

WEEKLY WAVE



COLLEGE OF AGRICULTURE & LIFE SCIENCES
COOPERATIVE EXTENSION

**WATER RESOURCES
RESEARCH CENTER**

October 18, 2019 / Volume 7, Issue 25

The Water Resource Research Center - a research unit of the [College of Agriculture and Life Sciences](#) and an Extension unit in [UA Cooperative Extension](#) within the Division of Agriculture, Life & Veterinary Sciences & Cooperative Extension

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Brown Bag Celebrates "Imagine a Day Without Water"

October 23, 2019 is the 5th annual "Imagine a Day Without Water" day dedicated to raising awareness and educating Americans about the value of water. Last year more than 1,100 organizations participated in the Imagine a Day Without Water day of action hosted by the Value of Water Campaign, a water industry organization formed to build public and political will for investment in America's water infrastructure through education and engagement. This year the WRRC is observing the occasion with a Brown Bag seminar by Itzchak Kornfeld, Ph.D., of the Hebrew University of Jerusalem. His presentation, You've Got It All Wrong About Water, will use the conflict over apportionment of the Colorado River to make the case for more involvement by scientific experts in resolving water disputes and formulating long-term solutions for the river. The

seminar is cosponsored by the Udall Center for Studies in Public Policy.

Brown Bag Seminar

WRRC EVENTS



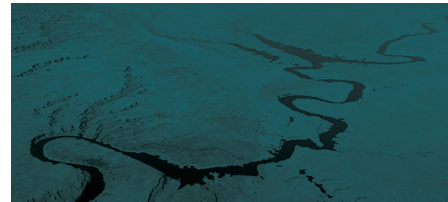
WRRC Brown Bag - You've Got it All Wrong About Water

October 23, 2019

Speaker: Itzchak Kornfeld, Ph.D., The Hebrew University of Jerusalem

Time/Location: 12:00 p.m. - 1:15 p.m., WRRC Sol Resnick Conference Rm., 350 N. Campbell Ave., Tucson.

Scarcity of water, high population density, power imbalances, and climatic stressors are the main factors that push countries towards either cooperation (technical or political) or disputes in transboundary river basins. This presentation will focus on how the United States Supreme Court addressed three-decades-long disputes between states over shared rivers. In these cases, the Court utilized the legal doctrine of equitable allocation to resolve these conflicts. It has been almost one hundred years since the original terms of the Colorado River Compact were negotiated in 1922, nevertheless, its basic framework has not changed. Going forward, water scholars and other scientists will have a much bigger role to play in resolving disputes. They must communicate their scientific findings to those who can use them to shape equitable long-term solutions for the river.



Register for Brown Bag Webinar

WRRC Brown Bag - Will desalination resolve the Israeli-Arab water conflicts? - And If not, why?

October 28, 2019

Speaker: Eran Feitelson, The Hebrew University of Jerusalem

Time/Location: 10:00 a.m. - 11:00 a.m., Marshall 531 845 N Park Ave, Tucson, AZ
(please note special time and location)



The water conflicts between Israel and its neighbors are often viewed as a zero-sum game;

however, that view is outdated. Mutually beneficial options exist when the parties realize that they have much in common in terms of protecting shared resources. Beyond the options to conserve water and recycle wastewater, the total supply can be augmented by desalination. Indeed, Israel has embarked on a large-scale desalination program, which today supplies almost a third of Israel's freshwater consumption. For Israel and Jordan, desalination underpins the proposals for a Red-Dead canal to convey desalinated seawater to Amman. This presentation examines the role of desalination in resolving regional water issues.

[Register for Brown Bag Webinar](#)

Upcoming Brown Bags

- **November 8**, Haley Paul, Policy Manager, Audubon Arizona, "The Economic Impact of Arizona's Rivers, Lakes, and Streams"
- **November 19**, Betsy Wilkening, Ladd Keith, Nicole Iroz-Elardo, UA/APW, and CAPLA, "Heat Mapping"
- **December 4**, Laura Condon, Assistant Professor, UA/HAS, "Effects of Groundwater Pumping"

WRRC NEWS

History and Outcomes of the 2018 Romaine Lettuce E. Coli Outbreak Explained

At the October 16th WRRC brown bag, University of Arizona Professor and Water Quality Specialist, Dr. Channah Rock, presented an excellent overview of the 2018 E. Coli contamination of Yuma-grown lettuce. She began by describing a timeline of events starting with the April 2018 outbreak that resulted in 210 cases in 36 states. The environmental assessments, launched in June of that year, eventually resulted in FDA regulations requiring sprayed irrigation water to be treated to meet drinking water quality standards. Dr. Rock explained the public health traceback methods used to determine that the April 2018 health cases originated with romaine lettuce grown in Yuma fields. This year, the UA entered into a partnership with U.S. Food and Drug Administration, state agriculture officials, and local growers to collect data to evaluate and mitigate future contamination risks. There are still a lot of unanswered questions about the 2018 event, but careful surveillance, and monitoring are underway to be able to move quickly should another event take place.



Photo: Wikimedia Commons

See the brown bag video [here](#)
[UA News Article](#) on the project.

