

# Watershed Partnerships in Rural Arizona





# Fundamentals

---



- Arizona has an adequate but limited supply of water.
- Everyone seems to want more.
- No one wants to pay too much.
- People who have water protect it with a passion.
- People who don't have enough water think the people who do:
  - Use too much.
  - Should share.
  - Should sell to them.



# Arizona Water Rights Categories

---



- Groundwater
- Surface water
- Colorado River water
- Effluent
- Federal reserved rights



# Issues Confronting Most of Rural Arizona

---



- Limited knowledge and available technical data pertaining to surface & groundwater supplies.
- Limited financial and technical resources to complete planning and technical studies.
- Indian Water Rights Settlements & Adjudication
- Concern over potential impacts to groundwater system from current and proposed large industrial groundwater users.
- Increasing water demands from growth.
- Legal establishment of what is surface and groundwater.



# Issues Confronting Most of Rural Arizona

- continued -

---



- Increasing water quality concerns and cost of treatment.
- **Many of the state's groundwater aquifers are being overdrafted (mined).**
- Perceptions that there is an unlimited supply of water
- Lack of Participation in regional planning efforts from "All" of the principal parties within a watershed!



# The Number #1 Issue Confronting Rural Arizona

---



- GROWTH!!!

- With growth comes increasing demands on an already limited resource



# What are some of the water concerns in rural Arizona?

350,000+ LOTS

Impacts to Verde

25,000 ac-ft unmet demand

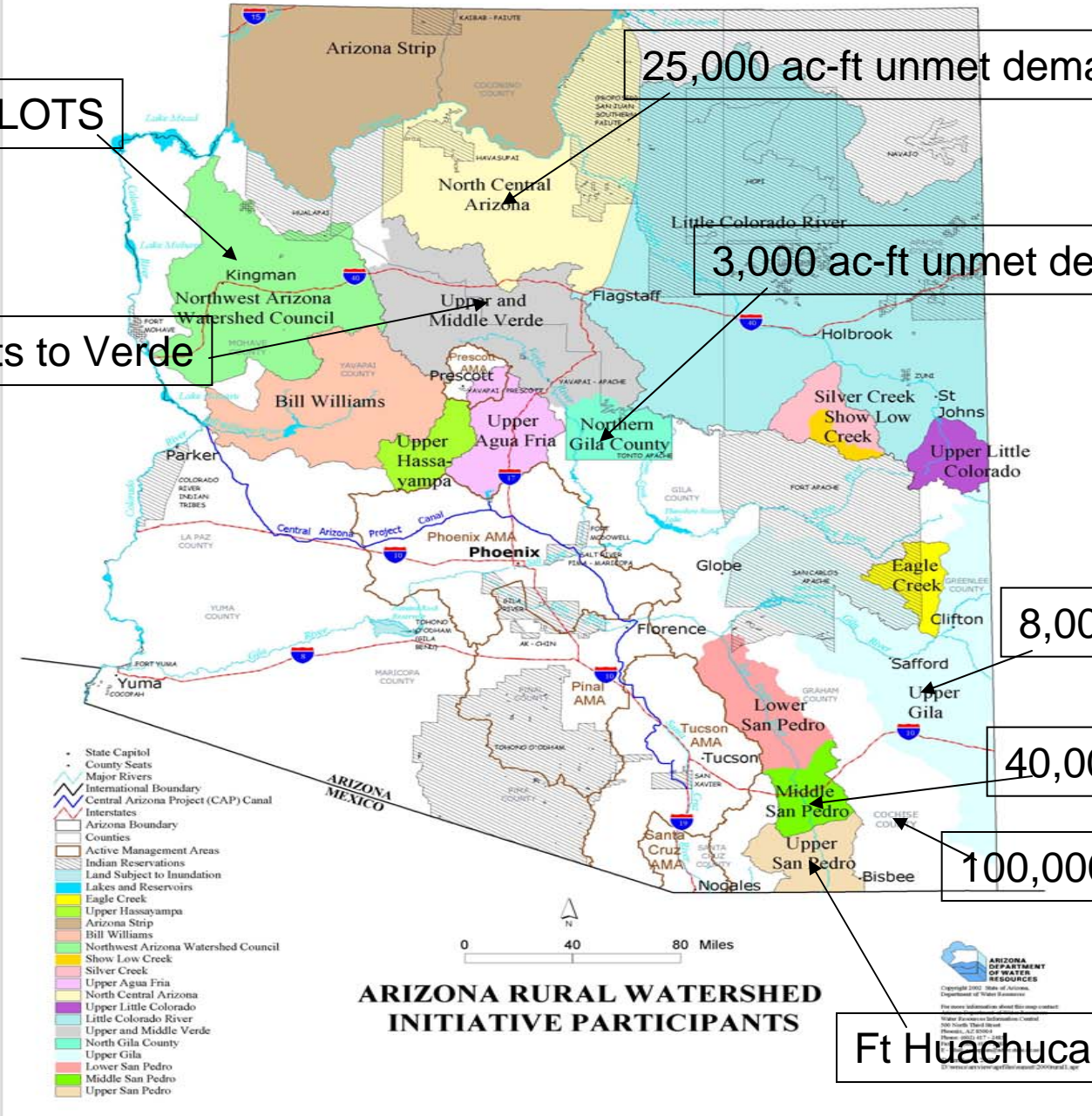
3,000 ac-ft unmet demand

8,000+ LOTS

40,000+ LOTS

100,000+ ac-ft mining

Ft Huachuca in Jeopardy



ARIZONA RURAL WATERSHED INITIATIVE PARTICIPANTS

ARIZONA DEPARTMENT OF WATER RESOURCES  
Copyright 2002 State of Arizona  
Department of Water Resources  
For more information about this map contact:  
Water Resources Information Center  
380 North Third Street  
Phoenix, AZ 85003  
Phone: (602) 967-2000  
Fax: (602) 967-2000  
www.arizona.gov/ArizonaDepartmentofWaterResources



# What is happening in Rural Arizona?

---



- More than 350,000+ lots are proposed to be developed in three groundwater basins in Mohave County.
- More than 40,000+ lots are proposed to be developed in the Benson Subwatershed of the San Pedro groundwater basin.
