



# Technical Customer Advisory Committee

## AGENDA

### *Members*

David Brookshire	Wayne Frye
Cassandra D'Antonio	Moises Gonzales
Amy Ewing	Will Gleason
Laurie Firor	David Ritchey

Thursday, June 11, 2015	4:00 PM	City Hall – 3rd Floor Conference Room 304
1.	Call to Order – Note presence of quorum	4:00-4:05
2.	Approval of Agenda	4:00-4:05
3.	Approval of May 7, 2015 Action Summary	4:00-4:05
4.	Water Resources Management Strategy Scenario Planning	4:05-5:45
5.	Public Comment	5:45-5:55
6.	Final Comments or Questions	5:55-6:00
7.	Adjournment	6:00

NOTICE TO PERSONS WITH DISABILITIES: If you have a disability and require special assistance to participate in this meeting, please contact the Water Utility Authority Office, Suite 5012, Albuquerque/Bernalillo County Government Center, phone 768-2500 or by the TTY 1-800-659-8331, as soon as possible prior to the meeting date.



# Technical Customer Advisory Committee

## ACTION SUMMARY

May 7, 2015

Members Present:

Cassandra D'Antonio  
David Brookshire  
Amy Ewing  
Laurie Firor  
Wayne Frye  
David Ritchey

Members Excused:

Will Gleason  
Moises Gonzales

Water Authority Staff / Others Present:

Frank Roth, Senior Policy Manager  
John Stomp, Chief Operations Officer  
Katherine Yuhas, Water Conservation Officer  
David Jordan, INTERA Inc.  
Greg Gates, CH2M  
F. Lee Brown, UNM Professor Emeritus of Economics and Public Administration

**Item 1 – Call to Order - Note presence of quorum**

The meeting was called to order at 4:01 pm by Chair Amy Ewing.

**Item 2 – Approval of Agenda**

Laurie Firor made a motion to approve the agenda. David Brookshire seconded the motion. The motion passed on a 4-0 vote.

For: 4      Brookshire, D'Antonio, Ewing, Firor  
Against: 0  
Excused: 4      Frye, Gleason, Gonzales, Ritchey

**Item 3 – Approval of April 9, 2015 Action Summary**

Laurie Firor made a motion to approve the action summary. Cassandra D’Antonio seconded the motion. The motion passed on a 4-0 vote.

For: 4      Brookshire, D’Antonio, Ewing, Firor  
Against: 0  
Excused: 4      Frye, Gleason, Gonzales, Ritchey

*Wayne Frye entered the meeting at this time.*

**Item 4 – Recommendation on Proposed Water Conservation Program Resolutions**

Katherine Yuhas provided an overview of two resolutions changing components of the Water Conservation program. The first resolution would authorize a two-year pilot educational component as an alternative to water waste fines. Yuhas explained that the education component could be more effective in reducing water waste. This program change was highly supported during the FY14 Customer Conversation meetings. The second resolution would amend the water conservation program to expand the TreeBate program. A \$100 rebate would be provided for the purchase of a new xeriscape tree. This rebate was also highly supported during the FY14 Customer Conversation meetings. Many older trees are not drought-tolerant and there has been a recent reduction in Albuquerque’s tree canopy. This program change would promote the planting of new xeriscape trees to help reduce heat, increase cooling, remove carbon and air pollution and cut energy use.

David Brookshire made a motion to approve the resolution authorizing a two year education component to the water waste program. Laurie Firor seconded the motion. The motion passed on a 5-0 vote.

For: 5      Brookshire, D’Antonio, Ewing, Firor Frye  
Against: 0  
Excused: 3      Gleason, Gonzales, Ritchey

Wayne Frye made a motion to approve the resolution to expand the TreeBate program. Laurie Firor seconded the motion. The motion passed on a 5-0 vote.

For: 5      Brookshire, D’Antonio, Ewing, Firor Frye  
Against: 0  
Excused: 3      Gleason, Gonzales, Ritchey

*David Ritchey entered the meeting at this time.*

**Item 5 – Water Resources Management Strategy Scenario Planning**

John Stomp provided an overview of the work plan and schedule for the TCAC on updating the Strategy. TCAC members agreed with plan and schedule for the remaining meetings of calendar year 2015. David Jordan reviewed the demand and supply components of the scenario-based planning process. Lee Brown reviewed the 1996 Value of Water Study and his work to update this report to support the Strategy update. Jordan discussed the two subdivisions of the groundwater

reserve which are the safety and working reserve. At the June meeting, Brown will discuss the economic values of the safety and working reserves. Jordan also provided an overview of the decision analysis process and how the TCAC will assist in reviewing the criteria. He discussed the qualitative and quantitative components of the evaluation and ranking decision analysis.

