

# CHAPTER 6

## LOOKING BEYOND 2030

### Setting the Stage

The federal government requires the life of a regional long-range transportation plan be a minimum of twenty years. *Communities in Motion* was given a horizon year of 2030—twenty-four years beyond the adoption date in 2006. But growth is not likely to stop in 2030. In fact, growth could be much stronger than anticipated through 2030 and the resulting population and employment numbers could be much larger than assumed in the plan. Growth could also slow down, as happened in the 1980s. No one, however, can really know the future; this lack of certainty can still be conveyed in a planning document.

Many larger regions now conduct longer-term forecasts and evaluations. Seattle, Portland, Sacramento and Salt Lake are among the metropolitan areas extending their horizons. A forty or fifty year horizon is used to test transportation systems, while a shorter twenty-year plan contains more detail about projects and



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**The 50-year time horizon in the scenario process is necessary, in order to see significant effects from land use policies and from transit-building policies, too. The fact that MPOs do 20-year plans biases them against such policies.**

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their priorities.

Why take the longer view? A twenty-year plan seems distant, but it is short when considering urban growth and transportation system changes. A significant road widening project may take ten or more years to complete, while a major new corridor – such as a new freeway or rail system – can be ten to twenty years in planning and construction. Land use patterns and travel behavior can take far longer to change. The private automobile has been the dominant mode of urban transportation for three generations.

Designing for the automobile has driven urban form in the Treasure Valley since World War II. Roads, parking lots and garages dominate the urban image. Look at a regional shopping center and its acres and acres of asphalt. Consider the amount of frontage on a home dedicated to the car.

The intent of a longer-term analysis is to put the recommendations of *Communities in Motion* into perspective. Road corridor and public transportation investments that may be seen as unnecessary in terms of growth within the next twenty-five years could be vital to accommodate growth beyond that period. Also consider that forecasts can be wrong.

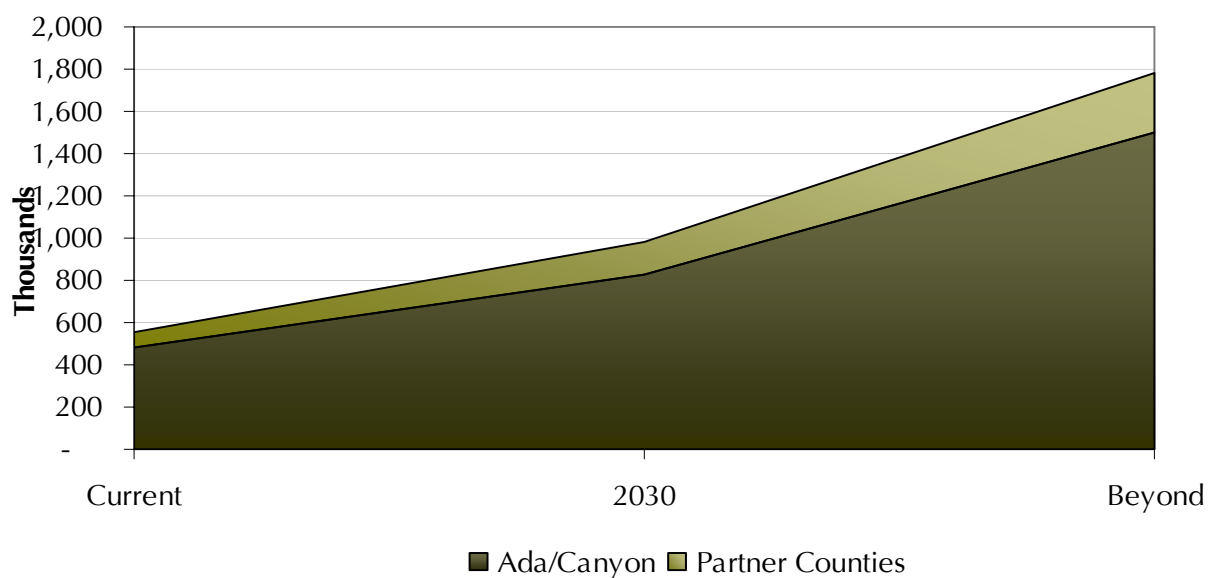
### Growth Beyond 2030

The growth envisioned in *Communities in Motion* would add 424,000 residents to Ada, Boise, Canyon, Elmore, Gem and Payette counties, with 344,000 of that increase within Ada County and Canyon County. Employment is expected to increase by 223,000, with 200,000 of these jobs being created in Ada and Canyon.

