

# WATER'S NOT REALLY FOR FIGHTING OVER

How myths of crisis and conflict stand in the way of solving the West's water problems

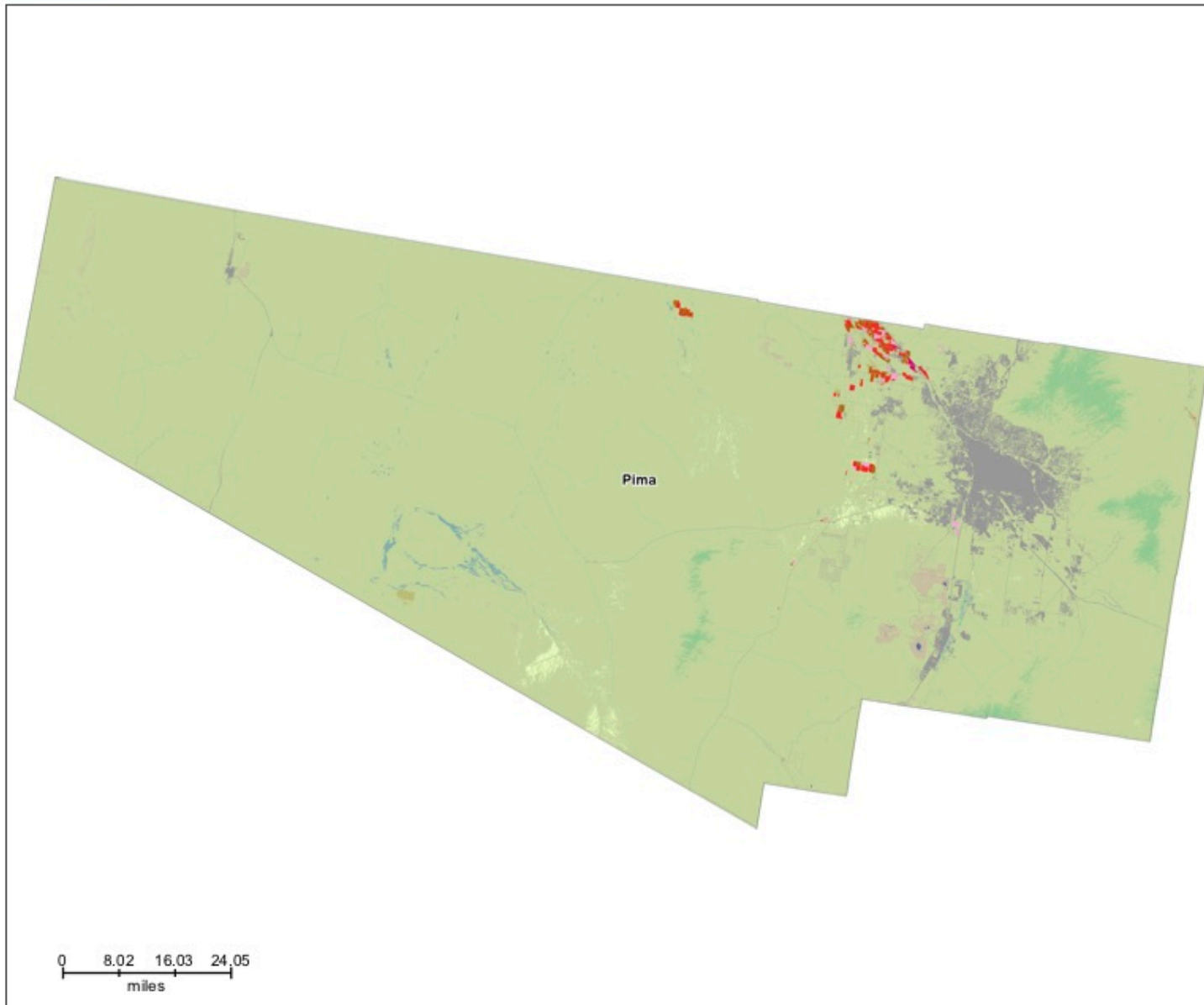
John Fleck, University of New Mexico Water Resources Program

# Indulging my Tucson envy





# CDL2017 CDL, Pima County, Arizona



Land Cover Categories  
(by decreasing acreage)

### AGRICULTURE\*

-  Grass/Pasture
-  Fallow/Idle Cropland
-  Cotton
-  Winter Wheat
-  Alfalfa
-  Barley
-  Other Hay/Non Alfalfa
-  Dbl Crop WinWht/Cotton
-  Pistachios
-  Corn
-  Oats
-  Dry Beans
-  Sod/Grass Seed
-  Pecans
-  Potatoes
-  Dbl Crop Oats/Corn

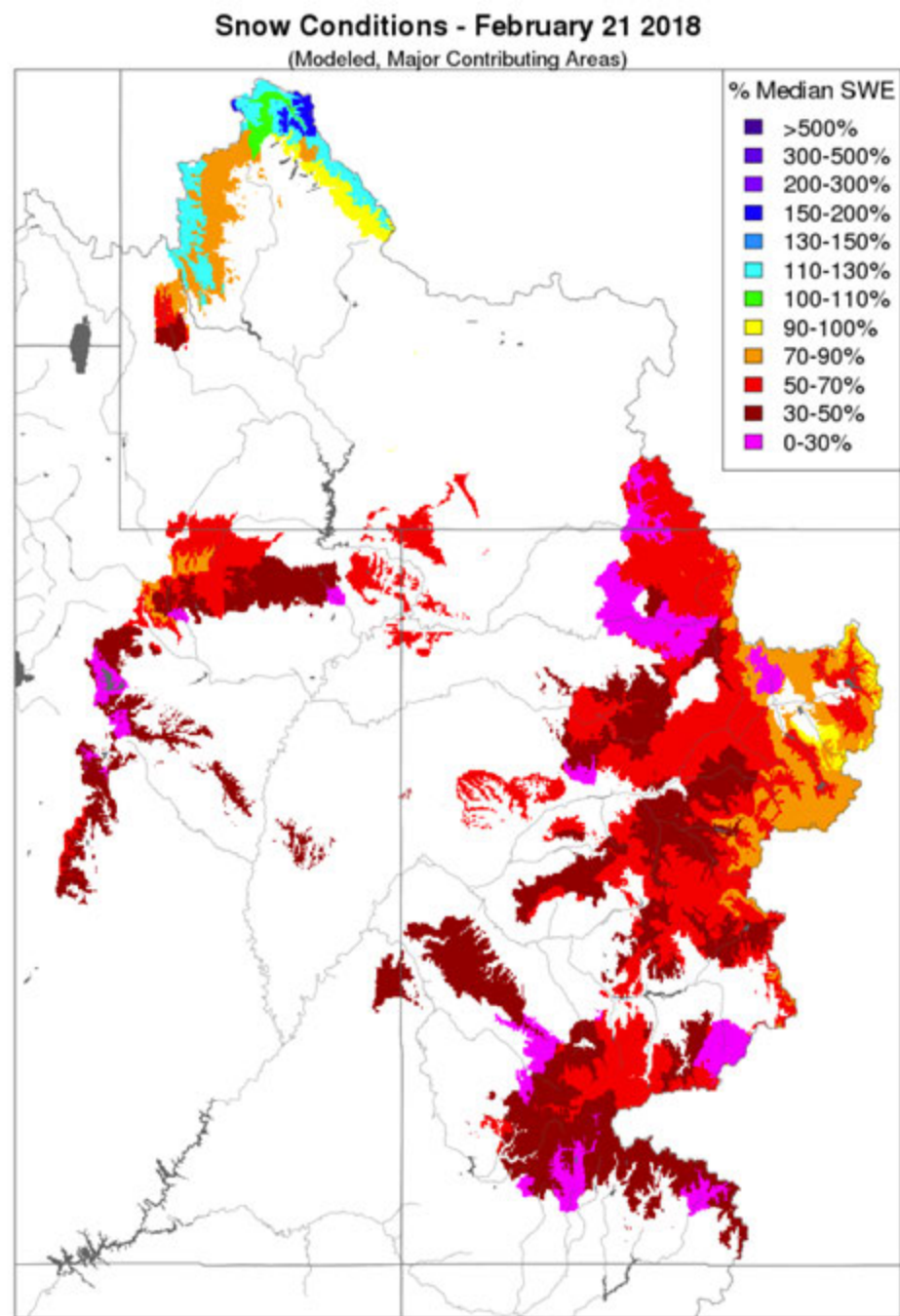
### NON-AGRICULTURE\*\*

-  Shrubland
-  Evergreen Forest
-  Developed/Low Intensity
-  Developed/Open Space
-  Developed/Medium Intensity
-  Barren

In 2018, a terrible snowpack.

