



ASU[®] Kyl Center for Water Policy
at Morrison Institute

A R I Z O N A S T A T E U N I V E R S I T Y

Arizona Water Reuse Symposium

July 28, 2015



The New York Times

Still, Arizona is in dire straits. Its Colorado River water deliveries could be curtailed starting next year by the Bureau of Reclamation, which dispenses the river's water from Lake Mead. Earlier this month, the lake dropped to its lowest point since it was created by the construction of the Hoover Dam. **And calculations based on Arizona's own water accounting suggest that demand could outpace its existing water supply in less than a decade.**

Lustgarten, Abrahm. "How the West Overcounts Its Water Supplies," *The New York Times* (July 17, 2015)

July 17, 2015

The New York Times

Officials of the Central Arizona Project . . . say the two cities, Phoenix and Tucson, could replace the lost water, at least in the short term, by tapping groundwater supplies, lakes and rivers.

If they do not reduce consumption, the cuts could be necessary by as early as 2019, according to an analysis by the water project, and officials said that depending on drought conditions, the chances of water cutbacks by 2026 could be as high as 29 percent.

Wines, Michael. “Arizona Cities Could Face Cutbacks in Water from Colorado River, Officials Say” *The New York Times* (June 17, 2014).

June 17, 2014

The New York Times

Figuring out how water will be used here is like solving a puzzle speckled with blank pieces, in which the unknowns are the housing market and climate change.

Water managers weigh wet and dry cycles over the past 100 years against climate change models designed in the previous year and demographic projections. They also analyze the way parcels of land are zoned to make assumptions about how water will be used.

Over all, demand for water has declined steadily in this and in many other metropolitan areas, because of water-efficient technologies like low-flow toilets, and stricter building codes. Still, the draining of rivers and other water sources — from overdevelopment, poor management, climate change or a little bit of all of these — has forced communities to rethink their strategies.

“An Arid City Manages Its Thirst,” Fernanda Santos, *The New York Times* (June 16, 2013)

June 16, 2013

Los Angeles Times

Farmers who grow cattle feed and cotton in central Arizona could be forced to let fields lie fallow, maybe for good, and **cities like Phoenix might have to begin reusing wastewater** and even capping urban growth, the region's economic engine.

Yardley, William. “Shrinking Colorado River is a growing concern for Yuma farmers and millions of water users,” *Los Angeles Times* (July 18, 2015).

