

Appendix B

Section 1 – WRRC Grants and Contracts Received

Title	Sponsor
Arizona Project WET	Arizona Department of Water Resources
Arizona Project WET - Tucson AMA Intergovernmental Agreement	Arizona Department of Water Resources
Arizona Project WET - Abbott Foundation Support	Abbott Family Foundation
Arizona Project WET - Freeport McMoRan Water Festival Support	Freeport McMoRan
Arizona Project WET - SRP Water Festival Support	Salt River Project
Arizona Project WET - Recharge the Rain: Community Resilience through STEM Education	Watershed Management Group
Bringing Microbiology and Water Quality	US Department of Agriculture
Flagstaff Water Education Program	City of Flagstaff
Lake Havasu City Water Festival	Lake Havasu City
Building Water Scenarios to Support Community Planning in Rural Arizona Through Collaborative Stakeholder Engagement Process Design	Bureau of Reclamation
Diving Into Task Assignment Bias	Environmental Defense Fund
Growing Water Smart Technical Assistance	The Lincoln Institute of Land Policy
Engaging Water Resources and Urban Planning	The Lincoln Institute of Land Policy
Transboundary Aquifer Assessment Program	US Geological Survey
104(b) State Water Resources Research Institute Program	US Geological Survey

Section 2 – WRRC 104b Water Research Grants

Title	University	Amount
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
2019		
Detecting Colorado River Tamarix Phenology Using Publicly Available Satellite Images	Northern Arizona University	\$9,152
A Citizen Science Approach to Monitoring Water Resources in a Vulnerable Aquifer	University of Arizona	\$10,000
Solar Nanofiltration for Off-Grid Water Purification in Navajo Nation	University of Arizona	\$8,000
2020		
Flow Discharge Measurements Using Small Unmanned Aerial Systems	University of Arizona	\$10,000
Removal of Microplastics by Soil Aquifer Treatment of Reclaimed Wastewater	University of Arizona	\$9,990

Section 3- WRRC Media Appearances

Date	Title	Outlet	URL
January 13, 2020	Payson's 13th annual water festival (Terry Ramirez)	Payson Roundup	https://www.paysonroundup.com/schools/payson-s-th-annual-water-festival/article_37cffb3c-52e4-58c0-9db2-5f3e60c1dbf4.html
February 3, 2020	Green Thumb: Learn to Harvest Water at Home (Green Valley Gardeners)	Green Valley News	https://www.gvnews.com/lifestyle/green-thumb-learn-to-harvest-water-at-home/article_26978974-46a8-11ea-9584-8f4fe5786761.html
April 18, 2020	Tucson's admirable water conservation efforts (Quinn McVeigh)	Arizona Daily Wildcat	https://www.wildcat.arizona.edu/article/2020/04/o-tucson-water
May 24, 2020	Radio Interview on Middle East water	Too Jewish Radio	http://www.toojewishradio.com/too_jewish_shows.htm https://wrrc.arizona.edu/sites/wrrc.arizona.edu/files/megdal-radio-interview.mp3
August 12, 2020	Nonsoon 2020, Arizona water supply is OK—for now	TV Interview, KOLD	https://www.kold.com/2020/08/12/nonsoon-arizona-water-supply-is-okayfor-now/
October 6, 2020	Water forum links healthy forests to healthy watershed	Payson Roundup	https://www.paysonroundup.com/news/gila_county/water-forum-links-healthy-forests-to-healthy-watershed/article_b1fadf8c-0810-59cf-a250-a5bb50f19225.html
October 7, 2020	Growing Arizona's economy with climate change in mind (Victoria Harker)	Chamber Business News	https://chamberbusinessnews.com/2020/10/07/climateecon-w-pics-of-three-speakers/
October 12, 2020	Talk+Water: Sharon B. Megdal (Todd Votteler)	Texas + Water	https://txstate.us9.list-manage.com/track/click?u=1a75c397ce97f21a4a4d5da50&id=149182e517&e=6b63af2a8c
October 23, 2020	People in the News	IAH-TBA Commission Newsletter	https://isarm.org/sites/default/files/resources/files/Newsletter%20IAH-TBA_V1_2_Oct%2023_2020.pdf
October 31, 2020	Radio Interview on WRRC and UArizona as water information and innovation resources	Rosie on the House - KTAR News 92.3	https://ktar.com/category/podcast_player/?a=1aafd128-a18b-4256-bbdc-ac65013405f3&sid=1032&n=Rosie+on+the+House
November 16, 2020	Women, Science and Water in the US-MX Border	Science Talks	https://www.youtube.com/watch?v=QTI9mKwR3XI&feature=youtu.be

