Overview of the Hot "and Dry" Button Issues

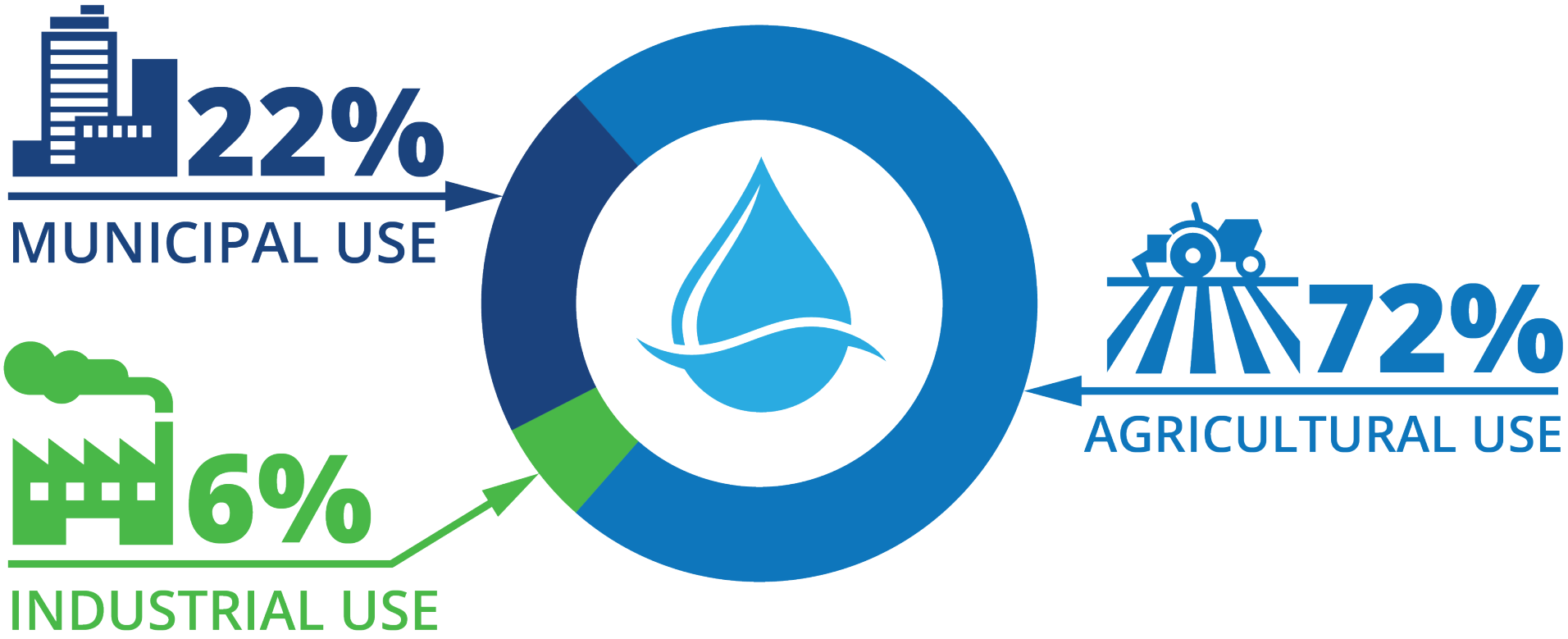
Arizona Water Well Drillers Association

Ryan Mitchell, RG, CPG
Chief Hydrologist / Assistant Director
Arizona Department of Water Resources

January 14, 2023

Arizona Water Use By Source (2019)

Arizona Water Use By Sector (2019)



Colorado River Allocations

1922 Colorado River Compact established Upper and Lower Basin States' allocations

UPPER BASIN STATES - 7.5 MAF

1948 Upper Colorado Basin Compact established the Upper Basin States' apportionment.

LOWER BASIN STATES - 7.5 MAF

California – 4.4 MAF

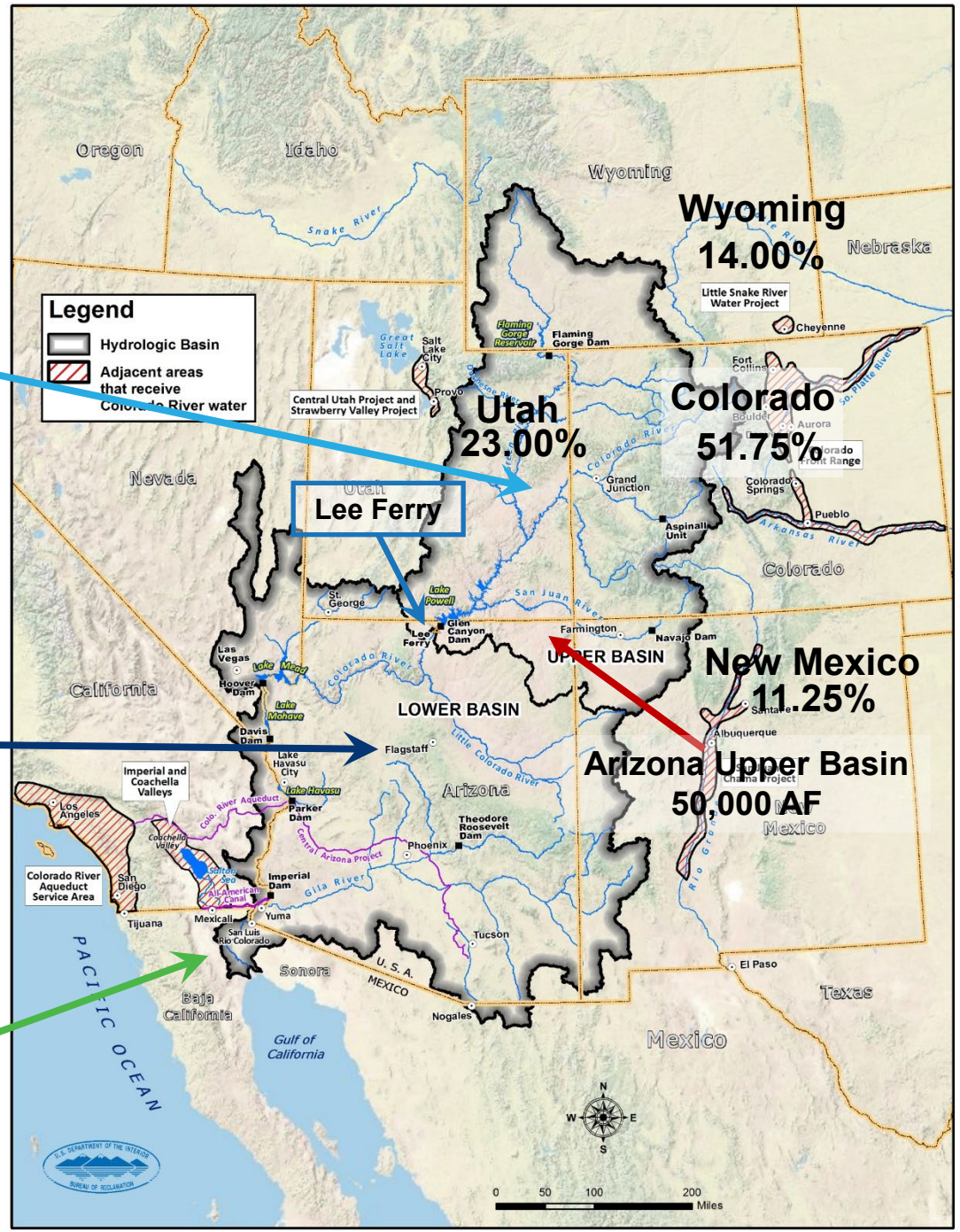
Arizona – 2.8 MAF

Nevada – 0.3 MAF

1928 Boulder Canyon Project Act established the Lower Basin States' apportionment.

MEXICO - 1.5 MAF

1944 Treaty with Mexico established Mexico's treaty deliveries.



Drought Contingency Plan

Lower Basin Drought Contingency Plan

- *ADWR & CAWCD jointly hosted 9 public Steering Committee meetings to discuss & recommend how to adopt and implement the LBDCP in a way that is acceptable to Arizona water users*
- ***January 31, 2019** – Arizona Legislature passed & Gov. Ducey signed SB 1227*
  - *The legislation authorized ADWR Director to sign the Interstate DCP Agreements on behalf of Arizona*

Colorado River Drought Contingency Plan

- ***March 27 & 28, 2019** – Reclamation & Colorado River Basin representatives testified at U.S. subcommittee hearings at the Senate (subcommittee chaired by AZ Sen. McSally) & the House (subcommittee chaired by Rep. Huffman; full committee chaired by AZ Rep. Grijalva)*
- **April 8, 2019** – Bill passed after announced by Sen. McSally & Rep. Grijalva
- ***April 16, 2019** – Signed by President Trump*
- ***May 20, 2019** – Signed & finalized by Lower Basin States, Reclamation & Interior*

August 2021 Lower Basin Drought Contingency Plan Consultation

- The Bureau's projections in its August 2021 24-month study concluded that Lake Mead would descend below 1,030 feet in July 2023.
- That projection triggered Section V.B.2 of the Lower Basin Drought Contingency Operations, which requires the Lower Basin States to consult, along with the Interior, on taking additional measures prior to Lake Mead falling below elevation 1,020 feet.
- On December 15, 2021, the Lower Basin States, together with the Interior, announced the 500+ Plan, which aimed to add 500,000 acre-feet of additional water to Lake Mead in both 2022 and 2023 through projects and programs to conserve water across the Lower Colorado River Basin.

500+ Plan in Arizona

Arizona 500+ Plan Activity Included in the December 2022 24-Month Study (volumes in AF)	2021	2022 (Provisional)	2023 (Projected)
Gila River Indian Community System Conservation	40,000	50,937	0
Gila River Indian Community ICS Creation	0	78,565	0
Colorado River Indian Tribes System Conservation	4,685	4,685	0
CAWCD System Conservation	0	94,509	0
YMIDD System Conservation	0	8,544	13,670
MVIDD System Conservation	0	9,592	9,592
CAP ICS delivery offset	6,147	19,604	-18,400
Total Arizona Volume Included in the December 2022 24-Month Study	**50,832**	**266,436**	**4,862**

Total Arizona 500+ Plan Activity - Cumulative	**50,832**	**317,268**	**322,130**

Actions in Arizona in 2022

Tier 1 Guidelines shortage reduction	320 KAF
Tier 1 DCP contribution	192 KAF
Conservation Activities in addition to 2007 Interim Guidelines and DCP	~323 KAF*
TOTAL	**~835 KAF**

*500+ Plan Funding – US, ADWR, CAWCD, Metropolitan Water District of Southern California, Southern Nevada Water Authority

500+ Plan for 2023

- We will be soliciting **broad** and **substantial** contributions of water from all eligible water users as part of the 500+ Plan
- We are continuing to work with the United States, the other Lower Basin States, and Arizona water users to build on participation in the 500+ Plan

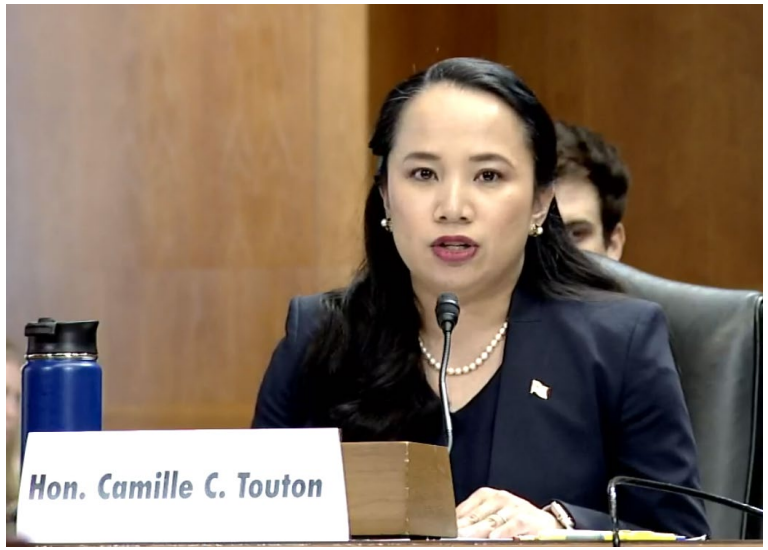
Unprecedented Actions Necessary to Support the Colorado River System

On Tuesday, June 14, 2022, Camille Touton, Commissioner of the Bureau of Reclamation, told the U.S. Senate Energy & Natural Resources Committee that "unprecedented actions" are necessary to protect the Colorado River system.