**Item 6 – Public Comment**

Elaine Hebard was present and provided comments on the agenda items. Others present included Paul Karas and Norm Gaume.

**Item 7 – Final Comments or Questions**

TCAC members requested changing the meetings dates for the June and July meetings. Frank Roth will poll TCAC members to determine the best dates for the rescheduled meetings.

**Item 8 – Adjournment**

The meeting concluded at 5:45 pm.

# **WRMS 2017 – Scenario Planning**

**ABCWUA TCAC June 11, 2015**



## **Proposed Agenda – July TCAC**

- **Method for quantification of the Working Reserve**
- **Management of the Working Reserve**
- **Overview of the economic module**
- **Overview of the Decision Analysis process**



## Proposed Agenda – August TCAC

- **Additional discussion on Groundwater Reserve – management and valuation**
- **Preliminary ranking of alternatives**
- **Discuss existing policies in the Strategy and the need to simplify and reduce the number of overall policies**

## Proposed Agenda – Sept TCAC

- **Final results of the Value of Water and Working Reserve study**
- **Additional discussion on ranking of alternatives**
- **First draft of new WRMS**

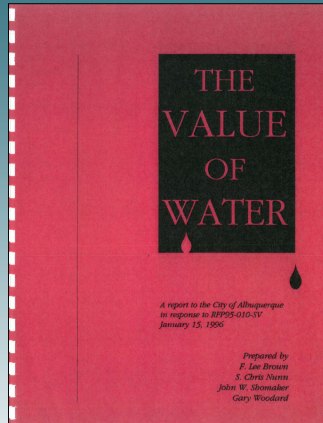
## Public Process – Fall/Winter

- **Additional public meetings**
- **Community conversations**
- **Town halls**

## Today's Discussion

- **Value of Water – Working Reserve**
- **Preliminary scenario results**
- **Initial list of alternatives**

# Value of Water

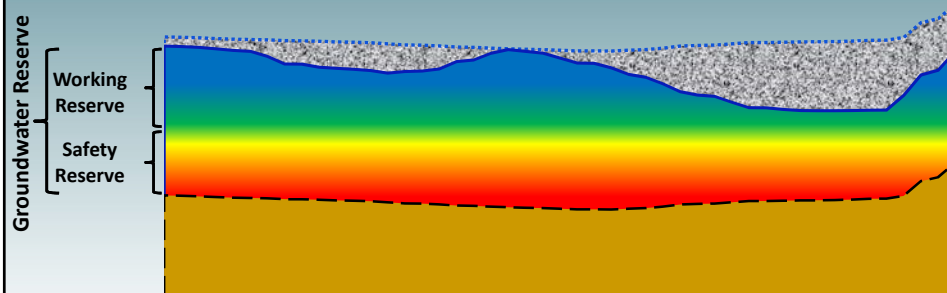


## KEY CONCEPT: WORKING RESERVE

**“Those services—drought insurance—which involve actively mining for periods of time, and then replenishing lost stocks at other times.”**

# Working Reserve

**Working Reserve = Groundwater Reserve – Safety Reserve**

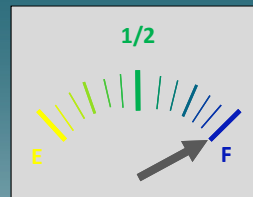




# Managing the Working Reserve

- Historically, it was drawn down as though it were inexhaustible
- The Working Reserve is projected to grow until 2035-2040 due to conservation, the Drinking Water Project and other actions.
- Future management of the Working Reserve entails
  - Periods of drawdown
  - Period of restoration
    - Allow natural recharge through conservation, alternative supply, etc.
    - Direct augmentation : aquifer storage and recovery (ASR)

# Fuel Gauge Analogy



- Concept: Working Reserve set at full in 2035 – 2040
- Concept: Empty at boundary with Safety Reserve
- We are currently working on quantification

