

Welcome

The meeting will begin shortly, in the meantime please:

- Keep your microphone muted during the meeting
- If you have a question/comment during the meeting type it in the chat box and it will be read and addressed
- If you experience any technical difficulties, please contact ADWR Help Desk at 602-771-8444 or tickets@azwater.gov



Tucson Active Management Area Groundwater Users Advisory Council

May 14th, 2026



Meeting Agenda

1. Call to Order – Welcome & Introductions (Chair)

2. Meeting Logistics (*Cali Mauri, ADWR*)

3. Water Management Assistance Program (WMAP) Updates (*Tommy Thiatmaja, ADWR*)

Discussion and report of the WMAP fund balance.

4. WMAP Project Presentations: Arizona Project WET (*Lisa Townsend*)

Presentation on the accomplishments of Arizona Project WET, discussion and consideration of action to renew the contract.

5. Call to the council (*Chair*)

6. Call to the public (*Chair*)

7. Adjournment (*Chair*)



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 - Please keep your microphone muted during the meeting
 - Type your question/comment in the chat box and it will be read and addressed
- During the Call to Public attendees will have the option to speak to the Council
- This meeting is being recording and will be posted to ADWR's website
- With any technical difficulties please contact ADWR Help Desk at 602-771-8444 or tickets@azwater.gov
- If you would like to be added to the GUAC mailing list, please email cmauri@azwater.gov stating:
“Add (your email) to Tucson AMA GUAC Mailing List”



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Water Management Assistance Program Fund

Current Balance: \$182,693

Encumbered/committed: \$19,050

Remaining Balance: \$163,643



Tucson Active Management Area Groundwater Withdrawal Information

Year		2021	2022	2023	2024	2025	2026
WMAP	Fee	\$0.25	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50
	Collected	\$35,393	\$70,173	\$74,957	\$71,868	\$72,635	N/A
Admin & Enforcement	Fee	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50
	Collected	\$70,996	\$70,173	\$74,956	\$71,869	\$72,635	N/A
Water Bank	Fee	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50
	Collected	\$354,698	\$350,866	\$374,785	\$359,346	\$363,175	N/A
Total	Fee	\$3.25	\$3.50	\$3.50	\$3.50	\$3.50	\$3.50
	Collected*	\$555,408	\$585,800	\$607,194	\$596,639	\$590,090	N/A

* In addition to WMAP, Admin & Enforcement and Water Bank, amount includes late fees, recovery wells fee, and Water Quality Fund fee

5/14/2026

Tucson GUAC



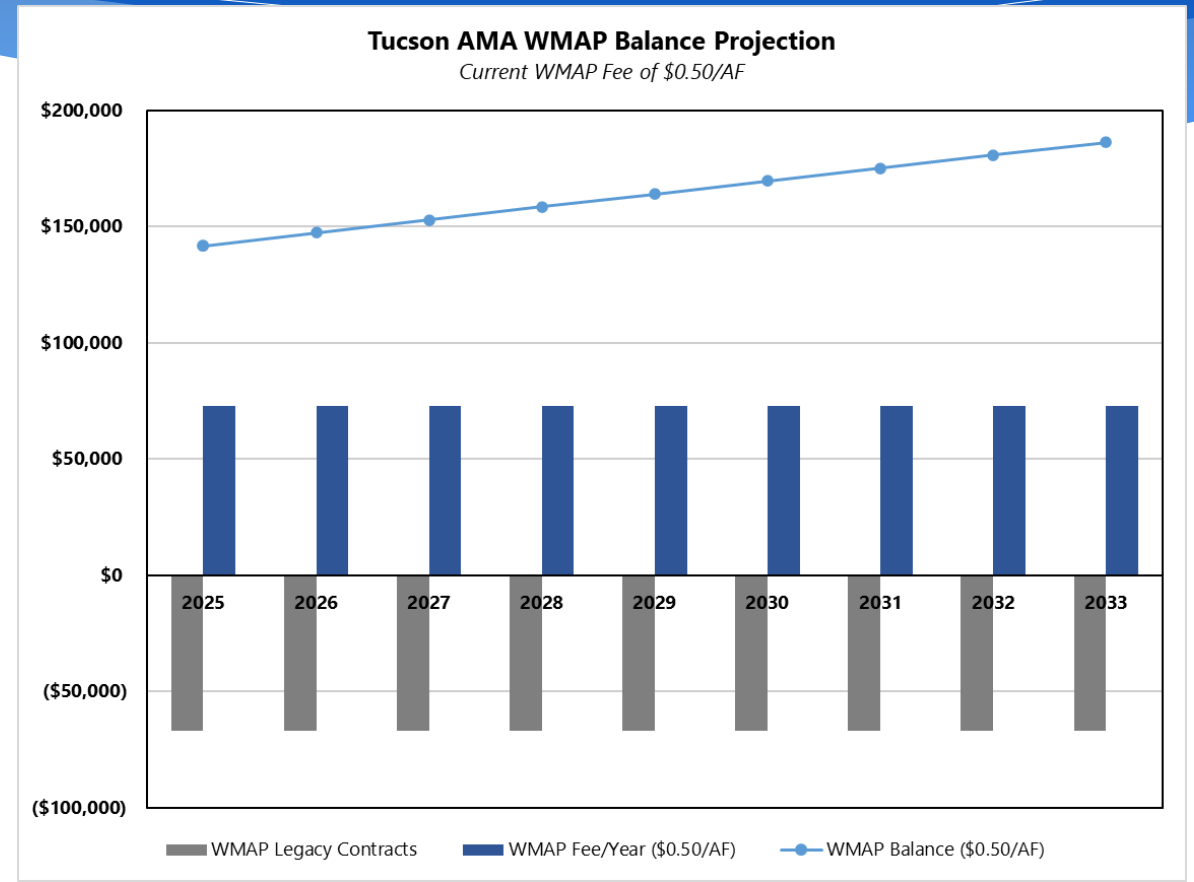
Current Projects being funded WMAP:

PROJECT NAME	CONTRACTOR	TOTAL FUNDING	REMAINING FUNDING	CONTRACT ENDS
Arizona Project WET	University of Arizona	\$67,050	\$19,050	8/30/2026



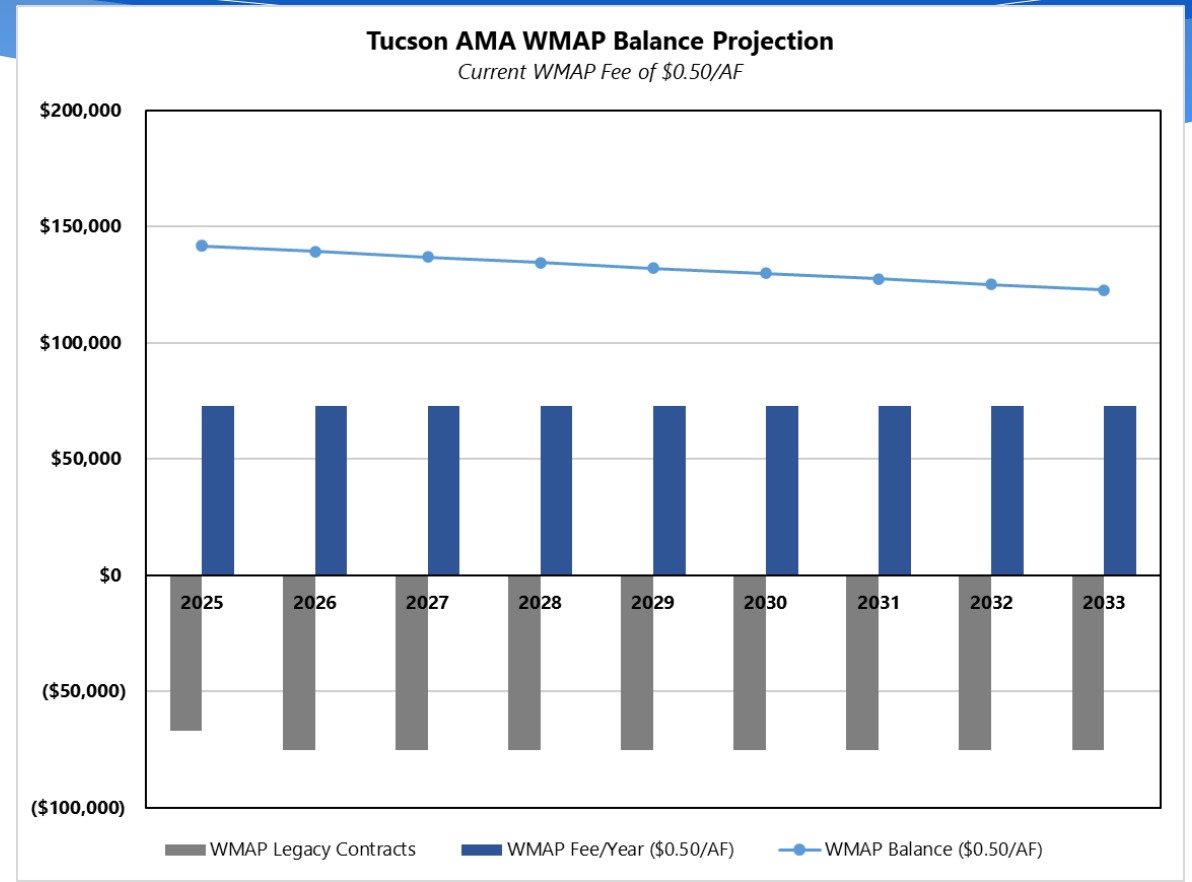
Tucson Active Management Area WMAP Fee Projections \$0.50 (Old APW Funding):

