

SUMMER WAVE



COLLEGE OF AGRICULTURE & LIFE SCIENCES
COOPERATIVE EXTENSION

**WATER RESOURCES
RESEARCH CENTER**

June 10, 2016 / Volume 4, Issue 19

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



Presentation to Presidential Advisory Council

Dr. McLain to Speak to the Presidential Advisory Council on Combating Antibiotic Resistant Bacteria

Dr. Jean McLain, WRRRC Associate Director and Associate Research Scientist, Department of Soil, Water and Environmental Science, will speak to the Presidential Advisory Council on Combating Antibiotic Resistant Bacteria (PACCARB) in Washington D.C. on June 22, 2016.

The PACCARB was created by Executive Order 13676, Combating Antibiotic-Resistant Bacteria,

signed by President Barack Obama on September 18, 2014. The Advisory Council is co-chaired by Ashton B. Carter, the U.S. Secretary of Defense, Tom Vilsack, the U.S. Secretary of Agriculture, and Sylvia Mathews Burwell, the U.S. Secretary of Health and Human Services. Other council members include representatives of 10 additional federal government agencies. Objectives of PACCARB are to 1) identify research and funding mechanisms focused on slowing the emergence of resistant bacteria and preventing the spread of resistant infections; and 2) implement public health programs and reporting policies that advance antibiotic resistance prevention and foster antibiotic stewardship in healthcare settings.

Dr. McLain will discuss data gaps that must be addressed in future antibiotic resistance research focused on environmental water (surface water and groundwater). She will present information on how antibiotic resistance in water has been addressed by PACCARB to date and will provide suggestions on how this topic should be addressed in the future. In addition, she will identify connections between antibiotic resistance in water and potential human health impacts.

Dr. McLain has been performing research on agricultural and municipal water impacts on environmental antibiotic resistance for approximately 10 years. Her work has highlighted the critical need for including baseline resistance in studies of bacterial resistance in soil and water. Dr. McLain's work has established that, because antibiotic resistance is a natural phenomenon, neglecting to consider baseline resistance results in erroneous data.



**NEXT WRRC SUMMER
WAVE E-NEWS DIGEST JUNE 24**
We'll return to the classic Weekly Wave in the Fall

EVENTS

Dr. Sharon B. Megdal to Speak in Yuma June 15, 2016



COLLEGE OF AGRICULTURE AND LIFE SCIENCES
Yuma Center of Excellence
for Desert Agriculture

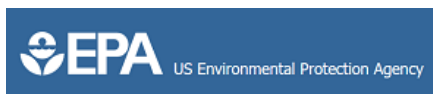
Time/Location: 10:30 - 12:00 p.m. / Yuma Ag Center,
6425 W 8th St, Yuma, AZ

The Yuma Center of Excellence for Desert Agriculture, College of Agriculture and Life Sciences, University of Arizona, has organized a seminar with Dr. Sharon Megdal, WRRC Director. Dr. Megdal will present highlights of WRRC projects throughout Arizona and will discuss Arizona's water management options and trade-offs. Finally, Dr. Megdal will cover irrigation practices in Israel and lessons learned from visiting Oregon and the Middle East.

There will be a working lunch after the presentation to suggest topics for the WRRC 2017 Conference on Agricultural Water Sustainability that will take place March 28, 2017 at the UA Student Union.

Please contact Sonnet Nelson to register by June 13, 2016 at
sonnetnelson@email.arizona.edu

EPA National Wetland Condition Assessment Webcast June 16, 2016



Time: 10:00 - 12 p.m. Arizona Time

On June 16, 2016, the EPA will host a Webcast on its recently released National Wetland

Condition Assessment (NWCA) 2011 report. The NWCA is part of a series of National Aquatic Resource Surveys designed to advance the science of monitoring and answer critical questions about the conditions of waters in the United States.

You must register in advance to attend the EPA webcast. To register, click [here](#)

Solar Workshop June 17, 2016

Time/Location: 8 a.m. - 5 p.m./ Yavapai County Extension office, 840 Rodeo Drive, Building C, Prescott, AZ

A solar workshop has been organized by the UA College of Agriculture and Life Sciences, and Sustainable Agriculture Research and Education. Attendees of this full day workshop will learn about solar photovoltaic modules, types of systems, using tools to measure energy output, assembling a solar-powered water pumping system, and constructing a demonstration system for their county center. The registration deadline has been extended to June 13, 2016.



Please contact Kelly Keyser kmkeyser@email.arizona.edu to secure your spot.

