

Water Supply Challenges Facing the Salt River Project

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Salt River Project**

**Western Coalition of Arid States
Tucson, Arizona
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Topics

☐ Background on SRP

- ✓ Water sources & infrastructure
- ✓ Water operations & deliveries
- ✓ Water service area & customers

☐ Water supply challenges

- ✓ Changes in demand/needs of customers
- ✓ Availability of supplemental water supplies
- ✓ Impacts on surface water supplies

Salt River Project

- ❑ **Salt River Valley Water Users' Association (1903)**
 - ✓ 550 mi² service area
 - ✓ > 620,000 shareholders
 - ✓ Water deliveries: ~1,000,000 acre-feet/year
- ❑ **Salt River Project Agricultural Improvement and Power District (1937)**
 - ✓ 2,900 mi² electric service area
 - ✓ > 900,000 electric customers

Salt River Project

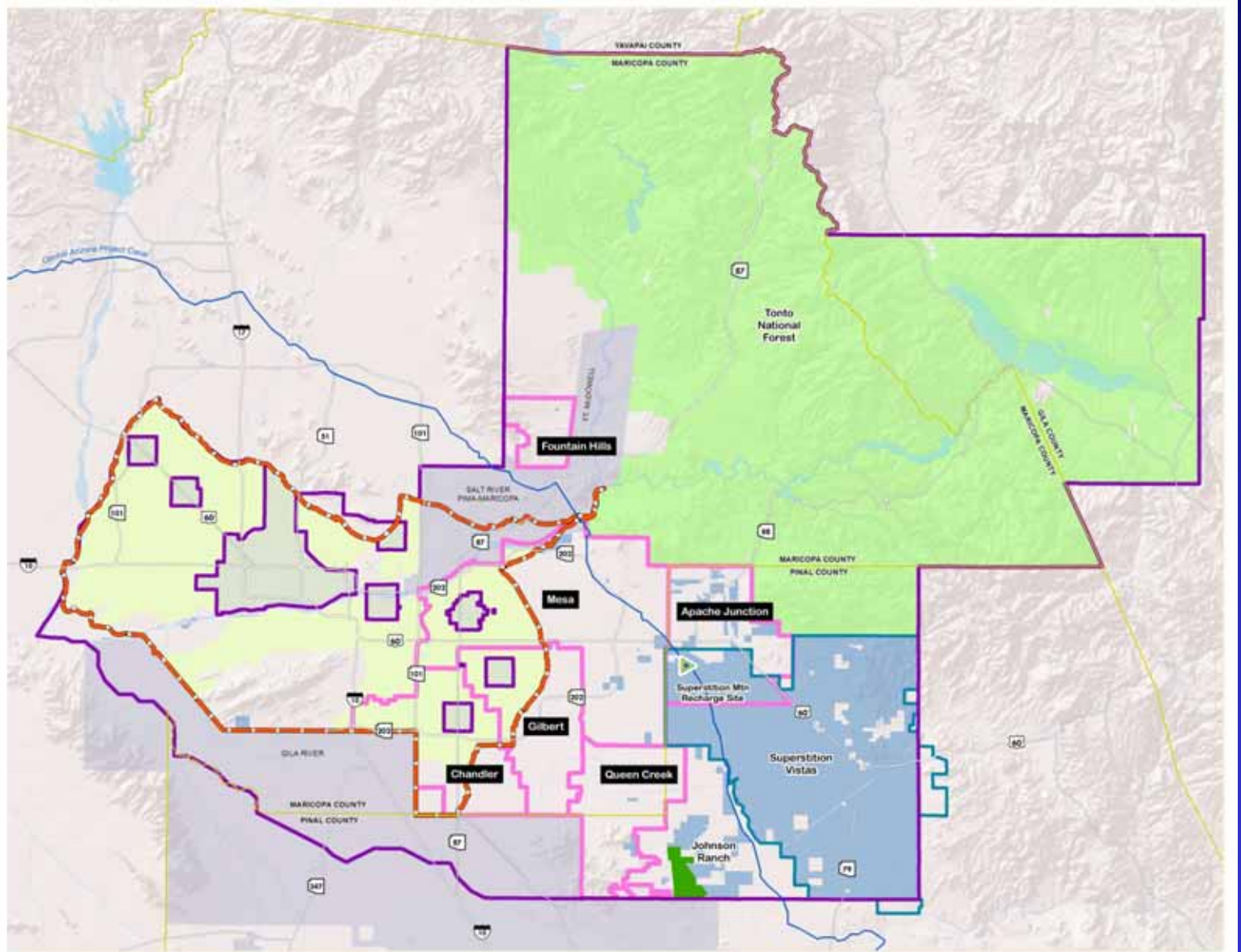
Lands within SRP's Power Service Area

- SRP Power Service Area
- Area Served by Other Electrical Utility
- Salt River Reservoir District
- Cities
- Superstition Vistas Planning Area
- Johnson Ranch
- CAP Canal
- Recharge Site
- SRVWUA Lands
- US Forest Service Lands
- State Trust Lands
- Indian Reservations

