

# WEEKLY WAVE



COLLEGE OF AGRICULTURE & LIFE SCIENCES  
COOPERATIVE EXTENSION

**WATER RESOURCES  
RESEARCH CENTER**

**November 4, 2016 / Volume 4, Issue 34**

The Water Resources Research Center - a research and Extension unit of the College of Agriculture and Life Sciences

The  
**Big Green**  
Event



## The Big Green Event: Your Passport to a Greener World

The Marana Chamber of Commerce, The Town of Marana, and many local businesses and organizations, including the WRRC, are coming together to participate in The Big Green Event this Saturday, November 5, from 9:00 a.m. to 3:00 p.m. at Crossroads Park in Marana, Arizona.

For all things Green, attend this informational and fun-filled day exploring earth-friendly resources in the community. The event will include a recycling center, all-day kid's activities, educational presentations, a farmer's market, and so much more. Participants are encouraged to bring any gently used books to aid in the attempt to break the Guinness World Record for most books exchanged in an 8-hour period. Books can be donated or exchanged.

This is an all-ages event, with admission "cost" of one recyclable or non-perishable food item to support the Marana Food Bank. Be sure to visit the WRRC booth and stop by the library to view the documentary, Beyond the Mirage, the Future of Water in the West.

For more information, click [here](#)

**IRRIGATED  
AGRICULTURE**



**WRRC  
CONFERENCE  
2017**

**IN ARIZONA:  
A FRESH PERSPECTIVE**

**TUESDAY, MARCH 28**  
UNIVERSITY OF ARIZONA  
STUDENT UNION  
TUCSON, ARIZONA

## WRRC EVENTS

### **WRRC Brown Bag Seminar - Assessing Water Security at Global and Local Scales**

**November 10, 2016**

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

**Speaker:** Jacob Petersen-Perlman, Research Analyst,  
WRRC

Ensuring a readily available supply of water that has an acceptable quality for health, livelihoods, and production continues to be a challenge across the world. This challenge is made greater by increasing demands on water supply, increasing variability in water supplies due to climatic change, and increasing costs of construction of large-scale water infrastructure. Political boundaries crossing watersheds further complicate matters. This presentation discusses water security at two scales: 1) a global assessment of transboundary watersheds likely to experience hydro-political tensions in future years based upon environmental, political, and economic indicators and 2) a methodology to improve water security at the local level. The presentation will draw from work submitted to the Global Environment Facility's Transboundary Waters Assessment Program and the Regional Environmental Center's WATER SUM project.



If you can't make it to the live seminar on Nov. 10, join us online [here](#).

### **WRRC Brown Bag Seminar - Low Impact Development: A Brief Overview of Features**

**November 29, 2016**

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

**Speaker:** Jeff McCormick, Town Manager, Town of Pima (Graham County)

Low-Impact Development (LID) is a concept that began in Prince George's County, Maryland in 1990, as a practical alternative to traditional stormwater management practices. LID includes a series of land engineering and development features that minimize infrastructure, control stormwater runoff near its origin, and help recharge aquifers and restore watersheds, in addition to playing an important role in Smart Growth, Green Building, and helping with Clean Water Act compliance. LID emphasizes both land and water conservation, and with its minimalistic



dependence on infrastructure, LID utilizes on-site natural features which help protect water quality while retaining the natural hydrology of the site and preserving its before-development water runoff characteristics. LID minimizes the use of impervious surfaces such as asphalt or concrete, which enhances the ability to control water runoff and improves infiltration.

The economic incentives for utilizing LID appeal to developers and capture the attention of engineers. Curbside gutters are typically unnecessary, as other engineering techniques are utilized to direct water runoff. Underground piping is minimized, as the water is contained on-site and allowed to infiltrate into the soil. Small retention basins replace larger basins, which increases the number of lots in a development project and often increases the value of those lots. With the reduced infrastructure, impact fees are usually lower, sometimes significantly lower. Developers and engineers integrating LID principles into development projects often see higher profit margins. LID is virtually maintenance free, and its use of native vegetation and less land disturbance enhances the property's aesthetics and conserves its natural features. What's more, LID has demonstrated a remarkable capacity to manage the substantial runoff volumes involved in major storm events and reduce or prevent property damage.



If you can't make it to the live seminar on Nov. 29, join us online [here](#) .

## OTHER EVENTS

### AZ Water Association Webinar - PFOA and PFOS in Arizona Drinking Water Occurrence, Research, Treatment, and Operation



**November 9, 2016**

**Time/Location:** 11:30 a.m. - 1:00 p.m.

This webinar will discuss the occurrence, research efforts, potential regulatory impacts, treatment alternatives, and operational strategies to address Perfluorooctanoic (PFOA) and Perfluorooctanesulfonic (PFOS) acids in drinking water. This webinar is free, but attendance is limited to the first 100 registrants.

