

**ASU**<sup>®</sup> Kyl Center for Water Policy  
**at Morrison Institute**

**Arizona State University**

# **THE PRICE OF UNCERTAINTY**

**VVREO**

**May 4, 2018**

**What kind of  
“water certainty”  
does a community  
need to attract  
economic growth?**

# Qualitative Surveys

- **19 real estate developers**
- **8 corporate site consultants**
- **3 lawyers**

**“If you don’t have  
water, you don’t  
have economic  
development.”**

**(actual quote!)**

# Are investors more concerned about water these days?


	<u>Yes</u>	<u>No</u>	<u>Not Sure</u>
<b>Developers</b>	<b>16</b>	<b>1*</b>	<b>2</b>
<b>Consultants</b>	<b>6</b>	<b>1</b>	<b>1</b>
<b>Attorneys</b>	<b>1</b>		<b>2*</b>

\* “Water has always been a top concern.”

A background image of a water splash, with water droplets and ripples in shades of light blue and white. The splash is centered and fills most of the frame.

**“Now everyone  
is looking at it.”**

**Site Location Consultant**

A horizontal splash of water in shades of light blue and white, moving from left to right across the top half of the page. The water is captured in motion, with droplets and ripples visible.

**“If they’re not,  
they should be.”**


**Water Rights Lawyer**



**“If you use a lot of water you need a good reason to be in Arizona.”**

**Site Location Consultant**



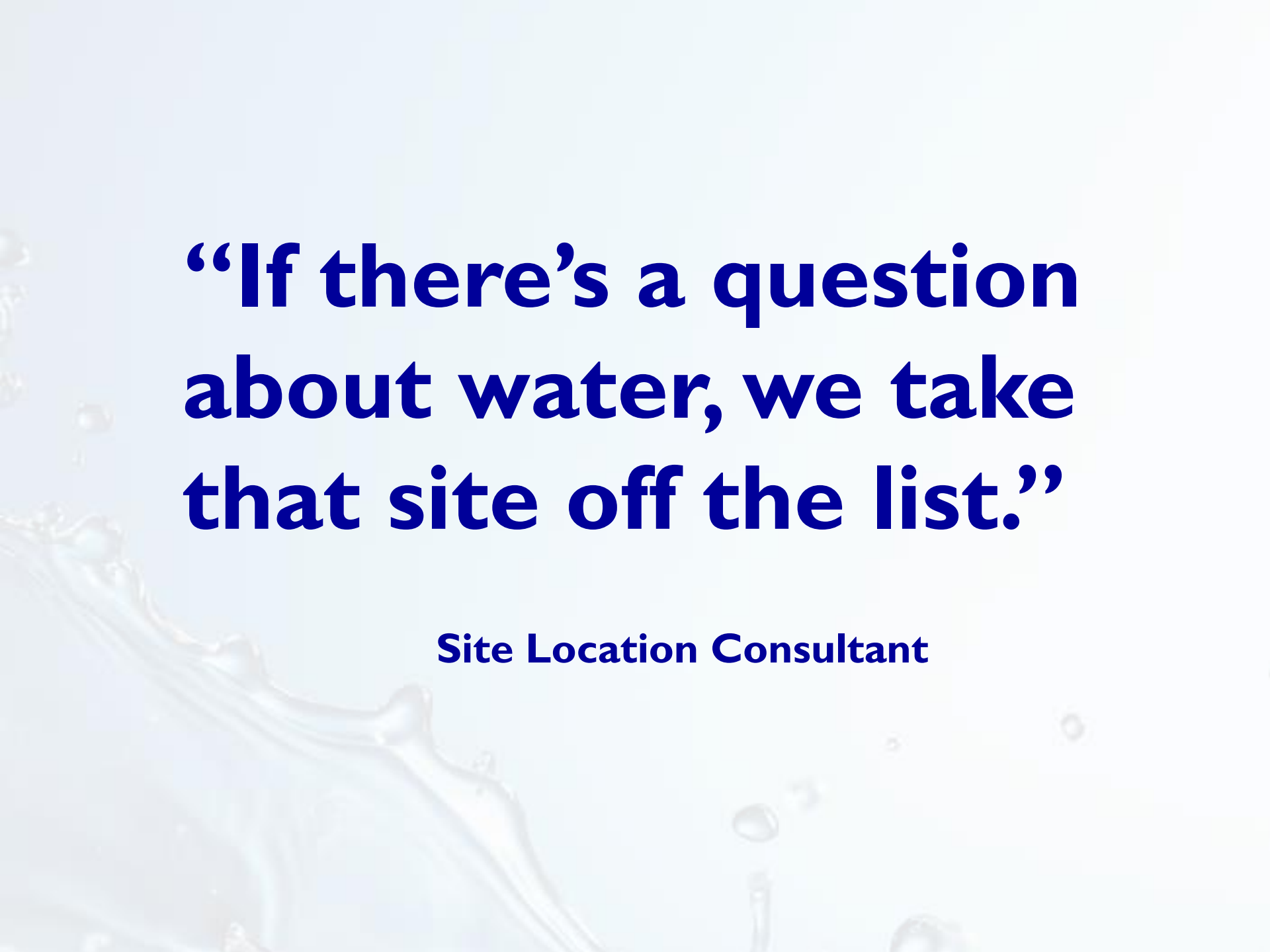
A background image featuring a dynamic splash of water. The water is captured in mid-air, creating a series of droplets and a flowing ribbon of liquid that curves across the lower portion of the frame. The water is clear and bright, contrasting with the light blue background. The overall composition is clean and modern.