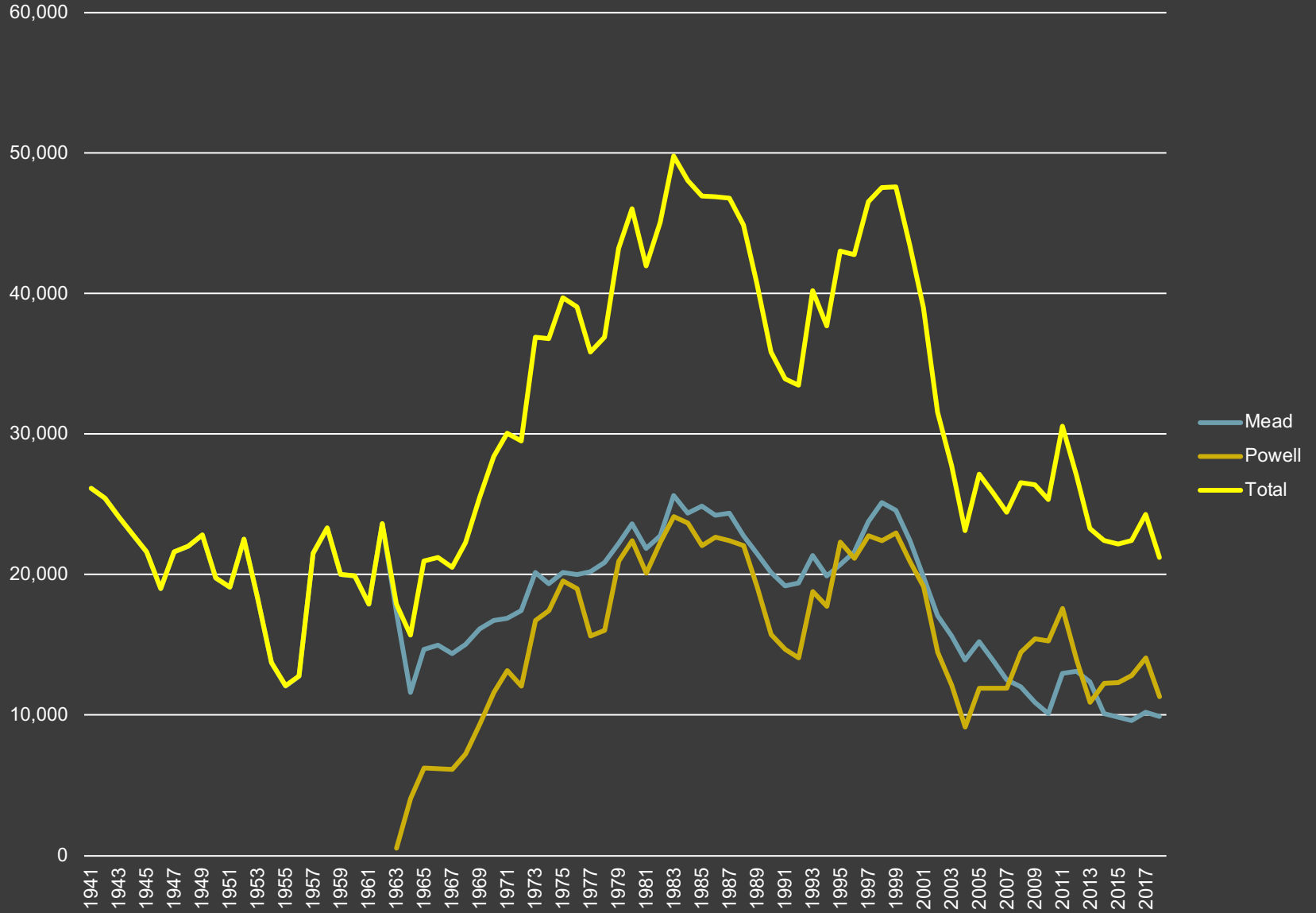
Current Colorado River runoff forecast:

50 percent.

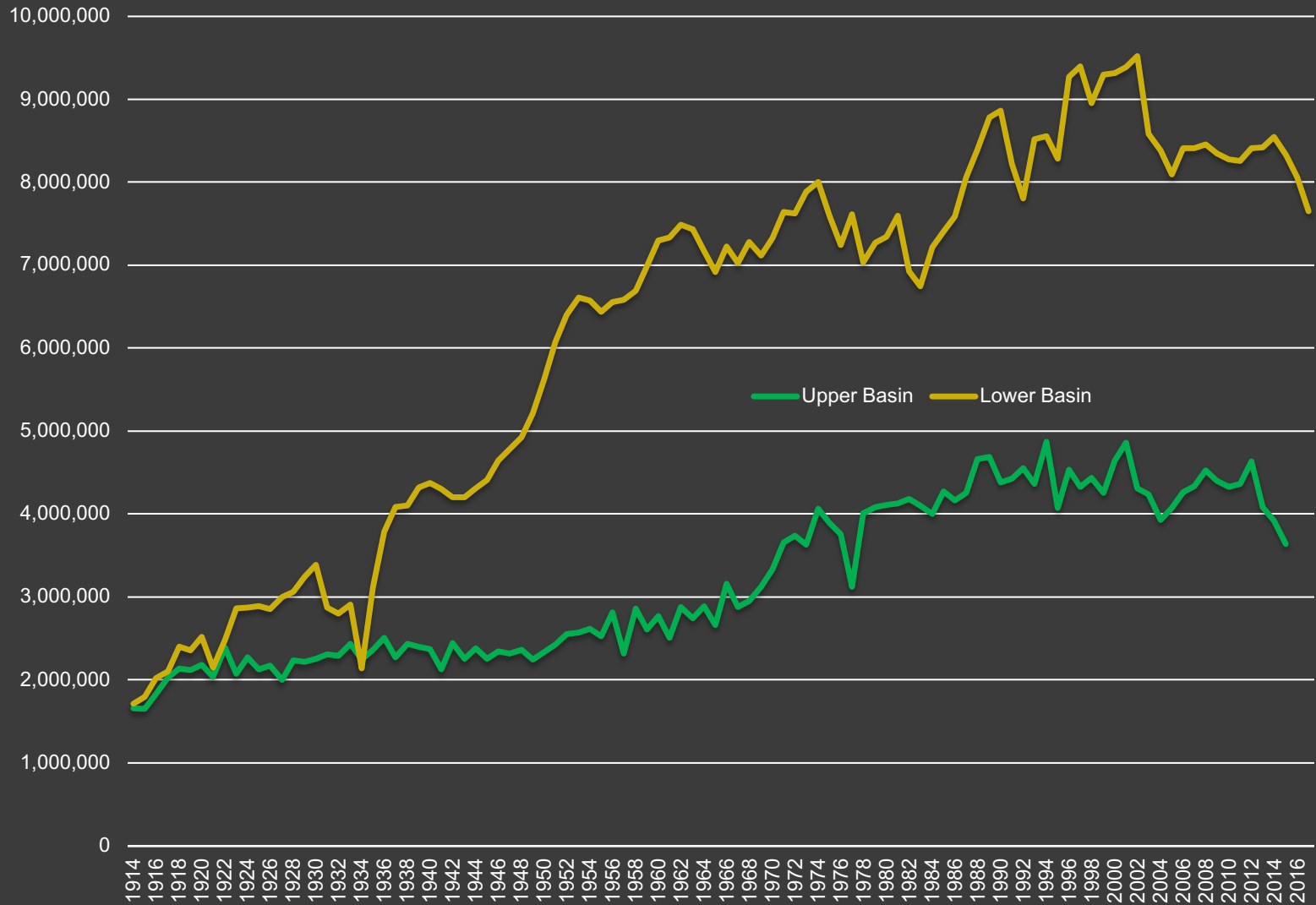


Prepared by NOAA, Colorado Basin River Forecast Center  
Salt Lake City, Utah, [www.cbrcf.noaa.gov](http://www.cbrcf.noaa.gov)

