

# WEEKLY WAVE



COLLEGE OF AGRICULTURE & LIFE SCIENCES  
COOPERATIVE EXTENSION

**WATER RESOURCES  
RESEARCH CENTER**

September 16, 2016 / Volume 4, Issue 27

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



## Beyond the Mirage Wins Award for Environmental Education/Communication

On Saturday, September 10, 2016, [Arizona Forward held their 36th Annual Environmental Excellence Awards](#)

Ceremony at the Arizona Grand Resort in Phoenix. This prestigious event is to recognize outstanding contributions to the physical environment of local communities. Beyond the Mirage was acknowledged with the Environmental Education/Communication Award for its work educating and empowering users to act as informed citizens on complex water issues facing our state. Beyond the Mirage combines user-generated content with true expertise in water issues of Arizona, making education of this topic accessible to Arizonans of all ages.



**ARIZONA  
FORWARD**

Join the "Beyond the Mirage" movement [here](#), create your own documentary and share it with others

**EVENTS****WRRC Brown Bag Seminar -  
Groundwater Modeling to Support  
Water Resources Planning in  
Clarkdale, Arizona****September 21, 2016****Time/Location:** 12:00 - 1:15 p.m. / WRRC Sol Resnick  
Conference Room (350 N. Campbell Ave.)**Speaker:** Laurel Lacher, Ph.D., Owner/Principal, Lacher  
Hydrological Consulting

Dr. Lacher received undergraduate degrees in English and Geology from the University of Texas at Austin, and a M.S. and Ph.D. in Hydrology from the University of Arizona. She led the White Mountain Apache Tribe's Water Resources Program from 1996 to 2002, where she developed a stream-gaging network and developed and monitored municipal groundwater and surface water supplies. Since 2002, she has served as Principal of Lacher Hydrological Consulting. Her primary focus throughout her career has been conjunctive use of groundwater and surface water.

**WRRC Brown Bag Seminar - Sam  
Fernald Development of a Dynamic  
Statewide Water Budget for Improved  
Water Planning in New Mexico****September 23, 2016****Time/Location:** 12:00 - 1:15 p.m. / WRRC Sol Resnick Conference Room (350 N. Campbell  
Ave.)**Speaker:** Sam Fernald, Ph.D., Director, New Mexico Water Resources Research Institute

Sam Fernald was appointed director of the New Mexico Water Resources Research Institute (NM WRI) in July 2013 after having served as interim director since January 2011. His earned degrees include a 1987 B.A. in international relations from Stanford University, an M.E.M. in 1993 in water and air resources from Duke University, and a Ph.D. in watershed science from Colorado State University in 1997. His primary research interests include water quality hydrology; land use effects on infiltration, runoff, sediment yield, and nonpoint source pollution; and effects of surface water/groundwater exchange on water availability and water quality. Sam received a Fulbright Scholarship to Patagonian National University, Trelew, Argentina in 2008, and another Fulbright Scholarship to the University of Concepcion, Concepcion, Chile in 2000. Sam currently is leading a multi-institutional, five year, \$1.4 million water research project funded by the National Science Foundation. In addition to NMSU, partners in the study include the University of New Mexico, New Mexico Tech, Sandia National Laboratories, the New Mexico Acequia Association, and the

## **SWES Colloquium - Characterization of Molecular Diversity of Bacteria and Virus in the Aquifers of Mexico.**

**September 23, 2016**

**Time/Location:** 3:00 p.m. - 4:00 p.m. / Marley Building Room 230 (1145 E. 4 St.)

**Speaker:** Cecilia Zepeda, Ph.D., Research Scientist, Yucatan Center for Scientific Research



Dr. Zepeda works with the Water Science Unit of the Yucatan Center for Scientific Research, and undertakes research on the water resources of the Peninsula with emphasis on the quality of underground water bodies, thereby contributing to their responsible management and sustainable use. Her research models the dispersion of contaminants within the Peninsula aquifers, while continuously monitoring the quality of the water for agricultural, industrial, and residential uses.

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## **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.

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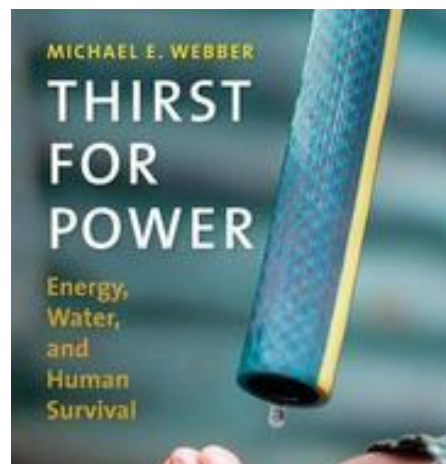
## **Seminar - Thirst for Power: Energy, Water, and Human Survival**

**November 15, 2016**

**Time/Location:** 4:00 p.m. James E. Rogers College of Law, Room 168.

**Speaker:** Michael E. Webber, Ph.D.

Dr. Webber, a leader and teacher in the field of energy development and resources, explains how energy and water supplies are linked and how problems in either



can be crippling for the other.

