

ADWR: GUAC/Phoenix AMA Report A

Prepared for: Arizona Department of Water Resources

Prepared on: August 30, 2025

I. Introduction

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 Phoenix 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/groundwater connections in Arizona
- ◆ Surface water management through containment, storage, 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

Funds granted by this Agreement will be used to 1) continue and diversify the Arizona Project WET ("APW") educator professional development portfolio: Multi-Session, Single-Session, Place-based, and Integrative workshops that leverage fun, learner-based inquiry, and 3-Dimensional learning across grade-band cross-cutting concepts and standards; 2) support Arizona Water Festivals ("AWF") by building capacity in current markets: Apache Junction, Avondale, Buckeye, Chandler, Creighton, Gilbert, Osborn, Pendergast, Roosevelt, and Peoria, as well as facilitating the real potential for expanding AWF to additional markets: Goodyear, Mesa, Queen Creek, Scottsdale, and Tempe; 3) allow APW to continue outreach with Groundwater STE(A)M lessons incorporating place-based activation throughout the region; and 4) address the increasing demand for APW's case study and project-based content in secondary education.

II. Scope of Work

Teacher Professional Development

Task 1: Teacher Multi-Session Workshops

APW shall conduct 2 multi-day academies reaching 40+ educators within the Phoenix AMA. Educators will improve their skills in engaging learners in real-world, relevant science, technology, engineering, and math practices that focus on systems thinking and project-based problem solving. Participants will leave these workshops with myriad



resources, and a supportive cohort, to lead their students through meaningful, Phoenix-centric applications of water-science instructional concepts.

Deliverable: Report A, B, C, and Final Report: shall include a description of the progress of the academies, including location, syllabus, marketing efforts, attendance, results, and evaluation.

- ◆ SRP Academy held June 2nd – 6th at SRP's PERA Club (Appendix A)
- ◆ CAP Academy held June 16th – 17th at CAP Headquarters (Appendix B)

Task 2: Teacher Single-Session Workshops

APW shall conduct up to 4 Single-Session workshops reaching 60+ educators within the Phoenix AMA. Participants will improve their skills in engaging students in real-world and relevant science, technology, engineering, and math learning that focuses on systems thinking and problem solving.

Deliverable: Report A, B, C, and Final Report: shall include a description of the progress of the academies, including location, syllabus, marketing efforts, attendance, results, and evaluation.

- ◆ Upcoming Events:
 - 10/3/25** The Nature of Groundwater hosted at the Arizona Hydrological Society Annual Symposium (location, syllabus, marketing efforts, attendance, results, and evaluation will be provided in subsequent reports – post event)
 - 11/19/25** The Wonders of Wetlands held at the Nina Mason Pulliam Rio Salado Audubon Center (location, syllabus, marketing efforts, attendance, results, and evaluation will be provided in subsequent reports – post event)

Direct Student Outreach

The Groundwater System

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.

Task 3: APW will deliver at least 12 Arizona Water Festivals for 4th grade students within the Phoenix AMA.

Deliverable: Report A, B, C, and Final Report: Any completed events, will include the number of students, student assessment, and evaluation data from each teacher.

- ◆ Upcoming Events 2025:
 - 10/23/25 FALL [Peoria Water Festival](#)
 - 10/28/25 [Buckeye Water Festival](#)
 - 11/5/25 [Chandler Water Festival](#) – Day 1
 - 11/6/25 [Chandler Water Festival](#) – Day 2
 - 12/11/25 [Phoenix Water Festival – Pendergast USD](#)
- ◆ Upcoming Events 2026:
 - 2/3/26 [Tempe Water Festival](#)
 - 2/10/26 [Queen Creek Water Festival](#)
 - 2/12/26 [Avondale & Goodyear Water Festival](#)
 - 2/23/26 [Gilbert Water Festival](#) – Day 1
 - 2/24/26 [Gilbert Water Festival](#) – Day 2
 - 3/12/26 SPRING [Peoria Water Festival](#)

Task 4: APW will facilitate 20 Groundwater presentations for students within the Phoenix AMA.

