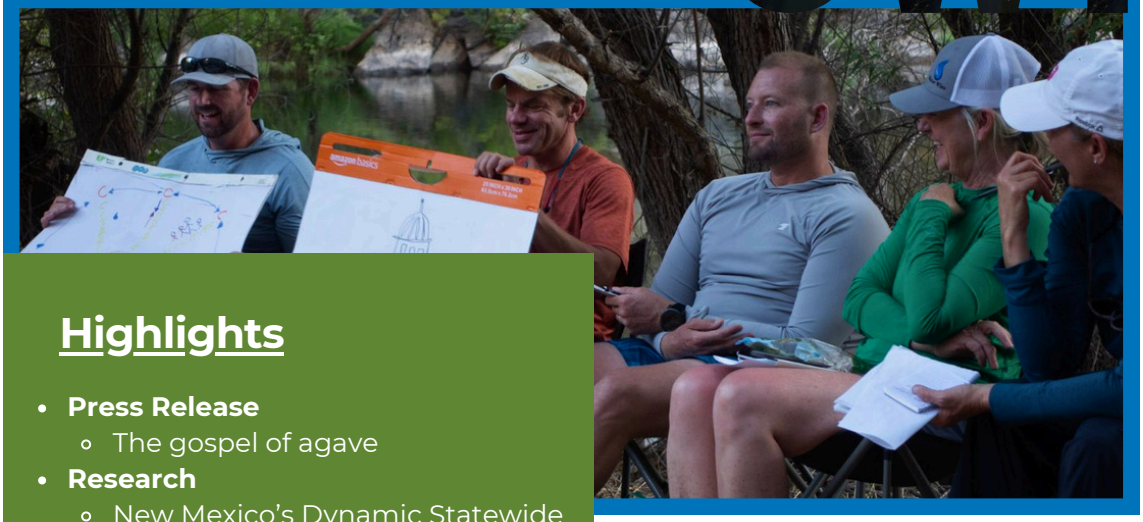
# SECURE WATER FUTURE NEWSLETTER

JULY - SEPTEMBER, 2026

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SWF



## Highlights


- **Press Release**
  - The gospel of agave
- **Research**
  - New Mexico's Dynamic Statewide Water Budget
- **In Case You Missed It**
  - UKU ELE 2026
  - Summer Activities
- **Team Member Spotlight**
  - Jack Severson
- **Events and Footnotes**
  - Water Summit
  - AGU
  - Newsletters become semi-annual




*The Farmer Veteran Coalition of California visits the UCM Experimental Smart Farm.*

## Upcoming Events

**California Water Summit**
Sacramento, October 29

**AGU Annual Meeting**
San Francisco, December 7-11



The 2026 UKU ELE cohort in the Upper Klamath Basin.

# Press Releases

## As state water law threatens Valley farms, farmers say they are 'preaching the gospel of agave'

Rachel Livinal, KVPR



*Left: A 14-acre agave field planted by James Hunt, a Merced farmer, in 2025. A heat- and drought-tolerant crop, Hunt hopes to grow California's agave industry to benefit small farms facing reduced water availability under SGMA, cultivating the plants for spirits, syrups, fibers, animal feed, and biofuel.*

As San Joaquin Valley growers adapt to tighter groundwater limits under SGMA, agave is emerging as one potential "SGMA-ready crop"—a crop that can remain productive with substantially less irrigation. In a recent KVPR story, UC Merced professor Josh Viers explains that decades of groundwater overdraft, combined with increasingly extreme swings between wet and dry years, are forcing agriculture to reconsider how water is used. He points to agave and other low-water crops as options that could be adopted locally without requiring nearly as much groundwater. For Secure Water Future, the story highlights a tangible example of the agricultural transitions underway as growers look for ways to sustain working lands with less water.