**What is their  
tolerance for water  
rights uncertainty?**

**0%**

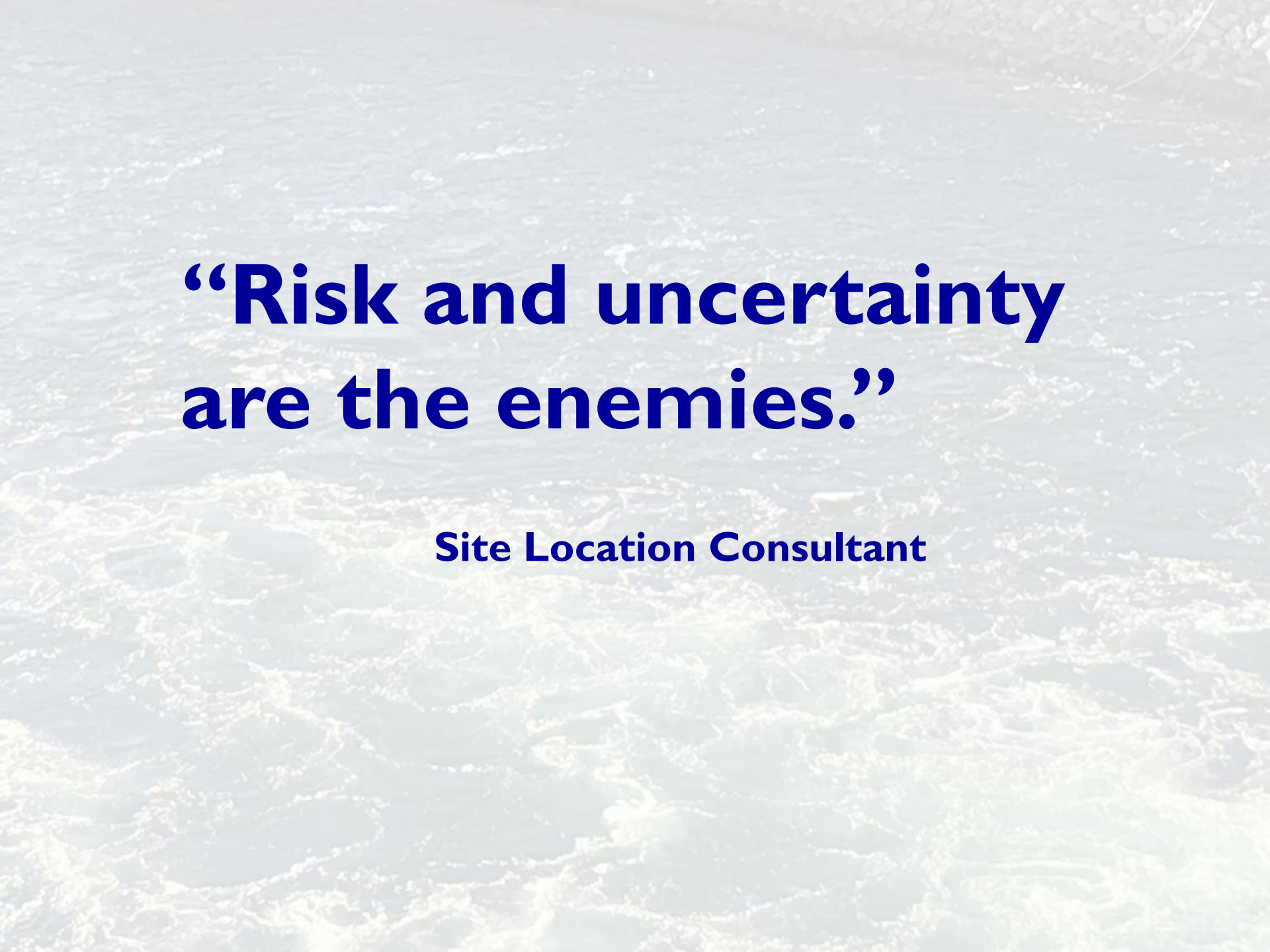
**“Investors must be comfortable that they’re not investing in a future problem. This is not an easy business and there is a lot that can go wrong.”**

**Real Estate Developer**

A background image showing a dynamic splash of water with various droplets and a main stream of water moving from the bottom left towards the center. The water is clear and bright, set against a light, almost white background.