Growth was projected in a straight-line fashion beyond 2030 to achieve a population within Ada County and Canyon County of approximately 1.5 million and a regional population of nearly 1.8 million. Employment growth was also projected to achieve a two county total of 852,000 and a regional total of 960,000.

Is it far-fetched to consider 1.5 million people in Ada and Canyon Counties? Depending on the annual growth rate used, that number may not be far off. The 825,000 population by 2030 used in *Communities in Motion* is based on an annual growth rate of 2.2%, a heady pace of growth compared to the national growth rate of 0.75%.

### Beyond 2030 Population

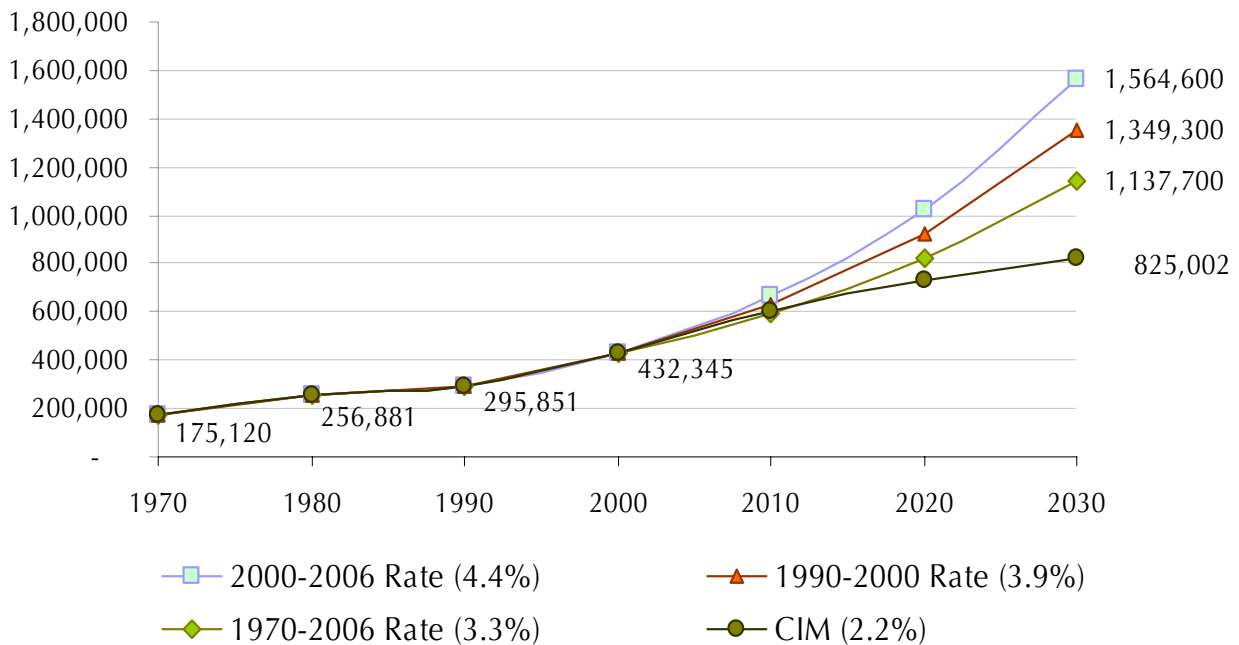


But consider that the annual rate of growth in the Valley since 2000 has been 4.4%, while the longer-term growth rate from 1970 to 2006 was 3.3%. Using these growth rates, the difference in 2030 population can be seen in the chart below.

Examples of inaccurate forecasts and decisions abound. They serve as reminders that there is wisdom in remaining flexible and erring on the side of caution. It is imperative that forecasts be made, knowing that eventually they may be proven wrong; otherwise there is no chance to be right and no opportunity to shape the future.

