

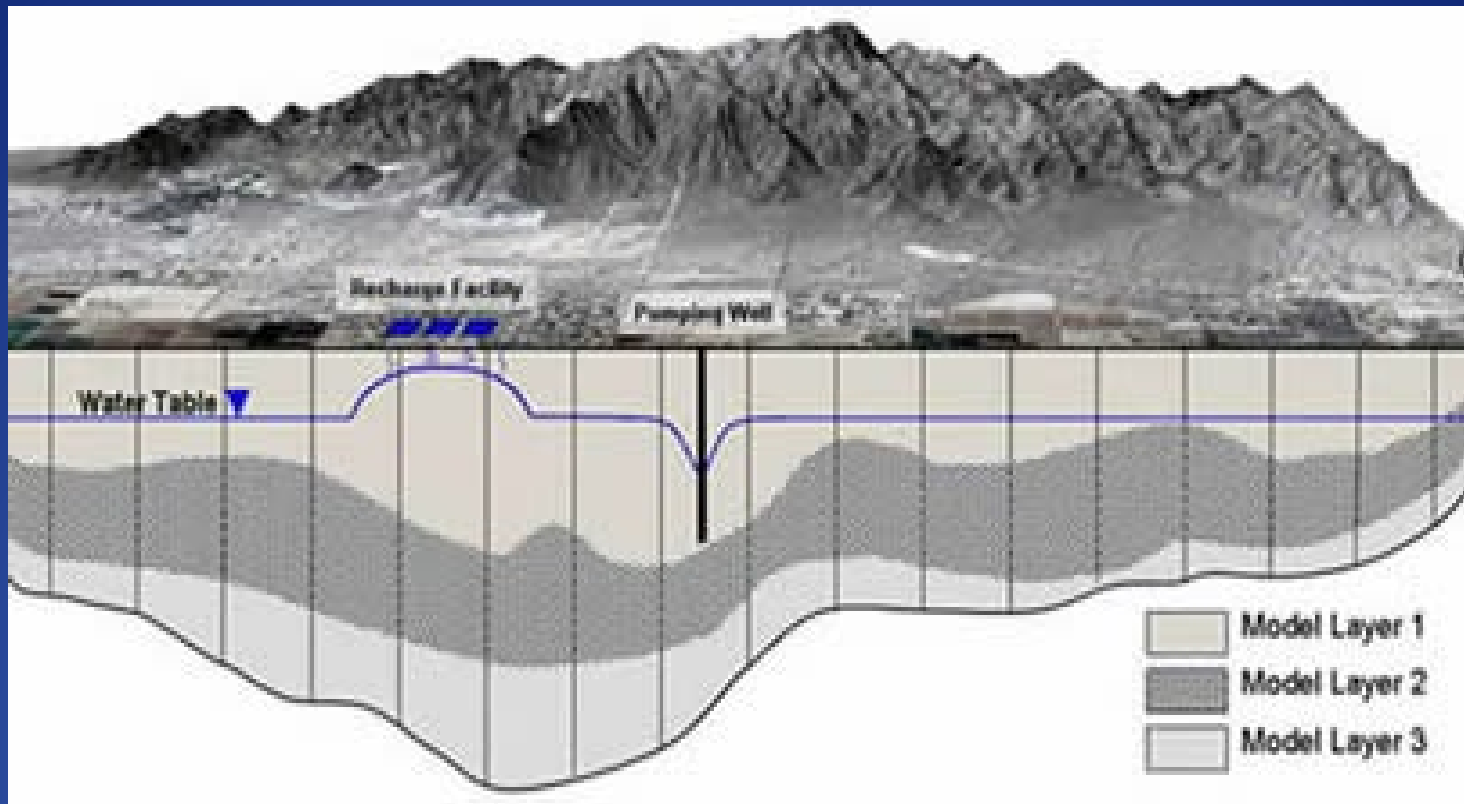
PORA WATER COMMITTEE

04-16-24



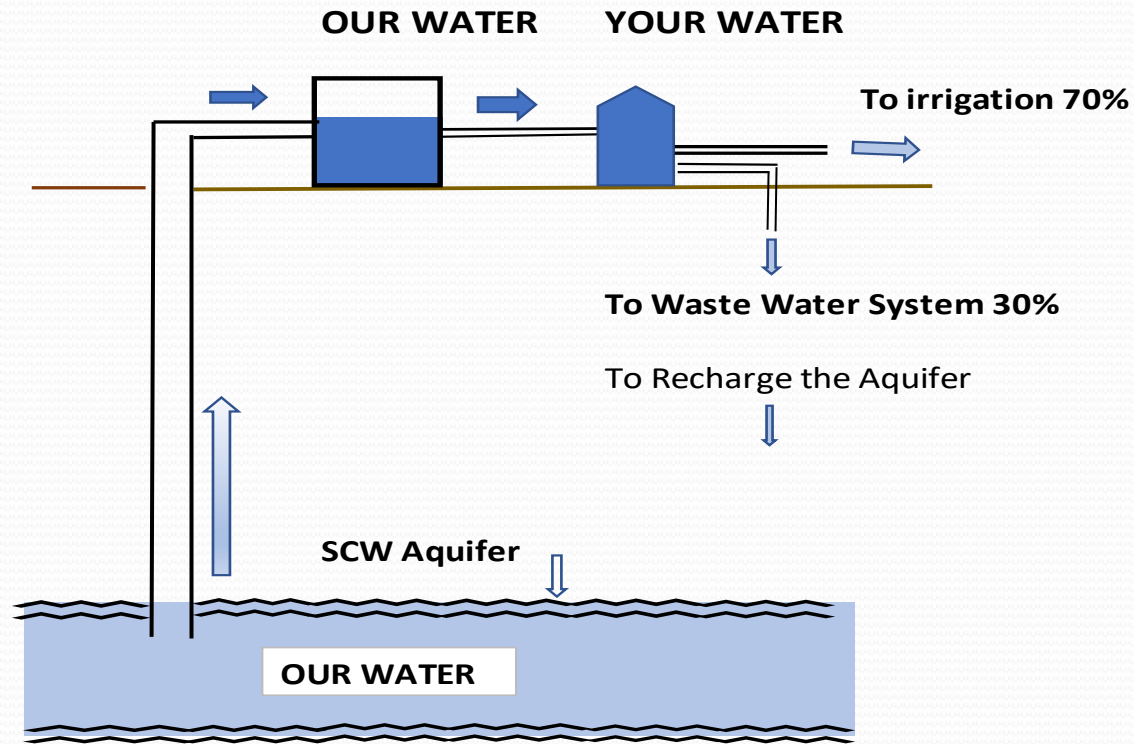
Surface Water

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.

