

PORA WATER COMMITTEE

03-19-24

ARIZONA WATER

COMES FROM THREE SOURCES:

1. Surface Water: Rivers, Lakes, Rain, Snowmelt.

2. Groundwater: Water Wells

3. Recharged Water: *Natural* from aquifer contact with surface sources and *Artificial* from recharge ponds, injection wells.

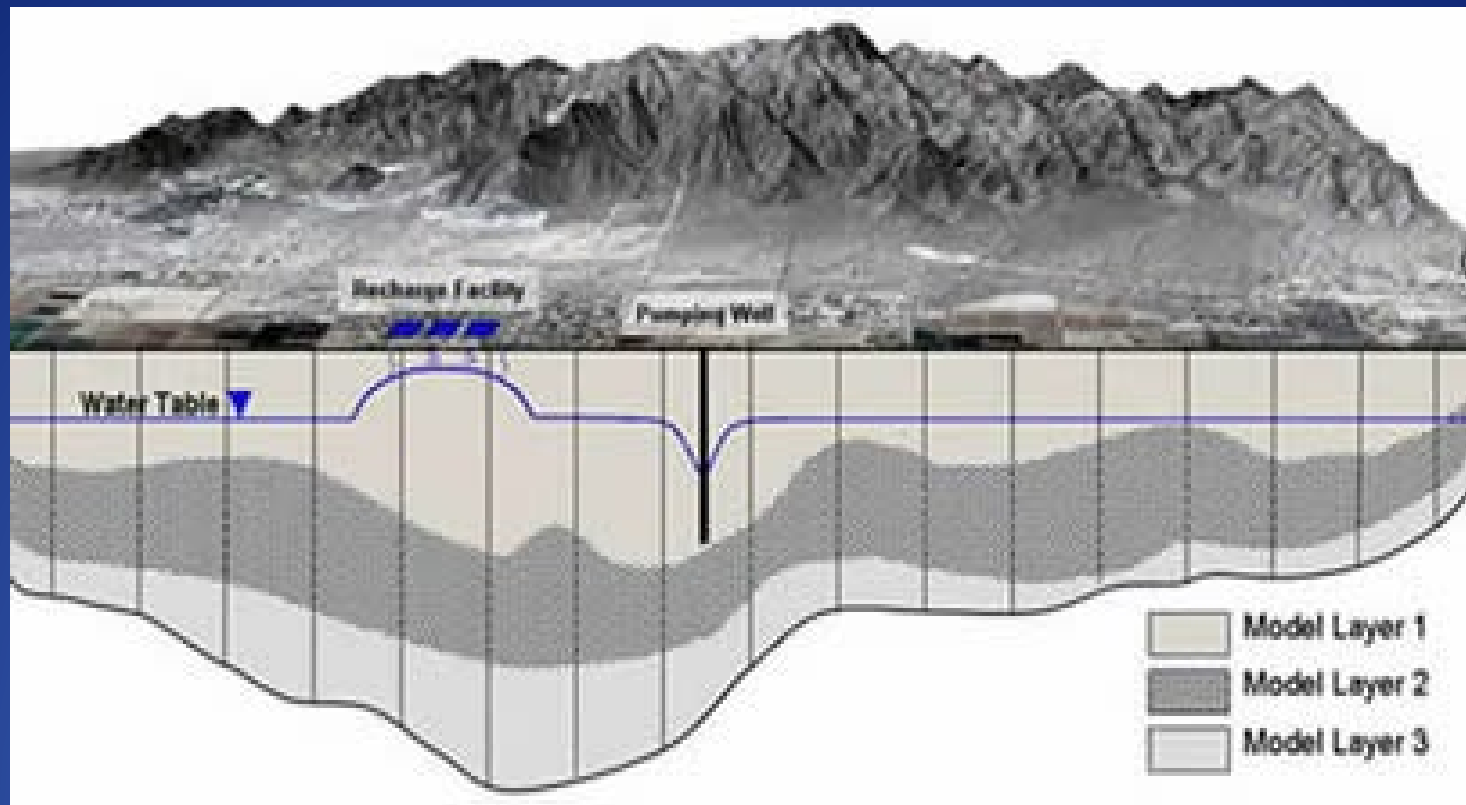


Surface Water

Lake Mead Ring. The Water Level is 153 Feet Below Full Pool. The Colorado River is the source of 40% of Arizona's Fresh Water.

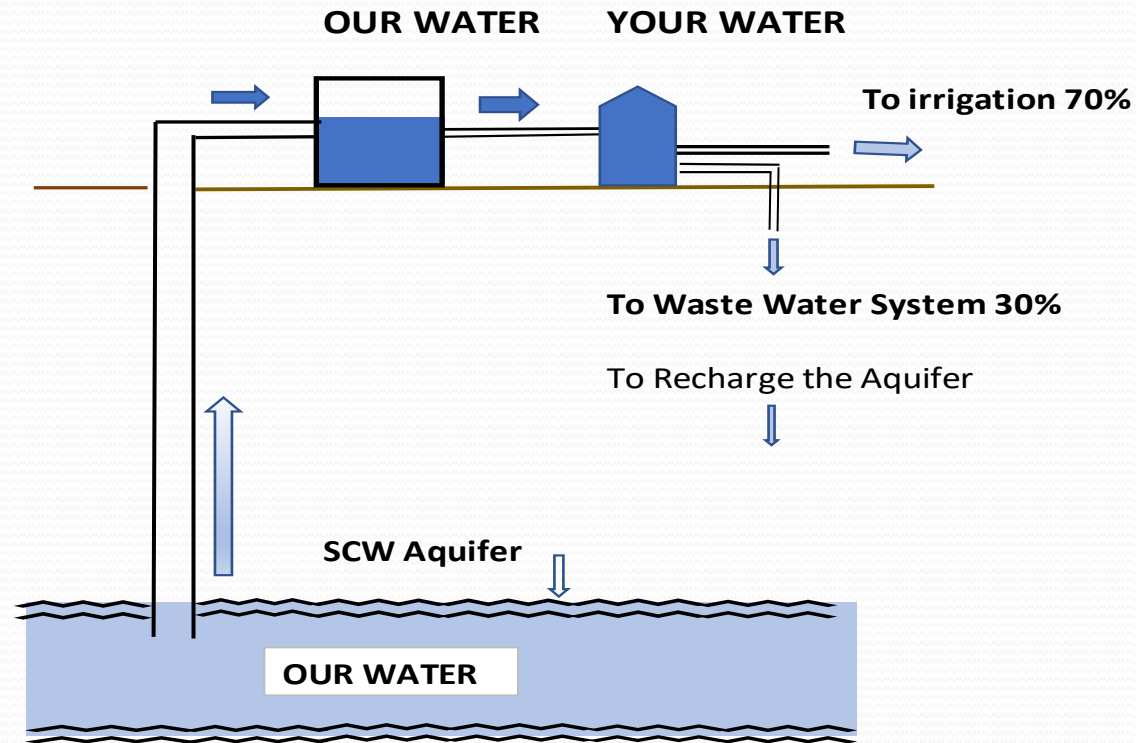


Lake Mead From Space: August 7, 2000 and August 9, 2021

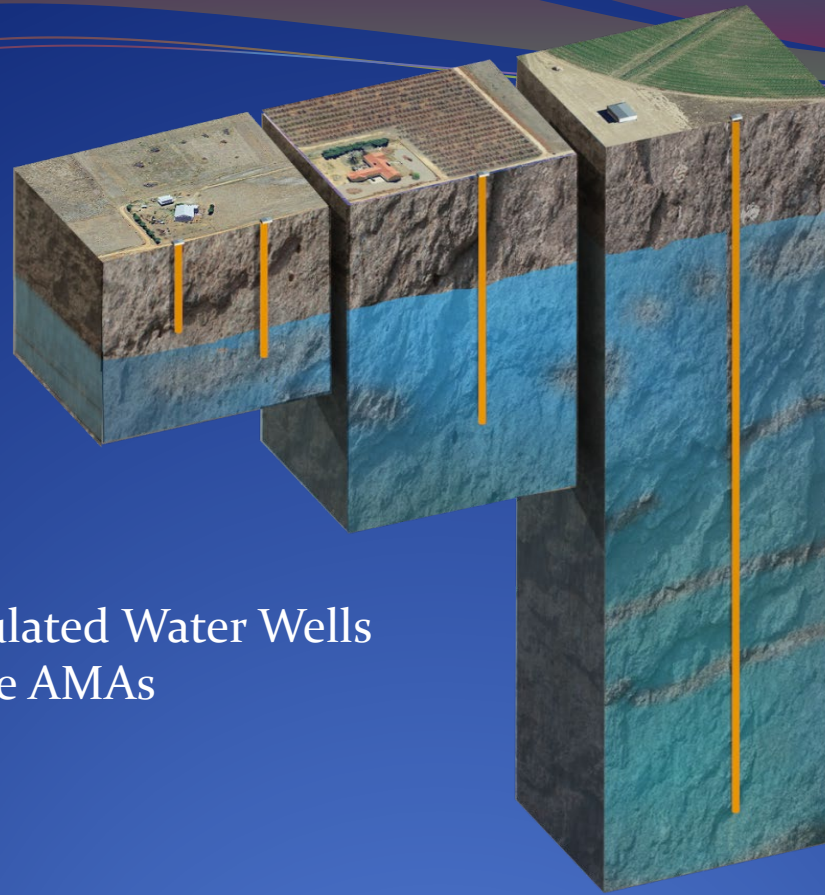


Aquifer Model for Phoenix AMA Groundwater

YOUR WATER IS OUR WATER



Groundwater Going
Your Water is Our Water



Unregulated Water Wells
Outside AMAs

Groundwater Pumping

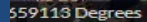
Water Wells for: Small Farmer (400'-600') versus
Big Farmer (1010') and Mega Farmer (2500')