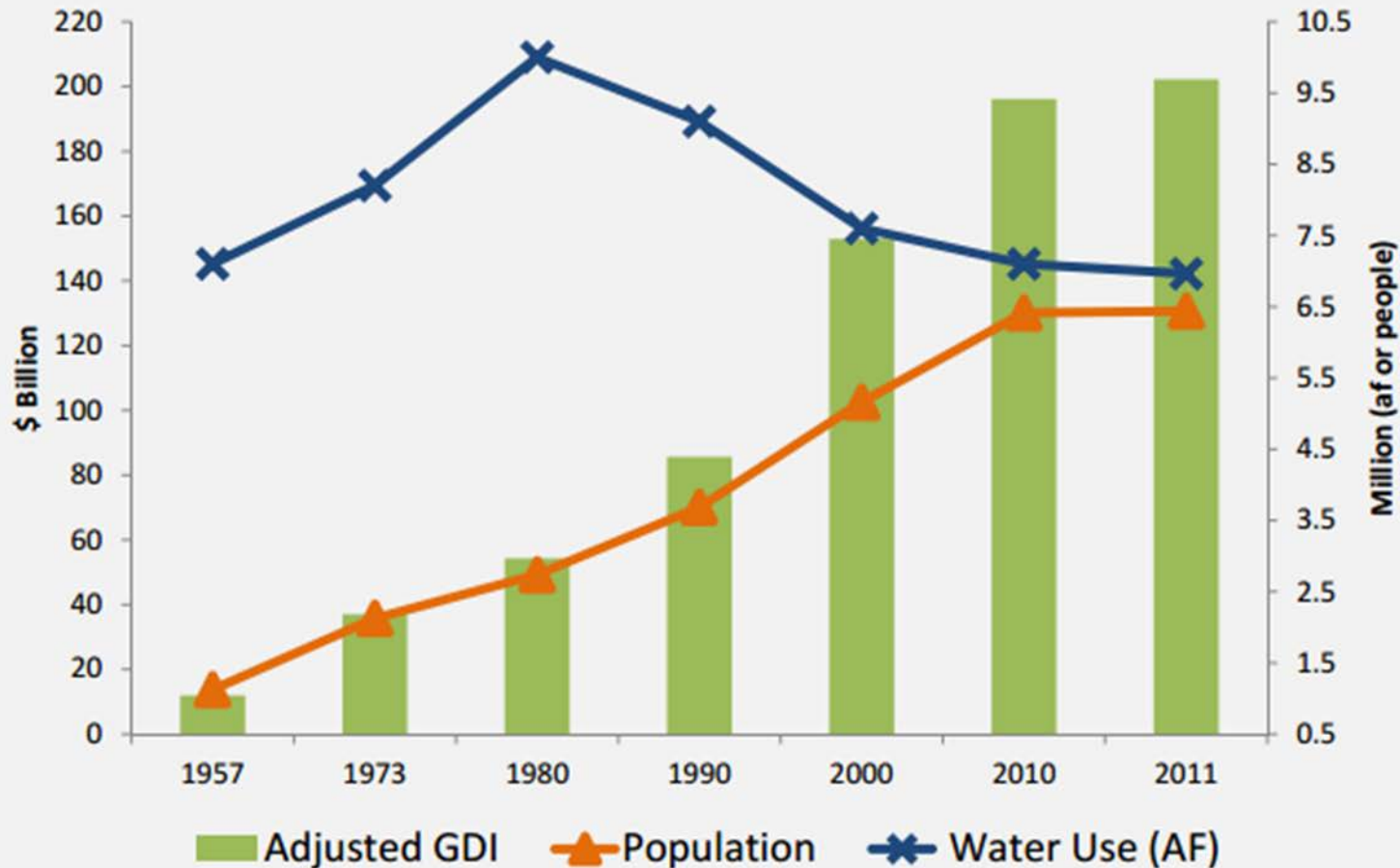
The Reality

Arizona is a national water reuse leader.

ADWR estimates that reuse can fill 50% of projected supply gap.



Arizona Water Use, Population and Economic Growth (1957-2011)



Arizona Department of Water Resources, *Strategic Vision* (2014)