Year	WMAP Fee/AF	WMAP Fee/Year	Cost of WMAP Legacy Contracts	WMAP Balance
2025	\$0.50	\$72,620	(\$67,050.00)	\$141,643
2026	\$0.50	\$72,620	(\$67,050.00)	\$147,213
2027	\$0.50	\$72,620	(\$67,050.00)	\$152,783
2028	\$0.50	\$72,620	(\$67,050.00)	\$158,353
2029	\$0.50	\$72,620	(\$67,050.00)	\$163,923
2030	\$0.50	\$72,620	(\$67,050.00)	\$169,493
2031	\$0.50	\$72,620	(\$67,050.00)	\$175,063
2032	\$0.50	\$72,620	(\$67,050.00)	\$180,633
2033	\$0.50	\$72,620	(\$67,050.00)	\$186,203



Tucson Active Management Area WMAP Fee Projections \$0.50 (New Funding Proposed by APW):

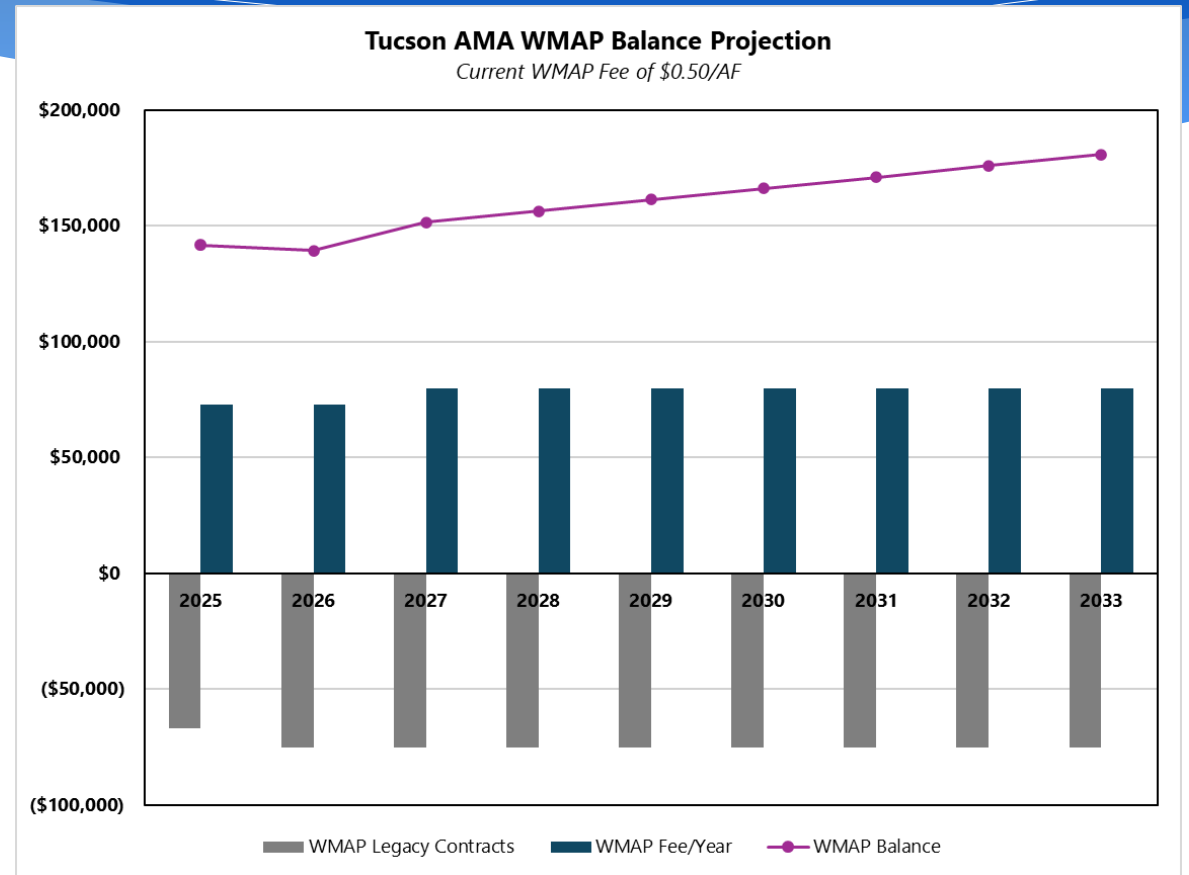
Year	WMAP Fee/AF	WMAP Fee/Year	Cost of WMAP Legacy Contracts	WMAP Balance
2025	\$0.50	\$72,620	(\$67,050.00)	\$141,643
2026	\$0.50	\$72,620	(\$75,000.00)	\$139,263
2027	\$0.50	\$72,620	(\$75,000.00)	\$136,883
2028	\$0.50	\$72,620	(\$75,000.00)	\$134,503
2029	\$0.50	\$72,620	(\$75,000.00)	\$132,123
2030	\$0.50	\$72,620	(\$75,000.00)	\$129,743
2031	\$0.50	\$72,620	(\$75,000.00)	\$127,363
2032	\$0.50	\$72,620	(\$75,000.00)	\$124,983
2033	\$0.50	\$72,620	(\$75,000.00)	\$122,603