**“If there’s a question  
about water, we take  
that site off the list.”**

**Site Location Consultant**

An aerial photograph of a river with turbulent rapids and white water, serving as the background for the text.

**“Risk and uncertainty  
are the enemies.”**

**Site Location Consultant**

**How do developers feel about active management areas?**

**“No complaints.”**

**“Water issues are simpler in AMAs.”**

**“Have you ever decided not to invest in a property because of concerns about water?”**

	<u>Yes</u>	<u>No</u>
<b>Developers</b>	11	7*
<b>Consultants</b>	1	7**

**“Have you ever decided not to invest in a property because of concerns about water?”**

**\*Of the 7 developers who responded no, all but one stated that they work exclusively within AMAs or that such a property would “self eliminate” or both.**



**“Have you ever decided not to invest in a property because of concerns about water?”**

**\*\*Of the 7 site consultants who responded no, all stated that such a property would “self eliminate.”**

# **Where do developers go for water-related information?**

**ADWR**

**Municipality / Water Provider**

**Attorney**

**Hydrologists**

**CAGR**

**Seller**

# **Where do site location consultants go for water-related information?**

**Municipality / Water Provider**  
**GPEC / ACA / Economic Dev Org**  
**Hydrologist**

An aerial photograph of a river with white-water rapids, serving as the background for the text.

