Secretary for Environmental Affairs, the cabinet-level agency responsible for air, water, and solid waste management that later became California Environmental Protection Agency. Ms. Nichols was one of California's first environmental lawyers, initiating some of the first test cases under the Federal Clean Air Act and California air quality laws while practicing as a staff attorney for the Center for Law in the Public Interest.

Myron Orfield is a nationally recognized expert in the area of metropolitan planning and policy-making. As President of the Metropolitan Area Research Corporation, (MARC), Mr. Orfield has completed studies of regional disparity and inefficient, sprawling land use in eighteen of the twenty-five largest metropolitan areas of the U.S. His research has been featured on “ABC News

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Nightline”, National Public Radio’s “Talk of the Nation”, and in articles in *US News and World Report*, *Business Week*, *The National Journal*, *Crain’s Chicago Business*, *USA Today*, *The Wall Street Journal*. His book, *Metropolitica: A Regional Agenda for Community and Stability*, was jointly published by the Brookings Institution and the Lincoln Institute for Land Policy in 1997. Myron Orfield is also a fifth-term member of the Minnesota House of Representatives, representing southwest Minneapolis. In this capacity, Orfield has authored legislation for metropolitan reform, creating the nation’s most substantial regional government and reforming land use and fiscal equity laws in the Twin Cities area. Mr. Orfield will speak on the issues of the growing social separation and sprawling development patterns that are hurting all types of metropolitan communities, with particular reference to four recent studies MARC is working on in San Diego, San Francisco, Los Angeles and California’s Central Valley.

Don Shoup (Moderator) is Chair of the Department of Urban Planning and Director of the Institute of Transportation Studies at UCLA. Dr. Shoup has a background in both economics and engineering. His research focuses on public finance and transportation, with an emphasis on links to the land market. Dr. Shoup has studied the issue of parking as a key link between transportation and land use. As a consultant to the U.S. Department of Transportation, he completed a report on "Cashing Out Employer-Paid Parking," which explains how employer-paid parking increases solo driving to work. As a remedy, he proposed that employers who subsidize employee parking should also offer employees the option to take the cash value of the parking subsidy if they do not take the parking itself. This proposal has since been passed into law in California, and the Internal Revenue Code has been amended to encourage parking cashout. Dr. Shoup has also worked on ways to finance public infrastructure in low-income neighborhoods. His proposal for a new way to use special assessments to finance public services that benefit specific properties led to passage of California's deferred assessment legislation, which enables cities to use deferred special assessments to meet the public infrastructure needs of older neighborhoods.

Brian Smith is Acting Deputy Director of Planning at the California Department of Transportation.

Brian Taylor (Symposium Co-Coordinator) is Associate Director of the UCLA Institute of Transportation Studies and an Associate Professor of Urban Planning in the School of Public Policy and Social Research. Professor Taylor's research centers on transportation policy and planning. In particular, his work explores how society pays for transportation systems and how these systems in turn serve the needs of people who -- because of low income, disability, location, or age -- have low levels of mobility. A principal focus of his research is the politics of transportation finance, including the history of freeway planning and finance, emerging trends in highway finance, the linking of subsidies to public transit performance, and measuring equity in public transit finance. His research also examines travel demographics, including patterns of public transit use by the central city poor and the constrained travel patterns of working women. He has also studied the relationships between transportation systems and urban form, including the effects of suburbanization on employment access and the evolving commuting patterns of minority and low-income workers.

Lynn Terry is Deputy Executive Officer of the California Air Resources Board. She oversees programs including the development of clean air plans for meeting state and federal air quality standards, and technical programs for quantifying air pollutant emissions, air quality modeling, data analysis, and emissions trading. Over the past 14 years, Ms. Terry has worked on a variety of programs at the Air Resources Board including air quality planning, air toxics regulation, risk assessment, and stationary source permitting.