- More than 8,000 lots are proposed to be developed in the Upper Gila Groundwater basin
- The Coconino Plateau is projected to experience an unmet water demand of more than 25,000 acre-feet annually by the year 2050.





# What is happening in Rural Arizona?

## - continued -

---



- Payson is projected to experience an unmet water demand of about 3,000 ac-ft annually by the year 2044
- Ft. Huachuca is in jeopardy of not being reauthorized unless the Sierra Vista Subwatershed of the San Pedro Groundwater basin can reach sustainability by 2011
- Groundwater mining in the Willcox basin has been occurring since 1953 and peaked at about 280,000 acre-feet in 1974. Mining has been occurring for the past 10 years at an average rate of more than 100,000 acre-feet annually.

- 
- **What is ADWR doing to address the Management of Water in Rural Arizona?**



# ADWR's Efforts in Assisting Rural Arizona in the Management of Water

---



- ◇ ADWR has been encouraging the establishment of watershed partnerships in rural Arizona since the early 1990's for the purpose of identifying issues of concern and for developing regional water resource management plans to minimize or mitigate potential impacts
- ◇ The Rural Watershed Initiative was established in 1999 to assist Rural Arizona in funding water related studies



## ADWR's Efforts in Assisting Rural Arizona in the Management of Water Cont.

---



- ◇ More than \$6 million has been allocated by the State since FY2000 for groundwater studies and planning activities.
- ◇ More than \$17 million in matching funds have been generated as a result of the RWI for the same time period.
- ◇ In FY2008 the State allocated \$1.2 million for RWI planning and study activities



## ADWR's Efforts in Assisting Rural Arizona in the Management of Water Cont.

---




- ◇ ADWR annually measures about 800 wells in Rural Arizona
- ◇ ADWR conducts water level investigations in selected groundwater basins every year

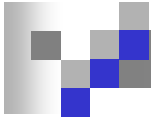


# ADWR's Efforts in Assisting Rural Arizona in the Management of Water Cont.

---

- 
- ◇ ADWR has developed partnerships with the US Geological Survey, Bureau of Reclamation, Corp of Engineers and other Federal agencies to obtain technical and financial assistance.
  - ◇ ADWR has completed the first 7 volumes of a statewide water atlas.
  - **ADWR with support from the Governor's office established the Statewide Water Advisory Group to address water issues in rural Arizona.**