Jean McLain Moderates One Health Panel at the TENWEST Impact Festival

On Monday, October 14, WRRC Research Scientist Dr. Jean McLain served as moderator for a panel discussion on One Health at Tucson's TENWEST Impact Festival. Participating in the panel were Dr. Kristen Pogreba-Brown and Dr. Mark Verhougstraete of the UA School of Public Health, and Dr. Kerry Cooper of the UA School of Animal

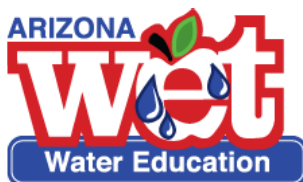


and Comparative Biomedical Sciences. Under Dr. McLain's judicious questioning, the panelists discussed how the One Health concept, which views 'wicked' health problems as occurring at the interface of humans, animals, and the environment, has changed how scientists tackle issues ranging from antibiotic resistance to foodborne illness. TENWEST is a ten-day festival where local, regional, and national attendees come together to focus on solutions for creating social, environmental, and economic impact.



More about [TENWEST](#)
More about [One Health](#)

Activating Science Learning in the Environment



Last Fall, Arizona implemented new 3-dimensional science standards to support students in making sense of phenomena in the natural world. These changes have ushered in a new wave of educational opportunities to support

students' innate curiosity about the world around them.



The Arizona Association of Environmental Education (AAEE) conference, held at Prescott College in September, offered the APW team an opportunity to showcase some of our outdoor learning programs that support the new science standards. Educators gained practical skills to activate learning through a field day. Using a hand lens as the secret weapon, 25 educators discovered new worlds right in front of them!

In another session, armed with thermal cameras and Infrared thermometers, participants engaged in meaningful experiences useful for determining the impact of increased heat in our region.

Through our AAEE partnerships, APW has an opportunity to raise the bar on "science sense making" for Arizona students.

More information about [APW](#)

New Partnership Brings UA Expertise to the Middle East and Beyond

The University of Arizona has teamed up with the Jewish National Fund (JNF) to establish the JNF Joint Institute for Global Food, Water and Energy Security. The joint institute, which developed out of talks and visits between UA and Arava, an arid region of Israel, will focus on developing and introducing new technologies to help build food, water, and energy security in vulnerable communities. The memorandum establishing the institute was signed on September 12 by JNF President Sol Lizerbram, JNF Joint Institute Project Co-Director Udi Gat, and UA's Joaquin Ruiz, Vice President of Global Environmental Futures (at that time Dean of the College of Science and Vice President of Innovation). The WRRC's Director Sharon B. Megdal was a key participant in putting together the institute and is on its board of governors. Megdal was quoted in an Arizona Jewish Post article saying, "The unique partnership will be an additional opportunity to connect water and environmental sustainability expertise across the University of Arizona to arid regions across the world." As members of the International Arid Lands Consortium, both UA and JNF remain dedicated to exploring ways to improve the lives of people living in the arid and semi-arid regions of the world.



Photo courtesy JNF

Read the article in the [Arizona Jewish Post](#).

New Article on Effluent Water Use in Ambos Nogales Available

Here in Arizona, every drop of water counts, including wastewater from Nogales, Sonora and Nogales, Arizona. Wastewater treated at the Nogales International Wastewater Treatment Plant is an important source of water in the Arizona-Sonora border region. Changes to the quantity, quality, or legal entitlement to the water can have significant impacts on future water management decisions for both countries. Former WRRC Research Analyst Jacob Petersen-Perlman presents his research on these issues in

"Institutional Frameworks for Effluent Water Use in the Ambos Nogales Region," published in the October 15, 2019 edition of The Water Report. Petersen-Perlman recently started a new position as an Assistant Professor in the Department of Geography, Planning, and Environment and the Water Resources Center at East Carolina University. He can be reached at petersenperlmanj19@ecu.edu.



[Article](#)

ANNOUNCEMENTS

- [October 11-20 Tucson's TENWEST Impact Festival](#)
- [October 18 AWRA Spring Conference: Geospatial Water Technology Conference - Abstract Submissions Due](#)
- [October 18 NM WRRRI Annual Conference - Abstract Deadline Extended](#)
- [October 23-25 Science Diplomacy Conference - Agenda Posted](#)
- [October 24 AZ Water Resources Field Trip: Maricopa Stanfield IDD Tour](#)
- [October 28-30 State of the Verde Watershed Conference - Registration Open](#)
- [October 31 Agnese Nelms Haury Fall 2019 Funding Opportunity - Applications Due](#)
- [October 31 Riparian Restoration Conference - Abstracts Due](#)
- [November 1 Arizona Water Protection Fund Fiscal Year 2020 Grant Applications - Public Comment Period Ends](#)
- [November 1 Biennial Symposium on Managed Aquifer Recharge \(BSMAR17\) - Abstracts Due](#)
- [November 10-13 ASA-CSSA-SSSA International Annual Meeting - San Antonio](#)
- [November 15-16 - Climate 2020: Seven Generations for Arizona - Registration open](#)

- [December 2 AZ Agribusiness Roundtable - Save the Date](#)
- [January 3 Multi-State Salinity Coalition 2020 Student Scholarship Program - Applications Due](#)



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