Deliverable: Report A, B, C, and Final Report: Any completed events, will include the number of students,

student assessment, and evaluation data from each teacher.

Task 5: APW will stage the Water Scene Investigation Program in 2 Middle schools in the Phoenix AMA.

Deliverable: Report A, B, C, and Final Report: Any completed events, will include the number of students, student assessment, and program evaluation data from each teacher.

- ◆ MS 1 – Date TBD
- ◆ MS 2 – Date TBD

Task 6: APW will grow Planting for a Rainy Day, the Rainwater Harvesting Program, with 1 High School within the Phoenix AMA.

Deliverable: Report A, B, C, and Final Report: Any completed events, will include the number of students, student assessment, and program evaluation data from each teacher.

- ◆ HS – Date TBD

III. Schedule of Deliverables

Report A	Status of Tasks 1-6	August 30, 2025
Report B	Status of Tasks 1-6	November 30, 2025
Report C	Status of Tasks 1-6	February 28, 2026
Final Report	Status of Tasks 1-6	May 30, 2026

Strategic support for APW provides effective educational opportunities to an extensive network of educators, young adults, and children. We appreciate your partnership in helping to ensure that Arizonans understand their interconnected water resources, are conservation savvy, and are prepared to help ensure a safe, reliable water supply.

APW partners with an extensive network of water providers and school districts to market programs. In addition, we maintain a list-serve of all past participants in the program. The APW website invites sponsors, partners, teachers, and future collaborators to explore APW programs, including teacher workshops and academies, Arizona Water Festivals, Water Scene Investigations Programs, and Groundwater Programs.



Appendix A:

- ◆ SRP Academy was held June 2nd – 6th 2025
- ◆ Location: SRP's PERA Club: 1 E Continental Dr, Tempe, AZ 85288
 - We had 21, 3rd-6th grade teachers attend from June 2nd-4th
 - We had 7, 7th-10th grade teachers attend from June 4th-6th
- ◆ SRP Academy flyers, syllabus, and photos for both primary and secondary sessions:





SRP Teacher Academy: Water Solutions

3rd to 6th Grade Teachers

- **June 2nd - 3rd, 2025**
9:30am - 4:00pm
- **June 4th, 2025**
9:30am - 12:30pm

Salt River Project and Arizona Project WET invite you to an Immersive, experiential STEAM academy. In this 2½- day workshop, teachers gain tangible resources and a supportive cohort to lead their students through meaningful applications of FUNdamental, hydro-science Instructional concepts.



This academy delivers exclusive tours, presentations by industry experts, as well as activities from the newest editions of Project WET's world-renowned curriculum guides. Teachers, this is where your working knowledge on water management in Arizona goes deep!

EXPLORE

- New paradigms for engaging learners in relevant STEAM practices that focus on systems thinking and project-based problem solving.
- Experience learning utilizing phenomena, cross-cutting concepts, and science and engineering practices.

GAIN

- In-depth knowledge of the SRP Water System.
- Receive 15 hours of professional development (CE) & **\$250 stipend** upon completion.
- Snacks and lunch provided by the PERA Club.



Apply Here
5/09/25
Deadline!

**SPACE IS LIMITED,
SPOTS GO FAST!**

OUR THANKS TO:



Cooperative Extension



ARIZONA
project WET
water education today



Foundations of Water Education

An APW and SRP STEAM Academy

June 2nd – 4th, 2025

In this 2.5-day academy, participants will apply Science and Engineering Practices and Cross-cutting Concepts to explore the Salt River Project (SRP) system. Educators will hear from SRP experts and visit Arizona Falls on the Arizona Canal to see, in person, parts of this amazing system. By the end of the workshop, participants will know how water from the Salt River Project system is essential to the environmental and socio-economic well-being of over 2.5 million people in the Phoenix metropolitan area. The *Foundations of Water Education* Academy is for upper, primary grade-level educators and hosted at the PERA Club in Tempe.

Educators improve their skills in engaging learners with relevant science, technology, engineering, and math practices that focus on systems thinking and project-based problem solving. Participants will leave these workshops with tangible resources, and a supportive cohort, to lead their students through meaningful applications of hydro-science instructional concepts.

