

University of Arizona Water Resources Research Center, Annual Report 2018

Appendix B

Section 1 – WRRC Grants and Contracts Received

Title	Sponsor
Aqua STEM Groundwater Presentations - 4th Grade	City of Surprise
Arizona Project WET	Arizona Department of Water Resources
Arizona Project WET. ADWR. Tucson AMA Intergovernmental Agreement	Arizona Department of Water Resources
Arizona Project WET Abbott Foundation Support	Abbott Family Foundation
Arizona Project WET SRP Water Festival Support	Salt River Project
City of Avondale Educational Outreach Program	City of Avondale
Diving Into Task Assignment Bias	University of Arizona Foundation
IGA between City of Phoenix and University of Arizona for Strategic Partnership for Water in the Southwest	City Of Phoenix, Arizona
Know About Your Water – Green Valley/Sahuarita	Freeport McMoRan
Providing Stakeholder Perspectives and Accumulated Data to Upper Gila Watershed Management Plan	Gila Watershed Partnership
Sky Island Waters: Changing the Way that Water is Valued, Used, and Managed	Sky Island Alliance
Stakeholder-Driven Water Supply and Demand Analysis as a Foundation for Collaborative Planning in Cobre Valley, AZ	Bureau of Reclamation
ThinkWater II	University of Wisconsin System
Tracing the Footprint of Private Water and the Colorado River Basin	The Lincoln Institute of Land Policy

Section 2 – WRRC 104b Water Research Grants

Title	University	Amount
2017		
Impact of Projected Climate Changes on Mountain-block Recharge Processes	University of Arizona	\$10,000
Might Recycled Wastewater Solve the Rising Problem of Toxin Producing Algae?	University of Arizona	\$9,463
2018		
Microplastic Contamination in the Lower Santa Cruz River	University of Arizona	\$8,641
Using Fresh Water Algae to Remove Lead from Water	University of Arizona	\$9,903

Section 3- WRRC Media Appearances

DATE	TITLE	OUTLET	URL
March 12, 2018	Lake Mead Level Focus of Gov Ducey's Water Policy Wants	AZPM -Arizona 360	https://www.azpm.org/p/azillhome/2018/3/12/125498-lake-mead-level-focus-of-gov-duceys-water-policies/
March 14, 2018	Gilbert students learn about conservation at water festival	East Valley Tribune	http://www.eastvalleytribune.com/our_community/gilbert-students-learn-about-conservation-at-water-festival/article_bac39236-26ee-11e8-b885-67fe2edeeadf.html
March 20, 2018	Cape Town's Water Crisis: Could It Happen in Arizona?	UANews	https://uanews.arizona.edu/story/cape-towns-water-crisis-could-it-happen-arizona?utm_source=uanow&utm_medium=email&utm_campaign=

April 4, 2018	UA Experts Share Simple Steps to Save Water	Lo Que Pasa	https://uaatwork.arizona.edu/lqp/ua-experts-share-simple-steps-save-water
April 16, 2018	Project WET: Teachers Strengthen Conservation Culture	AMWUA Blog	http://www.amwua.org/blog/arizona-project-wet-helps-teachers-strengthen-conservation-culture
April 14, 2018	Paper: 'The Weakness of the Strong: Re-examining Power in Transboundary Water Dynamics'	WaterWired	http://aquadoc.typepad.com/waterwired/2018/04/paper-the-weakness-of-the-strong-re-examining-power-in-transboundary-water-dynamics.html?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+typepad%2FFdoQ+%28WaterWired%29
April 20, 2018	For Desert Dwellers, a Life in Balance	UANews	https://uanews.arizona.edu/story/desert-dwellers-life-balance
April 18, 2018	Despite Trump, Water Agency Fosters Cross-Border Cooperation Between U.S. and Mexico	Texas Observer	https://www.texasobserver.org/water-mexico-united-states-share/
May 21, 2018	Arizona Project WET and Tucson Water Recruiting Teachers for 2018 STEM Academy	City of Tucson Newsnet Daily Digest	http://bit.ly/2ICKhWM
June 20, 2018	Your efforts to save water are actually making a difference Finally, a bit of good news.	Popular Science	https://www.popsci.com/usgs-water-usage
July 14, 2018	Water And Irrigated Agriculture In Arizona	Arizona Daily Independent	https://arizonadailyindependent.com/2018/07/14/water-and-irrigated-agriculture-in-arizona/
August 19, 2018	Ariz. plan to withdraw years of banked CAP water lagging	Arizona Daily Star	https://tucson.com/news/local/arizona-s-plan-to-withdraw-years-worth-of-banked-cap/article_ff3ea48d-e230-5250-87f5-5756f0368200.html
September 14, 2018	Work begins to create the Cobre Valley Watershed Partnership	Arizona Silver Belt	https://silverbelt.com/article/work-begins-to-create-the-cobre-valley-watershed-partnership
September 27, 2018	U of A's Water Resources Research Center releases report on Sept. 6 Small-Town Water Forum	Arizona Silver Belt	https://silverbelt.com/article/u-of-as-water-resources-research-center-releases-report-on-sept-6-small-town-water-forum
October 2, 2018	Fourth graders learn all about their water supply at the 12th annual Payson Water Festival	Payson Roundup	https://www.paysonroundup.com/news/education/fourth-graders-learn-all-about-their-water-supply-at-the/article_7eccc715-1788-533d-8ca1-a2802be9d5f4.html
November 1, 2018	University of Arizona conducting water survey, needs local input	Green Valley News	https://www.gvnews.com/news/university-of-arizona-conducting-water-survey-needs-local-input/article_ff74396a-de29-11e8-bb7a-1359be422a88.html
November 1, 2018	University of Arizona conducting water survey, needs local input	Sahuarita Sun	https://www.sahuaritasun.com/news/university-of-arizona-conducting-water-survey-needs-local-input/article_58a339c3-dea2-5814-b95b-da6449ccedd6.html
November 25, 2018	WEST Center video interview for 2018 MRS Fall Meeting & Exhibit	YouTube	https://www.youtube.com/watch?v=QZXO8yNxc3M&t=0s&list=PLGVe6BxyFHNU7o4h826qPIPRkESpf8Rcd&index=30
November 26, 2018	Marana Water Festival teaches students about resource conservation	Marana News (Tucson Local Media)	https://www.tucsonlocalmedia.com/marana/article_f2237eda-f268-11e8-9d7b-fba556a00616.html
December 18, 2019	Experts see need for U.S.-Mexico aquifer accords	EcoAmericas	https://www.ecoamericas.com/issues/article/2018/12/091BFC59-6E16-4910-9D5B-2E1DBEE09222/0/0/eng

Section 4 - WRRC Brown Bag Seminars

Date	Title	Speaker	Presentation
January 17, 2018	George Frisvold	George Frisvold, Professor and Extension Specialist, Department of Agricultural and Resource Economics, University of Arizona	"Agriculture in Arizona's Economy: The Role of Modeling and Implications for Water Management"
January 25, 2018	Brian K. Biesemeyer	Brian K. Biesemeyer, Scottsdale Water Director	"Scottsdale Water Campus – 20 Years of Sustainable Water Management"
February 6, 2018	Maria Dadgar	Maria Dadgar, Executive Director, Inter Tribal Council of Arizona	"The Inter Tribal Council of Arizona: Addressing Water and Natural Resource Issues in Arizona"
February 12, 2018	Martin Ralph	Martin Ralph, Ph.D., Director, Center for Western Weather and Water Extremes and Researcher at UC San Diego's Scripps Institution of Oceanography	"Recent Developments in Atmospheric River Science, Predictions and Applications"
February 21, 2018	Jacob Petersen-Perlman, Elia Tapia	Jacob Petersen-Perlman, Research Analyst, UA WRRC James Callegary, Hydrologist, USGS AZ Water Sciences Center Elia Tapia, Graduate Research Assistant, UA WRRC	"Binational Studies of the Transboundary San Pedro and Santa Cruz Aquifers: Results and Future Directions"
February 22, 2018	John Fleck	John Fleck, Director, University of New Mexico Water Resources Program	"How Myths and Misinformation Stand in the Way of Solving our Water Problems"
March 2, 2018	Steven Nebiker, Tim Skarupa	Steven Nebiker, Vice President, HydroLogics Tim Skarupa, Senior Analyst, Water Rights and Contracts, Salt River Project	"Sustainable Water Management Using Analytical Tools and Dynamic Reservoir Operations"
March 13, 2018	Ben Wilder	Ben Wilder, Ph.D., Director, Desert Laboratory on Tumamoc Hill	"Hidden Water: The fresh water pozos of the Gran Desierto"
March 19, 2018	Val Little	Val Little, Director, Water Conservation Alliance of Southern Arizona	"WATER CASA at 20: Lessons Learned, Unlearned, or Relearned"
April 12, 2018	Felicia Marcus	Felicia Marcus, Chair, CA State Water Resources Control Board	"California Water: 2018 and Beyond"
April 17, 2018	Christopher L. Castro	Christopher L. Castro, Department of Hydrology and Atmospheric Sciences, University of Arizona	"The More Extreme Nature of North American Monsoon Precipitation in the Southwestern United States "
April 25, 2018	Melanie Stansbury	Melanie Stansbury, Sr. Advisor and Consultant, Utton Transboundary Resources Center, University of New Mexico	"Navigating Federal Science Policy"
April 26, 2018	Cindy Wallace	Cindy Wallace, Research Geographer, USGS Western Geographic Science Center	"New Techniques for Mapping planted versus fallowed croplands using MODIS data"
May 21, 2018	Uri Shani	Uri Shani, Professor for soil and water physics, Hebrew University of Jerusalem	"Policy Principles for the Red-Dead Conduit and Regional Solutions"
June 15, 2018	Shafick Adams	Shafick Adams, Water Research Commission, Pretoria, South Africa	"Diversification of South Africa's Water Supplies Under Conditions of Drought"
July 18, 2018	David Lehrer, Dorit Davidovich Banet	David Lehrer, Director, Arava Institute for Environmental Studies; Dorit Davidovich Banet, CEO, Eilat-Eilat Renewable Energy Initiative	"Food, Water, And Energy in the Arava Valley - Turning Disadvantage to Advantage in the Hyper-Arid Climate of the Region"