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Martin Wachs is Director of the Institute of Transportation Studies at the University of California, Berkeley, where he also holds faculty appointments as Professor of City and Regional Planning and of Civil and Environmental Engineering. From 1971 to 1996, he was Professor of Urban Planning and Director of the Institute of Transportation Studies at UCLA. Before joining UCLA he was an Assistant Professor at Northwestern University and the University of Illinois at Chicago. He has been a visiting professor at Oxford University, Rutgers University, The University of Iowa, and The Technion. In 1986 he received an award for being a "Distinguished Planning Educator" from the California Planning Foundation, and a Distinguished Teaching Award from the UCLA Alumni Association. Dr. Wachs is the author or editor of four books and has written over 100 published articles on transportation planning and policy. Recently, his writings have dealt with the relationship between transportation, air quality and land use, and transportation finance. Dr. Wachs currently serves on the Executive Committee of the Transportation Research Board and recently completed a term as a member of the California Commission on Transportation Investment. He is currently a member of the Advisory Committee on Research and Development for the California Department of Transportation, and recently completed his term as the first Chair of the Advisory Panel for the Travel Model Improvement Program of the U.S. Department of Transportation.

Byron Wear has represented San Diego's 2nd City Council District since 1995 which includes Sea World, Old Town and the Embarcadero as well as vital urban components of the local economy--the Port, San Diego's Lindbergh Field, Mission Bay, Downtown, the San Diego Convention Center and the historic Gaslamp Quarter. He has taken an active role in supporting clean water programs and smart growth initiatives. Byron Wear served as San Diego's Deputy Mayor in 1998 - 1999. He currently serves as Chair of the Land Use and Housing Committee, a member of the Rules, Finance and Intergovernmental Relations Committee, a member of the Public Safety and Neighborhood Services Committee and a member of the Select Committee on Government Efficiency and Fiscal Reform. Mr. Wear is also a city representative to the San Diego Port Commission, San Diego Trolley Advisory Board, Metropolitan Transit Development Board, SANDAG Board, League of California Cities, SANDAG Bay Shore Bikeway Committee and San Diego Data Processing Corporation. He also serves as Chair of the Joint Agency Negotiation Team on Consolidation (JANTOC), and will serve as the Chair of the soon to be created San Diego Regional Governance Efficiency Commission (RGEC).

Carol Whiteside is the President of The Great Valley Center, an organization which she founded in 1997. The Great Valley Center was established to promote the economic, social and environmental well-being of California's Central Valley, defined as the area from Mt. Shasta to the Tehachapis, from the crest of the Coast Range to the foothills of the Sierra. Ms. Whiteside served as the Director of Intergovernmental Affairs for Governor Pete Wilson working with local governments on issues of land use, finance and restructuring and economic development. She was also Assistant Secretary at the California Resources Agency, specializing in resource conservation, land use and growth management issues. Carol Whiteside served as a member of the Modesto City Schools' Board of Education, as a member of the Modesto City Council, and was elected Mayor in 1987. With almost twenty years of local government experience, Ms. Whiteside was active in the California League of Cities, and the US Conference of Mayors and she worked with local governments at the state and national levels. She has participated in training seminars and leadership development with locally elected officials in Eastern Europe, Asia and North Africa.

Steven Zimmer is Executive Vice President of the Newhall Ranch Company, a division of The Newhall Land and Farming Company, and in charge of the Newhall Ranch project. The Newhall Ranch project is a 12,000-acre master planned community in northern Los Angeles County just

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west of the Newhall Land community of Valencia. Mr. Zimmer has been involved in all aspects of other master planned communities in Ventura County and San Diego. He has had a private legal practice, been a city attorney, general counsel of redevelopment agencies and housing authorities, and also Chief Assistant County Counsel for Imperial County.

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We acknowledge the following agencies and organizations for the financial support they contributed to this symposium, and also for their participation in its planning:

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South Coast Air Quality Management District

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