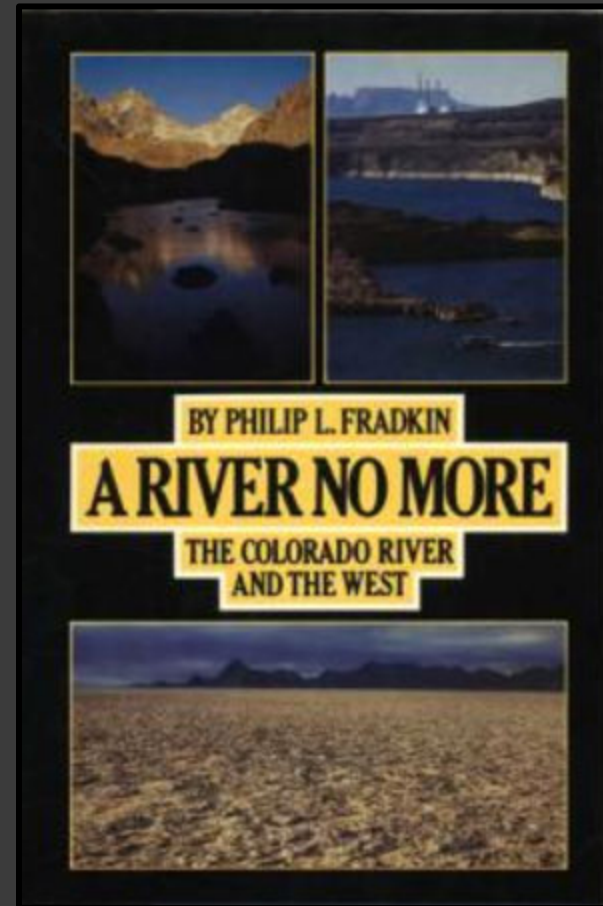
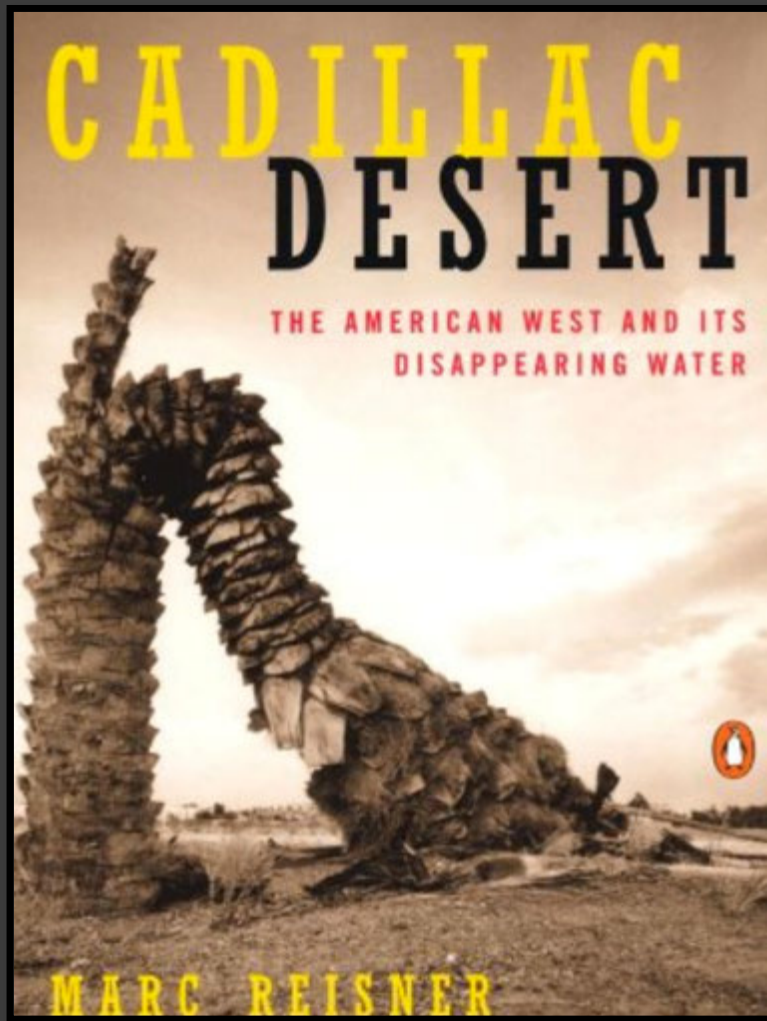
# Total Storage in Mead and Powell



# Colorado River Water Use



# Journalism and western water's grand narrative



# 75,000 DRIVEWAYS





NEW MEXICO'S WATER OUTLOOK

# Short Term: Bad; Long Term: Worse



Buoys near Rock Canyon Marina at Elephant Butte Reservoir have been left dry by low water levels, and the forecast is for flows well below average again this year.

## Permanent Dust Bowl Could Be N.M. Future

By JOHN FLECK  
Journal Staff Writer

Global warming could turn the Southwest into a permanent Dust Bowl, where the dry conditions of our worst 20th-century droughts — the 1930s and 1950s — become the norm over the next century, according to new research.

The changing climate appears to be pushing our winter storm track, which brings the region much of its moisture, to the north, according to Richard



## Dry March Depletes State's Surplus Water

Copyright © 2007 Albuquerque Journal

By JOHN FLECK  
Journal Staff Writer

New Mexico's snowpack took a dive in March, leading to a grim forecast of droughtlike runoff into the state's reservoirs this year.

A bonus left by wet weather in December and January is largely gone, thanks to a March that was warm and sunny.



# Southland's Water Safety Margin Placed at 10 Years

## Squeeze on Lifeblood for Ever-Growing Population Increasing Every Year

This is the first in a series of five articles titled "Water to Grow On"—a look at the complex water picture in Southern California. Today's article discusses the Southland's growth and how existing water sources and supplies fit into the changing pattern.

**BY RAY HEBERT**

These words are painted above the office door of a small water company in the San Gabriel Valley:

Los Angeles Times, Jan. 24, 1960

# U.S. Drought Monitor New Mexico

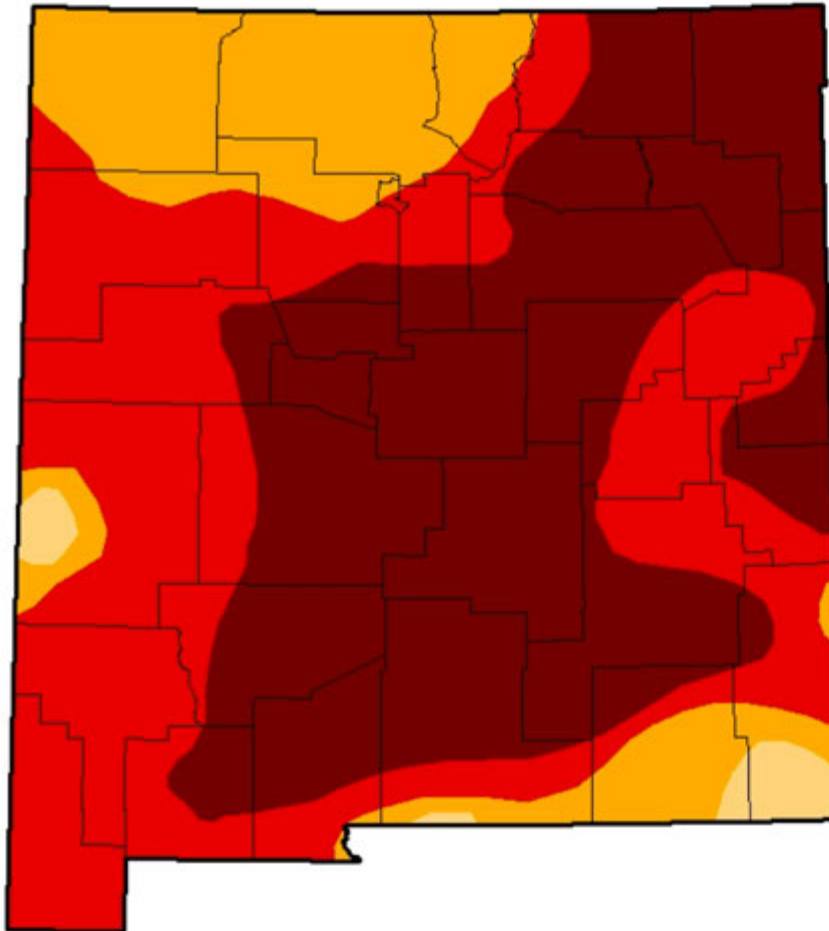
May 28, 2013

(Released Thursday, May. 30, 2013)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

|   | None | D0-D4  | D1-D4  | D2-D4 | D3-D4 | D4    |
|---|------|--------|--------|-------|-------|-------|
| <b>Current</b>                            | 0.00 | 100.00 | 100.00 | 98.17 | 81.79 | 44.87 |
| <b>Last Week</b><br>5/21/2013             | 0.00 | 100.00 | 100.00 | 98.17 | 81.79 | 44.87 |
| <b>3 Months Ago</b><br>2/26/2013          | 0.20 | 99.80  | 98.46  | 89.78 | 49.88 | 4.39  |
| <b>Start of Calendar Year</b><br>1/1/2013 | 0.00 | 100.00 | 98.83  | 94.05 | 31.88 | 0.97  |
| <b>Start of Water Year</b><br>8/25/2012   | 0.00 | 100.00 | 100.00 | 62.56 | 12.25 | 0.66  |
| <b>One Year Ago</b><br>5/29/2012          | 0.00 | 100.00 | 100.00 | 70.42 | 23.70 | 0.00  |



### Intensity



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

### Author:

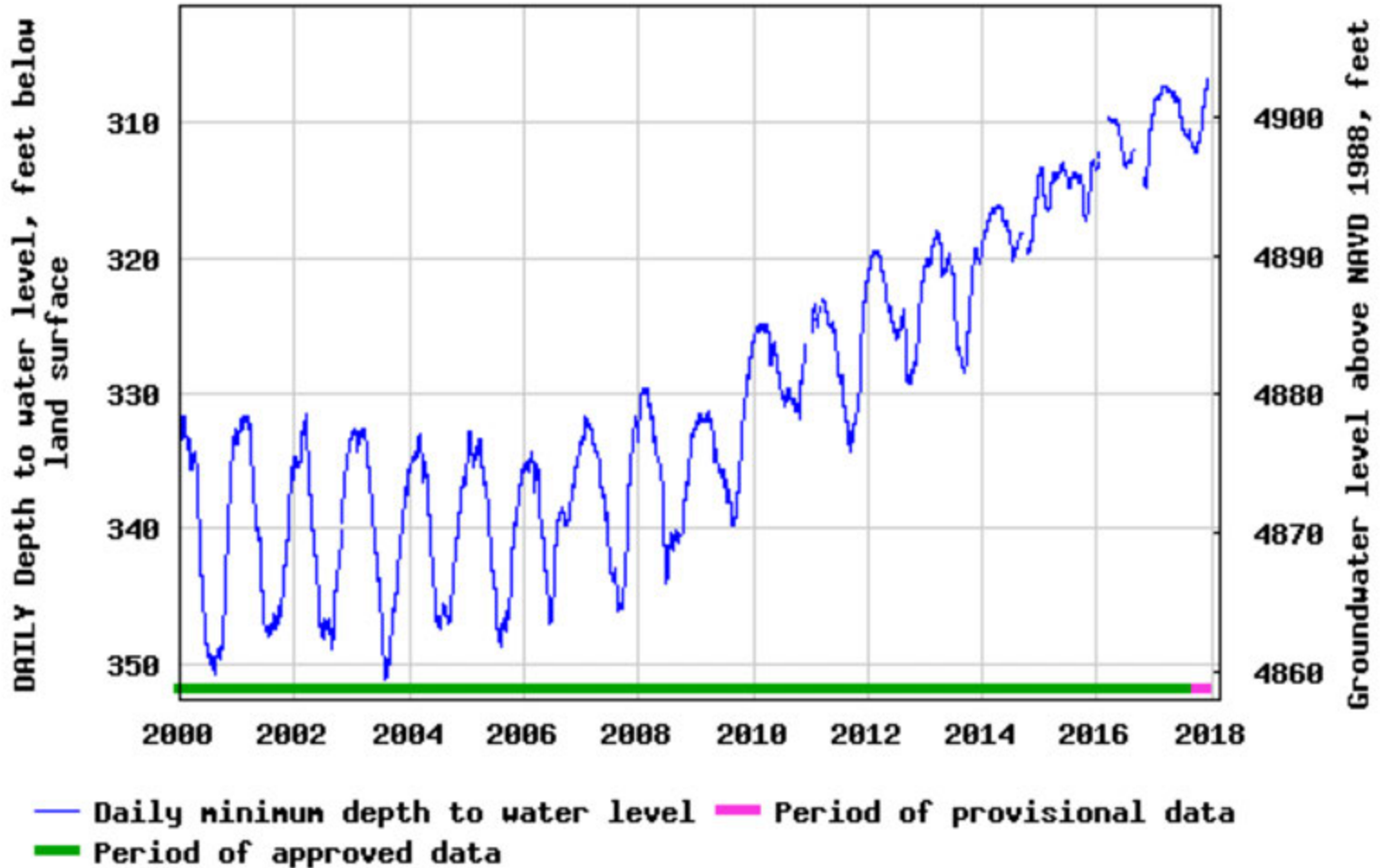
Brad Rippey

U.S. Department of Agriculture



<http://droughtmonitor.unl.edu/>

USGS 350534106354701 10N.03E.14.324 DEL SOL DIVIDER 1



Albuquerque groundwater rebound

# River Water Use Allows Aquifer To Recharge

By John Fleck / Journal Staff Writer

Published: Sunday, December 25th, 2011 at 12:05am

Updated: Saturday, December 24th, 2011 at 10:37pm



Wastewater stained red from iron used in the treatment process drains into a settling pond at Albuquerque's water treatment plant. Photo Credit - Adolphe Pierre-Louis/Journal

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ALBUQUERQUE, N.M. — If you could look straight down 538 feet beneath the La Cueva High School neighborhood in Albuquerque's far Northeast Heights, you would see water returning to the metro area's depleted aquifer.


The water table in the area had dropped more than 60 feet after decades of

# Greetings from Albuquerque in the “Upper Colorado River Basin”



Note:  
Similar to the Basin Study, the scope of the Moving Forward effort is limited to the portion of the Basin and adjacent areas that receive Colorado River water within the U.S.

Myth number one: We're running out of water.