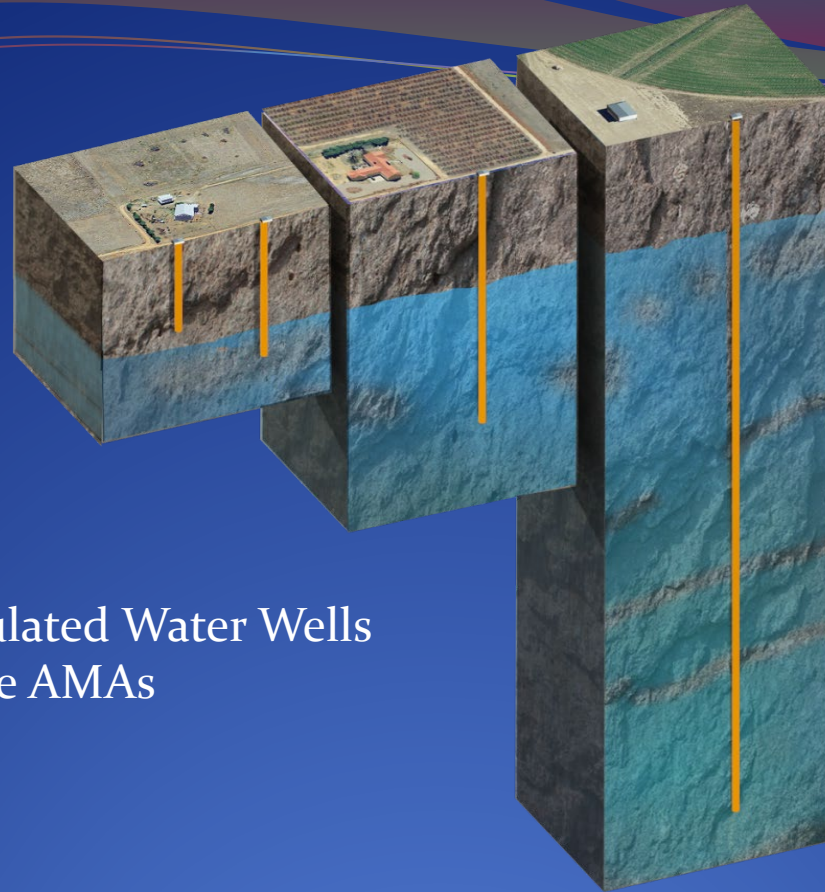


Aquifer Model for Phoenix AMA Groundwater

YOUR WATER IS OUR WATER



**Groundwater Going
Your Water is Our Water**



Unregulated Water Wells
Outside AMAs

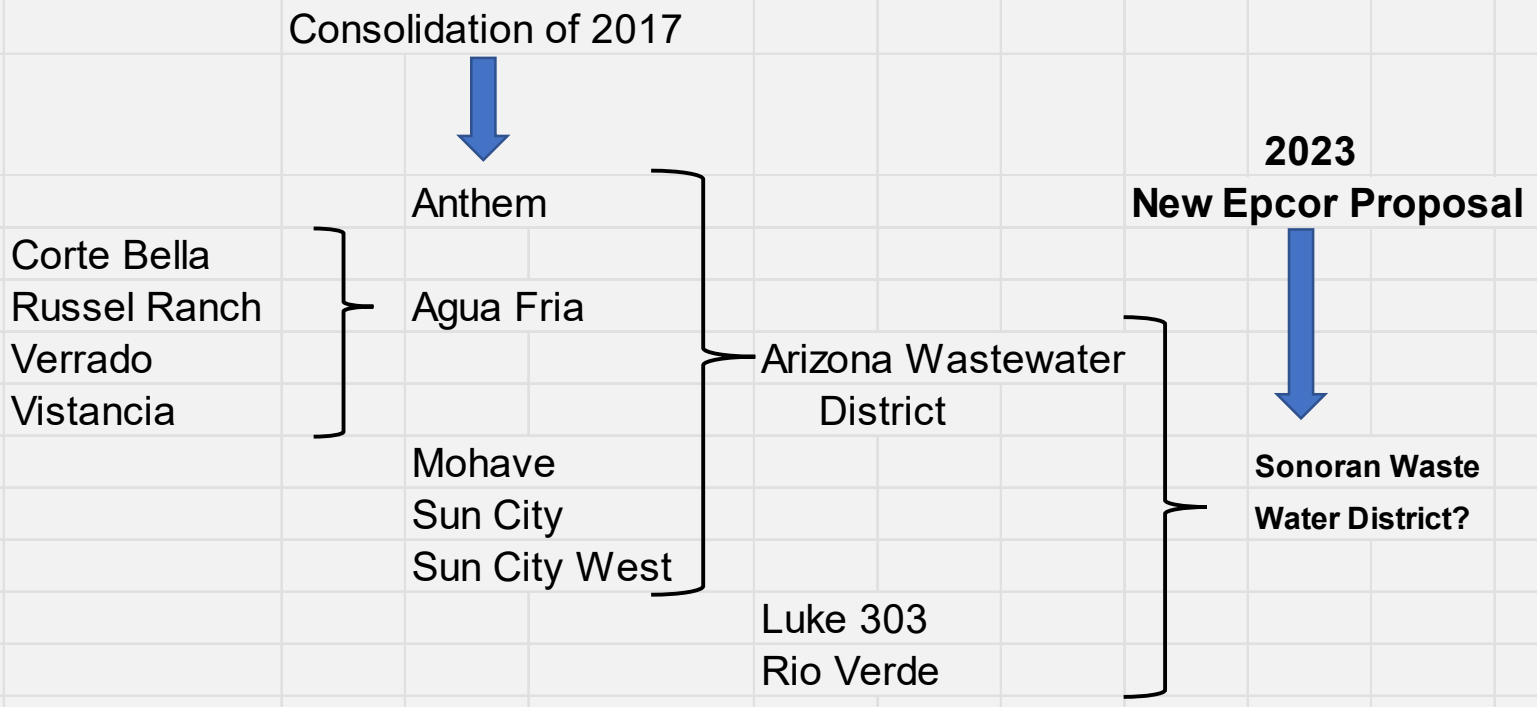
Groundwater Pumping

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



**Fissure from Subsidence
in Pinal County**

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%

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.

Final MCLG	Compound	Final MCL (enforceable levels)
Zero	PFOA	4.0 parts per trillion (ppt) (also expressed as ng/L)
Zero	PFOS	4.0 ppt
10 ppt	PFHxS	10 ppt
10 ppt	PFNA	10 ppt
10 ppt	HFPO-DA (commonly known as GenX Chemicals)	10 ppt
1 (unitless) Hazard Index	Mixtures containing two or more of PFHxS, PFNA, HFPO-DA, and PFBS	1 (unitless) Hazard Index

EPA limits for PFAS



EXTRA SLIDES

WAM

ARIZONA WATER AWARENESS MONTH

FESTIVAL

10AM-2PM SATURDAY APRIL 6



KNEE-DEEP IN WATER NEWS

The week in water: Our picks for the top water stories from the last seven days.

- ABC 15 Arizona (Phoenix Business Journal): City of Phoenix implements water conservation requirements for major water users
- AMWUA: It's simple and easy: Fix leaks to save water and money
- KTAR News: Avondale launches water conservation program that offers financial incentives
- Casa Grande Dispatch: CG may remove City Hall grass to save water





**Willcox is running out
of water - and we're
powerless to stop it**

Water Politics



**Stinknet poses dangerous threat to
Arizona neighborhoods**

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.