0 5 10
Miles



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SRP Surface Water Sources



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SRP Reservoir System

Verde River

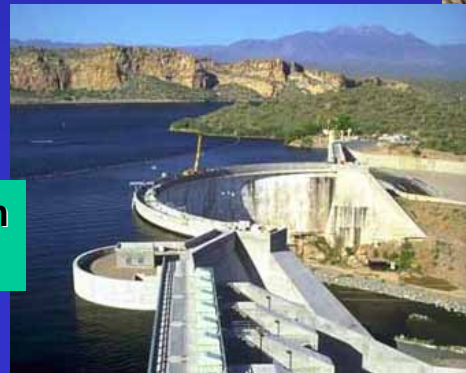


**Horseshoe Dam
(1946)**



**Bartlett Dam
(1939)**

**Stewart Mtn Dam
(1930)**



East Clear Creek



**C.C. Cragin Dam
(1965)**



**Roosevelt Dam
(1911)**



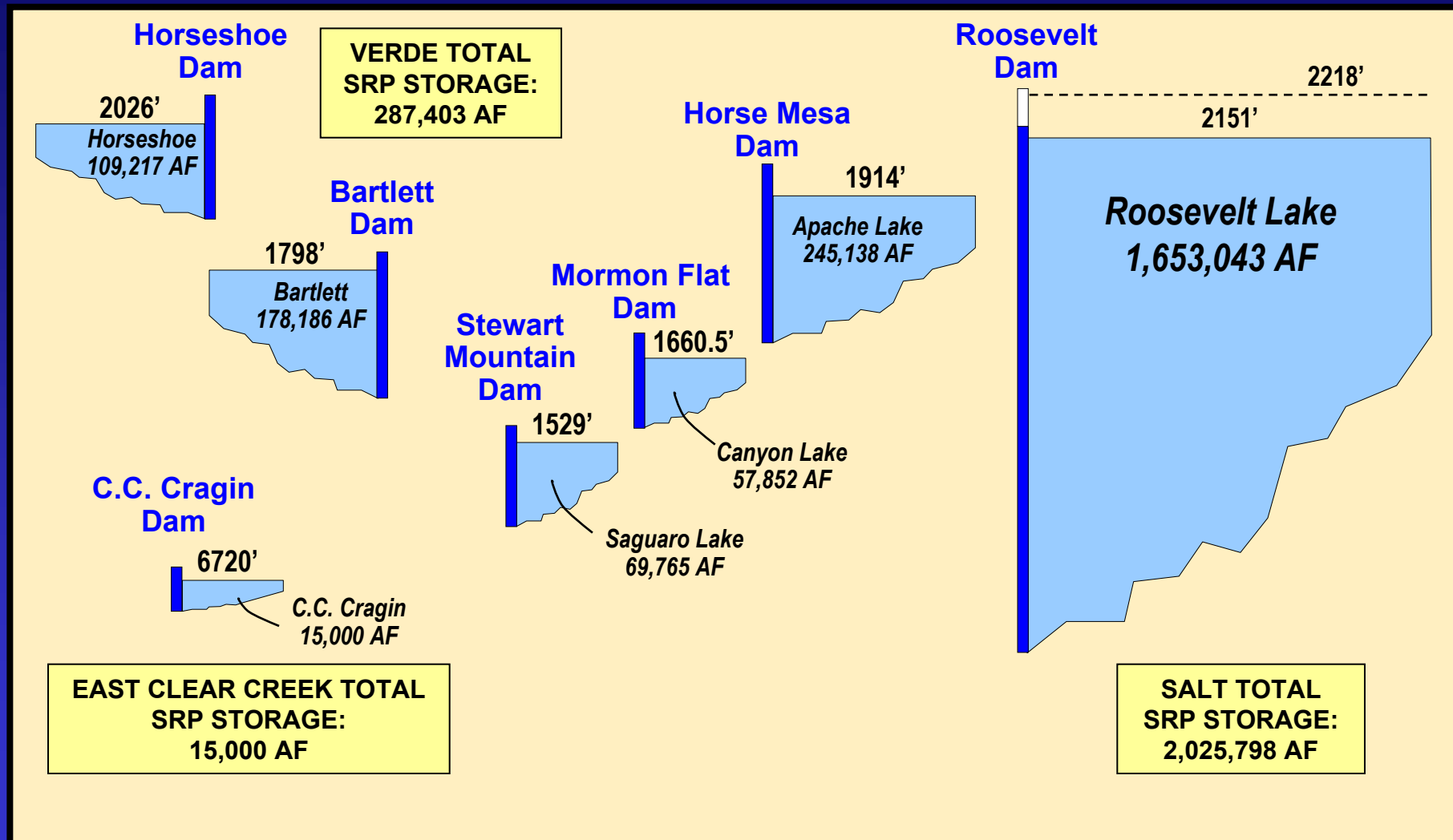
**Horse Mesa Dam
(1927)**



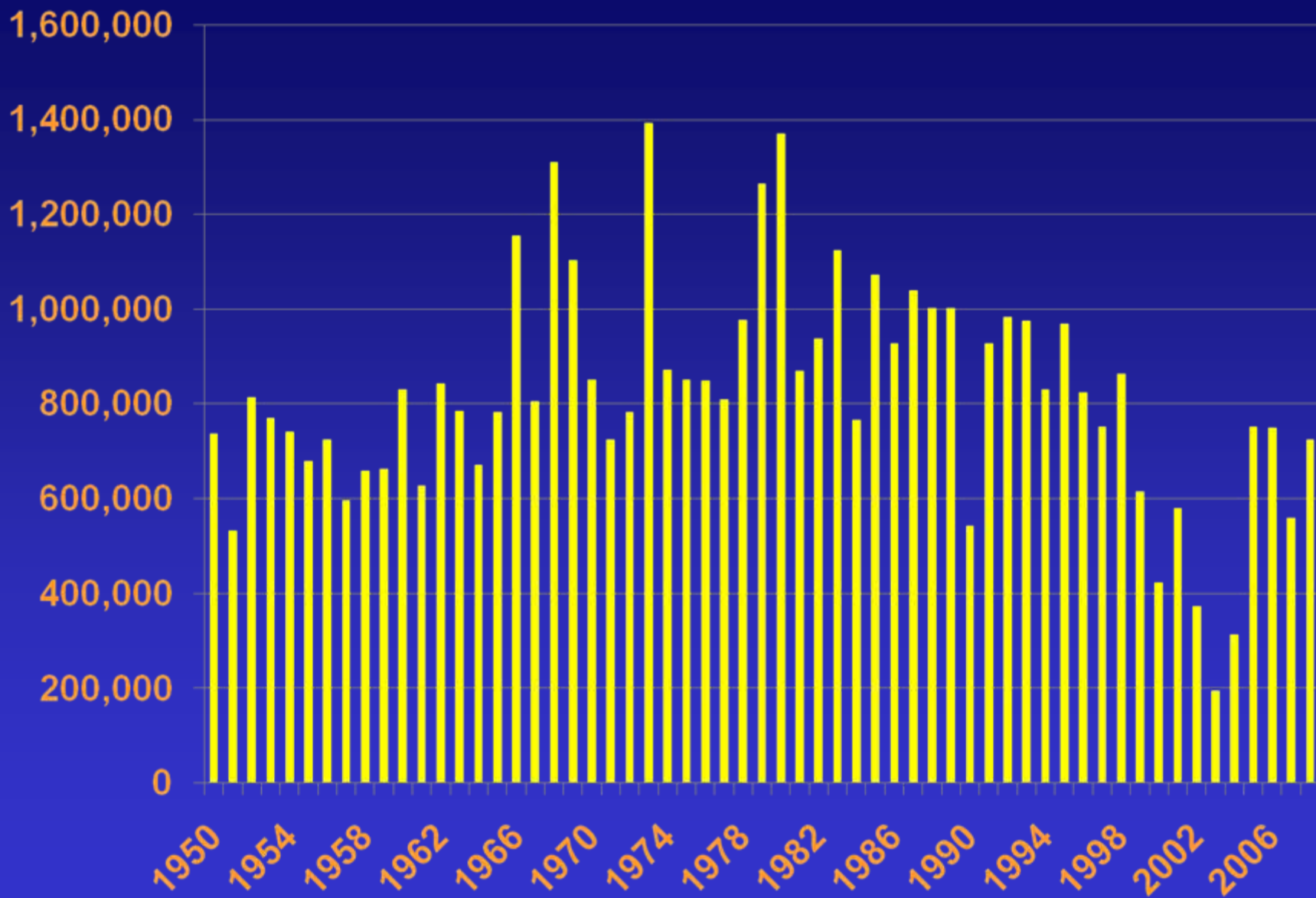
**Mormon Flat Dam
(1925)**

SRP Reservoir System