- Between two and four million acre-feet of additional conservation is needed just to protect critical levels in 2023
- Critical levels at Lake Powell (3500 feet of elevation) and at Lake Mead (1000 feet of elevation) must be maintained
- Commissioner Touton identified a mid-August 2022 goal for an agreement

Unprecedented Actions Necessary to Support the Colorado River System

- Arizona's allocation is 2.8 million acre-feet, but with "junior" water rights
- Senator Kelly asked: "If [the] Basin States cannot reach an agreement, is the Department prepared to take actions to impose restrictions on other states without regard to river priority?"
  - The Commissioner responded: "Yes, we will protect the system."
- Senator Kelly asked: "Can the federal government move faster in deploying desalination and water recycling projects under the Bipartisan Infrastructure Law?"
  - The Commissioner responded: "Yes, we will."



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Actions Announced to Support Colorado River System in 2023

On Tuesday, August 16, 2022, Commissioner Touton announced that Lake Mead will operate in its first-ever Tier 2a Shortage Condition in 2023. Tier 2a reductions include:

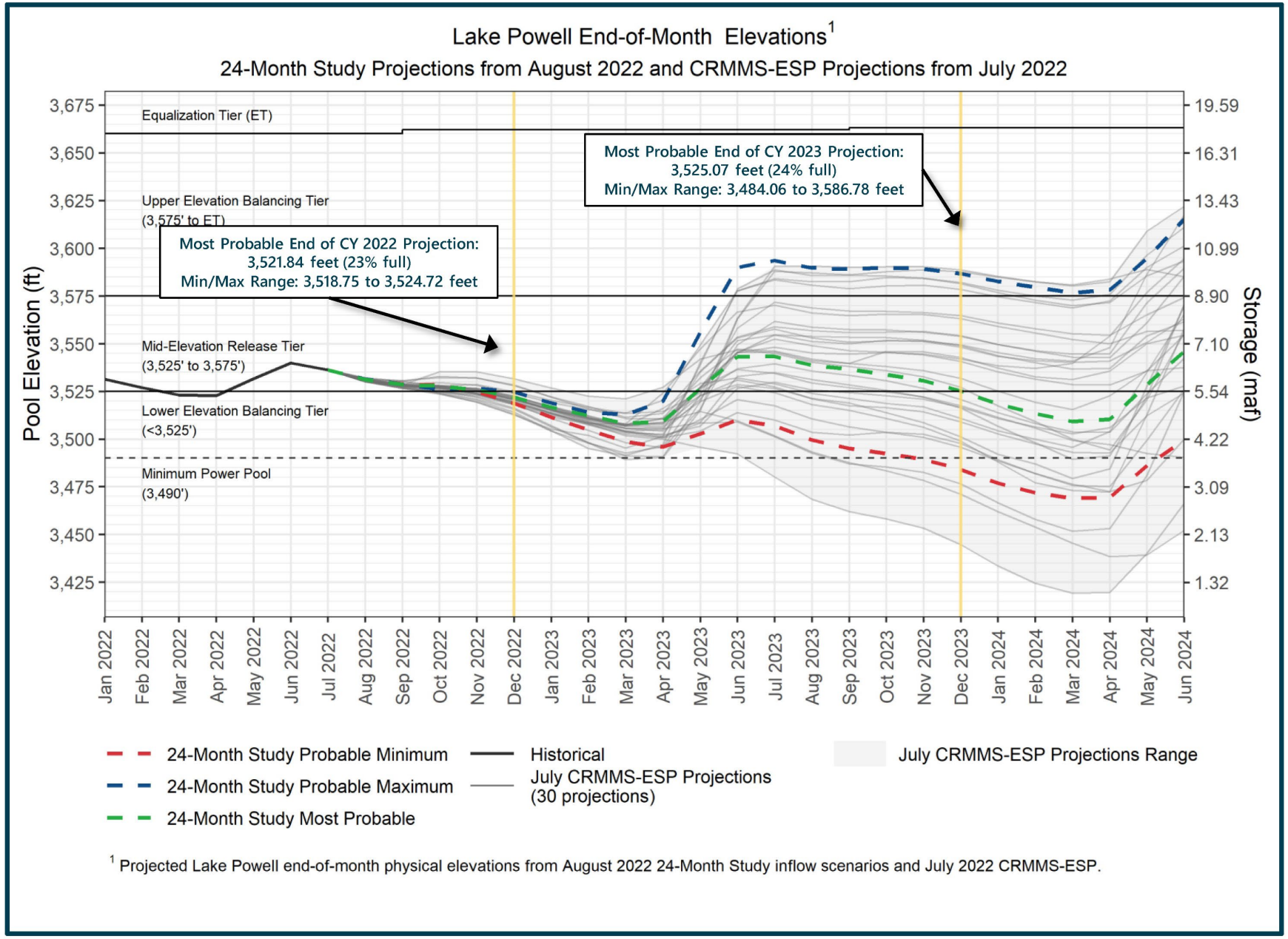
- Arizona: 592,000 acre-feet, which is approximately 21% of the state's annual apportionment
- Nevada: 25,000 acre-feet, which is 8% of the state's annual apportionment
- Mexico: 104,000 acre-feet, which is approximately 7% of the country's annual allotment
- There is no required water savings contribution for California in 2023 under this operating condition.

2007 Interim Guidelines, Minute 323, Lower Basin Drought Contingency Plan, and Binational Water Scarcity Contingency Plan

Total Volumes (kaf)

	Lake Mead Elevation (feet msl)	2007 Interim Guidelines Shortages		Minute 323 Delivery Reductions	Total Combined Reductions	DCP Water Savings Contributions			Binational Water Scarcity Contingency Plan Savings	Combined Volumes by Country *US: (2007 Interim Guidelines Shortages + DCP Contributions)* *Mexico: (Minute 323 Delivery Reductions + Binational Water Scarcity Contingency Plan Savings)*					Total Combined Volumes
		AZ	NV	Mexico	***Lower Basin States + Mexico***	AZ	NV	CA	Mexico	*AZ Total*	*NV Total*	*CA Total*	*Lower Basin States Total*	*Mexico Total*	***Lower Basin States + Mexico***
	1,090 - 1,075	0	0	0	***0***	192	8	0	41	192	8	0	*200*	*41*	***241***
Tier 1 →	1,075 - 1050	320	13	50	***383***	192	8	0	30	512	21	0	*533*	*80*	***613***
Tier 2a →	1,050 - 1,045	400	17	70	***487***	192	8	0	34	592	25	0	*617*	*104*	***721***
Tier 2 B	1,045 - 1,040	400	17	70	***487***	240	10	200	76	640	27	200	*867*	*146*	***1,013***
Tier 2 C	1,040 - 1,035	400	17	70	***487***	240	10	250	84	640	27	250	*917*	*154*	***1,071***
Tier 2 D	1,035 - 1,030	400	17	70	***487***	240	10	300	92	640	27	300	*967*	*162*	***1,129***
Tier 2 E	1,030 - 1,025	400	17	70	***487***	240	10	350	101	640	27	350	*1,017*	*171*	***1,188***
Tier 3 →	<1,025	480	20	125	***625***	240	10	350	150	720	30	350	*1,100*	*275*	***1,375***

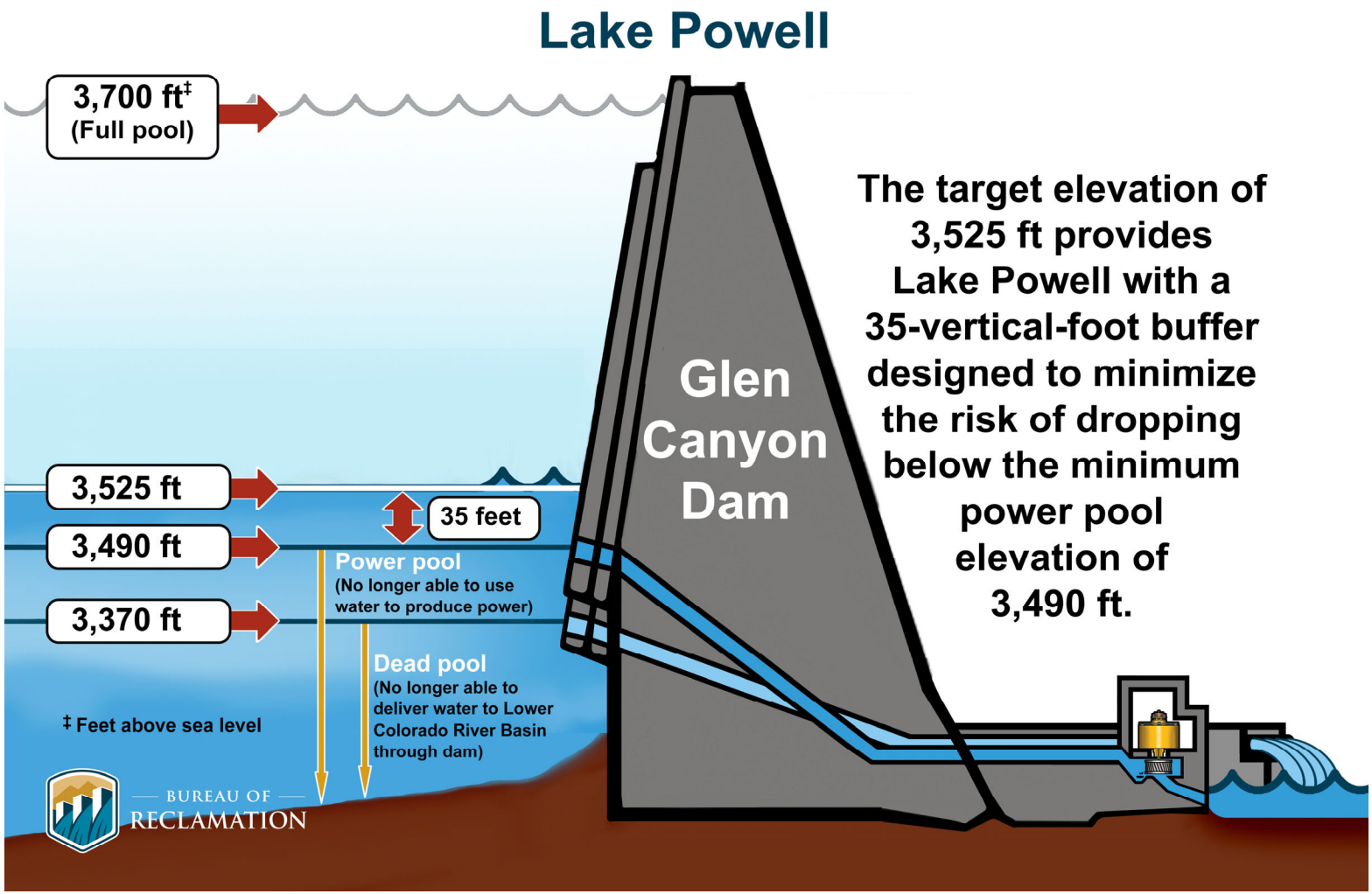
The Secretary of the Interior will take affirmative actions to implement programs designed to create or conserve 100,000 acre-ft per annum or more of Colorado River System water to contribute to conservation of water supplies in Lake Mead and other Colorado River reservoirs in the lower basin. All actions taken by the United States shall be subject to applicable law, including availability of appropriations.