Δ 1957 – 2013

Population UP 472%

GDI UP 1750%

Demand DOWN 0.1%

2000 – 2010 CAP Service Area
Population UP 22%
Residential demand UP 2%



1980 - Groundwater Management Act

70% of Arizona's Population

9 MAF stored in Arizona aquifers

3.4 MAF stored to supplement CAP

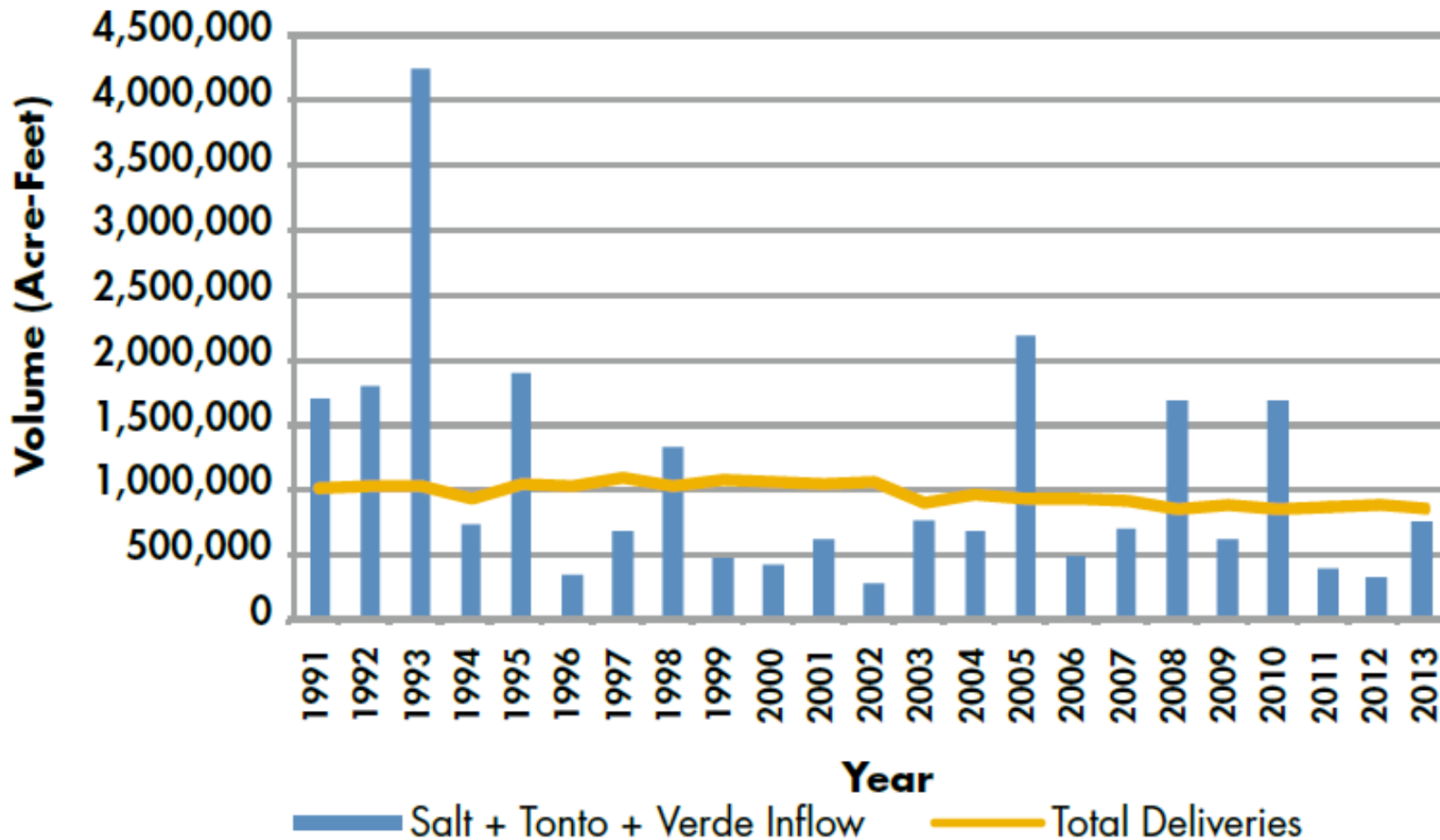
95% CAP area wastewater re-used

90% providers doing conservation



Active Management Areas

SRP – Inflow Variability v. Supply Stability

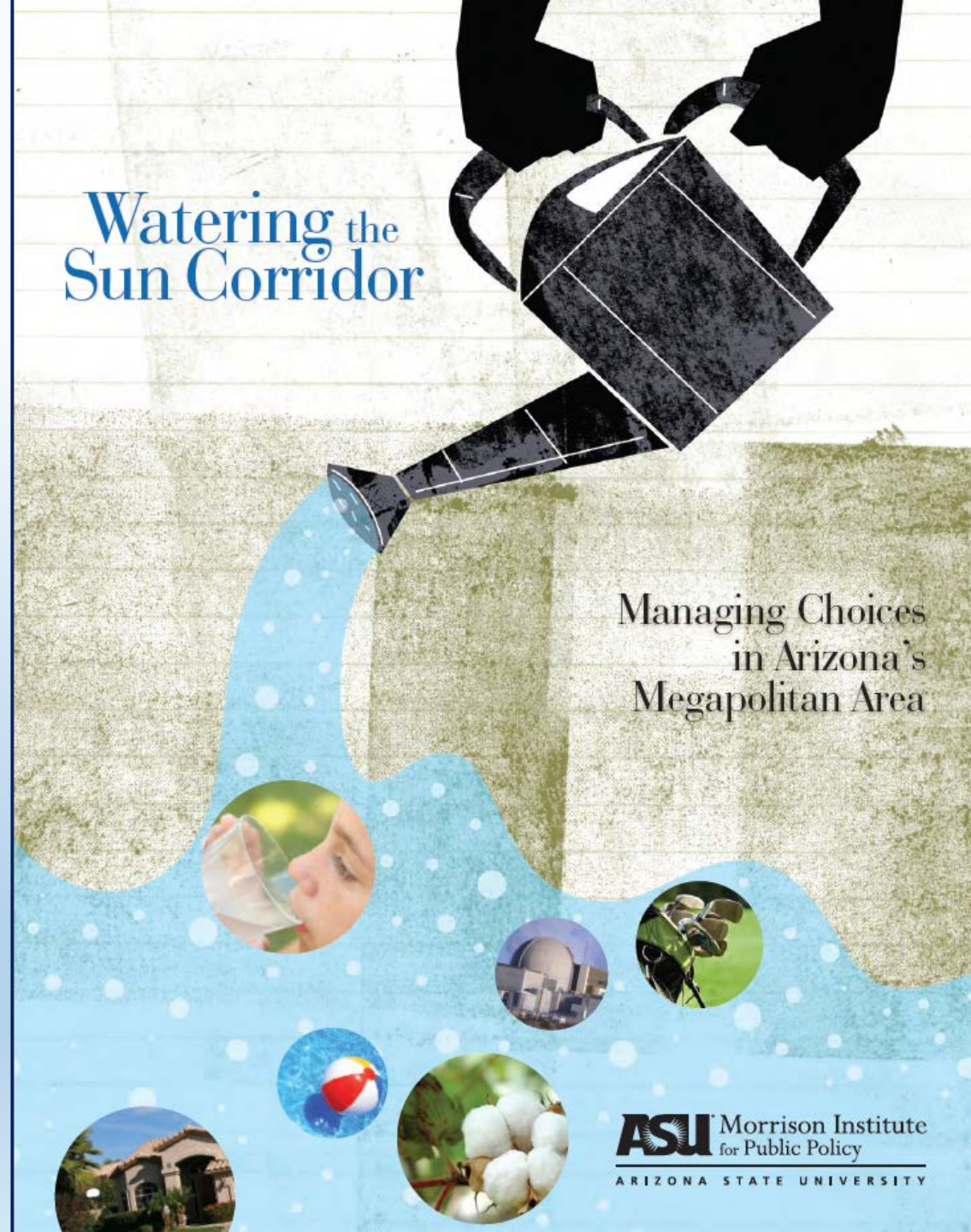


We're not there yet.



Striking the Right Balance between Growth & Quality of Life

- ✓ Chandler Q.O.L. Ordinance
- ✓ Ongoing System Resiliency
- ✓ Smart Conservation





Gila Adjudication – est. 1974

- 24,000 parties
- 78,000 claims
- \$100,000,000 for lawyers

Little Colorado Adjudication – est. 1978

- 5,000 parties
- 14,000 claims

Massive Uncertainty about Water Rights

