SALT RIVER PROJECT AGRICULTURAL IMPROVEMENT AND POWER DISTRICT MEETING NOTICE AND AGENDA

WATER COMMITTEE

Thursday, January 15, 2026, 9:30 AM

SRP Administration Building
1500 N. Mill Avenue, Tempe, AZ 85288

Committee Members: Paul Rovey, Chair; Randy Miller, Vice Chair; and Casey Clowes, Krista O'Brien, Mark Pace, Jack White Jr., and Leslie Williams

Call to Order
Roll Call

1. **CONSENT AGENDA:** The following agenda item(s) will be considered as a group by the Committee and will be enacted with one motion. There will be no separate discussion of these item(s) unless a Committee Member requests, in which event the agenda item(s) will be removed from the Consent Agenda and considered as a separate item ..... CHAIR PAUL ROVEY

   - Request for approval of the minutes for the meeting of December 11, 2025.

2. Update on Status of Activities at Granite Reef Diversion Dam..... FRANK TUNE

   Informational presentation regarding an update on recent activities at Granite Reef Diversion Dam including completed improvements, proposed next steps for the sand operation, and results from deployment of the new dredge.

3. Middle Sycamore Creek Watershed Study..... ZAC KELLER

   Informational presentation regarding the study of the Middle Sycamore Creek watershed located south of Williams, Arizona.

4. Executive Session, Pursuant to A.R.S. §38-431.03(A)(3) and (A)(4), to Have Discussion or Consultation with Attorneys for Legal Advice and to Give Instructions on 1) Pending Litigation, Gallagher & Kennedy, P.A. v. City of Phoenix, et al., Case No. 23-15938, 2:16-cv-04447, and 2) Legal Issues and Potential Settlement/Remedy for the West Van Buren Water Quality Assurance Revolving Fund (WQARF) Site to Avoid Additional Litigation
   ..... MICHAEL O'CONNOR

5. Report on Current Events by the General Manager and Chief Executive Officer or Designees ..... JIM PRATT

6. Future Agenda Topics ..... CHAIR PAUL ROVEY

The Committee may vote during the meeting to go into Executive Session, pursuant to A.R.S. §38-431.03 (A)(3), for the purpose of discussion or consultation for legal advice with legal counsel to the Committee on any of the matters listed on the agenda.

The Committee may go into Closed Session, pursuant to A.R.S. §30-805(B), for records and proceedings relating to competitive activity, including trade secrets or privileged or confidential commercial or financial information.

Visitors: The public has the option to attend in-person or observe via Zoom and may receive teleconference information by contacting the Corporate Secretary's Office at (602) 236-4398. If attending in-person, all property in your possession, including purses, briefcases, packages, or containers, will be subject to inspection.

THE NEXT WATER COMMITTEE MEETING IS SCHEDULED FOR TUESDAY, FEBRUARY 17, 2026

01/08/2026

MINUTES
WATER COMMITTEE
SALT RIVER PROJECT AGRICULTURAL IMPROVEMENT AND
POWER DISTRICT

DRAFT

December 11, 2025

A meeting of the Water Committee of the Salt River Project Agricultural Improvement and Power District (the District) convened at 9:30 a.m. on Thursday, December 11, 2025, from the Hoopes Board Conference Room at the SRP Administration Building, 1500 North Mill Avenue, Tempe, Arizona. This meeting was conducted in-person and via teleconference in compliance with open meeting law guidelines. The District and Salt River Valley Water Users' Association (the Association) are collectively known as SRP.

Committee Members present at roll call were P. Rovey, Chair; R. Miller, Vice Chair; and C. Clowes, K. O'Brien, M. Pace, J. White Jr., and L. Williams.

Also present were Vice President C. Dobson; Board Members R. Arnett, N. Brown, M. Herrera, K. Johnson, S. Kennedy, and S. Williams; Board Member L. Rovey of the Association; Council Chair R. Shelton; Council Vice Chair B. Paceley; Council Liaisons S. Naylor and P. Van Hofwegen; Council Members E. Gorsegner, M. Rakow, C. Resch-Geretti; I. Avalos, E. Barton, M. Burger, A. Chabrier, J. Felty, L. Hobaica, B. Koch, K. Lee, P. Likens, S. Lutz, R. Judd, C. McJunkin, K. Morrison, M. O'Connor, B. Olsen, C. Pansini, J. Pratt, L. Shaw, C. Sifuentes-Kohlbeck, and P. Sigl of SRP; and Paul Bergelin of Arizona Municipal Water Users Association (AMWUA).

