



Albuquerque Bernalillo County  
Water Utility Authority

# The Two-Decade Solution: Planning for Sustainability in Albuquerque, NM

ASSOCIATION OF METROPOLITAN WATER AGENCIES  
MARCH 21, 2016

# The Water Authority



- **BUDGET:** \$202 million operating/  
\$59 million capital
- **CUSTOMER ACCOUNTS:** 207,000
- **POPULATION SERVED:** 650,000
- **EMPLOYEES:** 630
- **DRINKING WATER :** 31 billion gallons/year
- **WASTEWATER:** 20 billion gallons/year
- **WATER SUPPLY PIPELINE:** 3,130 miles
- **SEWER COLLECTION PIPELINE:** 2,700 miles

# Policy Overview

- Conservation pricing/rate structure
- Rate reserve fund
- Growth pays for itself (no net cost to utility)
- Infrastructure financing: 50% cash; 12-year debt payoff
- Long-term Water Resources Management Strategy adopted as policy by governing board every 10 years

# The Story...So Far

 Albuquerque Bernalillo County  
Water Utility Authority



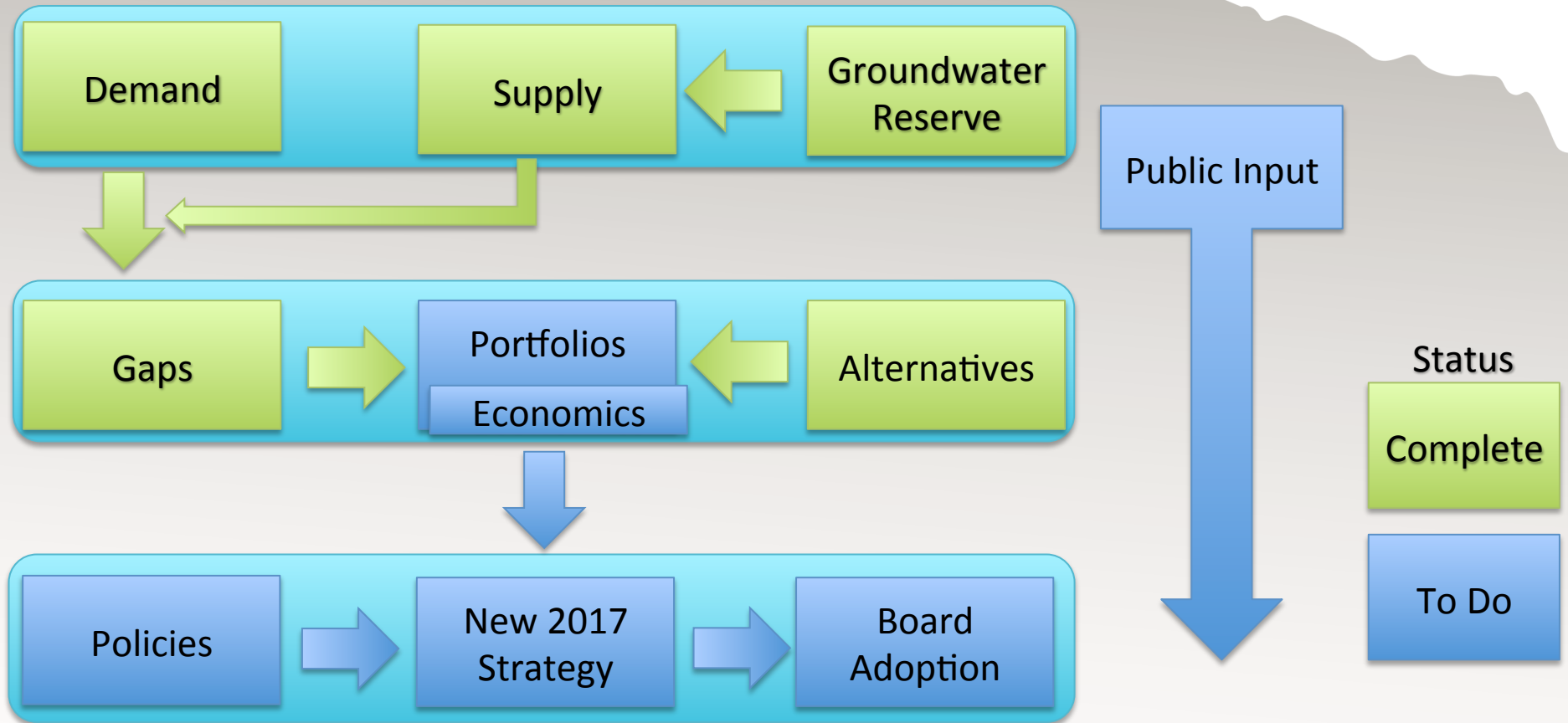
# Updating the Strategy

- Need to refresh existing data and incorporate latest science and technical information (e.g., climate models)
- Consider a 100-year planning horizon
- Strategy will be updated every 10 years (or earlier as needed)