You can find more information about the workshop [here](#)

NEWS

New Article "Embracing Uncertainty and Building Community" Published in Rural Connections

An article by Kelly Mott Lacroix, WRRRC Sr. Research Analyst, and Marc Apel, Cochise County Office Area Agent, "Embracing Uncertainty and Building Community" has been published in Rural Connections. This article describes cooperation among stakeholders on rural watershed planning facilitated by the WRRRC, Cooperative



Extension, and the Gila Watershed Partnership.

Read the complete article in Rural Connections [here](#)

What Every Arizona Citizen Needs to Know



12th grade teachers investigated at the Explore the

Why does Lake Mead have that "bathtub" ring? How is CAP linked to the California water crisis? Why is 1075' an important number? These are some of the questions that twenty eight 5th to



Colorado River STEM Academy on June 1-2 in Phoenix. By engaging in interactive lessons and viewing clips from the Beyond the Mirage experience, they deepened their understanding of Arizona's water resources and ultimately worked to answer the overarching question: How can we ensure that the Sun Corridor maintains a safe and reliable water supply for the next 150 years? The teachers will use these lessons, tools, and new understandings to impact over 2,800 students next year. Eighteen of them shared their Beyond the Mirage stacks (mini-documentaries) with their friends, taking part in educating other Arizona citizens. APW thanks CAP for their sponsorship of this successful academy.



Find out more about APW Teacher Academies [here](#)

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

The New Arizona Prize Partners with WaterNow Alliance



The WaterNow Alliance is a new partner in the New Arizona Prize Water Innovation Challenge. This second New Arizona Prize competition will award a \$250,000 prize to the collaborative team in an Arizona community that develops the best solution to advance the sustainability of the state's water future. The winner will also be awarded up to \$50,000 in technical assistance from the WaterNow Alliance, a nonprofit organization dedicated to high-impact, widespread adoption of sustainable water solutions at the community level.

The New Arizona Prize was launched in 2014 by the Arizona Community Foundation and its partners Republic Media and ASU Morrison Institute for Public Policy. The first challenge was the Water Consciousness Challenge, awarded last year for "Beyond the Mirage" to a team from the University of Arizona. This year's Water Innovation Challenge aims at attracting new and innovative thinking to solve some of Arizona's most pressing problems. Registration ends July 15, 2016.

Learn more and register [here](#) to compete for the Water Innovation Challenge.

Join "Beyond the Mirage" movement [here](#), 2015 winner of the Water Consciousness Challenge.

New USGS Tool Aims to Help Balance Water Supply and Demand



A new computer model, developed by the U.S. Geological Survey and MWH Global, allows water managers to better manage water distribution in river basins with scarce and over-allocated water resources and account for complex interactions between groundwater and surface-water resources. The newly integrated MODSIM-MODFLOW computer model combines the river operations MODSIM model with MODFLOW, the world's most widely used groundwater modeling program. This tool improves the representation of groundwater/surface-water interaction within a river-operations modeling context. The article "Toward improved simulation of river operations through integration with a hydrologic model" in the journal Environmental Modelling and Software contains a description of the model.

Read the article and learn more about this new computer model [here](#)

Upcoming State and National Conferences and Symposia

Registration is open for the following events:

The Arizona Water Reuse 2016 Symposium to be held July 24-26 in Flagstaff, AZ.

You can find the latest information [here](#)

Please register [here](#)

The Arizona Water Law Conference to be held August 11-12, 2016 in Scottsdale, AZ.

Please register [here](#)

The Arizona Hydrological Society's 2016 Annual Symposium being held on September 14-17, 2016 in Tucson, AZ

Early registration closes July 31, 2016. Please register [here](#)

The WaterSmart Innovations Conference and Exposition being held on October 4-7, 2016 in Las Vegas, NV.

Please register [here](#)

The American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America joint Annual Conference on November 6-9, 2016 in Phoenix, AZ.

Please register [here](#)



24th Annual Conference - Live!

ARIZONA WATER LAW

Statewide Water Planning
August 11-12, 2016 • Hilton • Scottsdale

Thriving in a Tough Neighborhood
Fortune Favors the Prepared

Annual Symposium of the
Arizona Hydrological Society
Tucson, AZ | September 14-17, 2016



Resilience Emerging
from Scarcity and Abundance

American Society of Agronomy
Crop Science Society of America
Soil Science Society of America



WATER RESOURCES RESEARCH CENTER

The University of Arizona Water Resources Research Center (WRRC) - A unit of the University of Arizona, College of Agriculture and Life Sciences and Arizona Cooperative Extension - promotes understanding of critical state and regional water management and policy issues through research, community outreach and engagement, and public education.

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