

Arizona Department of Water Resources Agency Update

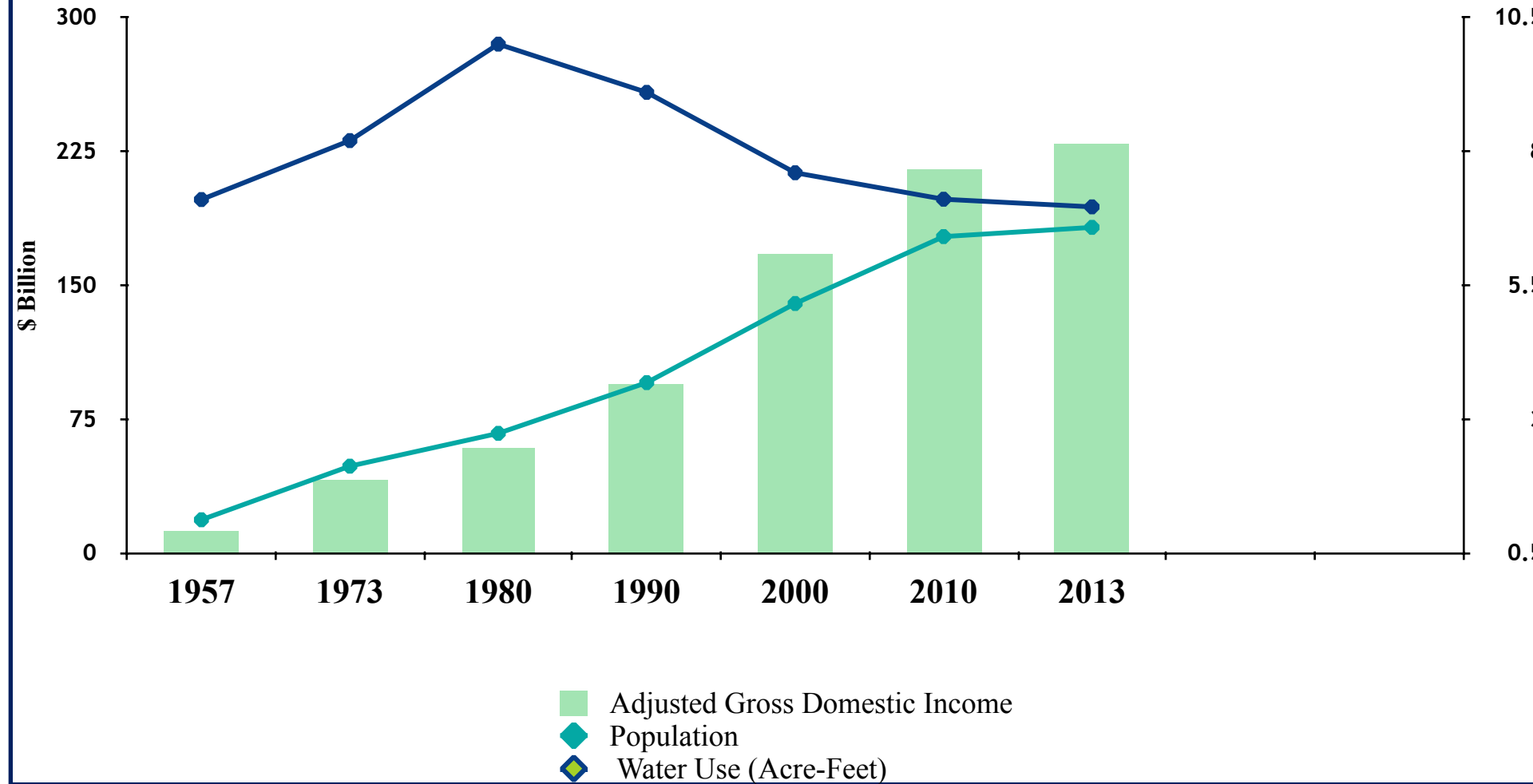
Water Issues & Southern Arizona Forum Southern Arizona Water Users Association

March 6, 2015



*Thomas Buschatzke, Director
Arizona Department of Water Resources*

Arizona Water Use, Population and Economic Growth (1957 – 2013)



Year	Total Water Use (in million acre-feet)	Population (in millions)	Gross Domestic Income (in billions)
1957	7.1maf	1.1	\$11.99
2013	7maf	6.58	\$229.34
<i>Change from 1957-2013</i>	<i>-0.1%</i>	<i>472%</i>	<i>1752%</i>



Actions that Have Contributed to Arizona's Water Management Success

- Salt River Project
- Colorado River Compact
- Central Arizona Project
- Assured and Adequate Water Supply Program
- Underground Storage and Recovery Program & Arizona Water Banking Authority
 - 8.9 MAF stored for future use
- Mandatory Water Conservation Requirements
 - Within the five Active Management Areas
 - <10% water lost or unaccounted for water
 - Best Management Practices
- Drought Preparedness Plan Requirements



Challenges Moving Forward

Short-term Challenges

- Shortage on the Colorado River System is likely
 - 21% Probability in 2016
 - 54% Probability in 2017
 - Lower Basin Annual Deficit
- Water Resources in rural areas of the state are more stressed
 - Primary water source is groundwater
 - Lack of groundwater regulation
 - Willcox area
 - San Simon Valley Sub-basin

Long-term Challenges

- Growing statewide imbalance between existing water supplies and demand projected in the next 25 years