# Process Road Map

## Framework for the Future

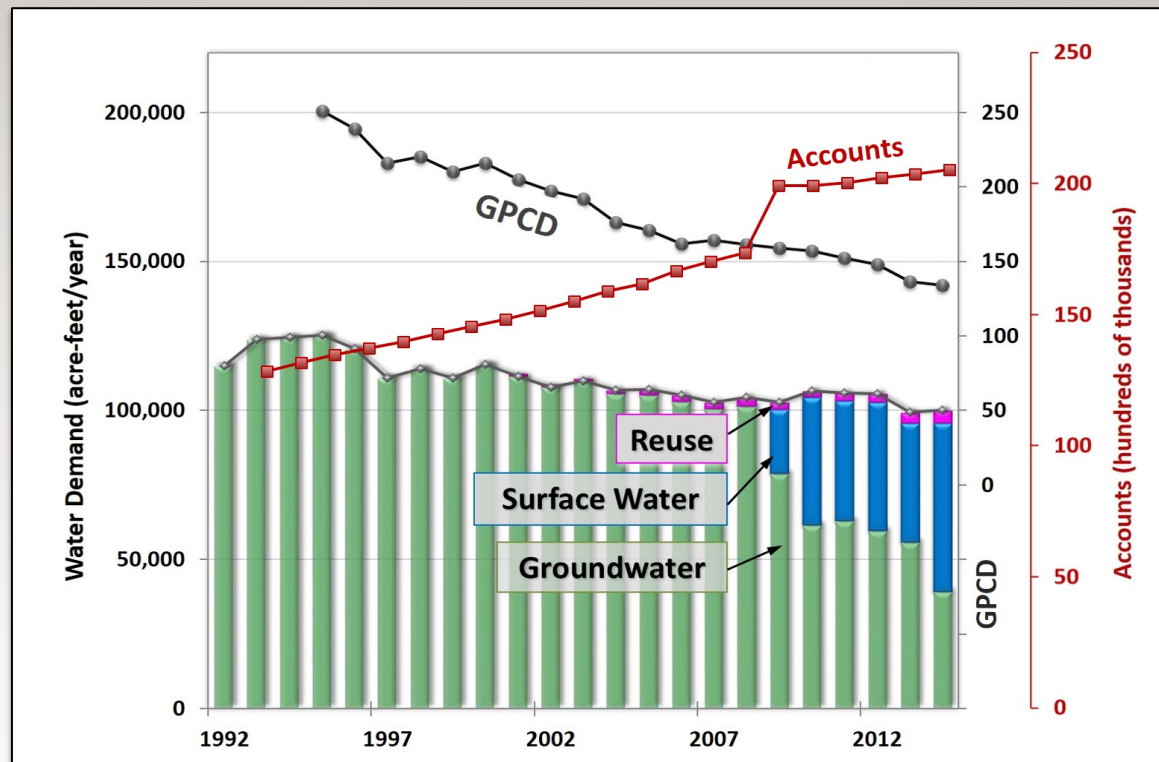


# Key Elements

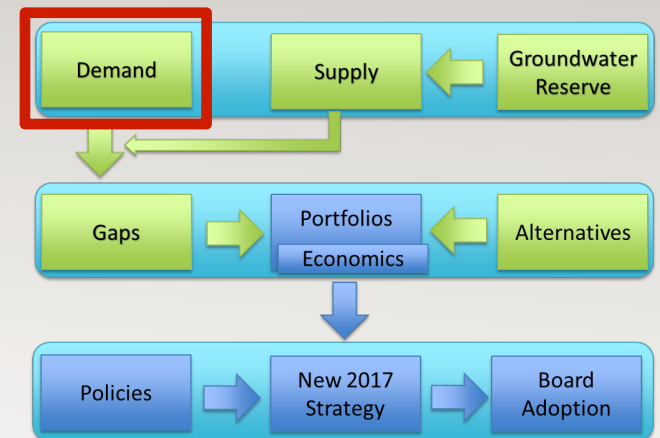
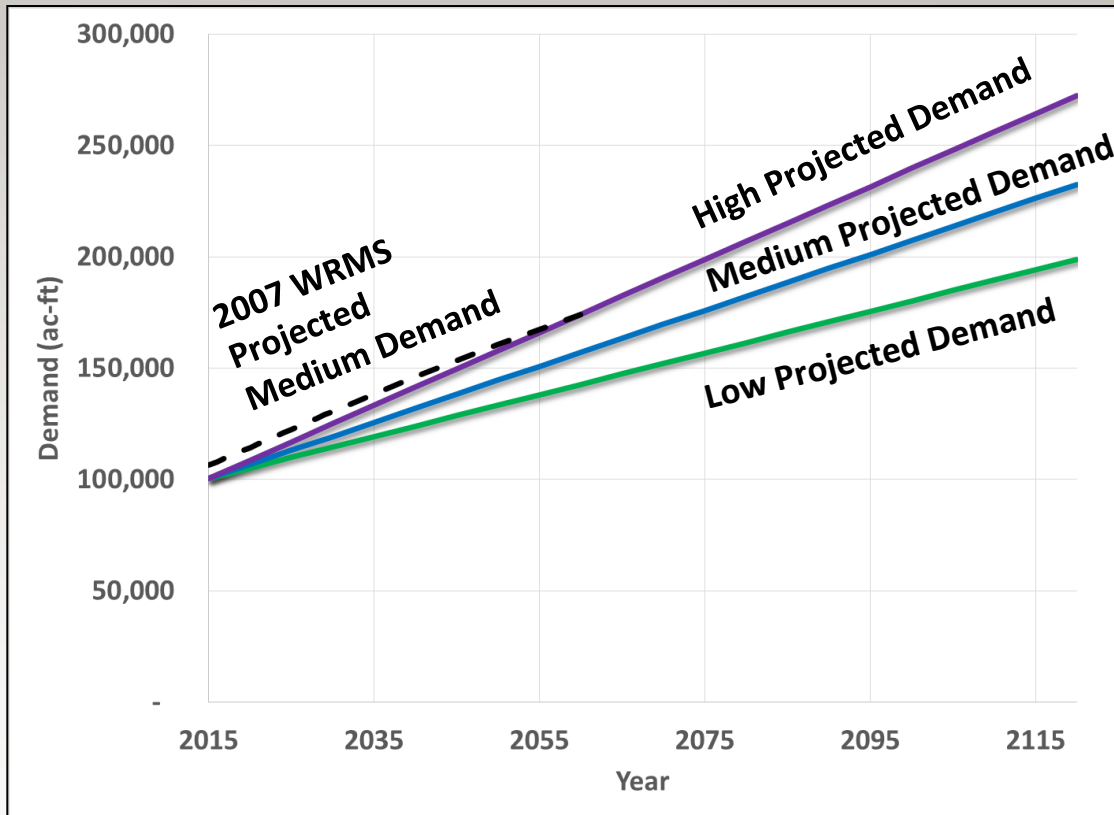


- Predicting demand and supply
- Identifying **new sources of supply** to fill potential gaps
- Developing a **groundwater management plan**:  
Take improved understanding of aquifer into account; set aside groundwater reserve for future generations