**Fissure from Subsidence in
Pinal County**

PORA Water Committee

- **Saved MILLIONS of Gallons of Water through the Efforts of the Community, Epcor and the Fugitive Water Initiative!**



Medical Clinics – Leak Area



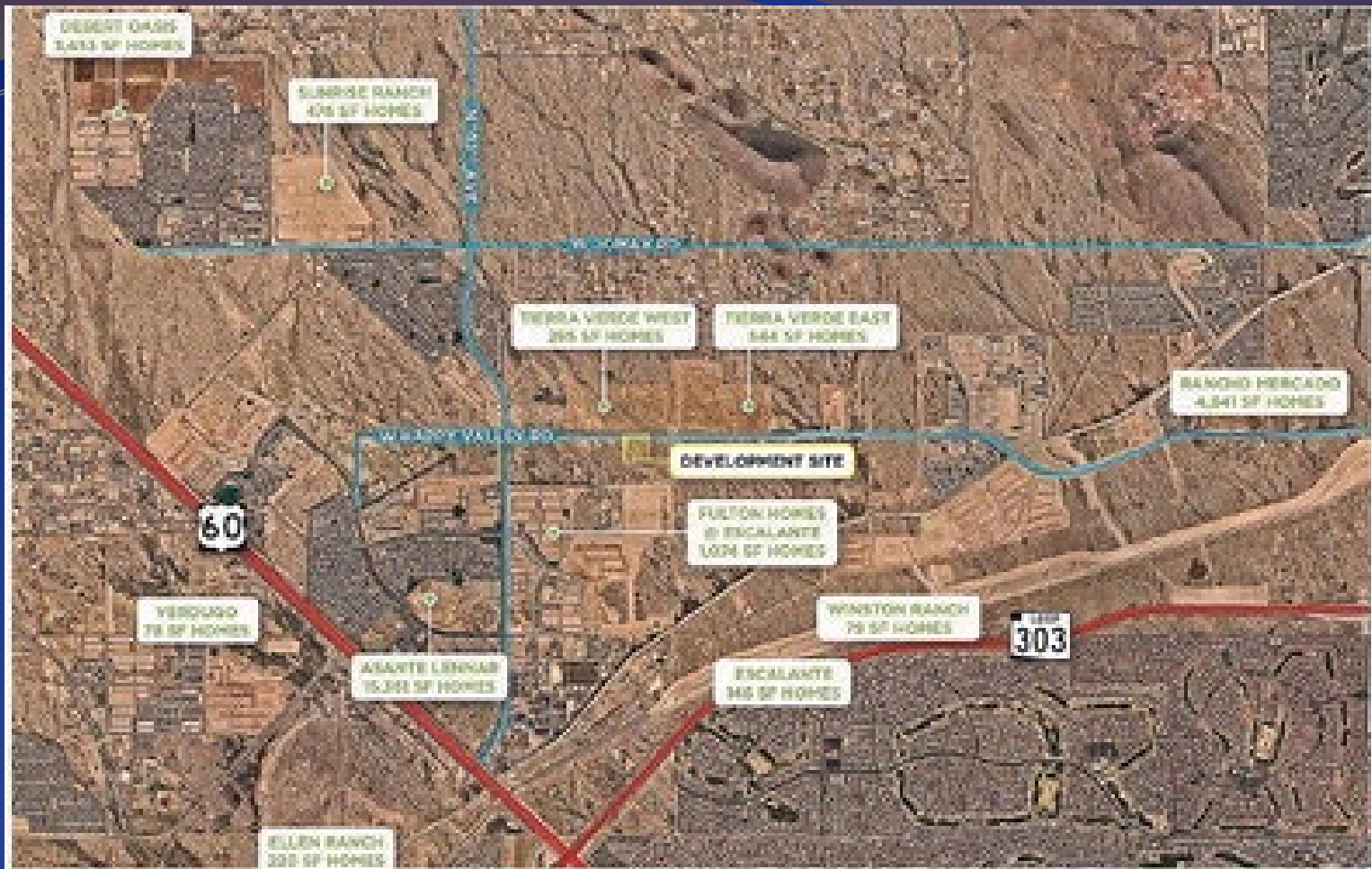
Medical Clinic Fugitive Water

Fugitive Water Offenders

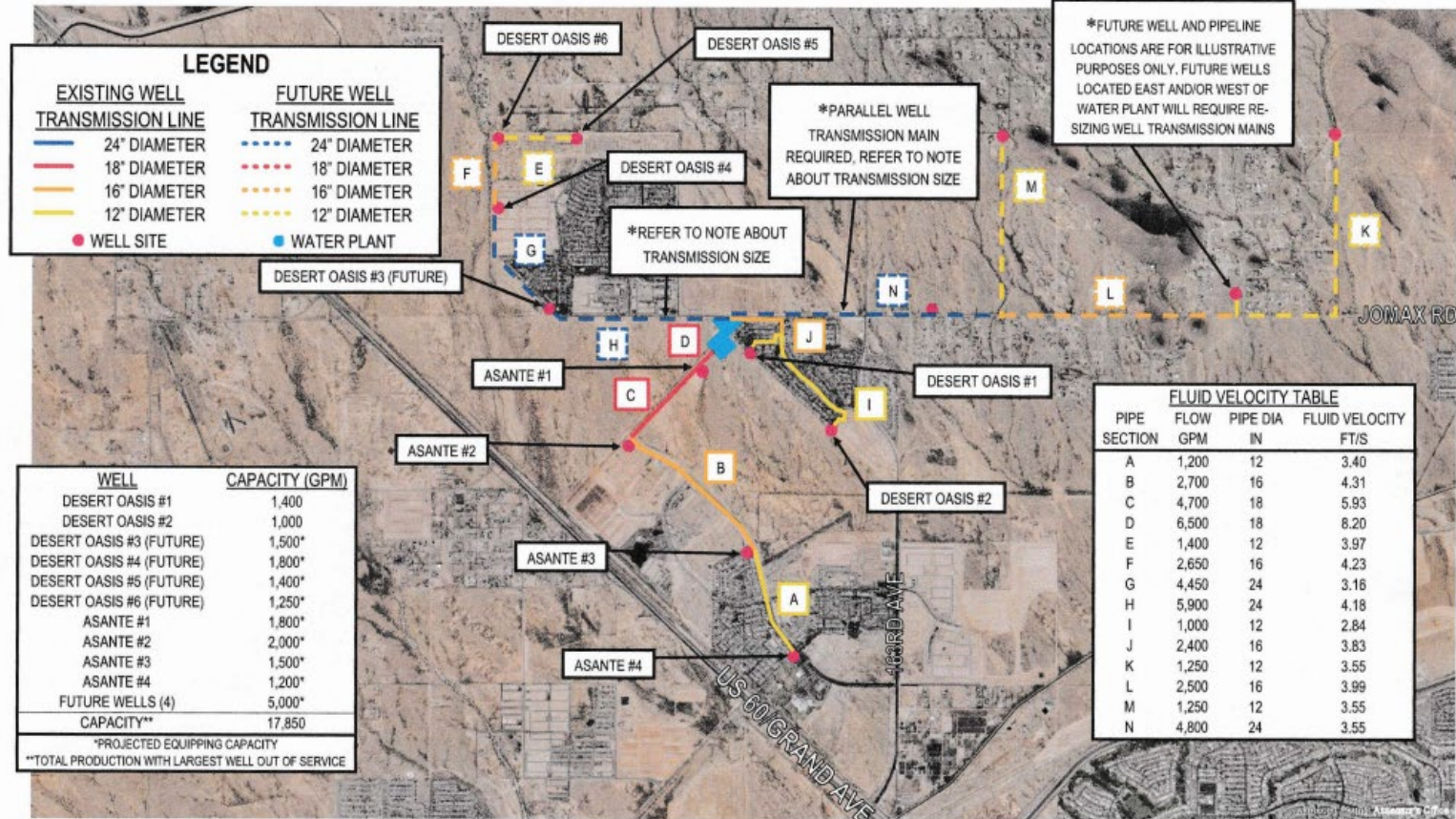
- Banner Health, Clinic “C”: 2 letters, 3 phone calls/messages
- MMAC 23 SCW: New owner for Clinic “C”
- Healthcare Realty: 3 emails + photo, 2 phone calls
- Mecado DSSC: Letter +photo
- Rec Center CC&R: Phone call
- AZ Eye Institute: Delivered Letter + photo
- Chase Bank: Personal visits (2) with Letter
- Solstice Senior Living: Personal visits (2) with Letter
- Sun West Choice: Personal visits (2) with Letter
- Bank of America: Personal visits (2) with Letter
- Heritage Traditions: Personal visit
- Phone calls and drive-by’s: Many