In compliance with A.R.S. §38-431.02, Andrew Davis of the Corporate Secretary's Office had posted a notice and agenda of the Water Committee meeting at the SRP Administration Building, 1500 North Mill Avenue, Tempe, Arizona, at 9:00 a.m. on Tuesday, December 9, 2025.

Chair P. Rovey called the meeting to order.

Consent Agenda

Chair P. Rovey requested a motion for Committee approval of the Consent Agenda, in its entirety.

On a motion duly made by Board Member L. Williams and seconded by Board Member M. Pace, the Committee unanimously approved and adopted the following item on the Consent Agenda:

- Minutes of the Water Committee meeting on October 21, 2025, as presented.

Corporate Secretary J. Felty polled the Committee Members on Board Member

L. Williams' motion to approve the Consent Agenda, in its entirety. The vote was recorded as follows:

YES:	Board Members P. Rovey, Chair; R. Miller, Vice Chair; and C. Clowes, K. O'Brien, M. Pace, J. White Jr., and L. Williams	(7)
NO:	None	(0)
ABSTAINED:	None	(0)
ABSENT:	None	(0)

SRP's Forest Health Goal Update

Using a PowerPoint presentation, Elvy Barton, SRP Senior Manager of Water and Forest Sustainability, stated that the purpose of the presentation was to provide information regarding SRP's forest health goal, partnerships, and projects for 2025.

E. Barton reminded the Committee that SRP's 2035 forest health goal is to increase SRP's leadership role in forest restoration treatments through partnerships, influence, education, and support for industry to thin 800,000 acres total by 2035. They stated that the Fiscal Year 2025 (FY25) results reflected that 240,283 acres of forest were thinned, an increase of 45,719 acres from FY24.

E. Barton highlighted the forest health accomplishments for funded acres and completed acres for FY25 and the outlook for FY26. They reviewed the Quantified Wildfire Risk Assessment (QWRA) as follows: 1) flame length; 2) flame length project progress; 3) expected change to values with fire; and 4) expected change proportional risk.

E. Barton provided an update on biochar and its corresponding benefits. They listed the Wildfire Resilience Utility and the Western Watershed and Wildfire Resiliency Workgroups.

E.N. Barton responded to questions from the Committee.

Copies of the PowerPoint slides used in this presentation are on file in the Corporate Secretary's Office and, by reference, made a part of these minutes.

R. Olsen and M. Purnell of SRP entered the meeting during the presentation.

Colorado River Hydrology and Operations Update

Using a PowerPoint presentation, Lucas Shaw, SRP Director of Water Rights and Strategy, stated that the purpose of the presentation was to provide information regarding the Colorado River hydrology and efforts by the United States, the seven basin states, Tribes, water users, and other related interests in the basin to address drought conditions, including interim measures to conserve water prior to the expiration of the 2007 Interim Guidelines for Lower Basin Shortages and Coordinated Operations

for Lake Powell and Lake Mead, and the development of the Post-2026 Operational Guidelines and Strategies for Lake Powell and Lake Mead.

L. Shaw presented an apportionment map reflecting the 16.5 million acre-feet (MAF) of Colorado River water allocations in the Upper and Lower Basins and Mexico. They stated that 7.5 MAF of water are allocated to the Upper Basin (Colorado, Utah, Wyoming, and New Mexico); 7.5 MAF of water are allocated to the Lower Basin (Arizona, California, and Nevada); and 1.5 MAF of water are allocated to Mexico (under the 1945 Mexican Water Treaty).

L. Shaw stated that the Colorado River reservoir contents have decreased drastically since 2000 and that Arizona has actively conserved Colorado River water since before cuts were mandatory. They said that the Lower Basin water use trend continues to decline.

L. Shaw highlighted the Colorado River system conditions as of December 1, 2025, and stated that the Water Year 2026 operations are unchanged from 2025. They reported that negotiations are behind schedule, but parties are committed to keep talking.

