The End of Reliable Water Supplies in NM

David S. Gutzler UNM Earth & Planetary Sciences (Emeritus) gutzler@unm.edu

The ongoing drought heralds a new era for water supplies in NM, characterized by less snowpack, diminished streamflow, and increased variability of precipitation.



Existing surface water rights allocations already granted by the state will be unmet, more frequently and less predictably, in the future.

New water rights allocations must be granted much more conservatively than in the past.

New sources of water (imported, desalinated) will, <u>at best</u>, be much more expensive than (diminished) existing surface water or (depleted) groundwater. Other western states are searching for new water too.

Status quo water policies would result in the need for crisis management in times of future shortage.

→ 20th Century water management rules won't work in the 21st Century, as the Southwest becomes more arid

How Might We Choose To Change The Rules?

- 1. Existing water rights and consumption patterns
 - * Set equitable rules for reallocating and retiring water rights, and plan ahead for future episodes of severe water shortage
 - * Promote flexibility and sustainability in agricultural practices
 - * Push municipal utilities to be more aggressive in further reducing per capita consumption
- 2. <u>New</u> water rights and consumption decisions
 - * Define "beneficial use" more carefully and explicitly
 - * Include projections of diminished and more variable supplies in assessments of future water availability
 - * Couple conservative water management to economic development efforts
- → Be prudently skeptical about the future availability and cost of "new water"

Cooperative discussion and realistic long-term planning for diminished future water supplies can help to maintain some semblance of reliability in future water deliveries.

Management rules appropriate for a changed climate, put in place now, are vastly preferable to crisis management later ... as we can see today in California, or among Colorado River basin states.