Guiding Question(s):

How does Salt River Project ensure a reliable water supply for me, my students, and my community in the greater Phoenix metropolitan area... now and for years to come?

Learning Objectives:

Diversify teachers' instructional practice(s) and water-related content mastery through STEAM integration, student-directed learning, real-world application, and collaborative work. Deepen teachers' understanding of SRP's complex and invaluable water distribution system which provides approximately 50% of the Phoenix metropolitan area's water supply. Model activities for teachers, so that they may engage students in STEAM learning centered in the SRP system.

- **Model** the watershed including the groundwater system.
- **Describe** relationships between surface water and groundwater.
- **Relate** forest health to the stability of our watershed and water quality, including the impacts of vegetation, precipitation, development, drought, and fire on the Salt River and Verde River watersheds.
- **Engineer** a solution to use water within a river system to produce energy.
- **Design** the engineered SRP water management system of the Verde and Salt River.

Evaluation – participant pre and post Academy surveys reveal gains in understanding and skill.

Outcomes – participants will be able to model water sources, systems, and cycles, identifying their role as water users, and then consider/apply conservation best practices.





Guiding Question	
How does Salt River Project ensure a reliable water supply for me, my students, and my community in the greater Phoenix metropolitan area... now and for years to come?	
By the end of the Academy, participants will be able to:	
<ul style="list-style-type: none"> • Model the watershed including the groundwater system. • Describe relationships between surface water and groundwater. • Design the modern water management system of the Verde and Salt River. • Relate forest health to the stability of our watershed and water quality, including the impacts of vegetation, precipitation, drought and fire on the Salt and Verde watersheds. • Engineer a solution to use water within a river system to produce energy. 	
Academic Vocabulary: monsoon, phenomena, watershed, basin, reservoir, tributaries, groundwater, surface water, aquifer, water table, recharge, well, contaminants, urban, rural, water management, overdraft, subsidence, safe yield	
Engagement	Participants will draw on their prior knowledge and experiences and become interested in the topic by:
	<ul style="list-style-type: none"> • Chart the depth of knowledge in the room: understanding, experience, and curiosity. • Sharing lessons, ideas and best teaching practices with other educators.
Exploration & Experience	Participants will explore, experience, and learn the topic by:
	<ul style="list-style-type: none"> • Investigating the interdependence among water users and the effect of population growth in Arizona on our water systems. • Modeling the parts of the Salt River watershed through various activities including full-body, 3-dimensional mapping, and interactive methods. • Explore the Salt and Verde Watersheds through an interactive ARC GIS activity. • Replicating systems through movement activities. • Engineer from design plans water movement to harness energy.
Reflection	Participants will summarize the learning and connect it with the big idea(s) by:
	<ul style="list-style-type: none"> • Write a postcard to <i>Dear Body of Water...</i> • Commit to incorporating at least one NEW sustainable behavior/technology in their home and/or classroom. • Thoughtfully complete the Academy survey with programmatic insights.



Activities and Experiences At-a-Glance

- Stationary Activity/Group Work
- Movement/Interactive Activity
- Tour or SRP Presenters

Day 1 – Healthy Watersheds, Groundwater, and the Water Cycle

Time	Activity	Led by
Arrival	Thirsty Plant Set-up	APW
9:30 am	Welcome & Intro & meet the group & name tents	APW
9:45 am	Idea Pool – activity	Class
10:00am	Mari Williamson (Hydrologist) & Shannon Reif (Water Resource Analyst)	SRP
11:00 am	Anchor Phenomena & <i>Quick Historical Overview</i>	APW
11:30 am	Lunch	SRP
12:00 pm	Thirsty Plant Slides & Wrap-up	APW
12:15pm	Branching Out (Large Paper Model & handouts)	APW
12:45 pm	Seeing Watersheds and Blue River (PW 2.0 p. 187 & p. 135)	APW
1:45 pm	Plumbing the Verde & Touring the Shed - ARC GIS tour of Verde & Salt Watersheds	APW
2:45pm	Engineering Design Challenge: Putting Water to Work (APW activity) Brainstorm only	APW
3:10 pm	Chillin' With the Chubs (DAW p. 211) or Macro Mayhem (2.0 p. 343)	APW
3:50 pm	Reflection of Day (Dear Body of Water) & See you tomorrow	APW

For further exploration...