August 28, 2018	Tim Thomure	Tim Thomure, Director, Tucson Water	"The Santa Cruz River Heritage Project – Reviving an Urban River"
September 4, 2018	Meghan Smart	Meghan Smart, Environmental Scientist III	"The Art of Building a Citizen Science Program"
September 18, 2018	Courtney Crosson	Courtney Crosson, Assistant Professor, UA School of Architecture	"Innovating the Urban Water System: The Architecture of a Decentralized Future"
September 27, 2018	Susanna Eden	Susanna Eden, Assistant Director, Water Resources Research Center	"Watering Irrigated Agriculture in Arizona"
November 8, 2018	Chase Saraiva	Chase Saraiva, Head Brewer, Arizona Wilderness Brewing Company	"How Beer Can Save Rivers"
November 14, 2018	Greg Barron-Gafford	Greg Barron-Gafford, Associate Professor and Associate Director for the School of Geography & Development, UA	"Agrivoltaics: co-locating agriculture and photovoltaics to increase food and energy production while decreasing water use"

Section 5-WRRC Co-Sponsored Events

Date	Title	Co-sponsors
April 14 - May 31, 2018	The Resiliency in Hopi Culture Exhibit: 2000 Years of Planting	Arizona State Museum
September 26, 2018	Citizen Diplomacy Alliance Water Forum	Citizen Diplomacy Alliance (U.S. State Department)

Section 6- WRRC Publications (By First Author)

Akhmouch, A., Clavreul, D. Hendry, S., Megdal, S.B., Nickum, J., Nunes-Correia, F., and Ross, A., 2018, The OECD Principles on Water Governance: from policy standards to practice, pp. 1-4., <i>Water International</i> , 43 (1), Special issue., DOI 10.1080/02508060.2018.1434139.
Albrecht, T.R., Varady, R.G., Zuniga-Teran, A.A., Gerlak, A., De Grenade, R., Lutz-Ley, A., Martín, F., Megdal, S.B., Meza, F., Ocampo Melgar, D., Pineda, N., Rojas, F., Taboada, R., and Willems, B., 2018, Transboundary water security in the arid Americas, ,
Almotairy, H., K. Fitzsimmons, and J.E. McLain, 2018, Accumulation of heavy metals and their effects on antibiotic resistance of bacteria in an aquaponics system, <i>World Aquaculture</i> , 49(3): 54-57
Callegary, J.B., Megdal, S.B., Tapia Villaseñor, E.M., Petersen-Perlman, J.D., Minjarez Sosa, I., Monreal, R., Gray, F., and Grijalva Noriega, F., 2018, Findings and lessons learned from the assessment of the Mexico-United States transboundary San Pedro and Santa Cruz aquifers: The utility of social science in applied hydrologic research. , <i>Journal of Hydrology: Regional Studies</i> , https://www.sciencedirect.com/science/article/pii/S2214581817301799?via%3Dihub
Davis, L.F., M.D. Ramirez-Andreotta, J.E.T. McLain, A. Kilungo, L. Abrell, and S. Buxner, 2018, Increasing environmental health literacy through contextual learning in communities at risk, <i>International Journal of Environmental Research and Public Health</i> , 15: 2203-2226; DOI: 10.3390/ijerph15102203.
Dery, J., C. Rock, J.E. McLain, and D. Gerrity, 2018, Common terms in water recycling and agricultural irrigation, Arizona Cooperative Extension Publication, AZ1762.,
Eden, S., Petersen-Perlman, J.D., Hermosilla, V., and Golden, J., 2018, The Business of Water, The Water Report, https://www.thewaterreport.com/
Frisvold, G., Sanchez, C., Gollehon, N., Megdal, S.B., and Brown, P., 2018, Evaluating Gravity-Flow Irrigation with Lessons from Yuma, Arizona, Editors' foreword, <i>Sustainability</i> 10(5), 1548, https://doi.org/10.3390/su10051548 .
Garner, E., C. Chen, K. Xia, J. Bowers, D. Engelthaler, J. McLain, M. Edwards, and A. Pruden, 2018, Metagenomic characterization of antibiotic resistance genes in full-scale reclaimed water distribution systems and corresponding potable systems., <i>Environmental Science and Technology</i> , 52(11): 6113-6125; DOI: 10.1021/acs.est.7b05419.
Garner, E., J. McLain, J. Bowers, D. Engelthaler, M. Edwards, and A. Pruden, 2018, Microbial ecology and water chemistry impact regrowth of opportunistic pathogens in full-scale reclaimed water distribution systems., <i>Environmental Science and Technology</i> , 52(16): 9056-9068; DOI: 10.1021/acs.est.8b02818.
Gerrity, D., M. Neyestani, E. Dickenson, J. McLain, and C. Rock, 2018, Occurrence, proliferation, and persistence of antibiotics and antibiotic resistance during wastewater treatment, Report WERF1C15 from the Water Research Foundation.,
Kerry Schwartz, 2018, Breathing Life into the Desert Southwest – 2018 Teacher's Academy Showcases the Mighty Colorado River, CAP News, http://www.cap-az.com/public/blog/785-breathing-life-into-the-desert-southwest-2018-teacher-s-academy-showcases-the-mighty-colorado-river
McLain, J.E. and C.M. Rock, 2018, Communicating research results to stakeholders: what scientists can learn from Cooperative Extension, Arizona Cooperative Extension Publication, AZ1776,
McLain, J.E. and C.M. Rock, 2018, Communicating research results to stakeholders: what we can learn from Cooperative Extension, Kachina News,
McLain, J.E. Co-author and contributor to white papers, , Working Group 1: Contamination of the Environment from Human and Animal Waste; Working Group 2: Antimicrobial Manufacturing Waste; and Working Group 3: Antimicrobials as Pesticide, The United Kingdom Science and Innovation Network and the United States Centers for Disease Control and Prevention, in collaboration with Canada and the Wellcome Trust, https://wellcome.ac.uk/sites/default/files/antimicrobial-resistance-environment-summary.pdf and https://wellcome.ac.uk/sites/default/files/antimicrobial-resistance-environment-report.pdf
McLain, J.E., 2018, The Irish potato famine: could it happen again? Sustainable, Secure Food Blog., , https://soilsmatter.wordpress.com/2018/03/01/the-irish-potato-famine-could-it-happen-again/

Megdal, S.B. and Petersen-Perlman, J., 2018, Decentralized groundwater governance and addressing water nexus issues in the United States, , Early draft of paper being prepared for publication as part of a collection of papers connected to the “Rethinking Law in a Nexus Future: Governing energy, water, food and climate challenges” workshop held at the Sandra Day O’Connor College of Law, Arizona State University

Megdal, S.B., 2018, Cutting-Edge Solutions to Wicked Water Problems – International Conference Recap, Water Resources IMPACT 20 (1),,

Megdal, S.B., 2018, Invisible Water: The Importance of Good Groundwater Governance and Management, Clean Water,

Megdal, S.B., 2018, Learning About Water Policy, Arizona Water Resource, 26 (1), <https://wrrc.arizona.edu/public-policy-review-learning-about-water-policy>

Megdal, S.B., 2018, The Business of Water is Everyone’s Business,, Arizona Water Resource 26 (2), , <https://wrrc.arizona.edu/public-policy-review-business-of-water>

Megdal, S.B., 2018, The Cooperative Framework for the Transboundary Aquifer Assessment Program: A Model for Collaborative Transboundary Studies, Water Resources IMPACT, 20 (3), May 2018 Issues, pp. 10-11

Petersen-Perlman, J.D., Megdal, S.B., Gerlak, A.K., Zuniga-Teran, A.A., Varady, R.G., 2018, Critical Issues Affecting Groundwater Quality Governance and Management in the United States, Water (10) 6 735, <http://www.mdpi.com/2073-4441/10/6/735>

Rivadeneira, P., C. Rock, J. McLain, N. Brassill, J. Dery, and J. Urzua, 2018, E. coli prevention and control in fresh produce from farm-to-fork., Arizona Cooperative Extension Publication, AZ1767,

Rock, C., J.E. McLain, P. Rivadeneira, N. Brassill, and J. Dery, 2018, E. coli, water quality, food safety, and human health, Arizona Cooperative Extension Publication, AZ1763.,

Rock, C.M., N. Brassill, D. Carr, K. Bright, J.E. McLain, and C. Gerba., , Review of the FDA Food Safety Modernization Act (FSMA) Agriculture Water Rule: implications for irrigated produce, water reuse, quantitative microbial risk assessment, and food safety, Environmental Research,

Section 7- WRRC Presentations (In Chronological Order)

January 11, 2018, Susanna Eden, Water for Arizona’s Desert Communities: Sources, Uses & Management. Presentation, Voyager RV Resort, Tucson, AZ.

January 11, 2018, Sharon Megdal, Decentralized groundwater governance and addressing water nexus issues in the United States. Paper Presentation, “Rethinking Law in a Nexus Future: Governing energy, water, food and climate challenges” workshop, Sandra Day O’Connor College of Law, Arizona State University, Phoenix, AZ .

January 16, 2018, Sharon Megdal, Overview of the Central Arizona Groundwater Replenishment District, House Energy, Environment, and Natural Resources Committee. Presentation, Arizona State Legislature, Phoenix, AZ.

January 18, 2018, Jacob Petersen-Perlman, Hydropolitical Resilience and Scale in Transboundary River Basins. Lecture, ENR2 S445 (UA Class).

January 24, 2018, Jacob Petersen-Perlman, Water Sharing across Borders: Water Issues in the Colorado, Santa Cruz, and San Pedro Basins. Lecture, UA Osher Lifelong Learning Institute, Green Valley, AZ.

January 31, 2018, Susanna Eden, Agricultural Water Use in Arizona. Lecture, UA Osher Lifelong Learning Institute, Green Valley, AZ.

February 6, 2018, Jean McLain, Outcomes of the living river project. Presentation, Pima County (Arizona) Board of Supervisors Meeting.

February 8, 2018, Sharon Megdal, Desalination in Israel, Multi-State Salinity Coalition (MSCC). Presentation, 2018 Annual Salinity Summit, Las Vegas, NV.

February 14, 2018, Ashley Hullinger, Green Infrastructure in Practice and Theory, Lecture, UA Osher Lifelong Learning Institute, Green Valley, AZ.

February 15, 2018, Jacob Petersen-Perlman, Transboundary Groundwater Governance and Management. Lecture , International Governance and Sustainability (McMaster University class; lecture delivered via Skype).

February 26, 2018, Sharon Megdal, UCOWR/NIWR partnership. Presentation, National Institutes for Water Resources Annual Meeting, Washington, DC.

February 28, 2018, Sharon Megdal, The Transboundary Aquifer Assessment Program (TAAP): A Cooperative Effort of the United States and Mexico, Global Environmental Facility with discussant from the World Bank. Presentation, Washington, DC.

