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

Santa Cruz AMA GUAC
September 10, 2025

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1. **Call to Order – Welcome & Introductions** – *Chair*
2. **Meeting Logistics** – *Taylor Pearson, ADWR*
3. **Water Management Assistance Program Updates** – *Tommy Thiatmaja, ADWR*

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- 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 tpearson@azwater.gov stating: "Add (your email) to Santa Cruz AMA GUAC Mailing List"

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	Collected *	$49,145	$48,569	$48,132	30,451	N/A	

Groundwater Conservation Grant Projects

PROJECT NAME	DESCRIPTION	CONTRACT NUMBER	TOTAL FUNDING	REMAINING FUNDING	CONTRACT ENDS
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.	2020-3131	$105,291 ($11,938 WMAP Funds)	$9,213 (WMAP Funds)	3/29/2026

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EXPERIENTIAL ENVIRONMENTAL EDUCATIONAL

Nogales, Arizona Water Festival in Santa Cruz County

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

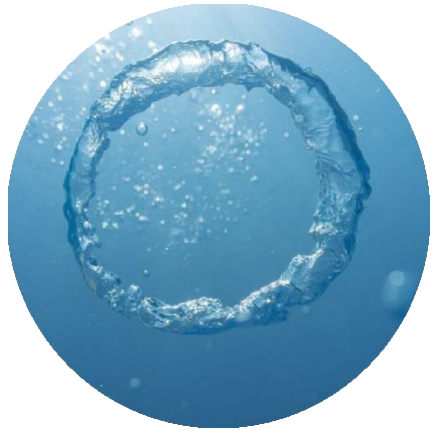
Students manipulate groundwater models to interpret the connection between groundwater recharge and discharge. Precipitation flowing through the watershed percolates into the ground and well-pumped groundwater affects the levels of surface water. Making water-wise choices and adopting water conservation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

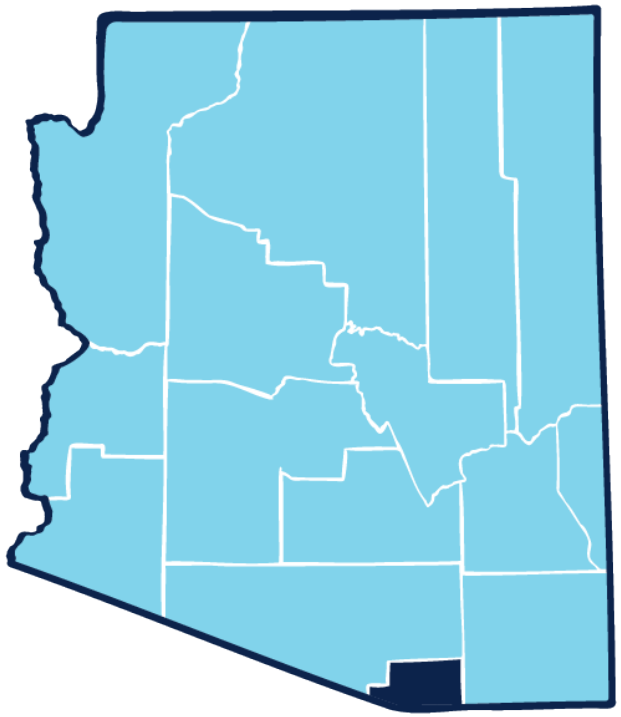
Watershed

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!





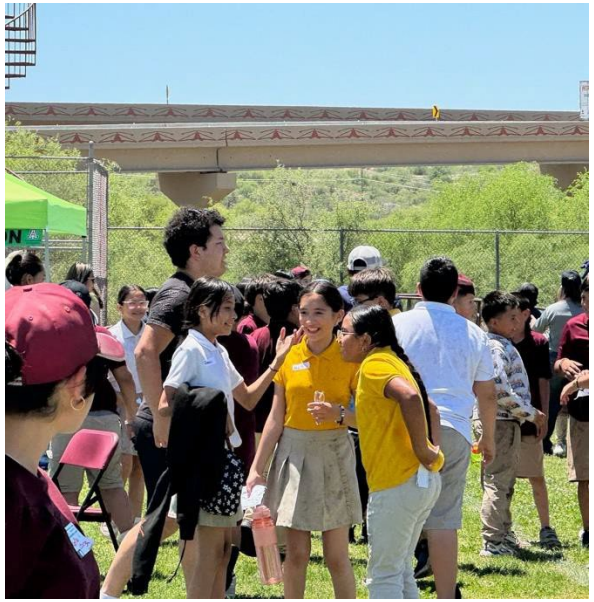
The **11th Annual Santa Cruz Water Festival** was a grand success! **15 teachers** from **6 schools** brought **357 students** to the festival on May 8, 2025!

47 high school and community volunteers delivered lessons and engaged 4th graders in fun, relevant, meaningful activities about their connection to water sustainability in Arizona. Link to Impact Report.

This water festival was a fantastic collaboration between Arizona Project WET and community stakeholders: Santa Fe Ranch, Santa Cruz Natural Resources Conservation District, and Nogales Unified School District.

The purpose of this program is to educate, empower, and inspire groundwater-focused engagement. Both educator and student water-supply awareness and stewardship are of utmost importance in support of the Santa Cruz AMA's statutory goal of safe yield. Project goals target competency in understanding, modeling, and practice:

- 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 management through containment, storage, and distribution
- Run-off and pollution reduction; maintaining and improving water quality
- Groundwater recharge and the Arizona Water Bank
- Water conservation technology
- Water reuse and augmentation
- The engineering design process



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, Santa Cruz AMA-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.

41%

Groundwater is a vital water source in Arizona, making up 41% of the state's water supply.

Where does Santa Cruz County's water come from?

Groundwater 95.5%

Reclaimed water 0.5%

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.

Arizona Water Festival Scope of Work

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 AW
- 9 – 12 classes per AWF, on average
- 250 – 400 students in attendance per AWF, on average
- 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 Santa Cruz AMA community members (residents, 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.

Arizona Project WET will grow our work with regional partners to continue developing, improving, and delivering meaningful school-site units of study and place-based community events. Our programming engages, educates, and empowers participants, through conservation-action, to adopt principles and practices of sound water resource management. In 2026 our goal is to build capacity ensuring that all eligible schools/4th grade classrooms wanting to join the Nogales Water Festival may access the event.

Community Partners:

Santa Fe Ranch, Santa Cruz Natural Resources Conservation District

Funding Period/Length of Contract:

November 1, 2025 – October 31, 2026

Funding Requested, $5,000

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.

Esteemed members of the Santa Cruz GUAC

We appreciate your time, attention, and consideration.

We are happy to answer any questions you may have about Arizona Project WET, the Water Festival, or our statewide reach.

Water Education is in our Nature.

Thank you for the opportunity.

Photo credit: Lori Grace Bailey

Lisa Townsend, Director

Water Resources Research Center

350 N Campbell Ave

Tucson, AZ 85719

lisatownsend@arizona.edu

Kirstyn Kay, Program Supervisor

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kkay@arizona.edu

THE UNIVERSITY OF ARIZONA Cooperative Extension

ARIZONA project WET WATER EDUCATION TODAY

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