Presentations, featuring renowned water treatment experts, include:

- The Changing Regulatory Landscape of Emerging Contaminants
- PFOA and PFOS in Drinking Water: Occurrence, Regulation, Research and Treatment Approach
- Sustainable Removal of Per- & Polyfluoroalkyl Substances (PFAS) from Groundwater Using Synthetic Media
- Interim and Long-Term Treatment and Operational Strategy for Removal of PFOA and PFOS: A Case Study at an Arizona Wellfield

For additional information and registration, click [here](#).

### SWES Colloquium - Food-borne Diseases and Improving Methodology to Respond to Outbreak Investigations



**November 14, 2016**

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

**Speaker:** Kristen Pogreba-Brown Ph.D., M.P.H

Kristen Pogreba-Brown is an assistant professor of epidemiology at the University of Arizona Mel and Enid Zuckerman College of Public Health. Prior to joining the faculty, Dr. Pogreba-Brown was an epidemiologist with the College as the director of the Student Aid for Field Epidemiology Response (SAFER) team. In addition to continuing to oversee the SAFER program, her research projects are focused on foodborne diseases and improving methodology to respond to outbreak investigations. She is currently working on a project to identify the risk factors related to foodborne infection, as well as the risk factors related to specific chronic outcomes following acute disease. She has recently initiated a One Health Program at UA to form collaborative research teams from across campus and develop a graduate level certificate program. She is also actively involved in public health preparedness activities, specifically for large events.



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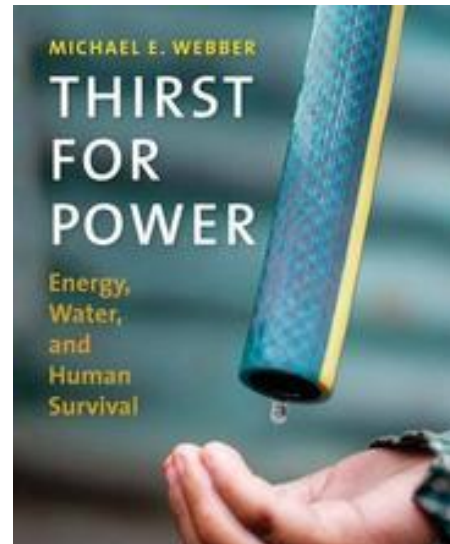
## **WRRC Co-Hosting Special Seminar - Thirst for Power: Energy, Water, and Human Survival**

**November 15, 2016**

**Time/Location:** 4:00 p.m. James E. Rogers College of  
Law, Room 168, (1201 E. Speedway).

**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.



***Please note special time and location***

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

## **NEWS**

### **Coming Soon to Your Town: Craft Beer Brewed with Recycled Wastewater**

Congratulations to the Pima County Regional Wastewater Reclamation Department, for being awarded the Arizona Community Foundation's \$250,000 Arizona Prize: Water Innovation Challenge! The winning project team, which includes members from the University of Arizona's WEST Center and Arizona Cooperative Extension, proposes to construct a portable "workshop on wheels" that will bring craft brewing of recycled water beer throughout the state. Municipalities will participate in a competition to identify the town or city in Arizona that has the best-tasting recycled water craft beer.



The ultimate goal of this project is to raise awareness of the exceptional quality of recycled wastewater produced in Arizona. Look for the "workshop on wheels" in your town!



For a video with more information on this groundbreaking project, click [here](#)

To learn more about the Arizona Prize and this award, click [here](#)

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## 2016 AWRA Annual Conference

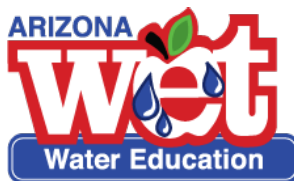
The WRRC will be well represented at the 2016 American Water Resources Association (AWRA) Annual Conference held this November in Orlando, Florida. Between November 13-17, WRRC staff, students, and affiliates will be featured on the program in both oral and poster sessions. Research Analyst, Ashley Hullinger will contribute to a session on Public Information and Stakeholder Involvement with a presentation on "Building Better Watershed Partnerships: Key Ingredients for Success" (co-authors: K. Mott Lacroix, B. Kennett, M. Apel, T. Robertson, S. Megdal). Ms. Hullinger will also stand in for WRRC Director, Sharon B. Megdal on the panel session Proactive Flood and Drought Management: AWRA Policy Statement and Policy Committee Report Vol. III. Additionally, former WRRC Senior Research Analyst Dr. Kelly Mott Lacroix, will present her WRRC work on "The Desert Flows Assessment and Database - A Gap Analysis and Tool for Understanding Environmental Water Needs in the Desert Watersheds of the United States and Mexico" (co-authors: E. Tapia, A. Springer) for the session Water Supply Planning and Management: National Programs and Large Datasets, which she will also moderate. In the poster session, WRRC Graduate Research Assistant Bailey Kennett, will present her research on "Groundwater Regulation in the San Simon Sub-basin, Arizona: An Examination of the Proposal and Rejection of an Irrigation Non-Expansion Area."