Section 4 - WRRC Brown Bag Seminars

Date	Speaker	Presentation
January 22, 2020	Henry W. Johnstone, PE, President of GLHN Architects and Engineers, Inc.	Energy-Water-Air Conditioning Nexus
February 4, 2020	Carol Ward, Deputy Assistant Director, Water Planning & Permitting Division, Arizona Department of Water Resources and Natalie Mast, Program Manager, Management Plans, Arizona Department of Water Resources	Reflecting on the Past, Looking to the Future: The Groundwater Management Act
February 18, 2020	Philip Richards, Chair of the Desalination Committee and Manager, Arizona Public Service and Wade Noble, Chair of the Long-Term Water Augmentation Committee and Attorney at Law, Noble Law	Committees of the Governor's Water Augmentation, Innovation, and Conservation Council
February 20, 2020	Margaret Snyder, Hydrologist, Tucson Water and Libby Kahler, Hydrologist, U.S. Geological Survey	Changes in aquifer storage derived from microgravity and water level monitoring in the Tucson Active Management Area

February 25, 2020	Claire Zucker, Susanna Eden	Green Valley Council - Know Your Water
March 3, 2020	Patrick Dent, Director of Water Policy, CAP Austin Carey, Planning Analyst, Resource Planning and Analysis, CAP Angie Lohse, Senior Policy Analyst, CAP Chris Brooks, Senior Water Resources Analyst, CAGR Orestes Morfin, Planning Analyst, Colorado River Programs Department, CAP Mohammed Mahmoud, Senior Policy Analyst, Colorado River Programs Department, CAP	Colorado River Water Issues
April 1, 2020	Kathy Jacobs and Amy McCoy	COR conversations
April 8, 2020	Kacey Ernst	Mosquito-borne disease and climate
April 16, 2020	Nat Bransky and Sean Schrag-Toso	104(b) Student Presentations
April 29, 2020	Marie Pearthree and Mike McGuire	Book: Tucson Water Turnaround: Crisis to Success
May 6, 2020	Sharon Megdal	Developing Pathways to Solutions to Wicked Water Problems
September 1, 2020	Daryl Vigil	Toward a Sense of the Basin: Designing a Collaborative Process to Develop the Next Set of Guidelines for the Colorado River System
September 17, 2020	Sarah Porter, Director, Kyl Center for Water Policy Susan Craig, Water Policy Analyst, Kyl Center for Water Policy	Arizona Water Blueprint: A Roadmap to Good Stewardship
October 20, 2020	Kristen Wolfe, Coordinator, Sustainable Water Network	Water for Nature
November 13, 2020	Ted Cooke, General Manager, Central Arizona Project	Coronavirus Response at the Central Arizona Project
November 18, 2020	Kevin Black, Sr., Planning Program Manager, US Bureau of Reclamation - Phoenix Area Office	Southwestern Navajo Rural Water Appraisal Study
December 2, 2020	Scott Deeny, Water Program Lead, Arizona Chapter of The Nature Conservancy Holly Richter, Arizona Water Projects Director, The Nature Conservancy	Balancing Water for People and Nature: The Upper San Pedro River
December 9, 2020	Adam Yablonski, President, Comanche Creek Farms	Balancing Environmental, Municipal, and Agricultural Needs in the Edwards Aquifer: A Farmer's Perspective

Section 5 - WRRC Publications (By First Author)

- Bernat, R.F.A., Megdal, S.B. and Eden, S., 2020, Long-Term Storage Credits: Analyzing Market-based Transactions to Achieve Arizona Water Policy Objectives, *Water* Vol 12, p.568, 20 pp, 43880, <https://www.mdpi.com/2073-4441/12/2/568/pdf>
- Cruz Ayala, M.B. and Megdal, S.B., 2020, An overview of Managed Aquifer Recharge in Mexico and its legal framework, *Water*, Special Issue on Managed Aquifer Recharge for Water Resilience, 43871, <https://www.mdpi.com/2073-4441/12/2/474/pdf>
- Dillon, P., Enrique Fernández, E., Megdal, S.B., and Massmann, G., 2020, Managed Aquifer Recharge for Water Resilience, *Water* Vol 12 (7), 44010, <https://www.mdpi.com/2073-4441/12/7/1846>
- Eisenberg, J., Megdal, S., Sundareshan, P., Braelan Barnett, D., Seiter, M., Ruyle, G., Sullivan, B., Davis, R., Mather, P., 2020, Analysis of the 2020 WOTUS rule & policy implications for ephemeral washes in Arizona, *The Water Report*, Issue #196, 43997, <https://wrrc.arizona.edu/2020-wotus-rule>
- Hamilton, K., A. Warish, E. Rauh, C. Rock, J. McLain, and R.L. Muenich. 2020. Comparing microbial risks from multiple sustainable waste streams applied for agricultural use: biosolids, manure, and diverted urine. *Current Opinion in Environmental Science and Health*, 14: 37-50; DOI: 10.1016/j.coesh.2020.01.003.
- Maxwell, T., Megdal, S.B., and Ruiz, J., 2020, In a changing climate, Arizona is uniquely positioned to succeed, *Arizona Daily Star, Local Opinion*, 44139, https://tucson.com/opinion/local/local-opinion-in-a-changing-climate-arizona-is-uniquely-positioned-to-succeed/article_5bbb10a5-c6fa-5198-90d1-7b46239ff689.html
- Megdal, S.B. 2020, End of 2020 Reflections, *WRRC Weekly Wave*, Vol 8. Issue 40, 44183, <https://wrrc.arizona.edu/reflections-end-2020>