# Southland's Water Safety Margin Placed at 10 Years

## Squeeze on Lifeblood for Ever-Growing Population Increasing Every Year

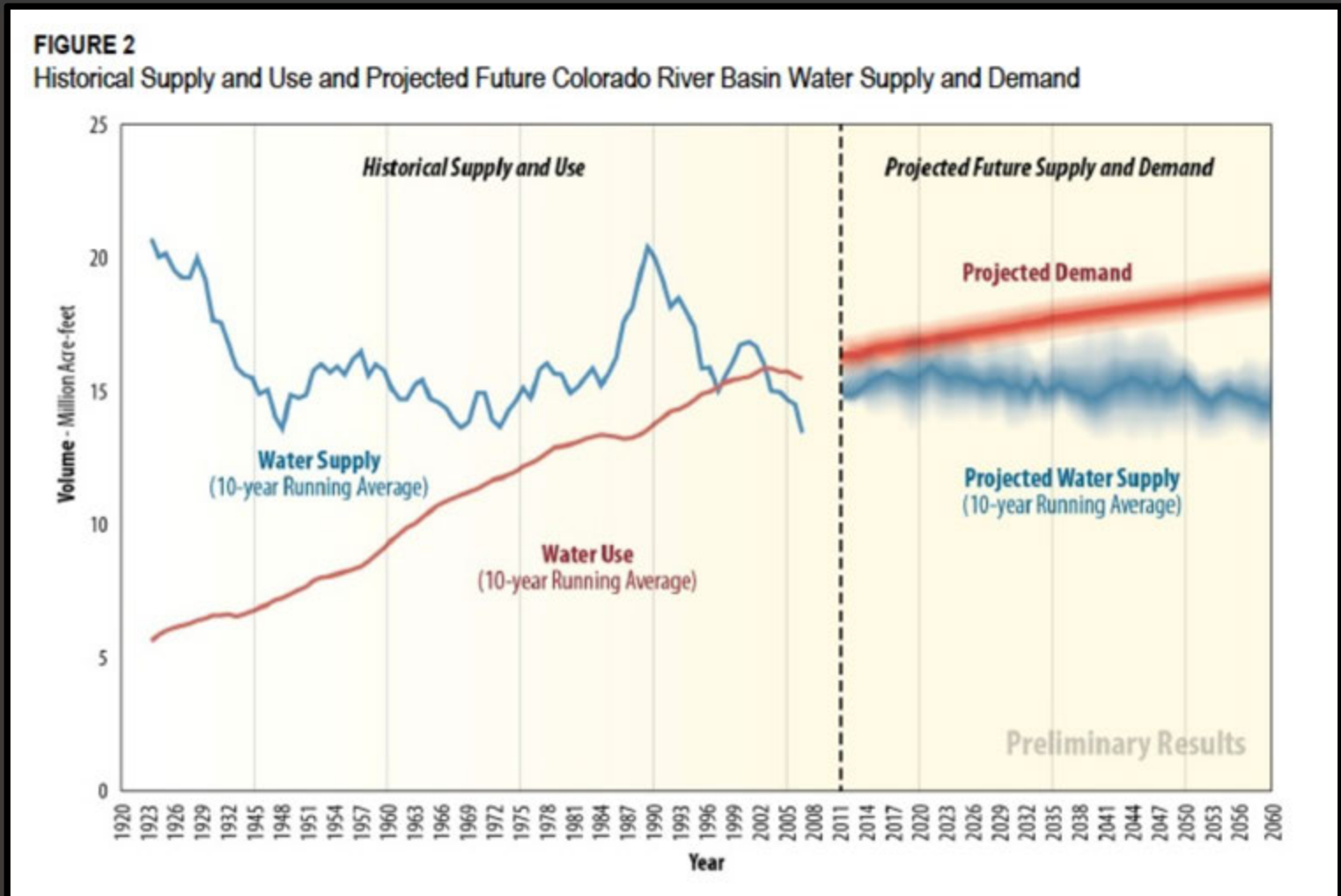
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**BY RAY HEBERT**

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Los Angeles Times, Jan. 24, 1960

# Myth number one: We're running out of water.

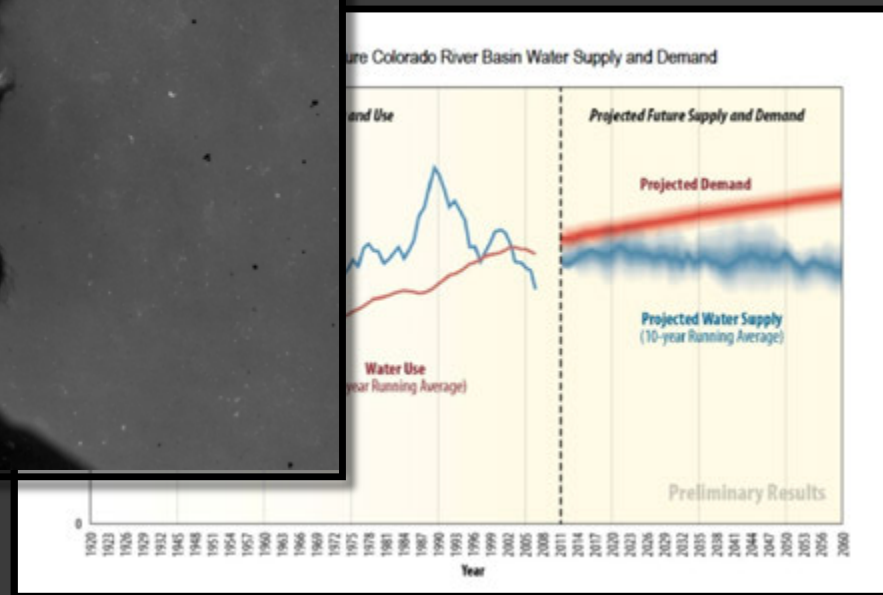
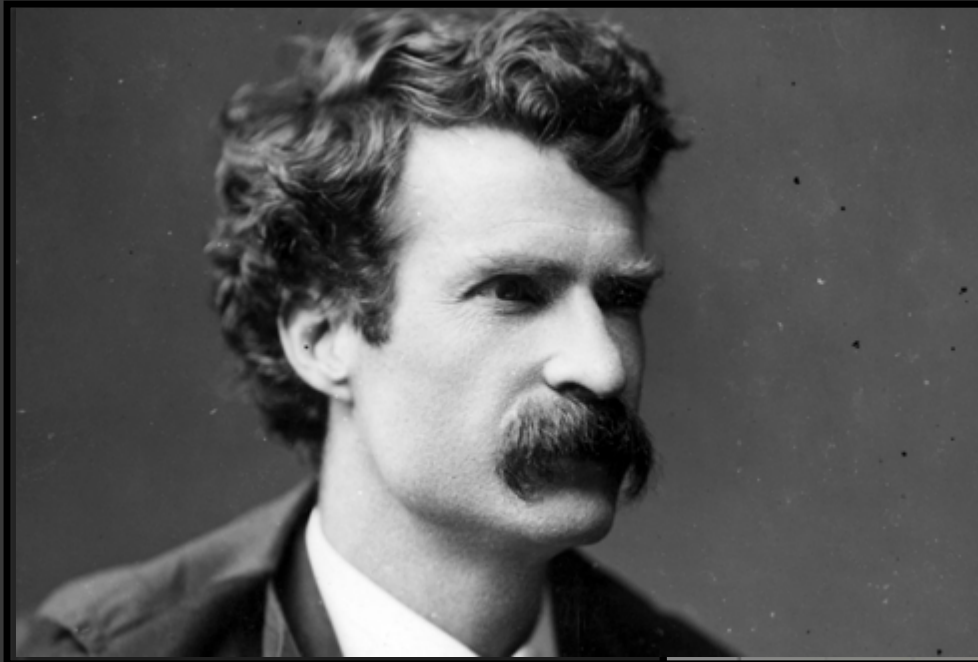


Source: USBR Basin Study, December 2012



Myth number two: “Whiskey’s for drinkin’,  
water’s for fightin’ over.”

