

Welcome

- Please keep your phone muted during the meeting.
- Type your question/comment in the chat box and it will be read and addressed at the end of each presentation.
- During the Call to public people will have the option to speak to the Council.
- With any technical difficulties please contact ADWR Help Desk at 602-771-8444 or tickets@azwater.gov



Santa Cruz AMA GUAC

January 10th, 2024



Meeting Agenda

1. Call to Order - *Chair*

2. Webinar Logistics – *Nick Mason, ADWR*

3. Water Management Assistance Program Updates

Review money collected in past five years, current projects, and remaining balance – *Melissa Sikes, ADWR*

The Council will hear the status of the WMAP fund and current projects.

4. Supply and Demand Assessment Results – *Collin Wogenstahl, AWDR*

Colin will present the 2023 Supply and Demand assessment results

5. Drought Status Update – *Laney Meeker, ADWR*

Laney will provide an annual drought status update

6. AMA Director Report – *Natalie Mast, ADWR*

Natalie will provide an update on ADWR activities, including staffing, water supply & demand analyses, and the Governor's Water Policy Council

7. Call to Council – *Council*

8. Call to Public - *Chair*

9. Adjournment - *Chair*

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Groundwater Withdrawal Information

Current Balance: \$406,301

Encumbered/committed: \$11,938

Remaining Balance: \$394,363

Year		2019	2020	2021	2022	2023	2024	2025
WMAP	Fee	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00	Max \$2.00
	Collected	\$25,669	\$28,457	\$29,756	\$28,934	N/A	N/A	
Admin & Enforcement	Fee	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	Min. \$0.50 Max. \$1.00
	Collected	\$12,843	\$14,228	\$14,878	\$14,467	N/A	N/A	
Total	Fee	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	TBD
	Collected*	\$40,570	\$45,782	\$49,191	\$48,563	N/A	N/A	

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Water Management Assistance Program Fund

Water Conservation Education and Technology

The City of Nogales has installed 5,000 WaterSmart meters over the past four years. These customers are now receiving accurate water bills, which lead to continuous customer inquiries pertaining to their water bills and water usage. The City is proposing a two-fold water conservation education and technology project to educate customers on water conservation and reduce water use.

CONTRACT NUMBER	WMAF FUNDS	TOTAL FUNDING	REMAINING FUNDING	CONTRACT ENDS
2020-3130 IGA	-	\$56,647	\$29,647	12/31/2023

Water Management Assistance Program Fund

Groundwater Recharge on Working Lands by Local Youth to Enhance Ecosystem Services

Stabilize the riparian headwater and return native vegetation to main drainage areas of the watershed in order to increase flows, recharge groundwater, stabilize soils, restore riparian habitats and enhance ecosystem services.

CONTRACT NUMBER	WMAP FUNDS	TOTAL FUNDING	REMAINING FUNDING	CONTRACT ENDS
2020-3131	\$11,938	\$105,291	\$36,852	3/29/2026

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2023 Supply and Demand Assessment Results



Supply and Demand Focus

The reports will attempt provide answers the following questions:

- What is the volume of water demand each year?
- What is the volume of each water supply annually available to meet these demands?
- Is there enough available supply to balance demand each year?