**Not every part of  
the state enjoys  
“water certainty.”**



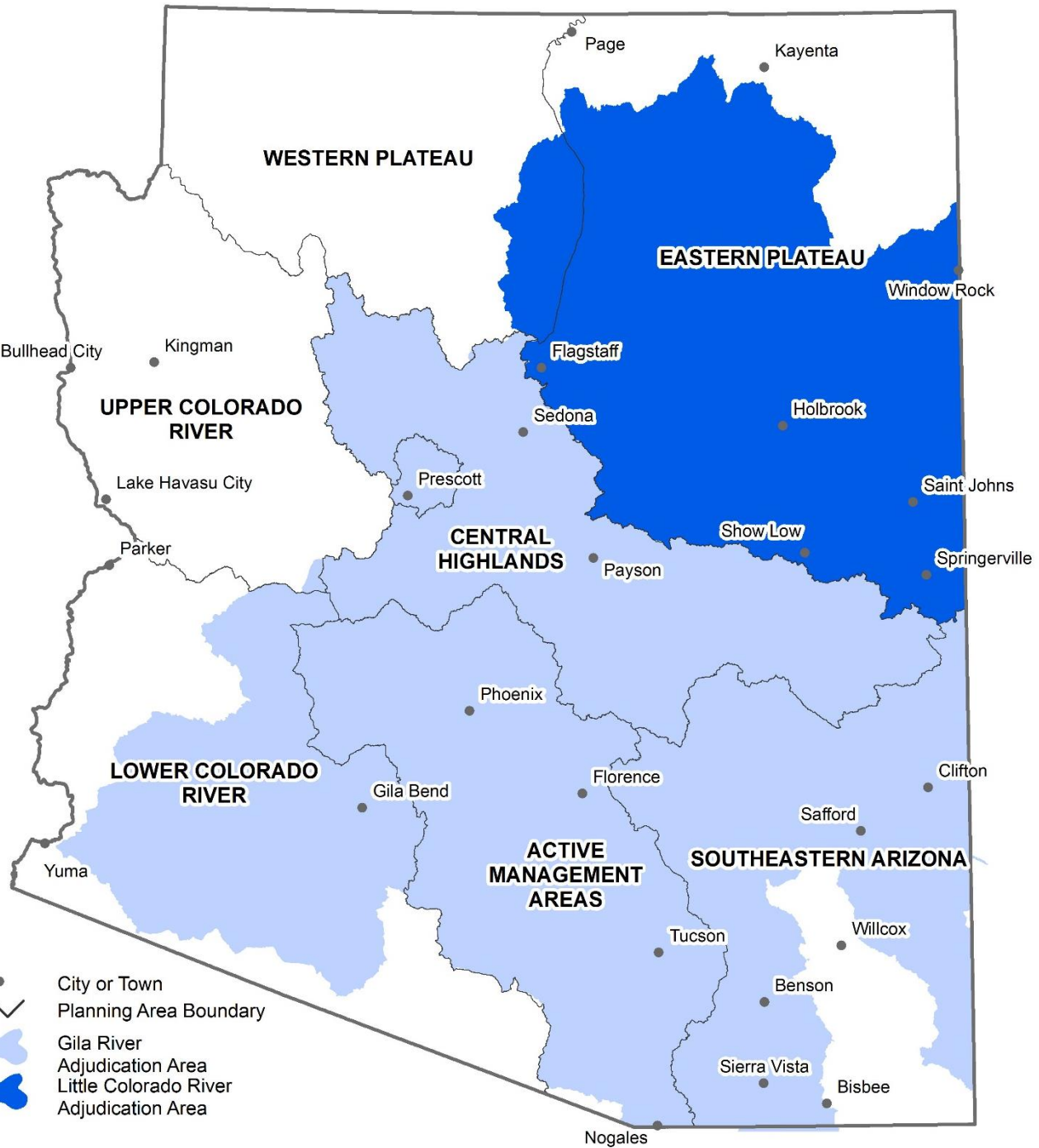




# The Arizona Town that Ran Out of Water







- City or Town
- ⎯ Planning Area Boundary
- ⬜ Gila River Adjudication Area
- ⬜ Little Colorado River Adjudication Area



# **Gila Watershed Adjudication**

- **commenced April 26, 1974**
- **56,825 claims**
- **32,056 claimants / parties**
- **Verde, San Pedro & other tribes**
- **92% of claims < 250 AF/year**

# The Subflow Problem

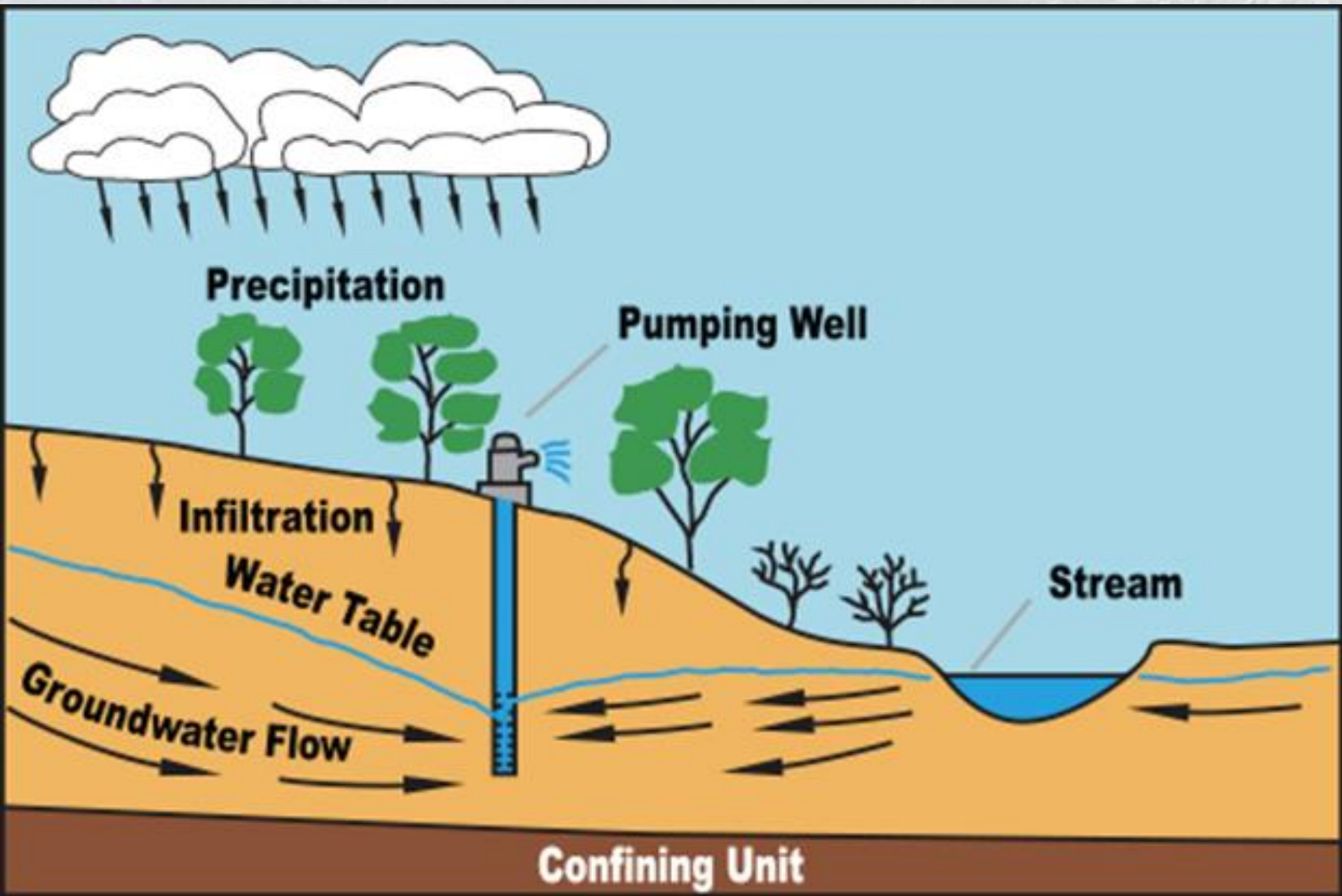




# What's the big deal about “subflow”?

**“Under Arizona's bifurcated system of managing surface and groundwater, the concept of subflow serves to protect appropriable surface water rights against interference caused by the pumping of groundwater. Because water is a very precious and limited commodity in Arizona, much turns on how ‘subflow’ is determined.”**