- | | |
|--|---|
| Spotlight Activity | Water Topic |
| Seeing Watersheds | Watershed Model and Definition |
| Blue River | River Water Flow |
| Macroinvertebrate Mayhem | Biodiversity, Health, and/or Impairment |

Career Focus: hydrogeologist, hydrologist, biologist

SRP Connection: [Where your water comes from](#), [Watershed management](#), [Watershed connection](#)





Day 2 - Managing Watersheds

Time	Activity	Led by
9:30 am	This or That Water Activity & recap of Day 1	APW
9:45 am	APW Groundwater Video Series #1 & 2	APW
10:00 am	Caitlin Montano - SRP	SRP Staff
11:00 am	Group Groundwater Models & slides	APW
11:40am	Lunch	SRP
12:10 pm	Slides <i>Permeable/Impermeable & Urban Heat & Pollution (point & nonpoint)</i> Sum of the Parts (2.0 p. 283)	APW
12:30 pm	Healthy Forest Activity	APW
1:20 pm	Healthy Forest Slides & Storm Water (PW p.395) adapted to forest health & break	APW
1:50pm	Putting Water to Work: Engineering Design Challenge II	Class
3:20 pm	Urban Water (PW 2.0 p. 413) – begin to create a model of the SRP water management system	Class
3:45 pm	Reflection of Day & Directions for Fieldtrip	APW
3:55pm	Water Cycle Taylor Swift Video	APW

For further exploration...

Spotlight Activity

Color a Watershed

Sum of the Parts

Water for All

Water Topic

Development in the Watershed

Watershed Pollution and/or Contamination

Access to Water

Career Focus: archeologist, engineer, chemist, policy expert, community liaison

SRP Connection: [Saving water at home](#), [Water resource management](#)

Day 3 – Arizona Falls & Sustainability

Time	Activity	Led by
9:30 am	Meet at Arizona Falls for Field Trip	SRP
10:45 am	Is There Water on Zork? (PW2.0 p.27)	APW
11:15 am	Urban Water (PW 2.0 p. 413) – create a model of the SRP water management system	Class
12:00 pm	Pass out Certificates & Curriculum Guides – Survey & Stipend & Thank you	APW
12:25pm	Rain Down in Africa Video - Thank you for spending these wonderful days with us! Thunderstorm (2.0 - p.209)	APW

For further exploration...

SRP Connection: [Arizona Falls](#)





Additional Materials

Supplemental materials used during the week (participant worksheets, field guides, etc.) are linked below:

- You will find all additional materials in our Google Drive Shared Folder – that will be sent via email.

Bridging Materials

And some other fun resources:

[What's Your Water Footprint - Water Calculator](#)

[How much water does it take to produce...?](#)

Indigenous Website - <https://native-land.ca/>

Other:

- [Discover a Watershed the Colorado Educators Guide](#)
- [Project WET Curriculum and Activity Guide 2.0](#)

Conservation Worksheets

Heat Island Worksheets

If you have any questions, please contact:

- Kirstyn Kay - kkay@arizona.edu (602)-827-8215

Mission and Vision

Our Vision

Arizona Project WET will set the standard for water-related education programming and resources in the state. We will build a population that is knowledgeable and empowered to take action for water sustainability to support Arizona's diverse communities and ecosystems.

Our Mission

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 take action for water stewardship.











SRP Teacher Academy: Water Solutions

7th to 10th Grade Teachers

- **June 4th, 2025**
1:00pm - 4:00pm
- **June 5th - 6th, 2025**
9:30am - 4:00pm

Salt River Project and Arizona Project WET invite you to an Immersive, experiential STEAM academy. In this 2½- day workshop, teachers gain tangible resources and a supportive cohort to lead their students through meaningful applications of FUNdamental, hydro-science Instructional concepts.



