WEEKLY WAVE

COLLEGE OF AGRICULTURE & LIFE SCIENCES
COOPERATIVE EXTENSION
WATER RESOURCES RESEARCH CENTER

November 22, 2019 / Volume 7, Issue 30

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

UArizona WRRC Participates in Promising Climate Summit

The first statewide summit of its kind, *Climate 2020: Seven Generations for Arizona*, debuted this past weekend in Flagstaff. The summit was in response to the UN Intergovernmental Panel on Climate Change's Special Report on Global Warming of 1.5°C, released in October 2018. The UN report prompted the engagement of Arizona's communities to aggregate isolated efforts to combat climate change into statewide, coordinated commitments to keep Arizona healthy and habitable for generations to come. UArizona WRRC took part in these conversations Friday afternoon through "Panel Discussion: Beyond Deadpool & Drought: The Future of Water in Arizona." Research Analyst, Ashley Hullinger represented the WRRC during Friday's talk, bringing her expertise in developing effective stakeholder engagement to promote sustainable water management throughout the state's rural watersheds. Additional panel members included: Cynthia Campbell, Karletta Chief, Rabi Gyawali, Chris Kuzdas, and moderator Jane Marks.

AZ Central report on summit here.

WRRC EVENTS

Integrated Hydrologic Modeling at the Continental Scale; Scientific Advances and Research Needs

December 4, 2019

Speaker: Laura Condon, PhD, Assistant Professor, University of Arizona, Department of Hydrology and Atmospheric Sciences

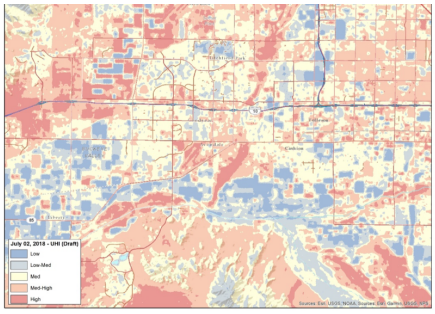
Time/Location: 12:00 - 1:15 p.m., WRRC Sol Resnick Conference Room (350 N. Campbell Ave.)

Connections between groundwater depth, surface runoff, and plant water use are well established. Still, much of the work to explore these connections has been completed on the catchment scale, and groundwater-surface water interactions are largely excluded or greatly simplified in continental and global modeling efforts. This is an identified research gap, as increasingly studies are finding that groundwater representations are needed to correctly capture low-frequency variability and extreme events in large models.

Register for Brown Bag Webinar

WRRC NEWS

Collaborative Research on Heat Mitigation Presented at Brown Bag



A multi-disciplinary team of researchers and educators are collaborating to bring green infrastructure as a tool for local heat mitigation to teachers and students throughout Tucson. On November 19th, the WRRC hosted a Brown Bag presentation by Betsy Wilkening of Arizona Project Wet (APW), UArizona professors Ladd Keith, Nicole Iroz-Elardo, Kirk Dimond, and graduate student Penelope Cottrell-Crawford. The presentation began with an overview of the joint APW and Watershed Management Group program, "Recharge the Rain" (RtR). RtR engages teachers and students in building community resilience to local climate impacts through the design and installation of green infrastructure projects. The rest of the team presented their research on how these projects can reduce heat at the microscale. They described how temperatures were measured in playgrounds, parking lots, sidewalks, and in play-fields, at multiple study areas to better understand differences in temperature between landscapes. The team reported their initial findings showing that playgrounds are often as hot as parking lots and woodchips, a common playground groundcover, can be even hotter than asphalt. These results, according to the researchers, highlight the need for careful landscape design when creating green infrastructure projects to mitigate urban heat island effects.