Tucson Active Management Area

WMAP Fee Projections \$0.55 (New Funding Proposed by APW):

Year	WMAP Fee/AF	WMAP Fee/Year	Cost of WMAP Legacy Contracts	WMAP Balance
2025	\$0.50	\$72,620	(\$67,050.00)	\$141,643
2026	\$0.50	\$72,620	(\$75,000.00)	\$139,263
2027	\$0.55	\$79,882	(\$75,000.00)	\$151,407
2028	\$0.55	\$79,882	(\$75,000.00)	\$156,289
2029	\$0.55	\$79,882	(\$75,000.00)	\$161,171
2030	\$0.55	\$79,882	(\$75,000.00)	\$166,053
2031	\$0.55	\$79,882	(\$75,000.00)	\$170,935
2032	\$0.55	\$79,882	(\$75,000.00)	\$175,817
2033	\$0.55	\$79,882	(\$75,000.00)	\$180,699



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EXPERIENTIAL

ENVIRONMENTAL

EDUCATIONAL

Water Engagement in the Tucson AMA



Cooperative Extension



ARIZONA
project **WET**
WATER EDUCATION TODAY

Arizona Project WET

Since 1995

It is imperative that Arizonans understand the interconnectedness of water resources from a local, regional, and global perspective. Arizona Project WET (APW) brings to the surface water-use practices that affect availability, dependability, access, and sustainability. APW program objectives, centered in the unifying theme of water, engage teachers and students while bringing real-world relevancy to science, technology, engineering, art, and mathematics (STEAM) learning.

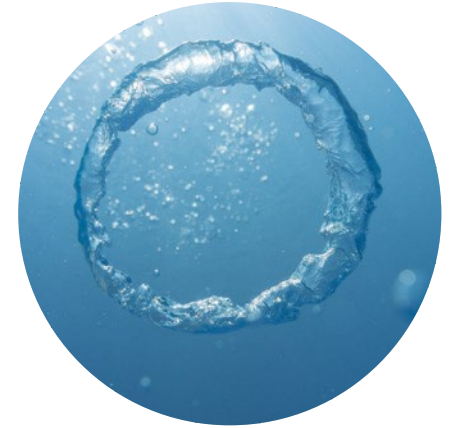
APW supports water stewardship and STEAM literacy by authentically and meaningfully engaging educators, students, and community members. Arizona Project WET's mission is to meet the needs of our community by using relevant, research-based educational strategies and techniques in helping people develop knowledge and skills that equip them to act for water stewardship.

The APW team delivers water-focused programming with exceptional skill: meaningfully connecting content to participant and participant to action.



Water Cycle

Students track the movement of water molecules through the Arizona landscape reflecting the morphing, flowing, cyclical nature of water. The form and function of water varies depending on the molecules' position in the cycle. Students (and adults) reflect on how they fit into the closed circuit and the implications of human impact.



Groundwater

Students manipulate groundwater models to interpret the connection between groundwater recharge and discharge. Precipitation flowing through the watershed percolates into the ground and well-pumped groundwater affects the levels of surface water. Making water-wise choices and adopting water conservation practices helps lower the risk of overdraft and subsidence. Students reflect on how they might use/misuse groundwater.