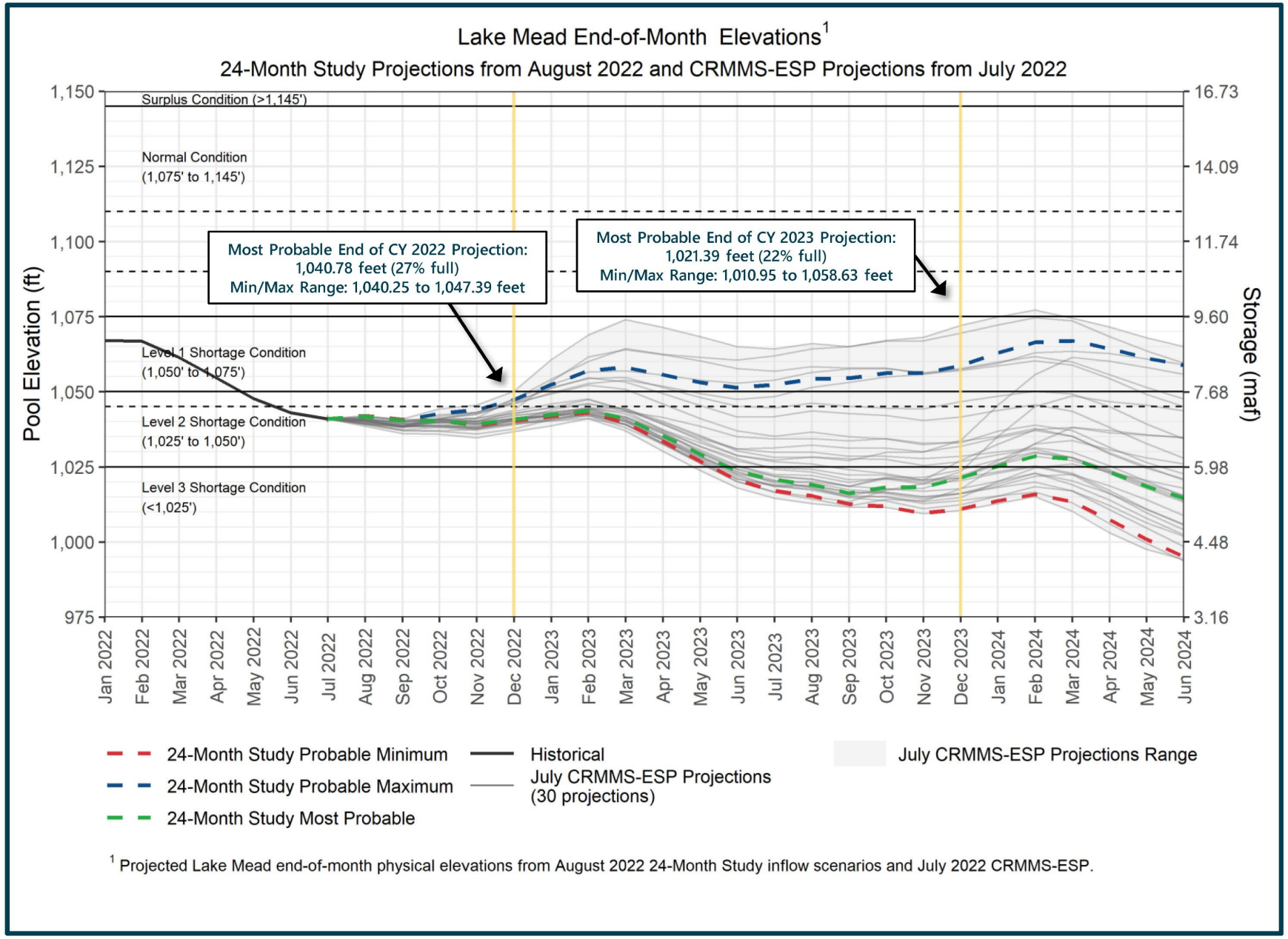


[1] Projected Lake Powell end-of-month physical elevations from August 2022 24-Month Study inflow scenarios and July 2022 CRMMS-ESP.

The chart above displays projected "physical" elevations for Lake Powell. Based on August 2022 24-Month Study modeling, Lake Powell's elevation is projected to be less than 3,525 feet and the operating tier for water year 2023 is the Lower Elevation Balancing Tier.

Lake Powell – Key Elevations





The chart above displays projected "physical" elevations for Lake Mead. Based on August 2022 24-Month Study modeling, Lake Mead's operating condition for calendar year 2023 is the Level 2 Shortage Condition within the 1,045 – 1,050 elevation band.

Runoff Efficiency a Major Factor in Colorado River Stability

- Even with 2 MAF of added volume, Lake Powell and Lake Mead combined storage at 3525 and 1020 is vulnerable to a Powell inflow equal to or less than 69% of the 1991-2020 avg inflow.
- If runoff efficiency is similar to that of 2021 (43%), then it would take 160% of average precipitation to create that amount of inflow (69% of average).
- Runoff efficiency is different every year; it's difficult to relate a percent of average precipitation to a runoff volume.

Lake Mead Elevations and Necessary Protection Volumes

2023-2026 Average Lake Powell Inflow	Avg Lake Mead End-of-Year Elevation Without Action (ft)				Annual Volumes (maf) Needed to Protect:	
Percent of 1991-2020 Avg*	2023	2024	2025	2026	Powell 3,525' & Mead 1,020' Avg (Min – Max)	Powell 3,500' & Mead 1,000' Avg (Min – Max)
Greater than 95%	1,049	1,052	1,059	1,066	**0.6** (0.3 – 2.0)	**0.2** (0.0 – 1.4)
80% - 95%	1,028	1,025	1,020	1,021	**1.3** (0.3 – 2.8)	**0.6** (0.0 – 2.1)
64% - 79%	1,028	1,017	998	983	**2.1** (1.1 – 3.1)	**1.3** (0.4 – 2.3)
50% - 63%	1,018	988	943	914	**3.5** (2.5 – 4.5)	**2.7** (1.7 – 3.7)
Less than 50%	1,006	917	895	896	**4.2** (4.2 – 4.2)	**3.5** (3.5 – 3.5)

1,000' < Pool Elevation < 1,020'

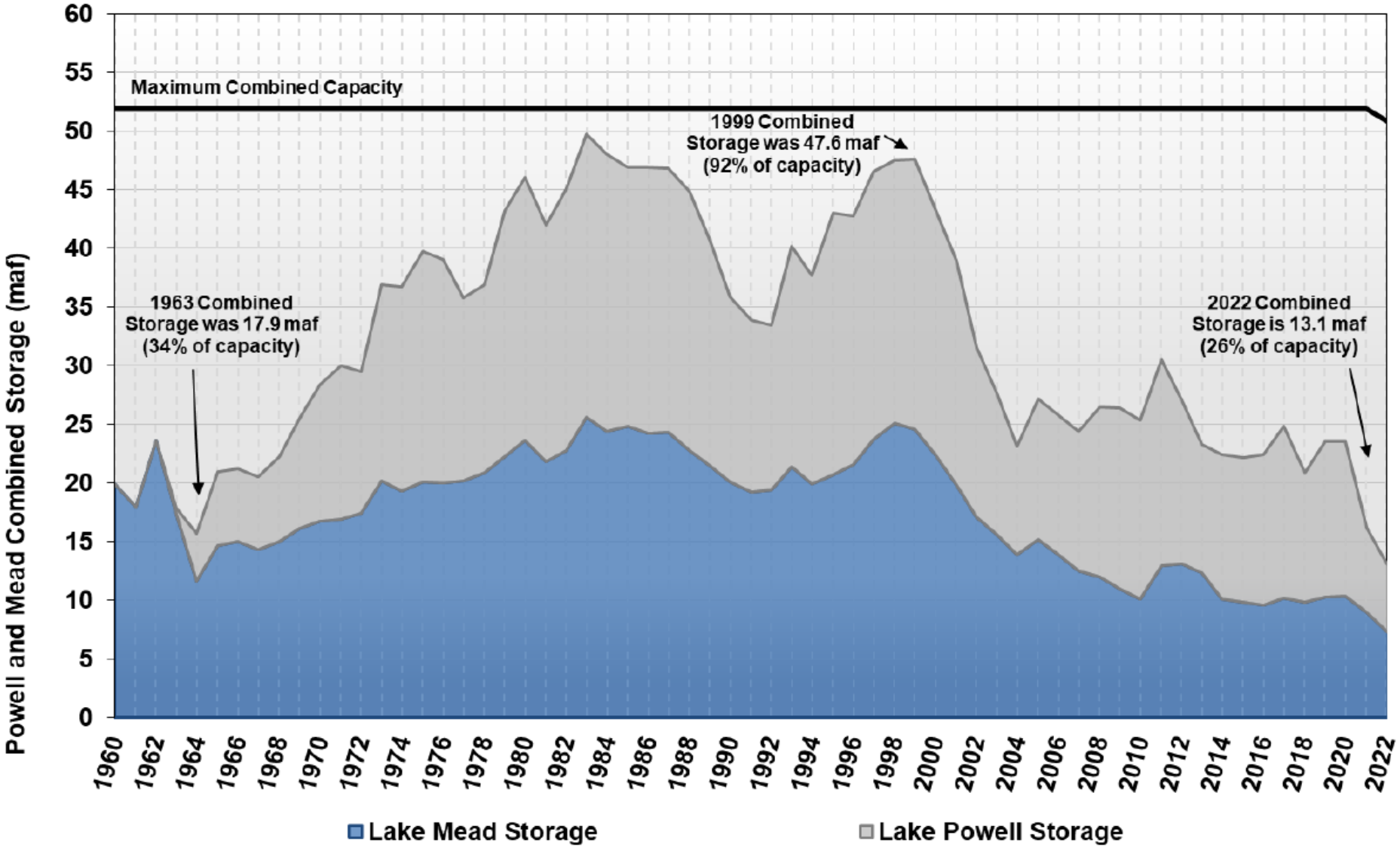
Pool Elevation < 1,000'

* 1991-2020 Avg = 9.46 maf
2000-2021 Avg = 8.31 maf
2018-2021 Avg = 6.86 maf (73% of 1991-2020)
2022 = ~6.0 maf (63% of 1991-2020)

Mead Elevation (ft)	Storage (maf)	% Capacity
1,020	5.7	21.7
1,000	4.5	17.1
950	2.0	7.7
895	0.0	0.0

Lake Powell and Lake Mead End of Water Year Storage

Water Years 1960 through 2022



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Basin States Commit to Continue Working

- The Basin States were unable to meet the mid-August deadline set by Commissioner Touton to identify 2-4 MAF of conservation.
- Basin States and the U.S. will continue to meet to address the challenges on the Colorado River System.
- All water users have a stake in the outcome and all need to contribute to the solution.
- The Basin States are discussing ways that additional reductions can be implemented.

*Source: "Interior Department Announces Actions to Protect Colorado River System, Sets 2023 Operating Conditions for Lake Powell and Lake Mead." U.S. *Bureau of Reclamation,* August 16, 2022, https://www.usbr.gov/newsroom/news-release/4294. Press Release.

5MP Adoption Timeline

1. Initial Draft Published
2. GUAC and Public Comments
3. Updated Draft Published
4. Public Hearing
5. Final Adoption

Tucson AMA
- Adopted May 2022

Prescott AMA
- Adopted June 2022

Pinal AMA
- Adopted July 2022

Phoenix AMA
- Adopted September 2022

Santa Cruz AMA
- Adopted October 2022

5MP Conservation Programs are expected to become effective January 1, 2025.

Conservation Program Requirements go into effect at least 2 years after a plan is adopted.
ADWR shifts the actual effective date past the 2 year mark to line up with Reporting Years.

Groundwater Management – Active Management Areas

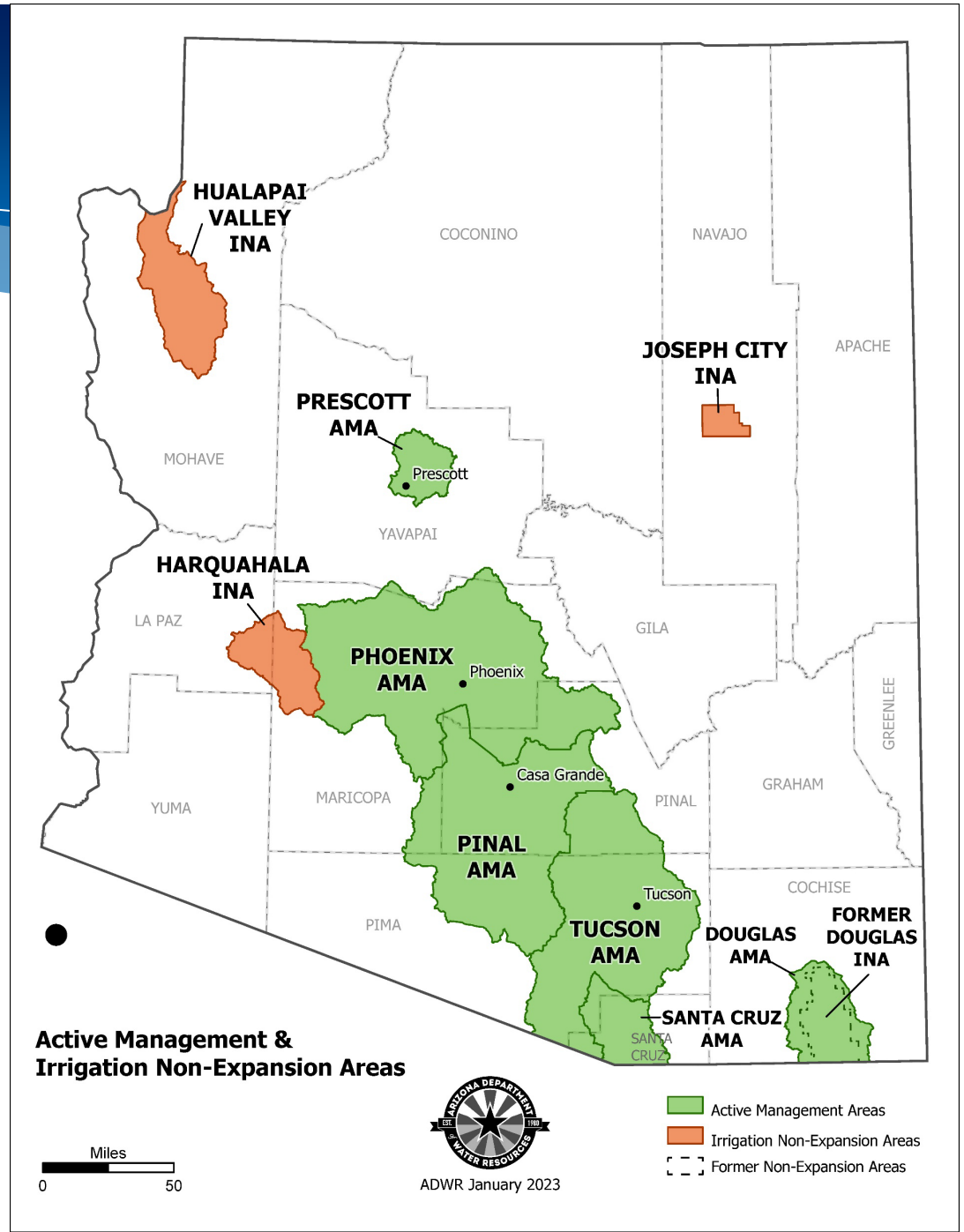
Statewide Provisions

Active Management Areas (AMAs)