*In re General Adjudication of All Rights to Use Water in the Gila River System and Source, 198 Ariz. 330, 334-35, 9 P.3d 1069, 1073-74 (2000)*

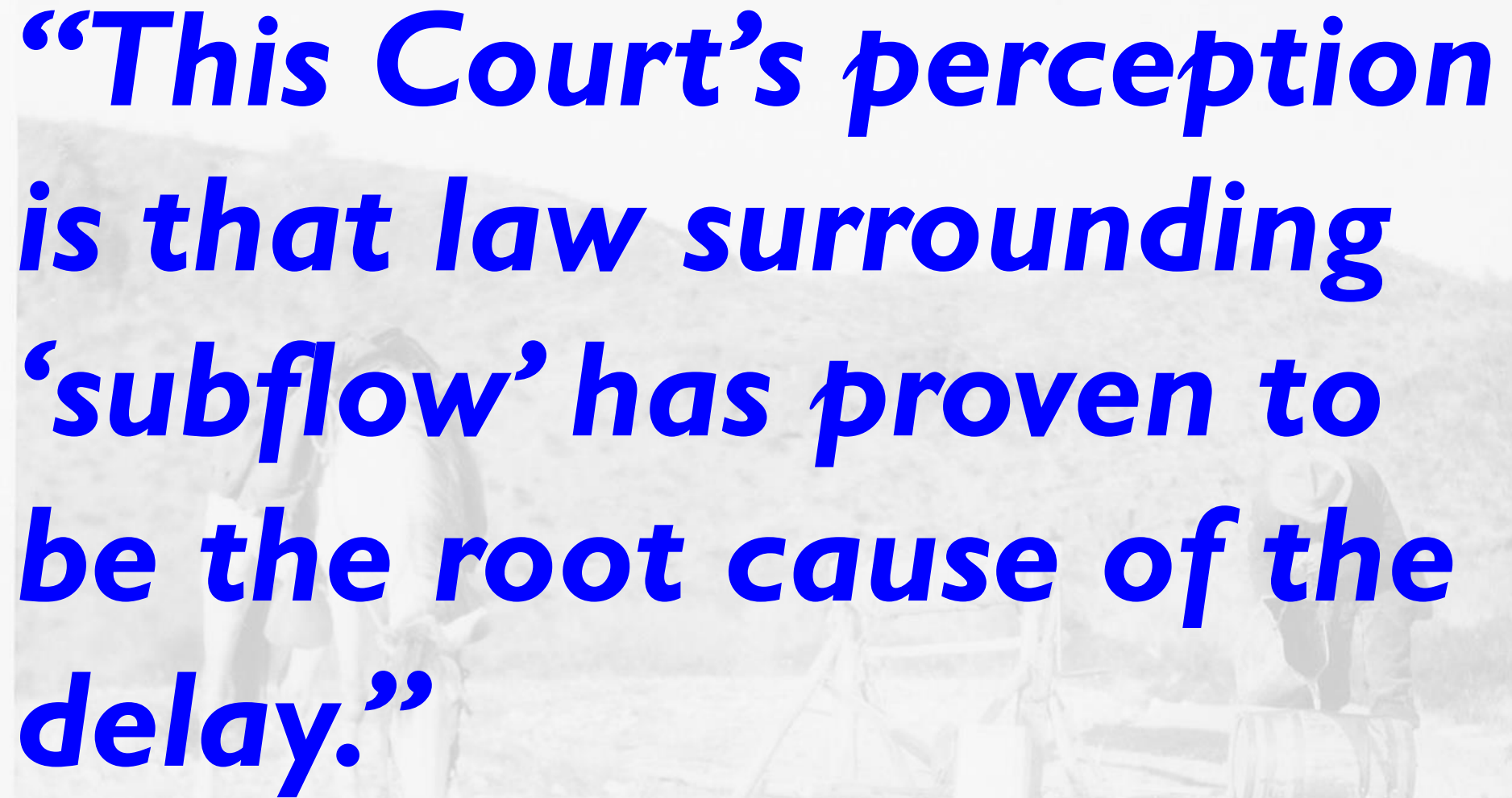


# So what is “subflow”?

“the saturated floodplain Holocene alluvium”