This academy delivers exclusive tours, presentations by industry experts, as well as activities from the newest editions of Project WET's world-renowned curriculum guides. Teachers, this is where your working knowledge on water management in Arizona goes deep!

EXPLORE

- New paradigms for engaging learners in relevant STEAM practices that focus on systems thinking and project-based problem solving.
- Experience learning utilizing phenomena, cross-cutting concepts, and science and engineering practices.

GAIN

- In-depth knowledge of the SRP Water System.
- Receive 15 hours of professional development (CE) & **\$250 stipend** upon completion.
- Snacks and lunch provided by the PERA Club.



Apply Here
5/09/25
Deadline!

**SPACE IS LIMITED,
SPOTS GO FAST!**

OUR THANKS TO:



Delivering water and power*



Cooperative Extension



ARIZONA
project WET
WATER EDUCATION TODAY



Climate, Water, and Resilience

An APW and SRP STEAM Academy
June 4th – 6th, 2025

In this 2 ½ -day academy, participants will apply Science and Engineering Practices and Cross-cutting Concepts to explore the Salt River Project (SRP) system. Educators will hear from SRP experts and visit “The Lab” to see, in person, this amazing operation. By the end of the workshop, participants will know how water from the Salt River Project system is essential to the environmental and socio-economic well-being of over 2.5 million people in the Phoenix metropolitan area. The *Foundations of Water Education Academy* is for secondary grade-level educators and hosted at the PERA Club in Tempe.

Educators improve their skills in engaging learners with relevant science, technology, engineering, and math practices that focus on systems thinking and project-based problem solving. Participants will leave these workshops with tangible resources, and a supportive cohort, to lead their students through meaningful applications of hydro-science instructional concepts.

Guiding Question(s):

How does Salt River Project ensure a reliable water supply for me, my students, and my community in the greater Phoenix metropolitan area... now and for years to come?

Learning Objectives:

Diversify teachers' instructional practice(s) and water-related content mastery through STEAM integration, student-directed learning, real-world application, and collaborative work. Deepen teachers' understanding of SRP's complex and invaluable water distribution system which provides approximately 50% of the Phoenix metropolitan area's water supply. Model activities for teachers, so that they may engage students in STEAM learning centered in the SRP system.

- **Model** the watershed including the groundwater system.
- **Describe** relationships between surface water and groundwater.
- **Relate** forest health to the stability of our watershed and water quality, including the impacts of vegetation, precipitation, development, drought, and fire on the Salt River and Verde River watersheds.
- **Engineer** a solution to use water within a river system to produce energy.
- **Design** the engineered SRP water management system of the Verde and Salt River.

Evaluation – participant pre and post Academy surveys reveal gains in understanding and skill.

Outcomes – participants will be able to model water sources, systems, and cycles, identifying their role as water users, and then consider/apply conservation best practices.





Guiding Question How does Salt River Project ensure a reliable water supply for me, my students, and my community in the greater Phoenix metropolitan area... now and for years to come?	
By the end of the Academy, participants will be able to:	
<ul style="list-style-type: none"> • Model the watershed including the groundwater system. • Describe relationships between surface water and groundwater. • Design the modern water management system of the Verde and Salt River. • Relate forest health to the stability of our watershed and water quality, including the impacts of vegetation, precipitation, drought and fire on the Salt and Verde watersheds. • Engineer a solution to use water within a river system to produce energy. 	
Engagement	Participants will draw on their prior knowledge and experiences and become interested in the topic by:
	<ul style="list-style-type: none"> • Chart the depth of knowledge in the room: understanding, experience, and curiosity. • Sharing lessons, ideas and best teaching practices with other educators.
Exploration & Experience	Participants will explore, experience, and learn the topic by:
	<ul style="list-style-type: none"> • Investigating the interdependence among water users and the effect of population growth in Arizona on our water systems. • Modeling the parts of the Salt River watershed through various activities including full-body, 3-dimensional mapping, and interactive methods. • Explore the Salt and Verde Watersheds through an interactive ARC GIS activity. • Replicating systems through movement activities. • Engineer from design plans water movement to harness energy.
Reflection	Participants will summarize the learning and connect it with the big idea(s) by:
	<ul style="list-style-type: none"> • Write a postcard to <i>Dear Body of Water...</i> • Commit to incorporating at least one NEW sustainable behavior/technology in their home and/or classroom. • Thoughtfully complete the Academy survey with programmatic insights.