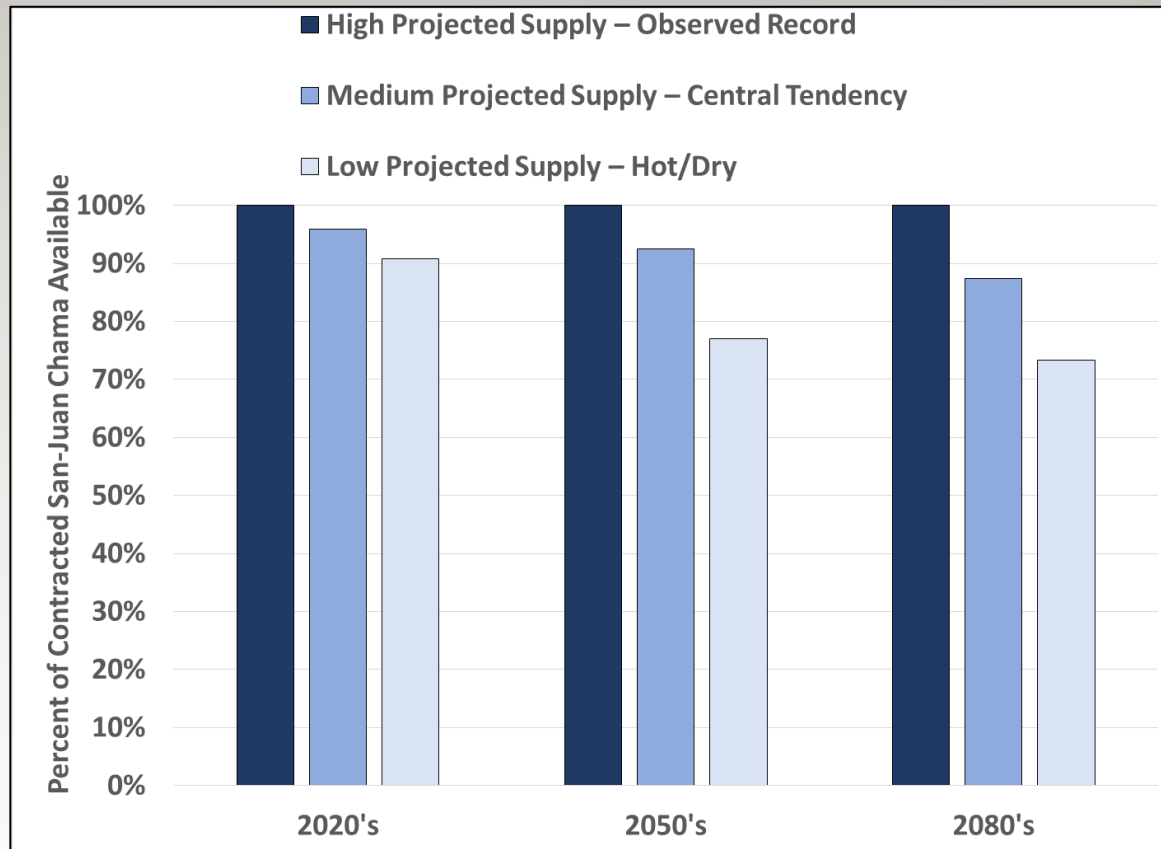
# Demand: Declining Even As System Grows



