SECURE WATER FUTURE NEWSLETTER

January - March 2026

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SWF



SWF Q3 - Q4 Highlights

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    - Roundtable Conference, UC Davis
  - The Great Salt Lake Strike Team analysis on Great Salt Lake Conditions
- **Events**
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  - Climate Change Preparedness Conference
- **Research**
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Upcoming Events

- **ACWA Spring Conference**
  - May 5-7, 2026
- **Climate Change Preparedness Conference**
  - May 20-22, 2026
- UCOWR 2026 Annual Conference
  - June 8-10, 2026



Presenters of the Great Salt Lake Strike Team, 2026
(Photo credit: Kem C. Gardner Policy Institute)

Press Releases

Addressing the needs of small farmers under SGMA groundwater market development

Ellen Bruno, 2025



Workshop participants meeting in Davis, CA

In November 2025, a group of 30 researchers, lawyers, and growers discussed challenges and opportunities for small farmers to be able to participate in groundwater markets currently developing under the Sustainable Groundwater Management Act (SGMA). The goal was for practitioners and researchers to communicate their knowledge and identify areas that require attention, such as addressing equity concerns, preserving vitality of small farmers and preventing forms of market influence that could "disadvantage small farmers". Sessions were led by UC Davis Professor Eric Edwards, postdoc Sandy Sum, economist Matthew Fienup, and UC Berkeley Cooperative Extension Specialist and SWF team member Ellen Bruno.

Great Salt Lake Strike Team Releases 2026 Summary, Highlighting Progress, Next-Step Options

Anna McEntire 2026

In a comprehensive, science-based resource for Utah policymakers, the Great Salt Lake Strike Team released its latest data, research, and analysis on the Great Salt Lake conditions, recovery efforts, and challenges. Of the Great Salt Lake Strike Team, SWF members Sarah Null and Matt Yost supported the Strike Team analysis. Together with other experts, these researchers ensure policy discussions are grounded in science.



Photo credit: Kem C. Gardner Policy Institute

Upcoming Event Highlights



ACWA Spring Conference

May 5 - 7, 2026

The 2026 ACWA Spring Conference will bring together California's water leaders to address water challenges.

Conference will provide opportunities to...

Engage in meaningful dialogue: including panel discussions, solution spotlights, and committee session

Create professional connections: include networking receptions and dedicated discussion spaces

Agenda-at-a-Glance

Tuesday, May 5
Committee Meetings
Education Sessions
Mixer
Spotlight Sessions

Wednesday, May 6
Keynote
Spotlight Sessions
Water Talk
Regional Meeting

Thursday, May 7
Grand Prize Drawing
Program Sessions
Closing Keynote and Awards

Climate Change Preparedness Conference

Wednesday-Friday, May 20-22, 2026

ABOUT THE EVENT

The Climate Change Preparedness Conference in Las Vegas will be a three-day event that will bring together leaders, experts, and professionals in the field of climate change resilience practices.

KEY TAKEAWAYS

Understand:
The steps to building climate resilience

Learn:
How to integrate nature-based solutions into the community

Gain Insight:
Insight and knowledge on strategies to protect vulnerable populations

Focus:
Adaptive solutions to foster climate resilience and investigate the impacts of climate change

Upcoming Event Highlights: SWF in San Antonio



UCOWR 2026 Annual Conference

Monday-Wednesday, June 8-10, 2026
San Antonio, Texas

The 2026 Annual Water Resources Conference will connect professionals from across the world to develop and collaborate on new solutions for water resource challenges.

SWF Sessions

Session 1: From Data to Decisions: Connection Water Measurement with Adaptive Management
Helen Dahlke, Ahmed Mashaly, Josué Medellín-Azuara, Jorge Preciado

Session 23: AI & Emerging Tools for Integrated Insights: Water Measurement, Management and Markets and the Future of Adaptive Water Governance
Robert Sabie, Alfonso Torres-Rua, Katherine Hegewisch, Amirhossein Montazeri, AB Siddik

Session 32: Market-based strategies for Water-Management: Bridging Theory and Practice
Alvar Escriva Bou, Andrew Ayres, Ellen Bruno, Mehdi Nemati, Leslie Sanchez, Sarah Null

SWF Game Workshop

Cozy River Valley: Workshop Using Interactive Gaming to Explore Water Tradeoffs, Strategies, and Policy Pathways
Facilitators: Barbara Chamberlin, Amy Muise, Lauren Parker

Recent Research

Low-cost CO_2 sensors reveal seasonal and management-driven soil carbon fluxes in a Mediterranean agroecosystem

Humberto Flores-Landeros, Ana Grace Alvarado, Anna Jurusik, Jorge Andres Morande, Emily Waring, Thomas C. Harmon (2026) ScienceDirect

For sustainable climate mutation, understanding soil carbon dynamics is critical. This study examined soil CO2 efflux during five distinct land management practices: flood irrigation, pasture grazing, soil disking, rain-fed winter cultivation, and sprinkler-irrigated row cropping. Results of the study highlighted the the complex relationship between land management practices, environment, and soil CO2 efflux in the agricultural lands of Merced, California.