ACCESS OHIO 2004-2030

## Population Growth Rates and Forecasts



## Limitations to the Projections

These projections come with limitations:

- Growth scenarios through 2030 were developed with consideration for each area’s capacity for growth, compatibility with communities’ goals, and a regional growth total tied to economic projections. These considerations were not part of projecting growth beyond 2030.
- Growth was projected at each traffic analysis zone (TAZ) based on the rate of growth for that zone between 2005 and 2030.
- The numbers were projected until a 1.5 million population size was reached within Ada County and Canyon County. There is no horizon year for achieving this population.
- Employment was projected in the same manner as population.
- These growth forecasts were modeled in the “Community Choices” roadway and transit networks at full build-out. The process assumes that the entire network would be built and not constrained by available resources. No attempt was made to modify the “Community Choices” network in response to additional travel demand.
- No forecasted travel information was possible for the Partnering Counties.
- No fuel prices or other cost factors were assessed to determine the effects of such prices on growth patterns or travel demands.

## Forecasted Growth for Region

	Population			Employment		
	2002	2030	Beyond 2030	2002	2030	Beyond 2030
<b>Ada</b>	328,910	556,890	1,006,000	181,660	313,280	589,000
<b>Canyon</b>	152,430	268,110	493,000	46,060	113,530	263,000
<b>Subtotal</b>	481,340	825,000	1,499,000	227,720	426,810	852,000
<b>Increase</b>	N/A	343,660	1,017,660	N/A	199,090	624,280
<b>Boise</b>	7,070	28,900	53,000	2,240	7,600	15,000
<b>Elmore</b>	29,480	53,700	98,000	14,020	24,100	48,000
<b>Gem</b>	15,500	32,400	59,000	5,910	9,670	19,000
<b>Payette</b>	21,010	38,300	70,000	8,880	13,200	26,000
<b>Subtotal</b>	73,060	153,300	280,000	31,050	54,570	108,000
<b>Increase</b>	N/A	80,240	206,940	N/A	23,520	76,950
<b>Grand Total</b>	554,400	978,300	1,779,000	258,770	481,380	960,000
<b>Increase</b>		423,900	1,224,600		222,610	701,230

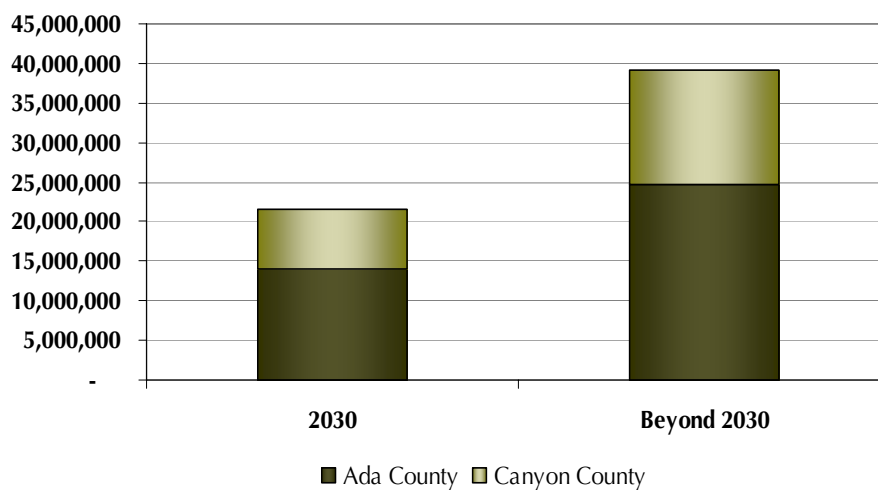
## Implications

Although the extrapolation of growth beyond 2030 is not a sophisticated scenario of future growth, the implications of continued growth without a fundamental change in travel modes and investments are daunting.

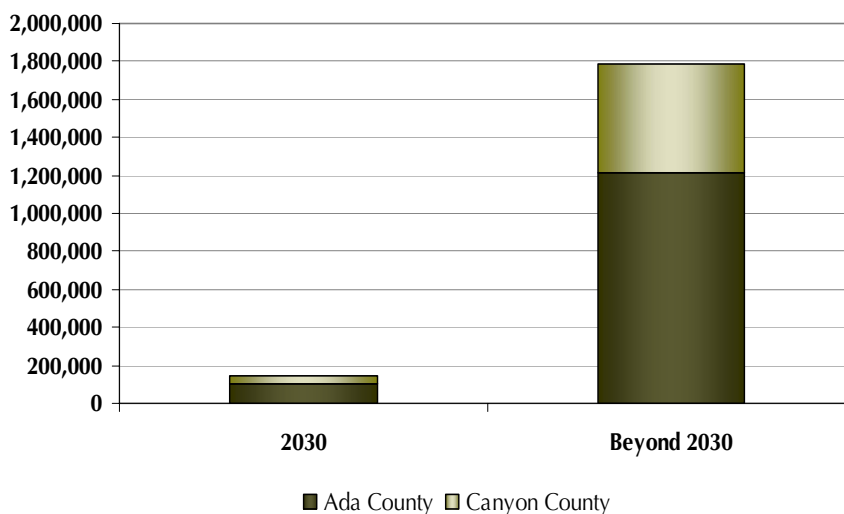
A typical statistic used in transportation plans is “vehicle miles of travel” (VMT). It is a significant statistic since it closely correlates with issues such as air pollution due to vehicles, consumption of fuel, and travel delays. As shown by Figure 2, VMT would jump from approximately 21.6 million under the growth envisioned in *Communities in Motion* by 2030 to 39.2 million under the Beyond 2030 growth.