Watershed

Students gather insights into the features of a watershed, exchanges between the elements, and the effects of human impact. Water flowing through our resident watershed(s) supports all life in the region. Students reflect on how their behaviors may help or hinder watershed health.

Water Sustainability

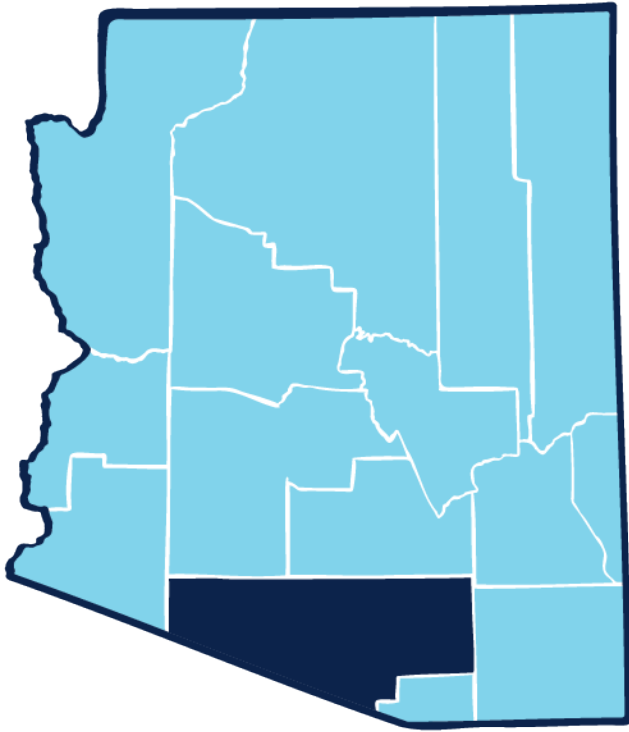
Students synthesize their water cycle, groundwater, and watershed reflections by connecting the challenges facing Arizonans to mindful, sustainable, and practical personal choices. Program participants commit to water conservation!

The purpose of this program is to educate K-12 students about their interconnected water resources and their importance to Arizona's future in support of Tucson AMA's statutory goal of safe yield. Project goals are to work towards an understanding of:



Surface water in terms of a watershed's components, its dynamics, and its role in the hydrologic cycle.
The groundwater system in terms of its components, composition, and its role in the hydrologic cycle.
The effect of snowpack on water flow in a watershed
The movement of water through diverse substrates
Surface water and groundwater rights in Arizona
Surface water management through containment and distribution
Colorado River system allocations and uses.
The Central Arizona Project and the Shortage Sharing Agreements on the Colorado River
Groundwater recharge and the Arizona water bank
Water reuse and augmentation
Water Conservation Technology
The Engineering Design Process





Task 1: Educator One-Day Workshop

APW shall conduct a one-day workshop, potentially reaching twenty (20) educators from the Tucson AMA.

Educators will grow their skills in engaging students in real-world and relevant science, technology, engineering, and math learning that focuses on systems thinking and creative problem-solving. Participants will leave this workshop with practical applications for instruction regarding STEM concepts and will receive new Project WET Teacher Guides appropriate to student grade-band from APW.

June 10, 2026, **Wonders of Wetlands, The Surface Water-Groundwater Connection**

Task 2: The Groundwater System *In conjunction with Pima County Environmental Education*

The groundwater system is one of Arizona's most important water reserves. Increasingly, in many areas of the state, we are even managing water storage using the groundwater system. Arizona students need to understand this system as a crucial part of the water cycle to ensure that, as decision makers, we manage this resource for future prosperity.

Within the Tucson AMA:

APW has conducted more than **thirty (30)** groundwater presentations

APW has also delivered **FOUR (4)** Arizona Water Festivals

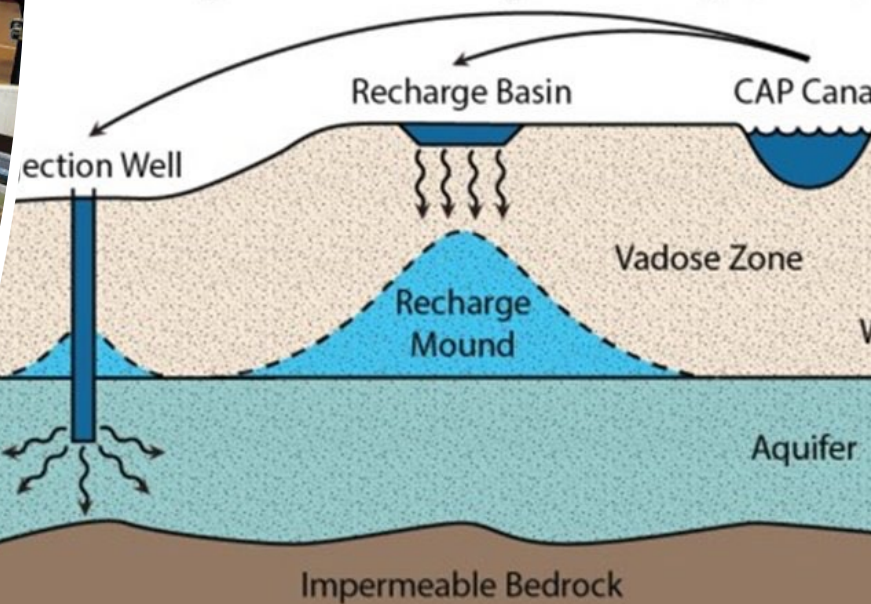


Groundwater Presentations

- 14 schools across Tucson, Oro Valley, Marana, and Sahuarita
- 40 classes ranging from 3rd through 12th grades
- 813 students engaged



Underground Storage Facility (USF)



Amphitheater USD, Oro Valley Water Festival



Date: 3/3/27
Schools: Copper Creek,
Donaldson, EC Nash,
Mesa Verde, Painted
Sky, Prince, and Rio
Vista
Classes: 17
Students: 380
Volunteers: 33



Sahuarita Water Festival



Date: 3/6/26

Schools: Anza Trail,
Continental, Wrightson,
Copper View, Sahuarita
Intermediate, and
Sahuarita Digital Pathways
Academy

Classes: 21

Students: 476

Volunteers: 75

Sunnyside USD, Tucson Water Festival



Date: 11/14/25
Schools: Craycroft,
Esperanza, Los Amigos
Tech, and Santa Clara
Classes: 13
Students: 307
Volunteers: 35

Tucson USD, Tucson Water Festival



Date: 3/10/26
Schools: Blenman,
Bloom, Bowman K-8,
Borton, Carrillo,
Fruchthendler, Hollinger
K-8, Warren, Wheeler,
and White
Classes: 17
Students: 372
Volunteers: 81

EDUCATOR ENRICHMENT

Getting Little Feet WET

Water Literacy for Early Childhood Education Framework

- Water has unique physical and chemical characteristics.
- Water is essential for all life to exist.
- Water connects all Earth systems.
- Water is a natural resource.
- Water resources are managed

A developmentally appropriate curriculum with lessons created specifically for young children.

**Making Connections,
Gaining Perspective, and
Fostering Creativity**

Early childhood educators will grow their skills in engaging students in everyday science, technology, engineering, and math applications, focusing on systems thinking and creative problem-solving. Participants will leave this workshop with practical, age-appropriate applications for instruction regarding STEM concepts for young learners and will receive new Project WET Teacher Guides and student booklets.





87%

Groundwater and Recovered CAP Water

The groundwater system is one of Arizona's most important water reserves. Increasingly, in many areas of the state, water storage is managed by using the groundwater system. Arizona students are eager to understand this crucial system and its place in the water cycle. This ensures that water users also self-identify as sustainable decision makers: I/we manage this resource together.

The primary source of water in Pima County is groundwater.

The Central Arizona Project (CAP) supplies Colorado River water to Pima County, which is then artificially recharged to the local aquifer.

Arizona Water Festival

Summary:

During the Arizona Project WET – Water Festival Unit of Study, 4th grade students explore the Arizona water cycle, map our regional watersheds, unearth the connection between groundwater and surface water, and learn how their behaviors impact water availability in Arizona. Students use this knowledge to develop accessible, community-focused solutions that simultaneously conserve water and promote sustainable decision-making.

Guiding Question(s):

Where is Arizona’s water? What are the connections between people, water, and heat in the environment?

Learning Objectives:

- **Track** the movement of water molecules through the Arizona water cycle
- Understand how water moves through a watershed and **demonstrate** the human impact of changes to that natural system; city surfaces affect the movement of water, and those changes can be **observed/measured**.
- **Model** aquifer recharge and discharge connecting water availability to human behavior
- **Act** as environmental stewards, conserving water through both behaviors and available technologies, supporting resilient solutions that benefit the (biodiverse) community.