## How to Manage Drawdown & Restoration in the Future?

- **Drawdowns, e.g.**
  - How low should the gauge be allowed to go?
  - How long can it be allowed to stay at a low level?
- **Restoration, e.g.**
  - How soon after drawdown should restoration begin?
  - By what means?
- **Is there a desired management threshold below Full?**

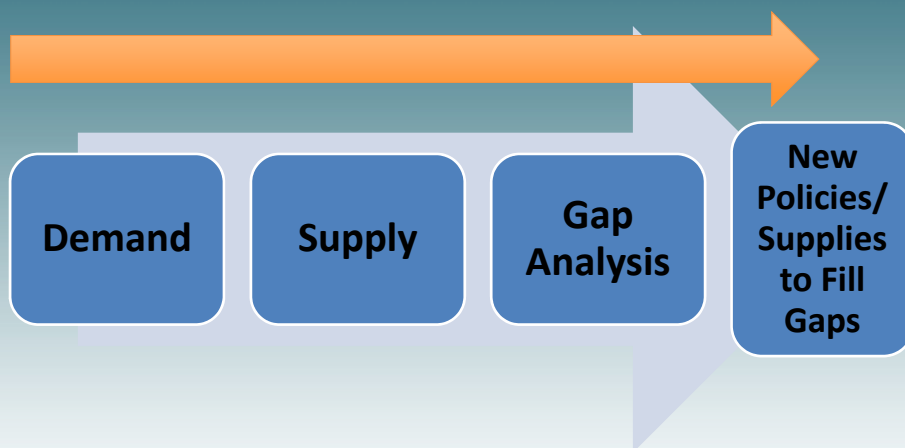
## Need Answers

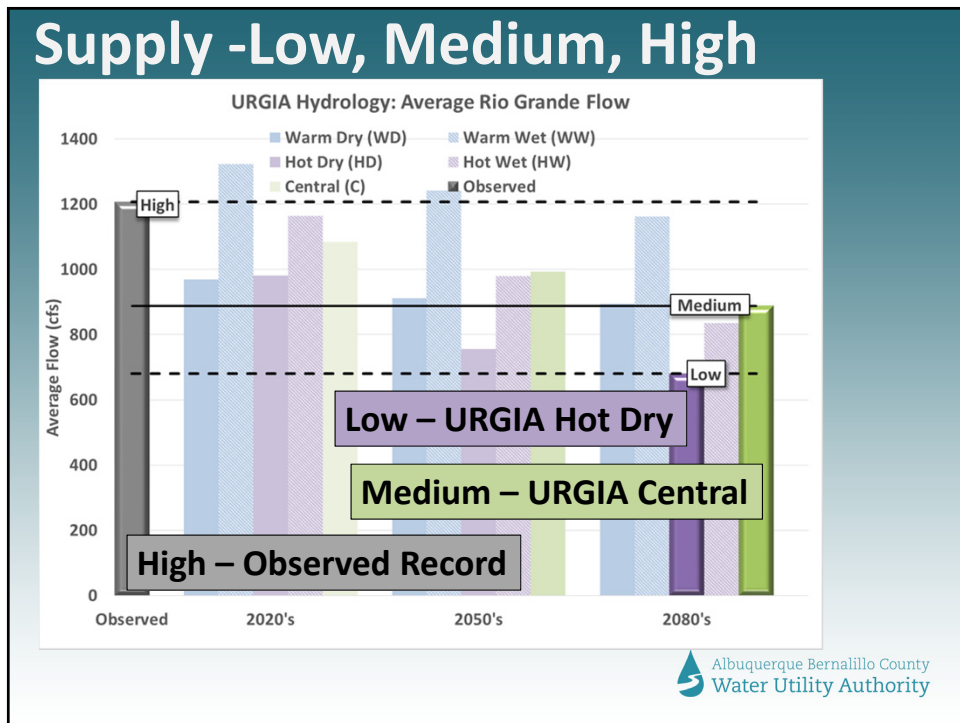
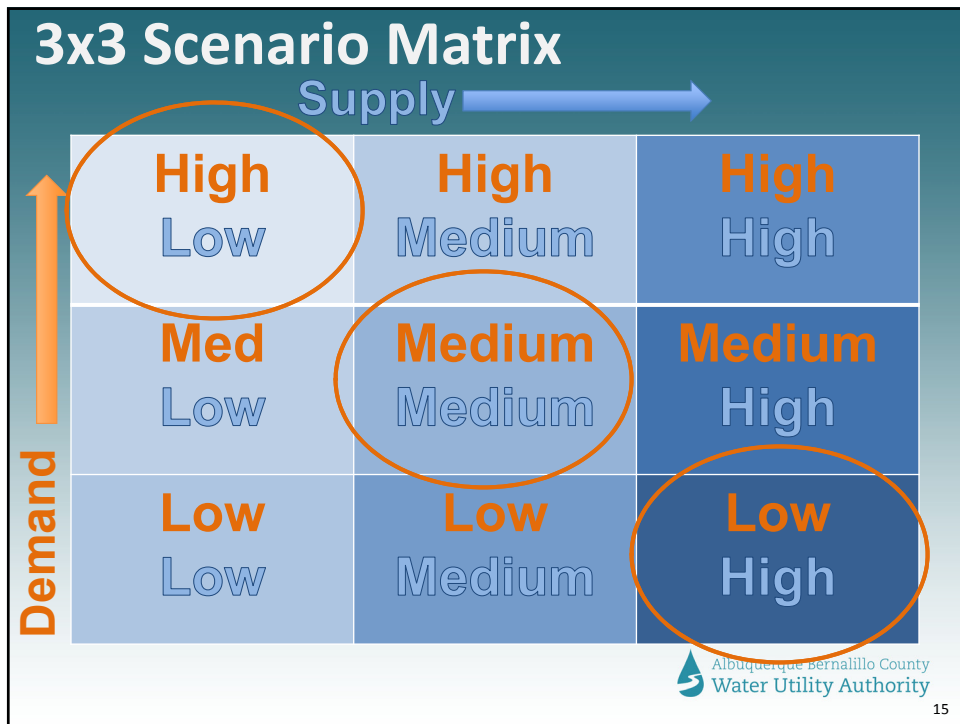
- **Cost is an important factor in developing answers**
- **Perspective is central to answers (cost to whom?)**
- **Perspective of ABCWUA is not the same as ratepayers, region, or state**
- **Other factors such as groundwater contamination, water quality, water rights implications, etc.**