March 1, 2018, Sharon Megdal, Water issues of commonality between the Semi-arid Southwest and Jordan, Delegation from Jordan, U.S. Department of State International Visitor Leadership Program, University Partnerships – A Project for Jordan. Presentation, Tucson, Arizona.

March 1, 2018, Jean McLain, Recycled municipal wastewater and antibiotic resistance: is there a connection? Presentation, Duke University Program in Environmental Health, Spring 2018 Seminar Series, Durham, North Carolina.

March 6, 2018, Sharon Megdal, The Role of Managed Aquifer Recharge in Meeting the Statutory Requirements of the Central Arizona Groundwater Replenishment District, with Jessica Fox. Presentation, Biennial Symposium on Managed Aquifer Recharge 16, San Diego, CA.

March 14, 2018, Ashley Hullinger, GWP Watershed Evaluation, Presentation. GWP Public Meeting, Safford, AZ.

March 17, 2018, Sharon Megdal, Arizona Challenges – Water. Presentation, League of Women Voters, Tucson, AZ.,

March 28, 2018, Joe, V.*, N. Brassill, P. Rivadeneira, K. Chief, J. McLain, and C. Rock, Development of Native American-tailored produce and agricultural water safety trainings. Poster Presentation, University of Arizona Water Resources Research Center 2018 Annual Conference, Tucson, Arizona..

March 28, 2018, Lynch, R.A., L. Abrell, T. Meixner, K. Fitzsimmons, and J.E. McLain, Might recycled water solve the problem of toxin-producing algae? Poster Presentation, University of Arizona Water Resources Research Center 2018 Annual Conference, Tucson, Arizona..

March 28, 2018, Minke, A.*, J. Cuello, R. Root, and J. McLain, Using freshwater algae to remove Pb from water. Poster Presentation, University of Arizona Water Resources Research Center 2018 Annual Conference, Tucson, Arizona..

April 4, 2018, Jean McLain, Sewage waste contamination and surveillance. Presentation, Centers for Disease Control International Environmental Antibiotic Resistance Forum, Vancouver, British Columbia.

April 10, 2018, Sharon Megdal, Groundwater Governance and Management Research: Connecting Researchers and Practitioners. Presentation, The Water Institute WaterTalks, University of Waterloo, Canada.,

April 11, 2018, Jacob Petersen-Perlman, Policies and Associated Impacts on Groundwater Recharge in the Binational Santa Cruz Aquifer Basin. Presentation, American Association of Geographers Annual Meeting, New Orleans, LA.

April 12, 2018, Jean McLain, Might recycled water solve the problem of toxin-producing algae? Presentation, SWESx Science of the Environment Earth Day Student Presentation, University of Arizona, Tucson, Arizona.

April 18, 2018, Jacob Petersen-Perlman, Groundwater Governance and Management in the United States: Results of National Surveys. Presentation, Maris Water Conference, Tucson, Arizona.
May 11, 2018, Moses, A., J. Solis-Leon, L. Abrell, S. Buxner, A. Kilungo, J.E. McLain, R. Root, F. Sandoval, and M. Ramirez-Andreotta, The volunteer army: a review of ethical concerns in citizen science. Poster Presentation, SWESx Science of the Environment Earth Day Poster Presentation, University of Arizona, Tucson, Arizona..
May 11, 2018, Solis-Leon, J., A. Moses, L. Abrell, S. Buxner, A. Kilungo, J.E. McLain, R. Root, F. Sandoval, and M. Ramirez-Andreotta, Socio-demographics in citizen science: does governance model matter? Poster Presentation, SWESx Science of the Environment Earth Day Poster Presentation, University of Arizona, Tucson, Arizona..
May 14, 2018, Ashley Hullinger, The Value of Water, Presentation, Madrean Conference, Tucson, AZ.
May 29, 2018, Sharon Megdal, Facilitating Policy Change towards Sustainable Water Use in Agriculture. Workshop, Washington, DC.
May 30, 2018, Sharon Megdal, Core Drivers to Changing Agricultural and Water Policies. Presentation, Washington, DC.
June 2, 2018, Jean McLain, Changing practices to reduce antibiotic resistance. Presentation, Association of Public Health Laboratories Annual Meeting, Pasadena, California.
June 7, 2018, Sharon Megdal, Dealing with a 'Secret, Occult and Concealed' Resource: The Governance Conundrum. Presentation, Boulder, CO .
June 8, 2018, Sharon Megdal, Envisioning the Future of Groundwater Management. Panel Discussion, Boulder, CO .
July 09, 2018, Sharon B. Megdal, The Joint Cooperative Framework for the Transboundary Aquifer Assessment Program (TAAP). Presentation, American Water Resources Association Summer Specialty Conference. The Science, Management and Governance of Transboundary Groundwater. Ft. Worth, Texas.
July 09, 2018, Sharon B. Megdal, Lightning talk on the special session on the Transboundary Aquifer Assessment Program (TAAP). Presentation, American Water Resources Association Summer Specialty Conference. The Science, Management and Governance of Transboundary Groundwater. Ft. Worth, Texas.
June 15, 2018, Sharon Megdal, Arizona and the Tucson Region's Water Management Successes and Challenges, Delegation from South Africa Water Research Commission. Briefing presentation, WRRC, Tucson, AZ.
June 25, 2018, Sharon Megdal, Groundwater Governance and Transboundary Aquifer Assessment, UCOWR-NIWR Water Resources Conference,. Lightning talk, Pittsburgh, PA.
July 9, 2018, Jacob Petersen-Perlman, Subsidiarity and Transboundary Groundwater in North America. Presentation, American Water Resources Association 2018 Summer Specialty Conference, Fort Worth, TX.
July 23, 2018, Jean McLain, Antibiotic resistance and recycled wastewater: separating the knowns from the unknowns. Presentation, University of York Environmental Lecture Series, York, United Kingdom.
July 30, 2018, Jean McLain, Antibiotic resistance: state of the science of proliferation in wastewater treatment and water reuse implementation. Presentation, Water Environment Federation Disinfection and Reuse Symposium, Portland, Oregon.
August 28, 2018, Ashley Hullinger, Water Roots, Presentation, WMG River Walk, Tucson, AZ.
September 6, 2018, Ashley Hullinger, Water Management Priorities, Presentation, Cobre Valley Small Town Forum on Water, Miami, AZ
September 6, 2018, Sharon B. Megdal, Welcoming Remarks, Cobre Valley, AZ Small Town Water Forum, Presentation, Miami, AZ.
September 9, 2018, Jean McLain, Antibiotic resistance: state of the science of proliferation in water treatment and potable reuse implementation. Presentation, Annual Water Reuse Symposium, Austin, Texas.
September 10, 2018, Jean McLain, Minimal production of algal toxins in recycled water retention ponds. Presentation, Annual Water Reuse Symposium, Austin, Texas.
September 12, 2018, Jacob Petersen-Perlman, State-Level Groundwater Governance and Management. Presentation, Ground Water Protection Council Annual Forum, New Orleans, LA.
September 14, 2018, Sharon B. Megdal, The Role of the Central Arizona Project and Long-term Drought Conditions. Presentation, Green Valley League of Women Voters Forum. Green Valley, Arizona.
September 25, 2018, Sharon B. Megdal, Groundwater Governance and Management Research: Connecting Researchers and Practitioners. Presentation, Universities Council on Water Resources. Carbondale, Illinois: Southern Illinois University.
September 26, 2018, Jacob Petersen-Perlman/Elia M. Tapia Villasenor, Transboundary Aquifer Assessment Program (TAAP). Presentation, Citizen Diplomacy Alliance Water Forum, Tucson, AZ.
September 26, 2018, Susanna Eden, Irrigated Agriculture in Arizona. Presentation, Citizen Diplomacy Alliance Water Forum, Tucson, AZ.
September 27, 2018, Susanna Eden, Watering Irrigated Agriculture in Arizona. Brown Bag Seminar, WRRC, Tucson, AZ/Webinar.
October 4, Ashley Hullinger, Cobre Valley Regional Trail System, Presentation, RCAC Workshop, Globe, AZ.
October 9, 2018, Jacob Petersen-Perlman, The Transboundary Aquifer Assessment Program and State-level Groundwater Governance. Presentation, Oregon State University, Corvallis, Or.
October 10, 2018, Jean McLain, Presence of antibiotics and antibiotic resistance at a long-term wastewater reuse site spray irrigating effluent on agricultural lands. Presentation, XENOWAC II Conference, Limassol, Cyprus .
October 15, 2018, Sharon B. Megdal, The International Boundary and Water Commission: Significance, Major Milestones, and Future. Panel Moderator, Workshop on Binational Water Relations at 75 years: Retrospectives, Resilience, and US-Mexico Border Water Resources Governance. University of Arizona, Tucson, AZ: Udall Center for Studies in Public Policy.
October 30, 2018, Sharon B. Megdal, Re-thinking the Economics of Water, Panel, Arizona State University Center for Environmental Economics & Sustainability Policy, Tempe, AZ.
October 30, 2018, Tapia, E. M., Shamir, E., Megdal, S.B., Assessing the long-term impact of climate uncertainties and binational land and water management decisions on the Transboundary Santa Cruz Aquifer. Presentation, Santa Cruz River Research Days. Pima Community College. .
November 1, 2018, Susanna Eden, Water Stewardship from a Mining Perspective – Past, Present & Future, Moderator, Public Meeting, Miami, AZ.
November 1, 2018, Jean McLain, Antimicrobial resistance and the environment: separating the knowns from the unknowns. Presentation, EPID679: One Health Applications and Practice, University of Arizona.