- *Phoenix*
- *Pinal*
- *Prescott*
- *Tucson*
- *Santa Cruz*
- *Douglas (est. December 1, 2022)*

Irrigation Non-Expansion Areas (INAs)

- *Harquahala*
- *Joseph City*
- *Hualapai Valley INA (est. December 19, 2022)*



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Regulatory Structure

- Registration of all wells
- Adequate Water Supply
- Community Water Systems Documentation

Statewide

+

- Expansion of irrigated acres is prohibited
- Monitoring and Reporting

INA

+

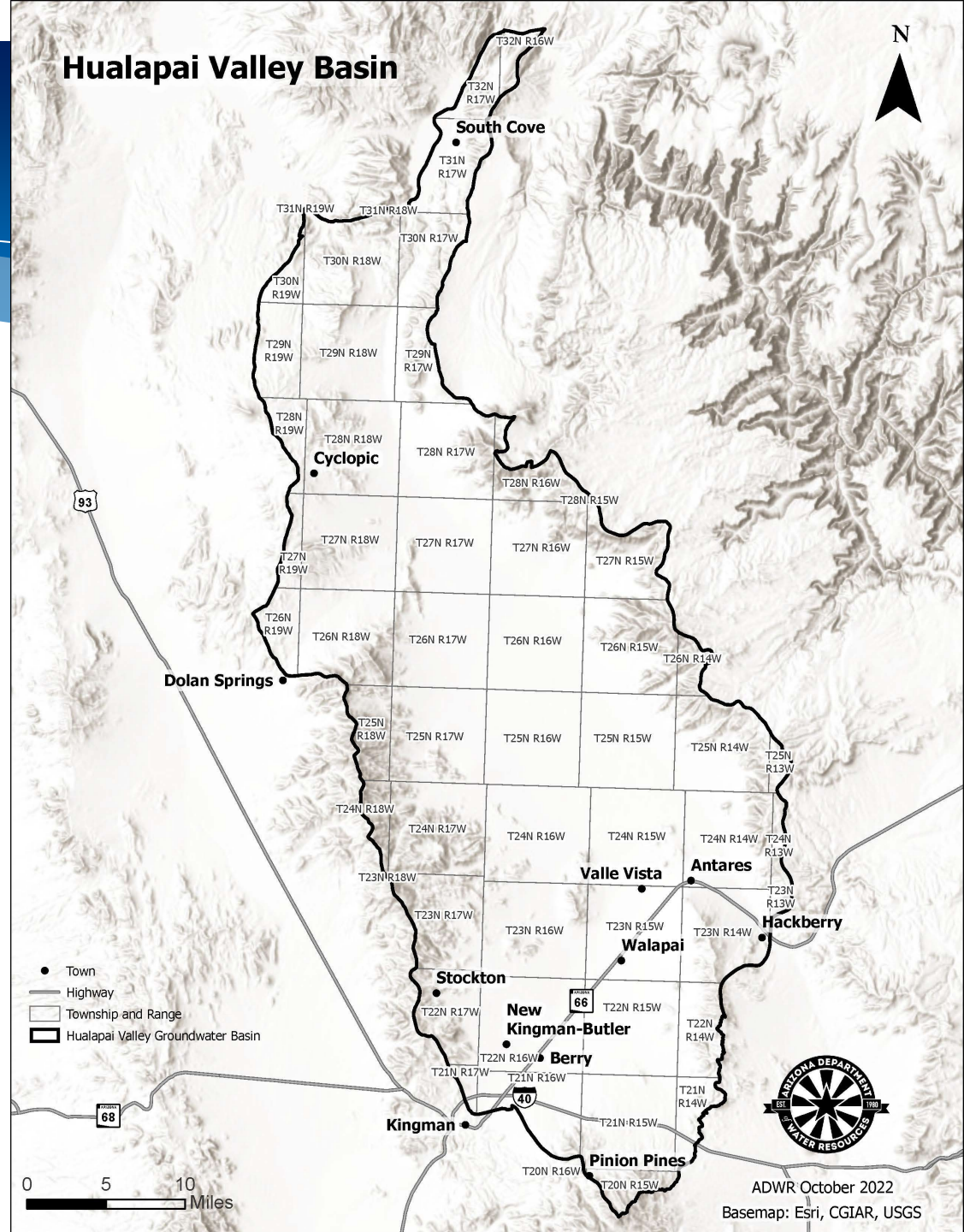
- Assured Water Supply
- Management Goals, Plans, & Conservation Programs
- Withdrawal Fees

AMA

Hualapai Valley Irrigation Non-Expansion Area

- A written request from the Mohave County Board of Supervisors was received by ADWR on June 23, 2022.
- On September 20, 2022, ADWR hosted a public meeting to present information and receive public comments on whether ADWR should initiate procedures to designate the Hualapai Valley Groundwater Basin as a subsequent Irrigation Non-Expansion Area ("INA").
- November 12, 2022, held a public hearing in Kingman initiating proceedings to designate an INA.
- On December 19, 2022, the Hualapai Valley INA was established by order of the ADWR Director.
- For more information visit:

https://new.azwater.gov/hualapai-valley-ina-request



Current Conditions use for Modeling Hualapai Valley Aquifer

* Based on USGS 2021 Hualapai Valley groundwater model (Knight et al., 2021)
* Updated municipal demand for 2018 & 2019 provided by Mohave County
* Latest estimate of agricultural demand is 2021
  * Based on field surveys
  * USGS dataset (Read et al., 2022)

* **No future growth in any sector** – demands from year 2021 are repeated through the end of the projection (per 45-432A1)

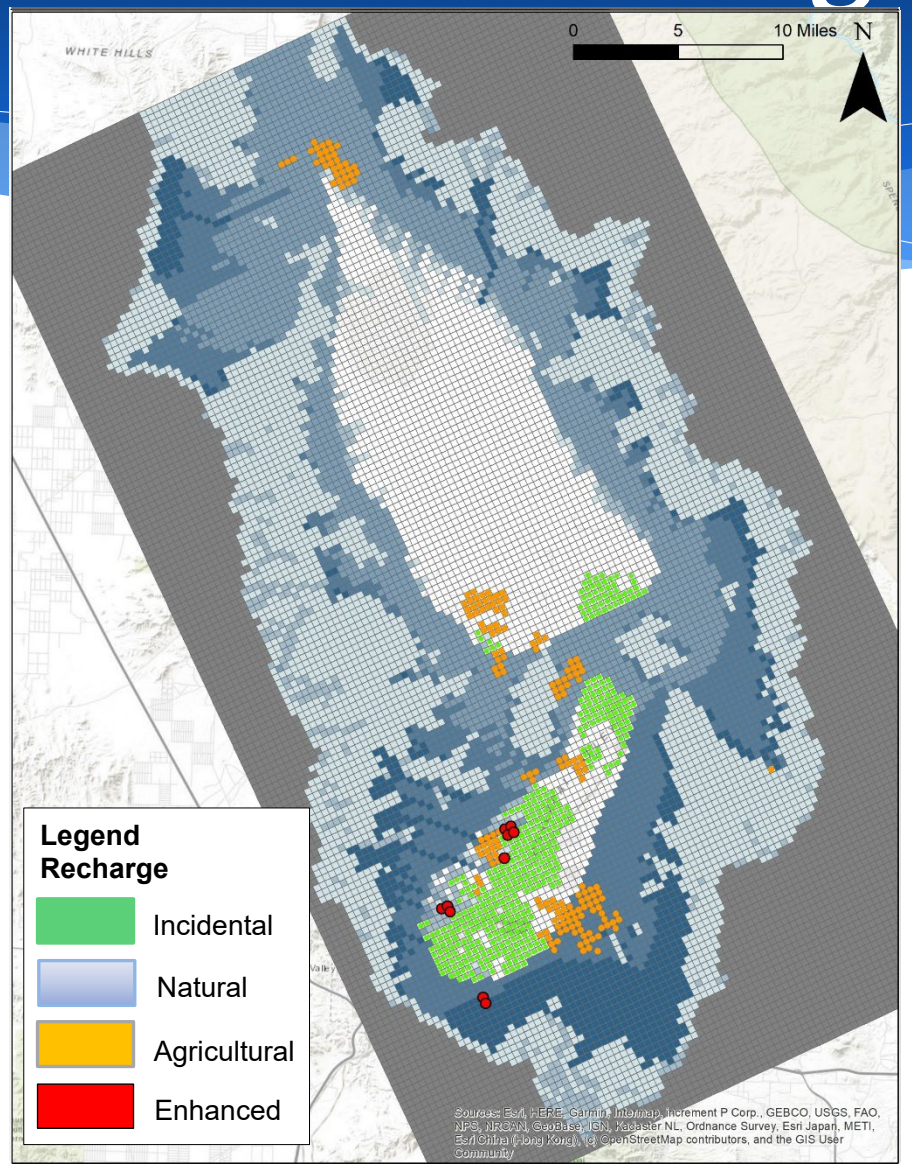
ADWR Current Conditions Modeling

Inflows add water to the model

Inflows

* Incidental Recharge – 3,000 AFY
  * Pipe Leakage
  * Septic Fields
* Natural Recharge – 4,200 AFY
  * Mountain Front
  * Truxton Wash
* Kingman Enhanced Recharge
  * Injection Well – 1,200 AFY
  * Infiltration Basins – 700 AFY
  * Other – 400 AFY

Inflows are roughly 10,000 AFY



Source: USGS, 2021; USGS, 2022; Mohave County, 2022

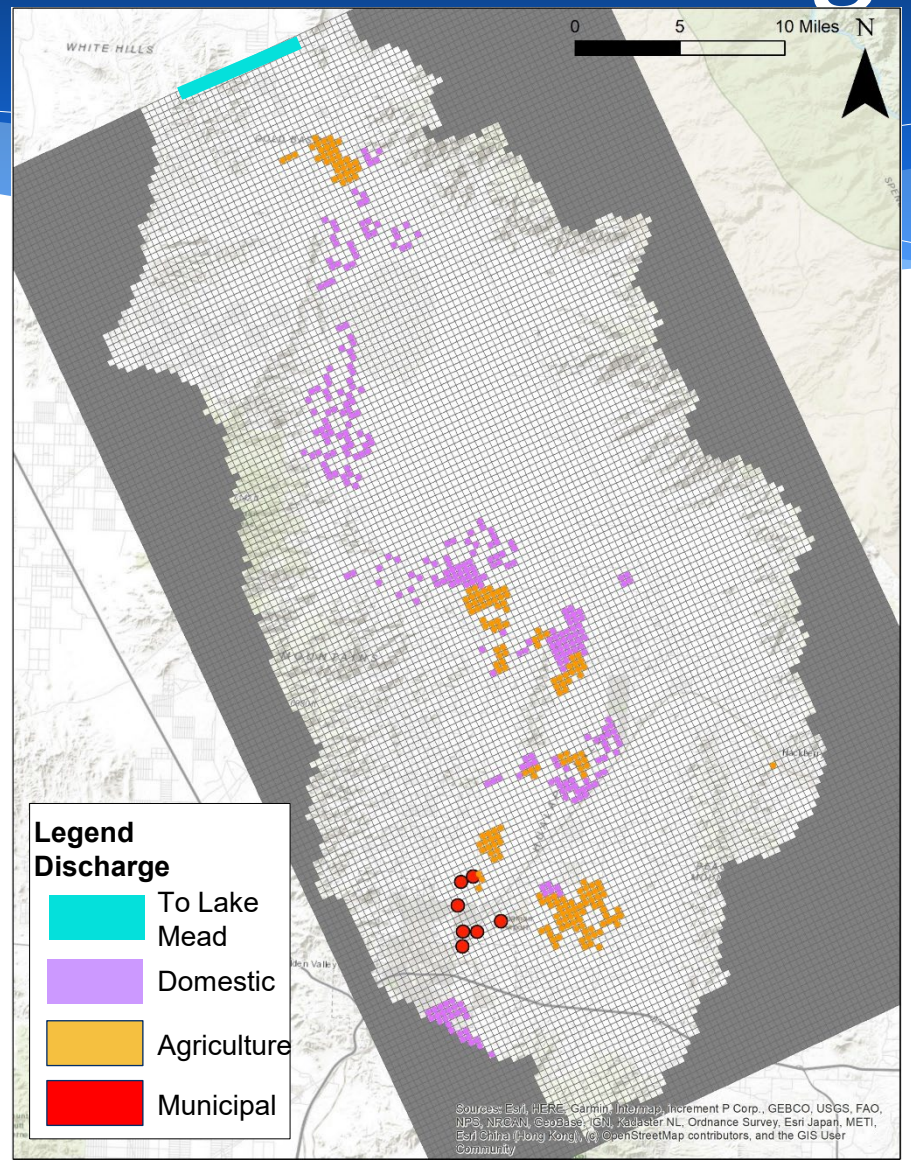
ADWR Current Conditions Modeling

Outflows remove water from the model

Outflows

* Domestic & Industrial – 5,400 AFY
* Natural Discharge – 4,300 AFY
  * to Lake Mead / Colorado River
* Municipal Pumping – 8,800 AFY
* Agricultural Pumping (net) – 25,800 AFY
  * "net" = total pumped – return flow