## Valuation Perspective

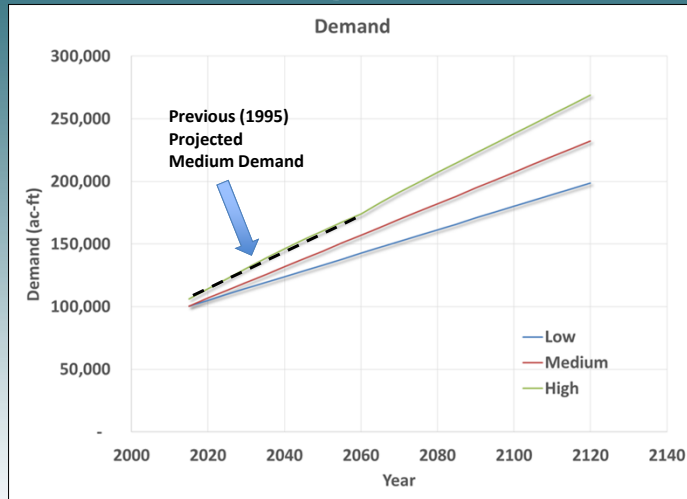
- ABCWUA is an independent governmental enterprise
  - Must conform to applicable water regulations
  - Must minimize costs
  - In the long-run, revenues must equal costs
  - Must serve future ratepayers as well as present ratepayers
  - Must consider welfare of ratepayers
- Who pays (which generation of ratepayers)?