- **What is Rural Arizona doing to Address the Management of Water Resources?**

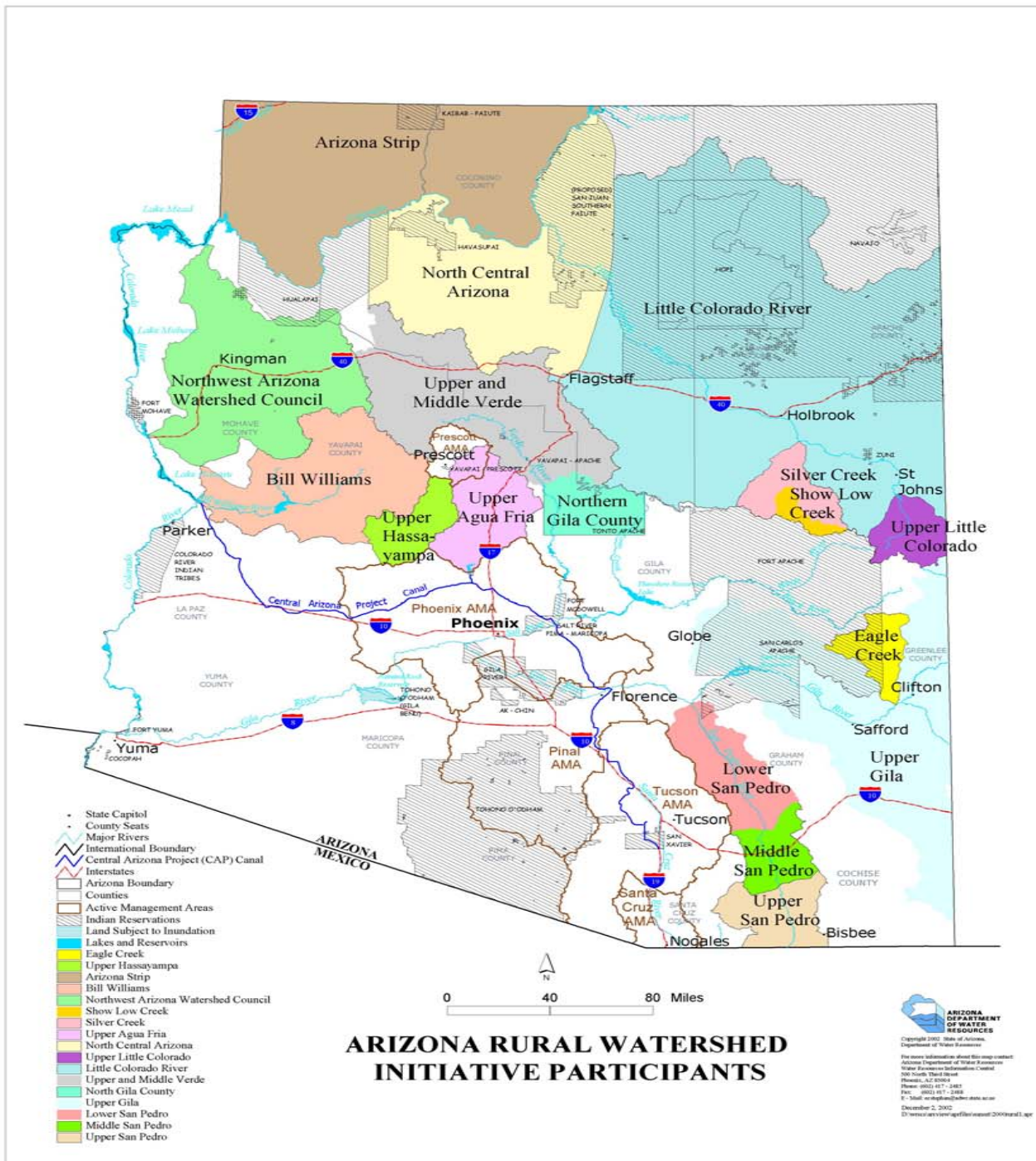
## Four Approaches to Water Management in Rural Arizona





## **11 Active Watershed Partnerships**

- ◇ 11 Watershed Partnerships are actively engaged in working towards developing a better understanding of the current status of the water resources in their region and also are developing water resource management plans



- State Capitol
- County Seats
- Major Rivers
- International Boundary
- Central Arizona Project (CAP) Canal
- Interstates
- Arizona Boundary
- Counties
- Active Management Areas
- Indian Reservations
- Land Subject to Inundation
- Lakes and Reservoirs
- Eagle Creek
- Upper Hassayampa
- Arizona Strip
- Bill Williams
- Northwest Arizona Watershed Council
- Show Low Creek
- Silver Creek
- Upper Agua Fria
- North Central Arizona
- Upper Little Colorado
- Little Colorado River
- Upper and Middle Verde
- North Gila County
- Upper Gila
- Lower San Pedro
- Middle San Pedro
- Upper San Pedro