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

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

PORA Water Committee

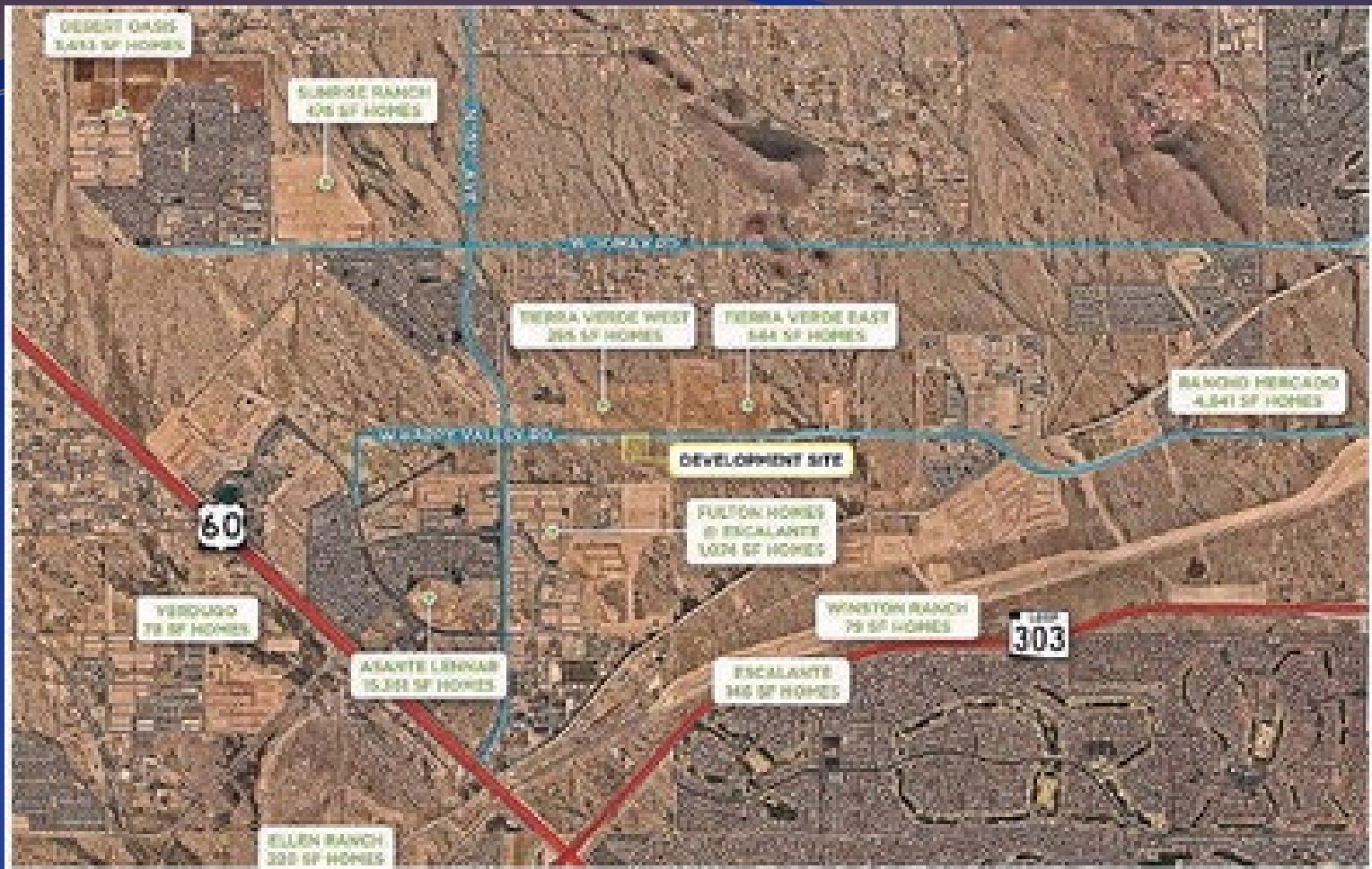
- **Saved MILLIONS of Gallons of Water through the Efforts of the Community, Epcor and the Fugitive Water Initiative!**