Science Standards	
This unit addresses, but is not limited to, the following standards:	
Elements of Life 4.L4U1.11	Analyze and interpret environmental data to demonstrate that species either adapt and survive or go extinct over time.
	When the environment changes in ways that affect a place’s physical characteristics, temperature, or availability of resources, some organisms survive and reproduce, others move to new locations, yet others move into the transformed environment, and some die.
	For any particular environment, some kinds of organisms survive well, some survive less well, and some cannot survive at all.
Elements of Earth & Space 4.E1U1.6/7	Plan and carry out an investigation to explore and explain the interactions between Earth’s major systems and the impact on Earth’s surface materials and processes.
	Rainfall helps shape the land and affects the types of living things found in a region. Water, ice, wind, living organisms, and gravity break rocks, soils, and sediments into smaller particles and move them around.
Elements of Earth & Space 4.E1U3.9	Construct and support an evidence-based argument about the availability of water and its impact on life.
	Nearly all of Earth’s available water is in the ocean. Most freshwater is in glaciers or underground; only a tiny fraction is in streams, lakes, wetlands, and the atmosphere.
	About two-thirds of the surface of the Earth is covered by liquid water, which is essential to life.
Elements of Earth & Space 4.E1U2.10	Define problem(s) and design solution(s) to minimize the effects of natural hazards*.
	A variety of hazards result from natural processes. Humans cannot eliminate natural hazards but can take steps to reduce their impacts.

* Natural hazards abound in Arizona. At the top of list: flash floods, severe weather, landslides and debris flows, earthquakes, and earth fissures.

[University of Arizona Center for Natural Hazards](#)