- all wells within the zone subject to adjudication
- **AND** all wells in the cone of depression
- **EXCEPT** de minimis wells

*In re General Adjudication of All Rights to Use Water in the Gila River System and Source, 198 Ariz. 344, 9 P.3d 1083*



***“This Court’s perception is that law surrounding ‘subflow’ has proven to be the root cause of the delay.”***

***Judge Brain, Minute Entry, June 2013***





## Progress on HSRs

**2002: San Pedro Subflow Technical Report**

**2005: Superior Court approves methodology**

**2008: Verde Holocene Alluvium Report**

**2008: ADWR's budget reduced by > 50%**

**2009: San Pedro HSR**

**2010: SPRNCA Land Ownership Report**

**2012: San Pedro Delineation Methodology  
SPRNCA Reserved Rights Report**

**2014: Revised San Pedro Delineation Report  
Aravaipa Reserved Rights Report**

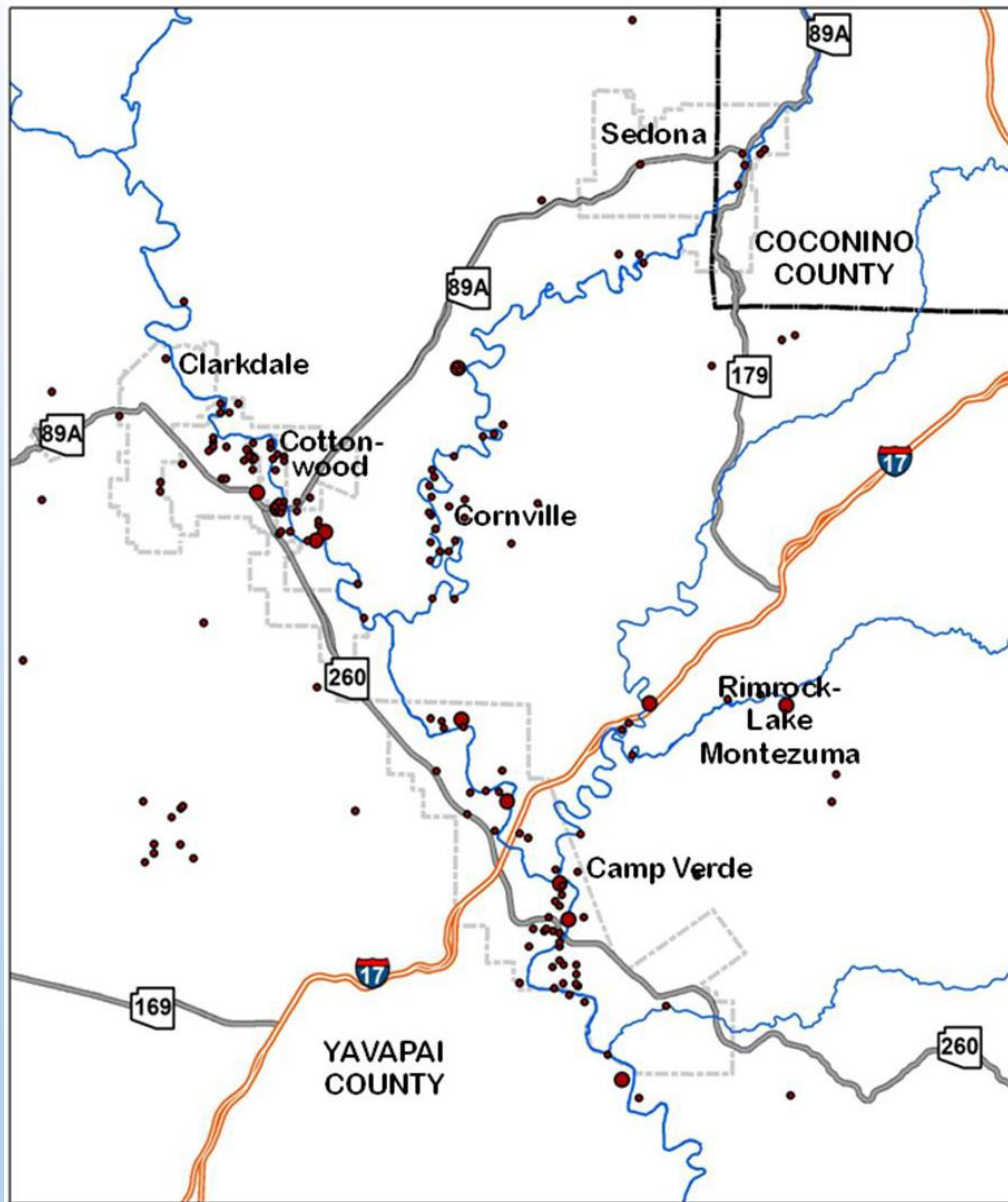
**2015: Supplemental Delineation Report**