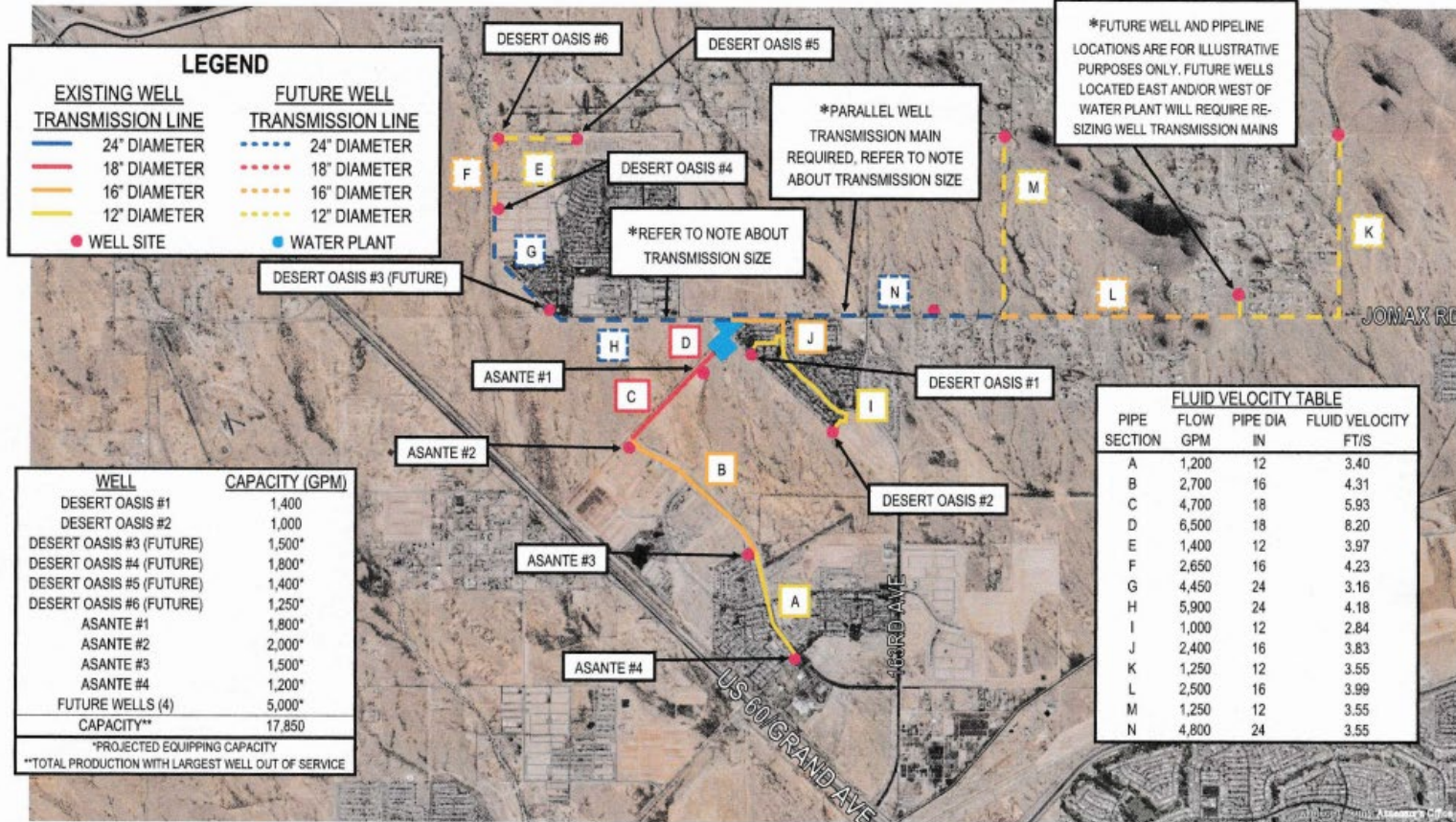
Medical Clinics – Leak Area



Medical Clinic Fugitive Water



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



CITY OF SURPRISE
SPA2 NORTH WELL AND TRANSMISSION MAIN LOCATION MAP

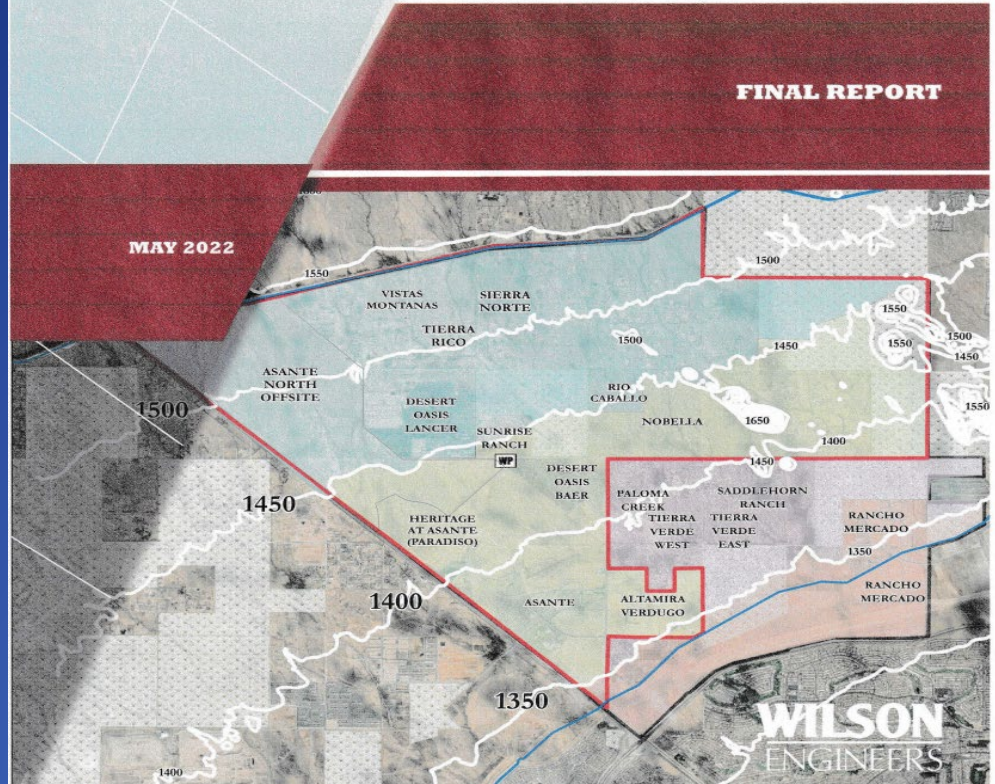
FIGURE 3-7

North Surprise - Water Well System

SPA2 NORTH WATER MASTER PLAN

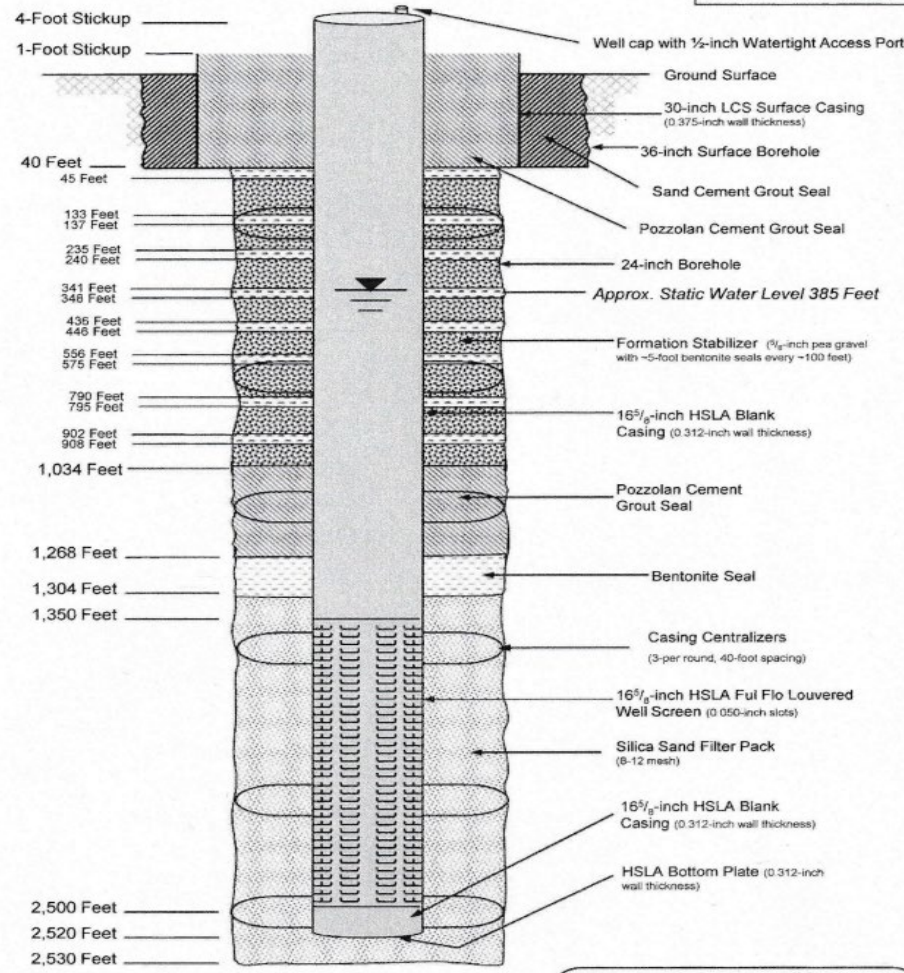
FINAL REPORT

MAY 2022



North Surprise - Water Master Plan -
379 Pages

ADWR Well No. 55-210828
Cadastral Location B(4-2)2dbc



Not To Scale

Notes:
LCS = Low Carbon Steel
HSLA = High Strength Low Alloy Steel
All diameters are O.D. (outside diameter) except the well screen, which is nominal

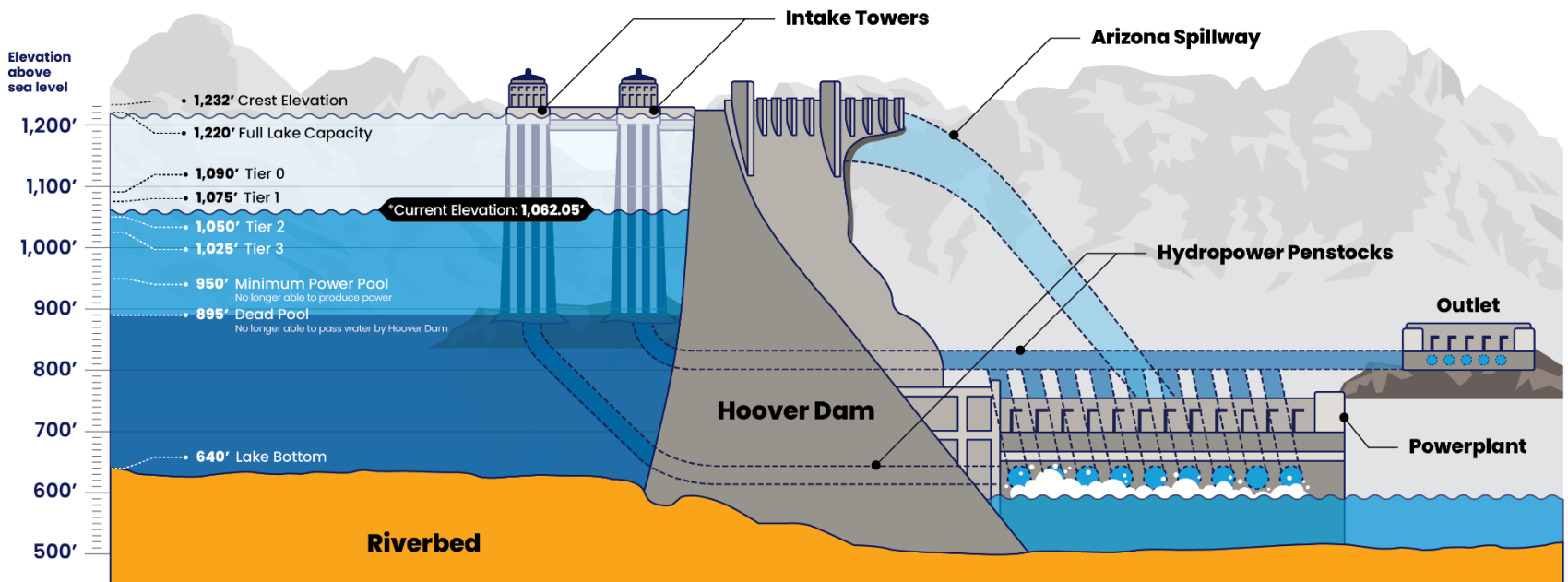


FIGURE 2
AS-BUILT WELL DRAWING
Asante Well No. 2
Lennar Communities Development, Inc.
Surprise, Arizona