The top of the slide features several overlapping, wavy lines in shades of blue, purple, and brown, creating a decorative header effect.

EXTRA SLIDES



City of Surprise - 26,000 New Homes
Development Continues to the West and
North of SCW



WILSON
ENGINEERS

CITY OF SURPRISE
SPA2 NORTH WELL AND TRANSMISSION MAIN LOCATION MAP

FIGURE 3-7

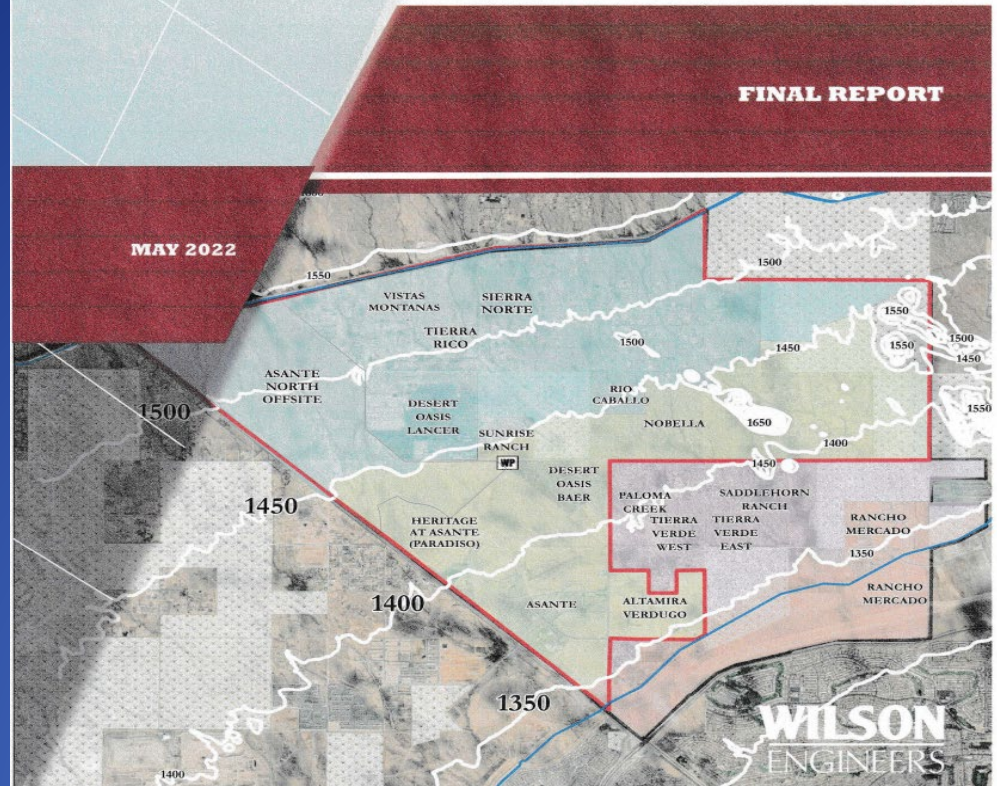
North Surprise - Water Well System



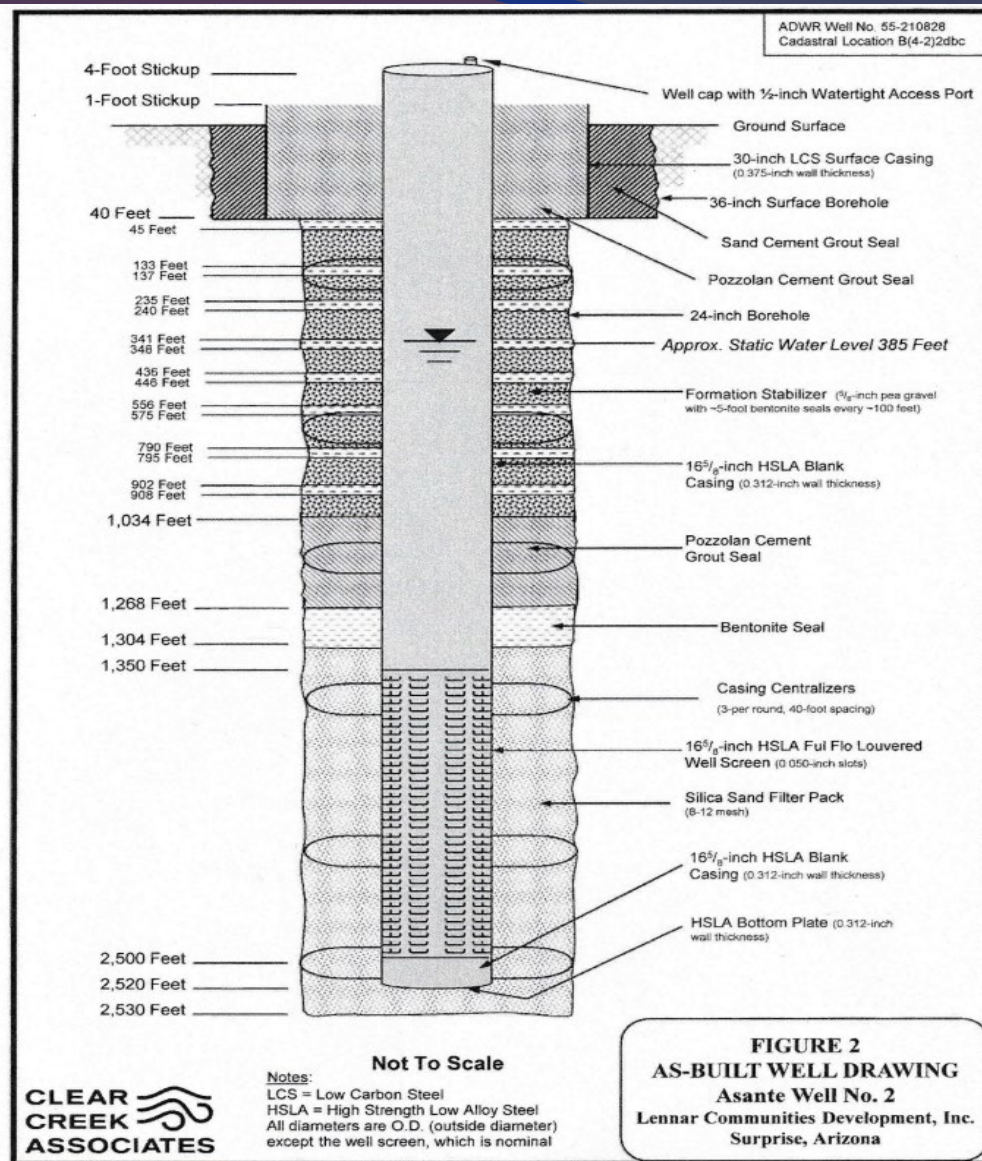