- Megdal, S.B., 2020, Reflections: The Importance of Dialogue, Process, and Participation, *WRRC Weekly Wave*, Vol 8, Issue 36, 44148, <https://wrrc.arizona.edu/reflections-importance-dialogue-process-and-participation>
- Megdal, S.B., 2020, Reflections: Being on Sabbatical During the COVID-19 Pandemic, *WRRC Weekly Wave*, Vol 8, Issue 11, 43910, <https://wrrc.arizona.edu/reflections-sabbatical-covid-19>, <https://judaic.arizona.edu/news/reflections-being-sabbatical-during-covid-19-pandemic>
- Megdal, S.B., 2020, Reflections: Singapore – A Model for Integrated Water Management, *WRRC Weekly Wave*, Vol 8, Issue 5, 43868, <https://wrrc.arizona.edu/reflections-singapore>
- Megdal, S.B., 2020, Reflections: Spring 2020 and COVID-19 – The Work Must Go On, *WRRC Weekly Wave*, Vol 8, Issue 22, 43987, <https://wrrc.arizona.edu/reflections-spring-2020-and-covid-19-work-must-go-on>
- Megdal, S.B., 2020, Reflections: Time to Retire the Water Buffalo Symbol? *WRRC Summer Wave*, Vol 8, Issue 2, 44022, <https://wrrc.arizona.edu/reflections-time-retire-water-buffalo-symbol>
- Megdal, S.B., 2020, Reflections: On Wicked Water Problems, *WRRC Summer Wave*, Vol 8, Issue 4, 44050, <https://wrrc.arizona.edu/reflections-wicked-water-problems>
- Megdal, S.B., 2020, Reflections: Varying Views on My Water Buffalo Symbol Question, *WRRC Weekly Wave*, Vol 8, Issue 31, 44113, <https://wrrc.arizona.edu/reflections-varying-views-my-water-buffalo-symbol-question>
- Megdal, S.B., 2020, Deadline Looms for Transboundary U.S.-Mexico Water Management: Experts weigh in on the potential for conflict and cooperation, Wilson Institute-Mexico Center, 44125, <https://www.wilsoncenter.org/article/deadline-looms-transboundary-us-mexico-water-management-experts-weigh-potential-conflict>
- Powers, Q.*, L.F. Arenguren, K. Fitzsimmons, J. McLain, and A. Dhar. Crayfish (*Cherax quadricarinatus*) susceptibility to acute hepatopancreac necrosis disease (AHPND). *Journal of Invertebrate Pathology*, accepted.
- Ryan Lee, Ph.D.; Steven Arnquist; Kyle Hartfied, M.S.; Sharon B. Megdal, Ph.D.; Hans Skov-Petersen, Ph.D.; Christopher A. Scott, Ph.D., 2020, Social-Ecological Justice and Dryland Urban Greening in Tucson, Arizona, USA, *Environmental Change*
- Tapia-Villaseñor, E.M., Shamir, E., Megdal, S.B., and Petersen-Perlman, J.D., 2020, Impacts of Variable Climate and Effluent Flows on The Transboundary Santa Cruz Aquifer, *Journal of the American Water Resources Association*, Accepted subject to minor revisions, February 2020
- Tapia-Villaseñor, E.M., Shamir, E., Megdal, S.B., and Petersen-Perlman, J.D., 2020, Impacts of Variable Climate and Effluent Flows on The Transboundary Santa Cruz Aquifer, *Journal of the American Water Resources Association*, 43992, <http://dx.doi.org/10.1111/1752-1688.12853>
- Wilder, M., Varaday, R., Gerlak, A., Mumme, S., Flessa, K.W., Zuniga-Teren, A., Scott, C., Pineda-Pablos, N., and Megdal, S.B., 2020, Hydrodiplomacy and Adaptive Governance at the U.S.-Mexico Border: 75 Years of Tradition and Innovation in Transboundary Water Management, *Environmental Science and Policy*, October 2020, <https://www.sciencedirect.com/science/article/pii/S1462901120301052?via%3Dihub>
- Wilder, M., Varaday, R., Mumme, S., Gerlak, A., Flessa, K., Zuniga-Teren, A., Scott, C., Pineda-Pablos, N., and Megdal, S.B., 2020, Hydrodiplomacy and Adaptive Governance at the U.S.-Mexico Border: 75 Years of Tradition and Innovation in Transboundary Water Management, *Environmental Science and Policy*, Under revision, February 2020.