Outflows are 44,000 AFY



Source: USGS, 2024; USGS, 2022; Mohave County, 2022

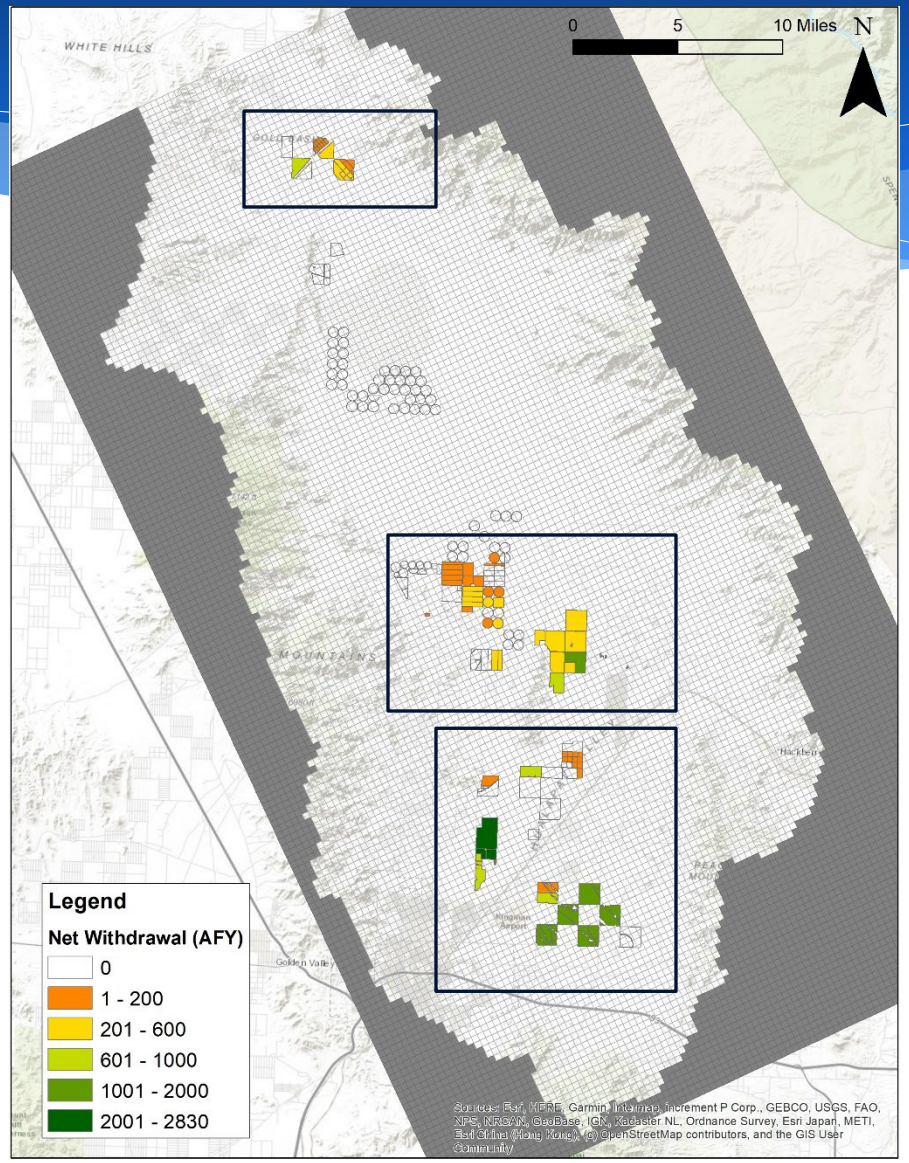
Location of Modeled Ag Withdrawals as of 2021

Withdrawal rates from 2021 were carried forward into the future – no assumed growth

* Northern section – 1,300 irrigated acres, drip & bubbler micro irrigation, 90% efficiency, orchards. 3,200 AFY (~2,000 gpm)

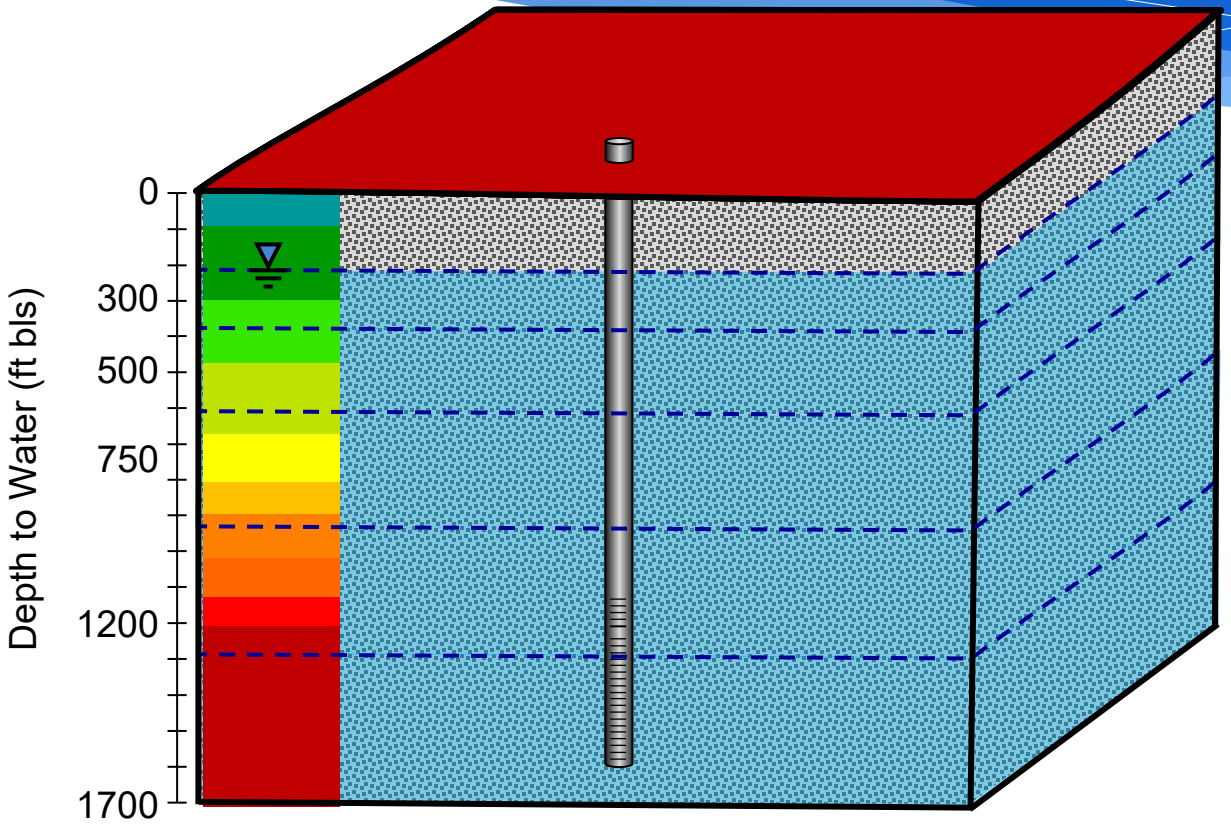
* Central section – 6,600 irrigated acres, overhead sprinklers and drip micro irrigation, 80-90% efficiency, mix of orchards, grass, and veggies. 8,900 AFY (~5,500 gpm)

* Southern section – 5,900 irrigated acres, drip micro irrigation, 90% efficiency, mix of orchards, vine, and veggies. 13,700 AFY (~8,500 gpm)



Source: USGS, 2022

Depth to Water (DTW) Below Land Surface (bls)



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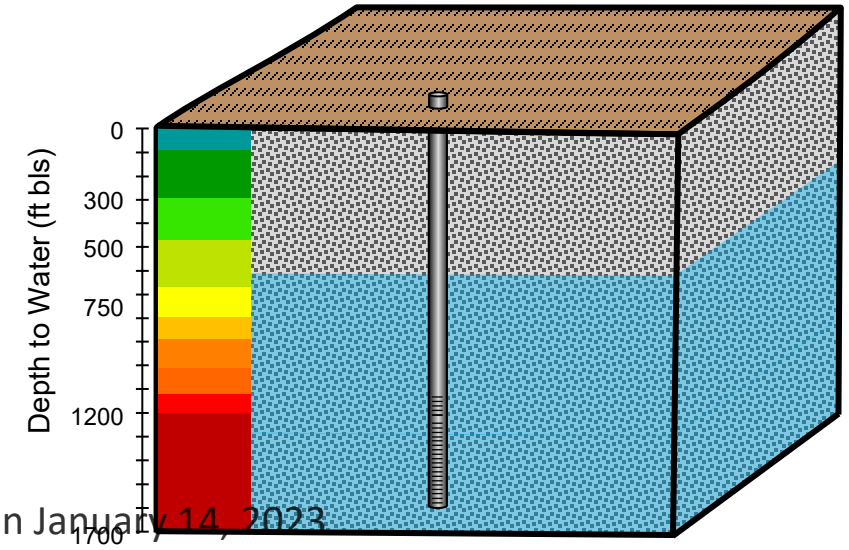
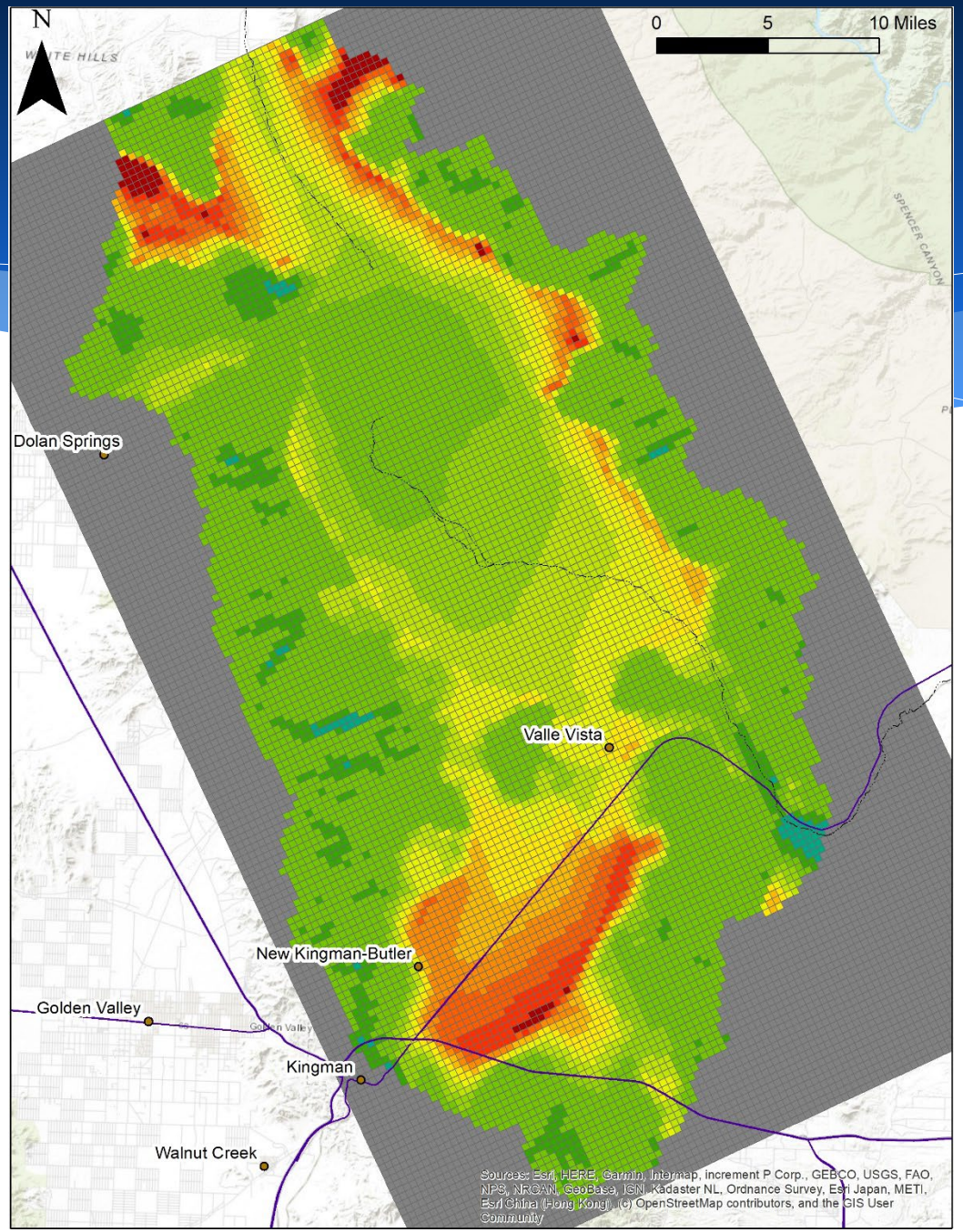
Depth To Water (ft bls)