Check out the video

Green Valley & Sahuarita Water Lecture Series Concluded

On November 16th, the WRRC completed its third and final public presentation as part of the Know About Your Water Green Valley - Sahuarita lecture series. At each presentation, WRRC Associate Director Claire Zucker and Assistant Director Susanna Eden covered a wide range of water topics with information that pertained particularly to the Green Valley - Sahuarita region. Topics grew out of a community survey conducted last year and included water management, supply, use, quality, conservation, and more. Initial funding for the work was provided by the Freeport McMoRan Community Investment Program. Those attending shared their thoughts through discussions and by participating in the interactive polling elements throughout the presentation. Although this portion of the work is complete, the WRRC team will be preparing project-specific web pages for the WRRC web site to share resources and the PowerPoint presentation.

WaterSmart Educational Innovations

ARIZONA Wet Water Education

Learning never stops and neither does innovation. The intersection of education and innovation was featured at the *WaterSmart Innovations 2019 Conference* held in Las Vegas in October. The WaterSmart Conference organizers dedicated one tranche of sessions to showcase insightful community outreach or specialized student engagement opportunities.

APW was selected to highlight real-world water savings from our project-based School Water

Audit Program (SWAP). Students participating in this long-running core program have analyzed water use from school sinks, cafeterias, toilets, household bathroom sinks, as well as outdoor athletic fields and school irrigation systems. After their evaluation, students implement and recommend real-world changes. Collectively these programs produce an impressive estimated water savings of 49,642,812 gallons every year!

As APW continues to lead the way in water education for students and teachers in our State, there's no doubt that curriculum innovation will be essential to helping future generations understand the importance of our water resources.

More information about APW

ITCA Event Addresses Climate and Water

Climate, drought, water, and health were key topics at the Inter-Tribal Council of Arizona (ITCA) event, "Impacts of Climate on Drought and Water Availability," held at UArizona on the 19th. This ITCA-sponsored educational meeting was funded with a grant from the Bureau of Indian Affairs and was conducted in collaboration with the UArizona Tribal Relations and the Southwest Environmental Health Science Center (SWEHSC). After the morning blessing, Assistant Vice President for UArizona Tribal Relations Karen Francis-Begay and SWEHSC Director Dr. Nathan Cherrington welcomed attendees, which included tribal members from throughout the state. WRRC Associate Director Claire Zucker provided the opening talk entitled "What is Water Availability - Within the Next 50 Years", which focused on groundwater distribution across Arizona and efforts underway to build resilience into water management. Other topics explored throughout the day included drought and health, tribal water, Hopi water issues, developing a tribal drought contingency plan, and tribal perspectives on the Arizona Drought Contingency Plan. The Community Outreach-Education Program at the UArizona Center for Toxicology was instrumental in coordinating the event.

New Desert Landscaping Resource Announced

The Arizona Municipal Water Users Association (AMWUA) recently announced its new web-based landscaping resource, Plants for the Arizona Desert. The website is based on the list prepared by ADWR of low water use and drought-tolerant plants suitable for the Phoenix area. This new desert landscaping guidance adds to the trove of online information available, including the UArizona Campus Arboretum's Desert Landscapes, which was featured in a WRRC Brown Bag seminar last April. Both sites offer help with plant selection, landscape design and gardening advice, and access to other resources. They also provide examples to inspire attractive and enjoyable yet water-efficient landscapes.

AMWUA Plants for the Arizona Desert resource

UArizona Arboretum Desert Landscapes website

ANNOUNCEMENTS

- **Job Opportunity: Arizona Municipal Water Users Association**
- **Job Opportunity: Arizona Department of Water Resources**
- **December 2 - AZ Agribusiness Roundtable - Registration Open**
- **December 3 - Governor's Water Augmentation, Innovation and Conservation Council - Save the Date**
- **January 3 Multi-State Salinity Coalition 2020 Student Scholarship Program - Applications Due**
- **January 24 - 2020 UCOWR/NIWR Conference - Abstracts Due**
- **June 14 - 17 - ACE20 - Registration is Open**

Submit Photos Here

Visit Our Website