Section 6 - WRRC Presentations (By Chronological Order)

- January 20, 2020, Sharon B. Megdal, Wicked Water Problems and Bridging through Water, Lecture, Lim Thiam Seng Lecture Series, Institute of Water Policy, Lee Kuan Yew School of Public Policy, National University of Singapore, Singapore
- January 20, 2020, Tapia-Villaseñor, Elia M. and Eylon Shamir, El Programa de Evaluación de Acuíferos Transfronterizos: Esfuerzos en el Acuífero Transfronterizo Río Santa Cruz, en la frontera de Sonora y Arizona, , Universidad de Sonora. Hermosillo, Mexico
- January 22, 2020, Sharon B. Megdal, Arizona (USA) and Colorado River Basin Water Issues, Lecture, National University of Singapore Lee Kuan Yew School of Public Policy Lecture, Singapore
- January 28, 2020, Sharon B. Megdal, Workshop on the Challenges for Sustainable Management of Aquifers, Keynote Presentation, National Autonomous University of Mexico (UNAM), Mexico City, Mexico
- January 29, 2020, Jean McLain, How to Construct an Effective Presentation, Presentation, ENVS 697
- February 6, 2020, Susanna Eden, Michael Seronde, Water Harvesting for Desert Gardens, Presentation, Green Valley Gardeners Seminar, Green Valley
- February 9, 2020, Sharon B. Megdal, Bridging through Water (with a focus on the Jordan region), Fulbright-Hays Group Project Abroad to Jordan, , Video-Recorded Invited Background Presentation, Funded through a grant to the University of Arizona Center for Middle Eastern Studies,
- February 24, 2020, Sharon B. Megdal, Central Arizona Water Issues, Presentation, Tucson, Arizona
- March 5, 2020, Sharon B. Megdal, Wicked Water Problems and Addressing Regional Water Stress, Presentation, Tel Aviv, Israel
- April 21, 2020, Sharon B. Megdal, Water Management in the Tucson Region, Presentation - Remote, Guest (remote) lecture University of Arizona ENVS 270 class
- April 22, 2020, Jean E. McLain, My career in microbiology – how did I get here from there?, Presentation, MIC195G: Careers in Microbiology, University of Arizona, Online
- April 23, 2020, Sharon B. Megdal, Groundwater Governance and Management in the U.S. – and Beyond, Presentation - Webinar, University of Virginia
- May 6, 2020, Sharon B. Megdal, Developing Pathways to Solutions to Wicked Water Problems, Presentation - Webinar, University of Arizona Water Resources Research Center Brown Bag Seminar
- May 6, 2020, Tapia Villaseñor, Elia M., Eylon Shamir, and Sharon B. Megdal, Impacts of Variable Climate and Effluent Flows on the United States-Mexico Transboundary Santa Cruz Aquifer, EGU General Assembly 2020

June 5, 2020, Sharon B. Megdal, Effective Water Management Strategies: Technological, economic, legal, water quality, and other considerations when weighing water supply augmentation opportunities, Presentation - Webinar, Law Seminars International 7th Tribal Water in the Southwest Conference

June 5, 2020, Sharon B. Megdal, Cities and Towns engagement in renegotiation of Colorado River Basin shortage sharing guidelines, Webinar Panel, Sonoran Institute Board Academy

June 18, 2020, Sharon B. Megdal, Colorado River Basin Drought Planning and International, Federal, State, and Indigenous Nation Collaboration, Webinar Accent Presentation, Ozwater'20 Conference, Australia

June 18, 2020, Sharon B. Megdal, UCOWR talks networking, professional growth with Sharon Megdal, in recognition of being awarded the UCOWR Warren A. Hall Medal, Published interview in lieu of conference address, circulated by UCOWR

June 18-19, 2020, Sharon B. Megdal, Policy Makers Choosing a Route Panel and Keynote Speakers, Moderator, WRRC (Virtual) Annual Conference

June 28, 2020, Sharon B. Megdal, Water as an Instrument for Peace: Middle Eastern Cooperation in the Face of COVID-19, Panelist, Friends of the Arava Institute Virtual Water Town Hall

June 29, 2020, Sharon B. Megdal, Wicked Water Problems and Bridging through Water, Webinar, H2O'Lyon, University of Lyon School for Research in Water and Hydrosystems

August 12, 2020, Sharon B. Megdal, Strengthening US-Israel Relations through Agricultural Partnership, Arizona-Israel, Webinar Panelist, sponsored by the Arizona Israel Trade and Investment Office and BARD (Binational Agricultural Research & Development Fund)

August 25, 2020, Jean E. McClain, Using antibiotic resistance tools to examine food safety questions, Seminar, University of Arizona Food Safety Consortium Fall Seminar Series, Online

August 25, 2020, Tapia-Villaseñor, Elia M., The TAAP case of Transboundary Groundwater Collaboration, International Association of Hydrogeologists-Transboundary Aquifers Commission Meeting.