* 2021 (present)
* 2071 (50 years)
* 2121 (100 years)

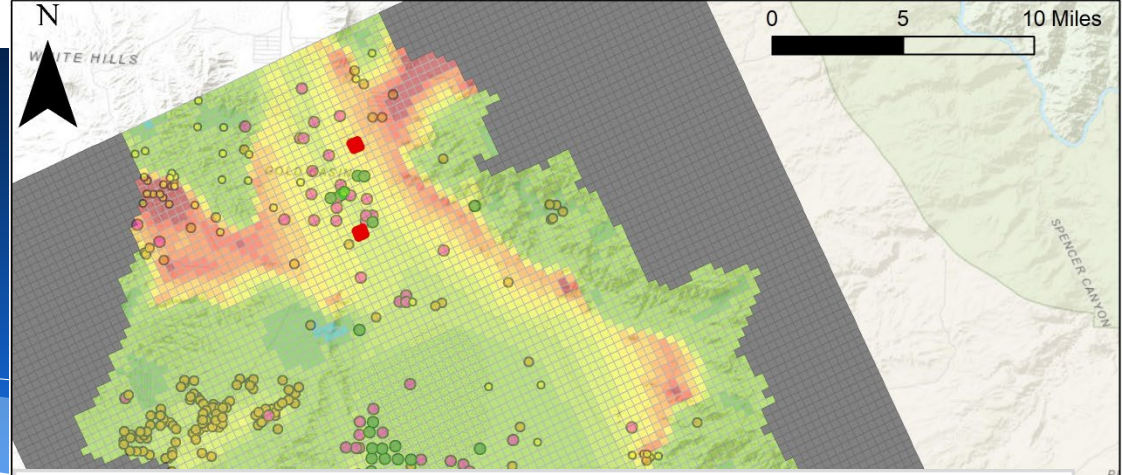


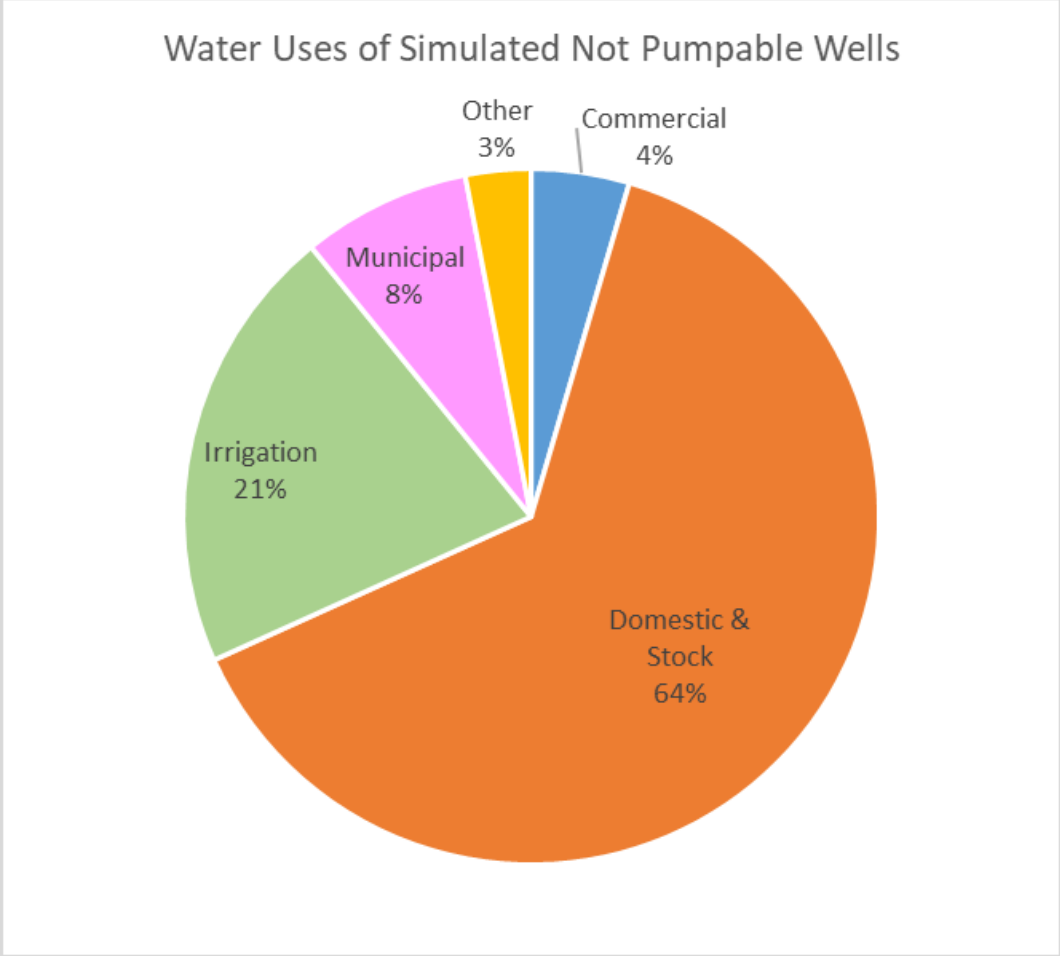


Registered Wells

How do existing well depths compare to modeled depth to water after 100 years?

- Starting with the existing, registered wells with a reported depth (>1500, exempt and non-exempt)
- Overlay the 100 yr modeled DTW
- Intersect reported well depth with modeled DTW
- Results:
  - 1 in 20 wells simulated to be not pumpable (assumes 100 ft of water column in well)
  - Pie chart shows reported water uses of wells simulated to be not pumpable after 100 years





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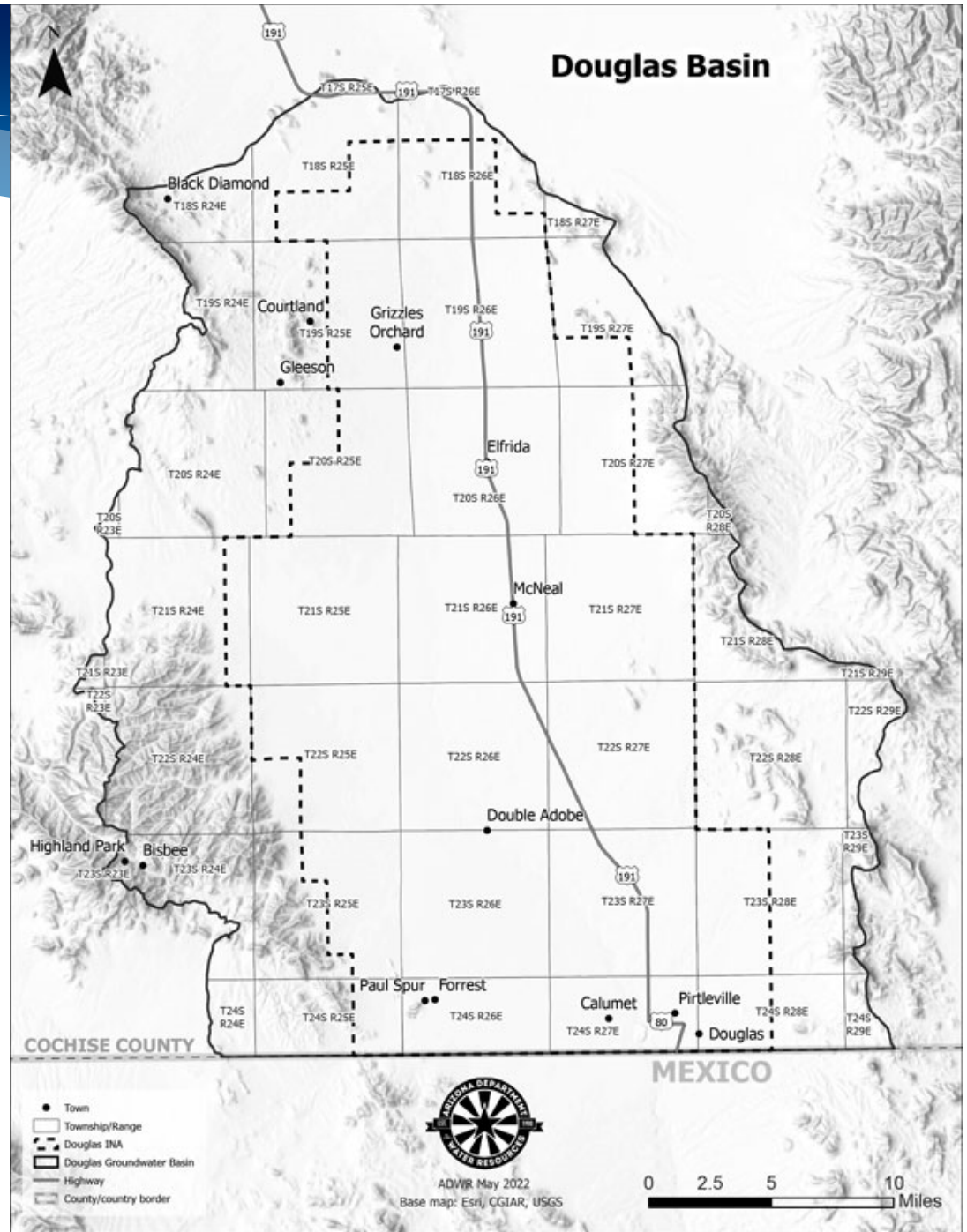
Douglas Basin Active Management Area

- On August 30, 2022, in response to a petition that was filed by residents pursuant to A.R.S. § 45-415, the Board of Supervisors of Cochise County called for an election, to be held on November 8, 2022, on whether to designate the Douglas Groundwater Basin as an active management area ("AMA").
- The Cochise County vote on the AMA was certified on December 1, 2022.
- ADWR held a public meeting on January 5, 2023 to receive comment on the Draft AMA Goal
- For more information visit: https://new.azwater.gov/ama/faqs-douglas-ama



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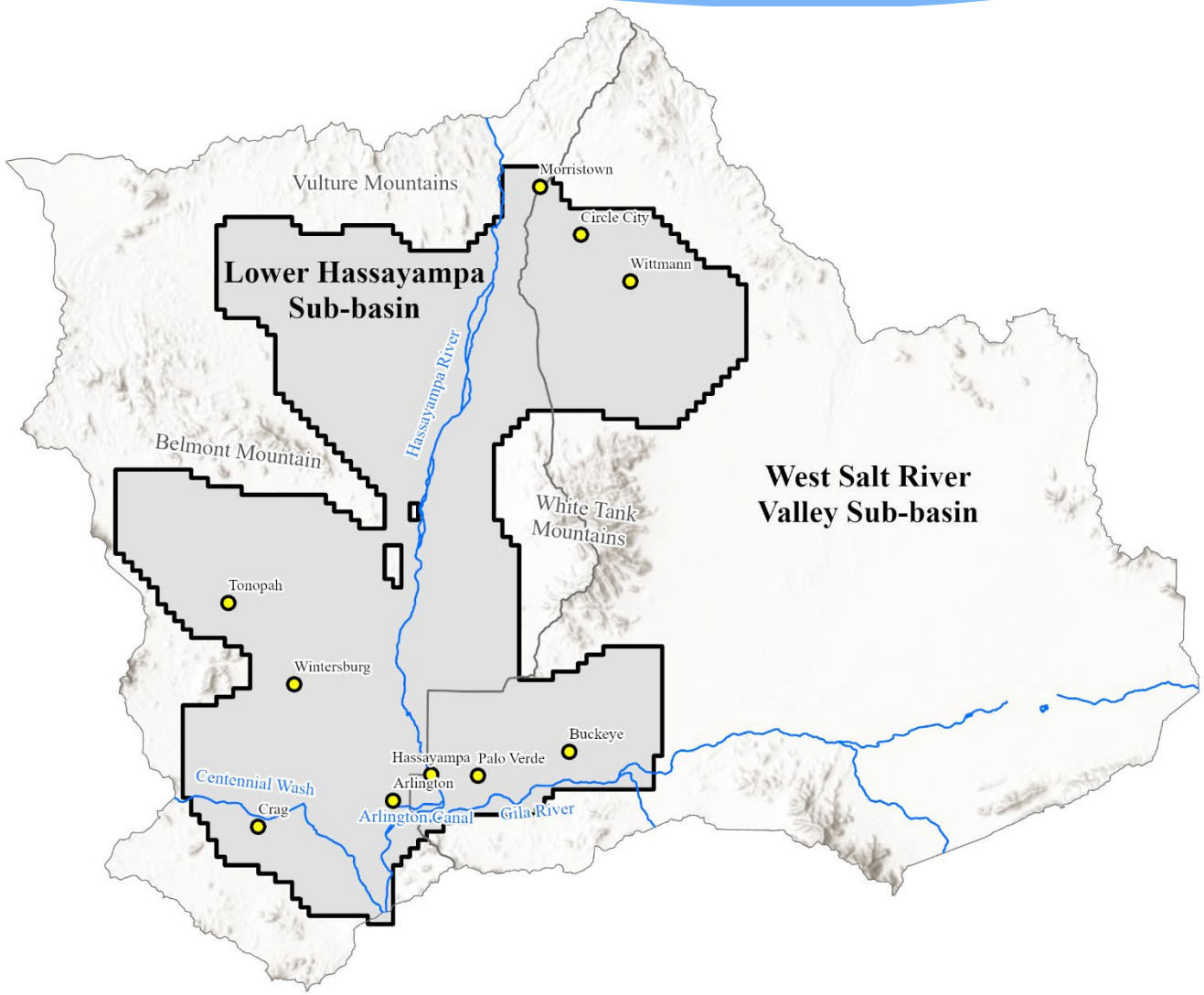
Information Available Online