L. Shaw presented the post-2026 proposed and current schedule and provided proposal comparisons on reductions of the Upper Basin and Lower Basin. They concluded with a discussion of the types of impacts on SRP.

L. Shaw responded to questions from the Committee.

Copies of the PowerPoint slides used in this presentation are on file in the Corporate Secretary's Office and, by reference, made a part of these minutes

E. Barton and C. Pansini of SRP left the meeting during the presentation.

Report on Current Events by the General Manager and Chief Executive Officer or Designees

Jim Pratt, SRP General Manager and Chief Executive Officer, reported on a variety of federal, state, and local topics of interest to the Committee.

Future Agenda Topics

Chair P. Rovey asked the Committee if there were any future agenda topics. None were requested.

There being no further business to come before the Water Committee, the meeting adjourned at 10:38 a.m.

John Felty
Corporate Secretary

Granite Reef Update

January 15, 2025

Water Committee

Frank Tune


101
17
PEORIA
GLENDALE
51
PARADISE
VALLEY
101
101
10
SCOTTSDALE
TOLLESON
PHOENIX
202
17
143
202
87
TEMPE
60
10
101

Katy Pickrell (1954-2025)

Why was it replaced?

- Couldn’t keep up with amount of silt coming down the rivers
- Parts became obsolete
- Became a safety risk for our employees to operate due to aging

.

Judge Dredge (2025)

What's new?

- New technology including dredge mapping and electronic controls
- Easy to access parts and service
- Can remove up to 8,000 tons of material a week compared to 200 tons a week

.

New Retention Pond

- Added a new retention basin
- Provides 30,000 more tons of storage
- Easy access for equipment
- Return channels were also upgraded to allow for better flow of the water being returned to Granite Reef

New Sand Operation

Request for interest (RFI) issued to find sand operator meeting SRP requirements

- Able to process up to 20,000 tons of materials a week
- Allocate a portion of the materials to make concrete that SRP will use
- Fine silt and unusable materials will not be allowed to be discharged back into Granite Reef
- Processed water will not be returned to Granite Reef

Dredging Benefits

- Dredging reduced the amount silt in the overall canal systems, reducing maintenance costs
- Less silt increases water storage and flow capabilities at Granite Reef
- Reduces the amount of vegetation growth, which can break off and clog the system
- Sand plant operator keeps fine material from reentering the river, reduces turbidity and total aluminum, improving overall water quality

thank you!

Middle Sycamore Creek Watershed Study

January 15, 2026

Water Committee

Zac Keller

Hydrologic and Measurement Basics

What do we measure?	How do we measure?	Why do we measure?
• Precipitation—Rain & Snow	• Weather stations	• Normal reservoir operations
• Snow water equivalent	• Snow stations	• Emergency reservoir operations
• Evaporation & evapotranspiration	• Flowtography	• Short-term resource forecasting
• Soil moisture	• Snowtography	• Long-term resource planning
• Streamflow (discharge)	• Current meter measurements	• Forest restoration water benefits
• Reservoir inflows	• Stilling wells	
• Reservoir levels		