\*\*The UA Bookstore will host a book signing in the College of Law's courtyard following this event.\*\*



## NEWS

### Making Groundwater Visible

**Authors:** William M. Alley, Lisa Beutler, Michael E. Campana, Sharon B. Megdal and John C. Tracy

The September IMPACT, a journal of the American Water Resources Association, contains the article "Making Groundwater Visible", which summarizes the findings and recommendations of the "Groundwater Visibility" workshop held in April 2016. WRRRC Director Sharon B. Megdal, was a contributing author for this two-page synopsis, aiming to bring the workshop outcomes to a broader audience. The overall goal of the April workshop was to raise awareness and understanding of groundwater and its interactions with the environment.



To read the IMPACT article click [here](#).

### WRRRC Lends Expertise to Writings on Groundwater Across Borders

Study of transboundary aquifers has been neglected in the past in favor of more high visibility issues associated with transboundary rivers. A Circle of Blue WaterNews article highlighted the emergent problem of managing transboundary aquifers. International groundwater law is fairly new and experience managing aquifers in a transboundary context is limited. The urgent need for better knowledge transboundary aquifers is slowing progress toward greater cooperation in their management. WRRRC Director Sharon B. Megdal, cited in this article, emphasized the need for cooperation between scientists and water managers on both sides of the boundary, which requires consistent deliberation and dialogue. The example of the Transboundary Aquifer Assessment Program (TAAP) in Arizona was cited in a September 13 article in High Country News. The first phase TAAP, under the cooperation of the U.S. Geological Survey, Mexico's National Water Commission, the WRRRC, and the University of Sonora, among others, is completing two reports: one on the San Pedro aquifer and a second on the Santa Cruz aquifer, both of which span the border between Arizona and Sonora, Mexico. In the High Country News article, Dr. Megdal speculates how future TAAP cooperative efforts might build upon the success of the first phase.



To view the Circle of Blue WaterNews article click [here](#).

The High Country News article can be viewed [here](#).

### Fourth Grade Water Unit Adopted by



## another School District!



The 2016-17 school year marks the beginning of an educational partnership between APW and the Roosevelt District in Phoenix.

Recently, 24 teachers from 17 schools attended professional development to prepare their students for the inaugural Roosevelt Water Festival. In November, an estimated 750 4th grade students will experience water education through the Festival. The City of Phoenix and Pepsico are partnering with APW to provide this interactive day to schools that lie between the Salt River and South Mountain. Want to volunteer? Email: [arizona.wet@gmail.com](mailto:arizona.wet@gmail.com)



To learn more about Arizona Water Festivals, click [here](#)

## WRRC Associate Director Jean McLain Participates in WaterReuse Panel

On Monday, September 12, Jean McLain presented research data on antibiotic resistance as part of a panel discussion at the 31st Annual WaterReuse Symposium in Tampa, Florida. The "Water Reclamation and Antibiotic Resistance: Where are we now?" panel included antibiotic resistance and water quality experts from throughout the U.S., including (left to right in photo): Jeff Mosher (Water Environment and Reuse Foundation), Amy Pruden (Virginia Tech), Daniel Gerrity (University of Nevada, Las Vegas), Valerie Harwood (University of South Florida), Channah Rock (University of Arizona; panel moderator), and Jean McLain. Dr. McLain's presentation focused on proper design of research studies to ensure accurate data capture of antibiotic resistance in water.



## ANNOUNCEMENTS

### Friends of Sonoita Creek Presents Geologist Gary Hix

Noted speaker, Gary Hix will present "The Connection Between Surface Water, Groundwater, and Private Wells on September 24, 2016 in Cady Hall Library, 346 Duquesne Street, Patagonia, Arizona

For more information on this and other upcoming events, click [here](#)



## 2017 Universities Council on Water Resources/National Institute of Water Resources Conference--Call for Special Sessions

The UCOWR/NIWR Conference Planning Committee, which is chaired by WRRC Director Sharon B. Megdal, invites proposals for Special Sessions on the conference topic: "Water in a Changing Environment". Special sessions can be in the form of a panel discussion or a group of four or more oral presentations on a specific topic. Submissions should be sent directly to the Technical Program Chair, Kevin Wagner ([klwagner@ag.tamu.edu](mailto:klwagner@ag.tamu.edu)), by September 23, 2016. This year's conference will be held at Colorado State University in Fort Collins, Colorado

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

## **Call for Student Poster Abstracts, Food and Water in Arid Lands Conference**

The "Food and Water in Arizona Lands: Dialogues Across Contemporary and Traditional Knowledge" Conference will be held at the Student Union Memorial Center on the University of Arizona campus on November 4-5, 2016. The website is open for submission of student poster abstracts until September 23. Abstracts should align with the goals of the conference, encouraging dialogues to address the changes in the environment, weather patterns, water resources, food systems, and security.

For more information on this conference, click [here](#)

## **Second Annual Big Green Event to be Held in Marana, Arizona**

On Saturday, November 7, 2016 all things Green will come together for an informational and fun-filled day exploring earth-friendly resources in the community. This is an all-ages event, with admission "cost" of one recyclable or non-perishable food item to support the Marana Food Bank. Don't forget to visit the WRRC Booth and stop by the library to view the Award-Winning Documentary, Beyond the Mirage.

For more information, click [here](#)

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