North Surprise - Asante Water Well

HOOVER DAM

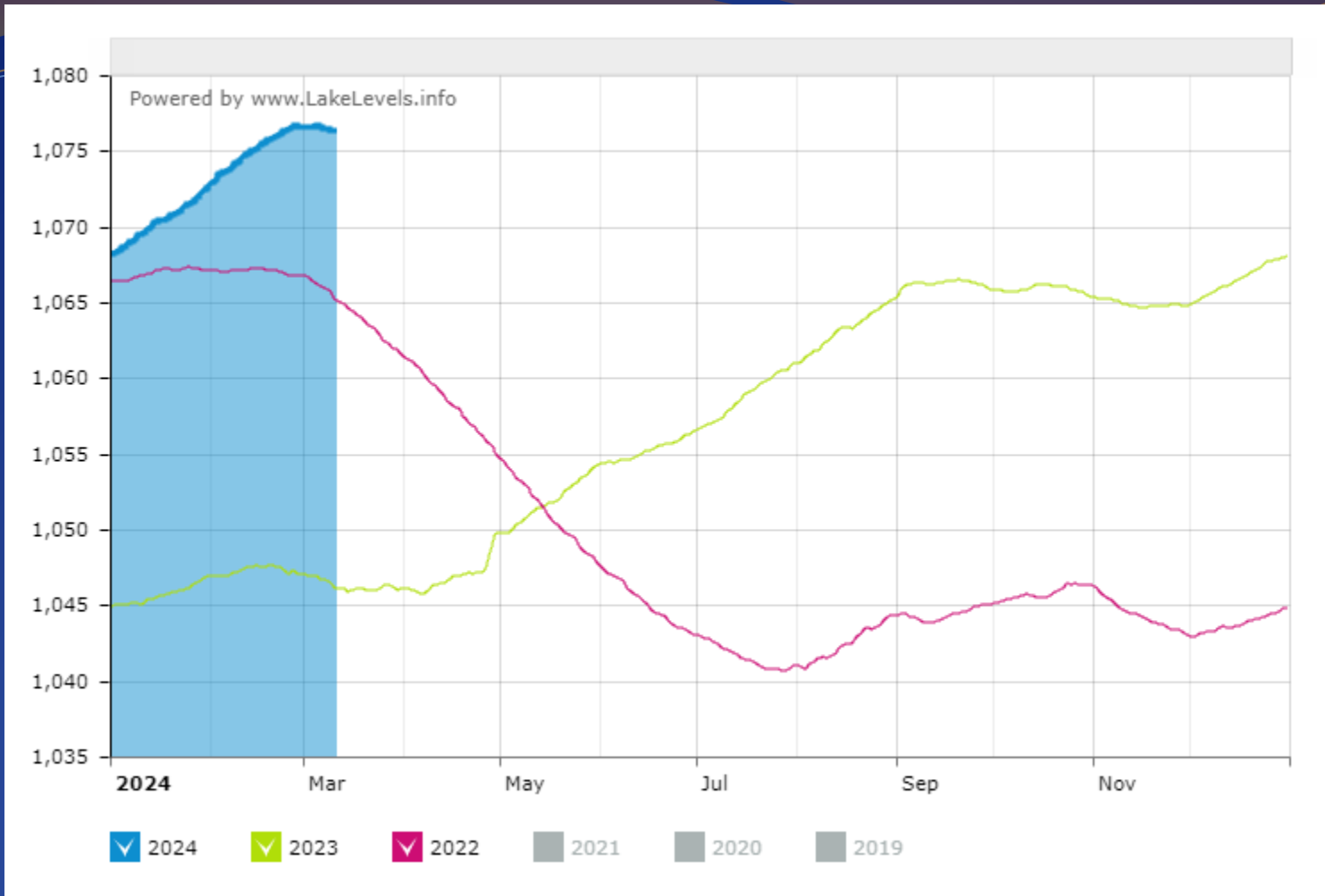
Key Elevations



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



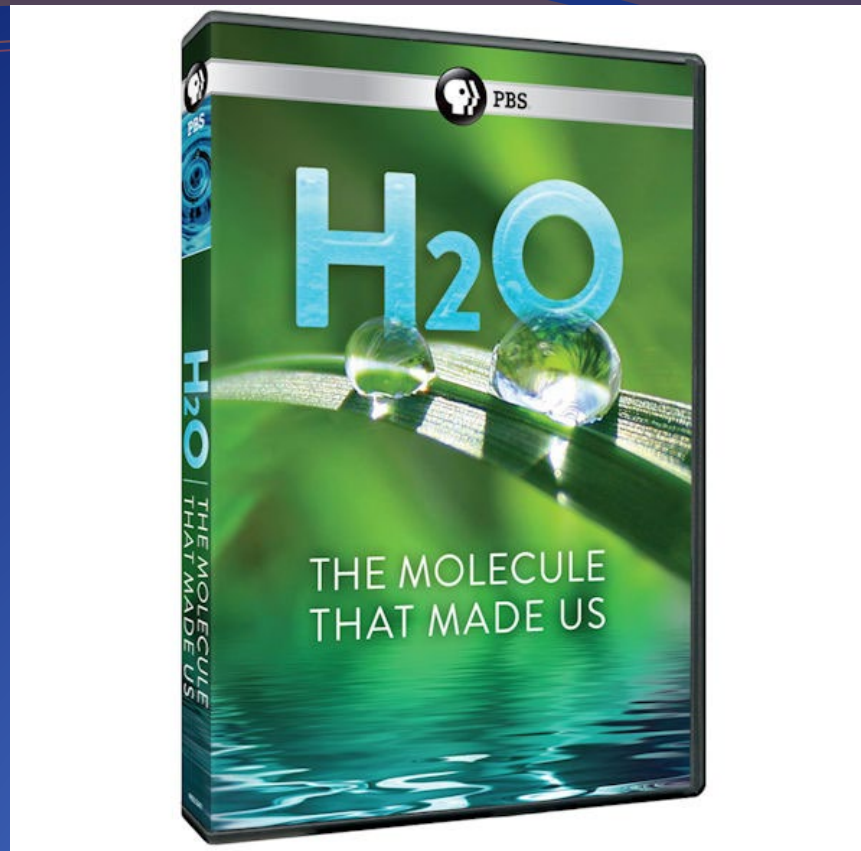
Lake Powell

Reaching Historic Low Level



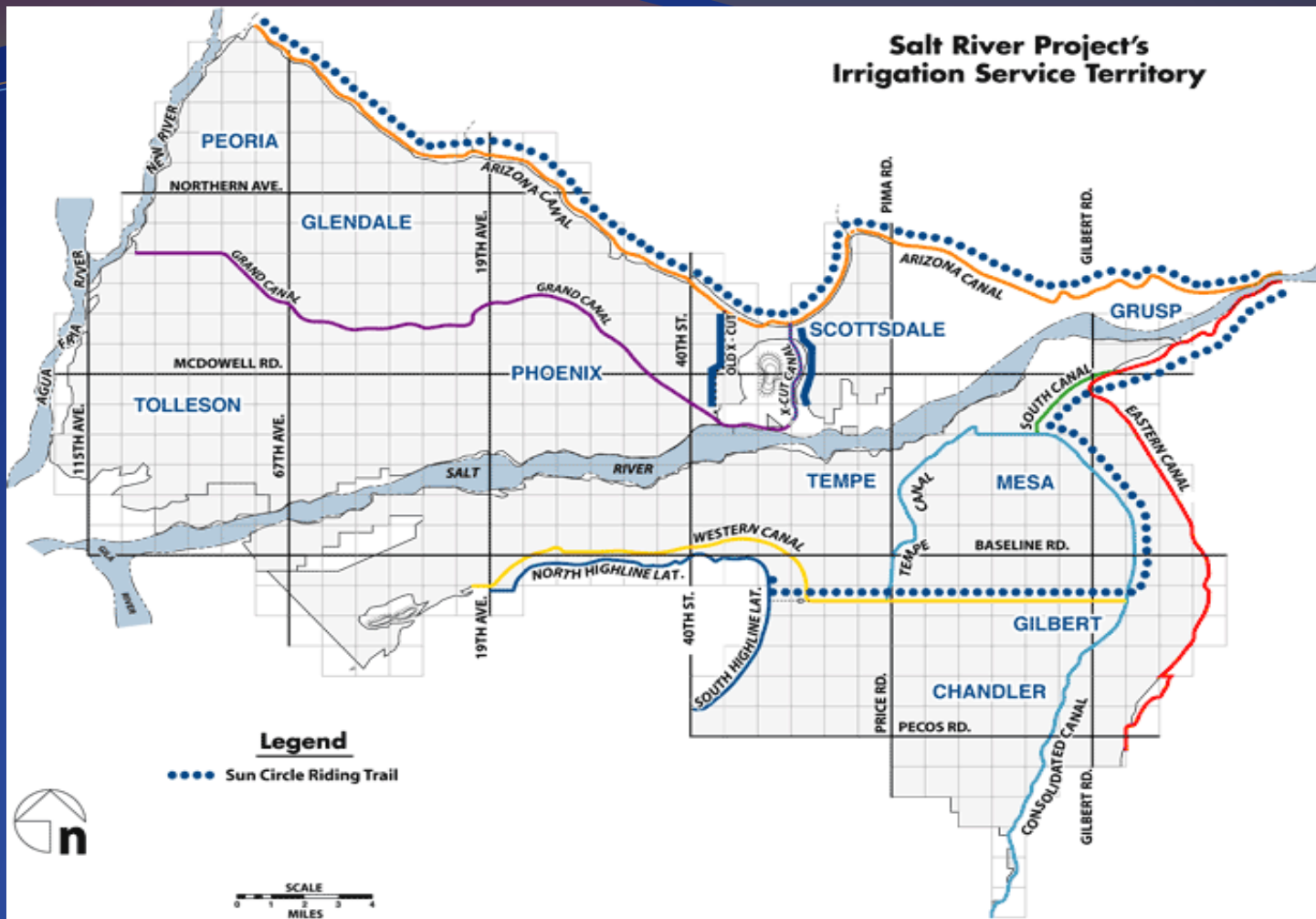
Beyond the Mirage

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