Activities and Experiences At-a-Glance

- Stationary Activity/Group Work
- Movement/Interactive Activity
- Tour or SRP Presenters

Wednesday – SRP LAB & Sustainability

Time	Activity	Led by:
1:00 pm	Welcome & Intro & meet the group & name tents	APW (KK)
1:15 pm	Idea Pool... activity	Class (TW)
1:30 pm	Anchor Phenomena & Quick Historical Overview	APW (KK)
2:15-3:45p	Tour the SRP Lab	SRP Staff
3:45-4pm	Come back to PERA & depart	APW

APW: Kirstyn, Lexi, Lisa, Lorie, Michael, Tamara, Wyatt

Thursday – Climate and Extreme Weather

Time	Activity	Led by
Arrival/9:30 am	Thirsty Plant Set-up	APW
9:40 am	Reaching Your Limits (PW 2.0 p. 371) & Is There Water on Zork? (PW2.0 p.27)	APW (TW)
10:10 am	Branching Out (Paper Model & handouts)	APW (LC)
10:50 am	Thirsty Plant Slides & Wrap-up	APW
11:00 am	Water Planning -Hannah Hansen & Kimberly Delgadillo & Anthony Beckham (Water Planning, Water Systems)	SRP Staff
12:00 pm	Lunch	SRP
12:30 pm	Seeing Watersheds and Blue River (PW 2.0 p. 187 & p. 135)	APW (
1:30 pm	Touring the Shed - ARC GIS tour of Verde & Salt Watersheds & Plumbing the Verde (Google Drive)	APW
2:30 pm	Engineering Design Challenge: Putting Water to Work (APW activity) Brainstorm only	Class
2:55 pm	Chillin' With the Chubs (DAW p. 211) or Macro Mayhem (2.0 p. 343)	APW
3:25 pm	Urban Water (PW 2.0 p. 413) – begin to create a model of the SRP water management system	Class
3:45 pm	Reflection of Day (Dear Body of Water) & See you tomorrow & Water Cycle Taylor Swift Video	APW

APW: Kirstyn, Lorie, Michael, Tamara, Wyatt





For further exploration...

- Spotlight Activity** [Water Topic](#)
- “Weather” to Vacation p. 9 [Weather or Climate](#)
- Ocean Osteoporosis p. 53 [Acidification and Changing PH](#)
- Breathing Boreal p.75 [Forest CO₂ Intake](#)

Career Focus: Forest ranger, environmental analyst, hydrologist, climatologist, chemist

SRP Connection: [Watershed management](#), [Lake recreation](#), [SRP environmental policies and programs](#)

Friday - Resilience... Something bad is about to happen.

Time	Activity	Led by
9:30 am	This or That Water Activity & recap of Day 2	APW
9:45 am	APW Groundwater Video Series #1 & 2	APW
10:00 am	Group Groundwater Models & Slides	APW
10:30 am	Slides Permeable/Impermeable & Urban Heat & Pollution (point & nonpoint) (<i>mention Sum of the Parts</i> (2.0 p. 283) & break	APW
11:00am	Healthy Forest - Colette Pansini (water and forest sustainability)	SRP Staff
12:00 pm	Lunch	SRP
12:30 pm	Healthy Forest Activity	APW (KK & LC)
1:15 pm	Healthy Forest Slides & Storm Water (PW p.395) adapted to forest health	APW (KK & LC)
1:40 pm	Putting Water to Work: Engineering Design Challenge II	Class
2:55 pm	Urban Water (PW 2.0 p. 413) – create a model of the SRP water management system	Class
3:40 pm	Pass out Certificates & Curriculum Guides – Survey & Stipend & Thank you	APW
3:55pm	Rain Down in Africa Video - Thank you for spending these wonderful days with us! Thunderstorm (2.0 - p.209)	APW

APW: Kirstyn, Lorie, Michael, Tamara, Wyatt

For further exploration...