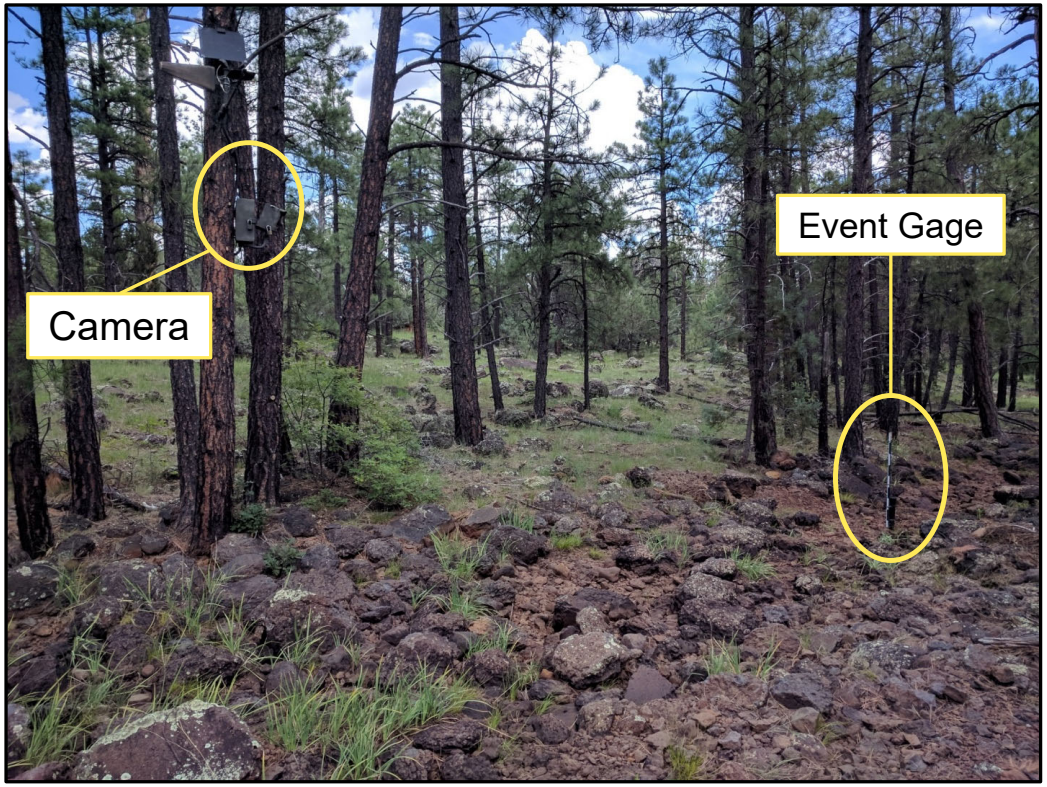
We measure it to manage it

Sycamore Watershed

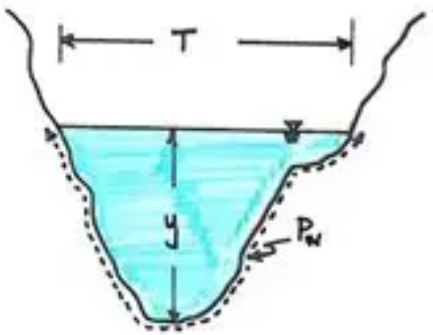
Why the Sycamore?

- High flow events impact Verde Reservoir operations
- Completes the water budget
- Opportunity to monitor forest thinning and climate change response in the form of hydrological changes
- Kaibab National Forest is an eager partner