To put this into comparison, in 2006 VMT is estimated at 11 million, so there would be almost four times the current travel loads at that point. So what does that mean for travel delay? While the VMT nearly doubles under Beyond 2030 growth, hours of delay (Figure 3) go up more than

## Vehicle Miles of Travel



## Vehicles Hours of Delay



twelve fold from 142,700 hours/weekday to 1,789,000 hours/weekday. Delay is calculated by estimating the “free flow” travel time for a trip and comparing it to the time needed under congested conditions.

Generally these congested conditions would be worst during peak hours. As travel demand

increases, more and more travel will shift outside the “typical” peak hours of 7:00 a.m. to 8:00 a.m. and 5:00 p.m. to 6:00 p.m. In larger metropolitan areas, the travel demand spreads out as travelers seek to shorten their commute times by starting their trips outside the peak hours. In these larger areas, peak hours are likely to last two to four hours during the evening. This is called “peak spreading” and is similar to a market approach in balancing demand and supply. Think of airline travel pricing, where tickets for travel outside of peak demand times cost less than at peak times such as holidays. Travelers see the advantages and adjust their travel patterns.

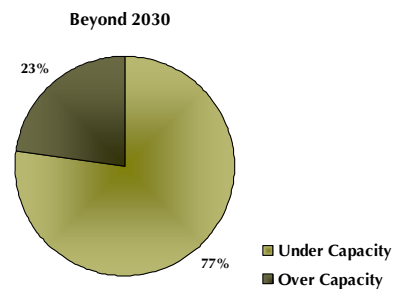
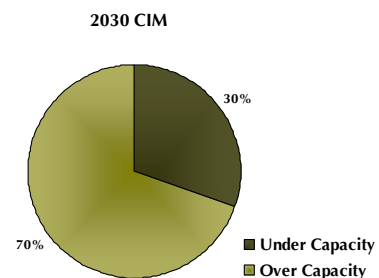
The increase in hours of delay is much greater than the increase in VMT since roadway capacity is being consumed, and congestion is not a linear function. As roadway capacities are exceeded, each increment of demand generates higher levels of delay. Think of vehicles entering a freeway late at night. Due to the low traffic volumes, the effect on traffic flow is slight.

Now think of the same number of vehicles entering at the same point on the freeway at 5:15 p.m. During rush hour, only a slight number of additional vehicles need to change slow moving traffic into traffic that is stopped.

Figure 4 shows that by 2030, with investments specified in Chapter 4, including the unfunded corridors and the transit system, major roadway corridors will be 23% over capacity. Only 5% of major roadway corridors are over capacity today.

But Beyond 2030 shows a much more congested major roadway system as shown in Figure 5. The analysis was done on the 2030 completed roadway and transit networks—again assuming they would be completely funded. With Beyond 2030 population and employment, 70% of the major road network would be over capacity.

