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THE WATER DEVELOPMENT-GROWTH RELATIONSHIP: CASE STUDIES

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Water and Growth in the West

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The Water Development-Growth Relationship: Case Studies

by Edward F. Harvey

Summary

A debate over the relationship between water development and growth has persisted since the first U.S. Bureau of Reclamation initiative to "develop the West." One thesis suggests that water development spurs economic and population growth. The opposite viewpoint is that population growth, or at least the anticipation of population growth, spurs water development. These divergent viewpoints continue to cloud public policy decisions: witness Colorado's deliberations over the proposed Two Forks Dam. Suspicions on this point among the parties-at-interest in water development decisions stand in the way of well reasoned consensus on water and growth policies.

Case studies of water development decisions and historical, current or anticipated growth might lend empiricism to the water development-growth relationship. The timing of urbanization and water development decisions can be examined for many communities throughout the West. Many other communities are have attempted to attract economic development in part through ample water supplies.

Past research performed by the author brings selected case studies to light. This paper looks at urbanizing areas in New Mexico, California and Colorado. Separately, rural areas seeking economic development through water supplies in Arizona and Colorado are also considered.

In sum, these case studies do not support a consistent relationship between water development decisions and subsequent growth. Where development of water supplies has been constrained, substantial growth has continued to occur. Water providers, new businesses and new residents to an area are very creative in securing water supplies. Where regional water supplies have been expanded or decisions to develop those supplies have been made, there is little evidence from the case studies of a "bump" in growth rates.

In fact, a retrospective examination of actual growth and water supply decisions does not yet point to a causal relationship. A longer time period will be needed to confirm this finding for these case studies. However, such a lagging relationship might be further questioned as the economic and demographic forecast exert an evolving effect upon a region's growth.

Based upon two case studies, rural or developing areas have not found ample water supplies to be a panacea for economic development. Infrastructure and workforce characteristics, along with other considerations, suggest a more complicated and challenging road to successful economic development in rural areas.

New thesis about the water development-growth relationship merit further study:

1. Water development policy is a weak, ineffective tool for achieving growth management goals.
2. Water supply planning in anticipation of future growth should not be stigmatized as pro-growth or as contradicting growth management efforts.

3. Parties-at-interest to water development decisions can take the growth stimulus argument off the table.
4. Rural areas will not achieve economic development goals through ample water supplies alone.

I. Introduction

- A. The debate over precedence of water development and growth tends to polarize parties-at-interest, largely because of mutual distrust.
- B. Case studies of urbanizing areas in which the West can shed light on which comes first: water development or growth.

II. Santa Fe County, New Mexico; The Past 20 Years

- A. Water development policy has been heavily influenced by land use policy.
- B. Land use policy has focused on growth concentrated in the City of Santa Fe and careful growth management within the Extraterritorial Zone.
- C. Water system extension was constrained for an extended period.
- D. Housing Associations formed to provide water and individual homeowners developed wells.
- E. Growth outside the city limits increased.

III. Coachella Valley, California

- A. Water development policy is shared by the Coachella Valley Water District and the municipalities of Palm Springs, Palm Desert and others.
- B. Conversion of water resource applications are difficult because agriculture and golf course irrigation have relatively high values.
- C. Surface water supplies have not kept up with demand, leading to greater dependence on groundwater.
- D. Water development plans are now being formulated to conserve, reuse and recharge surface water to meet anticipated needs.

IV. Mesa County, Colorado

- A. Water development policies are shared by the Ute Water Conservancy District, the City of Grand Junction, other municipalities and other water districts.
- B. Growth has been considerable throughout the County; responses to that growth have varied widely.
- C. Water supply expansion and growth affects were examined in BLM's recent EIS for the Plateau Creek Pipeline.
- D. The lack of water from one supplier was projected to redirect growth to the others until build out of all municipalities and related water supplies were exhausted.

V. Water Supplies and the Promise of Growth in Rural Areas

- A. La Paz County, Arizona was becoming a water farm for Maricopa County in the 1980's.
 - 1. La Paz County feared the loss of future economic opportunity if the water exported.
 - 2. After a long confrontation, water exports from La Paz County to metropolitan Phoenix diminished.
 - 3. La Paz County still has plenty of water and a modest economy.
- B. Yampa Valley, Colorado has faced new water supply management priorities to address endangered fish issues.
 - 1. Water supplies in this valley have historically been available for many forms of economic development.
 - 2. Future water needs for energy development, recreation development and agriculture have been studied and found to be constrained by market, infrastructure and climate.
 - 3. Although water is clearly required for future economic development in the Yampa Valley, water supplies have not spurred past growth.

VI. Lessons learned from these case studies

- A. The timelines for water development and growth are inconclusive, leading to questions about the relationship.
- B. The link between water development policies and growth management goals has sometimes been made through land use policies.
- C. If any other water supplies exist, growth will find them.
- D. Groundwater is the alternative water source in many instances, owing to differences in groundwater and surface water regulation in some western states.
- E. If water development and growth policies are fragmented among jurisdictions in a region, growth will find a home.
- F. Although case studies are limited, the promise of economic development in rural areas is unlikely to hinge upon ample water supplies.