November 5, 2018, Sharon B. Megdal, Managed aquifer recharge, agriculture, and what Colorado River shortage conditions mean for Arizona. Presentation, American Water Resources Association Annual Conference. Baltimore, Maryland.
November 6, 2018, Sharon B. Megdal, Benefits and Challenges of Delivering Interdisciplinary Graduate and Undergraduate Education in Water Resources. Presentation, American Water Resources Association Annual Conference. Baltimore, Maryland.
November 13, 2018, Sharon B. Megdal, Update on Water Issues. Panelist, Quarterly meeting of the Tucson Regional Water coalition. Tucson, AZ.
November 14, Ashley Hullinger, Cobre Valley Regional Trail System, Presentation, RCAC Workshop, Globe, AZ.
November 27, 2018, Jean McLain, Using microbiological tools to address environmental unknowns. Presentation, Andrada Polytechnic (Vail, Arizona) High School Honors Biology.
November 26-29, 2018, Sharon B. Megdal, Israel Water Challenges and Opportunities. Plenary Session, JNF Annual National Conference. Phoenix, AZ.
November 26-29, 2018, Sharon B. Megdal, Arava Task Force Session. Plenary Session, JNF Annual National Conference. Phoenix, AZ.
November 26-29, 2018, Sharon B. Megdal, Water Task Force Session. Plenary Session, JNF Annual National Conference. Phoenix, AZ.
December 5, 2018, Ashley Hullinger and Susanna Eden, Building Common Ground and Catalyzing Collaboration, Presentation, Cooperative Extension Meeting, Globe, AZ.
December 6, 2018, Jacob Petersen-Perlman and Elia M. Tapia, Past Efforts and Future Directions of the Transboundary Aquifer Assessment Program. Presentation, USIBWC Citizens Forum Meeting, Regional Wastewater Reclamation Dept. Water Campus, Tucson, Arizona.
December 7, 2018, Sharon B. Megdal, Drought and Other Challenges: How is Arizona Going to Meet Future Water Demand: "Shortage is the New Normal." Panel Moderator, Water in Arizona: Past, Present and Future Forum. Sandra Day O'Connor Institute and Valley Forward, Tempe, AZ.
December 10, 2018, Claire Zucker, Creating a Living Laboratory: Collaborative Water Projects in Rural Arizona. Presentation and Poster, American Geophysical Union Fall Meeting.
December 12, 2018, Sharon B. Megdal, Israeli and U.S. Water Technology: Versatile Solutions for Colorado River Challenges, Session Organizer, Moderator, and Introductory Remarks, Wednesday Colloquium, Colorado River Water Users Association Annual Conference, Las Vegas, NV

Section 8 - Arizona Project Wet Presentations

Date	Title	Presenter/Contact	Location / School	Attendance (if available)
January 10, 2018	In-Class Presentations (Toilet Banks)	Chuck Dugan	Cholla Elementary School	78
January 12, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Lineweaver Elementary , Tucson, AZ	87
January 16, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Lynn-Urquides Elementary , Tucson, AZ	63
January 16, 2018	In-Class Presentations (Toilet Banks)	Chuck Dugan	Mesquite Elementary School	26
January 17, 2018	In-Class Presentations (Toilet Banks)	Chuck Dugan	Desert Willow Elementary School	78
January 18, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Carrillo Elementary , Tucson, AZ	48
January 19, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Lineweaver Elementary, Tucson, AZ	91
January 22, 2018	In-Class Presentations (Toilet Banks)	Chuck Dugan	Saguaro Elementary School	78
January 23, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Richardson Elementary , Tucson, AZ	51
January 23, 2018	In-Class Presentations (Toilet Banks)	Chuck Dugan	Ironwood School	78
January 24, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Sewell Elementary, Tucson, AZ	75
January 24, 2018	In-Class Presentations (Toilet Banks)	Chuck Dugan	Evergreen Elementary School	78
January 29, 2018	In-Class Presentations (Toilet Banks)	Chuck Dugan	Palo Verde Elementary School	91
January 30, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Soleng Tom Elementary , Tucson, AZ	56
January 30, 2018	In-Class Presentations (Toilet Banks)	Chuck Dugan	McCartney Ranch Elementary School	104

January 31, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Soleng Tom Elementary, Tucson, AZ	92
January 31, 2018	In-Class Presentations (Toilet Banks)	Chuck Dugan	Cottonwood Elementary School	78
February 1, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Ochoa Elementary, Tucson, AZ	31
February 2, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Ochoa Elementary, Tucson, AZ	38
February 5, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Presidio Elementary, Tucson, AZ	60
February 9, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Laguna Elementary, Tucson, AZ	61
February 12, 2018	HS Groundwater Presentation	Betsy Wilkening	Canyon Del Oro High School, Tucson, AZ	65
February 12, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Sam Hughes Elementary, Tucson, AZ	66
February 12, 2018	Other HS Groundwater Presentation	Holly Thomas-Hilburn	Canyon Del Oro High School, Tucson, AZ	65
February 13, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Centennial Elementary School, Tucson, AZ	61
February 13, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Meyers-Ganoung Elementary, Tucson, AZ	63
February 13, 2018	Groundwater Flow Model Presentation	Sandra Hurlbut	Pensar Academy	57
February 14, 2018	Groundwater & the Colorado River Watershed	Kerry Schwartz	Tohono Chul Docents	22
February 14, 2018	MS Groundwater Presentation	Betsy Wilkening	La Paloma Academy, Tucson, AZ	55
February 14, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Richardson Elementary, Tucson, AZ	65
February 15, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Homer-Davis Elementary, Tucson, AZ	64
February 15, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Hendricks Elementary, Tucson, AZ	64
February 16, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	St. Michael's K-8, Tucson, AZ	36
February 19, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Gale Elementary, Tucson, AZ	67
February 19, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Myers-Ganoung Elementary, Tucson, AZ	66
February 20, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Grijalva Elementary, Tucson, AZ	100
February 21, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Laguna Elementary, Tucson, AZ	66
February 26, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Frances J Warren Elementary, Tucson, AZ	59
February 26, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Sierra 2-8 3rd Grade, Tucson, AZ	84
February 27, 2018	MS Groundwater Presentation	Betsy Wilkening	Doolen Middle School, Tucson, AZ	64

February 27, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Gale Elementary, Tucson, AZ	67
March 1, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Homer Davis Elementary, Tucson, AZ	88
March 2, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Carrillo Elementary, Tucson, AZ	69
March 5, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Sierra 2-8 4th grade, Tucson, AZ	82
March 6, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Gallego Elementary, Tucson, AZ	119
March 6, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Craycroft Elementary, Tucson, AZ	135
March 7, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Grijalva Elementary, Tucson, AZ	137
March 8, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Sierra 2-8 4th grade, Tucson, AZ	26
March 8, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Pueblo gardens elementary school, Tucson, AZ	20
March 8, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Southside Community School, Tucson, AZ	50
March 9, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	St. Michael Elementary, Tucson, AZ	53
March 12, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Craycroft #1 Elementary, Tucson, AZ	95
March 13, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Howell Elementary School, Tucson, AZ	41
March 13, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Los Amigos Elementary, Tucson, AZ	104
March 13, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Pueblo Gardens Elementary, Tucson, AZ	50
March 14, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Castlehill Country Day School, Tucson, AZ	24
March 14, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Lynn Urquides Elementary, Tucson, AZ	85
March 15, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Howell and Southside Community School, Tucson, AZ	105
March 16, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Craycroft Elementary Day2, Tucson, AZ	64
March 21, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Castlehill Country Day School, Tucson, AZ	29
March 27, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Los Ninos Elementary, Tucson, AZ	93
March 27, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Sierra 2-8 School 4th grade, Tucson, AZ	116
March 30, 2018	ENVS 195 Environmental Careers	Kerry Schwartz	Harshbarger Rm 206	15
April 2, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Cavett Elementary, Tucson, AZ	25
April 3, 2018	Groundwater Flow Model Presentation	Sandra Hurlbut	Tempe High School	78

April 6, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Cavett Elementary , Tucson, AZ	41
April 9, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Tucson Hebrew Academy, Tucson, AZ	34
April 12, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Walter-Douglas, Tucson, AZ	72
April 17, 2018	MS Groundwater Presentation	Betsy Wilkening	BASIS Oro Valley, Tucson, AZ	121
April 17, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Tucson Hebrew Academy, Tucson, AZ	43
April 19, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Roskruge K-8, Tucson, AZ	37
April 24, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Robinson Elementary, Tucson, AZ	36
April 24, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Sierra 2-8 School 3rd grade , Tucson, AZ	123
April 25, 2018	PWET USA Coordinators - Record Keeping	Kerry Schwartz	Online meeting	14
May 7, 2018	APW's Aqua STEM Program & Systems Thinking	Kerry Schwartz	Thinkwater Collaborative at Treehaven, Wisconsin	17
May 7, 2018	Groundwater Flow Model Presentation	Sandra Hurlbut	Sonoran Foothills School K-8	100
May 7, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Esperanza Elementary , Tucson, AZ	102
May 8, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Wheeler elementary, Tucson, AZ	89
May 8, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Gallego Primary Day 1 , Tucson, AZ	90
May 9, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Tolson Elementary, Tucson, AZ	45
May 10, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Gallego Primary elementary Day 2 , Tucson, AZ	94
May 11, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Wheeler Elementary , Tucson, AZ	113
May 14, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Esperanza Elementary, Tucson, AZ	86
May 14, 2018	MS Groundwater Presentation	Betsy Wilkening	Mansfeld Magnet K-8, Tucson, AZ	153
May 14, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Fruchthendler Elementary , Tucson, AZ	58
May 15, 2018	MS Groundwater Presentation	Betsy Wilkening	Mansfeld Magnet K-8, Tucson, AZ	154
May 15, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Los Ninos Elementary , Tucson, AZ	68
May 16, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Tolson Elementary , Tucson, AZ	51
May 17, 2018	3rd Grade Groundwater Presentation	Betsy Wilkening	Borman k-8, Tucson, AZ	68
May 17, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Los Amigos Elementary , Tucson, AZ	108
May 18, 2018	Sweetwater Wetlands Water Festival	Betsy Wilkening	Borman K-8 , Tucson, AZ	76