Increases in VMT, hours of delay and percentages of roadway system over capacity are interesting numbers—at least to transportation professionals, but what does it mean to the average driver in the region? Many can identify with a very simple statistic, “How long will it take me to make my trip in the future?” While there are a very large number of possible trips for regional

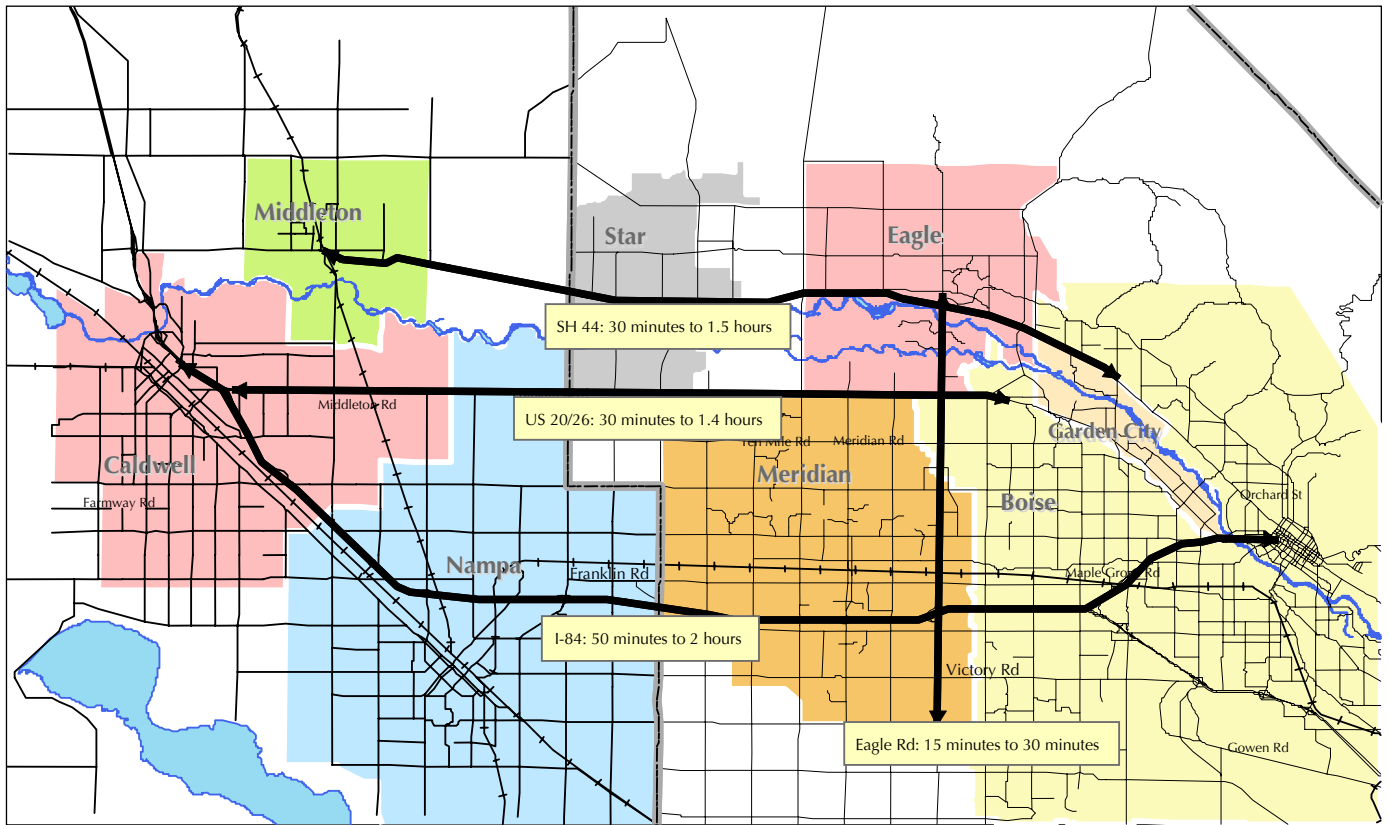


residents, the analysis picked four common origin-destination pairs, as described below, and mapped the results on the following page.

- I-84, Caldwell to Downtown Boise
- SH 44, Middleton to Northgate Shopping Center
- US 20/26, N. Caldwell to HP
- Eagle Road, SW Boise to Downtown Eagle







Travel Time Increase

This map depicts the increases in travel time. The more important aspect of this analysis is the percentage increases in travel times, which range from a 150% increase to a 200% increase in travel time. Not surprisingly, the greater increases were on the east-west travel route.

The potential of Beyond 2030 indicates the need to:

- Offer alternatives to driving

- Move toward a development pattern that reduces the need to travel
- Preserve future corridors not yet warranted for construction under growth by 2030.

With most roads at or above capacity, widening existing roads even more than proposed in *Communities in Motion* will mean substantial financial costs and cause impacts on the adjacent residences, businesses and other uses.