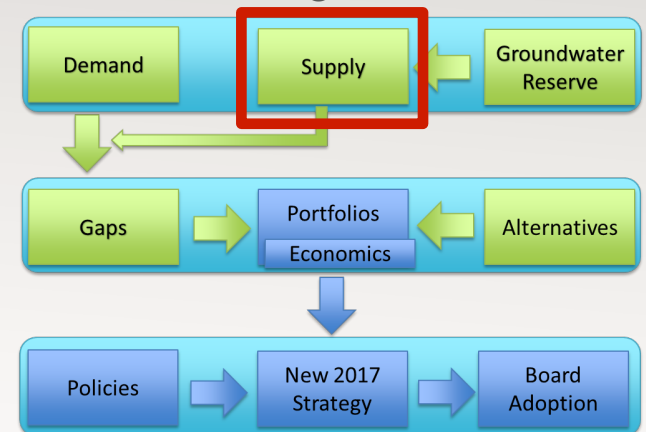
# Range of Projected Demand



# Range of Projected Supply

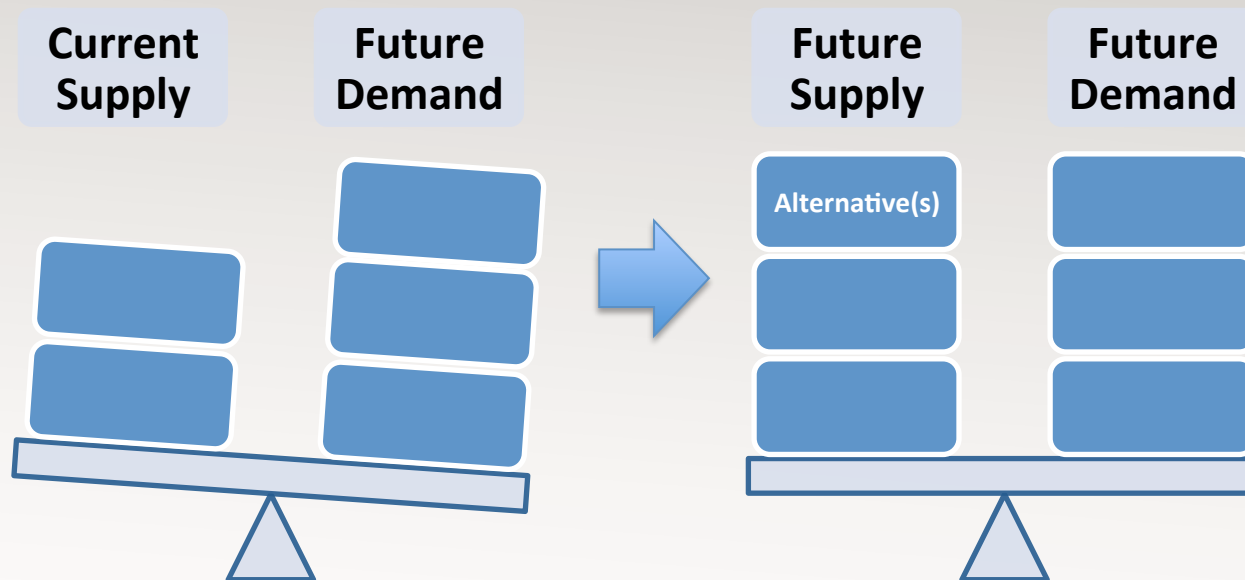


- Medium Projected Supply based on simulated central tendency climate change