August 27, 2020, Sharon B. Megdal, Overview of the Water Resources Research Center, Navajo Nation Water Access Coordination Group Research Sub-group, Webinar Panelist, via AdobeConnect

September 17, 2020, Tapia Villaseñor, Elia M., Eylon Shamir, and Sharon B. Megdal, Update on issues related to water use and climate uncertainties on the Transboundary Santa Cruz Aquifer, Online Seminar. WRRC-Universidad de Sonora

September 29, 2020, Sharon B. Megdal, Coffee Break: US-Mexico transboundary groundwater resources: withdrawals and binational implications, Webinar Panelist, <https://binationalwaters.tamu.edu/coffee-breaks/past-coffee-breaks/> https://www.youtube.com/watch?v=TEtflRHxHc0&feature=emb_logo

October 1, 2020, Sharon B. Megdal, Climate and Arizona's Future: A Conversation About the Nexus Between Environment, Economy, and Innovation, Webinar Panelist, <https://tinyurl.com/climate-convo-webinar>

October 6, 2020, Sharon B. Megdal, Water Updates, Collaboration Opportunities, and Q&A with the Water Resources Research Center, Arizona Cooperative Extension Annual Conference Breakout Session, Speaker, https://arizona.zoom.us/rec/play/KSweWwlmMzyfKfuiC0D7tpK6s88SIMXlLij2kxz1BVEXQaqNzeyYD9vzUQlb0cOP7Blzi0own3E7wcj.gLIHXw_8cW2cPhsa?continueMode=true

October 7, 2020, Sharon B. Megdal, Long-Term Storage Credits: Analyzing Market-based Transactions for Achieving Water Management Goals in Central Arizona, Co-author student-delivered presentation, Rebecca Bernat, Binational Symposium on Managed Aquifer Recharge

October 9, 2020, Sharon B. Megdal, Managed Aquifer Recharge in Mexico and Science-Policy Interactions, Co-author student-delivered presentation, Mary Belle Cruz Ayala, Binational Symposium on Managed Aquifer Recharge

October 14, 2020, Sharon B. Megdal, Groundwater depletion and water security in the Rio Grande/Bravo Basin vs Colorado River Basin, Webinar Panelist, Conference on United States -Mexico Transboundary Groundwater Conference Innovation and Creativity: Strategies for Unprecedented Challenges

October 16, 2020, Sharon B. Megdal, Forum of the graduate students in Master of Environmental Management and Master of Public Policy programs, Keynote Speaker, Webinar, Fall Symposium, Water and Borders, Nicholas School of the Environment, Duke University Water Network

October 21, 2020, Sharon B. Megdal, "Deadline Looms for Transboundary U.S.-Mexico Water Management: Experts weigh in on the potential for conflict and cooperation, Featured interviewee, published online by the Mexico Institute of the Wilson Center

October 23, 2020, Sharon B. Megdal, Desalination Innovations in Israel, Webinar Panelist, Western Municipal Water District (WMWD), Eastern Municipal Water District (EMWD), and the Western Riverside Council of Governments October Breakfast Speaker Forum

October 23, 2020, Sharon B. Megdal, Wicked Water Problems: Scarcity, Sharing, and Sustainability, Featured Speaker, Webinar, Webinar sponsored by Tucson Great Decisions

October 25, 2020, A. J. Moses, The efficacy of hydrogen sulfide (H₂S) tests for detecting microbial contamination in harvested rainwater samples, Presentation, UNC Water and Health Conference, Chapel Hill, North Carolina, Online

October 29, 2020, Jean E. McClain, Using antibiotic resistance to examine water quality questions from a One Health perspective, Presentation, EPID679: One Health Applications and Practice, University of Arizona, Online

November 3, 2020, Sharon B. Megdal, Drought, Non-soon, and Water Uncertainties, Featured Speaker, Webinar, Green Valley-Sahuarita Association of Realtors

November 3, 2020, Sharon B. Megdal, Drought, Non-soon, and Water Uncertainties, Featured Speaker, Green Valley-Sahuarita Association of Realtors

November 9, 2020, Sharon B. Megdal, Wicked Water Problems – An Interactive Panel, Session organizer, moderator, and panelist, American Water Resources Annual Conference (virtual)

November 17, 2020, Sharon B. Megdal, Water and Society, Presentation, CNRS (France) -University of Arizona Meeting

November 18, 2020, Sharon B. Megdal, The Central Arizona Groundwater Replenishment District (with Laura Grignano), Presentation, CAP University

November 18, 2020, Sharon B. Megdal, Water Issues of Relevance to Pinal County Agriculture, Presentation, Meeting of the Advisory Board to the Sustainable Bioeconomy for Arid Regions, The University of Arizona
November 19, 2020, Jean E. McClain, Impacts of Faculty Fellowship Tour on sustainable naon events in Israel , Presentation, Jewish Naonal Fund Online Seminar
November 20, 2020, Sharon B. Megdal, Water and Agriculture in Israel, Presentation, Water Management Certificate Program, Cohort VIII, Arizona State University
December 14, 2020, Sharon B. Megdal, "Wicked Water Problems" and the need for long-term concerted efforts to address them, Webinar, Western Regional Partnership Webinar
December 15, 2020, Sharon B. Megdal, Wicked Problems of Water Availability, Recorded Presentation, Session H179: Sociohydrology and an Improved Understanding of Water Availability, Abstract ID: 668765, Fall AGU Conference, Shaping the Future of Science
December 15, 2020, Sharon B. Megdal, Water issues of the coming year, Presentation, Tucson Regional Water Coalition