- Link to publication here

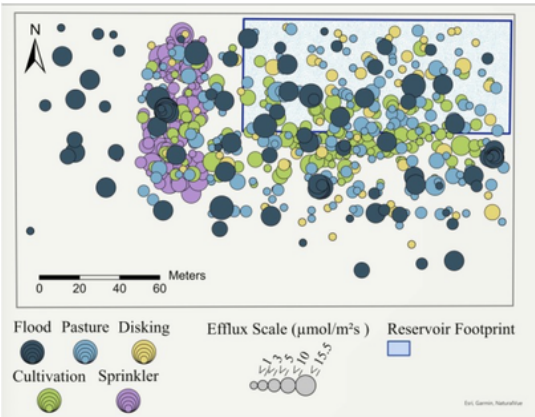


Figure shows soil C02 observation for different land management activities at the study site.

Dark Blue - Flood
Light Blue - Pasture
Yellow - Disking
Light Green - Cultivation
Pink - Sprinkler

Grey rectangle in the northwest quadrant depicts the location of the irrigation reservoir

More Recent SWF Publications

Dynamic Water Budget Modeling to Fill Knowledge Gaps and Improve Water Management in Arid and Semi-Arid Regions
Ahmed F. Mashaly, Austin M. Hanson, Kevin A. Perez, Alexander G. Fernald (2026) Wiley Online Library

Agricultural Water Manager Perspectives on Water Markets in Utah
Britta L. Schumacher, Matt A. Yost, Jessica D. Ulrich-Schad, Burdette Barker, Sarah E. Null (2026). Wiley Online Library

Rapid contemporary shrinking and loss of ice-capped summits in the western United States
Eric Gilbertson, John T. Abatzoglou, Kathryn E. Stanchak, and Scott Hotaling (2025) Taylor & Francis

Wildfire disasters are increasingly in the news, yet less land is burning globally – here's why
Mojtaba Sadegh, John Abatzoglou and Seyd Teymoor Seydi (2025) The Invading Sea

Navigating Growing Prospects and Growing Pains of Managed Aquifer Recharge
Dave Owen, Helen E. Dahlke, Andrew T. Fisher, Ellen Bruno, Michael Kiparsky (2025) NGWA

Team Member Spotlight



Humberto is a graduate student at UC Merced whose work bridges climate science, groundwater sustainability, and innovative agricultural water management. As a scholar supported by SWF, Humberto has advanced research that strengthens water resilience in California's agricultural landscapes while contributing to education and community engagement. Humberto was part of the 2023 CASA ELE cohort, where he rafted the Yampa and Green Rivers from Colorado to Utah. Although it was his first time rafting (and despite not knowing how to swim) he embraced the challenge as an opportunity for growth. One of the most impactful moments of the trip was hiking through landscapes that would have been flooded had the Echo Park Dam been constructed. Experiencing these preserved river corridors firsthand served as a powerful reminder of how infrastructure decisions shape the natural world and the communities that depend on it. Through SWF support, Humberto completed his master's along-the-way research at the UC Merced Experimental Smart Farm (ESF), where he assessed spatially distributed CO_2 efflux across multiple growing seasons and agricultural management practices. This research was recently published in the Journal of Environmental Technology & Innovation, contributing valuable insights into carbon dynamics in working agricultural systems. Beyond his research, Humberto helped install an Eddy Covariance (EC) Tower, made possible through SWF funding, at the ESF and created an educational video (in Spanish) explaining the tower's function and importance. The EC tower has since become a cornerstone research instrument at ESF, supporting both his master's work and his current doctoral research. Humberto's PhD work focuses on groundwater recharge and sustainable water storage solutions at the farm scale. Using electromagnetic geophysical methods, he assesses subsurface conditions to design Managed Aquifer Recharge (MAR) systems. At ESF, he identified groundwater storage potential within a shallow perched aquifer and has since conducted recharge experiments to validate model predictions and evaluate long-term storage stability. This work has led to the development of what the team refers to as a micro-scale MAR (μMAR) system that could provide scalable solutions for agricultural water sustainability.

Bulletin

Utah State University

- If you're interested in collaborating with Utah State University on developing factsheets in the semi-arid Southwest, reach out to Dr. Scott Hotaling (*scott.hotaling@usu.edu*) to explore opportunities for engagement.

University of California - Merced

- SWF will be collaborating with the Environmental Defense Fund on a Multi-benefit Land Repurposing workshops to be held at UC Merced in April. If you are interested in learning more, reach out to Lauren or Jack.

New Mexico State University

- Dr. Heerema (*rjheerem@nmsu.edu*) has plans for future Extension outreach opportunities to deliver practical research results to New Mexico agricultural stakeholders, including a field day in the Mesilla Valley during the upcoming growing season (tentatively, late August).

GOT ANYTHING FOR THE NEWSLETTER??

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