SPA2 NORTH WATER MASTER PLAN

FINAL REPORT

MAY 2022



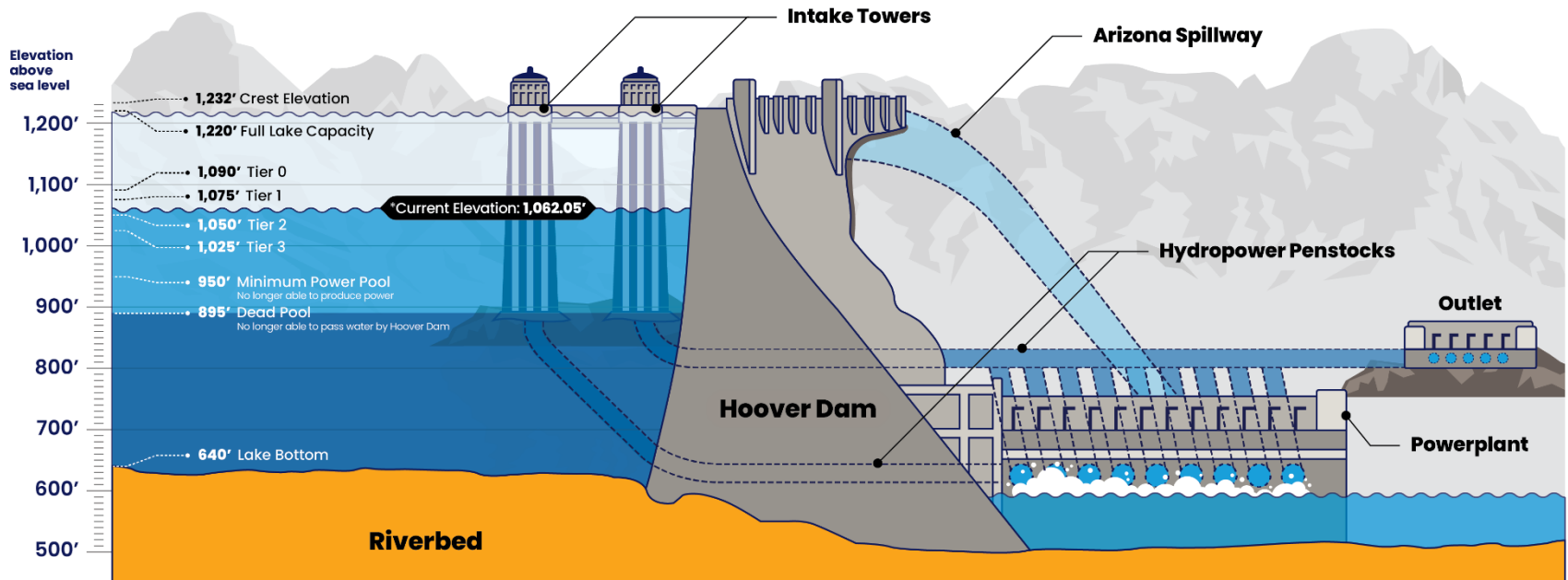
North Surprise - Water Master Plan -
379 Pages



North Surprise - Asante Water Well

HOOVER DAM

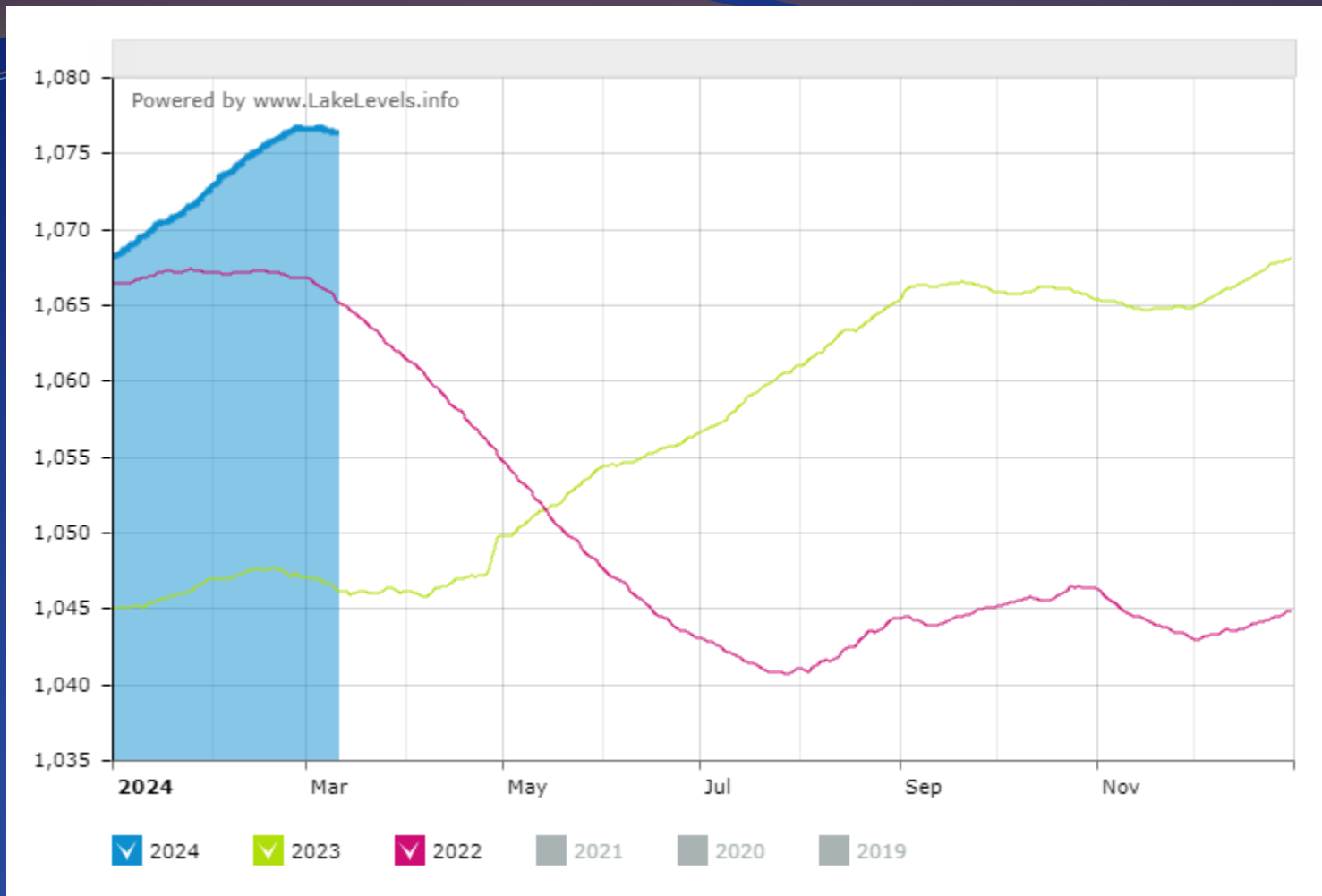
Key Elevations



NOT TO SCALE: *Current Elevation as of August 8, 2023



Central Arizona Project Canal – 336 miles.
Provides 40% of the State's Water Needs.
It is Subject to Lake Mead Fluctuations