Section 7 - Arizona Project Wet Presentations

Date	Title	Presenter/ Contact	Location / School	Attendance (if available)
January 10, 2020	Project WET Opportunities for Involvement	Kerry Schwartz	Prescott College Colloquium held at Challenger School in Tucson	10
January 14, 2020	History of Water in Arizona	Sandra Hurlbut	Arizona Yacht Club	45
January 31, 2020	Creighton School District: Engagement in Developing Real-world and Relevant Solutions	Kerry Schwartz & Sandra Hurlbut	Metro Tech in Phoenix	40
February 14, 2020	4th Grade Crane School District AWF Teacher Workshop	Kerry Schwartz	Cran Middle School in Yuma	26
February 24, 2020	Sahuarita High School Volunteer Training	Kerry Schwartz	Sahuarita High School	38
February 29, 2020	Recharge the Rain Heat Mitigation	Betsy Wilkening	Climate Jubilee, Pueblo High School	48
March 11, 2020	Recharge the Rain	Betsy Wilkening	Creative Climate Leadership Workshop, Biosphere 2	32
October 4, 2020	Rediscovering Nature: From Hands on to High Tech and Back	Holly Thomas-Hilburn	Virtual: National Association for Environmental Educators Conference.	6
October 5, 2020	Transforming the Field Experience to Promote Green Careers and Stewardship	Sandra Hurlbut	Pre-recorded-Virtual	NA
October 10, 2020	Climate Actions - Recharge the Rain	Betsy Wilkening	AZ Youth Climate Coalition (AZYCC), Climate Change Webinar Series	17
October 13, 2020	The Rainwater Harvesting Challenge	Kerry Schwartz	Virtual	19
October 14, 2020	Integrating NGSS in EE	Kerry Schwartz	Virtual	52
October 17, 2020	Building Community Resilience Through STEAM Education and Actions - Recharge the Rain	Betsy Wilkening	North American Association for Environmental Education Fall Conference	26

November 14, 2020	Student Action at the Intersection of Effective STEM and Water Stewardship	Sandra Hurlbut	Virtual	10
December 1, 2020	The Rainwater Harvesting Challenge Project Critique	Kerry Schwartz	Virtual	19
December 11, 2020	Creating New Opportunities by Re-Imagining the Possibilities for Resilience Education	Betsy Wilkening	American Geophysical Union Fall Meeting	12

Section 8 - Arizona Project Wet Events

Date	Program	Presenter/ Contact	Location / School	Attendance (if available)
January 11, 2020	Arizona Envirothon Symposium	Dr. Martha Whitaker, Dr. Craig Rasmussen, Dr. Jackie Maximillian, Dr. Michael Bogan and Dr. Dave Walker.	University of Arizona Environmental and Natural Resources Phase 2 building	100
January 14, 2020	Groundwater Flow Model	APW Water Educator Team	Pueblo Gardens	47
January 15, 2020	Living River of Words	APW Water Educator Team	Cragin Elementary	50
January 16, 2020	Groundwater Flow Model	APW Water Educator Team	Satori Charter Elementary	13
January 17, 2020	Discover Sweetwater Wetlands	APW Water Educator Team	Santa Clara K-8	78
January 21, 2020	Groundwater Flow Model	APW Water Educator Team	Gallego Intermediate	157
January 22, 2020	Sweetwater Wetlands	APW Water Educator Team	Satori Charter Elementary	21
January 23, 2020	Living River of Words	APW Water Educator Team	Sewell Elementary	36
January 27, 2020	Water Scene Investigation	APW Water Educator Team	Canyon del Oro high school	96
January 30, 2020	Community Outreach	APW Water Educator Team	Ted Walker Day	603
February 5, 2020	Groundwater Flow Model	APW Water Educator Team	Sunrise elementary	125
February 6, 2020	Groundwater Flow Model	APW Water Educator Team	Highland Free School	40
February 7, 2020	Groundwater Flow Model	APW Water Educator Team	Nosotros Academy	8
February 10, 2020	Groundwater Flow Model	APW Water Educator Team	Canyon del Oro high school	69
February 12, 2020	SWWL	APW Water Educator Team	Nosotros Academy	11
February 18, 2020	Community Outreach	APW Water Educator Team	Science Night at Robins K-8	29
February 26, 2020	Discover Sweetwater Wetlands	APW Water Educator Team	Picture Rocks Elementary	84
February 27, 2020	Groundwater Flow Model	APW Water Educator Team	Calvary Chapel Christian School	16