Total Storage: 2,328,201 AF

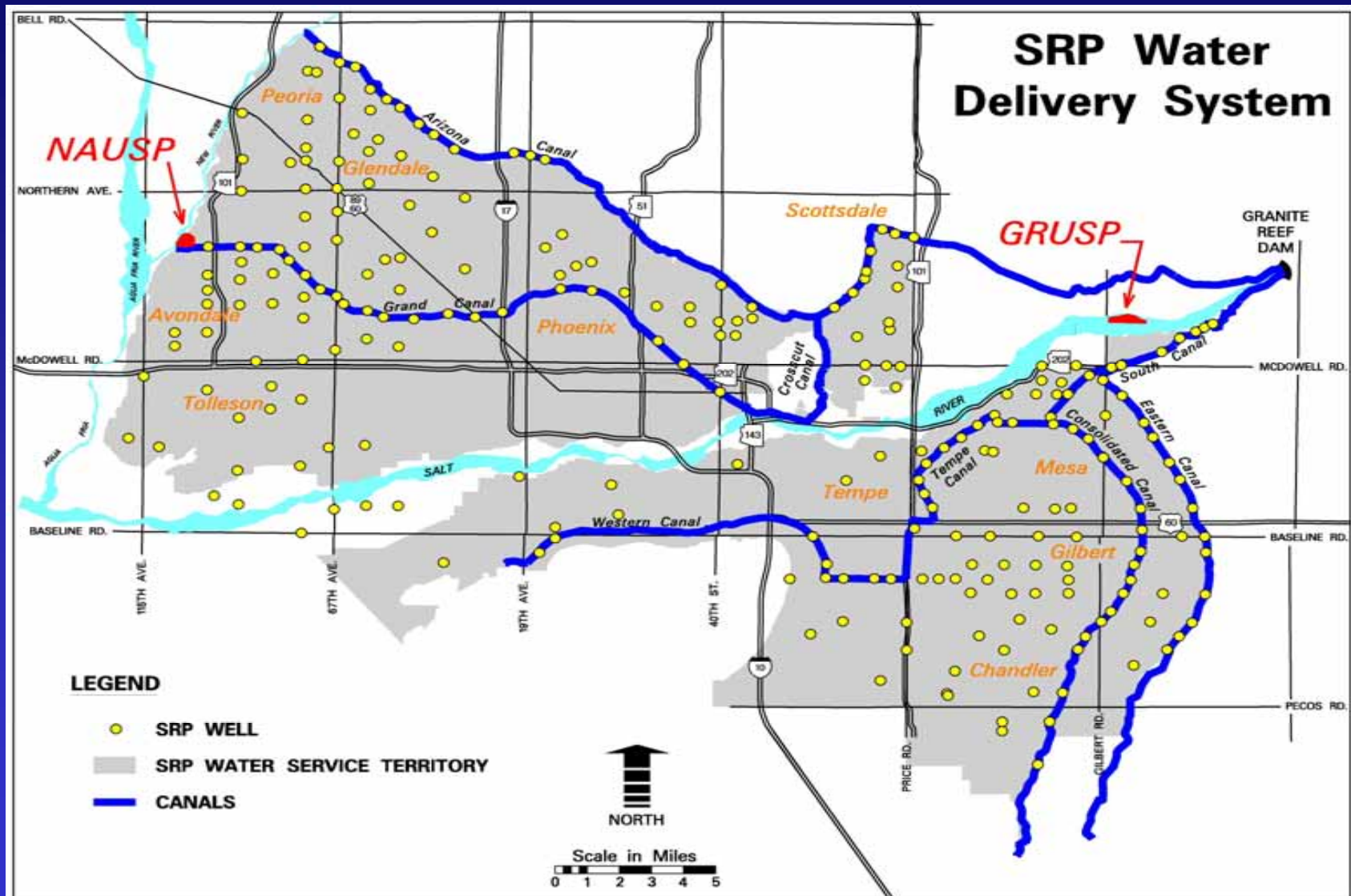


Annual Surface Water Diversions

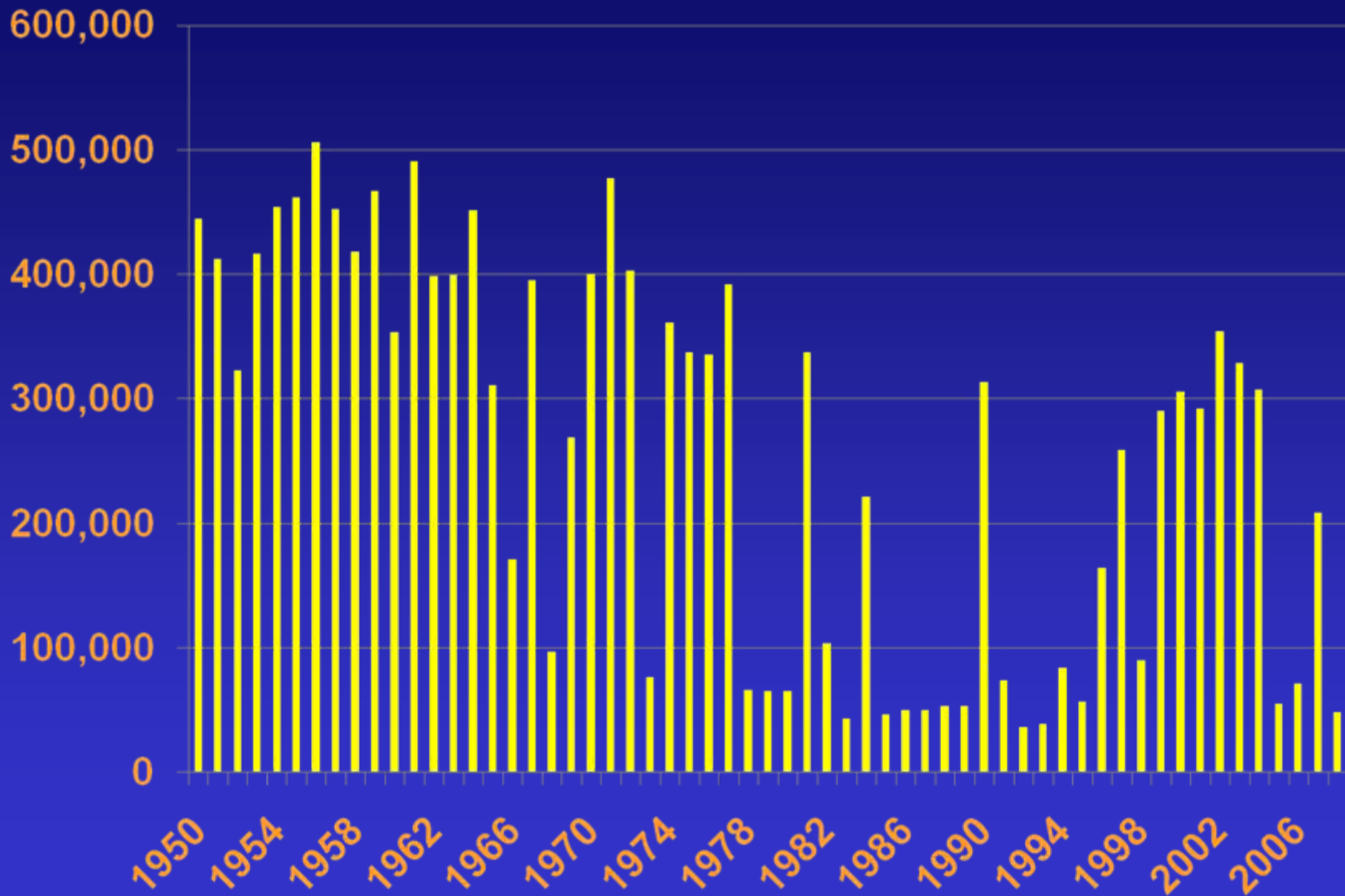


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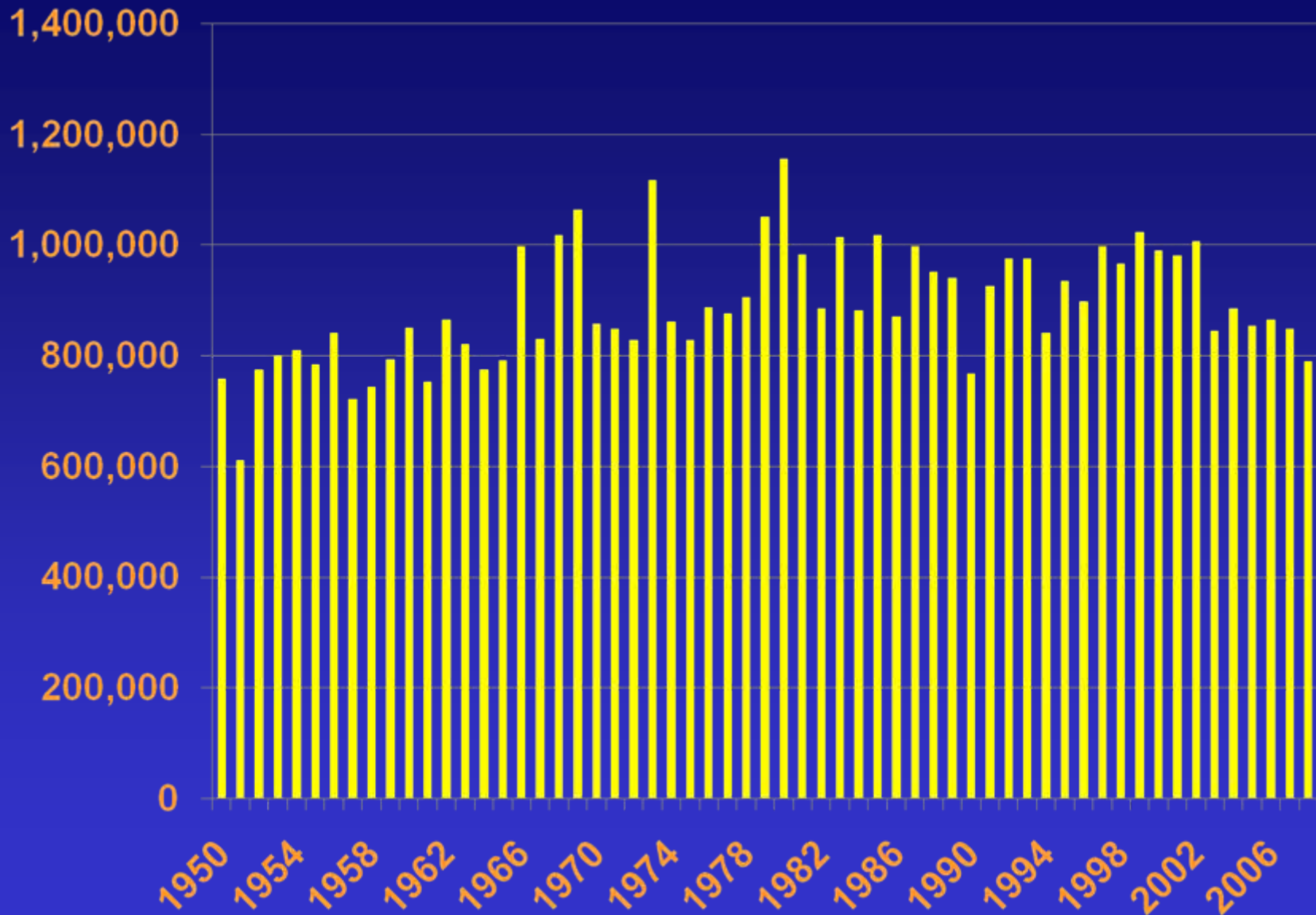
SRP Groundwater Sources