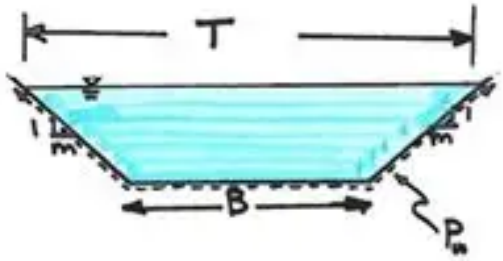
Data Needs—Streamflow & Volume of Flow



Challenges that led to the Motivation for a New Flume



Natural Cross Section

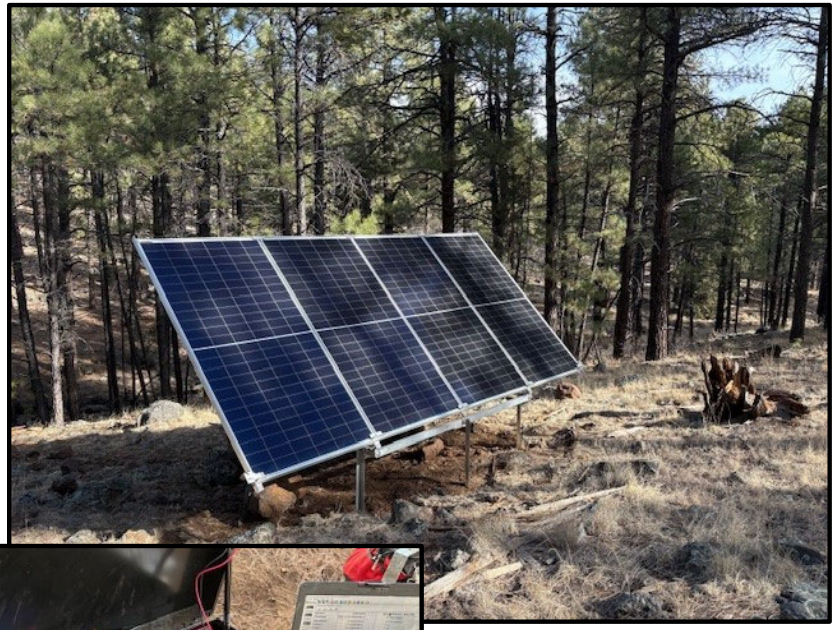


Engineered Cross Section

- Irregular surface of natural streams makes consistent measurement difficult
- Existing measurement method resulted in nonsense data showing total flow exceeding precipitation