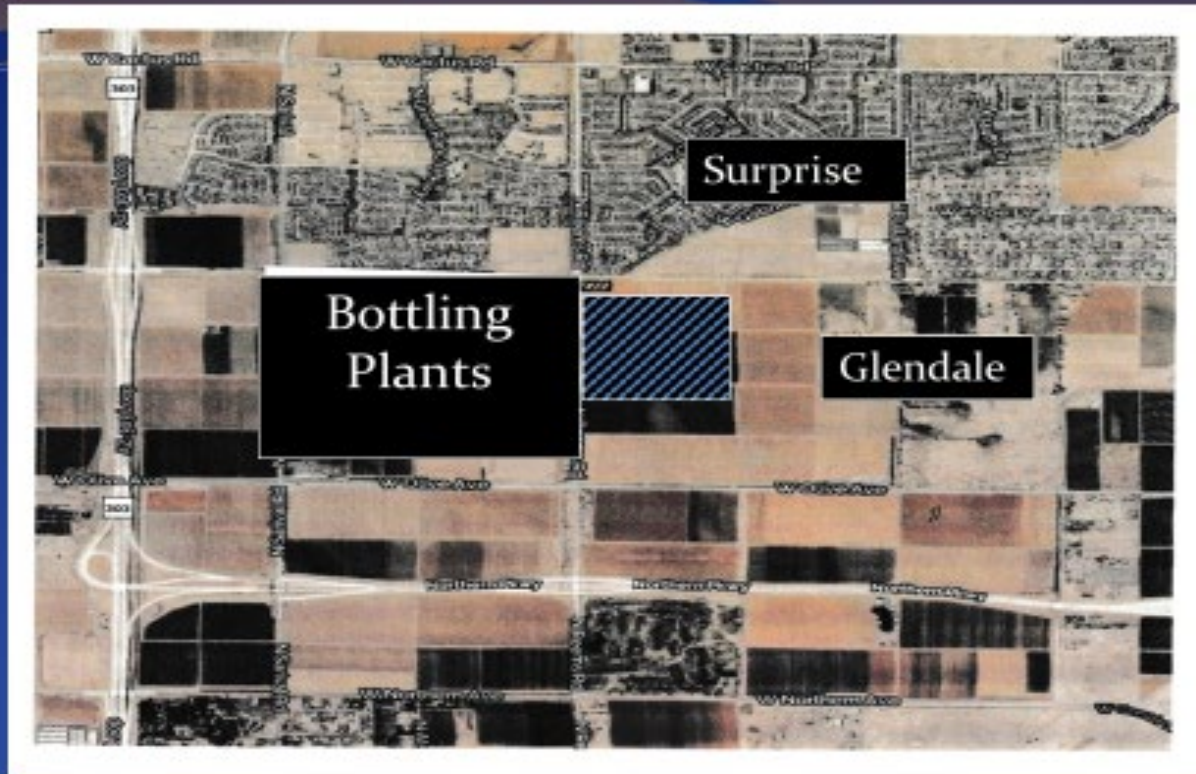
H₂O the Molecule that Made Us

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



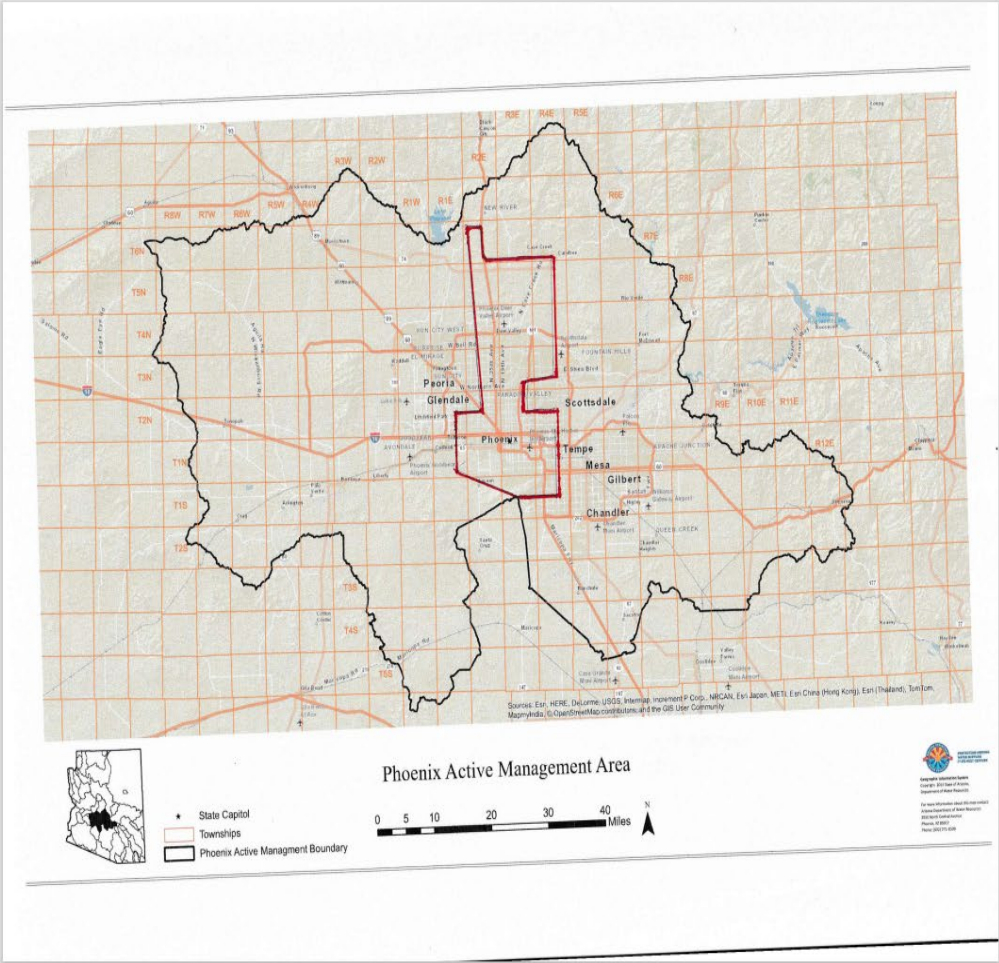
Surface Water – Arizona Canal

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

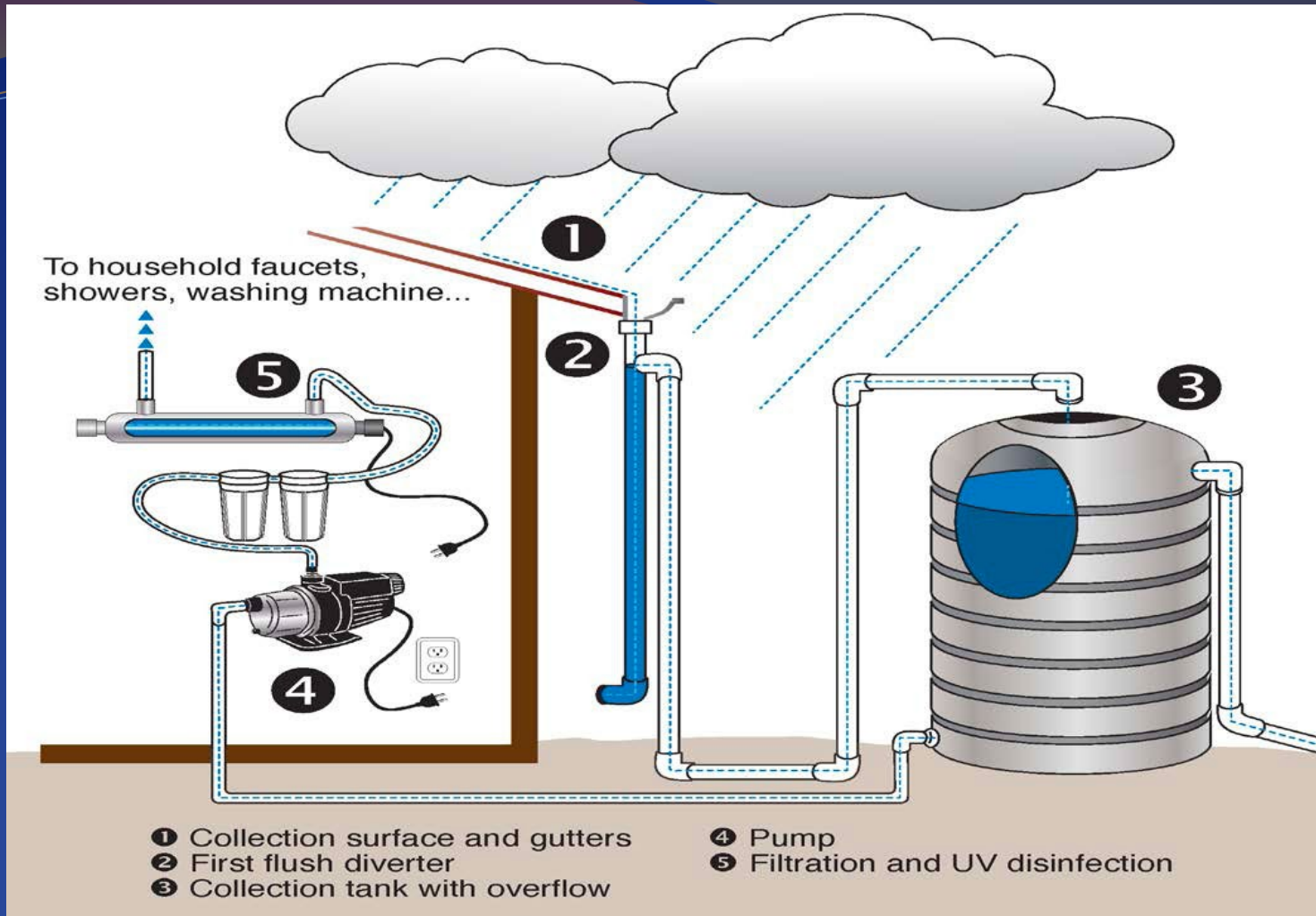


Surface Water & Groundwater

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