EDUCATOR ENRICHMENT

4th Grade Teacher Professional

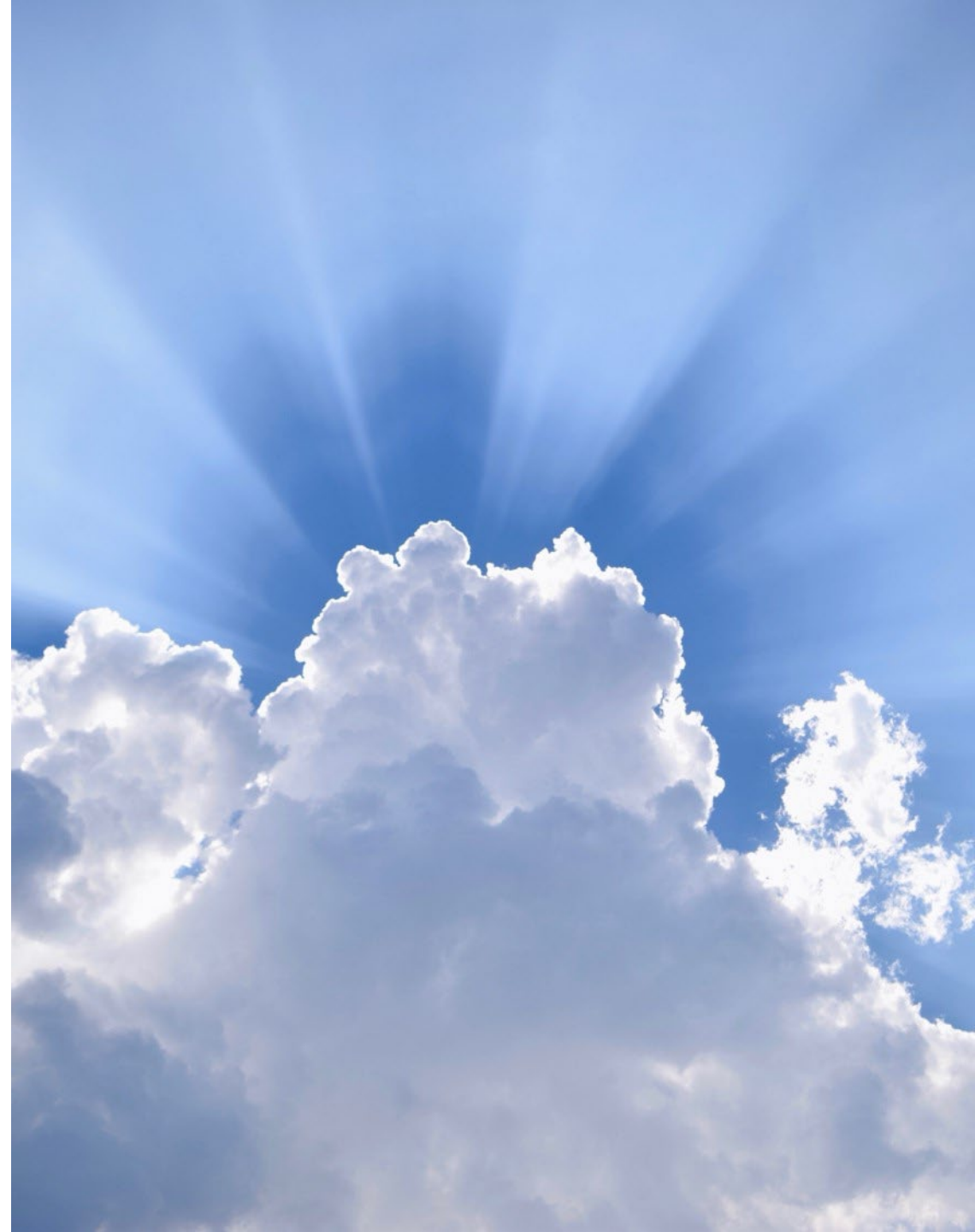
Development

Educators improve their skills engaging learners with real-world, relevant science, technology, engineering, and math practices that focus on systems thinking and project-based problem solving.

Participants leave these workshops with myriad resources, and a supportive cohort, to lead their students through meaningful, Pima County-centric applications of water-science instructional concepts.

**Making Connections,
Gaining Perspective, and
Fostering Creativity**

The water festival unit of study kicks off with the teacher professional development workshop, which all teachers new to the program attend. During this workshop, APW instructors connect teachers with tangible reference points and supporting resources in physical science, engineering, and environmental science through exploration, inquiry, and technology.



Arizona Water Festival Unit of Study

Arizona Water Festivals (AWF) instill a deeper understanding of water in the earth systems and Arizona's water resources through a 4th grade interdisciplinary curriculum unit driven by exploration and inquiry. The entirety of the AWF program encompasses:

Foundations of Water Education **professional development workshop** for participating 4th grade teachers

- Arizona Science Standard connection and integration
- 3-Dimensional Learning approaches
- Best practices for the 6-lesson classroom module

Pre-Festival survey to gauge students' existing subject-area knowledge

3 teacher-led, in-classroom Unit of Study lessons before the Water Festival

THE WATER FESTIVAL:

- 3 – 5 area schools per AWF
- 9 – 12 classes per AWF, on average
- 250 – 750 students in attendance per AWF, on average based on single or double session
- Community Volunteer training and place-based event support
- Municipal Park permits, when/if needed

3 teacher-led, in-classroom Unit of Study lessons after the Water Festival

Post-Festival STUDENT survey to measure knowledge gain.

Post-Festival TEACHER survey to evaluate programming and Unit of Study content elements.

Post-Festival VOLUNTEER survey to evaluate programming and Unit of Study content elements, and reflection on practice.

The AWF is attended by water professionals and community volunteers who engage participants in an experiential and fun exploration of the Groundwater System, Watershed Management, Water Stewardship, and the Arizona Water Cycle. By diving into hydrology through authentic, relevant, and meaningful water-focused activities, this “field day” event instills a deeper understanding of Arizona's varied and complex water resources. As a result, these 4th graders can put forward an evidence-based argument about the availability of water in their region and its impact on their lives.

Arizona Project WET aims to educate, engage, and connect Tucson AMA community members (residents, local businesses, K-12 students, educators, administrators, and municipal stakeholders) through educational outreach to raise awareness of current and future challenges to Arizona's water resources and sustainable solutions to help mitigate them.

In the 26/27 academic year, Arizona Project WET will...

- Conduct a one-day workshop reaching no fewer than twenty (20) educators from the Tucson AMA.
- Conduct thirty (30) site-based groundwater presentations for schools within the Tucson AMA.
- Deliver no fewer than **three (3) Water Festivals** for 4th grade students from schools within the Tucson AMA.

Funds granted will be used to develop and conduct curriculum components, STE(A)M lessons, groundwater sustainability practices, and professional development for teachers. This funding will also expand and/or improve existing programs within the Tucson AMA.

Funding Requested, \$75,000

Funding Period/Length of Contract

August 1, 2026 – June 30, 2027



Arizona Project

WET Measurements

APW has a strong record of programmatic evaluation and self-reflection that not only provides evidence of content area knowledge gain but also informs our practice and program improvement. A number of tools will be used to measure the outcomes and impacts of this Unit of Study.

Participant Counts

APW collects self-reported data relating to the number of participants engaged in each activity, including numbers of schools, students, teachers, and community members.



Members of the Tucson GUAC

We appreciate your time,
attention, and consideration.

We are happy to answer any questions you may have about Arizona Project WET, Teacher Workshops, Groundwater Presentations, Arizona Water Festivals, or any other elements of our statewide reach.



Water Education is in our Nature.



Thank you for the opportunity.

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