- apparently not Mark Twain



# Myth 2a: “Water flows uphill toward money.”

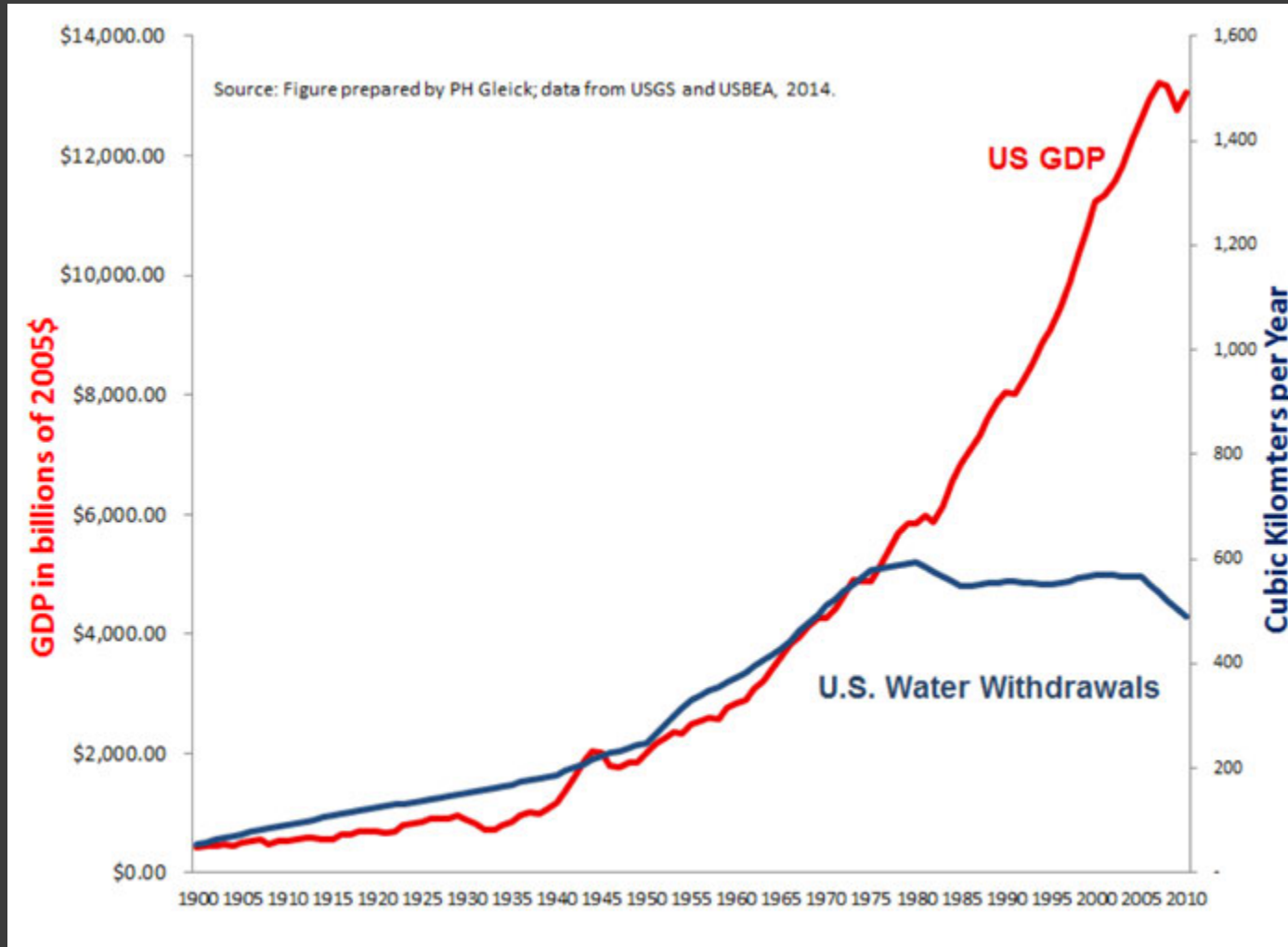


Yuma, Arizona



Las Vegas, Nevada

# Decoupling: population and the economy go up, water use does not

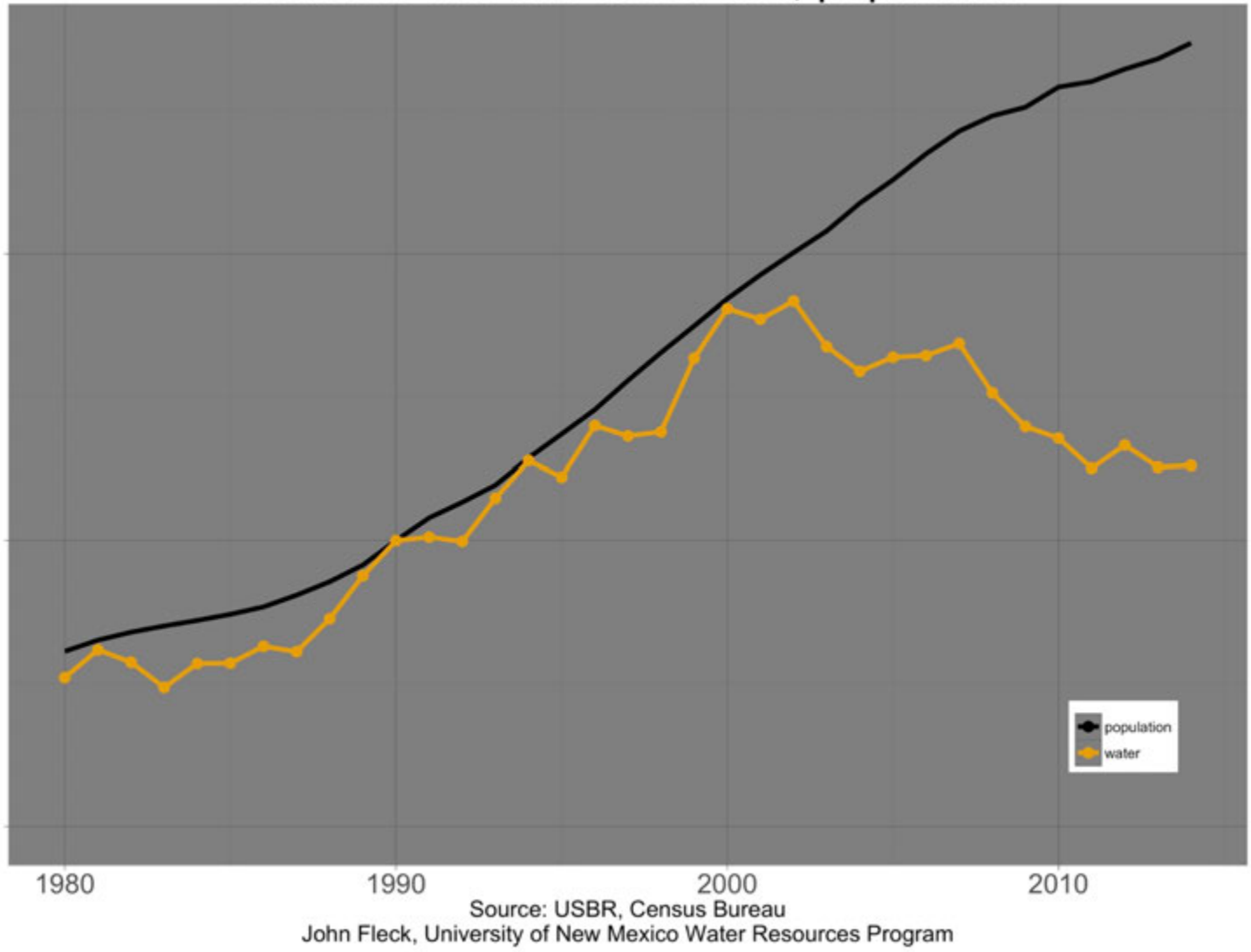




Las Vegas:

- “We do fake well.”