May 21, 2018	MS Groundwater Presentation	Betsy Wilkening	La Paloma Academy, Tucson, AZ	52
July 31, 2018	Other HS Groundwater Presentation	Holly Thomas-Hilburn	Andrada Polythecnic HS, Tucson, AZ	46
August 14, 2018	MS Groundwater Presentation	Holly Thomas-Hilburn	McCorckle Elementary, Tucson, AZ	105
August 14, 2018	Riparian Presentations	Sandra Hurlbut	Liberty Traditional	19
August 14, 2018	Riparian Presentations	Sandra Hurlbut	Liberty Traditional	19
August 22, 2018	MS Groundwater Presentation	Holly Thomas-Hilburn	Harelson Elementary, Tucson, AZ	63
August 22, 2018	Groundwater Flow Model Presentation	Sandra Hurlbut, Annapurna Chitnavis	Liberty Traditional	20
August 22, 2018	Groundwater Flow Model Presentation	Sandra Hurlbut, Annapurna Chitnavis	Liberty Traditional	19
August 28, 2018	3rd Grade Groundwater Presentation	Holly Thomas-Hilburn	Sycamore Elementary, Tucson, AZ	109
September 4, 2018	MS Groundwater Presentation	Holly Thomas-Hilburn	Paulo Freire Downtown , Tucson, AZ	24
September 11, 2018	Sweetwater Wetlands Water Festival	Holly Thomas-Hilburn	Sycamore Elementary , Tucson, AZ	109
September 19, 2018	Riparian Presentations	Sandra Hurlbut	Orangewood	57
September 19, 2018	Groundwater Flow Model Presentation	Sandra Hurlbut, Annapurna Chitnavis	Orangewood	31
September 19, 2018	Groundwater Flow Model Presentation	Sandra Hurlbut, Annapurna Chitnavis	Orangewood	26
October 1, 2018	Sweetwater Wetlands Water Festival	Holly Thomas-Hilburn	Miller Elementary , Tucson, AZ	71
October 2, 2018	Groundwater Presentations for 6th Grade Principals Meeting	Kerry Schwartz	Dysart School District, Surprise, AZ	11
October 2, 2018	MS Groundwater Presentation	Holly Thomas-Hilburn	Hendricks, Tucson, AZ	20
October 3, 2018	Groundwater Flow Model Presentation	Sandra Hurlbut, Annapurna Chitnavis	Peoria Flex Academy	13
October 4, 2018	MS Groundwater Presentation	Holly Thomas-Hilburn	Dodge Middle School, Tucson, AZ	150
October 9, 2018	Riparian Presentations	Sandra Hurlbut, Annapurna Chitnavis	El Dorado Private School	53
October 12, 2018	Groundwater Flow Model Presentation	Sandra Hurlbut & Annapurna Chitnavis	Cimarron Springs E S	61
October 15, 2018	Groundwater Flow Model Presentation	Sandra Hurlbut, Annapurna Chitnavis	Eloy Jr. H.S.	29
October 15, 2018	Groundwater Flow Model Presentation	Sandra Hurlbut, Annapurna Chitnavis	Eloy Jr. H.S.	28
October 15, 2018	Groundwater Flow Model Presentation	Sandra Hurlbut, Annapurna Chitnavis	Eloy Jr. H.S.	29
October 16, 2018	MS Groundwater Presentation	Holly Thomas-Hilburn	Laguna Elementary, Tucson, AZ	56
October 19, 2018	Sweetwater Wetlands Water Festival	Holly Thomas-Hilburn	Academy of Math and Science, Tucson, AZ	75
October 19, 2018	Mystery Box Presentations	Sandra Hurlbut, Annapurna Chitnavis	Mingus Union, Cottonwood, AZ	103

October 23, 2018	Groundwater Flow Model Presentation	Sandra Hurlbut, Annapurna Chitnavis	Parkview	84
October 24, 2018	MS Groundwater Presentation	Holly Thomas-Hilburn	Rincon Vista Middle School, Tucson, AZ	58
October 26, 2018	Sweetwater Wetlands Water Festival	Holly Thomas-Hilburn	Kellond Elementary, Tucson, AZ	58
October 29, 2018	3rd Grade Groundwater Presentation	Holly Thomas-Hilburn	Van Buskirk, Tucson, AZ	35
October 29, 2018	4th Grade Groundwater Presentation	Holly Thomas-Hilburn	Mission View, Tucson, AZ	33
October 29, 2018	Other HS Groundwater Presentation	Holly Thomas-Hilburn	TAP, Tucson, AZ	11
October 30, 2018	5th Grade Groundwater Presentation	Holly Thomas-Hilburn	Morgan Maxwell, Tucson, AZ	38
October 31, 2018	Sweetwater Wetlands Water Festival	Holly Thomas-Hilburn	Miles ELC, Tucson, AZ	64
October 31, 2018	Riparian Presentations	Sandra Hurlbut	Cactus Shadows	97
November 1, 2018	Sweetwater Wetlands Water Festival	Holly Thomas-Hilburn	Erickson Elementary School, Tucson, AZ	63
November 2, 2018	Sweetwater Wetlands Water Festival	Holly Thomas-Hilburn	Morgan Maxwell, Tucson, AZ	41
November 5, 2018	Groundwater Flow Model Presentation	Sandra Hurlbut, Annapurna Chitnavis	West Point	64
November 7, 2018	6th Grade Groundwater Presentation	Holly Thomas-Hilburn	Estes, Tucson, AZ	68
November 8, 2018	Sweetwater Wetlands Water Festival	Holly Thomas-Hilburn	Sam Hughes Elementary, Tucson, AZ	52
November 8, 2018	MS Groundwater Presentation	Holly Thomas-Hilburn	Doolen, Tucson, AZ	173
November 9, 2018	Sweetwater Wetlands Water Festival	Holly Thomas-Hilburn	Mission View, Tucson, AZ	33
November 9, 2018	ENVS 195 Environmental Careers	Kerry Schwartz	UA, Social Sciences 222	20
November 9, 2018	7th Grade Groundwater Presentation	Holly Thomas-Hilburn	Safford, Tucson, AZ	22
November 13, 2018	8th Grade Groundwater Presentation	Holly Thomas-Hilburn	Robins K-8, Tucson, AZ	62
November 13, 2018	Groundwater Flow Model Presentation	Sandra Hurlbut, Annapurna Chitnavis	Kingswood	65
November 14, 2018	9th Grade Groundwater Presentation	Holly Thomas-Hilburn	Myers-Ganoug Elementary School, Tucson, AZ	39
November 14, 2018	Mystery Box Presentations	Sandra Hurlbut, Annapurna Chitnavis	Liberty Trad Charter	18
November 14, 2018	Mystery Box Presentations	Sandra Hurlbut, Annapurna Chitnavis	Liberty Trad Charter	15
November 15, 2018	10th Grade Groundwater Presentation	Holly Thomas-Hilburn	Fruchthendler Elementary School, Tucson, AZ	57
November 16, 2018	11th Grade Groundwater Presentation	Holly Thomas-Hilburn	Banks, Tucson, AZ	48
November 16, 2018	Groundwater Flow Model Presentation	Sandra Hurlbut, Annapurna Chitnavis	Parkview E.S.	75
November 20, 2018	Sweetwater Wetlands Water Festival	Holly Thomas-Hilburn	Myers-Ganoung, Tucson, AZ	40
November 21, 2018	Activating Green Infrastructure Learning through gamification	Kerry Schwartz	CAPLA Course, Courtney Crossan	12
November 26, 2018	Groundwater Flow Model Presentation	Sandra Hurlbut, Annapurna Chitnavis	Imagine Rosefield	116
November 28, 2018	MS Groundwater Presentation	Holly Thomas-Hilburn	Innovation Academy, Tucson, AZ	91

November 29, 2018	Sweetwater Wetlands Water Festival	Holly Thomas-Hilburn	Manzo Elementary, Tucson, AZ	44
December 4, 2018	Sweetwater Wetlands Water Festival	Holly Thomas-Hilburn	Robins, Tucson, AZ	69
December 7, 2018	Sweetwater Wetlands Water Festival	Holly Thomas-Hilburn	Safford K-8, Tucson, AZ	18
December 10, 2018	12th Grade Groundwater Presentation	Holly Thomas-Hilburn	Lineweaver, Tucson, AZ	95
December 11, 2018	Mystery Box Presentations	Sandra Hurlbut, Annapurna Chitnavis	Maryland School	59
December 12, 2018	Sweetwater Wetlands Water Festival	Holly Thomas-Hilburn	Lineweaver, Tucson, AZ	95
December 14, 2018	Groundwater Flow Model Presentation	Sandra Hurlbut, Annapurna Chitnavis	Canyon Ridge	108

Section 9 - Arizona Project Wet Events

Date	Title	Presenter/ Contact	Location / School	Attendance (if available)
January 9, 2018	Water Scene Investigation	Pam Justice	Andersen Junior High School 1255 N Dobson Rd, Chandler, AZ 85224, USA	137
January 9, 2018	Water in the Environment	Sandra Hurlbut	Desert Mirage E.S, Glendale	30
January 13, 2018	Envirothon training session	Pam Justice	Quarter Circle U Ranch, Gold Canyon, AZ	62
January 13, 2018	OdySea Conservation Expo	Nicole Kallman, Joshua Wyrick	OdySea	200
January 16, 2018	Water in the Environment	Sandra Hurlbut	Liberty Traditional Charter School, Phoenix	54
January 16, 2018	Water Scene Investigation	Pam Justice	Andersen Junior High School 1255 N Dobson Rd, Chandler, AZ 85224, USA	137
January 17, 2018	Living River Field Trip	Betsy Wilkening	Santa Cruz River, Marana, AZ	41
January 18, 2018	Stapely Junior High Science Fair	Joshua Wyrick	Stapely Jr. High Mesa, AZ	
January 23, 2018	Old Vail Middle School Science Night	Betsy Wilkening	13299 E Colossal Cave Rd, Vail, AZ 85641	54
January 25, 2018	Ted Walker Day at Old Tucson	Betsy Wilkening	201 S Kinney Rd, Tucson, AZ 85735	1173
January 27, 2018	Connect2STEM Event	Nicole Kallman, Joshua Wyrick	UA Med School Phoenix, AZ	600
January 29, 2018	Water Scene Investigation Presentation	Betsy Wilkening	Canyon De Oro High School, Tucson, AZ	60
January 30, 2018	Water in the Environment	Sandra Hurlbut	Copper Creek E.S., Peoria	60
January 31, 2018	STEM Night @ Walter Douglas Elementary	Betsy Wilkening	3302 N Flowing Wells Rd, Tucson, AZ 85705	25
January 31, 2018	Water in the Environment	Sandra Hurlbut	Copper Creek E.S., Peoria	60
February 1, 2018	Family STEM Night Desert Willow elementary	Betsy Wilkening	9400 E Esmond Loop, Tucson, AZ 85747	145
February 1, 2018	Water in the Environment	Sandra Hurlbut	South Valley Jr. High	60