## ARIZONA RURAL WATERSHED INITIATIVE PARTICIPANTS


  
**ARIZONA DEPARTMENT OF WATER RESOURCES**  
 Copyright 2002 State of Arizona  
 Department of Water Resources  
 For more information about this map contact:  
 Arizona Department of Water Resources  
 Water Resources Information Center  
 900 North Third Street  
 Phoenix, AZ 85004  
 Phone: (602) 967-1467  
 Fax: (602) 967-1468  
 E-Mail: arw@waterresources.state.arizona.gov  
 December 2, 2002  
 D:\resources\arw\april\arw\_rural\_2004.html.rpt



# What has been the results of ADWR's and the Watershed Partnerships?

---



- ◇ Comprehensive groundwater studies have been completed in the Upper San Pedro, Verde, Coconino Plateau and Mogollon Highlands watersheds.
- ◇ Comprehensive groundwater studies have been initiated in the Benson, Willcox, Douglas, and Mohave County areas.
- ◇ A numeric groundwater model for the Upper San Pedro has been completed and a regional groundwater model encompassing north central Arizona is due to be complete in March 2008





## What has been the result of the State's and Rural Arizona's efforts...cont?

---



- ◊ Water Supply Appraisal Studies have been completed in the Upper San Pedro and Coconino Plateau areas and one is very nearly complete for the Mogollon Highlands area.
- ◊ Regional solutions have been identified and are being evaluated to meet projected water demands in the Upper San Pedro, Coconino Plateau, and Mogollon Highlands watersheds.
- ◊ Annual Water management and conservation plans have been completed in the Upper San Pedro and the Coconino Plateau.





## What has been the result of the State's and Rural Arizona's efforts...cont?

---



- ◊ A Water Supply Appraisal Study has been initiated for the Verde Watershed.
- ◊ Water Budgets have been or are being completed in the Upper San Pedro, Verde, Coconino, Mogollon Highlands, Upper Little Colorado, Upper Bill Williams, and Upper Agua Fria watersheds
- ◊ Legislation addressing water adequacy for all new subdivisions was passed
- ◊ Legislation establishing a water development fund was passed



# What Makes a Watershed Partnership Successful?

---



- ◇ ACTIVE PARTICIPATION from ALL cities, towns, counties, tribes, agencies, and NGO's with the responsibility to manage the water resources within the region.
- ◇ COMMITMENT!

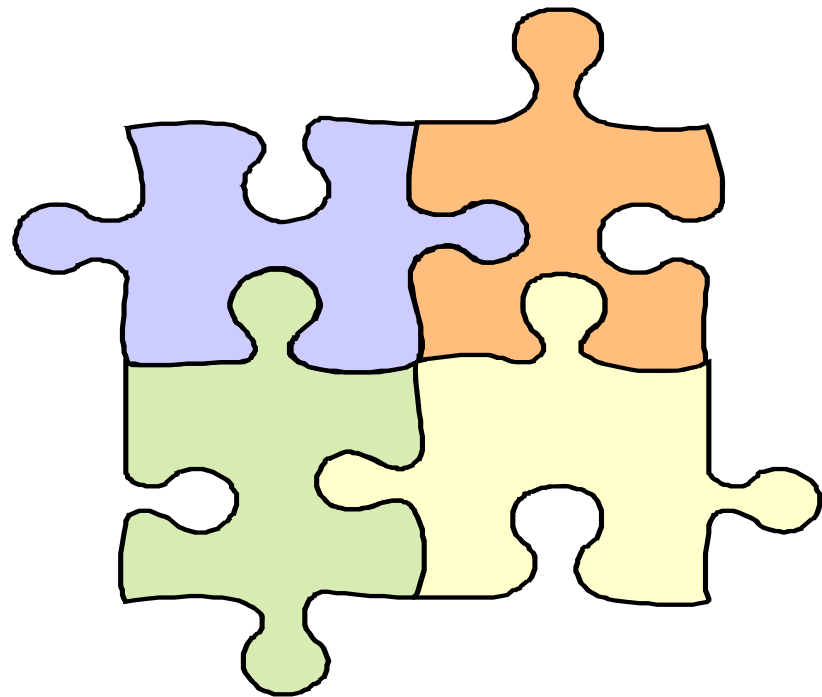


## So what have we learned?

- There is no better time to begin water resource planning than yesterday!
- Water resource planning should begin even if there is little or no technical data available
- Planning is essential for ensuring the availability of an adequate water supply for the future

# Summary

- Physical supply of water is a primary concern in Rural Arizona
- Planning is Critical!!!
- The STATE is Committed to assisting and supporting the efforts and activities of Rural Arizona in Planning, Managing and ensuring the sustainability of their Water Resources!!!



THANK YOU

[www.azwater.gov](http://www.azwater.gov)