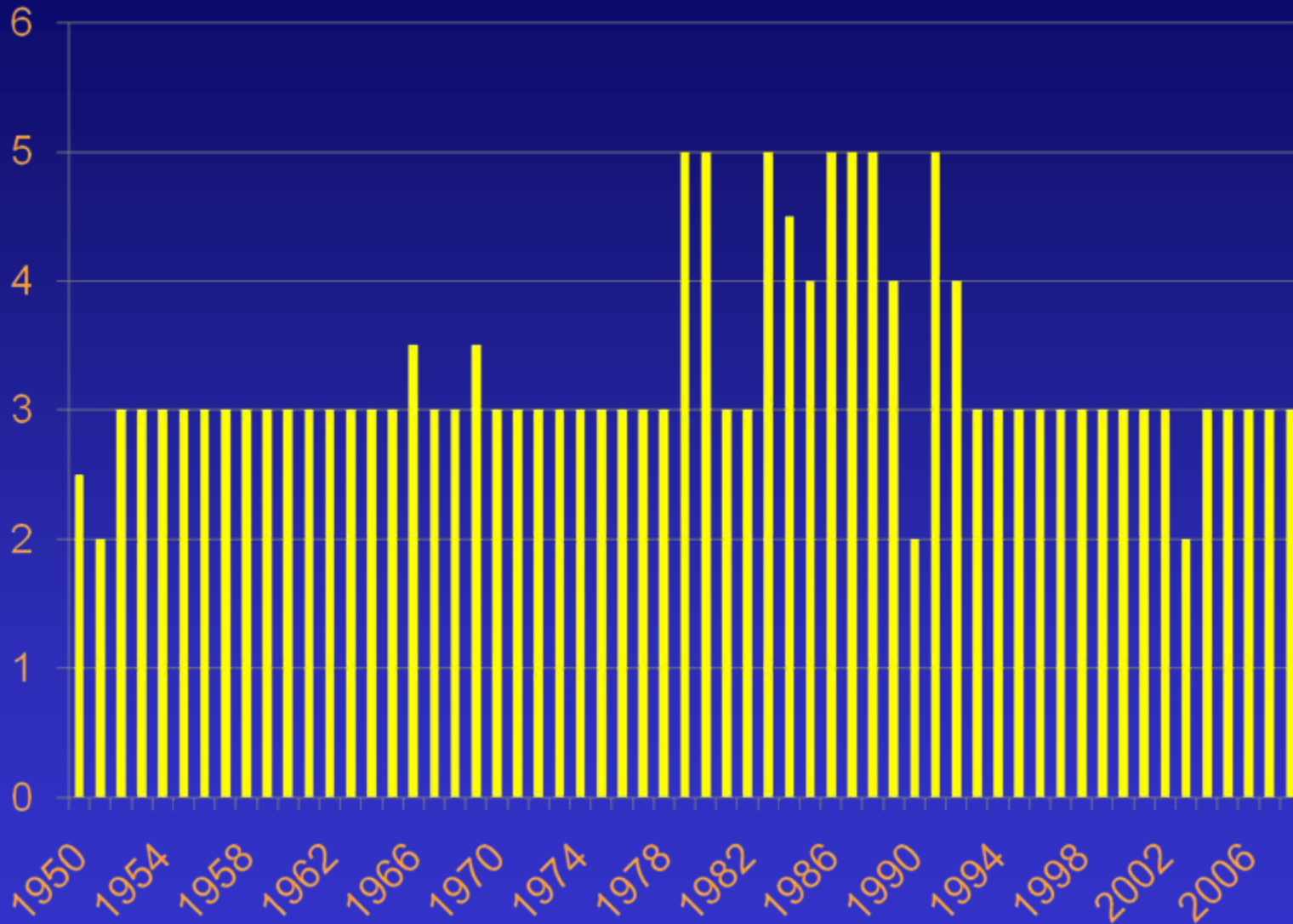
Annual Groundwater Pumping



Annual Water Deliveries



Reliability of Water Supply



SRP Water Customers

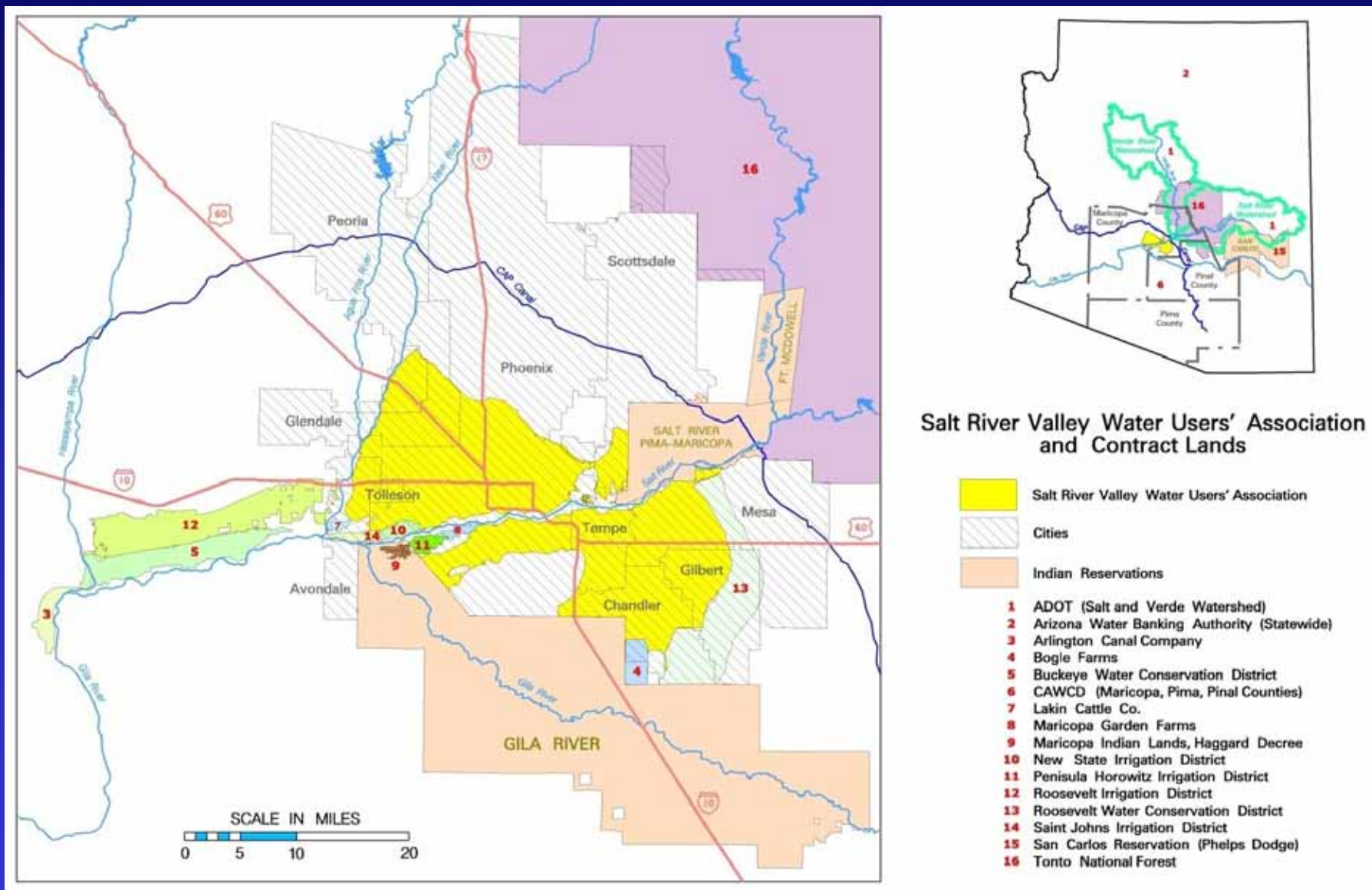
☐ Shareholders

