



Pinal County Comprehensive Plan

Forum Series: Water

May 29, 2008

Moderator: Curt Dunham

Partners for Strategic Action, Inc.



Purpose of Forum Series

To provide a topic specific overview of key elements of the Pinal Comprehensive Plan

Four topics to be explored:

May 15 – Transportation

May 22 – Economic Development

May 29 – Water

June 5 – Sustainability



What is the Comprehensive Plan?

- A statement of policy to guide decision-making
- A plan to anticipate and manage growth
- A definition of the appropriate role for Pinal County
- An implementation program



Where are we in the process?

Task 1: Project Initiation

Task 2: Framing Pinal County Comprehensive Plan Issues

Task 3: Pinal County Comprehensive Plan Compendium

Task 4: Setting the Vision

Task 5: Policy Framework

Task 6: Alternatives Development and Analysis

Task 7: Preferred Plan Alternative

Task 8: Draft Comprehensive Plan (60-Day Review Draft)

Task 9: Agency Review

Task 10: Implementation Plan

Task 11: Public Hearing Comprehensive Plan

Task 12: Produce Final Pinal County Comprehensive Plan



How Did We Get Here?

- Data collection and analysis: Compendium
- Road Shows (July 2007)
- Visioning Workshops (August 2007)
- Design Charrettes (October 2007)
- Youth Charrettes (December 2007)
- Alternatives Workshops (February 2008)
- Preferred Future Workshops (April 2008)
- Dozens of work group meetings





Key Pinal Plan Concepts

- Creates a vision-based plan
- Plans for buildout while addressing shorter-term implementation and growth areas
- Ensures managed growth county-wide compatible with municipalities
- Provides a comprehensive multimodal circulation system



Key Pinal Plan Concepts

- Sets realistic employment targets
- Identifies employment land to ensure quality jobs can be attracted to Pinal
- Preserves large swaths of open space
- Encourages a long term sustainable development pattern that increases densities in appropriate areas while maintaining rural character in others



Topic: Water

- Learn about the history of the water issue in Arizona and the Southwest
- Today's water supply issues
- Tomorrow's challenges, constraints, and opportunities

Tonight's Speakers



Jack L. August, Jr., PhD

Barry Goldwater Center for the Southwest
Water History 101



George Fletcher

Replenishment Services LLC
Water and Pinal County



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Water and Pinal County

Pinal County Success Story – *Just Add Water!*

- Water Supply Issues Today
- Is there Enough Water for Tomorrow?



Water Lingo

- What is an acre-foot?

(the amount of water to fill one acre with a foot of water)



- What is an AMA?

(Active Management Areas)



- What is groundwater?

(water beneath the Earth's surface)



What “They” Have Been Saying

As western and central Pinal County grow, water becomes the watchword.

It's there now and is expected be there in the future, keeping in mind the scramble that the greater Phoenix and Tucson areas have been going through as growth explodes and water shrinks.

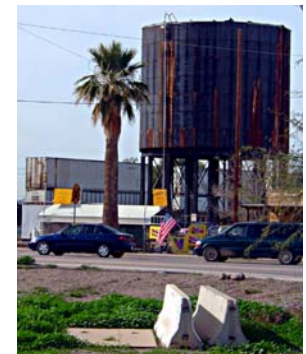


“Water supplies are not the fatal flaw that will prevent the Sun Corridor from happening. But the role of water in shaping life in this region will continue as a dominant force. Increasingly, development patterns, trends, and growth rates will be modified significantly by water issues and attitudes.”



Source: *megapolitan* | *arizona's sun corridor* MORRISON INSTITUTE for public policy, 2008.

- When municipal demand hits 82,000 acre-feet a year, continued use will begin mining the aquifer. If it continues long enough, the area will run out of groundwater.
- The Pinal AMA has a very finite and relatively limited amount of renewable supplies of groundwater. However, a mechanism called the Central Arizona Groundwater Replenishment District was created to bring renewable supplies to help sustain growth.
- Pinal County Supervisor David Snider, a member of the Water Management Committee working group, said, *“We are doing our best to manage the groundwater resources we have by encouraging new growth and development to bring water to the table.”*



"Water is always a big concern," Buchanan said. "It's pretty much the state of Arizona that governs that, so we're very concerned about water and having water supplies that will accommodate the growth."