New Flume—Installation

New Flume—Supporting Equipment



First Flow Event

11/10/25/ 08:41

11/23/25/ 15:41

11/19/25/ 08:34

Old Measurement Device vs. New Flume

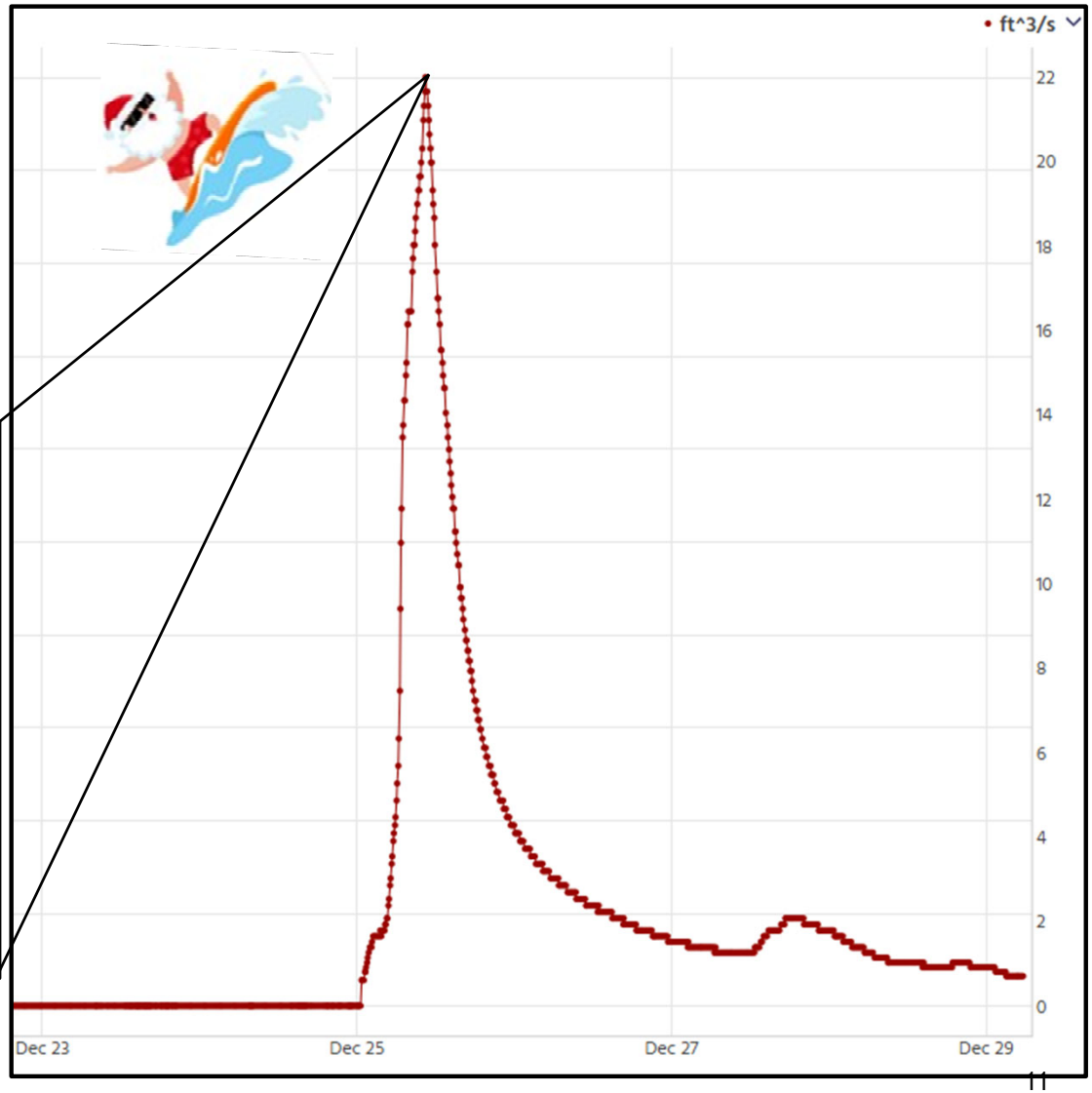
12/22/25 08:16:00

Flowtography Site

Flume Site

Christmas Discharge!

12/25/25 10:41:00



Preliminary Results of Study

Presented at the American Geophysical Union in New Orleans, LA in December

Closing the Water Balance of a Small Forested Watershed in Northern Arizona

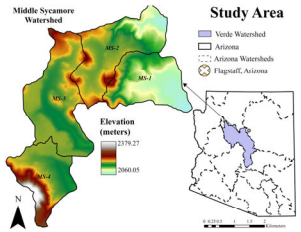
Jonna Urban (jhurban1@asu.edu)[1,2], Zachary T. Keller[3], and Enrique R. Vivoni[1,4]

1. Center for Hydrologic Innovations, Arizona State University. 2. School of Earth and Space Exploration, Arizona State University. 3. Salt River Project . 4. School of Sustainable Engineering and the Built Environment, Arizona State University

I. Introduction

- Arizona forests are a key component the regional water supply.
- Instrumentation is essential for watershed management and forecasting flood risks.
- SRP and ASU are collaborating to close the water balance in Middle Sycamore (MS) of the Verde River.

Site	MS1	MS2	MS3	MS4
Area (km2)	3.92	4.89	6.04	3.10



II. Research Questions and Goals

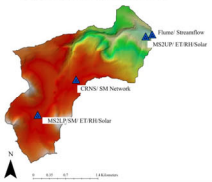
Goal

Analyze 10 years of historical data in four study watersheds, identify major issues, and aid in the installation of new sensors to improve monitoring.

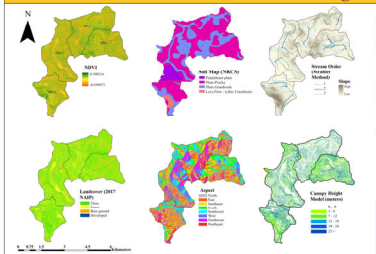
Research Questions

- What is the historical water balance at annual, seasonal, and event scales?
- How do the four watersheds vary in terms of the water balance?
- What improvements are most needed to close the water balance?

MS2 Instrumentation Network



III. Ground and Remote Sensing Datasets



Geospatial Data	Historic Hydrologic Data	Other Products
• NAIP (2017) • DEM (1-m) – OpenTopography • Soil Map (NRCS, 2025) • PlanetScope	• SRP Precipitation (Dec. 2015-present) • SRP Soil moisture (June 2019-present) • SRP Streamflow (2013-present) • SNOTEL (White Horse Lake)	• OpenET (30-m resolution)

Staff gauges have challenges including snow/ice in winter and monsoon events in summer.

Weighted precipitation gauge designed for year-round measurements.

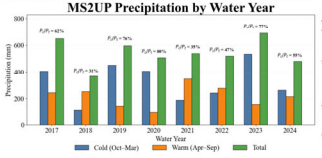
IV. Water Balance Components

Water Balance: $\frac{\Delta S}{\Delta t} = P - Q - ET - R \pm \varepsilon$

Variable		Units	
ΔS	Storage	mm/day	Snowpack, soil storage
Δt	Time	mm/day	Daily, event seasonal, annual
P	Precipitation	$mm/15mins$	Input (Rain / Snow)
Q	Streamflow	mm/day	Stream Output
ET	Evapotranspiration	mm/day	Atmospheric Output
R	Recharge	mm/day	Groundwater Output
ε	Residual	mm/day	Residual

V. Seasonality of Water Balance Components

MS2UP Precipitation by Water Year



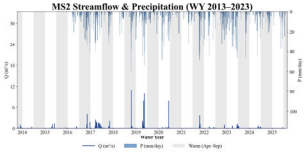
P falls as snow and rain, with strong variability across years and seasons.