February 2, 2018	STEM showcase at Ocotillo Ridge Elementary	Betsy Wilkening	10170 S White Lightning Ln, Vail, AZ 85641	212
February 3, 2018	Natural Restoration Trash Pickup on Santa Cruz River	Kerry Schwartz	4000 W El Camino Del Cerro, Tucson, AZ 85745	39
February 5, 2018	Rain Max Lesson at Esperero Middle School	Betsy Wilkening	5801 N Sabino Canyon Rd, Tucson, AZ 85750	57
February 5, 2018	Wells Fargo WF Volunteer Training	Nicole Kallman	Wells Fargo - Phoenix, AZ	3
February 6, 2018	Family math & science night @ Kellond Elementary	Betsy Wilkening	6606 E Lehigh Dr, Tucson, AZ 85710	89
February 6, 2018	Rain Max Lesson @ Esperero Canyon Middle School	Betsy Wilkening	5801 N Sabino Canyon Rd, Tucson, AZ 85750	151
February 6, 2018	Water in the Environment	Sandra Hurlbut	Verrado Middle School	128
February 6, 2018	Water Scene Investigation	Pam Justice	AZ College Prep Oakland	137
February 7, 2018	Peoria Water Festival	Pam Justice, Nicole Kallman	Pioneer Community Park	957
February 7, 2018	Irrigation Audit	Betsy Wilkening	Canyon Del Oro High School, Tucson, AZ	64
February 7, 2018	Water in the Environment	Sandra Hurlbut	Verrado Middle School	128
February 8, 2018	Water Scene Investigation	Pam Justice	Gilbert Arts Academy	13
February 10, 2018	Family Sci-Fest at The Childrens Museum	Betsy Wilkening	200 S 6th Ave, Tucson, AZ 85701	186
February 14, 2018	Rainwater Harvesting Challenge	Sandra Hurlbut	Sunset Heights Elementary School	124
February 15, 2018	Casa Grande Water Festival	Chuck Dugan	Mesquite Elementary Fields	1005
February 15, 2018	STEM night @ Legacy Traditional School	Betsy Wilkening	3500 W Cortaro Farms Rd, Tucson, AZ 85742	67
February 18, 2018	Discover Engineering @ Park Mall	Betsy Wilkening	5870 E Broadway Blvd, Tucson, AZ 85711	144
February 20, 2018	Science Fair Judges @ Soleng Tom Elementary	Betsy Wilkening	10520 E Camino Quince, Tucson, AZ 85748	61
February 21, 2018	Lake Havasu Water Festival	Pam Justice	Island Ball Fields	488
February 23, 2018	Osborn Water Festival	Julie Hasty, Nicole Kallman	Clarendon Elementary School	418
February 23, 2018	Spring Field Investigation HRP	Sandra Hurlbut, Kerry Schwartz	Desert Mirage E.S.	30
February 24, 2018	Hamilton Invitational Science Fair	Nicole Kallman	Hamilton HS Chandler, AZ	183
February 26, 2018	Water in the Environment	Sandra Hurlbut	Copper Trails	150
February 27, 2018	Wells Fargo WF Volunteer Training	Nicole Kallman	Wells Fargo, Chandler, AZ	6
March 1, 2018	Booth-Fickett Mega Night	Betsy Wilkening	450 S Montego Dr, Tucson, AZ 85710	68
March 1, 2018	SciTech STEMtacular @ Sahuarita Middle School	Betsy Wilkening	350 W Sahuarita Rd, Sahuarita, AZ 85629	729
March 2, 2018	Sahuarita Water Festival	Betsy Wilkening	Sahuarita Middle School, Sahuarita, AZ	621
March 2, 2018	Spring Field Investigation Rio Salado	Sandra Hurlbut	Liberty Traditional Charter School, Phoenix	52

March 3, 2018	Tucson Meet Your Birds at SWWL	Betsy Wilkening	2511 W Sweetwater Dr, Tucson, AZ 85745	113
March 3, 2018	Roosevelt STEAM Festival	Joshua Wyrick	Phoenix, AZ	
March 5, 2018	Water Scene Investigation	Betsy Wilkening	Doolen Middle School, Tucson, AZ	64
March 6, 2018	STEM extravaganza Innovation Academy	Betsy Wilkening	825, W Desert Fairway Dr, Oro Valley, AZ 85755	154
March 6, 2018	Water in the Environment	Sandra Hurlbut	Sunset Hills Elementary School	120
March 7, 2018	Gilbert Water Festival	Julie Hasty	Gilbert Civic Center Lawn	1960
March 8, 2018	Math/Science Night @ Leman Academy of Excellence	Betsy Wilkening	7720 N Silverbell Rd, Tucson, AZ 85743	344
March 8, 2018	Desert Canyon El Science Night	Pam Justice	Desert Canyon Scottsdale, AZ	300
March 9, 2018	Spring Field Investigation Rio Salado	Sandra Hurlbut	Copper Creek E.S., Peoria	125
March 10, 2018	Recharge the Rain - Rainwater harvesting installation	Kerry Schwartz, Betsy Wilkening	Esperero Canyon Middle School	35
March 10, 2018	Tucson Festival of Books Science City	Betsy Wilkening	1601 E University Blvd, Tucson, AZ 85719	2981
March 11, 2018	Tucson Festival of Books Science City	Betsy Wilkening	1601 E University Blvd, Tucson, AZ 85719	1850
March 15, 2018	Science Inquiry Day at Sunrise Drive Elementary	Betsy Wilkening	5301 E Sunrise Dr, Tucson, AZ 85718	127
March 15, 2018	Tucson Water's Citizen Water Advisory Council observing water festival program	Kerry Schwartz	Sweetwater Wetlands, Tucson, AZ	10
March 15, 2018	Madison Water Festival	Julie Hasty, Nicole Kalman	Madison Simis Elementary School	658
March 16, 2018	Recharge the Rain - Rainwater harvesting installation	Kerry Schwartz, Betsy Wilkening	Santa Rita High School	21
March 16, 2018	Presidio School Science night outreach	Betsy Wilkening	1695 E Fort Lowell Rd, Tucson, AZ 85719	52
March 17, 2018	Sustainable Landscape Expo Day	Betsy Wilkening	4210 N Campbell Ave, Tucson, AZ 85719	19
March 18, 2018	Hebrew Academy's STEAM Festival	Betsy Wilkening	3888 E River Rd, Tucson, AZ 85718	295
March 20, 2018	Spring Field Investigation HRP	Sandra Hurlbut	Verrado HS	145
March 22, 2018	Southern Gila Water Festival	Julie Hasty, Nicole Kallman	Copper Rim Elementary School	264
March 22, 2018	Spring Field Investigation HRP	Sandra Hurlbut	Verrado MS	147
March 24, 2018	Biosphere 2 Drone Racing League Science Outreach	Betsy Wilkening	32540 S Biosphere Rd, Oracle, AZ 85739	553
March 24, 2018	MCCE Spring Community Fiesta	Nicole Kallman, Pam Justice	MCCE Phoenix, AZ	300

March 26, 2018	Water Scene Investigation	Betsy Wilkening	Doolen Middle School, Tucson, AZ	553
March 27, 2018	School Water Audit	Pam Justice	Mesquite HS	61
March 28, 2018	La Paloma Academy Community Night	Betsy Wilkening	8140 E Golf Links Rd, Tucson, AZ 85730	109
March 29, 2018	Tucson Water Festival	Betsy Wilkening	James Kreigh Park, Oro Valley, AZ	900
March 30, 2018	Spring Field Investigaiton HRP	Sandra Hurlbut	Sunset Hills Elementary School	128
April 3, 2018	Water Scene Investigation	Pam Justice	Islands Elementary School	26
April 3, 2018	Wells Fargo WF Volunteer Event	Julie Hasty	Wells Fargo Chandler, AZ	36
April 5, 2018	Wells Fargo Diversity and Community Connections Fair	Julie Hasty, Nicole Kallman	Wells Fargo Chandler, AZ	150
April 7, 2018	Living River of Words Award Ceremony at Wheeler Taft Library	Betsy Wilkening	Tucson, AZ	85
April 10, 2018	Water Scene Investigation	Pam Justice	Islands Elementary School	26
April 20-21, 2018	Arizona Envirothon 2018	Pam Justice	James 4-H Camp Mingus Springs, Prescott Valley, AZ	127
April 13, 2018	Future Innovator Night (SARSEF Fair)	Betsy Wilkening	Tucson, AZ	210
April 13, 2018	Water Scene Investigation	Betsy Wilkening	Edge High School, Tucson, AZ	49
April 14, 2018	ROV Scrimmage	Betsy Wilkening, Holly Thomas-Hilburn, Kerry Schwartz	1400 E 6th St, Tucson, AZ 85721	99
April 16, 2018	Water Scene Investigation	Betsy Wilkening	Alice Vail Middle School, Tucson, AZ	70
April 16, 2018	Water Scene Investigation	Betsy Wilkening	Edge High School, Tucson, AZ	49
April 20, 2018	Ak-Chin Earth Day Celebration	Nicole Kallman, Joshua Wyrick	Elements Event Center at Ak-Chin Circle Maricopa, AZ	30
April 20, 2018	STEM Night at UA Baseball	Betsy Wilkening	Tucson, AZ	175
April 21, 2018	STEM Teachers Phoenix	Sandra Hurlbut		
April 21, 2018	Tucson Earth Day @ Children's Museum	Betsy Wilkening	Tucson, AZ	334
April 23, 2018	Rainwater Harvesting Challenge	Sandra Hurlbut	South Valley Jr. High	150
April 23, 2018	Water Scene Investigation	Pam Justice	Houston Elementary	59
April 23, 2018	Discovery Program	Betsy Wilkening	Butterfield Elementary, Tucson, AZ	159
April 24, 2018	Rainwater Harvesting Challenge	Sandra Hurlbut	South Valley Jr. High	150
April 25, 2018	Water Scene Investigation	Betsy Wilkening	Alice Vail Middle School, Tucson, AZ	72
April 26, 2018	Tucson Water Teacher Walk-out Outreach	Betsy Wilkening	Tucson, AZ	11