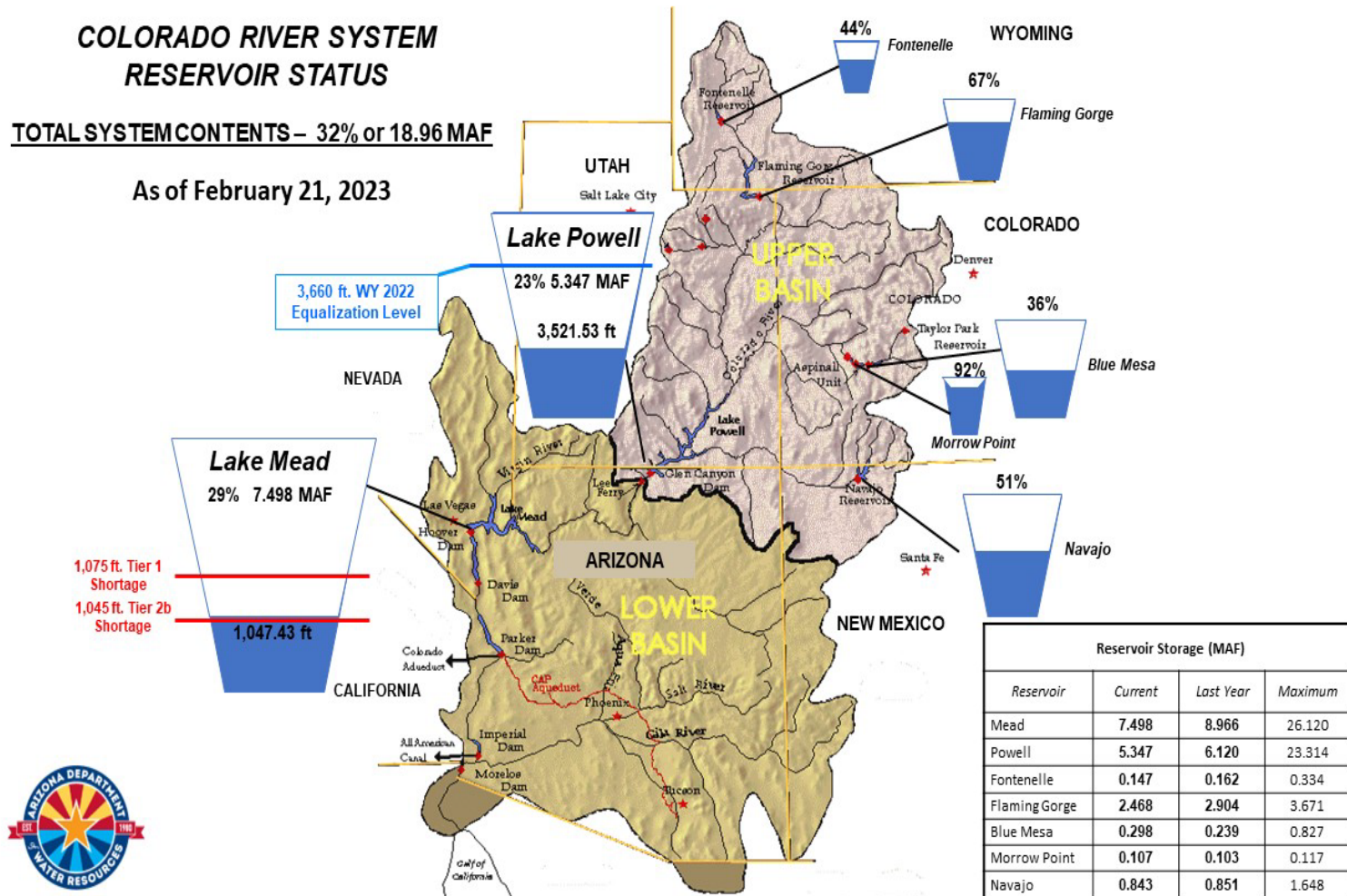


Lake Mead Water Levels 2022, 2023, and 2024

COLORADO RIVER SYSTEM RESERVOIR STATUS

TOTAL SYSTEM CONTENTS – 32% or 18.96 MAF

As of February 21, 2023



Colorado River System



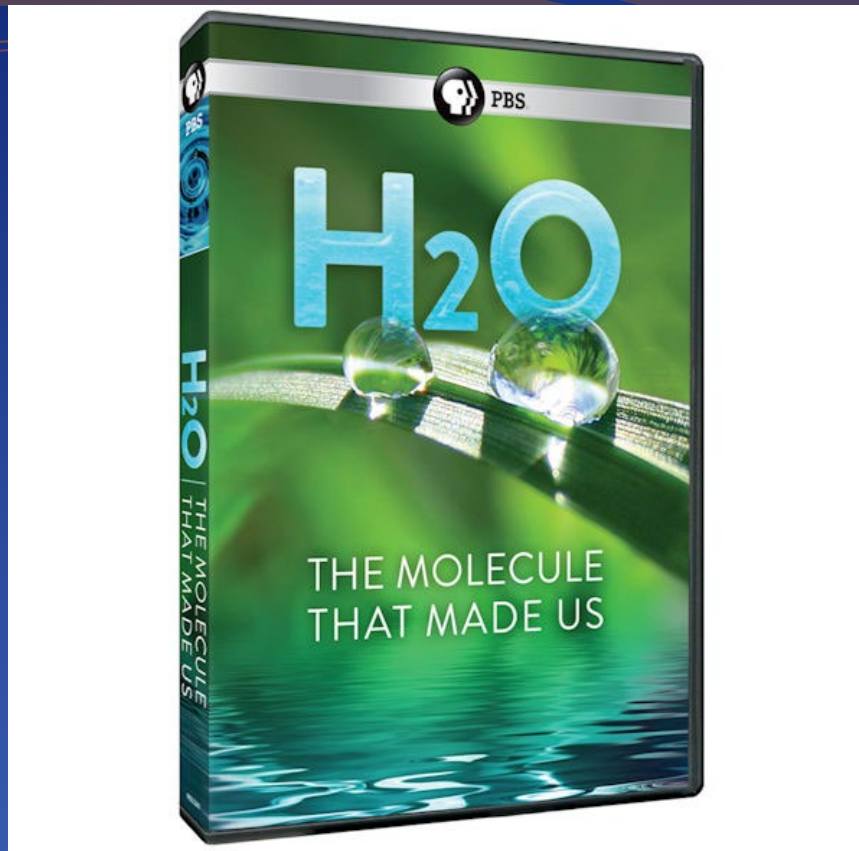
Lake Powell

Reaching Historic Low Level



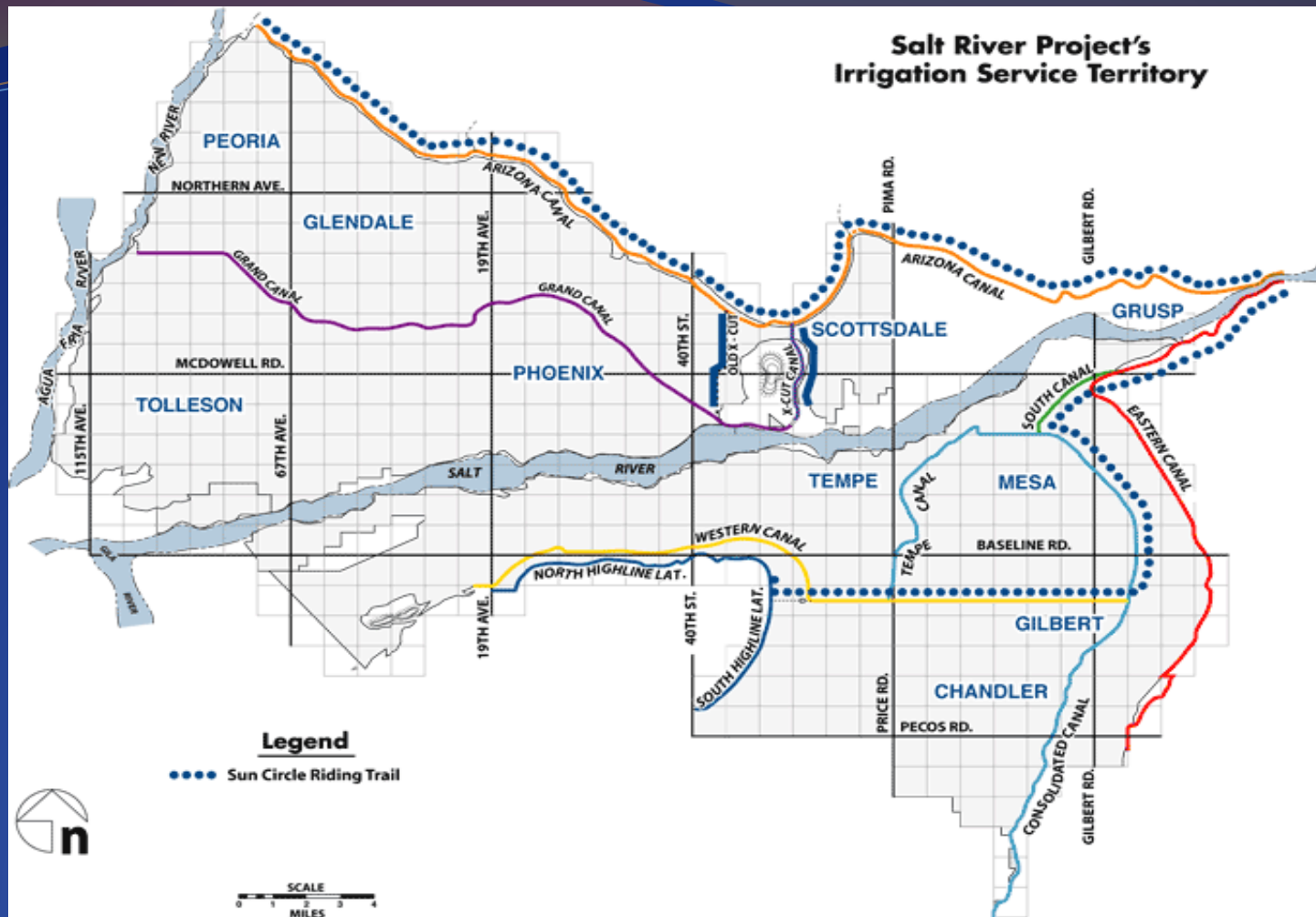
Beyond the Mirage

"The Future of Water in the West." A PBS
Documentary about the Colorado River:
beyondthemirage.org