- Low Projected Supply based on simulated hot/dry climate change



# Identify Potential Future Supply Gaps

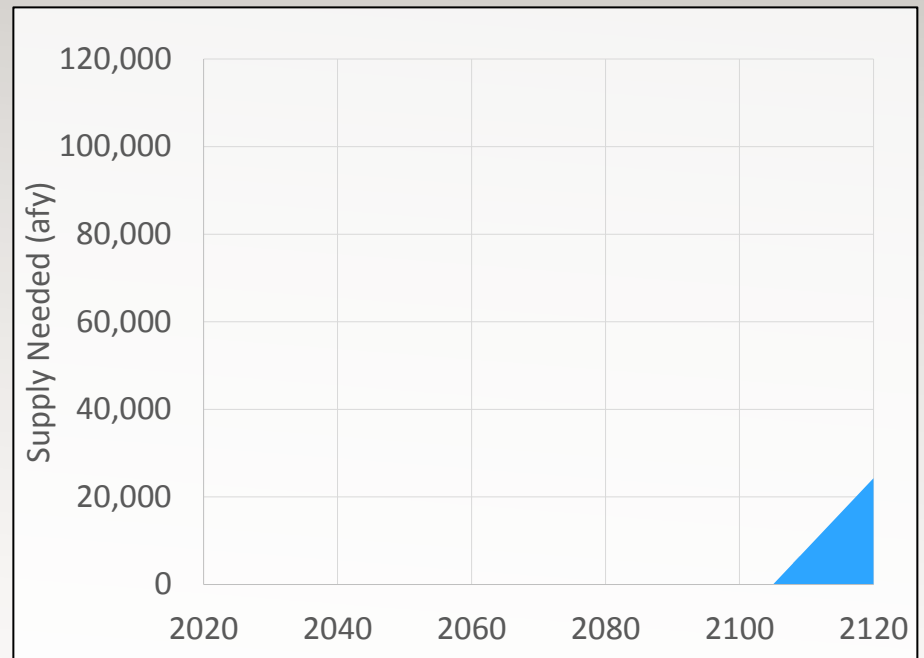
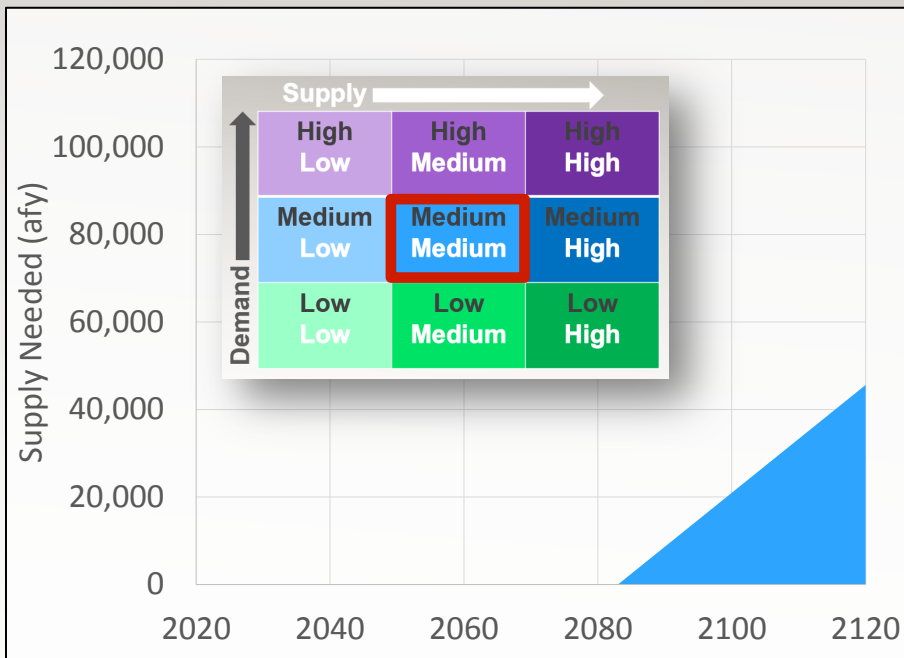
If future demand is expected to exceed current supply, plan to add new supply alternative(s)