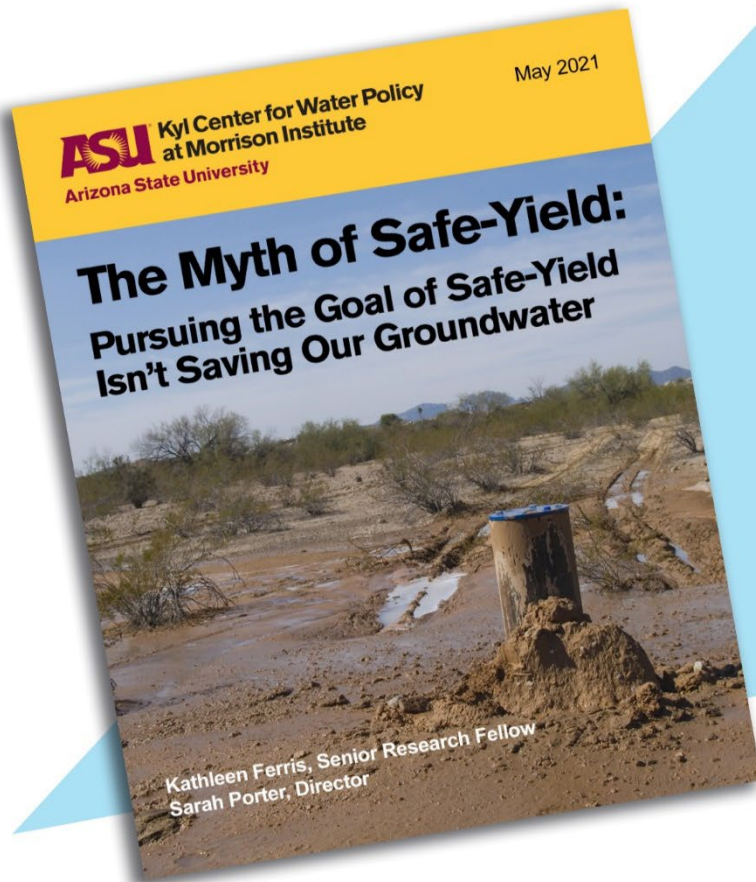


Phoenix AMA Model



Rainwater for Potable Use

Basic Capture and Treatment System



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

ASU Kyl Center for Water Policy
at Morrison Institute
Arizona State University



Groundwater Protection

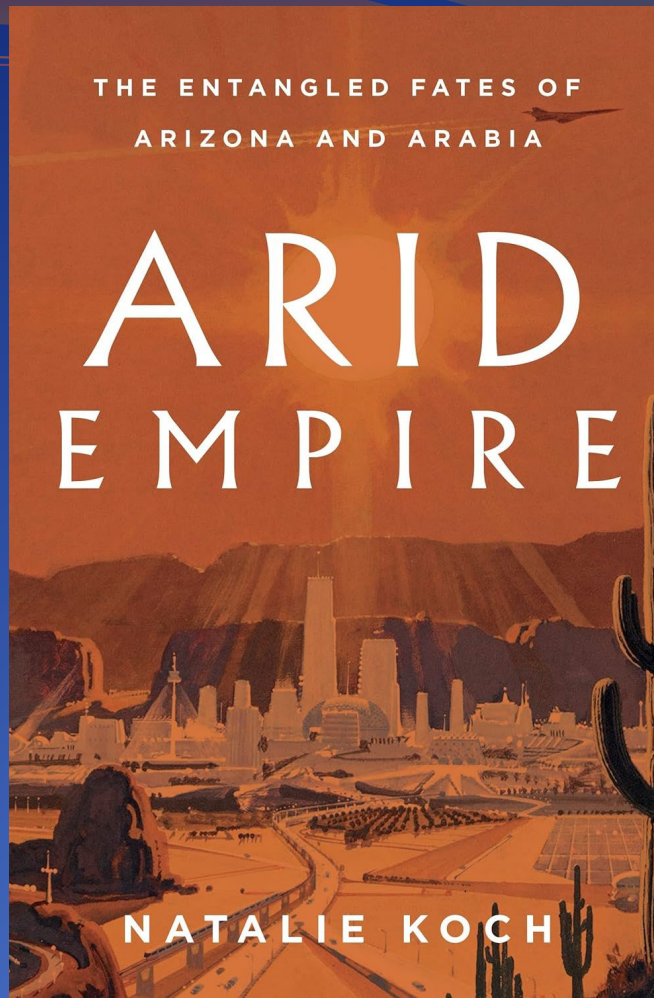
in the Valley of the Sun