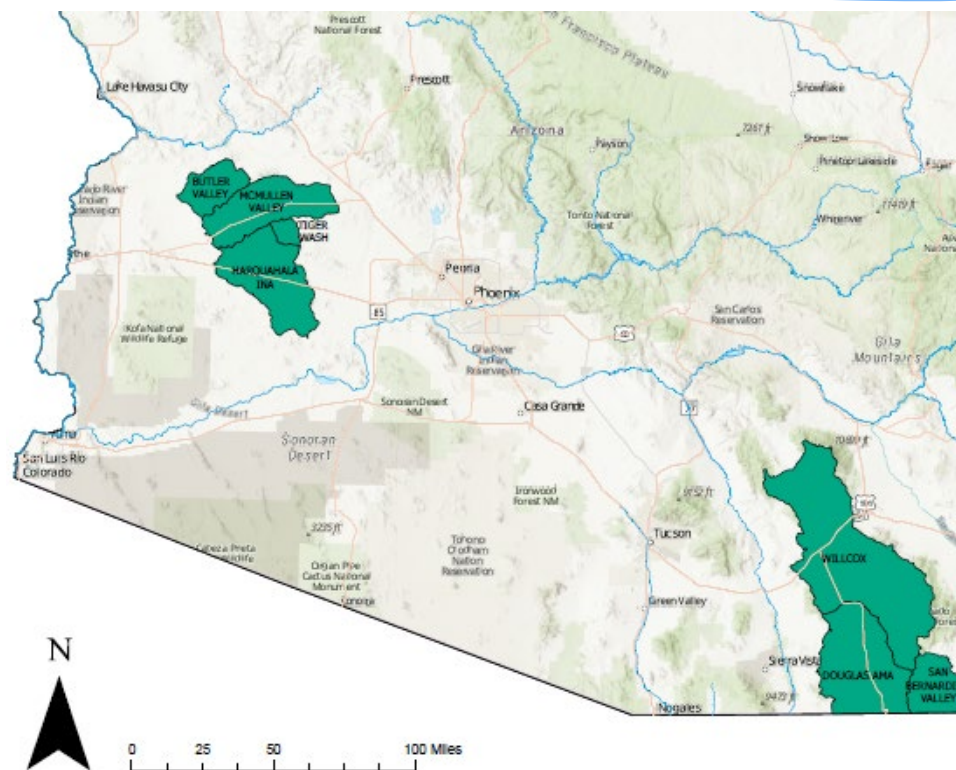
2023 Groundwater Basins

* West-Central Arizona Basins

1. Harquahala INA
2. McMullen Valley Basin
3. Butler Valley Basin
4. Tiger Wash Basin

* Southeastern Arizona Basins

5. Douglas AMA
6. Willcox Basin
7. San Bernardino Valley Basin



Supply and Demand Sectors

- * **Agricultural**

- * **Industrial**

- * Turf
- * Dairy
- * Feedlots
- * Grazing
- * Mining
- * Power
- * Sand and Gravel
- * Other

- * **Municipal**

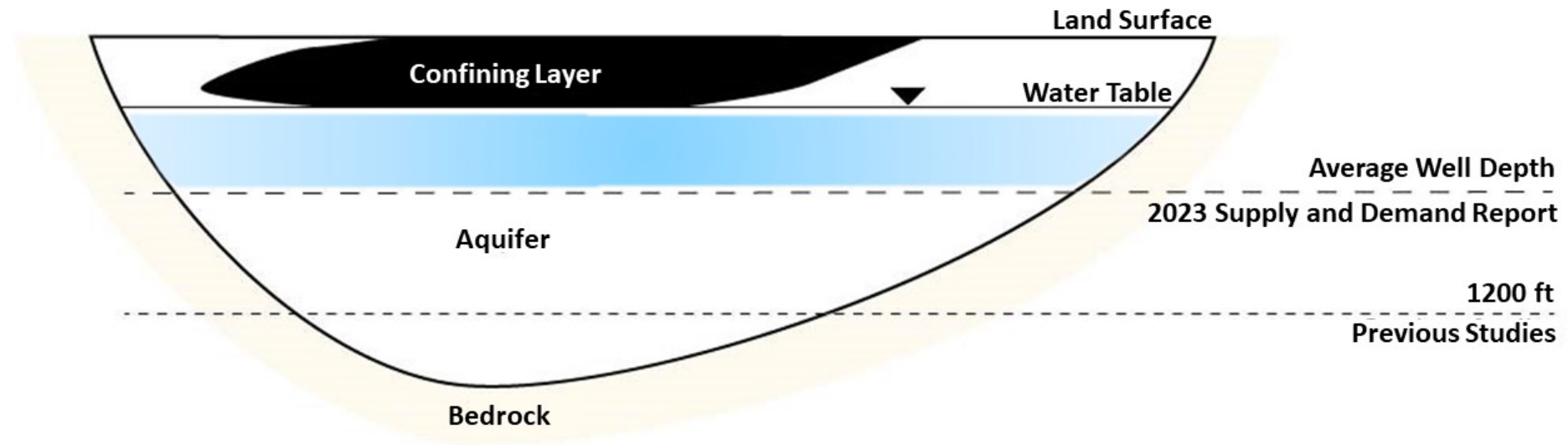
- * Residential Provider
- * Residential Non-Provider
- * Non-Residential
- * Lost & Unaccounted