# Example Supply Alternative: Conservation

Baseline (current GPCD of 135)

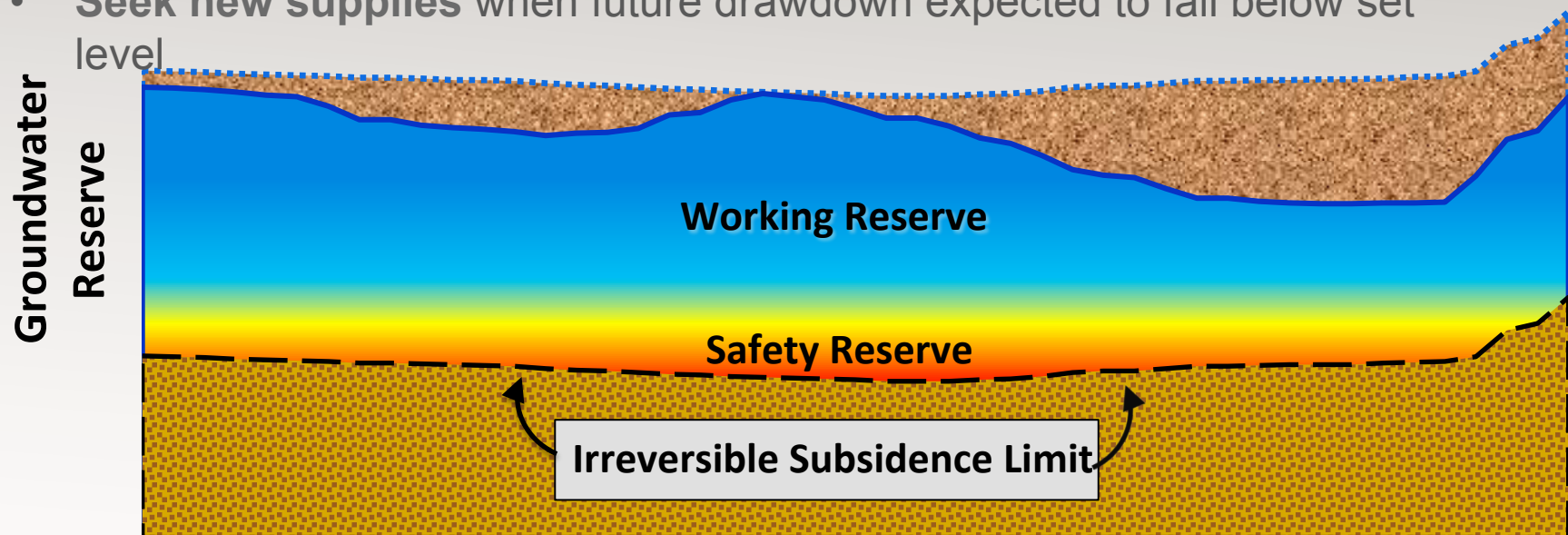
Conservation (110 GPCD in 20 years)



## Proposed Groundwater Management

### Plan

- Working Reserve: Between 50 and 250 feet below pre-development level
- Safety Reserve: Between 250 and 300 feet below pre-development level
- Irreversible Subsidence Level: 300 feet below pre-development level
- Seek new supplies when future drawdown expected to fall below set level



# The Challenges

- Regulatory (i.e., arsenic, endangered species)
- Infrastructure costs
- Revenue impacts of water conservation (18% reduction in one year)
- Communicating need for rate increases in era of declining usage
- Other communities using groundwater saved for Water Authority customers



# The Challenges

- No water markets in New Mexico
- Groundwater contamination (e.g., KAFB Jet Fuel plume)
- Climate variability impacts on surface water supplies
- Identifying new water supplies for 100-year planning horizon
- Rio Grande Compact



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