

*Remarks by Karl Polen
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“Growth, Water and the Role of the CAGR”
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Good Afternoon and thanks to the organizers for inviting me to speak to you today.

I have been involved in the real estate business and the water business in Phoenix since the mid 1980's. It's a cliché to observe that Arizona has changed greatly in that time.

I recall speaking at a conference like this 10 or 15 years ago and what I remember saying is that water would never be a limiting factor for growth – that other factors such as cost of development, regulatory burden and that growth itself would gradually reduce the quality of life in Phoenix which was its natural advantage. So, as prices of houses went up, air pollution got worse and commutes got longer, these would be dampening effects that would slow down growth and push it to other more attractive regions. Phoenix would have its day in the sun, but as it lost its advantage, some other town would take over.

I couldn't have been more wrong. In the last 20 years the price of a new home has at least doubled and, in the most desirable locations, prices have tripled or quadrupled. Nevertheless, demand for housing has grown robustly.

How could that be? Elementary economics would suggest that if the price of something goes up, consumers would seek an alternative.

It turns out that the version of economics that I learned in graduate school doesn't do a good job of describing the relative economy of regions – why some places grow and flourish and others do not.

Over the years, my involvement in development activities has grown beyond Arizona and I have worked on major projects throughout the Southwest and now Mexico. So, understanding what makes some areas grow and others founder is of fundamental importance to me.

What I've stumbled onto since then is a new economics of growth, largely worked out in the 1980's and 1990's, that builds on the subjective observations about cities in the seminal works of Jane Jacobs. Economists like Ed Glaeser who heads the housing program at Harvard have contributed greatly to our understanding.

A fundamental idea of this new economics is a fresh look at the notion of externality. An externality is an unintended consequence that is not captured in the price of a good. A classic example is pollution and policy makers have implemented permit systems which capture the cost of pollution in the price of goods whose manufacture causes pollution.

So, in the old way of looking at it externalities are sort of an exception, friction in an otherwise correctly working price system leading ultimately to a proper allocation of goods.

It turns out that view misses what is most important in the development of a city or region. Externalities also include positive unintended consequences, which if they are larger than the negative ones, creates a positive feedback loop which induces growth. In the case of population and housing, this is evidenced powerfully in the development of metropolitan Phoenix. The new residents of Phoenix in combination with the people who were already here have made investments improving the quality of the

town, consistently voting to tax themselves to invest in transportation in the form of roads, light rail and what may be the country's best airport. We've invested in a system of parks and open space within urban areas unparalleled in the rest of the country. We've invested in cultural institutions in the form of improved venues for cultural events, support of cultural institutions, and professional sports teams. And a few heroic individuals have made large personal investments through major contributions to ASU and UofA and through the creation of institutions like T-Gen.

Our investments have been rewarded through a continually improving quality of life and economic development creating job opportunity and an ever more diverse economic base. As Phoenix gets bigger and better, there are more and more reasons for people to want to live here. Simply put, demand for housing remains strong in the face of higher prices, because the opportunity to live in Phoenix is worth more.

When I was beginning my business career nearly 30 years ago, I read Peter Drucker, Bruce Henderson and Michael Porter for guidance. I selected the real estate industry because I wanted to work for an entrepreneurial organization, and real estate seemed like a natural choice because it was the only industry I could find that offered the opportunity to be competitive and profitable and yet operate on a local scale. I then researched cities to find a location which would be promising for a career. I wanted to find a city big enough to have opportunity, but not so big as to be already institutional. I decided that the two best opportunities were to be found in Phoenix, AZ and Charlotte, North Carolina. Either would have been a good choice, and it's only an accident that I ended up in Phoenix.

So, Phoenix has attracted entrepreneurially minded people and that has paid off in countless individual success stories. Phoenix now

has the second highest concentration of individuals with a liquid net worth of greater than \$1 million. Birds of a feather attract and Phoenix is now even more attractive to budding entrepreneurs and we will continue to attract them in droves and the entrepreneurial energy of our town is in and of itself a powerful growth force. Increasingly, we grow our own entrepreneurs and investments in our local graduate business programs is producing a new wave of business owners. No one needs to leave Phoenix to find opportunity.

Growth and success are embedded in what Phoenix is. And Arizona as a whole is remarkably open to newcomers. While I've lived in Phoenix, I've had the opportunity to serve the public through a variety of volunteer activities and have been appointed by 4 successive governors to various boards and commissions. Before moving to Phoenix, I lived in Nashville and this never would have happened in Tennessee. Grandchildren of people who moved to Tennessee after the civil war were still considered outsiders by the powerful elite of the state.

The openness of Arizona is a fundamental strength that has contributed to the success of the state, but it also embeds within the politics and leadership of the state an openness to growth and change. When anti-growth interests attempted to pass a ballot initiative to constrain growth they were soundly defeated at the polls by the voting public. The people who have become the most powerful leaders in the state are the same people with the deepest vested interest in growth.

So, what do we do as planners of infrastructure in an environment of powerful, rapid, embedded and ineluctable growth?

When it comes to water, it is time for us to open ourselves to all the possibilities. In a recent business trip to Mexico, I was standing on a stunningly beautiful, but very rocky piece of ground.

I thought this is fantastic, but how in the world are we going to get water here? The Mexican officials I was visiting with glanced over at the ocean and responded with a formality and politeness reserved only for the most obtuse of visitors. I was blind to the obvious. Desalinization and treatment, not pipelines and canals, is the technology of choice for newly developing arid areas. The technical challenges of water development for Arizona are significant, but surmountable.

The way we have developed water for the southwestern states made sense for the late 19th and early 20th centuries. We needed to have water as nearly free as possible to encourage agricultural development and settlement of the region so we could have domestically grown cotton for a war effort. We need to rethink this price structure. Water doesn't need to be cheaper than cable tv, and shouldn't be. Consumers, particularly those in newly developing areas, should pay a price for water that has a closer relationship to the value of what they are consuming.

Financing the next bucket of water will require an entity with revenue potential from a broad customer base. The Central Arizona Groundwater Replenishment District is a good candidate with a customer base of several hundred thousand households and the ability to assess tax on those houses in proportion to water use. Such a revenue stream is ideally suited as a basis for the financing large scale projects because it is stable, growing and offers a high degree of assurance of collection. Impact fees can be added to this model, but are not a replacement for user fees. The financial structure of the CAP with a combination of user fees and more broadly based taxes is a model for how a large water project should be financed. Given the enormous financial engine that Arizona has become, solving the financial issues for future water should be the easiest part of the puzzle to solve. We just need to get in the habit of thinking in terms of billions and realize that in today's economy it's not a particularly big number.

The coming era will require great vision, but even greater commitment to collaboration. Within Arizona, historically rival institutions and regions will need to work together to achieve common goals for the good of the people. Even more challenging, will be the inescapable need for interstate and international cooperation. When we look at the water infrastructure that serves the southwest built over the last century and a quarter, we see structures and institutions that are different from what we would build today given technical capabilities, environmental sensibilities and knowledge of our potential as a region. We need to get beyond defending the status quo and fundamentally revisit these structures and institutions to create a new water future for an urbanized west. If it chooses to, the CAGRDR can play a central role in this. But the very question of the “role of the CAGRDR” suggests a parochial jealousy that we need to abandon.

I think I was right when I said 15 years ago that water would not be a limiting factor to growth, but wrong about almost everything else. The underlying economic forces that cause growth and the politics which reinforce them are far more powerful than I understood. But I also underestimated our ability to pay for what is needed and our ingenuity in providing it. We are equal to the task.

Thank you.