- ✓ Municipal/domestic water users
- ✓ Agricultural water users
- ✓ Urban water users

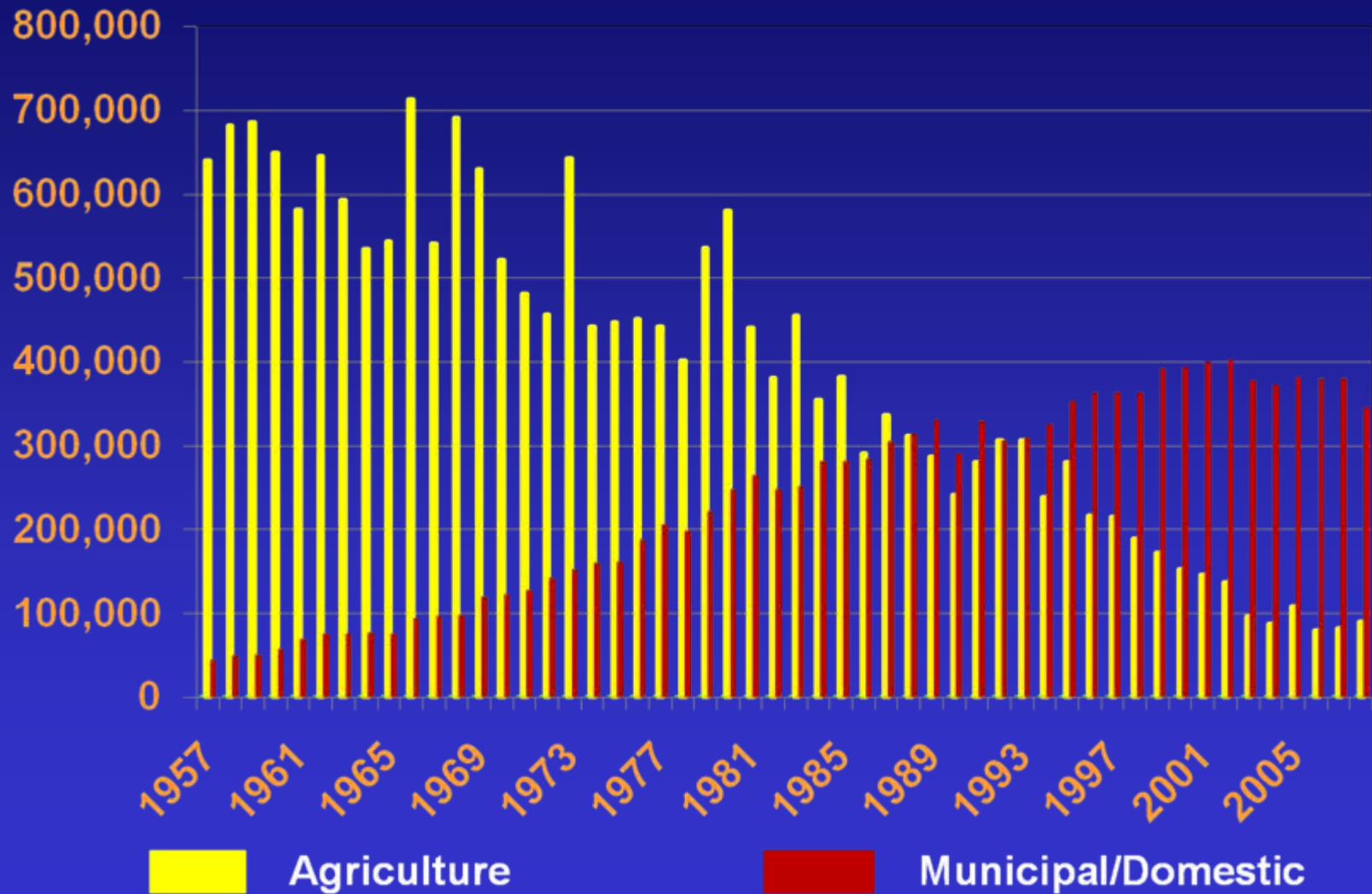
☐ Other water users

- ✓ Irrigation Districts
- ✓ Indian Tribes
- ✓ Mining companies
- ✓ Exchange water users