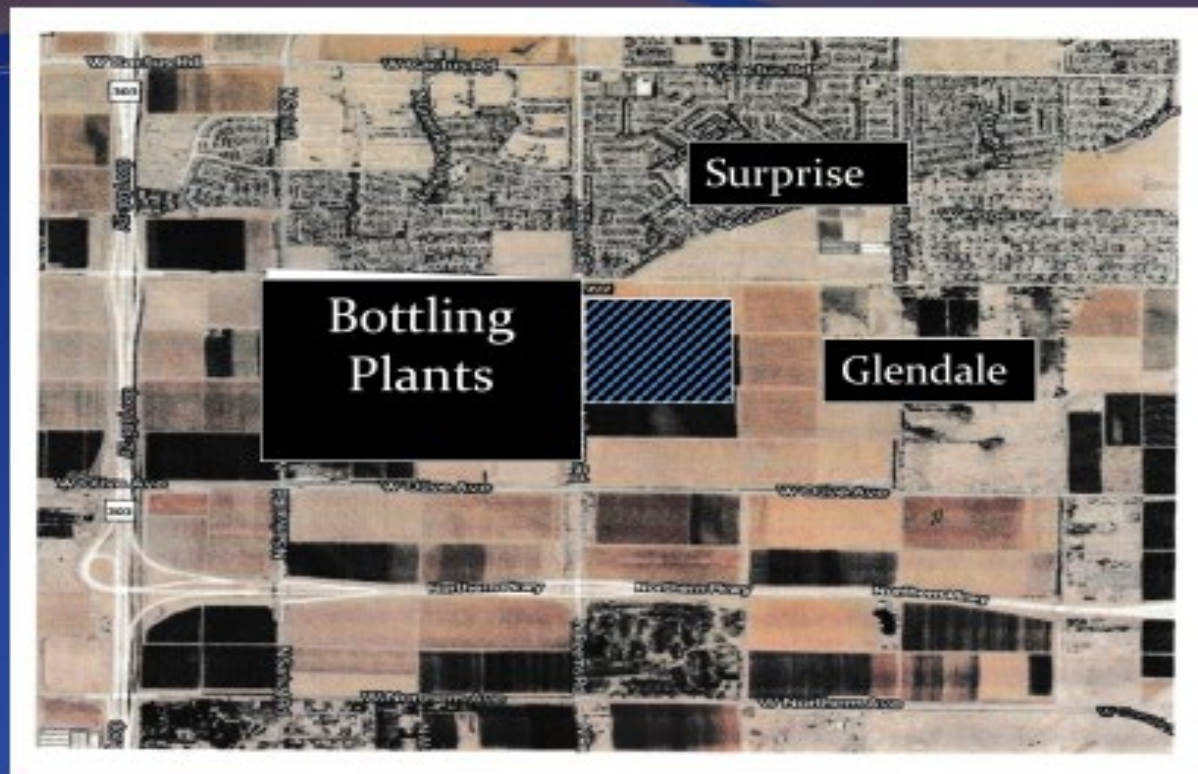
H_2O the Molecule that Made Us

A PBS Documentary. Episode III - Crisis:
"Dry Areas are Getting Drier and Wet
Areas are Getting Wetter."