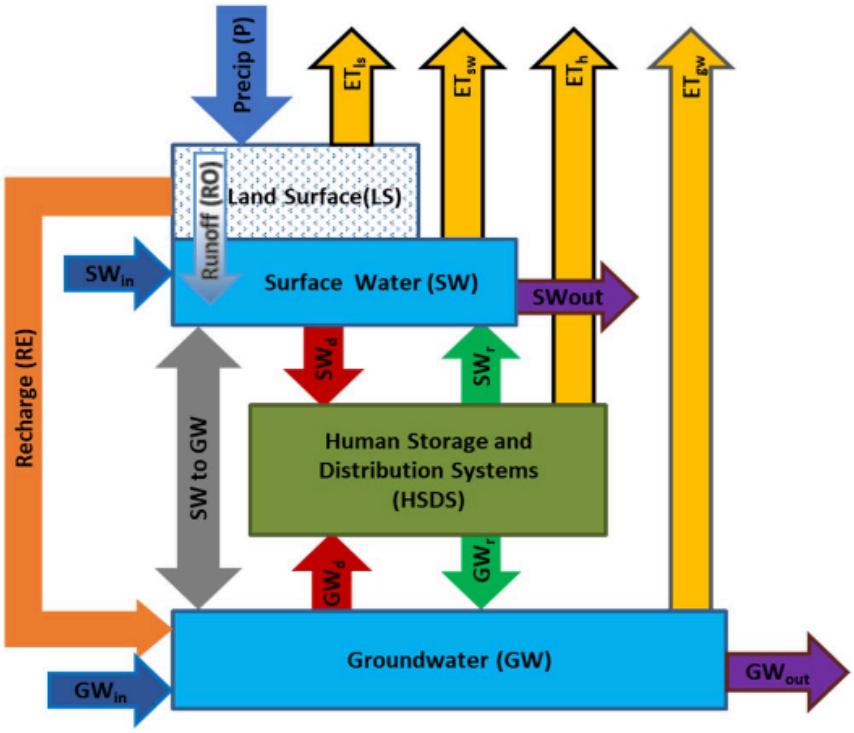
**Read or listen to the full story here.**

# Recent Research

## Dynamic Water Budget Modeling to Fill Knowledge Gaps and Improve Water Management in Arid and Semi-Arid Regions

*Ahmed Mashaly, Austin Hanson, Kevin Perez, Alexander Fernald (2026). Hydrological Processes.*
*https://doi.org/10.1002/hyp.70443*

A study in Hydrological Processes evaluates New Mexico's Dynamic Statewide Water Budget (DSWB), a modeling tool that integrates climate, surface water, groundwater, and human water use to help fill critical data gaps in an arid, water-limited state. The researchers found that climate change and drought are associated with declining snowmelt runoff, greater variability in surface water supplies, increased groundwater pumping for irrigation, and continued groundwater storage declines in some regions. The model also provides an accessible way to compare water conditions and future scenarios across different spatial scales. These findings are closely aligned with Secure Water Future's emphasis on developing better water-budget information and decision-support tools: the study demonstrates how integrating multiple sources of water data can help managers understand tradeoffs, anticipate drought impacts, and make more informed decisions about increasingly constrained water supplies across the arid and semi-arid West.




*Conceptualization model of the Dynamic Statewide Water Budget (DSWB) [ETgw, groundwater evapotranspiration; ETh, human consumption; ETls, land surface evapotranspiration; ETsw, surface water evapotranspiration; GWd, groundwater diversion; GWin, groundwater inflow; GWout, groundwater outflow; GWr: groundwater returns; SW to GW, surface water- groundwater interaction; SWd, surface water diversions; SWin, surface water inflow; SWout, surface water outflow; SWr: surface water returns].*

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# In case you missed it...



## UKU ELE

In June, seven graduate students participated in the Upper Klamath Unbound Experiential Learning Expedition (UKU ELE), an eight-day immersive exploration of water management in a rapidly changing landscape. Meeting with representatives from Tribes, state and federal resource management agencies, and local water districts, students gained an understanding of water, agriculture, and ecosystem challenges and successes in the Basin post-dam removal.