- **Douglas AMA Webpage**
  - https://new.azwater.gov/ama/douglas-ama
  - Includes general information and links to application forms
- **Hydrologic Information**
  - Land Subsidence: https://new.azwater.gov/hydrology/e-library
  - Statewide Groundwater Level Changes: "ADWR Open-File Report Number 19" - https://new.azwater.gov/sites/default/files/WLCR2019_Final.pdf
  - Water Resource Characteristics: "Arizona Water Atlas Volume 3, Southeastern Arizona Planning Area" - https://prism.lib.asu.edu/items/49256
- **General Information about AMAs and existing AMA Management Plans**
  - https://new.azwater.gov/ama
  - https://new.azwater.gov/ama/management-plans

Lower Hassayampa Sub-basin Model Overview

- Alluvial aquifer in the Lower Hassayampa Sub-basin and small portion of West SRV Sub-basin
- Based on Brown & Caldwell 2006 model, which was done for the Town of Buckeye & stakeholders w/ input from ADWR
- Projection period includes standard AWS assumptions



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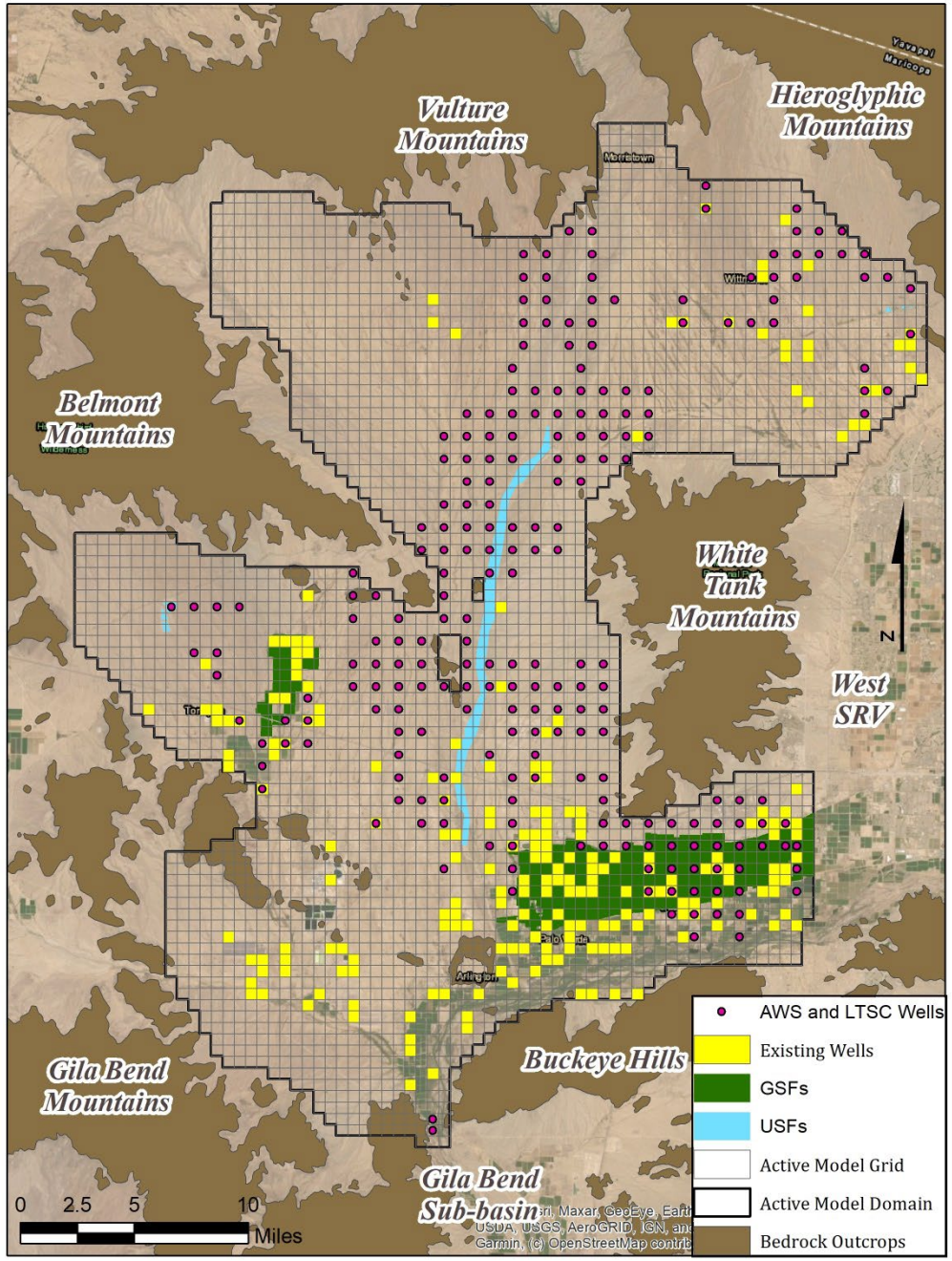
Projection Inputs

- How much pumping?
  - Existing demand ~ 123,000 AFY
  - Analyses ~ 100,000 AFY
  - Certificates ~ 50,000 AFY
  - LTSC ~ 9,500 AFY
- Total demand ~ 294,000 AFY
- Recharge ~ 100,000 AFY
- Future demand is based on:
  - ADWR data – approved Analyses and Certificates as of Nov. 2018
  - Repeating historical values for existing demand and recharge

(AFY = Acre-feet per Year)



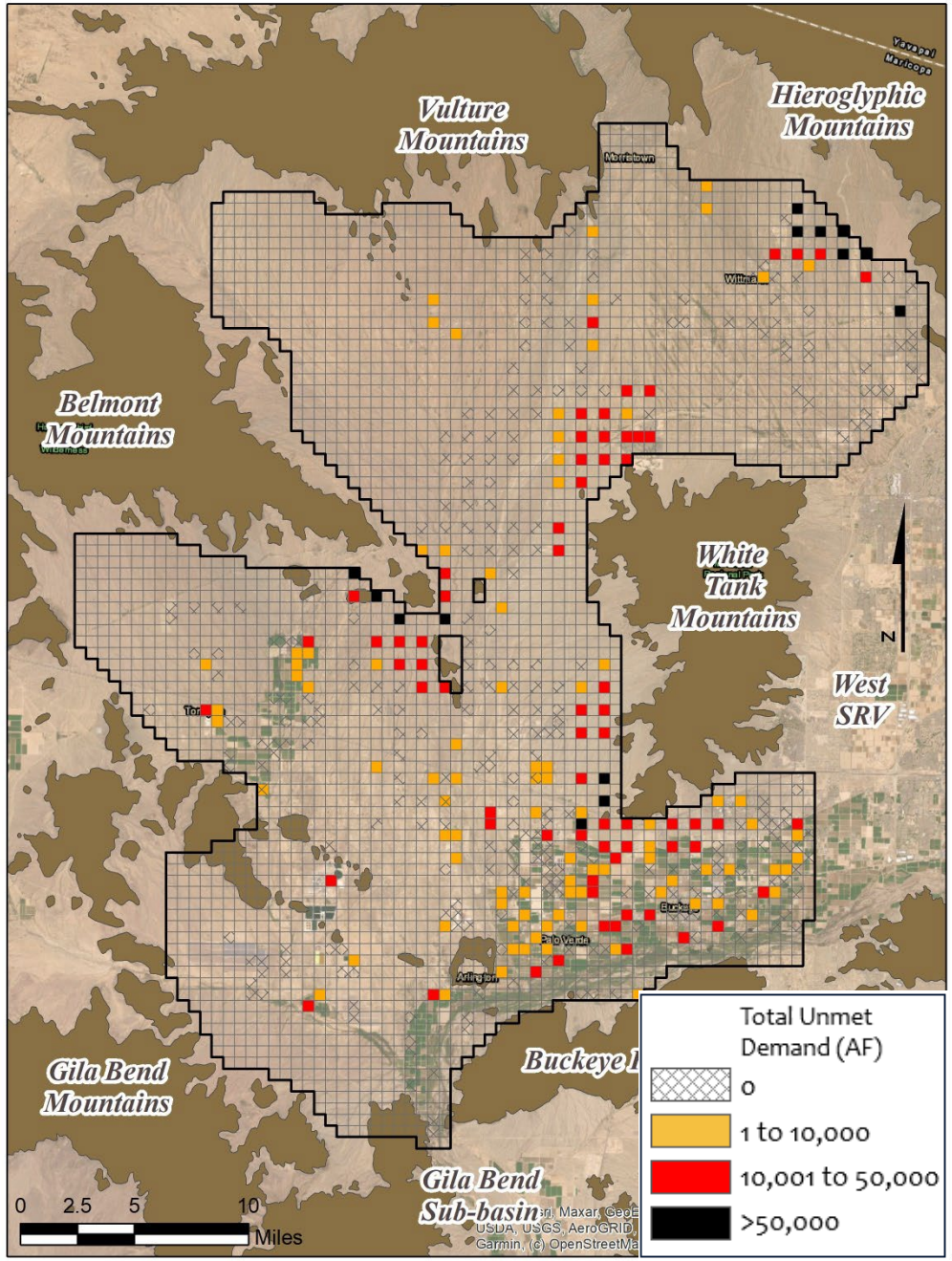
Presented on January 14, 2023

Projection Results

- Unmet demand after 100 years
  - Existing wells = 0.9 MAF
  - Analyses = 2.2 MAF
  - Certificates = 1.3 MAF
  - LTSC = 0.1 MAF

- Total unmet demand after 100 years
  - 4.4 MAF

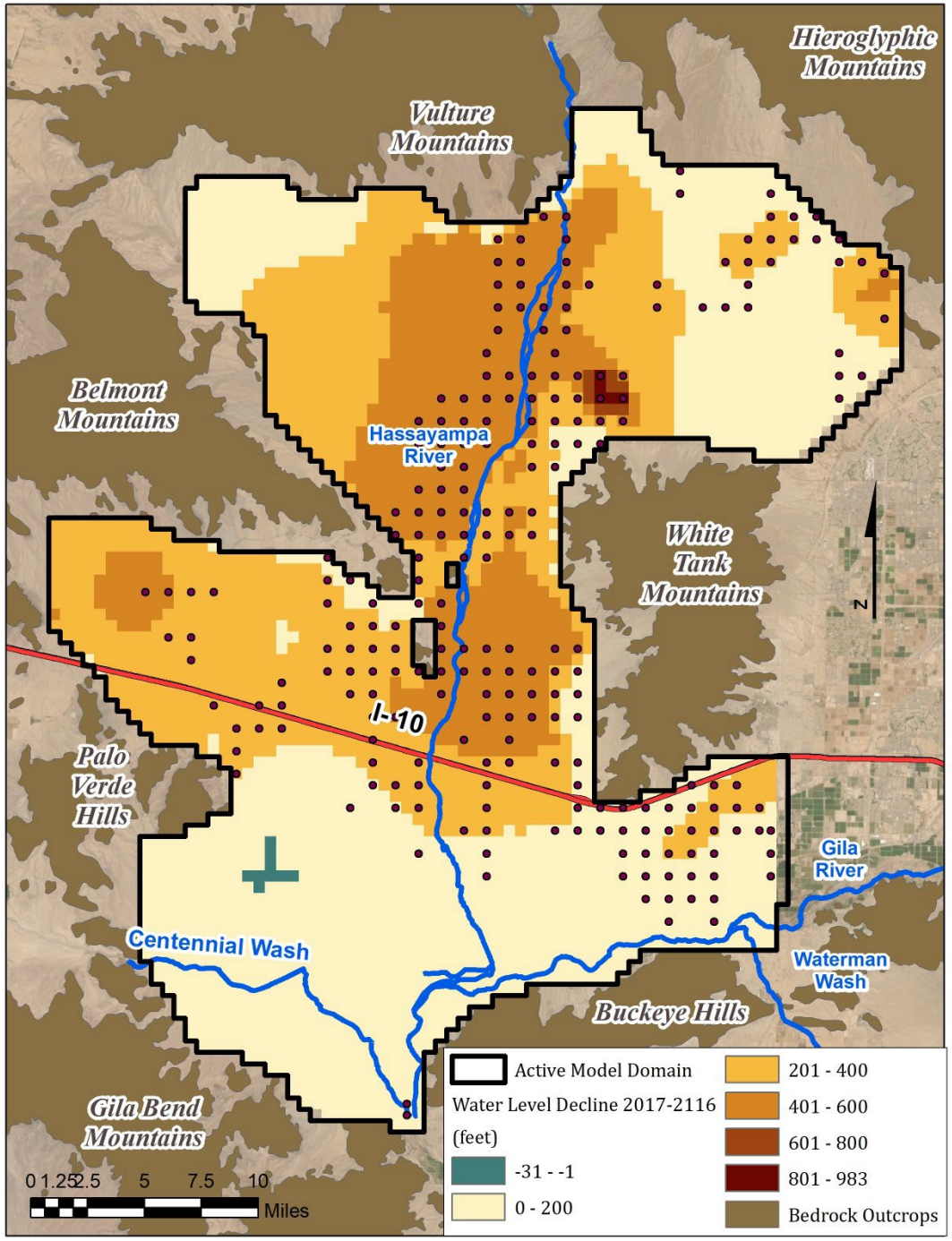
(MAF = Million Acre Feet)