March 3, 2020	Groundwater Flow Model	APW Water Educator Team	Dunham Elementary	22
March 5, 2020	Discover Sweetwater Wetlands	APW Water Educator Team	Desert View High School	87
March 9, 2020	Groundwater Flow Model	APW Water Educator Team	Walden Grove High School	15
March 10, 2020	SWWL	APW Water Educator Team	Dunham Elementary	22
March 12, 2020	Groundwater Flow Model	APW Water Educator Team	Sonoran Science Academy	47
March 13, 2020	SWWL	APW Water Educator Team	Sonoran Science Academy	47
November 3, 2020	Water Scene Investigation	APW Water Educator Team	Amphi Online Academy	53
November 10, 2020	Water Scene Investigation	APW Water Educator Team	Amphi Online Academy	53
November 6 – 20, 2020	AZ STEM Adventure	APW Water Educator Team	Virtual	1670
December 4, 2020	Picture Rocks Water Festival	APW Water Educator Team	5875 N Sanders Rd, Tucson, AZ 85743	86
December 4, 2020	DeGrazia Water Festival	APW Water Educator Team	5051 W Overton Rd, Tucson, AZ 85742	58
December 4, 2020	Estes Water Festival	APW Water Educator Team	11280 W Grier Rd, Marana, AZ 85653	78
December 4, 2020	Roadrunner Water Festival	APW Water Educator Team	16651 W Calle Carmela, Marana, AZ 85653	33
December 4, 2020	Quail Run Water Festival	APW Water Educator Team	4600 W Cortaro Farms Rd, Tucson, AZ 85742	78
December 4, 2020	Coyote Trail Water Festival	APW Water Educator Team	8000 N Silverbell Rd, Tucson, AZ 85743	63
December 4, 2020	Twin Peaks Water Festival	APW Water Educator Team	7995 W Twin Peaks Rd, Tucson, AZ 85743	101
December 4, 2020	Dove Mountain Water Festival	APW Water Educator Team	5650 W Moore Rd, Marana, AZ 85658	84
December 4, 2020	Rattlesnake Ridge Water Festival	APW Water Educator Team	8500 N Continental Reserve Loop, Tucson, AZ 85743	65
December 4, 2020	Butterfield Water Festival	APW Water Educator Team	3400 W Massingale Rd, Tucson, AZ 85741	68
December 4, 2020	Gladden Farms Water Festival	APW Water Educator Team	11745 W Gladden Farms Dr, Marana, AZ 85653	104
December 4, 2020	Ironwood Water Festival	APW Water Educator Team	3300 W Freer Dr, Tucson, AZ 85742	44
December 10, 2020	Water Scene Investigation	APW Water Educator Team	Santa Clara	75
December 14, 2020	Forests, Fires, and Floods	APW Water Educator Team	Los Amigos Tech Academy	25
December 14, 2020	Forests, Fires, and Floods	APW Water Educator Team	Liberty Elementary	23
December 16, 2020	Water Scene Investigation	APW Water Educator Team	Santa Clara	75
December 17, 2020	Forests, Fires, and Floods	APW Water Educator Team	Gallego Primary Fine Arts Magnet	19

Section 9 - Arizona Project Wet Volunteer Training

Date	Title	Presenter/ Contact	Location / School	Attendance (if available)
January 17, 2020	Casa Grande Water Festival	Miriam Aleman-Crouch	CG School District Office	14
January 29, 2020	Peoria Volunteer Training	Julie Hasty & Jaime Mora	Peoria MOC	24
February 10, 2020	Casa Grande Water Festival	Kerry Schwartz & Miriam Aleman-Crouch	Abbott	6
March 9, 2020	Lake Havasu Volunteer Training	Pamela Justice, Jamie Mora, & Gabriel Garcia	LHC Water Office	15

Section 10 - Arizona Project Wet Workshops and Academies

Date	Title	Presenter/ Contact	Location / School	Attendance (if available)
January 13, 2020	Gilbert Water Festival Teacher Workshop	Julie Hasty	Gilbert Public Schools Dist Offices	30
January 14, 2020	Gilbert Water Festival Teacher Workshop	Julie Hasty	Gilbert Public Schools Dist Offices	15
January 22, 2020	Tucson Amphi Teacher Workshop	Pearl Lam	Amphi School District	20
January 25, 2020	Lake Havasu Teacher Workshop	Julie Hasty	Lake Havasu High School	10
January 28, 2020	Casa Grande Teacher Workshop	Miriam Aleman-Crouch	Casa Grande School Distric Office	14
January 30, 2020	Casa Grande Teacher Workshop	Kerry Schwartz & Miriam Aleman-Crouch	Casa Grande School Distric Office	13
February 26, 2020	Apache Junction Teacher Workshop	Kerry Schwartz & Miriam Aleman-Crouch	Apache Junction School District Office	9
May 26-28, 2020	Littleton, Osborn, Sunnyside Teacher Workshop	Julie Hasty & Holly Thomas-Hilburn	Online	41
June 9-11, 2020	Marana Teacher Workshop	Pearl Lam, Holly Thomas-Hilburn, & Julie Hasty	Online	20
July 21, 23, 24, 2020	Nogales, Verde Valley, Marana Workshp	Julie Hasty, Holly Thomas-Hilburn, & Miriam Aleman-Crouch	Online	12
July 22, 2020	Litchfield Teacher Workshop	Julie Hasty & Holly Thomas-Hilburn	Online	10
August 17-19, 2020	Flagstaff, Marana Teacher Workshop	Julie Hasty, Pearl Lam, & Holly Thomas-Hilburn	Online	8
September 22-24, 2020	September Teacher Workshop - Flagstaff, Marana, Tempe, Littleton	Julie Hasty & Holly Thomas-Hilburn	Online	20