Surface Water – Arizona Canal

Transports Salt River Water to Glendale, Peoria, Phoenix, Scottsdale



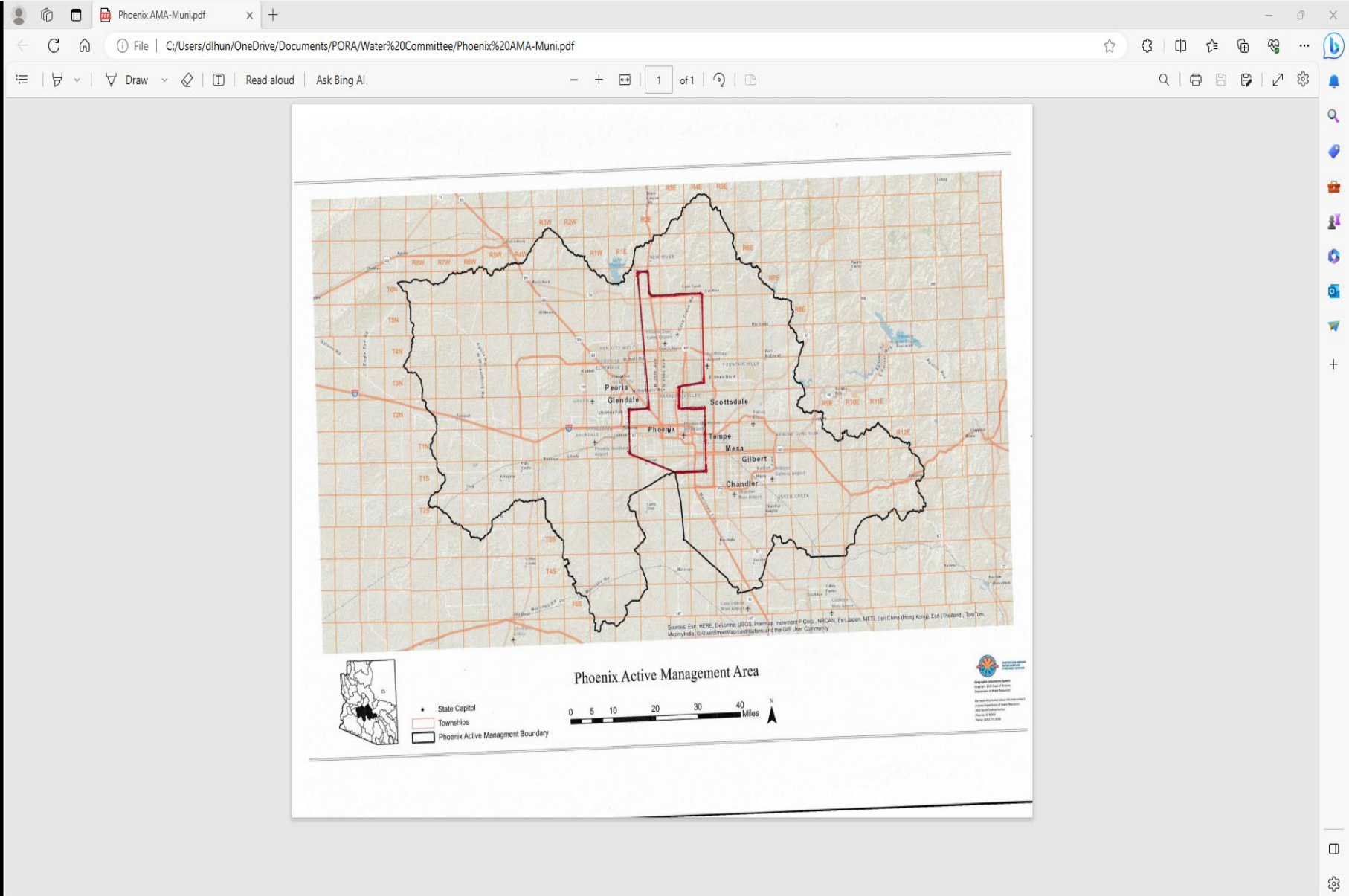
Surface Water & Groundwater

Bottling Plants: Surprise to the North,
Glendale to the South

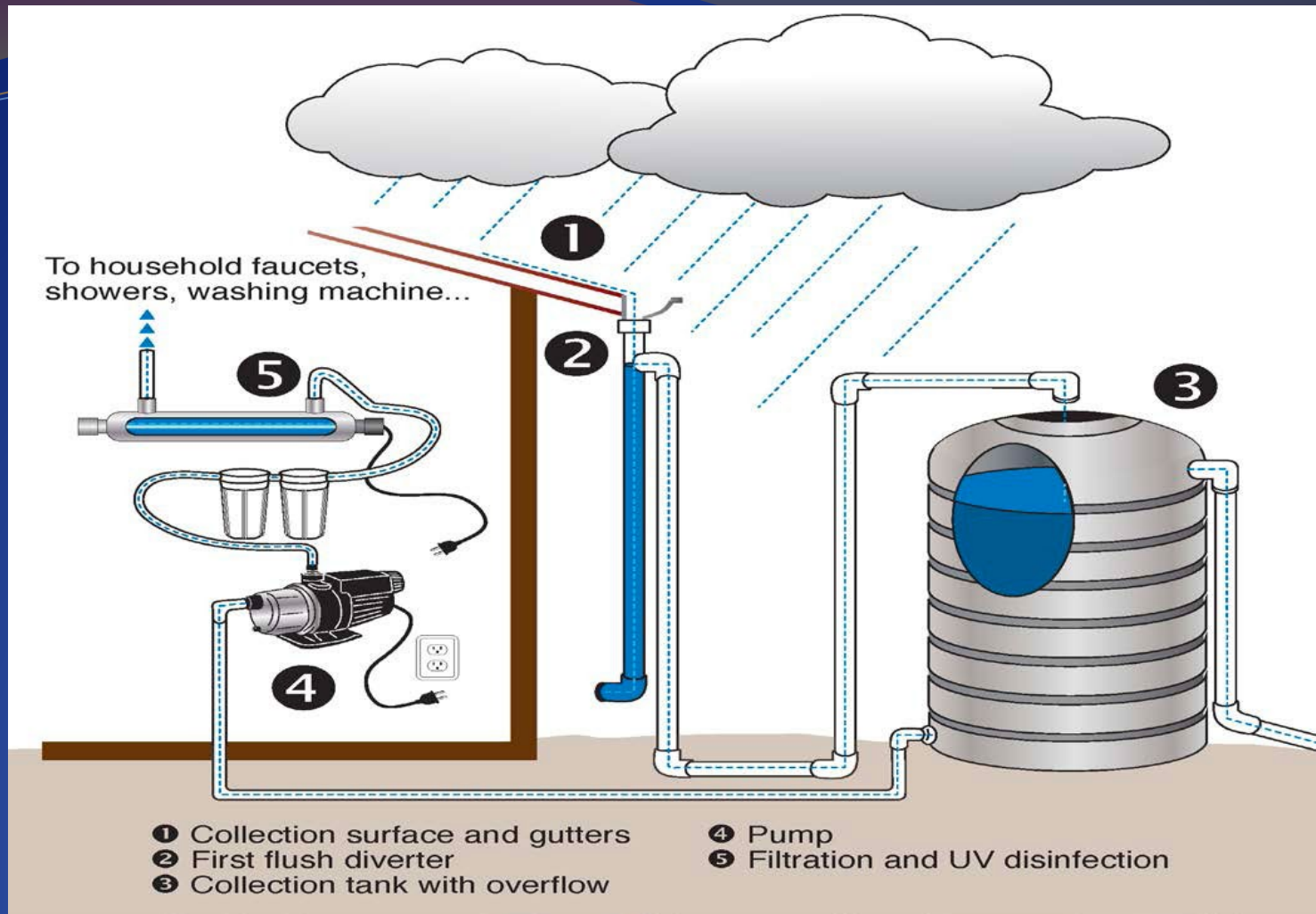


Water Conservation Kit

Available by Request on Internet At
 "Water Conservation Kit-Epcor"



Phoenix AMA Model



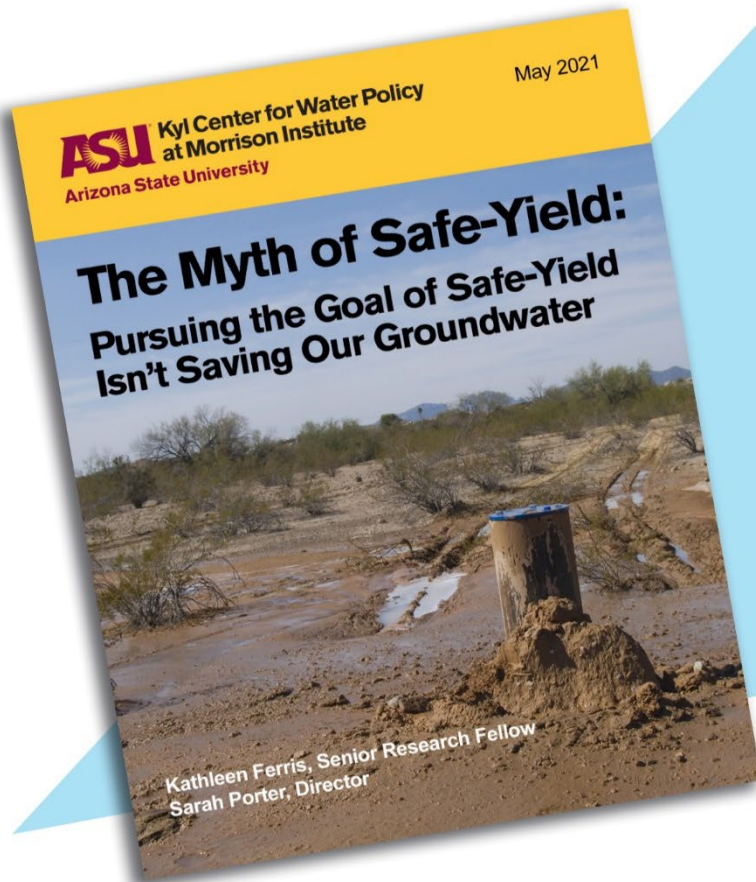
Rainwater for Potable Use

Basic Capture and Treatment System

PFAS:

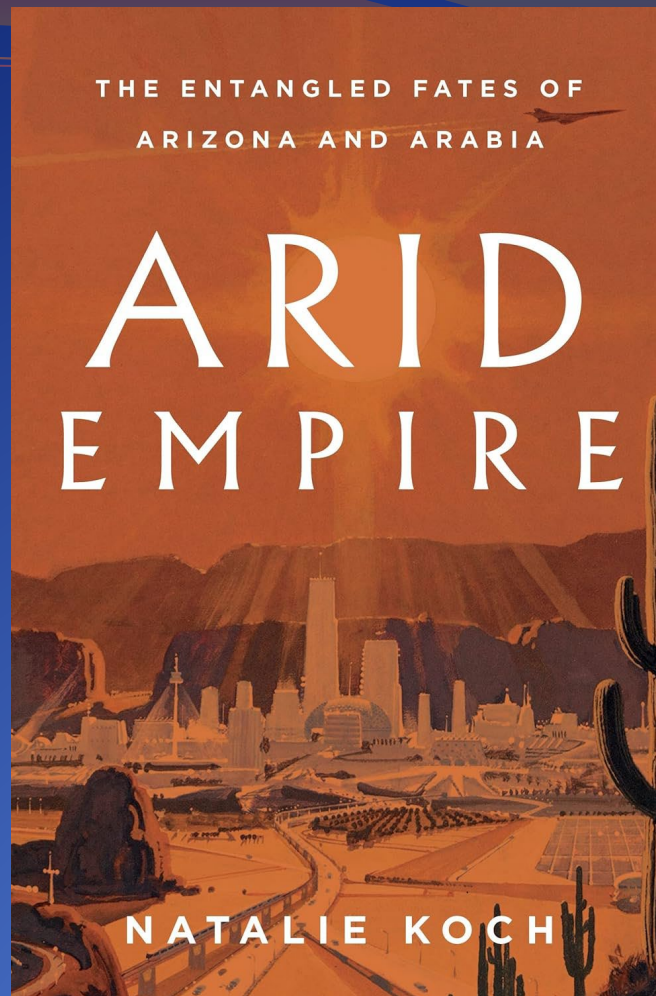
One part per trillion (ppt) denotes one part per 1,000,000,000,000 (10^{12}) parts, and a value of 10^{-12} .

This is equivalent to about thirty seconds out of every million years.



If Arizona is to prosper into the next century, our focus needs to turn to what is essential for our future: The preservation of our groundwater and our increasingly fragile aquifers.

**Read This Report to Learn All About
Groundwater Management in
Arizona**



Explores the Dual Relationship between Colonization
of the U.S. Southwest and Diplomatic Relations in
the Middle East

CREDITS

Information Presented in this Document has been
Researched and/or Supplied by:

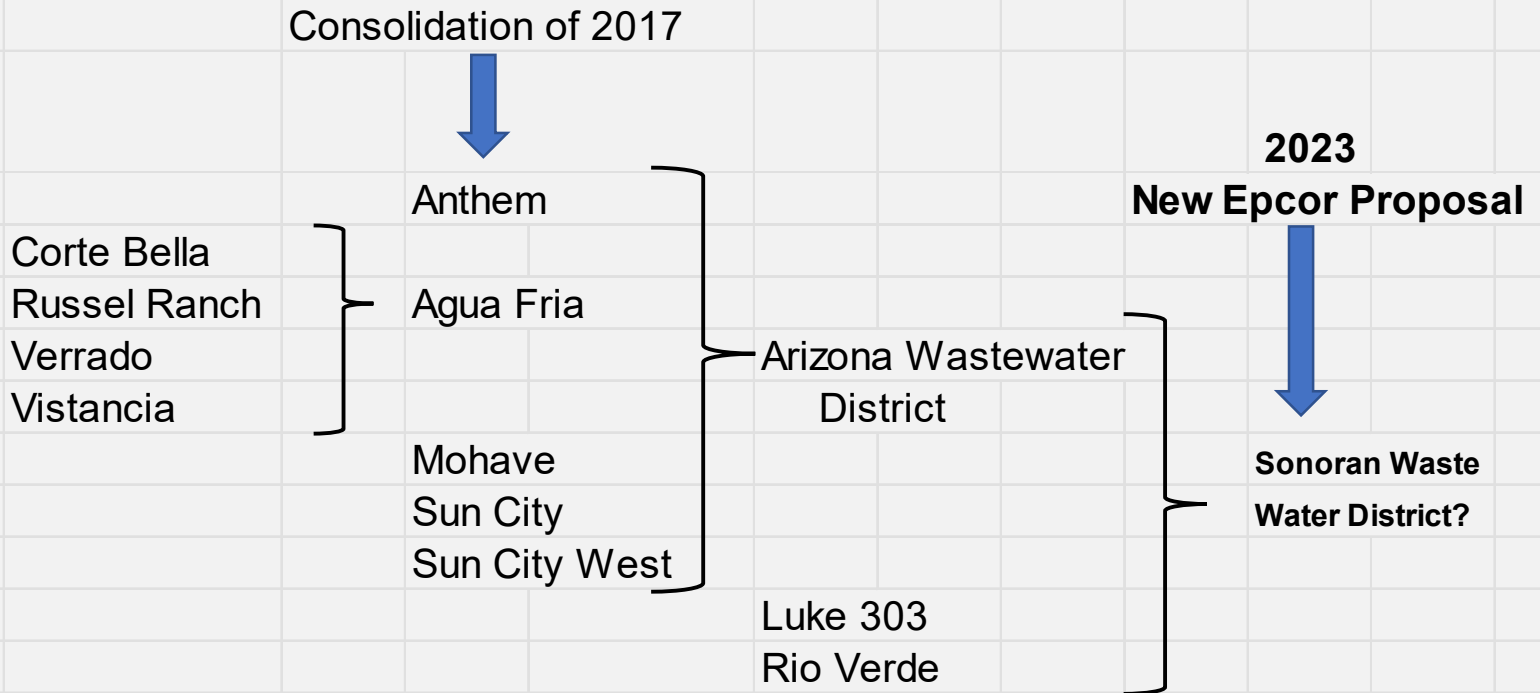
- Arizona Department of Water Resources (ADWR): *new.azwater.gov*
- Arizona Republic: *environment.azcentral.com*
- Arizona Water News: *azwaternews.com*
- Water Resources Research Center: *wrrc.arizona.edu*
- Beyond the Mirage, documentary by Arizona Public Media, PBS, U of A: *beyondthemirage.org*
- H2O, The Molecule that Made Us: *PBS documentary*
- Layperson's Guide to Arizona Water, *U of A, wrrc*

Notes from “Let There Be Water,” a book by Seth M. Siegal

Israel:

- ✓ Began preparing for water scarcity in the 1930's.
- ✓ Is a democracy, however water management is entirely a socialist commodity with the state controlling all water ownership and usage.
- ✓ Utilizes drip irrigation for 75% of its irrigated fields, reducing water use and improving crop yield.
- ✓ Notes that the cost of drip irrigation equipment is expensive, but should not impede its use.
- ✓ Uses eighty-five percent of the country's sewage for treatment and reuse.
- ✓ Built 5 coastal desalination plants in less time than it took California to overcome legal issues in order to build the Carlsbad desalination plant.
- ✓ Has a culture that accepts and admires water conservation.
- ✓ Grows water efficient crops.
- ✓ Believes a global water crisis is looming, the time to act is now.

Summary of Epcor Wastewater Consolidation Proposals

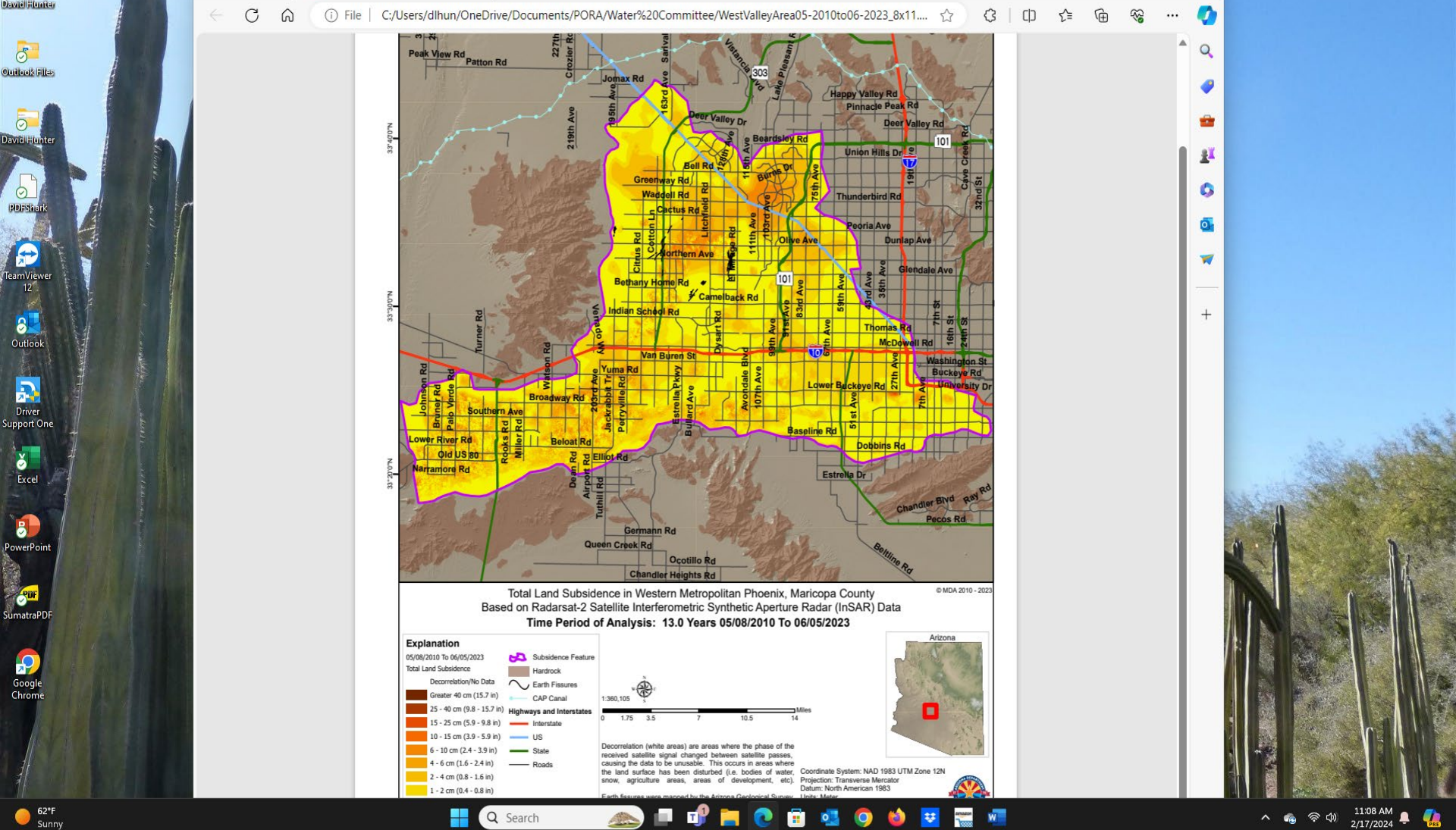


The Epcor Districts of Corte Bella, Russel Ranch, Verrado and Vistancia were combined into the Agua Fria District.

That district was consolidated with the districts of Anthem, Mohave, Sun City and Sun City West to become the Arizona Wastewater District.

Now the new proposal from Epcor wants to combine the Arizona Wastewater District with the Luke 303 and Rio Verde districts.

Proposed Standalone Rates			
Service Area	Current Rates	Proposed Rates	Percent Change
Arizona Wastewater	\$38.59	\$42.41	+ 9.9%
Luke 303 Wastewater	\$60.00	\$210.00	+250%
Rio Verde Wastewater	\$63.95	\$88.89	+39%
Proposed Consolidation Rates			
Service Area	Current Rates	Proposed Rates	Percent Change
Arizona Wastewater	\$38.59	\$46.31	+20%
Luke 303 Wastewater	\$60.00	\$46.31	-22.8%
Rio Verde Wastewater	\$63.95	\$46.31	-27.6%



Phoenix Area Subsidence 1993 - 2023