## Preliminary Scenario Results



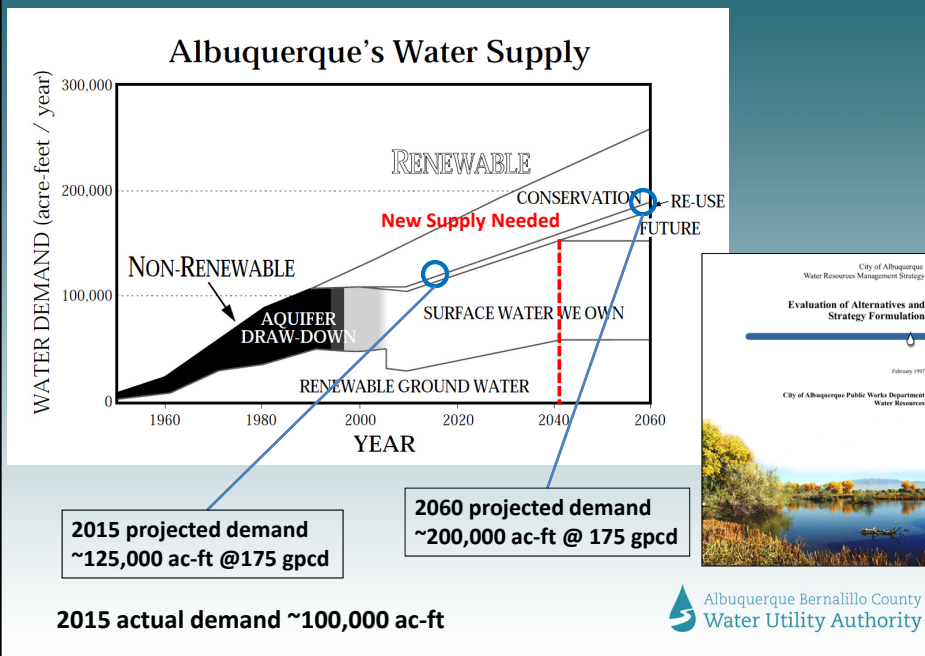


# Demand Projections – Low, Medium, High

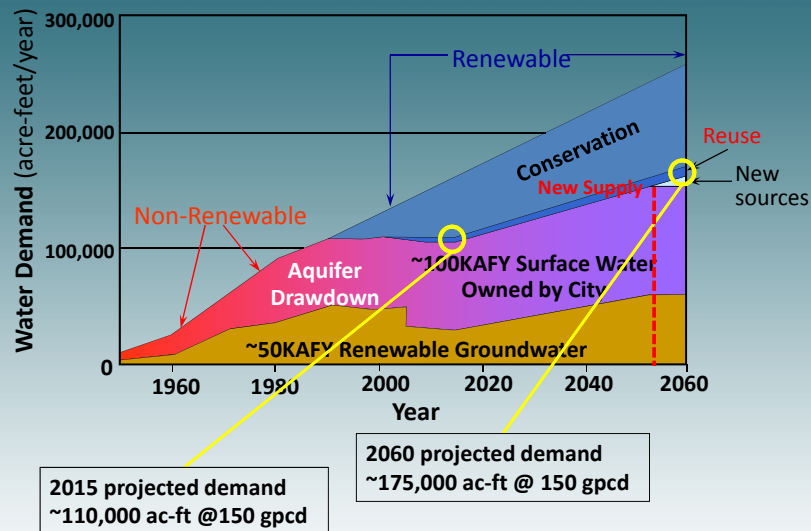


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## Where We Were - 1997



## Where We Were – 2007

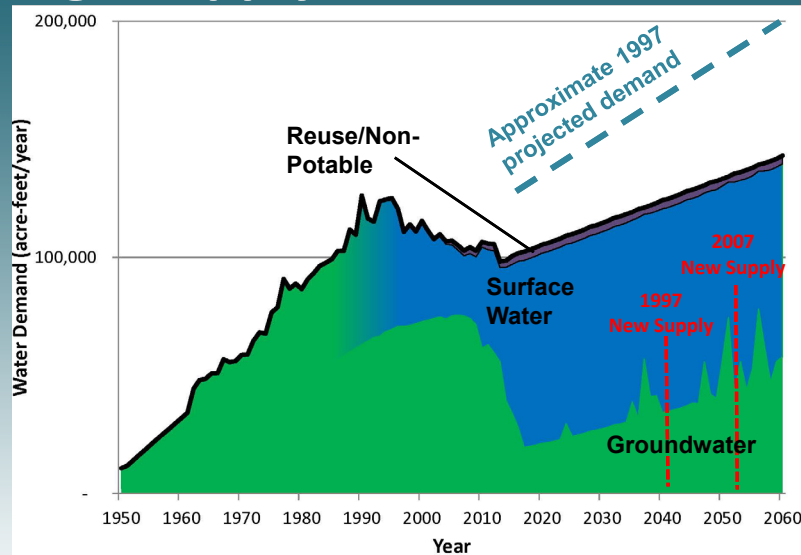


2015 actual demand ~100,000 ac-ft

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## High Supply/Low Demand Scenario