October 14, 21, and 28, 2020	October Teacher Workshop - Littleton ESD, Tempe ESD, Avondale ESD, Camp Verde, Amphitheater ESD	Julie Hasty, Lorie Cavilli, & Pearl Lam	Online	9
October 14, 2020	Peoria Teacher Workshop	Julie Hasty, Pearl Lam, & Holly Thomas-Hilburn	Online	17
November 4, 2020	Peoria Teacher Workshop	Julie Hasty, Pearl Lam, & Holly Thomas-Hilburn	Online	17

Section 11 - Arizona Project Wet Facilitated Sessions

Date	Title	Presenter/ Contact	Location / School	Attendance (if available)
January 2, 2020	Groundwater	Sandra Hurlbut & Nat Tilden	Desert Mirage	30
January 14, 2020	History of Water in AZ	Sandra Hurlbut	Dave & Busters, Tempe	48
January 16, 2020	Groundwater	Sandra Hurlbut & Nat Tilden	Thompson Ranch ES	79
January 24, 2020	Groundwater	Sandra Hurlbut & Nat Tilden	Fountain Hills ES	75
January 30, 2020	Groundwater	Sandra Hurlbut & Nat Tilden	Odyssey Prep	90
January 31, 2020	Creighton School District Aqua STEM	Sandra Hurlbut & Kerry Schwartz	Metrotech HS/Rio Salado	37
February 4, 2020	Riparian	Sandra Hurlbut	Maryland School	90
February 5, 2020	Riparian	Sandra Hurlbut	Casa Grande MS	100
February 11, 2020	Groundwater	Sandra Hurlbut	Tempe High School	70
February 13, 2020	Riparian	Sandra Hurlbut	Desert mirage	30
February 20, 2020	Phoenix College Mentor Training	Sandra Hurlbut & Nat Tilden	Phoenix College	18
February 21, 2020	Field Day	Sandra Hurlbut	Ridgeline Academy	58
February 25, 2020	Groundwater	Sandra Hurlbut	New World Ed Ctr	11
February 27, 2020	Field Day	Sandra Hurlbut	Casa Grande M. S.	126
February 28, 2020	Field Day	Sandra Hurlbut	Maryland School	82
March 4, 2020	Field Day	Sandra Hurlbut	Arlington E.S.	33
March 5, 2020	Field Day	Sandra Hurlbut	Sonoran Foothills	19
March 10, 2020	Groundwater	Nat Tilden	Legacy Traditional	128
March 11, 2020	Groundwater	Nat Tilden	Legacy Traditional	99
March 13, 2020	Riparian	Sandra Hurlbut	Cheyenne ES	87

Section 12 - WRRC Students

UNDERGRADUATES

Bilden, Finlay	Political Science	BS	May 2020
Castrichini, Emillie	Public Health	BS	May 2020
Christensen, Mackenzie	Care, Health and Society	BS	May 2020
Flynn, Brian	Literacy, Learning, and Leadership	BA	May 2020
Hamie, Mohamed	Biochemistry and Mathematics	BS	May 2021
Hill, Matthew	Italian	BA	May 2020
Landavazo, Andrea	Biochemistry	BS	May 2024
Lopez, Annissa	Engineering	BS	May 2023
Martinez, Hiram	Public Health	BS	May 2019
McGuire, Grace	Sustainable Built Environments	BS	May 2019
O'Loughlin, Trinity	Environmental Studies	BS	May 2020
Thomas, Corine	Natural Resources	BS	May 2020
Valdez, Kelsey	Sociology and Gender & Women Studies	BA	May 2020

GRADUATES

Bernat, Rebecca	Department of Environmental Science	PhD	December 2021
Bigler, Matthew	Soil, Water, and Environmental Science	PhD	May 2021
Cruz Ayala, Mary-Belle	Arid Lands Resource Sciences	PhD	August 2021
La Farga, Paul	Urban Planning (CAPLA)	MS	May 2021
Loos, Chloe	School of Government and Public Policy	MPA	May 2021
McGreal, Brian	Department of Agricultural and Resource Economics.	MS	May 2021
Moreno, Miguel	James E. Rogers College of Law	JD	May 2021
Tritz, Claire	Hydrology and Atmospheric Sciences	MS	May 2021