

WEEKLY WAVE



COLLEGE OF AGRICULTURE & LIFE SCIENCES
COOPERATIVE EXTENSION

**WATER RESOURCES
RESEARCH CENTER**

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The [Water Resources Research Center](#) - a research and [Extension](#) unit of the [College of Agriculture and Life Sciences](#)



Beyond the Mirage Documentary Broadcast Nationwide

Recently made available to American Public Television stations throughout the United States, "Beyond the Mirage: The Future of Water in the West" is now scheduled to air in 33 states during the month of October. Friends and family across the country can tune in to their local stations to watch this eye-opening documentary.

To view the national show time listings, click [here](#)



IRRIGATED AGRICULTURE IN ARIZONA:



IRRIGATED AGRICULTURE IN ARIZONA: A FRESH PERSPECTIVE

WRRC CONFERENCE 2017
MARCH 28

WRRC EVENTS

WRRC Brown Bag Seminar - Dam Removal and River Restoration of the Elwha River, Washington: Lessons learned five years into the project

October 6, 2016



Time/Location: 12:00 - 1:15 p.m. / WRRC Sol Resnick Conference Room (350 N. Campbell Ave.)

Speaker: Chris Magirl, Ph.D., Studies Chief, U.S. Geological Survey

With over 20 years of experience researching hydrology and fluid mechanics for both government and industry, Dr. Magirl has worked on fluvial geomorphology, sediment transport, and river ecology issues throughout the western U.S. Before joining the USGS, Dr. Magirl was an R&D project manager and engineer for Hewlett-Packard. He has published over 50 peer-reviewed articles on geomorphology, hydrology, and engineering, and holds six patents.

WRRC to Co-host Special Brown Bag Seminar - Water Management in Mexico: Status and Challenges

October 14, 2016

Time/Location: 12:00 p.m. - 1:15 p.m. / ENR2 Room S225 (1064 E. Lowell Street)



Speaker: Dr. Fernando González Villarreal, Institute of Engineering, Universidad Nacional Autónoma de México (UNAM)

Water Resources Research Center, Udall Center for Studies in Public Policy, Consortium for Arizona-Mexico Arid Environments, School of Geography & Development, and the UNAM Center for Mexican Studies (UA) are honored to co-host Dr. Fernando González Villarreal. Dr. Villarreal's seminar will bring awareness to water management in Mexico. The seminar will be followed by a light lunch. **Please note the special location for this Brown Bag Seminar.**

WRRC Brown Bag Seminar - ISMAR9 Sustainable Groundwater Management Policy Directives

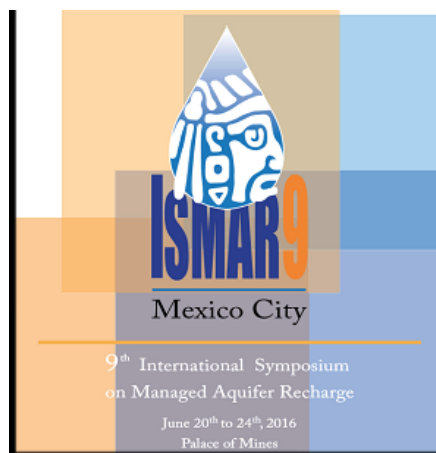


October 14, 2016

Time/Location: 3:30 p.m. - 4:30 p.m. / WRRC Sol Resnick Conference Room (350 N. Campbell Ave.)

Speaker: Adriana Palma Nava, National Autonomous University of Mexico (UNAM)

Water Resources Research Center, Udall Center for Studies in Public Policy, and Consortium for Arizona-Mexico Arid Environments are honored to host Adriana Palma Nava to update us on policy directives for managing groundwater from the ISMAR9 conference held in June 2016. **Please note the special time for this Brown Bag Seminar.**



WRRC Brown Bag Seminar - 2016 Central Arizona Project Award Winners to Present Special Seminar

October 21, 2016

Time/Location: 12:00 p.m. - 1:15 p.m. / WRRC Sol Resnick Conference Room (350 N. Campbell Ave.)

Speakers: Beth Kleiman will present, "The Water-Energy Nexus Dimension of the Central Arizona Project System Use Agreement" and Surabhi Karamelbar will present, "When the Turbines Stop Turning: Examining the Impacts of Drought on Power Production at Hoover Dam and Its Consequences for Entities in Arizona"

Each year, the Central Arizona Project (CAP) holds a competition for students conducting research on water issues facing the lower basin states (Arizona, California, and Nevada). This year both first and second place prizes were awarded to students with strong connections to the WRRC.



WRRC Brown Bag Seminar - Potable Reuse for Inland Locations: Pilot Testing Results from a New Potable Reuse Treatment Scheme

October 26, 2016

Time/Location: 12:00 - 1:15 p.m. / WRRC Sol Resnick Conference Room (350 N. Campbell Ave.)

Speakers: Jeff Biggs, Administrator, Strategic Initiatives Division, Tucson Water and Michael Hwang, West Regional Technology Leader for Membranes, CH2M

To meet the needs of the greater Tucson Metropolitan area, Tucson Water is exploring potable reuse as a means to diversify and expand their water portfolio. To this end, a six-month pilot test of an innovative and sustainable potable reuse treatment scheme was conducted under a tailored collaboration project between CH2M, Tucson Water, and University of Arizona. This project was funded by the WaterReuse Research Foundation (WRRF-13-09). This Brown Bag Seminar will



present an overview of the treatment scheme as well as the major results and conclusions from the pilot study.

NEWS

Student Research Projects Sought

This year the WRRRC is trying something new by focusing its 104b grants program on graduate student research projects. The program, authorized under the Water Resources Research Act, Section 104(b) and funded through the U.S. Geological Survey, provides small grants for research that explore new ideas to address water problems in Arizona and expand understanding of water and related phenomena. Because program goals emphasize the entry of new research scientists, engineers and technicians in the water resources field and education of students through significant involvement in water research, the WRRRC is calling on graduate students and their faculty sponsors to submit proposals that feature student work.