## Comparisons to Other Communities

The potential travel issues are significant, yet they should not be viewed as catastrophic. While 1.5 million is a much larger population than the current 500,000, there are many cities in the west and southwest approaching or over 1 million that are economically vital and maintain a desirable quality of life. These cities have higher congestion than the Treasure Valley. They also put significant money into roadways and transit. All have rail systems. Las Vegas system is privately-owned,

oriented for visitors, and has an extensive bus system in place. In 2004, these communities spent between \$188 and \$972 per household on transit operations and maintenance (O&M) and capital investments such as rail systems. This puts the \$125 per household in new revenue for implementing the transit network in this region as described in Chapter 5 into perspective. Also consider that the average per household roadway expenditure for these regions ranges from \$634 to \$1,505.

	Transit Service Population (1)	Total Annual Transit Expense (1)	Expenditures per Household on Transit (2)	Annual Regional Transportation Plan Expenditures on Roadways (3)	Expenditures per Household on Roadways (3)
San Jose, California	1,731,400	\$520,012,617	\$972	\$1,680,000,000	\$634
Austin, Texas	727,000	\$143,978,488	\$525	\$640,160,000	\$1,125
Denver, Colorado	2,545,000	\$484,848,233	\$490	\$1,557,520,000	\$1,505
Las Vegas, Nevada	1,686,827	\$119,262,312	\$188	\$463,760,000	\$660
Sacramento, California	1,035,009	\$289,957,034	\$757	\$796,571,000	\$1,000
Salt Lake City, Utah	1,744,417	\$168,852,111	\$299	\$758,154,000	\$1,383

### Sources:

1. National Transit Database. 2004. Includes operating and capital expenditures. <http://www.ntdprogram.com/ntdprogram/pubs.htm>
2. Census household sizes for the urbanized areas were used to estimate number of households.
3. Expenditures based on average annual roadway investments derived from the respective regional transportation plans. Includes all capital and operating/maintenance expenses for state and local roads. The total investment costs were divided by the number of years covered in each plan.

## The Next Plan

*Communities in Motion* will be updated by July 2010 to meet the four-year update cycle mandated by the Federal Transportation Act, *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU). COMPASS may update it sooner, and it will most certainly be amended before the four years are up. As noted in Chapter 3, COMPASS will prepare an Annual Monitoring Report. This report will track growth, transportation investments, transportation performance and policy changes tied to the goals and objectives espoused in *Communities in Motion*.

The next update may not have the same detailed analysis of land use options that was undertaken for *Communities in Motion*, but it will need to address whether land use patterns are shifting to reflect more of the higher density, mixed use developments called for in this plan.

The update will also need to evaluate the pace of development, especially in smaller cities that can see rapid increases in building and subdivision activity. Is the 2.2% growth rate used in developing a 2030 population of 825,000 for Ada County and Canyon County valid—or has it been exceeded year after year?



Pedestrian Friendly Intersection Design (FHWA)

We need to better understand what drives growth in the region and need to consider:

- How strong is the tie between job creation and population growth?
- To what extent will this region see growth as a result of retirees attracted by a favorable climate, outdoor amenities, affordable housing (compared to some regions) and other qualities?
- What about the attraction of the region to younger adults? Will they be seeking a suburban environment or a more diversified urban environment?
- What is the relationship between the pace of housing development and out-of-area speculation?
- Will energy costs begin to affect residential location decisions and choices between driving and other modes?
- How will the escalating raw land prices affect development patterns?
- Will more employment, especially in terms of retail and services, move into areas now seeing a boom in residential construction? Conversely, will residential construction boom near the urban centers increase as has occurred in other metropolitan areas?
- What is the support for expanding the revenue base for public transportation?
- How does the region balance roadway design, traffic growth, and community goals for neighborhood protection and downtown vitality?

## **In Sum**

A plan is not a solution in itself. Rather it offers a destination and a broad set of instructions on how to get there. During three years of *Communities in Motion* public outreach sessions, residents told us loud and clear that they want change in the way this region grows. The intent is to create a future in which there is:

**Open space**

**Well-defined communities**

**A choice of housing,**

**Effective public transportation**

**Better options for walking and biking.**

To reach these goals involves investing in transportation, considering the design of our transportation systems, and integrating transportation and land use decisions. The adoption of *Communities in Motion* is not our destination; rather it is the start of our journey.