- * **Supply**

- * Groundwater
- * Surface Water
- * Colorado River
- * Effluent



2023 SDR Volumes of Water Available in Storage



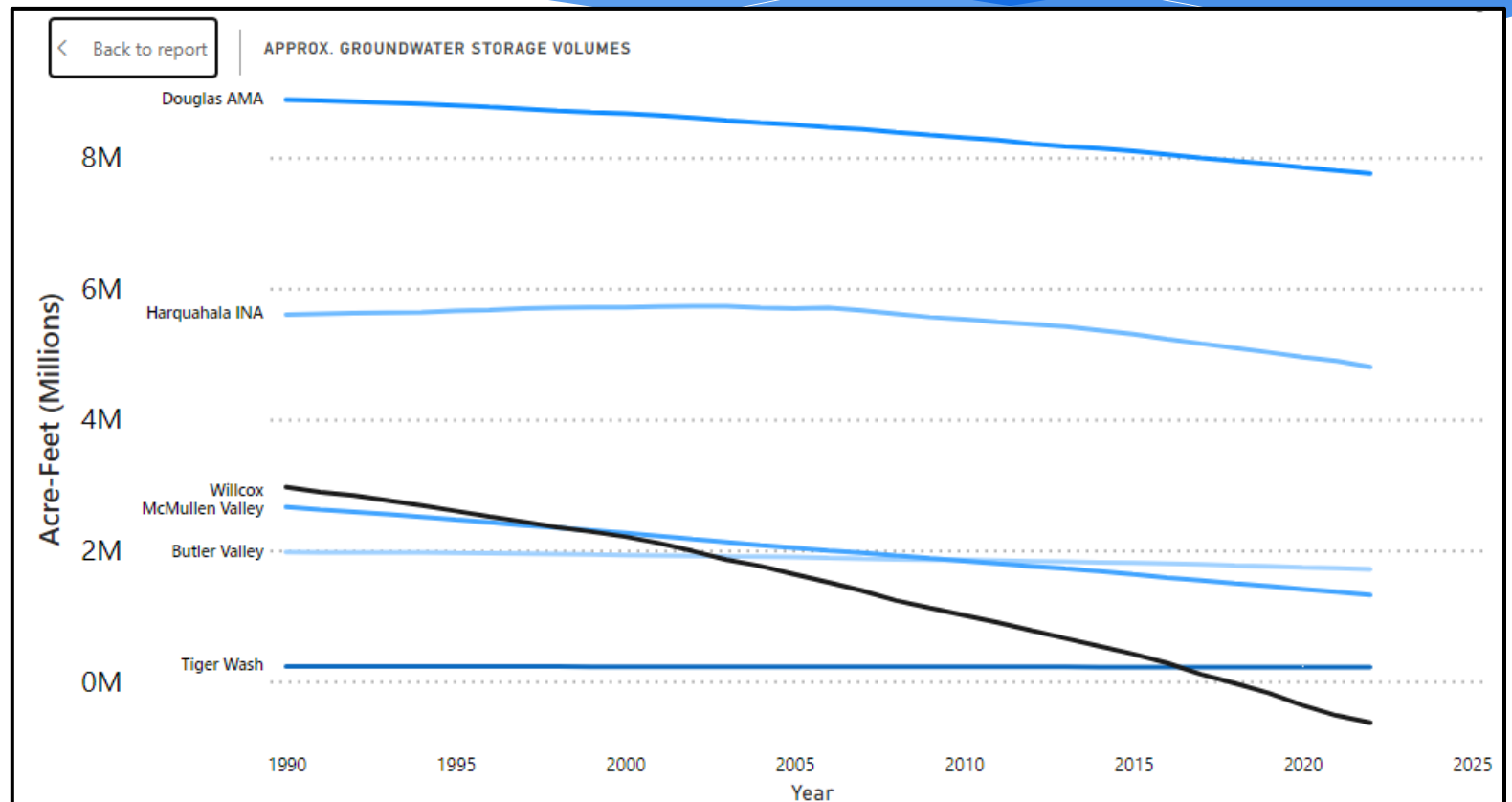
Projection Scenario Descriptions

1. **Status quo:** baseline volumes were carried forward through the projection period
2. **Growth:** volumes were assumed to increase within specific parameters through the projection period
3. **Conservation:** volumes were assumed to be influenced by specific conservation practices through the projection period
4. **Technology:** volumes were assumed to be influenced by technological advancements through the projection period
5. **Climate:** volumes were adjusted using a one-degree Fahrenheit temperature increase in the mean annual temperature for the projection period, following a lower emissions pathway for Arizona