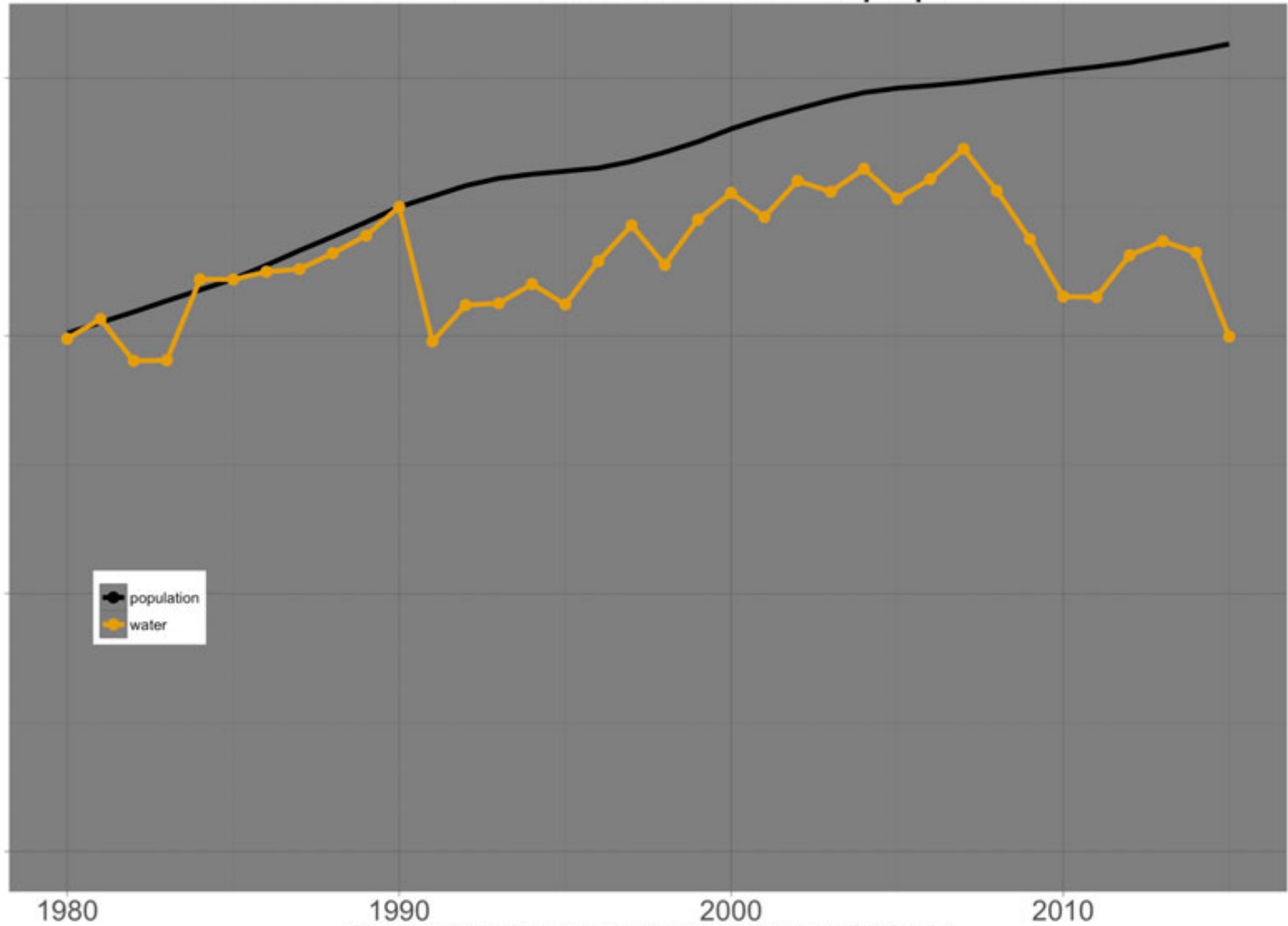
## Southern Nevada water use, population



**Decoupling, Las Vegas style**



# Southern California water use, population



population  
water

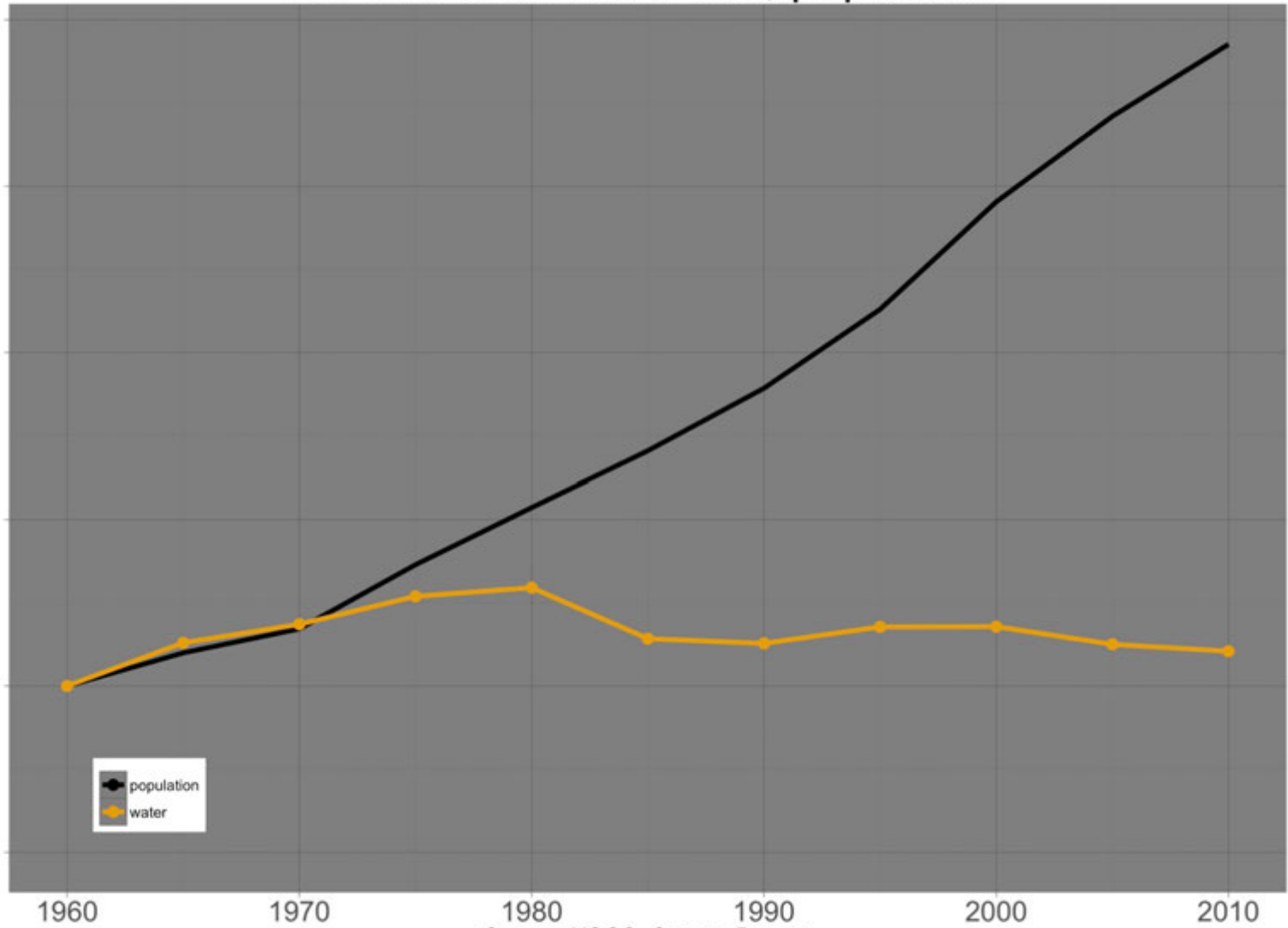
Source: Metropolitan Water District of Southern California  
John Fleck, University of New Mexico Water Resources Program