April 30, 2018	Water Scene Investigation	Pam Justice	Houston Elementary	59
May 9, 2018	Water Scene Investigation	Betsy Wilkening	Bloom Elementary, Tucson, AZ	20
May 10, 2018	Nogales Water Festival	Julie Hasty	Nogales High School	392
May 16, 2018	Water Scene Investigation	Betsy Wilkening	Bloom Elementary, Tucson, AZ	18
May 17, 2018	Family STEAM Night Program	Chuck Dugan	Peralta Trail Elementary School	
May 17, 2018	Canyon View Elementary Outreach Event	Betsy Wilkening	Tucson, AZ	25
May 19, 2018	Ward 3 discount and benefit fair	Betsy Wilkening	Tucson, AZ	6
May 21, 2018	Santa Rita High Eagle Jam	Betsy Wilkening	Tucson, AZ	39
June 7, 2018	Future Farmers of America Outreach at Westin La Paloma	Betsy Wilkening	Tucson, AZ	85
June 14, 2018	Girl Scouts education at Girl Scout Hacienda Camp	Betsy Wilkening	3101 N Sabino Canyon Rd, Tucson, AZ 85715	43
June 27, 2018	Kidco Presentation at Wright Elementary	Betsy Wilkening	4311 E Linden St, Tucson, AZ 85712	40
July 13, 2018	Garden Explorerz Activity Day	Holly Thomas-Hilburn	Las Milpitas Farm, 2405 S. Cottonwood Blvd, Tucson, Arizona 85713	18
July 25, 2018	Community Workers Outreach at Legacy Traditional School	Holly Thomas-Hilburn	3500 W Cortaro Farms Rd, Tucson, AZ 85742	43
July 28, 2018	Reid Park Zoo Nature Play Day	Holly Thomas-Hilburn	Reid Park Zoo, 3400 E Zoo Ct, Tucson, AZ 85716	42
August 2, 2018	Water Scene Investigation	Holly Thomas-Hilburn	Vail Innovation Center, Tucson, AZ	73
August 6, 2018	Water Scene Investigation	Holly Thomas-Hilburn	Andrada Polytechnic HS, Tucson, AZ	40
August 9, 2018	Water Scene Investigation	Holly Thomas-Hilburn	Vail Innovation Center, Tucson, AZ	76
August 10, 2018	Irrigation Audit	Holly Thomas-Hilburn	Butterfield Elementary, Tucson, AZ	68
August 13, 2018	Irrigation Audit - Calculations	Holly Thomas-Hilburn	Butterfield Elementary, Tucson, AZ	75
August 13, 2018	Water Scene Investigation	Holly Thomas-Hilburn	Andrada Polytechnic HS, Tucson, AZ	40
August 24, 2018	Bathroom Faucet - Audit	Holly Thomas-Hilburn	Borman Elementary, Tucson, AZ	42
August 25, 2018	Desert Museum Teacher Appreciation Night	Holly Thomas-Hilburn	Arizona-Sonora Desert Museum, 2021 N Kinney Rd, Tucson, AZ 85743	144
August 27, 2018	Water Scene Investigation	Holly Thomas-Hilburn	Borton Elementary, Tucson, AZ	71
August 29, 2018	Rainwater Harvesting Runoff - Harelson Elementary School	Holly Thomas-Hilburn	826 W Chapala Dr, Tucson, AZ 85704	80
September 10, 2018	Water Scene Investigation	Holly Thomas-Hilburn	Borton Elementary, Tucson, AZ	64
September 18, 2018	Bathroom Faucet - Audit	Holly Thomas-Hilburn	Estes Elementary, Tucson, AZ	83

September 19, 2018	STEM Night Santa Clara Elementary School	Holly Thomas-Hilburn	6910 S Santa Clara Ave, Tucson, AZ 85756	95
September 20, 2018	Flagstaff Water Festival	Nicole Kallman, Julie Hasty	Foxglenn Park	~800
September 20, 2018	Bathroom Faucet - Audit	Holly Thomas-Hilburn	Harelson Elementary, Tucson, AZ	26
September 24, 2018	Indoor School Water Audits	Cara Corbin	Cromer, Flagstaff, AZ	109
September 25, 2018	Payson Water Festival	Nicole Kallman, Julie Hasty	Green Valley Park	258
September 25, 2018	Maricopa Water Festival	Chuck Dugan, Kerry Schwartz	Copper Sky Recreation Complex	549
September 26, 2018	Student Unconference on the Colorado River & CAP	Kerry Schwartz	Paulo Freire School, Tucson, AZ	60
September 27, 2018	Irrigation Audit	Holly Thomas-Hilburn	Edge High School, Tucson, AZ	70
October 4, 2018	Verde Valley Water Festival	Nicole Kallman, Julie Hasty	Dead Horse Ranch State Park	608
October 6, 2018	Recharge the Rain Presentation - Desert Food Fiesta	Betsy Wilkening	Cooper Center for Environmental Learning 5403 W. Trails End Road, Tucson, AZ	17
October 11, 2018	Recharge the Rain Presentation - North American Environmental Educators Conference	Betsy Wilkening	Spokane Convention Center	42
October 16, 2018	Living River of Words- Santa Cruz River- Tucson High	Holly Thomas-Hilburn	400 N 2nd Ave, Tucson, AZ 85705	31
October 16, 2018	Water Scene Investigation	Holly Thomas-Hilburn	Estes, Tucson, AZ	88
October 17, 2018	Living River of Words- Santa Cruz River- Tucson High	Holly Thomas-Hilburn	400 N 2nd Ave, Tucson, AZ 85705	41
October 18, 2018	Water Scene Investigation	Holly Thomas-Hilburn	Desert View HS, Tucson, AZ	48
October 19, 2018	Water Scene Investigation	Holly Thomas-Hilburn	Desert View HS, Tucson, AZ	23
October 20, 2018	Safety event at Home Depot	Holly Thomas-Hilburn	Tucson, AZ	27
October 22, 2018	Discovery Program- Andrada Polytechnic High School	Holly Thomas-Hilburn	Sweetwater Wetlands, Tucson, AZ	42
October 23, 2018	Innovation Academy STEM Night	Holly Thomas-Hilburn	Innovation Academy, Tucson, AZ	226
October 24, 2018	Living River of Words- Santa Cruz River- Miles Exploratory Learning Center	Holly Thomas-Hilburn	1400 E Broadway Blvd, Tucson, AZ 85719	44
October 25, 2018	Flowing Wells Junior High Math/Science Night	Holly Thomas-Hilburn	Flowing Wells Jr. High, Tucson, AZ	62
October 25, 2018	Water Scene Investigation	Holly Thomas-Hilburn	Desert View HS, Tucson, AZ	48
October 25, 2018	Aqua STEM Field Day- Hassayampa	Sandra Hurlbut, Annapurna Chitnavis	El Dorado Private School	71
October 26, 2018	Water Scene Investigation	Holly Thomas-Hilburn	Desert View HS, Tucson, AZ	24
October 26, 2018	Aqua STEM Field Day- Hassayampa	Sandra Hurlbut Annapurna Chitnavis	Liberty Traditional CS	47

October 29, 2018	Living River of Words- Santa Cruz River- Mission Manor	Holly Thomas-Hilburn	600 W Santa Rosa St, Tucson, AZ 85706	89
October 29, 2018	Indoor School Water Audits	Cara Corbin	FJA, Flagstaff, AZ	50
October 30, 2018	Water Scene Investigation	Holly Thomas-Hilburn	Estes, Tucson, AZ	75
November 2, 2018	Facilitated Event @ Miller Elementary	Holly Thomas-Hilburn	6951 S Camino De La Tierra, Tucson, AZ 85746	50
November 3, 2018	Pumpkin Smash Festival @ Las Milpitas Community Farm	Holly Thomas-Hilburn	Las Milpitas Community Farm, Tucson, AZ	66
November 5, 2018	AZ Water Presentation - Water Knife to UA Education Class	Betsy Wilkening	University of Arizona	10
November 6, 2018	Bathroom Faucet - Audit	Kerry Schwartz	Mingus Union High School, Cottonwood, AZ	83
November 6, 2018	Bathroom Faucet - Audit	Holly Thomas-Hilburn	Teenage Parent High School, Tucson, AZ	8
November 6, 2018	Water Scene Investigation	Holly Thomas-Hilburn	Hendricks Elementary, Tucson, AZ	19
November 7, 2018	Bathroom Faucet - Audit	Kerry Schwartz	Flagstaff Junior Academy, Flagstaff, AZ	46
November 7, 2018	Construction Career Day	Holly Thomas-Hilburn	4823 S 6th Ave, Tucson, AZ 85714	2
November 10, 2018	Sahaurita Pecan Festival	Holly Thomas-Hilburn	1625 E Sahuarita Rd, Sahuarita, AZ 85629	521
November 13, 2018	STEM Night Borton Elementary	Holly Thomas-Hilburn	Borton Elementary, Tucson, AZ	95
November 14, 2018	STEM Night Craycroft Elementary	Holly Thomas-Hilburn	Craycroft Elementary, Tucson, AZ	85
November 14, 2018	Water Scene Investigation	Holly Thomas-Hilburn	TAP High School, Tucson, AZ	6
November 15, 2018	Stem Night @ Butterfield Elementary	Holly Thomas-Hilburn	Butterfield Elementary, Tucson, AZ	68
November 16, 2018	STEM Adventure at PCC	Holly Thomas-Hilburn	Pima Community College, Tucson, AZ	880
November 17, 2018	Reid Park Family Festival	Holly Thomas-Hilburn	Reid Park, Tucson, AZ	376
November 19, 2018	Discovery Program- Borton Elementary	Holly Thomas-Hilburn	Sweetwater Wetlands, Tucson, AZ	75
November 19, 2018	Rainwater Harvesting Lesson	Sandra Hurlbut, Annapurna Chitnavis	Maryland, Phoenix, AZ	65
November 19, 2018	Rainwater Harvesting Lesson	Sandra Hurlbut Annapurna Chitnavis	Maryland, Phoenix, AZ	27
November 20, 2018	Rainwater Harvesting Challenge	Sandra Hurlbut, Annapurna Chitnavis	Maryland E. S.	66
November 20, 2018	Rainwater Harvesting Challenge	Sandra Hurlbut, Annapurna Chitnavis	Maryland E. S.	27
November 21, 2018	Plumbing The Colorado	Holly Thomas-Hilburn	12000 W Emigh Rd, Tucson, AZ 85743	76
November 21, 2018	Plumbing The Colorado	Holly Thomas-Hilburn	825 W Desert Fairway Dr, Oro Valley, AZ 85755	76
November 26, 2018	RainMax Lesson and Living Lab Tour at WMG	Holly Thomas-Hilburn	1137 N Dodge Blvd, Tucson, AZ 85716	19
November 27, 2018	Water Quality Presentation and Andrada Polytechnic	Holly Thomas-Hilburn	12960 S Houghton Rd, Tucson, AZ 85747	43
November 27, 2018	Bathroom Faucet - Audit	Holly Thomas-Hilburn	Doolen Middle School, Tucson, AZ	135

November 27, 2018	Aqua STEM Field Day-Rio Salado	Sandra Hurlbut, Kerry Schwartz, Annapurna Chitnavis	Eloy Jr.High School	104
November 28, 2018	Chem kits facilitating event.	Holly Thomas-Hilburn	3300 W Freer Dr, Tucson, AZ 85742	29
November 29, 2018	Living River of Words Santa Cruz River-Drachman	Holly Thomas-Hilburn	1085 S Ave, Tucson, AZ 85701	47
December 4, 2018	Living River of Words Santa Cruz River	Holly Thomas-Hilburn	7548 N Silverbell Rd, Tucson, AZ 85743	65
December 5, 2018	Bathroom Faucet - Intro	Holly Thomas-Hilburn	Marana High School, Vail, AZ	40
December 6, 2018	Rainwater Harvesting Challenge	Sandra Hurlbut, Annapurna Chitnavis	Eloy Jr High	93
December 7, 2018	School Water Audit	Sandra Hurlbut, Annapurna Chitnavis	Liberty Charter Trad, Phoenix AZ	40
December 8, 2018	Rainwater Harvesting Installation Celebration in collaboration with the Haury team	Kerry Schwartz, Betsy Wilkening	STAR Academy	20
December 13, 2018	School Water Audit	Sandra Hurlbut, Annapurna Chitnavis	Maryland School, Phoenix AZ	70
December 18, 2018	Pump it Up @ Innovation Academy	Holly Thomas-Hilburn	4455 S Mission Rd, Tucson, AZ 85746	90