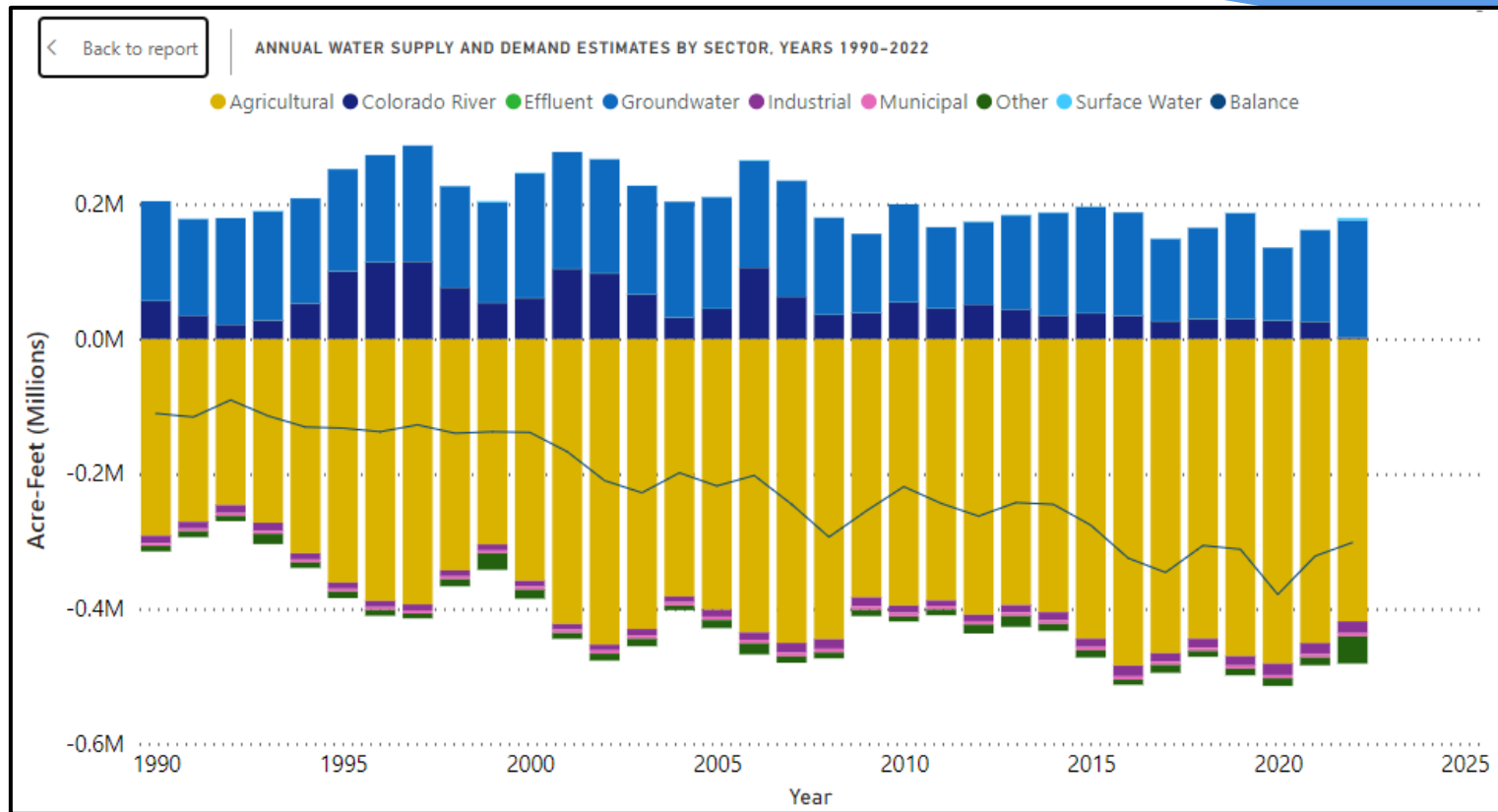
2023 Results

Approximate Groundwater Storage Volumes (1990 – Present)

- Declines in groundwater storage overtime are shown here
- The most significant decline was in the Willcox Basin
- Butler, Douglas AMA, Harquahala INA, McMullen Valley, and Willcox basins are expected to have insufficient annual supply to meet yearly demand



Annual Water Supply and Demand by Sector (1990 – Present)



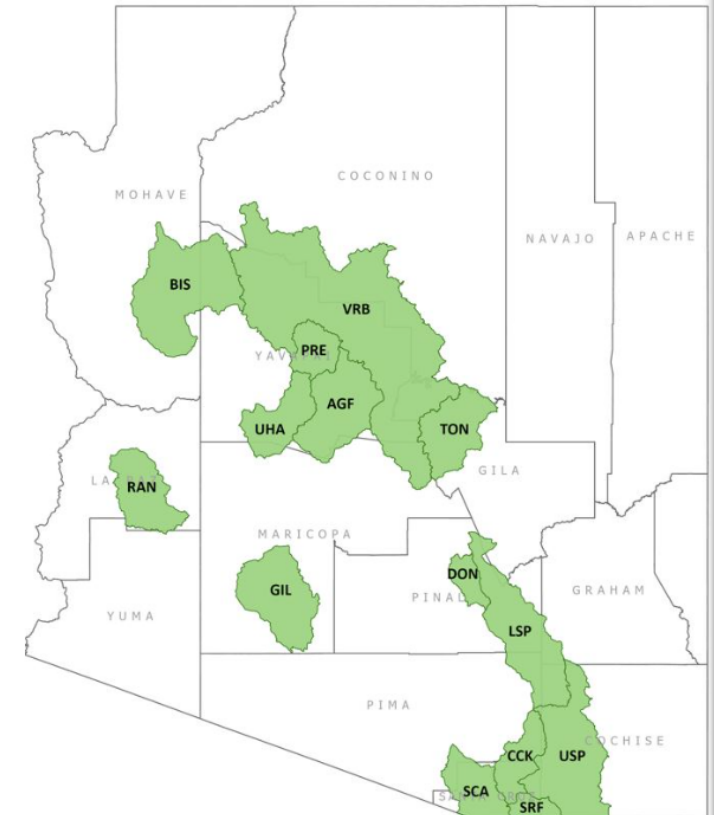
- More water is leaving than is being replenished in many of the basins
- Water demands of agriculture account for 87 – 99% of demand in each of the basins

2024 Basin Selection

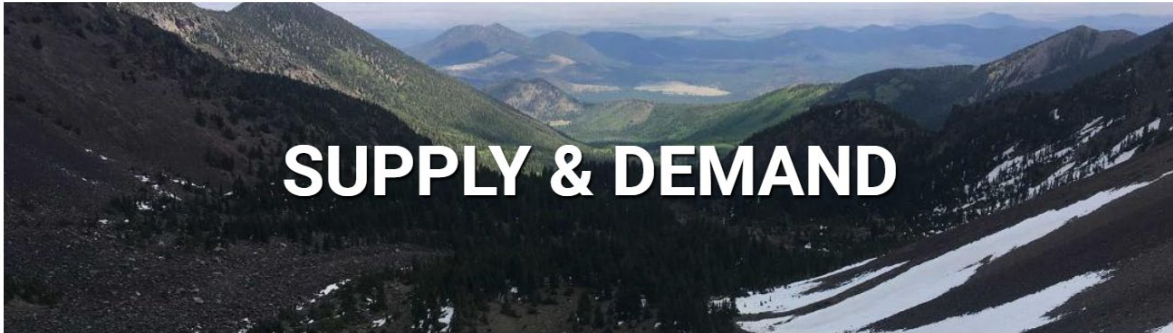
- Total number of Basins: **51**
- After the inaugural round of the reports, there are **44** remaining basins to complete by the end of 2027.
- An average of **11** basins assessed annually for the next four years, from 2024-2027.