# Arizona





# Arizona total water use, population



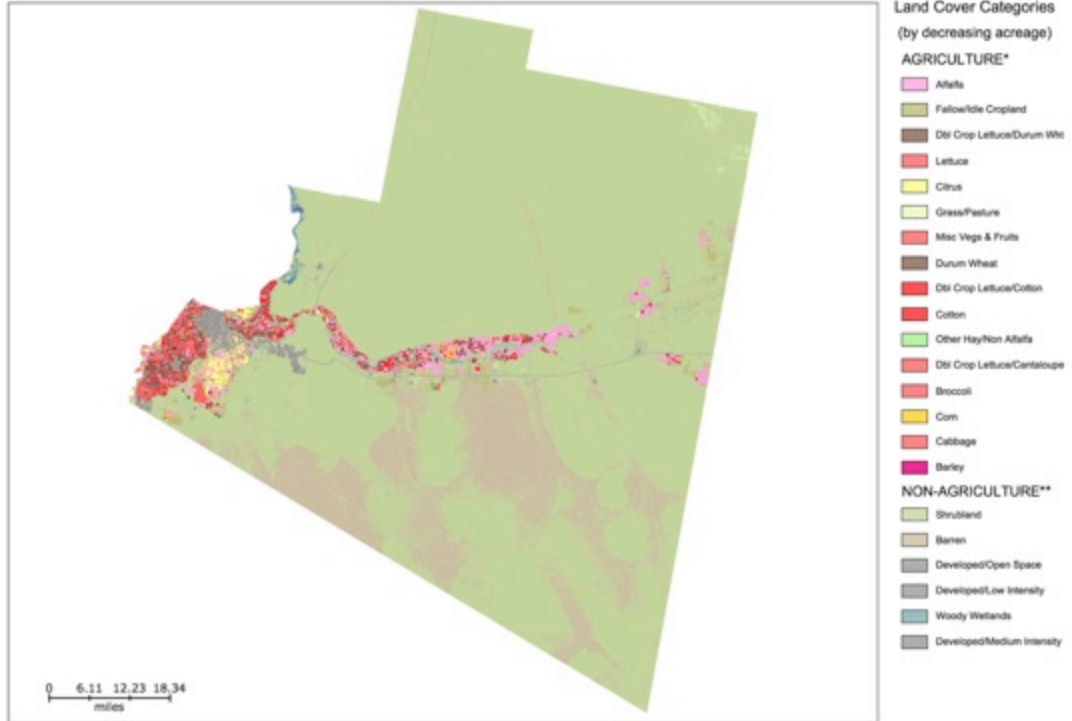
population  
water

Source: USGS, Census Bureau

John Fleck, University of New Mexico Water Resources Program



# 2014 CDL, Yuma County, Arizona



## Yuma County water use

Produced by CropScape - <http://nassgooddata.gms.edu/CropScape>

\* Only top 36 agriculture categories are listed. \*\* Only top 6 non-agriculture categories are listed.

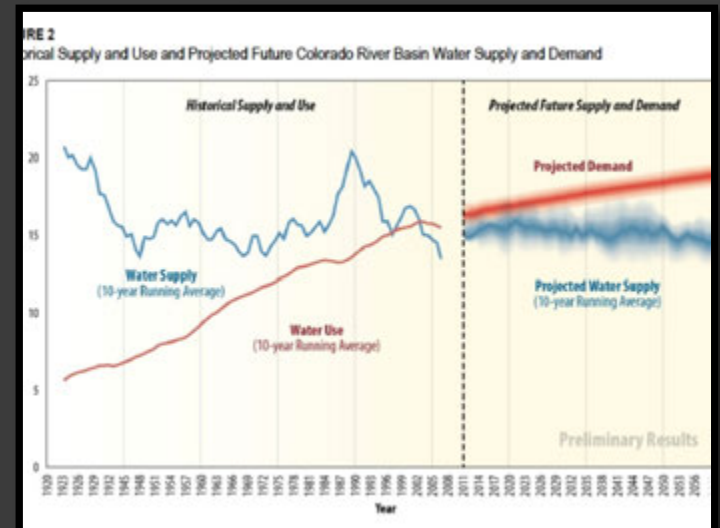
|      | Water  | Crop revenue per acre foot |
|------|--------|----------------------------|
| 1974 | 967kaf | \$775                      |
| 2013 | 671kaf | \$1,500                    |

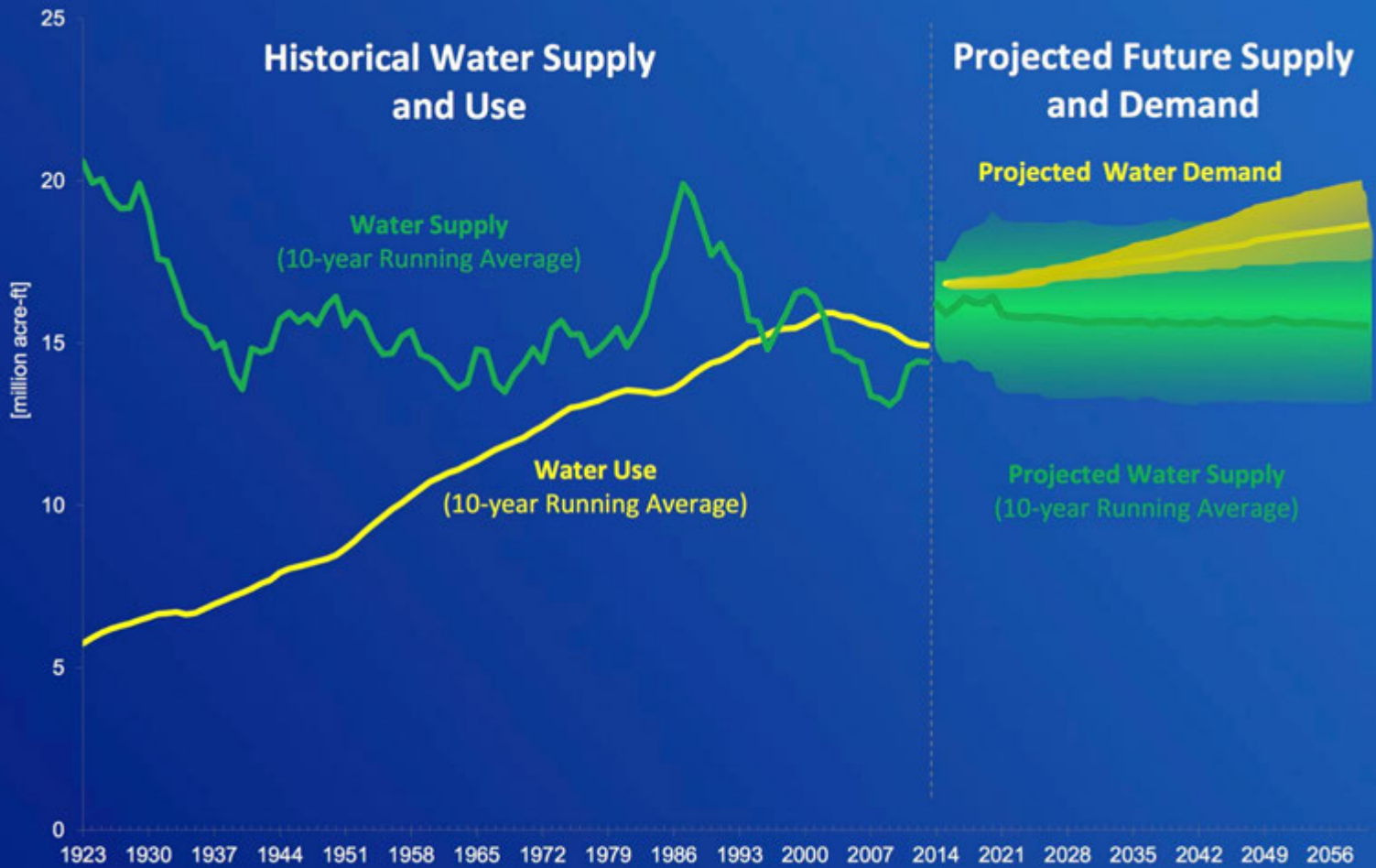
Sara Gerlitz and John Fleck, UNM WRP

# Recognize scarcity signals



# Don't be tricked by the orange line





RECLAMATION



Bed of the Colorado River at San Luis Río Colorado, March 25, 2014



Bed of the Colorado River at San Luis Río Colorado, March 25, 2014









Party at the San Luis Bridge





2012 signing of U.S.-Mexico agreement, Minute 319



Social capital, San Luis Río Colorado  
March 27, 2014



Special thanks to Emily Turner Davis, Juan Hernandez, Brad Udall, Jennifer Pitt, Mike Connor, John Entsminger, Kathryn Sorensen, Eric Kuhn, Island Press, the Breakthrough Institute, the Colorado River District



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