Driving Forces

- 15 year ongoing drought
- Growth in population and increased water demand



Probabilities of Lower Basin Shortage

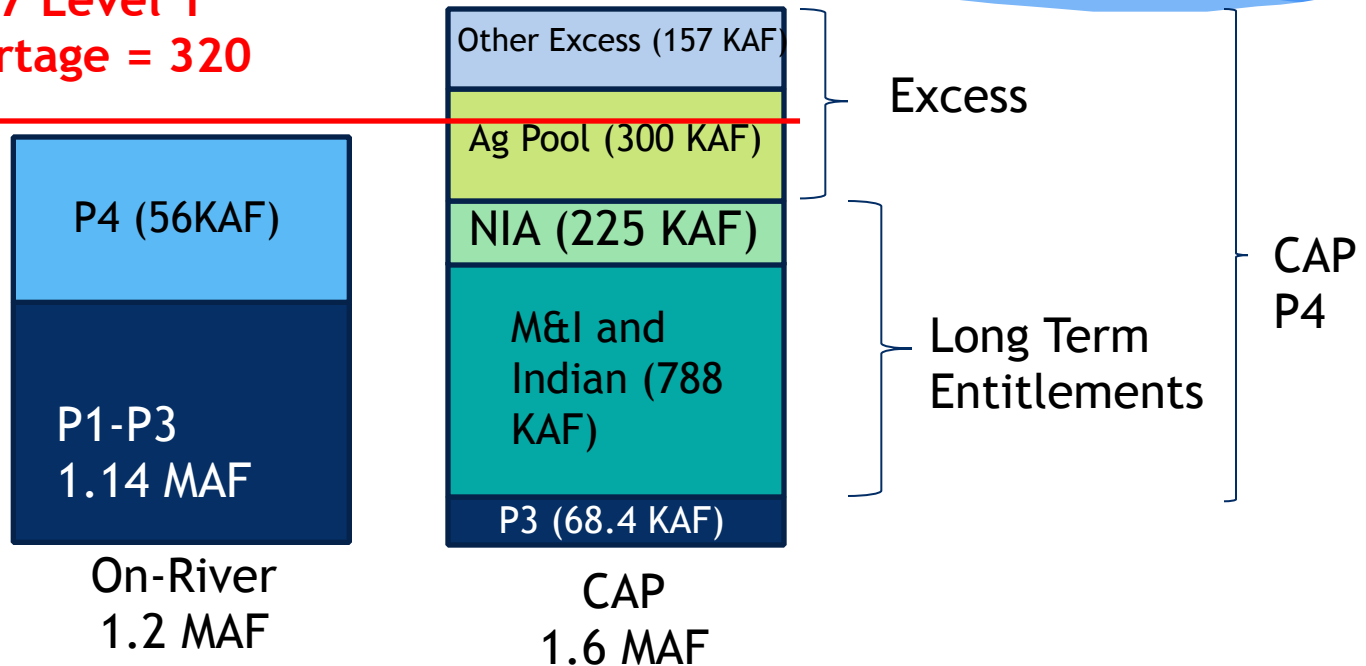
	2015	2016	2017	2018	2019
Probability of any level of shortage (Mead \leq 1,075 ft)	0	21	54	62	59
1st level shortage (Mead \leq 1,075 and \geq 1,050 ft)	0	21	45	40	33
2nd level shortage (Mead $<$ 1,050 and \geq 1,025 ft)	0	0	9	19	19
3rd level shortage (Mead $<$ 1,025)	0	0	0	3	7

From Bureau of Reclamation January 2015 CRSS modeling.



Lower Basin Shortage Tiers and Volumes

2017 Level 1
Shortage = 320
KAF



Arizona Priorities - 2.8 MAF Total



Arizona's Efforts to Address Challenges on the Colorado River - Drought Response Discussions

- ADWR Director Serves as Arizona's Principal on matters relating to the Colorado River (*A.R.S. § 45-107 (D)*)
- Goal of discussions:
 - Conserve 1.5-3.0 MAF in Lake Mead over the next 5 years
 - Reduce the risks of Lake Mead falling below 1000' elevation
- Discussions between:
 - Basin States
 - Department of the Interior
 - Other contract holders
- Memorandum of Understanding
 - CAP = 345,000 AF
 - MWD = 300,000 AF
 - SNWA = 45,000 AF
 - BOR = 50,000 AF



Arizona's Efforts to Address Long-term Challenges

Strategic Vision for Water Supply Sustainability

Purpose: Identify strategies to help address future water needs and provide a stable economy for the future.

Findings: Projected imbalance between 900,000 and 3.2 MAF over the next 25 to 100 years.

- **Strategic Priorities Identified:**

- Resolution of Indian and Non-Indian Water Rights Claims
- Watershed/Forest Management
- Weather Modification
- Reclaimed Water Reuse
- Enhanced Stormwater Recharge
- Water Management
- Importation of New Water Supplies



Strategic Vision

Progress to Date

- **Released in January 2014**
 - Statewide tour- roughly fifty presentations
- **Governor's Council on Water Supply Sustainability**
 - Executive Order 2014-10 (November 4, 2014)
 - Tasked with identifying priorities for implementation of the Action Items and Strategic Priorities identified in Strategic Vision
 - Initial Report submitted December 31, 2014
- **ASU Morrison Institute for Public Policy Kyl Center on Water Policy**
 - **Short-term**
 - Expedite completing of adjudication
 - Funding
 - ADWR
 - Initiate dialog to plan for future water augmentation projects
 - **Medium-term**
 - Enhance existing water management strategies
 - **Long-term**
 - Augmentation



A Glimpse of the Future

- Addressing Colorado River issues will continue to consume significant ADWR resources for the foreseeable future.
- Colorado River shortage will limit water banking opportunities.
 - Transition from era of storage to one of recovery
 - Farming in Central Arizona will be impacted
- Rural Arizona needs attention
 - ADWR will continue to work with local water users to develop effective groundwater management solutions for individual areas.



Questions?

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**PROTECTING
ARIZONA'S WATER SUPPLIES
for ITS NEXT CENTURY**