Presented on January 14, 2023

100 Yr Water Level Decline

- After 100 years, water level declines range from 0 to 983 ft, with one area near Centennial Wash seeing a small increase (green cells)
- The area with the largest water level decline is also the area where depth-to-water exceeds 1,000 ft bgs
- The largest declines typically coincide with the areas of AWS demand



Presented on January 14, 2023

2023 Lower Hassayampa Sub-basin Groundwater Model

- The Hassayampa Groundwater Model is a numerical basin-scale groundwater model that projects water usage by existing and planned development in an area west of the White Tank mountains and northwest of Phoenix.
- The analysis finds a total unmet demand of 4.4 million acre-feet of groundwater over a 100-year period for the Hassayampa sub-basin.
- The Hassayampa sub-basin is located in the Phoenix AMA and is subject to Arizona's Assured Water Supply (AWS) program.
- The AWS program is a consumer protection program to ensure that at the time each new home is sold it has a 100-year renewable water supply.

Hassayampa Basin 100-Year Water Supply

ADWR Press Release:

"ADWR previously worked with stakeholders in the West Valley that are subject to the Assured Water Supply program to seek solutions to the shortfall projected in the Hassayampa model. As Governor Hobbs signaled in her State of the State speech, it is time to include legislators, the business community, and all constituencies to address the challenges attendant to the Assured Water Supply program in the Hassayampa Basin and for all the water management challenges facing Arizona."

Other renewable water sources will be needed if new housing projects are to move forward.

Goals of the Augmentation Bill, SB 1740
(an expanded WIFA)

- On July 6, 2022, Governor Ducey signed historic legislation to invest more than $1 billion over three years toward securing Arizona's water future.
- The bold plan will fund projects that will bring additional water to the state to help ensure that Arizona families, businesses and agriculture continue to have adequate long-term water supplies.

SB 1740 water infrastructure financing; supply; augmentation

- SB 1740 was one of the last acts signed into law during the 55th Legislative Session
- It includes funding to WIFA for $1.2 Billion
- WIFA will have new responsibilities to provide loans and grants to entities for the purposes of augmentation, conservation, efficiency and reuses of water resources
- These new duties to pursue augmentation and conservation projects include new WIFA board structure appointed jointly by the Legislature and the Governor.

SB 1740 WIFA; Supply; Augmentation

- Expands Water Infrastructure Finance Authority's (WIFA) mission to provide financial instruments, including loans, bonds, and grants for water conservation, reuse, and augmentation
- Requires a 5-year rolling supply & demand analysis by ADWR
- Provides for public & private partnerships

WATER INFRASTRUCTURE FINANCE AUTHORITY OF ARIZONA

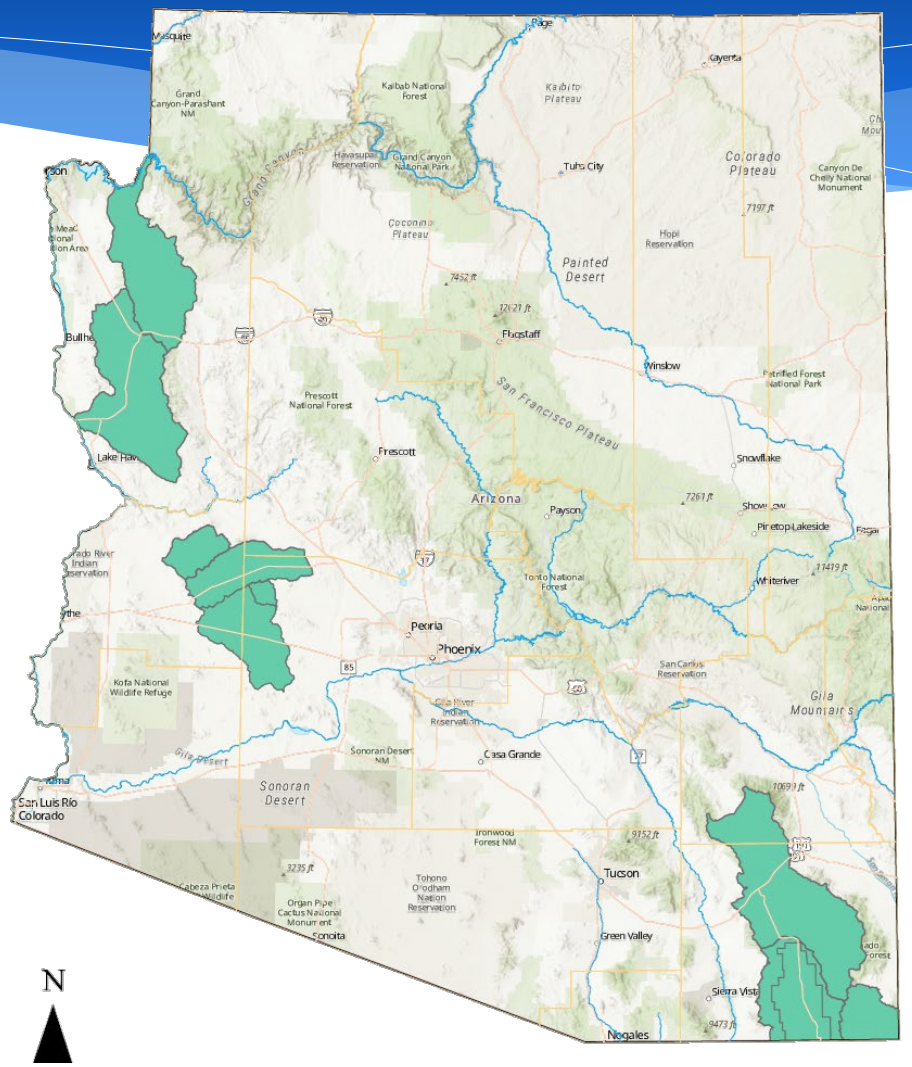
Supply & Demand Analysis

A.R.S. § 45-105(B)(14)

*"Not later than December 1, 2023 and on or before December 1 of each year thereafter, prepare and issue a water supply and demand assessment for at least six of the [**fifty-one**] groundwater basins established pursuant to section 45-403. The director shall ensure that a water supply and demand assessment is completed for all groundwater basins at least once every five years…"*

First Year (2023) Groundwater Basins Included in the Assessment

- Northwestern Arizona Basins
  1. Sacramento Valley Basin
  2. Hualapai Valley Basin
- West-Central Arizona Basins
  3. Harquahala INA
  4. McMullen Valley Basin
  5. Butler Valley Basin
  6. Tiger Wash Basin
- Southeastern Arizona Basins
  7. Douglas AMA
  8. Willcox Basin
  9. San Bernardino Valley Basin



Presented on January 14, 2023

Drillers License Application

- In order to qualify to submit a full-time drillers license application, **the driller must have 3 years of actual drilling experience.**
- Submit the application 20 days prior to taking the next exam.

Make Sure Your ROC License Covers the Category of Wells You Drill

Drillers: License Application

- AZROC: Arizona Registrar of Contractors:
- Arizona Registrar of Contractors: Category License is based on the type of wells being drilled
- Issue category license such as R-53, C-53, A-4, CR-53 which may require an exam. Please contact them regarding exams and study material.
- KA license covers everything on this list

*NOTE: Municipal Wells are no longer covered under C-53 or CR-53 licenses. Need an A-4, A, or an A-16 license

IN ACCORDANCE WITH A.R.S. § 45-596.C.11. TITLED "NOTICE OF INTENTION TO DRILL"

Proof that the director determines to be satisfactory that the person proposing to construct the well holds a valid license issued by the registrar of contractors pursuant to title 32, chapter 10[2] and that the license is of the type necessary to construct the well described in the notice of intention to drill. If the proposed well driller does not hold a valid license, the director may accept proof that the proposed well driller is exempt from licensing as prescribed by section 32-1121.

Added by Laws 1980, 4th S.S., Ch.1, § 86, eff. June 12, 1980. Amended by Laws 1985, Ch. 323, § 19, eff. May 10, 1985; Laws 1986, Ch. 289, § 17, eff. May 24, 1988; Laws 1990, Ch. 176, § 3; Laws 1991, Ch. 19, § 6; Laws 1992, Ch. 270, § 5; Laws 1992, Ch. 280, § 1; Laws 1993, Ch. 107, § 7; Laws 1994, Ch. 291, § 27; Laws 1994, Ch. 300, § 2; Laws 2000, Ch. 85, § 2, Laws 2002, Ch. 133, § 4; Laws 2003, Ch. 165, § 1; Laws 2005, Ch. 254, § 2; Laws 2006, Ch. 56, § 1; Laws 2007, Ch. 209, § 1; Laws 2010, 2nd Reg. Sess., Ch. 309, § 13. [2] Section 32-1101 et seq.

REGISTRAR OF CONTRACTOR (ROC) LICENSING REQUIREMENTS FOR RESIDENTIAL AND COMMERCIAL WELL DRILLING

R-53 • RESIDENTIAL WATER WELL DRILLING,
CR-53 • DUAL – WATER WELL DRILLING

COVERS ALL DOMESTIC/RESIDENTIAL WATER WELL DRILLING

A-4 GENERAL COMMERCIAL DRILLING
"A" GENERAL ENGINEERING

COVERS ALL COMMERCIAL DRILLING

- Cathodic Protection (CPS)
- Dewatering Wells
- Geotechnical
- Grounding
- Groundwater Monitor Wells
- Groundwater Piezometer Wells
- Ground Source Heat Pump
- Industrial Supply Wells
- Injection Wells
- Irrigation Supply Wells
- Mineral Exploration *
  * including use of Core Rigs
- Municipal Supply Wells
- Recovery Wells
- Stock Supply Wells
- Vadose Zone
- Vapor Extraction

A-16 WATERWORKS
COVERS THE FOLLOWING ENVIRONMENTAL AND COMMERCIAL WATER WELL DRILLING

- Dewatering Wells
- Groundwater Monitor Wells
- Groundwater Piezometer Wells
- Industrial Supply Wells
- Irrigation Supply Wells
- Municipal Supply Wells
- Stock Supply Wells

C-53 • COMMERCIAL WATER WELL DRILLING
CR-53 • DUAL - WATER WELL DRILLING
COVERS THE FOLLOWING COMMERCIAL WATER WELL DRILLING

- Industrial Supply Wells
- Irrigation Supply Wells
- Stock Supply Wells

Wells Virtual Outreach Seminar

The Arizona Department has been hosting Virtual Seminars every other month.

- The Outreach Seminar is intended to assist well-drilling companies with how to file **"Notice of Intention Applications" (NOIs), " Most Common Mistakes on NOIs," " ROC License Requirements," and " How to research for wells on the Department's website."**
- The Outreach Seminar is to help Well Drillers better understand the NOI process and allow Well Driller and their staff an opportunity to ask questions directly to staff in the Groundwater Permitting and Wells Section related to NOI applications, Timeframes, and how to use the Department's website.
- The next virtual meeting will be held on **January 17, 2023, @ 10:00**. An email sent to all Active Arizona Well Drillers.

Questions?

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