Past, Present & Future

THE ENTANGLED FATES OF
ARIZONA AND ARABIA

ARID EMPIRE

NATALIE KOCH



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

CREDITS

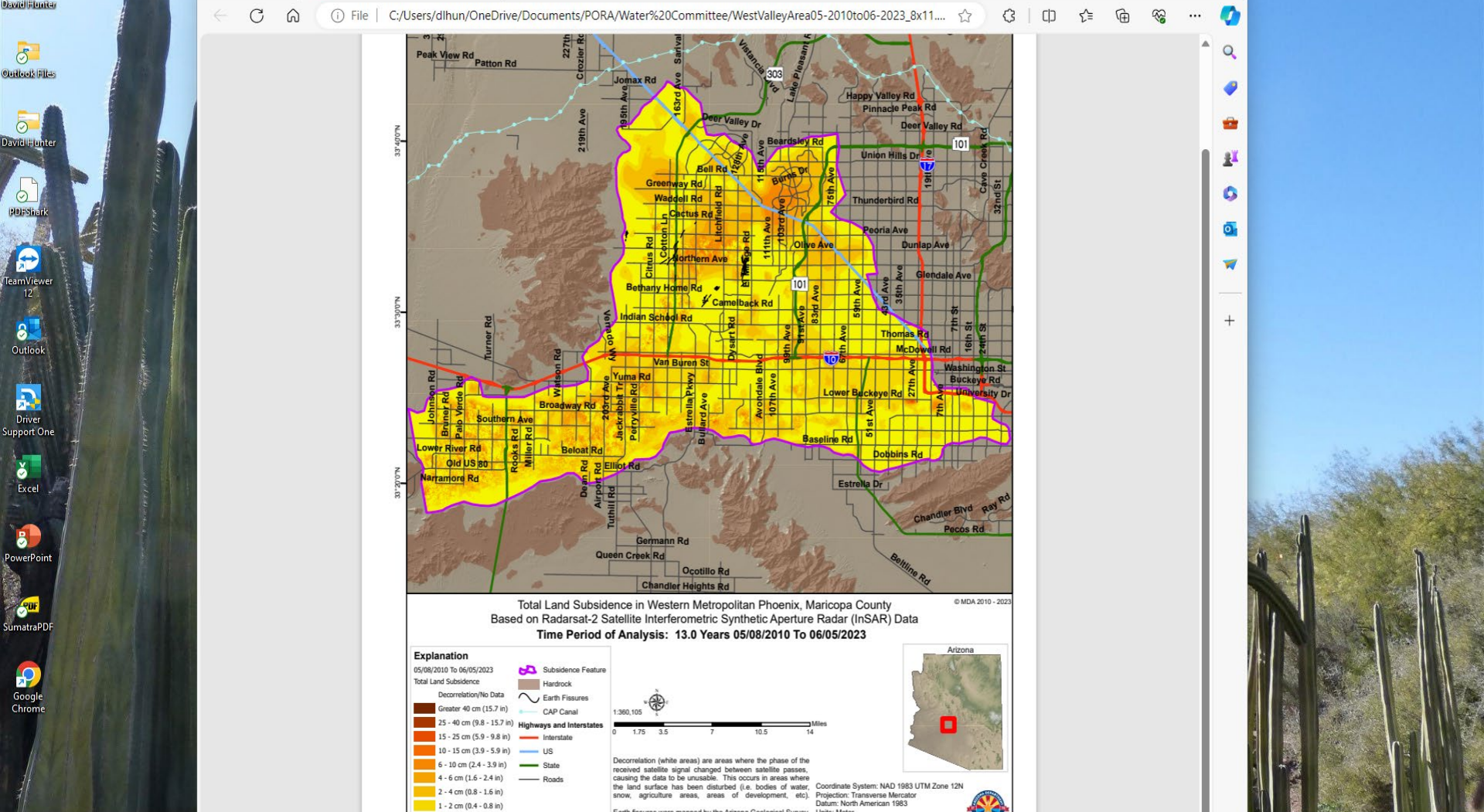
Information Presented in this Document has been Researched and/or Supplied by:

- 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.



Phoenix Area Subsidence 1993 - 2023