2024 Basins

Agua Fria (AGF)
Big Sandy (BIS)
Cienega Creek (CCK)
Donnelly Wash (DON)
Gila Bend (GIL)
Lower San Pedro (LSP)
Prescott AMA (PRE)
Ranegras Plain (RAN)
Santa Cruz AMA (SCA)
San Rafael (SRF)
Tonto Creek (TON)
Upper Hassayampa (UHA)
Upper San Pedro (USP)
Verde River (VRB)



Supply & Demand Website



Overview

ADWR Data Disclaimer

Pursuant to A.R.S. 45-105(B)(14) ADWR is required to conduct a water supply and demand assessment of each groundwater basin in the state at least once every five years, with at least six assessments issued by December 1 of each calendar year. The purpose of these studies is not regulatory, but to improve our understanding of the current and future water conditions and to assist in future planning throughout the state. This information may also inform the distribution of water conservation grant funds.

The SDRs are structured as water budgets, focusing on total inflows and outflows at the basin scale. The SDRs are not groundwater flow models with finer geographic results, which are conducted by ADWR's Hydrology Division. To create the SDRs ADWR made reasonable efforts to obtain local or specific estimates, but in cases where water data was unavailable staff applied literature values or other types of averages and assumptions to create water use estimates.

- Hydrology
- Permitting and Wells
- AMAs
- Surface Water
- Drought
- Statewide Planning

Dashboard

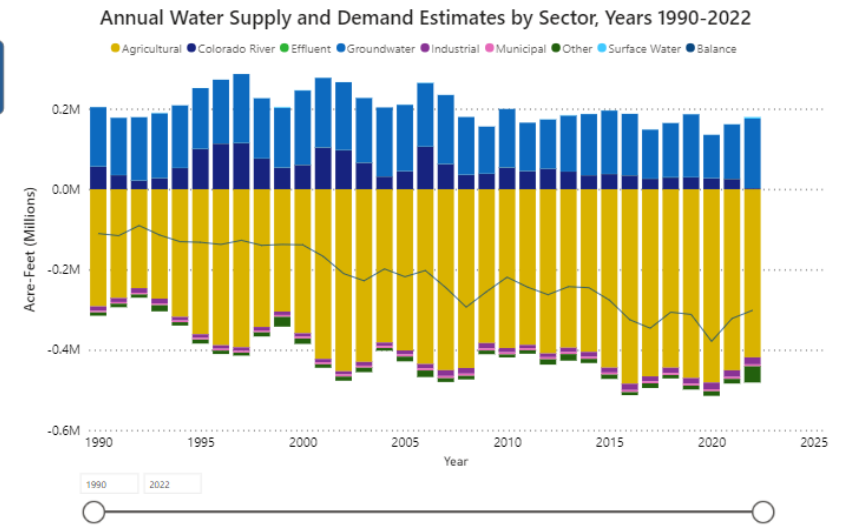


2023 Supply and Demand Report Results

Butler Valley, Douglas AMA, Harquahala INA, McMullen Valley, San Bernardino Valley, Tiger Wash, and Willcox



Filter by Groundwater Basin
All



Microsoft Power BI

< 1 of 8 >

<https://www.azwater.gov/supply-demand>

Questions?



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ADWR Drought Program & Drought Status Update

Santa Cruz AMA GUAC
January 10, 2024

Laney Meeker
Statewide Planning Section Programs Supervisor





ADWR Drought Program

- * 2003 Governor's Drought Taskforce
 - * Set framework for current ADWR Drought program
- * 2004 Drought Preparedness Operational Plan
 - * Set framework for drought preparedness in the state and drought working committees

Drought Coordinating Group Interagency

- * The Interagency Coordinating Group (ICG) is an advisory body to the governor on Arizona drought issues. Comprised of state, federal and non-governmental organizations, this group meets twice a year to evaluate drought conditions and consider recommendations to the governor.
- * Arizona has had a Drought Emergency Declaration ([PCA 99006](#)) in effect since June 1999 and a Drought Declaration ([Executive Order 2007-10](#)) has been in effect since May 2007.
- * The Drought Interagency Coordinating Group unanimously recommended that both drought declarations be kept in place.
- * The meeting agenda, summary, and presentations are posted on the [ADWR ICG webpage](#).
- * Next Meeting: May 2024, exact date TBD

Executive Order 2007-10 Drought Declaration For The State of Arizona

WHEREAS, Arizona is entering its second decade of a statewide drought due to long-term precipitation deficits and increased demand for water; and

WHEREAS, on June 23, 1999, Governor Hull declared a drought emergency (PCA 99006), which remains in effect today; and

WHEREAS, drought conditions continue to stress Arizona's resources and have had significant impacts on the citizens and commerce of the state, including increases in wild land fires, water supply shortages, vegetation and wildlife mortality, and economic losses in the ranching, agriculture and tourism sectors; and

WHEREAS, climate research has shown that although droughts lasting multiple decades are common in Arizona, they may be intensified by the effects of global climate change;

NOW, THEREFORE I, Governor Janet Napolitano, Governor of the State of Arizona, by virtue of the authority vested in me by the Constitution and laws of the state, do hereby determine that a continued declaration of drought is justified, and I hereby:

- Order continued implementation of the *Arizona Drought Preparedness Plan* and *State of Arizona Emergency Response and Recovery Plan*;
- Order the continued invocation of A.R.S. § 26-309 to provide mutual aid assistance to stricken areas of the state;
- Request assistance from the federal government for the appropriate federal disaster programs;
- Order state agencies to implement their water use reduction plans and assist in drought planning efforts across the state;
- Urge water facilities to develop and implement more aggressive drought and conservation plans and monitor water use; and
- Call upon citizens, businesses, schools, institutions of higher learning, local governments and federal agencies to increase water conservation efforts.