A centerpiece of the expedition was a three-day rafting trip through the recently undammed Klamath River, where participants traveled through former dam sites while learning about river ecology, ecosystem resilience, habitat, environmental water management, and dam removal from faculty mentors. The UKU ELE students are currently working collaboratively on a poster presentation for this year's AGU in San Francisco.





## SUMMER ACTIVITIES



**Super Soaker Water Academy**
Seventh graders from the Merced area joined a week-long water academy, learning about the water cycle.



**Career Day on the Kings**
High school students from Visalia participated in a Career Day on the Kings River, learning from mentors about careers in water.



**Finding Common Water**
Water professionals from California came together on the Tuolumne River for three days of facilitated conversation on the state's most pressing water issues and opportunities for paths forward.

# Team Member Spotlight




Jack Severson joined the Secure Water Future project as a Junior Specialist in November 2023, initially connecting with the project while working as a rafting guide on the Tuolumne River for the first iteration of CASA ELE. Jack's early work with SWF and UCM included field, laboratory, and project-management work. Jack earned his drone pilot certification, trained as a motorboat operator, and helped maintain field equipment and boats. Over time, he gravitated toward project management, workshops, education, and other people-centered aspects of the project, eventually taking on increasing responsibility as Secure Water Future's project coordinator. In that role, he supported SWF through project reporting, developing outward-facing materials, and the logistics of workshops and other events, and was promoted to Academic Coordinator in 2025. Experiential learning was a defining thread of Jack's time with SWF. He co-led three iterations of CASA ELE: New Mexico and the Chama River in 2024, the Upper Colorado River Basin and the Yampa River in 2025, and the Upper Klamath River Basin and the Klamath River in 2026, where he served as the primary expedition lead. With his CASA ELE experience, Jack co-authored a peer-reviewed publication on experiential learning with the 2025 cohort, authored an internal "How To" document to help future coordinators design and deliver ELEs, and presented on ELE concepts at the International Symposium on River Science and at AGU in 2025 and at UCOWR in 2026. Leaning into his people skills and proclivity for teaching, he also organized and led experiential learning events for middle and high school students. Partnering with EDF, he took Visalia high school students and mentors rafting on the Kaweah River in 2025 and the Kings River in 2026 to explore water-related careers. He also worked with CalTeach and the Bobcat Summer STEM Academy to lead the week-long Super Soaker Water Academy for seventh graders at UC Merced in 2024, 2025, and 2026.

Jack is now pursuing a Master of Environmental Science and Management at the UC Santa Barbara Bren School.

# Upcoming Events

## California Water Summit

- **When:** Thursday, October 29, 2026, from 9:00 a.m.–6:00 p.m.
- **Where:** The Sawyer Hotel, 500 J Street, Sacramento, CA 95814.
- **Who:** Water professionals and stakeholders.
- **What:** The 42nd annual Water Summit brings policymakers, experts, and water-sector stakeholders together to discuss major water-management challenges and opportunities in California and the West. Topics include California's efforts to identify 9 million acre-feet of additional water supply by 2040, water demands associated with AI/data centers, desalination, and the 2028 California Water Plan Update.

## AGU

- **When:** December 7-11, 2026
- **Where:** Moscone Center, 747 Howard St., San Francisco, CA 94103.
- **SWF Involvement:** Although we do not have a "SWF Session" as we did in 2025, many SWF researchers will be attending and presenting. An itinerary with SWF affiliated presentations will be distributed via the email listserv in early December. If you will be in San Francisco for the event, we'd love to see you! Please send Lauren a message regarding your travel plans – a no-host SWF happy hour may be scheduled.

AGU ANNUAL MEETING
7–11 December 2026 | San Francisco, CA

## Footnotes

As the SWF project comes to a close, we will move from quarterly to semi- or annual newsletters. If you have information to share with the project team, the listserv is an excellent way to get the word out.

For any announcements you would like to see in a future newsletter, please contact Lauren.

## Project Contacts

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