**2017: San Pedro HSR finalized!**



# Silver v. Pueblo Del Sol Water Co. Maricopa County Superior Court





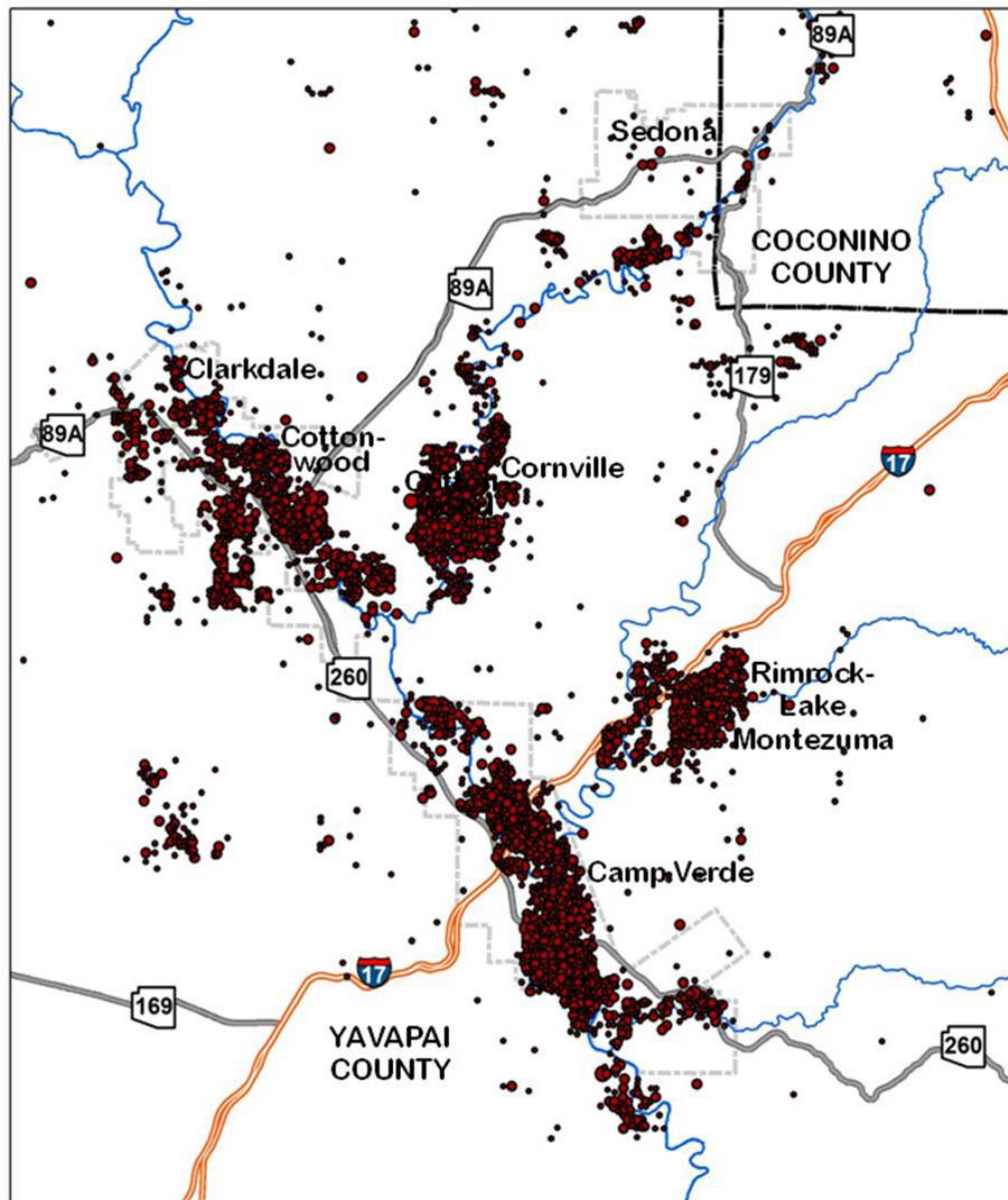
Verde Valley Wells as of 1950: 228 Wells



- Location with 1 well
- Location with 2-4 wells







Verde Valley Wells as of 2011: 6,436 Wells



- Location with 1 well
- Location with 2-5 wells
- Location with 6-12 wells
- Location with 13 or more wells





# Strategic Priority No. 1

## Resolution of Water Rights Claims

“Until that process is complete, **uncertainty** regarding the nature, extent and priority of water rights will make it **difficult** to identify **all the strategies necessary** for meeting projected water demands.”