THIS ORDER supplements the directives in PCA 99006, which remains in effect. This Executive Order shall take effect immediately and shall remain in effect until such time as the Governor rescinds it.

Executive Order 2007-10
Page Two

IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of Arizona.


GOVERNOR

DONE at the Capitol in Phoenix on this 24th day of May in the Year Two Thousand and Seven and of the Independence of the United States of America the Two Hundred and Thirty-First.

ATTEST:


SECRETARY OF STATE



Drought Monitoring Technical Committee

- * December 2023 Short-term Drought Status Discussion
- * October-December 2023 Long-term Drought Status Discussion - Erinanne Saffell
- State Climatologist
- * Objective Weather and Climate Data - Mark O'Malley - National Weather Service
- * Agency Updates: SRP, ADWR Colorado River, ADWR Drought Index Wells...
- * Pima County Ecology Research - Ian Murray, Pima County
- * Next Meeting - April 2024, exact date TBD

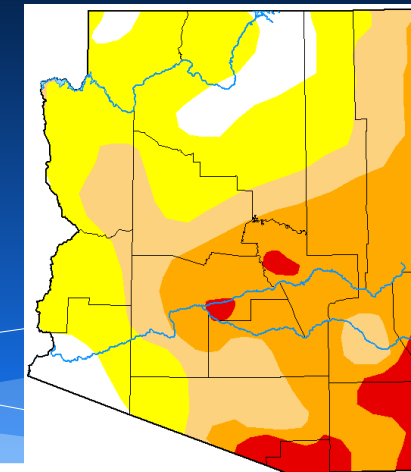


Local Drought Impact Groups (LDIGs)

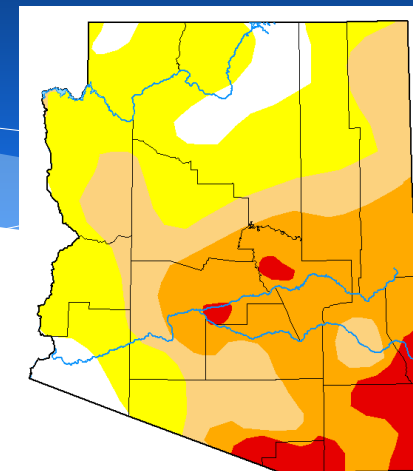
County-level groups that:

- * Coordinate drought public awareness
- * Provide impact assessment information to local and state leaders
- * Implement and initiate local mitigation and response options
- * Coordinated locally
 - * Currently only Pima LDIG

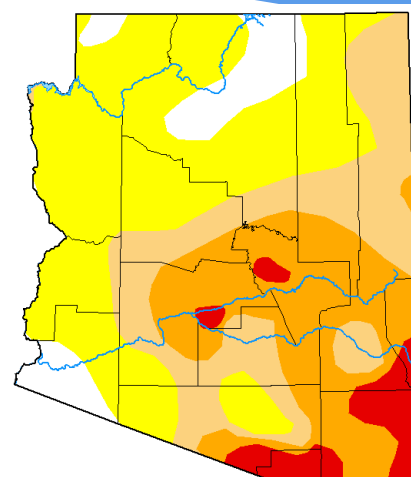
Monthly Short-Term Drought Status Maps Past 5 Months