SRP Water Customers



Water Supply Challenges



Water Supply Challenges

Availability of Supplemental Water Supplies

☐ Groundwater

- ✓ Physical limitations due to urbanization
- ✓ Limits imposed by Groundwater Code

☐ Excess CAP water

- ✓ Important resource in recent years
- ✓ CAWCD policy generally limits access

☐ Other sources

- ✓ Exploring opportunities

Water Supply Challenges

Impacts on Surface Water Supplies

- ❑ **Climate change**
 - ✓ **Tree ring research**
 - ✓ **University of Arizona model research**
- ❑ **Upstream water uses**
 - ✓ **Verde Valley**
 - ✓ **Upper Verde/Big Chino**



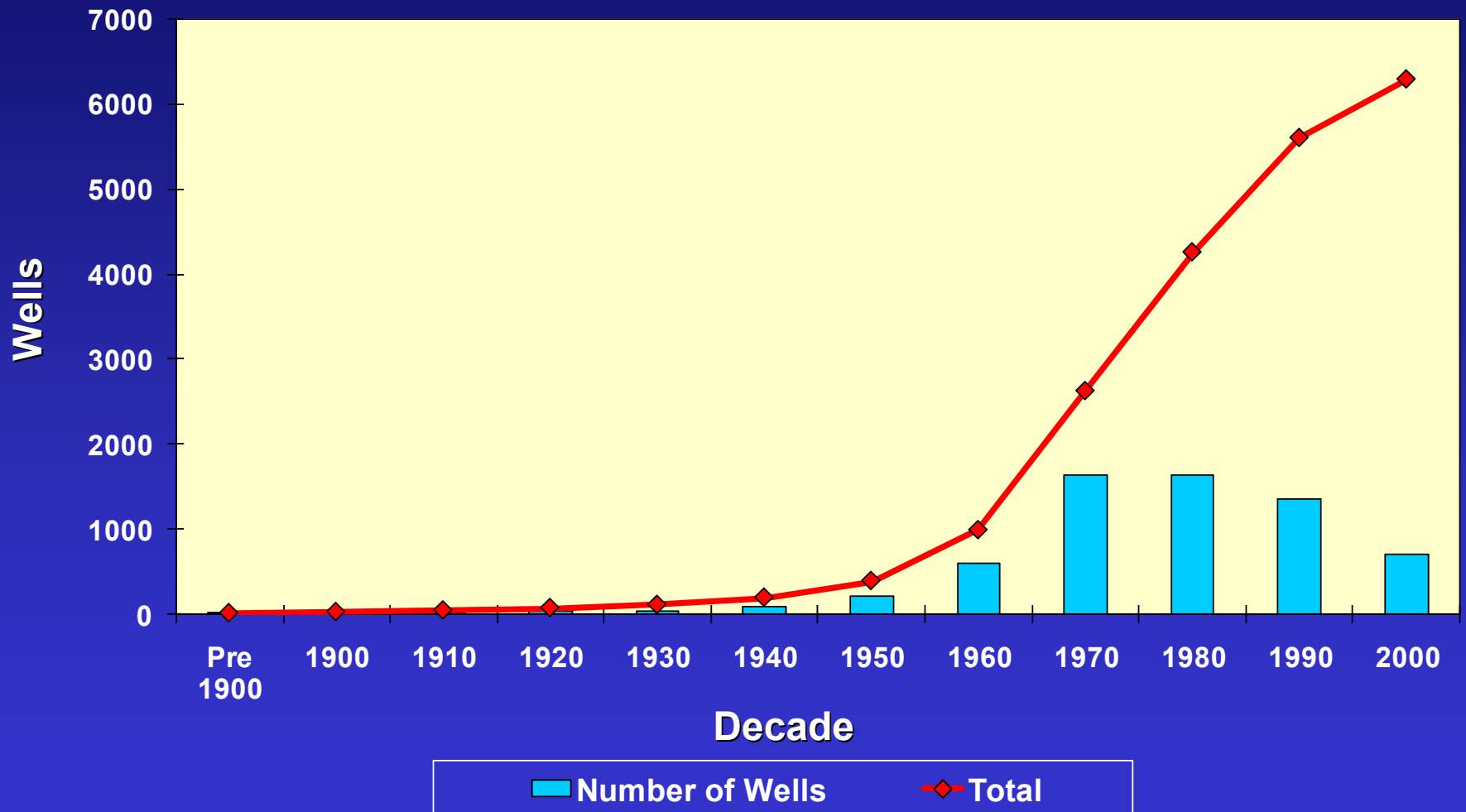
October 28, 2009

May 7, 2010

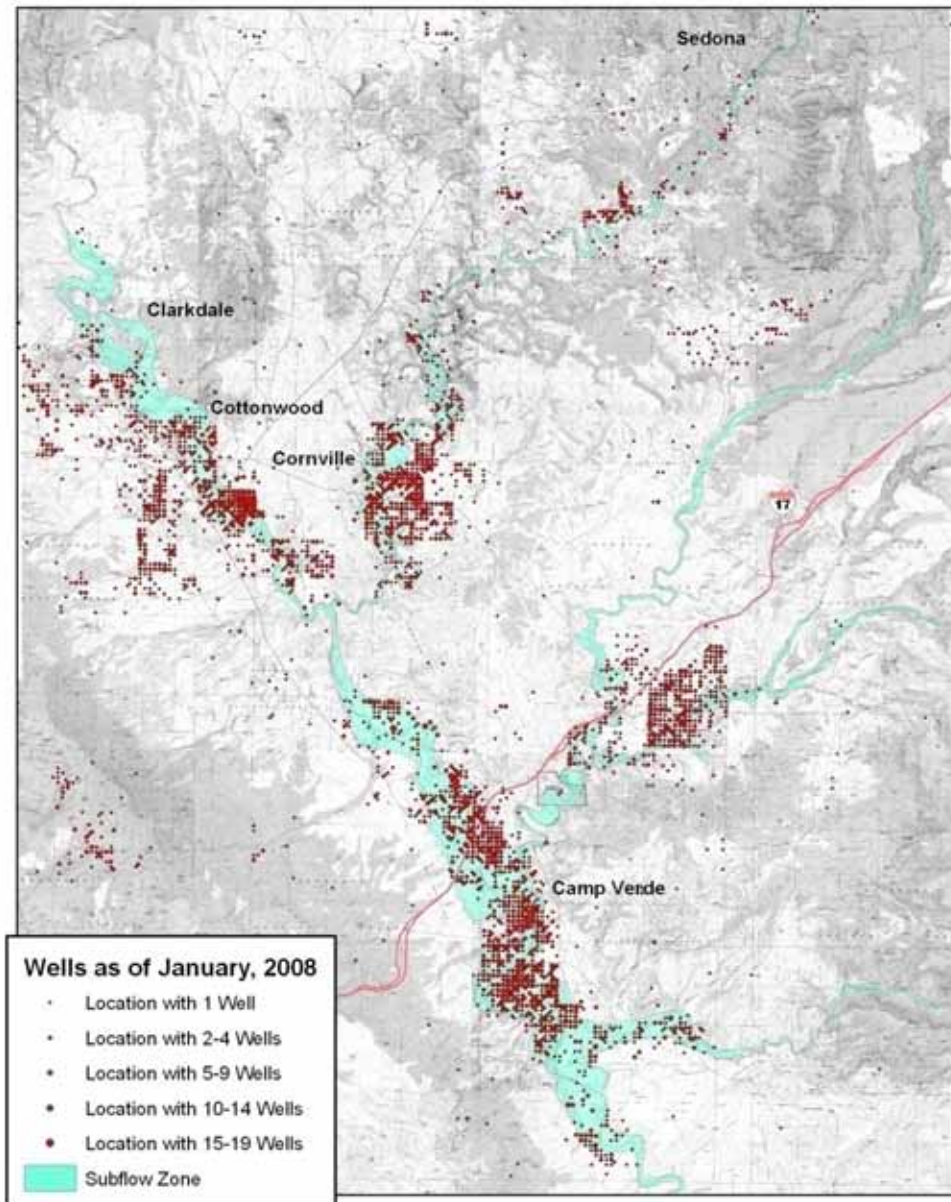


May 7, 2008

Registered Wells in the Verde Valley

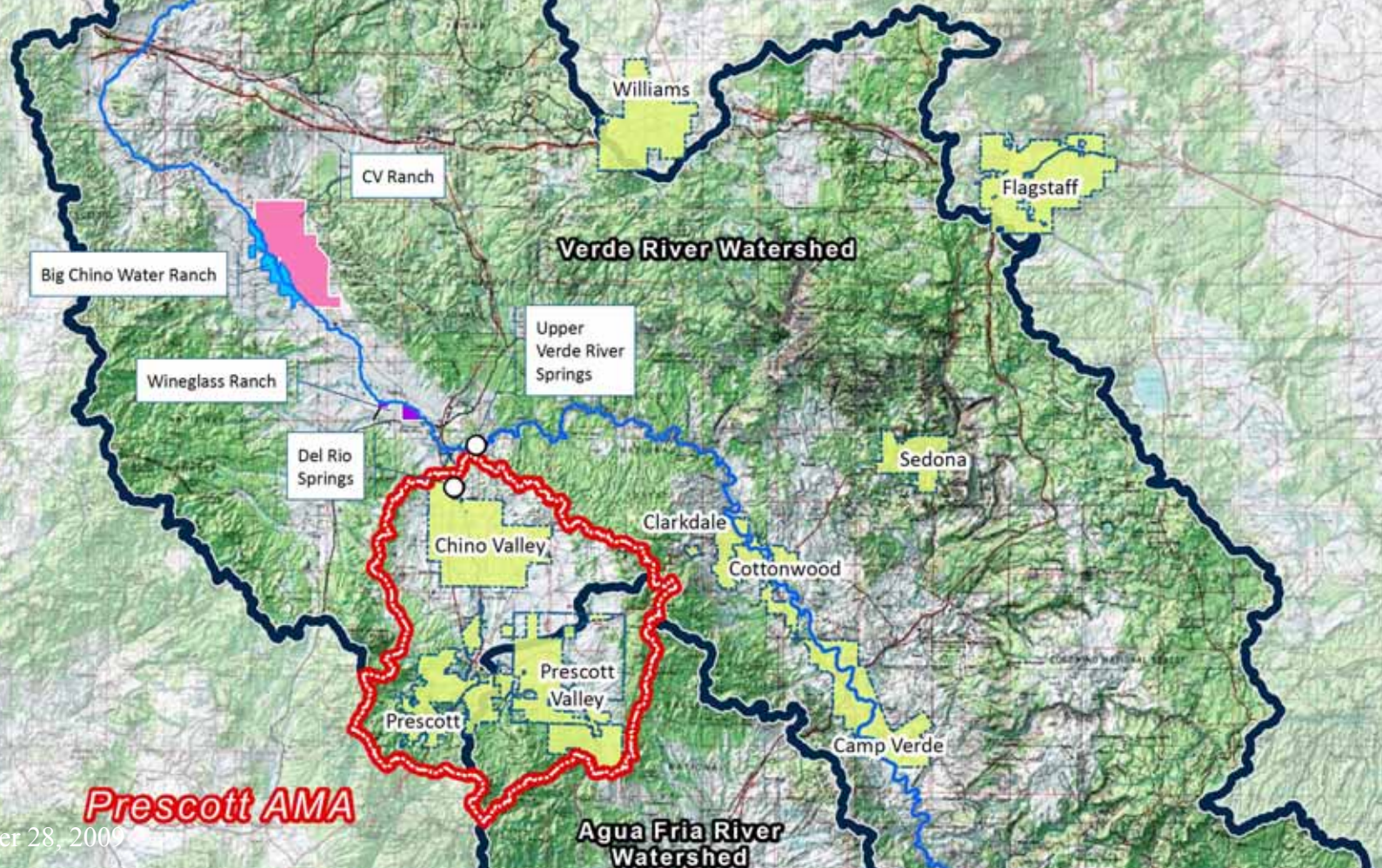


Verde Valley wells as of 2008: **6,300 Wells**



**Active Production Wells in the Verde Valley
as of January, 2008**

Upper Verde River Watershed



October 28, 2009



JUN 18 2009



JUN 18 2009



October 28, 2009

June 17, 2010



October 28, 2009

JUN 19 2008