- Spotlight Activity** [Water Topic](#)
- Ocean Rising p. 37 [Rising Sea Levels](#)
- Climate Invaders p.89 [Invasive Species](#)
- CSI: Water and Diseases p. 113 [Waterborne and Vector Diseases](#)

Career Focus: Media consultant, community liaison, immunologist (infectious diseases)

SRP Connection: [Sustainability at SRP](#), [Fishing in SRP-managed canals](#), [Watershed Connection-SRP](#)





Additional Materials

Supplemental materials used during the week (participant worksheets, field guides, etc.) are linked below:

- You will find all additional materials in our Google Drive Shared Folder -

Bridging Materials

And some other fun resources:

- [What's Your Water Footprint - Water Calculator](#)
- [How much water does it take to produce...?](#)

Indigenous Website - <https://native-land.ca/>

Other:

- [Discover a Watershed the Colorado Educators Guide](#)
- [Project WET Curriculum and Activity Guide 2.0](#)
- [Healthy Water, Healthy People Educators Guide](#)

Conservation Worksheets

Heat Island Worksheets

If you have any questions, please contact:

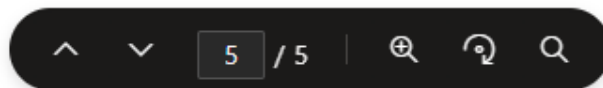
- Kirstyn Kay - kkay@arizona.edu (602)-827-8215

Our Vision

Arizona Project WET will set the standard for water-related education programming and resources in the state. We will build a population that is knowledgeable and empowered to take action for water sustainability to support Arizona's diverse communities and ecosystems.

Our Mission

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 take action for water stewardship.









Appendix B:

- ◆ CAP Academy was held June 16th – 17th 2025
- ◆ CAP Headquarters: 23636 N. Seventh St., Phoenix, AZ 85024
- ◆ 16, 5th-12th grade teachers in attendance
- ◆ CAP Academy flyers, syllabus, and photos below:

CAP Teacher Academy: Exploring the Colorado River

June 16th & 17th, 2025
9:30am - 4:00pm
5th to 12th Grade Teachers

Central Arizona Project and Arizona Project WET invite you to an immersive, experiential STEAM academy. In this 2-day workshop, teachers gain tangible resources and a supportive cohort to lead their students through meaningful applications of FUNdamental, hydro-science instructional concepts.



OUR THANKS TO:



At CAP headquarters, this academy delivers exclusive tours, presentations by industry experts, as well as activities from the newest editions of Project WET's world-renowned curriculum guides. Teachers, this is where your working knowledge on water management in Arizona goes deep!

EXPLORE

- New paradigms for engaging learners in relevant STEAM practices that focus on systems thinking and project-based problem solving.
- Experience learning utilizing phenomena, cross-cutting concepts, and science and engineering practices.

GAIN

- In-depth knowledge of the CAP Water System.
- Receive 12 hours of professional development (CE) & a **\$200 stipend** upon completion.
- Snacks and lunch will be provided.



Apply Here
5/23/25
Deadline!

**SPACE IS LIMITED,
SPOTS GO FAST!**



Cooperative
Extension



ARIZONA
project WET
WATER EDUCATION TODAY



**CAP Teacher Academy: Exploring the Colorado River
2-Day Academy
June 16th & 17th, 2025**

Summary:

In this 2-day academy, participants will apply Science & Engineering Practices and Cross-cutting Concepts to explore the Colorado River Watershed. They will consider positions and perspectives regarding water access and use with evidence from past, present, and future Colorado River management plans.

At the workshop's conclusion, participants will make evident how Colorado River water from the Central Arizona Project aqueduct is essential to Arizona's environmental well-being and socio-economic success.

Guiding Question(s):

Does Arizona have a reliable and sustainable, long-term Colorado River water supply?

Can we ensure a reliable Colorado River water supply in Arizona for the next 50 years?