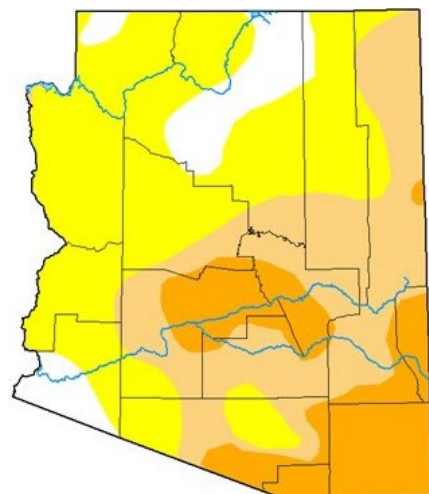
November 2023



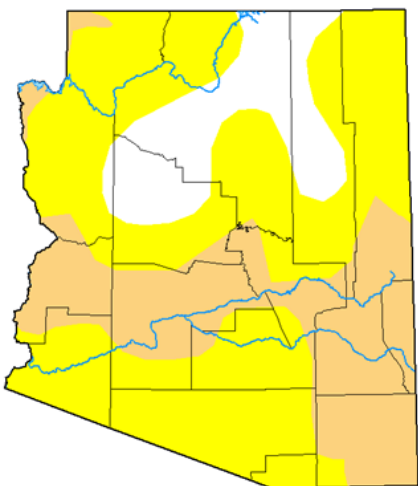
October 2023



September 2023



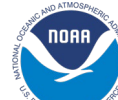
August 2023



July 2023

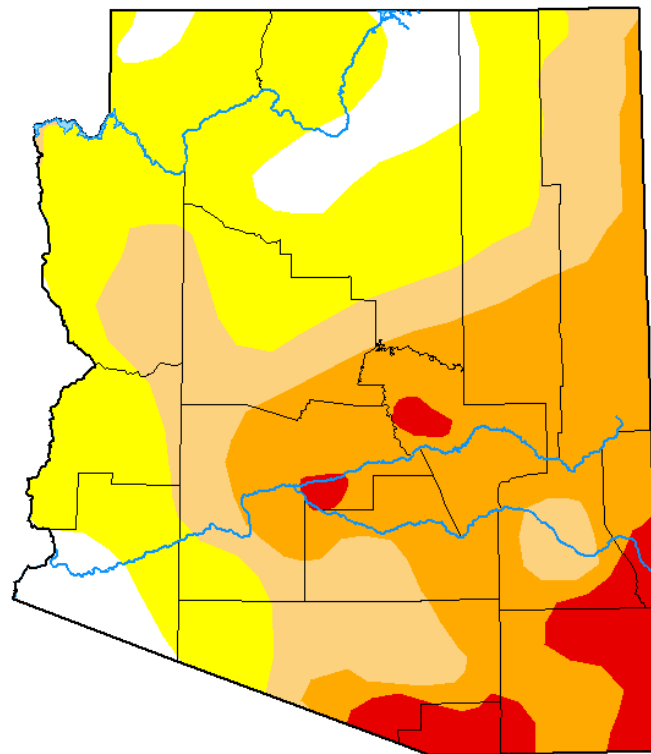
Drought Conditions

- None
- D0 - Abnormally Dry
- D1 - Moderate Drought
- D2 - Severe Drought
- D3 - Extreme Drought
- D4 - Exceptional Drought



Monthly Short-Term Drought Status November 2023

U.S. Drought Monitor Arizona



December 5, 2023

(Released Thursday, Dec. 7, 2023)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	8.18	91.82	57.19	34.97	6.09	0.00
Last Week 11-28-2023	8.18	91.82	57.19	34.97	6.09	0.00
3 Months Ago 09-05-2023	9.08	90.92	47.06	18.18	0.00	0.00
Start of Calendar Year 01-02-2023	12.40	87.60	38.94	7.85	0.00	0.00
Start of Water Year 09-26-2023	8.12	91.88	47.06	22.74	5.34	0.00
One Year Ago 12-06-2022	9.56	90.44	43.45	10.56	0.00	0.00

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

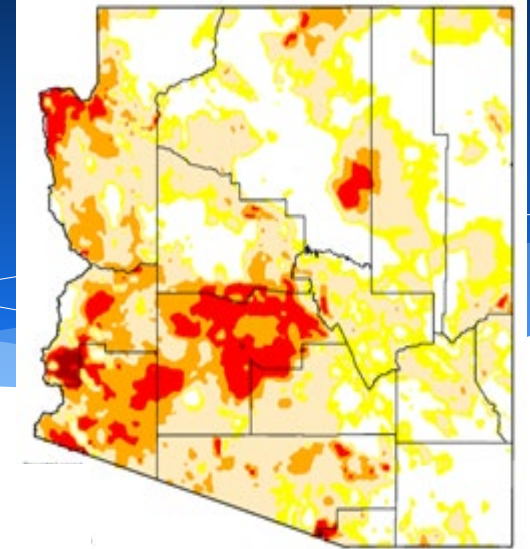
David Simeral
Western Regional Climate Center