Section 10 - Arizona Project Wet Volunteer Training

Date	Title	Presenter/ Contact	Location / School	Attendance (if available)
January 8, 2018	Tucson Water Educator Training	Kerry Schwartz, Holly Thomas-Hilburn	WRRC	12
February 1, 2018	Peoria Volunteer Training	Sara Krznarich, Pam Justice	Peoria Public Safety Administration Building	25
February 20, 2018	Lake Havasu Volunteer Training	Pam Justice	Lake Havasu City Operations Multi-purpose Room 900	17
February 21, 2018	Osborn Volunteer Training	Julie Hasty	U of A Maricopa County Cooperative Extension	12
March 1, 2018	Gilbert Volunteer Training	Julie Hasty, Nicole Kallman	Shakespeare/Assembly Room SE Regional Library	35
March 1, 2018	Sahuarita Volunteer Training	Betsy Wilkening, Holly Thomas-Hilburn		18
March 12, 2018	Littleton Volunteer Training	Pam Justice	Avondale Municipal Operations Service Center	10
March 13, 2018	Madison Volunteer Training	Julie Hasty, Nicole Kallman	Madison Simis Elementary School	5
March 20, 2018	Southern Gila Volunteer Training	Julie Hasty		26
March 26, 2018	Tucson Volunteer Training	Betsy Wilkening, Holly Thomas-Hilburn	WRRC	11
April 23, 2018	Apache Junction Volunteer Training	Chuck Dugan	AJ MultiGenerational Center	16
September 13, 2018	Flagstaff Volunteer Training	Nicole Kallman	NAU, Flagstaff, AZ	72
September 18, 2018	Payson Volunteer Training	Nicole Kallman	Payson Town Hall	8

September 25, 2018	Maricopa Water Festival Volunteer Training	Chuck Dugan	UA Extension Office - Casa Grande	8
September 26, 2018	Verde Valley Volunteer Training	Nicole Kallman	Yavapai County ROADS Office	9
October 1, 2018	Carollo Volunteer Training	Nicole Kallman	Carallo Engineers, Phoenix	2
October 3, 2018	Peoria Volunteer Training	Julie Hasty	Peoria MOC	23
October 31, 2018	Americorps Training for in-class presentations	Kerry Schwartz	U of A Maricopa County Cooperative Extension	4
November 19, 2018	Florence Water Festival Volunteer Training	Chuck Dugan	Florence HS	27
November 20, 2018	Florence Water Festival Volunteer Training	Chuck Dugan	Anthem Parkside	8
November 27, 2018	Florence Water Festival Volunteer Training	Chuck Dugan	UA Extension Office - Casa Grande	6

Section 11 - Arizona Project Wet Workshops

Date	Title	Presenter/ Contact	Location / School	Attendance (if available)
1/10/2018	Sunnyside Teacher Workshop	Kerry Schwartz	Los Ninos Elementary	11
1/17/18, 1/31/18	Osborn Teacher Workshop	Julie Hasty	Solano Elementary School, 1526 W Missouri, Phoenix	17
1/18/2018	Madison Teacher Workshop	Sara Krznarich	Madison Simis Elementary School	15
1/20/2018	Littleton Teacher Workshop	Sara Krznarich	Country Place Elementary School	~10
1/25/2018	Gilbert Teacher Workshop	Julie Hasty		10
2/17/2018	Just Add Water: Hands-on Science Made Easy!	Holly Thomas-Hilburn	WRRC	10
2/9/2018	Recharge the Rain	Betsy Wilkening, Kerry Schwartz	Watershed Management Group, Tucson, AZ	14
2/14/2018	Tohono Chul Docent Training	Kerry Schwartz	Tohono Chul Park, Tucson, AZ	15
3/7/2018	Sunnyside Teacher Workshop	Kerry Schwartz	Los Ninos Elementary	9
3/24/2018	ROV in a Bag	Betsy Wilkening	Biosphere 2, Oracle, AZ	15
4/4/2018	Sunnyside Teacher Workshop	Kerry Schwartz	Los Ninos Elementary	11
4/21/2018	Nogales Teacher Workshop	Holly Thomas-Hilburn	Santa Cruz Center	4
4/30/2018	Systems Thinking: Constructing New Knowledge & Deconstructing Misconceptions	Kerry Schwartz	ANREP Conference in Biloxi Mississippi	15
5/29/2018	System Thinking 101	Kerry Schwartz	MCCE Office	7
5/30-31/2018	Aqua STEM: Riparian Habitat Exploration	Sandra Hurlbut, Holly Thomas-Hilburn	MCCE Office	7
5/31-6/1, 2018	Explore the Colorado River	Kerry Schwartz, Pam Justice	Scottsdale Unified School District MDA	20
6/4-8/2018	Tucson STEM Academy	Betsy Wilkening, Holly Thomas-Hilburn	U of A, ENR2	28

6/5/2018	System Thinking 101	Kerry Schwartz	MCCE Office	11
6/6-7/2018	Aqua STEM: Rainwater Harvesting Academy	Kerry Schwartz, Sandra Hurlbut	MCCE Office	11
6/12/2018	System Thinking 101	Kerry Schwartz	Desert Mirage Elementary School	3
6/13-14/2018	Aqua STEM: School Water Audit Academy	Kerry Schwartz, Sandra Hurlbut	Desert Mirage Elementary School	8
6/19-21/2018	STEMAZing Institute	Kerry Schwartz	Tucson Electric Power	23
6/25-29/2018	Water Solutions: Past, Present & Future	Pam Justice, Kerry Schwartz	SRP PERA Club	17
7/10-7/13/18	Underwater Robotics & Engineering Design	Betsy Wilkening, Holly Thomas-Hilburn	UA, Agriculture Technical Education Center, Tucson, AZ	20
7/9-10/2018	UA/ASU Advanced Water Education Workshop	Kerry Schwartz	ASU, Wrigley Hall	20
7/11/2018	System Thinking 101	Kerry Schwartz	Ponderosa High School, Flagstaff AZ	12
7/12-13/2018	Aqua STEM: School Water Audit Academy	Kerry Schwartz	Ponderosa High School, Flagstaff AZ	12
7/16-17/2018	Recharge the Rain	Betsy Wilkening, Holly Thomas-Hilburn, Kerry Schwartz	WRRC	15
7/23/2018	Tempe Teacher Workshop	Julie Hasty		10
7/25/2018	Litchfield Teacher Workshop	Julie Hasty		16
8/25/2018	Chandler Teacher Workshop	Julie Hasty, Nicole Kallman		12
8/28/2018	Flagstaff Teacher Workshop	Julie Hasty, Nicole Kallman		12
9/4/2018	Peoria Teacher Workshop	Julie Hasty, Nicole Kallman		22
9/6/2018	Verde Valley Teacher Workshop	Julie Hasty, Nicole Kallman		4
9/15/2018	Yuma Teacher Workshop	Kerry Schwartz	Yuma Public Works Office, Yuma AZ	16
9/18/2018	Pinal Teacher Workshop	Chuck Dugan		11
9/20/2018	Pinal Teacher Workshop	Chuck Dugan		11
9/22/2018	Roosevelt/Tempe Teacher Workshop	Julie Hasty		10
9/29/2018	Buckeye Teacher Workshop	Nicole Kallman		12
10/6/2018	Riparian Habitat Exploration - Aqua STEM Academy (Day 1)	Kerry Schwartz, Sandra Hurlbut	Maricopa County Cooperative Extension Office, Phoenix, AZ	7
10/23/2018	Tucson Area Teacher Workshop	Kerry Schwartz	Amphi School District Offices, Tucson, AZ	12
10/24/2018	Tohono Chul Docent Training	Kerry Schwartz	Tohono Chul Park, Tucson, AZ	22

10/27/2018	Riparian Habitat Exploration - Aqua STEM Academy (Day 2)	Kerry Schwartz, Sandra Hurlbut	Maricopa County Cooperative Extension Office, Phoenix, AZ	7
11/2/2018	Recharge the Rain Teacher Workshop	Betsy Wilkening, Holly Thomas-Hilburn, Kerry Schwartz	WMG	17
11/13/2018	Putting the Kids in the Driver Seat for Learning: A Project WET Workshop	Kerry Schwartz	Wildlife Habitat Council Conference, Baltimore, MD	42
11/13/2018	Pinal Teacher Workshop	Chuck Dugan	Florence - Circle Cross Ranch	7
11/15/2018	Pinal Teacher Workshop	Chuck Dugan	Florence - Circle Cross Ranch	7

Section 12 - WRRC Students

UNDERGRADUATES

Alvarez, Julia; Communications; BS; May 2020
Christensen, Mackenzie; Care, Health and Society; BS; May 2020
Dannenbrink, Sarah; Care, Health and Society; BA
De La Cruz, Gabriela; Agr. Science Leadership Manager Communications; BS; May 2020
Dew , Taylor; Environmental and Water Resource Economics; BS
Hamie, Mohamed; Biochemistry and Mathematics; BS
Kroll, Bethanie; Natural Resources; BS
Martinez, Hiram; Public Health; BS
Parra, Gemma; Public Health; BS; May 2020
Rik, Rickij; Natural Resources; BS
Ryterski, Meghan; Biosystems Engineering; BS
Spacek, Ryan; Natural Resources; BS
Thomas, Corine; College of Ag & Life Sciences; BS
Vos, Bethany; Nutritional Science & Plant Science; BS; May 2021

GRADUATES

Bigler, Matthew; Soil, Water, and Environmental Science; PhD; May 2021
Cruz, Mary Belle; Arid Lands Resource Sciences; PhD
Freimund, Chris; Natural Resources Studies; MS; May 2020
Hermosilla, Victoria; Hydrology; MS; Dec 2018
Murray, Rachel; Arid Lands Resource Sciences; PhD
Bigler, Matthew; Soil, Water, and Environmental Science; PhD; May 2021
Cruz, Mary Belle; Arid Lands Resource Sciences; PhD