Learning Objectives:

By the end of this workshop, participants will be able to:

- **Reconstruct** the parts of Colorado River watershed including the inputs and outputs that affect the flow of water within the system over time.
- **Relate** the cause and effect of human impact on the surface water of the Colorado River basin/watershed.
- **Create** models and design solutions for ongoing Colorado River water management and distribution.

Evaluation:

Participants will be surveyed before and after the workshop to determine their knowledge gain as it pertains to the activities, discussions, and presentations addressing the learning objectives.



Horseshoe Bend on the Colorado River in the Grand Canyon National Park - Arizona



Activities and Experiences At-a-Glance



- Stationary Activity/Group Work
- Movement/Interactive Activity
- Tour or CAP Presenters

June 3rd

Time	Activity	Led by
9:30 am	Welcome & Anchor Phenomena: <i>Beyond the Mirage</i>	APW
9:45 am	CAP 101 - DeEtte Person	CAP Team
10:15 am	<i>Branching Out/Water on the Move (2.0 - p. 189)</i>	APW
10:45 am	<i>Seeing Watersheds and Blue River (DAW p. 80)</i>	APW
11:15 am	CAP Story Map (<i>System & Recharge</i>)	APW
11:30 am	Short break (lunch)	
11:45 am	Lunch Speaker – Vineetha Kartha	CAP Team
12:15 pm	<i>Sharing the Shed (DAW p.244)</i>	APW
12:45 pm	<i>Plumbing the Colorado (DAW p. 277)</i>	APW
2:00 pm	<i>Hunting for Habitats (DAW p. 172)</i>	APW
2:45 pm	<i>Chillin’ with the Chubs (2.0 - p. 211)</i>	APW
3:30 pm	<i>One River Many Voices (DAW p. 350)</i>	APW
3:45 pm	Wrap-up & Wind Down - <i>I Am Red</i> (video)	APW
4:00 pm	Reflection: Dear Body of Water	APW

June 4th

Time	Activity	Led by
9:30 am	Welcome Back & 4 Corners Water Game	APW
9:45 am	Revisit and Review	APW
9:50 am	<i>Groundwater Models/Basin in a Bottle (DAW p. 140) & CAP and Recharge</i>	APW
10:30 am	Engineering the CAP Activity – Plan & Start Build	APW
11:00 am	Engineering the CAP Activity – Test & Modify	APW
12:30 pm	Quick Break & Lunch Guest Speaker - Bridget Schwartz-Manock (education program)	CAP Staff
1:00 pm	CAP Tours: Control Center and Machine Shop	CAP Staff
2:00 pm	ARC (Arizona Reconsultation Committee) Meeting at CAP	Public Meeting
3:00 pm	Discussion/Final Reflection: Guiding Questions	APW
3:30 pm	Educational Resources Review, Conclusions, Evaluation, Stipends & Certificates	APW
4:00 pm	Thank you!	APW





Bridging Materials

Arizona Project WET has developed a 9-part groundwater Education series, made possible by funds from the Arizona Department of Water Resources. In this thought-provoking video series, we unearth the secrets of how and where groundwater accumulates and the processes for bringing it to the surface, and how we can work together to solve groundwater overuse. These are short, but very informative videos, that we hope you will enjoy. - [Arizona Project WET Groundwater video series](#)

Beyond the Mirage Videos - <https://beyondthemirage.org/>

Day 1 reflection video <https://www.youtube.com/watch?v=mqYcC7JEe44> - Colorado River – I Am Red

Thunderstorm and Rain Down in Africa music video <https://www.youtube.com/watch?v=yghwsgp5Qw>

[Central Arizona Project – Key features from the CAP system – Storymap](#)

Washington Post Tree Ring Article

And some other fun resources:
[What's Your Water Footprint - Water Calculator](#)
[How much water does it take to produce...?](#)

If you have any questions, please contact:

- Kirstyn Kay - kkay@arizona.edu 602-827-8215
- Tamara Wells – tamarawells@arizona.edu 602-827-2325

Mission and Vision

Our Vision

Arizona Project WET will set the standard for water-related education programming and resources in the state. We will build a population that is knowledgeable and empowered to take action for water sustainability to support Arizona's diverse communities and ecosystems.

Our Mission

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 take action for water stewardship.