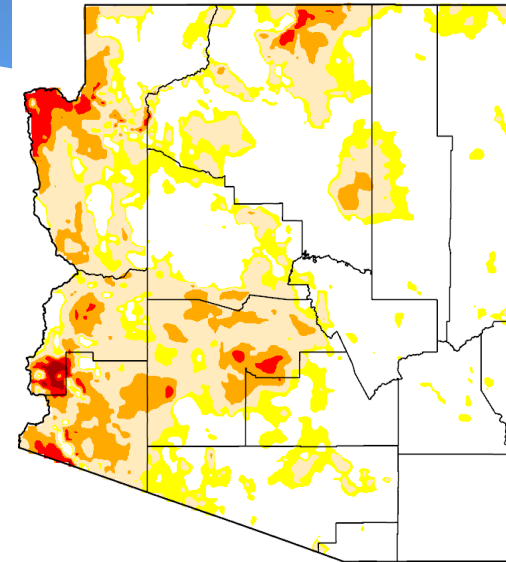
droughtmonitor.unl.edu

Quarterly Long-Term Drought Status Maps

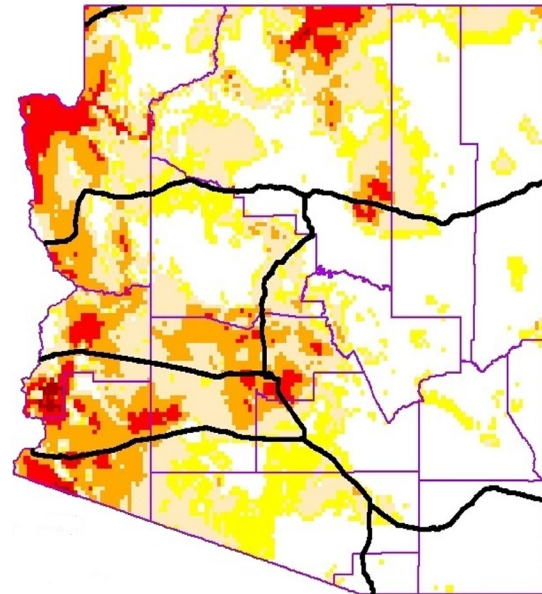
July-Sept 2023



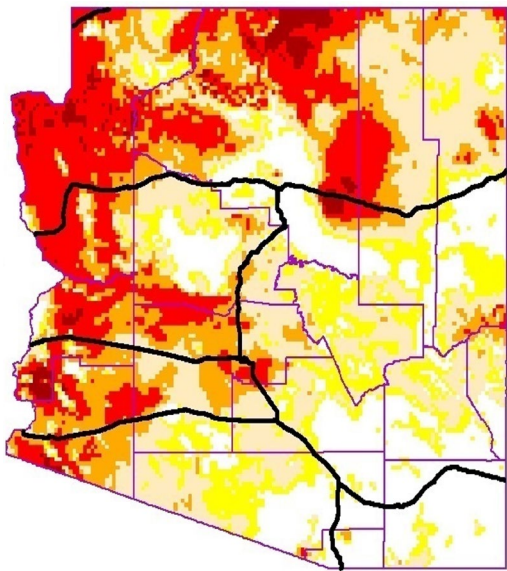
Apr-June 2023



Jan-Mar 2023



Oct-Dec 2022



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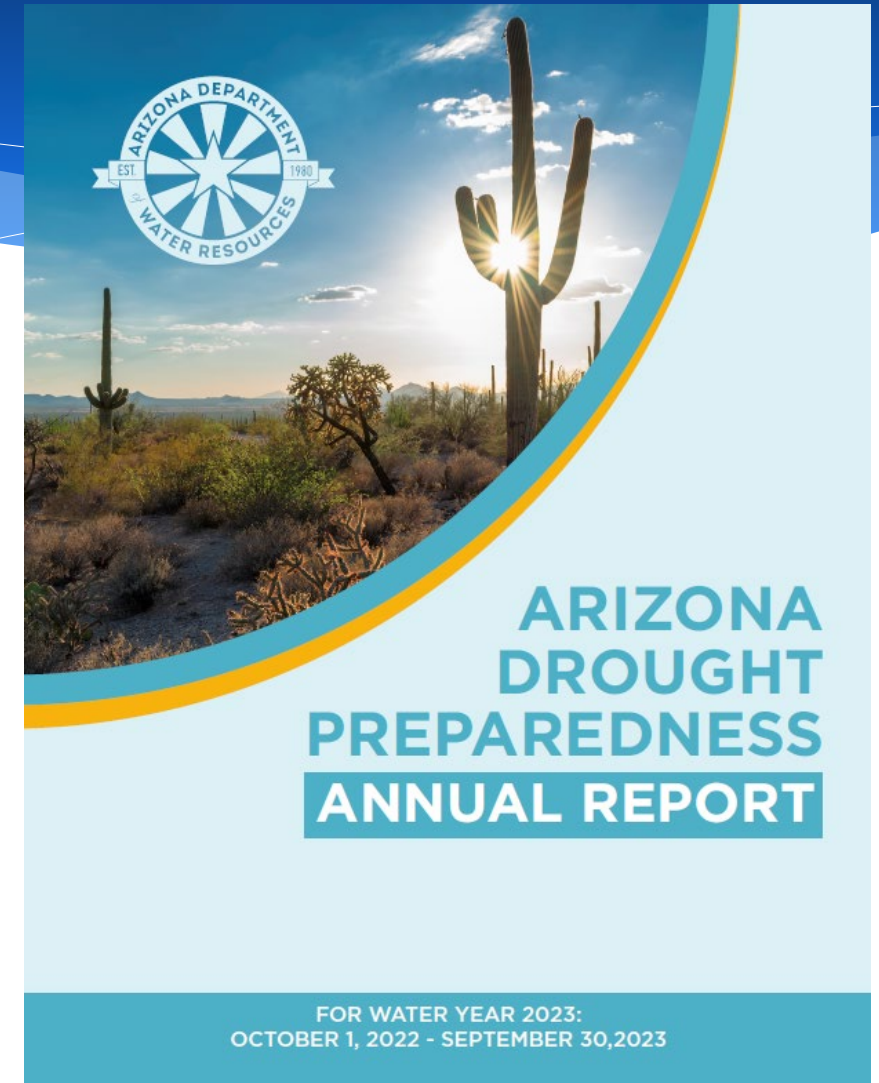


ARIZONA STATE
CLIMATE OFFICE

2023 Arizona Drought Preparedness Annual Report

- * The *Arizona Drought Preparedness Plan* was adopted in 2004 and its continued implementation as ordered in 2007 (Executive Order 2007-10).
- * ADWR prepares and annual report based on drought updates from the Drought Monitoring Technical Committee (MTC), Governor's Drought Interagency Coordinating Group (ICG), Local Drought Impact Groups (LDIGs), and others.
- * The *2023 Arizona Drought Preparedness Annual Report* covers the drought conditions and preparedness activities for Water Year 2023, from October 1, 2022, through September 30, 2023.

[2023 Arizona Drought Preparedness Annual Report](#)



Collaborative Opportunities

- * Drought Monitoring Technical Committee (MTC): Join drought observations & reporting discussions
- * Create a Local Drought Impact Group (LDIG)
- * Stay Informed: Email distribution lists & AZ Drought Preparedness Annual Report



ADWR Drought Program & Drought Status Update

Thank you!

arizonadrought@azwater.gov

<https://new.azwater.gov/drought>

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Statewide Planning Section Programs Supervisor
lmeeker@azwater.gov



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