To see the full AWRA Annual Conference program, click [here](#)

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## Reaching Every 4th Grader in Litchfield ESD



It sounds like an unmanageable challenge: 1300 fourth-grade students engaged in learning about Arizona's interconnected water resources. It took two days at the end of October to reach all Litchfield's 4th graders, but with sponsors EPCOR Water, Liberty Utilities, and the City of Avondale, Arizona Project WET made it happen! Fifty teachers taught pre- and post-festival lessons and over 40 volunteers and 100 parents supported the event.



Community volunteers attended training to learn to facilitate learning using interactive exploration, whole body simulations, and thinking questions as their tools. They engaged students in learning about watersheds, the groundwater system, the water cycle, and water conservation technology. Both exciting and memorable, Arizona Water Festivals are an accomplishment that the whole community can be proud of.

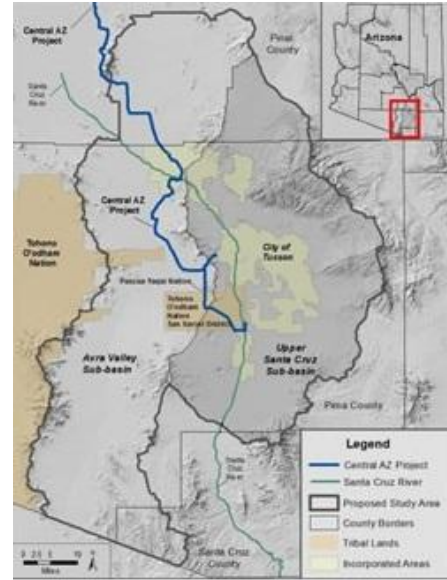
A big thank-you to all who volunteered from the staff at the City of Avondale, EPCOR Water, Liberty Utilities, and SRP; to UA Cooperative Extension Master Gardeners & Master Watershed Stewards; and citizens of Avondale, Goodyear, and Litchfield Park!

To see more on Arizona Water Festivals, click [here](#)

## LSCR Basin Study Environmental Sub-Team Meeting

On October 26, 2016, members of the Environmental Sub-Team of the Lower Santa Cruz River (LSCR) Basin Study committee met to be introduced to the process, goals, and progress of the Basin study and to provide initial feedback regarding the objectives of the Study's environmental analysis.

The LSCR Basin Study will incorporate current and projected environmental needs into climate, hydrologic and environmental modeling, as well as in the assessment of future adaptation alternatives. It is the first planning study of this scale to evaluate the environmental impacts of climate change in the Tucson region. It will utilize the local expertise of this team as an integral part of developing the data and analytical methods for this portion of the study.



For more information, click [here](#).

## Next Issue of the Weekly Wave, November 10

In recognition of Veteran's Day, the WRRC will be closed on Friday, November 11, 2016. The Weekly Wave will therefore be sent on Thursday, November 10.

"Honor to the soldier and sailor everywhere, who bravely bears his country's cause. Honor, also, to the citizen who cares for his brother in the field and serves, as he best can, the same cause."  
~Abraham Lincoln



## ANNOUNCEMENTS

### Rural Connections Call for Articles

The Western Rural Development Center is soliciting articles for its Spring 2017 issue of Rural Connections. Topics can range from Extension outreach to community development, rural health, land use, and more.

**Submission deadline is November 7.**

For the Call for Articles and Submission Guidelines, click [here](#)



### Immediate Openings for Consultants

The U.S. State Department and the U.S. Water Partnership (USWP) are seeking consultants to assist in addressing sustainable management of water across Southern African Development Community (SADAC) countries. Applicants should demonstrate expertise in climate change adaptation, agricultural water-use efficiency, groundwater management, and hydropower.

For information about consultant positions, including application questions, email Marc Dettmann with the USWP Secretariat at [Marc.Dettmann@uswaterpartnership.org](mailto:Marc.Dettmann@uswaterpartnership.org) with a copy to Tim Lattimer at [Tim.Lattimer@uswaterpartnership.org](mailto:Tim.Lattimer@uswaterpartnership.org).

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## **APWF Considering Proposals for River-related Water Issues**

The Arizona Water Protection Fund will be considering proposals to address river and stream issues pertaining to water quantity or quality beginning next week. The fund has \$600,000 this cycle to distribute to anyone - other than the federal government - for projects to address water issues. The public comment period for applications begins Nov. 1 and runs through Dec. 1. The APWF Commission will start making funding selections in January.

For additional information, click [here](#)

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## **Arizona Drought Response and Water Loss Control Workshops**

The U.S. Environmental Protection Agency (EPA), along with its state partners, the Water Infrastructure Finance Authority of Arizona (WIFA), Arizona Department of Environmental Quality (ADEQ), and Rural Community Assistance Corporation (RCAC), is proudly sponsoring free drought and water loss workshops for drinking water utilities on November 8 in Tucson, November 9 in Phoenix, and November 10 in Prescott Valley. The Tucson Workshop will be held in the WRRRC's Sol Resnick Conference Room (350 N. Campbell Ave.).

For information regarding these workshops, please click the location hyperlink. [Tucson](#), [Phoenix](#), and [Prescott Valley](#).

**WATER RESOURCES RESEARCH CENTER**

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