Water Supply Challenges Facing the Salt River Project

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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
- SRV/MUA Lands
- US Forest Service Lands
- State Trust Lands
- Indian Reservations

Distance Scale: 0 5 10 Miles

PowerSA/MXD 06.08.09
SRP Reservoir System

Total Storage: 2,328,201 AF

VERDE TOTAL
SRP Storage: 287,403 AF

SRP Storage:
Horseshoe Dam 2026' 109,217 AF
Bartlett Dam 1798' 178,186 AF
C.C. Cragin Dam 6720' 15,000 AF

Total Storage: 2,328,201 AF

Roosevelt Lake 1,653,043 AF

EAST CLEAR CREEK TOTAL
SRP Storage: 15,000 AF

SRP STORAGE:
C.C. Cragin 6720'

Apache Lake 245,138 AF
Saguaro Lake 69,765 AF
Canyon Lake 57,852 AF
Roosevelt Dam 2218'

Horse Mesa Dam 1914'
Mormon Flat Dam 1660.5'
Stewart Mountain Dam 1529'

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Annual Surface Water Diversions

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Annual Water Deliveries

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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

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Water Supply Challenges

[Bar chart showing water supply challenges from 1957 to 2005, with categories for Agriculture and Municipal/Domestic water use over the years.]
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

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Registered Wells in the Verde Valley

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Verde Valley wells as of 2008:
6,300 Wells