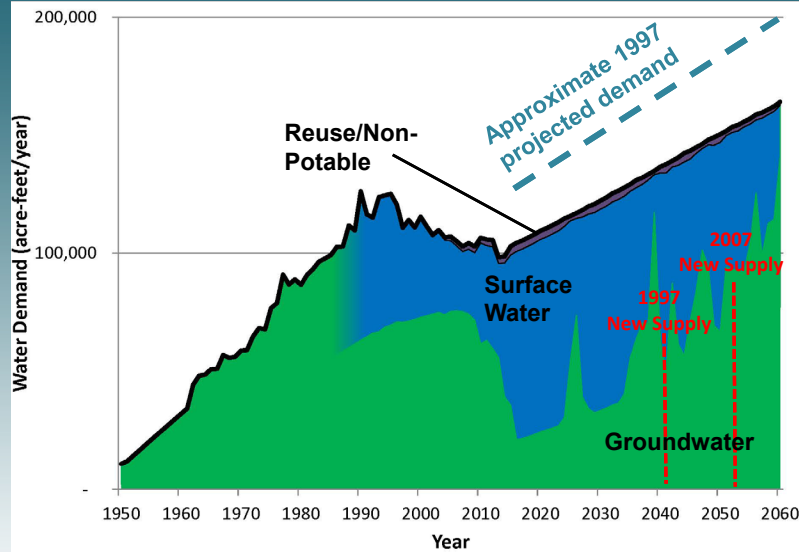


Conceptual results only – do not quote or cite

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## Medium Supply/Medium Demand

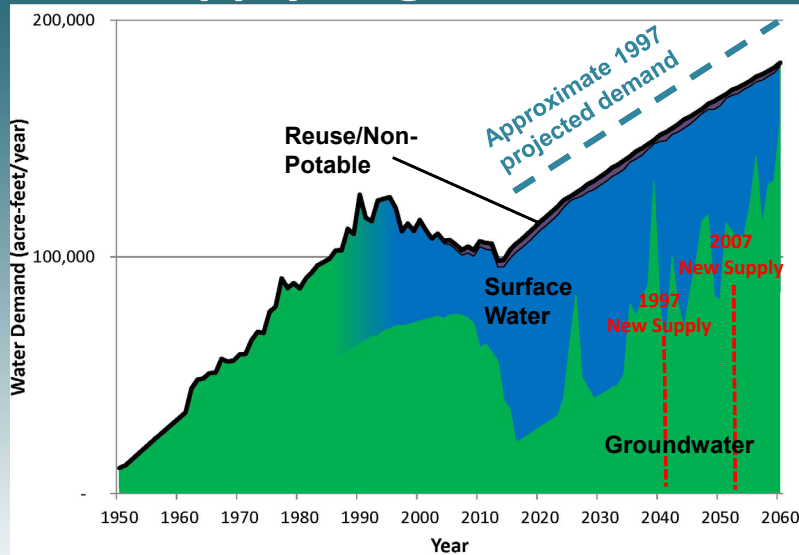


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## Low Supply/High Demand Scenario



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## Potential New Supply Alternatives

- **Conservation**
- **Surface Water**
  - Lease or short-term purchase of additional San Juan-Chama water
  - Excess San Juan-Chama water (in excess of Heron storage)
  - Directly divert current pre-1907 water rights
  - Develop stormwater runoff as a resource
  - New regional surface water diversion

## Potential New Supply Alternatives

- **Non-potable and reuse**
  - Transfer current native rights for use in the non-potable system
  - Expand non-potable reuse
- **ASR**
  - Additional large-scale ASR projects
  - New infiltration projects
  - Stormwater capture from existing facilities with spreading basins for infiltration



# Potential New Supply Alternatives

## New Supplies

- **Importation**
  - **Inter-basin transfer**
  - **Produced water**
- **Water banking**
- **Relinquishment credit water (may be issued by the state)**
- **Storage fee water**
- **Water owed to the Authority by other agencies**
- **Indirect/direct potable reuse and storage**

# Potential New Supply Alternatives

## New Supplies (continued)

- **Native water storage in Abiquiu with direct diversion**
- **New storage to capture high flows and store excess water (if available)**
- **Deep brackish groundwater**
- **Additional purchase of pre-1907 rights**
- **Watershed management**

# Maximizing Existing Supply

- **Groundwater**
  - **Additional arsenic treatment facilities on groundwater wells**
  - **New groundwater wells**

## Questions?