The WRRRC expects to award two to four grants of up to \$10,000. Funds may be applied to student support or may be used for other purposes such as field or lab work on graduate student projects. Student project proposals must show a faculty member at one of Arizona's three state universities (UA, ASU, or NAU) as the Principal Investigator (PI). Students should be listed as co-PIs. Deadline is 5:00 pm, Wednesday, November 9, 2016.

The grant announcement can be viewed by clicking [here](#).

Instructions for submitting proposals can be found [here](#).

New Article Illuminates Groundwater Governance

The growing importance of groundwater as a critical component of water supply for agriculture, urban areas, industry, and ecosystems has increased the need to protect aquifers worldwide from overexploitation. Water governance is central to achieving this end. Thus, the article "Modes and Approaches of Groundwater



Governance: A Survey of Lessons Learned from Selected Cases across the Globe", by Robert G. Varady, Adriana A. Zuniga-Teran, Andrea K. Gerlak, and Sharon B. Megdal from the University of Arizona, analyzes ten selected groundwater-governance case studies from diverse regions to identify characteristics of good governance practice. The cases selected varied across four elements - institutional setting, availability and access to information and science, robustness of civil society, and economic and regulatory framework. All four of these elements were found to have important impacts on governance by affecting incentives, conflict, power relations, effectiveness, and sustainability of process and outcomes. In sum, critical capacities of governments at multiple levels and civil society actors were found in the characteristics of shared governance. This article was published in a Special Issue of the journal *Water with the title Water Governance, Stakeholder Engagement, and Sustainable Water Resources Management*, edited by the WRRRC's Sharon Megdal and Susanna Eden and Eylon Shamir of the Hydrologic Research Center, San Diego, CA.

To read the full article click [here](#)

Former Tucsonan Comes Back to Teach



Tucson native Faith Schwenning is returning to the desert to teach with Arizona Project WET. Faith joins APW from The Ohio State University where she studies Early and Middle Childhood Education with an English minor. After hearing about APW through a family friend, Faith jumped through numerous hoops at OSU for approval to become a part of the APW team. In her capacity as a water educator intern, Faith uses her teaching skills to facilitate lessons that engage Tucson-area K-12 students in learning about Arizona's water resources and issues. Faith is enjoying her time back in Tucson at the University of Arizona. Furthermore, though a current student at OSU, Faith admits that she's caught Wildcat fever: she loves her UA Wildcats much more than the Ohio State Buckeyes. Welcome back to Tucson, Faith, and Bear Down!



Find out more about APW [here](#)

State of California Releases Feasibility Study for Direct Potable Reuse

In early September, the California State Water Resources Control Board released a feasibility study towards implementation of direct potable reuse. The draft study, based on input from an Expert Panel and Advisory Group, outlines regulations and guidelines for direct potable reuse that protect public health. Guidelines include suggested treatment technologies, appropriate chemical and biological water quality indicators, and additional scientific research needed. Currently the feasibility study is open for public comment through October 25, 2016.



For more information and to download the study, click [here](#)

SWES Assistant Professor Karletta Chief Honored with Two Prestigious Awards

The American Indian Science and Engineering Society has named Karletta Chief its "Professional of the Year" for her overall leadership and technical achievements. AISES, is a national, Native American nonprofit that is a leader in providing STEM opportunities for American Indians. Chief, a member of the Navajo Nation, was nominated by WRRRC Director Sharon B. Megdal for her willingness to collaborate, multi-dimensional contributions, and knowledge. She will be recognized at the 2016 AISES National Convention on November 10-12 in Minneapolis.

Dr. Chief is also the recipient of the "Woman of the Year" award presented by the Phoenix Indian Center (PIC). This award recognizes the excellence of her work, innovation in approach, and impact within the community or across the nation. Dr. Chief, along with the other honorees, will be recognized at a dinner on Wednesday, November 2016 at the Hilton Scottsdale Resort and Villas in Scottsdale, Arizona.

To read the full Indian Country Today Media Network article, click [here](#)

To register for the PIC Awards celebration, click [here](#)



ANNOUNCEMENTS

Instructional Specialist, Senior Position Opening (Greater Phoenix, AZ area)

Arizona Project WET and the Water Resources Research Center are seeking a full-time Instructional Specialist, Sr. who will work with APW's Arizona Water Festival Program and the new Aqua STEM Program, specifically reaching students of all ages.

To learn more about this opportunity or to apply, click [here](#)



61st Annual New Mexico Water Conference

Western New Mexico University will host the Annual New Mexico Water Conference; "Where Does All the Water Go? History, Hydrology and Management of New Mexico's Scarce Waters on October 5-7, 2016 in Silver City, NM

To learn more about the conference, click [here](#)

Rapid Stream Riparian Assessment for Sonoita Creek

On October 21-24, 2016 Dr. Peter Stacy will present stream information and train volunteers who will then collect data on Sonoita Creek in an ongoing Rapid Stream Riparian Assessment project.

For more information about this training, click [here](#)

AWWA Water Infrastructure Conference and Expo

The American Water Works Association will be holding their Water Infrastructure Conference October 30-November 2, 2016 at the Arizona Grand Resort in Phoenix, Arizona. Kathryn Sorensen, Director of Phoenix Water Services, opens the general session explaining why "Infrastructure Matters". This 4-day conference and expo will focus on protecting our infrastructure

assets and addressing infrastructure challenges.

To register for the conference, view the technical programs, and view workshops, visit the conference [website](#)

WATER RESOURCES RESEARCH CENTER

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