Everyone has a stake...

Existing users

- **Agriculture**...declining groundwater levels/increasing CAP water costs, reduced availability all affect agricultural economies
- **Industries**...declining groundwater/increasing lift costs, reduced water quality, subsidence, all pose economic risks
- **Residential**...whether served by municipal, private or individual water supplies, all are impacted by water supply issues



And for those who are not here...
...yet.

No matter whose numbers you use, there is currently not enough available water in Pinal County to satisfy the growth potential that exists





Quotes

- *People go where people are*
- *Water goes where people are*
- *Water flows uphill to money*
- *The frog does not drink up the pond in which he lives*
- *To a gardener there is nothing more exasperating than a hose that just isn't long enough*

How Much Water is There?

- The amount of available water in Pinal County does not answer the question. Several have answered this question with different values, derived in different ways.
- The real question is, “Is there enough water where and when it is needed?”
- The easy answer is, for now, yes.
- The difficult answer is, for tomorrow, no.



Source: Arizona Department of Water Resources

If there isn't enough water, what do we do?

- Since we are planning the future, the easy question and its answer are comforting, but we must focus on the hard question and the even more difficult answer.
- Water resources planners have one job to do: turn the difficult answer of “no” into the comforting answer of “yes”



Step One, Take Care of What You Already Have

- Conservation must be more than a catch phrase, it must become a way of life for everyone
- Will people conserve because it is the right thing to do?
 - Not everyone will unless...it costs, and that still is not enough

Want an example? Gasoline



Water is Lifestyle

Residential Uses

- Interior
 - Mostly behavioral – showers versus baths, low flow shower heads (only one showerhead per shower, etc.)
- Front Yard
 - Lawn, low water use, no water use (vegetation or no vegetation)
- Rear Yard
 - Your own lawn, low water use, no water use (vegetation or no vegetation) in favor of a community park?
 - Your own swimming pool, or community pool?
- What about shade? It's impact on comfort, energy consumption, dust control...vegetation or constructed?



Non-residential uses

- Commercial
 - Exterior – aesthetics versus water conserving
 - Trees, grass, low water use versus no water use
 - Interior
- Industrial
 - Exterior – same questions as Commercial
 - Interior
 - Process: recycling, using reclaimed water supplies
- Schools
 - Playgrounds and athletic fields – using reclaimed wastewater or artificial turf
- Transportation Rights of Way
 - Plant material or architectural
 - Aesthetics and dust control
- Recreation
 - Golf, water parks, parks



What is “the balance”

- We need trees for shade and oxygen
- We like grass and greenery, it helps reduce “heat island affect”
- We like water (especially in the desert) as an aesthetic feature
- The less we see trees, grass, and water, the more valuable those spaces become (lot premiums on lakes, landscaped common areas, golf courses)



“Native Vegetation”

- Ironwood, Palo Verde, etc., for shade and buffer areas
- Cactus, desert shrubs for aesthetics and preservation of the Sonoran Desert “image”
- The desert turns brown when the heat goes up...varies depending on the monsoon season.
- There is no “year round” green groundcover that does not need supplemental water. *Can you live with that?*



Reality

- People bring their comforts with them – expansive green lawns, willow trees, swimming pools with water falls
- Provides the illusion of “cool” in a hot place
- If you legislate landscaping for residential space, are you legislating lifestyle?
 - Alternatively, if you charge the market price for water, at least it can be brought to those who wish to pay for it. Does this create a “class based” lifestyle?



Solutions

- County is limited in power with respect to water resources.
- Water conservation education does help, and should be promoted to stretch existing supplies as far and as long as reasonably possible.
- The truth is, the solution is truly economic and political – therefore Pinal County must become even more active, vocal, and instrumental in statewide water resources issues.



The Final Question – Should Growth be Constrained by Water Availability?

- The answer is – growth is constrained by economics, of which water is a large part
- When economics dictate that more water is needed, it will come, but only when economic conditions are “right”
 - This has been the model throughout history, and it still functions today
 - Roman Aquaducts
 - Mexican Acequias
 - Catskill Water Project (NYC)
 - Central Arizona Project



Final Answer

*Another quote, this from from Apollo 13 –
“Failure...is not an option.”*



Questions and Answers

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Visit the Project Website Regularly!

www.PinalCountyPlan.com