- ~57% of annual *P* occurs during the cold season (Oct–Mar).
- Fraction ranges widely (31–80%).
- These differences highlight the importance of winter precipitation.

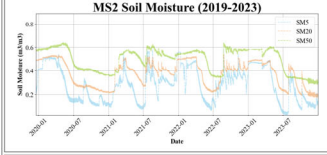
Streamflow response is driven by snow in winter and soil moisture in summer.

- **Cold**: *P* does not always produce immediate *Q* due to snowpack storage or gauge freezing.
- **Warm**: *P* often produces little *Q* as dry soils absorb most of the water.

MS2 Streamflow & Precipitation (WY 2013–2023)



MS2 Soil Moisture (2019-2023)



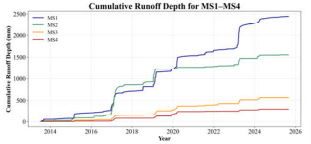
Soil moisture at 5, 20, 50 cm depths.

- **5 cm:** Most responsive to precipitation events.
- **20 & 50 cm:** Less responsive, slower to change, greater retention.

VI. Cumulative Runoff

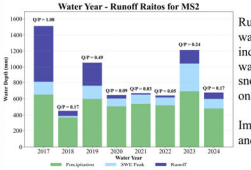
- MS1 & MS2 generate the highest cumulative runoff.
- MS1 has a perennial spring that contributes baseflow even in dry periods.
- MS3 & MS4 show lower cumulative runoff, consistent with higher infiltration.

Cumulative Runoff Depth for MS1–MS4



VII. Winter Gaps

Water Year - Runoff Ratios for MS2



Runoff Ratio (RR) for each water year shows differences indicating that the amount of water in soil storage and the snowpack have a strong control on runoff.

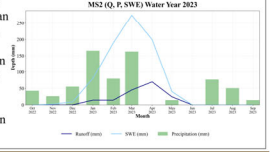
Improved estimates of *Q*, *SWE*, and *SM* would be valuable.

Seasonal progression shows that high amounts of *SWE* can lead to large *Q* in the spring.

Timing of *SWE* accumulation and melt strongly correlated with the runoff response.

Most WYs have peak *SWE* in Feb. and *Q* in March.

MS2 (Q, P, SWE) Water Year 2023

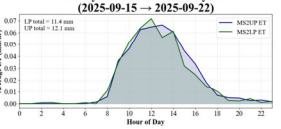


VIII. Improving the Water Balance

New Instrumentation in MS2:

Ott Pluvio precipitation gauge.

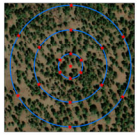
7-Day Mean Diurnal ET Cycle (2025-09-15 → 2025-09-22)



LiCOR 710 estimates of ET using a simplified eddy covariance method (vertical wind speed & humidity).

Heated flume powered by nearby solar panels to captures low flows and snowmelt pulses more reliably and avoid issues with ice.

Open Channel Flow Heated Flume Dimensions – 108-inch L X 72 - inch W



CRNS for soil moisture and SWE estimates based on the negative correlation between neutron flux and hydrogen pools in soil/snow.

Information & References

Session Number: B31P-1906: Recent Developments in Empirical and Modeling Studies of Forest Ecosystems: Implications for Management and Climate Change Poster.
Abstract ID: 1862496

Future Goals

- Complete the current water balance study and publish
- Further increase evapotranspiration measurements with APS at Summit Substation
- Install new measurement devices in the Lower Sycamore watershed
- Complete upgrade of all precipitation gauges
- Investigate Middle Sycamore-1 and the local perched aquifer
- Present research at conferences:
    - Western Snow Conference and Arizona Hydrological Society Symposium.

Thanks to Many Contributors—A OneSRP Effort!

- SRP
  - Water Supply and Planning
  - Water Strategic Projects
  - Flight Operations
  - Transportation Services
  - MCM Crosscut
- Kaibab National Forest
- 4FRI
- ASU
- NAU