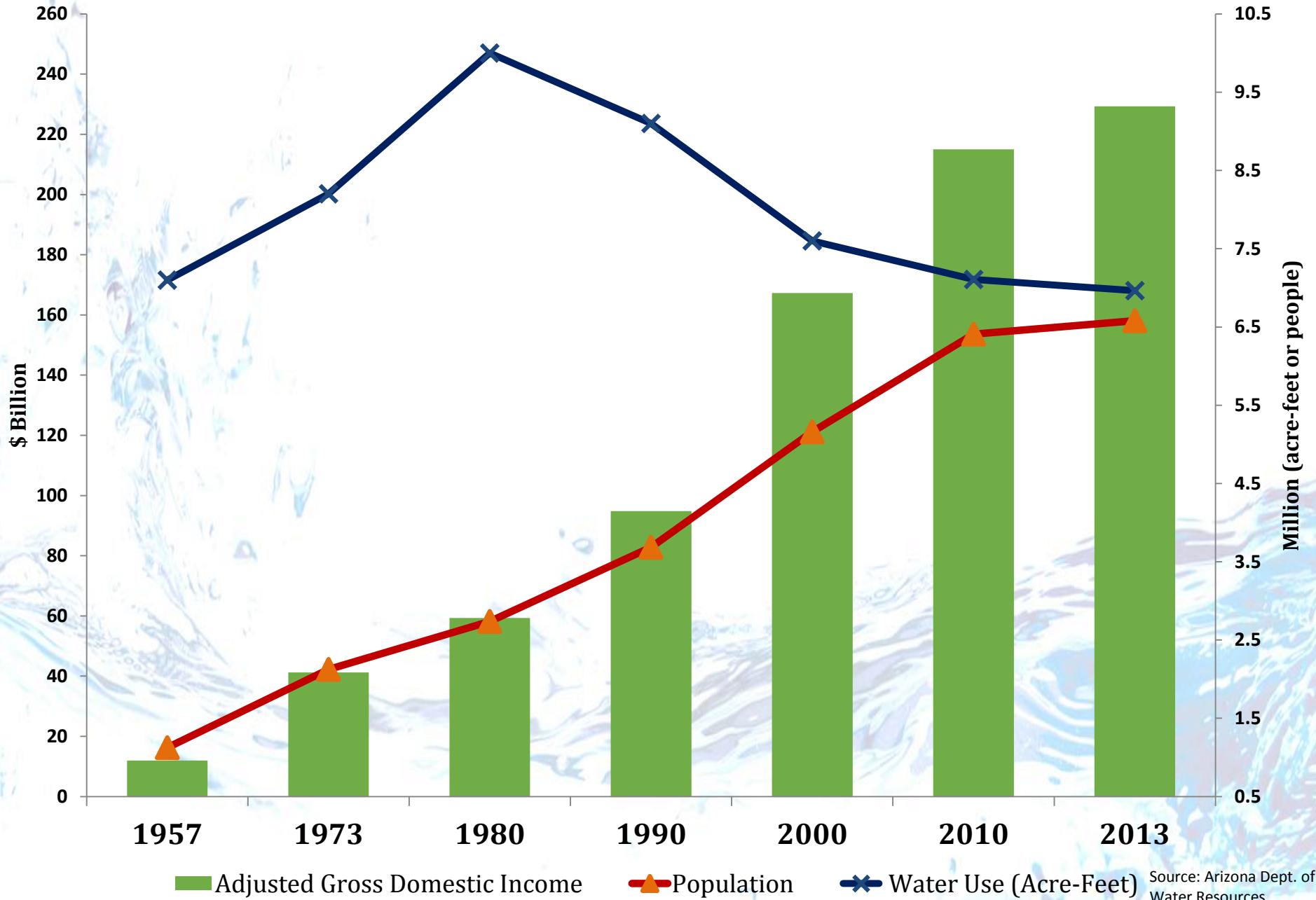
Arizona Department of Water Resources, *Arizona's Next Century: A Strategic Vision for Water Supply Sustainability (2014)*

An aerial photograph of a river delta, showing a complex network of water channels and land. The water is a mix of dark blue and light green, with white foam from rapids or waves. The land is a mix of green and brown. The text "Is there a way out?" is overlaid in the center in a bold, blue, sans-serif font.

**Is there a way out?**

**Water and growth  
have been  
decoupled.**

# AZ Water Demand & Growth (1957 – 2013)





**Any solution  
must be local.**



# **Cochise Conservation & Recharge Network**

The background of the slide features a dynamic splash of water, with numerous bubbles and droplets captured in motion. In the center-right of the image, a hand is visible, reaching out towards the water. The overall color palette is light and airy, dominated by pale blues and whites, which makes the dark blue text stand out prominently.

**Some additional regulation  
is likely, one way or  
another.**

**But it could be voluntary.**



# **Possible Solutions**

- **Forms of water transfer**
- **Groundwater mitigation**
- **Augmentation**

# How do we get there?

**more negotiate**  
**less litigate**







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