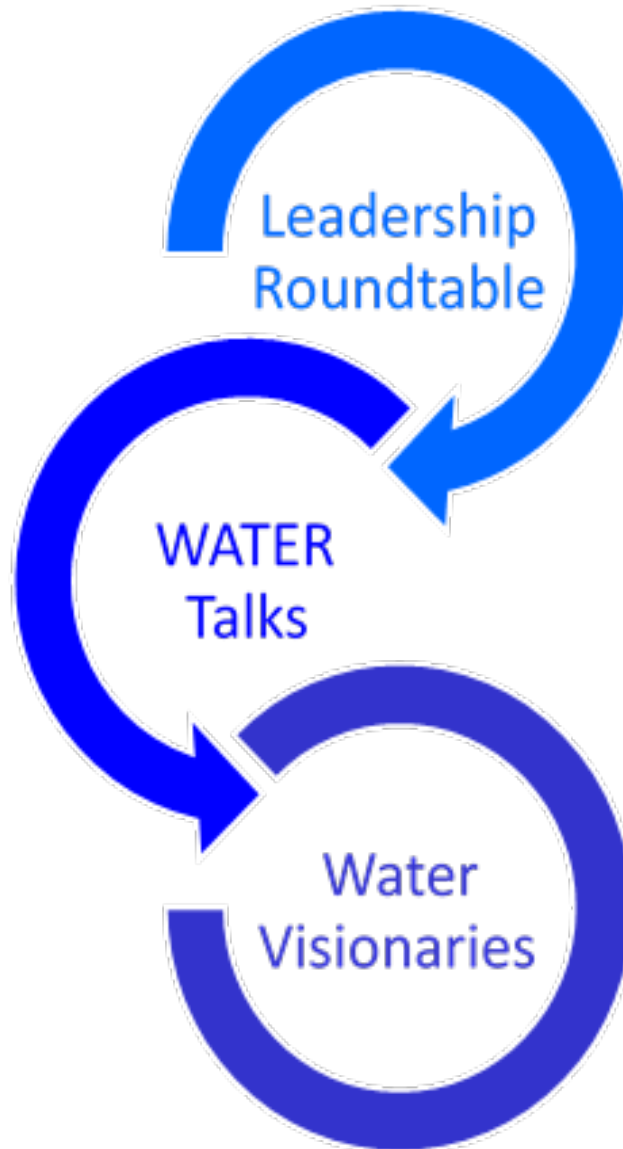
ADJUDICATION AREAS



Restored Water Leadership



Arizona Water Roundtables



Fall 2015. The Kyl Center convenes a select group of leaders from across the state to discuss Arizona's water challenges.

Spring 2016. The Kyl Center holds water forums throughout Arizona. Leadership Roundtable members participate.

Fall 2016. The Kyl Center brings together study teams to scope innovative collaborations to address Arizona's long-term water needs.

If it's yellow . . .

“Get rid of the golf courses.”

“Build a pipeline.”

“Get rid of the environmentalists.”

“Seed the Clouds”

“Too much goes to agriculture.”

“Desalinate.”

“Get rid of the feds.”

“No more new homes.”

“Kill the grass.”

. . .let it mellow.





A R I Z O N A S T A T E U N I V E R S I T Y

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