## University of Arizona Water Resource Research Center, Annual Report 2022 Appendix B

Section 1 – WRRC Grants and Contracts Received		
Title	Sponsor	
Data Visualization and Platform Prototype for Small and Medium Sized Community Water Systems in Arizona	The Lincoln Institute of Land Policy	
Transboundary Aquifer Assessment Program	US Geological Survey	
104(b) State Water Resources Research Institute Program	US Geological Survey	
Sustaining Groundwater and Irrigated Agriculture in the Southwestern United States Under a Changing Climate	UC Davis	

Section 2 – WRRC 104b Water Research Grants			
Title	University	Amount	
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	
2021			
Distribution of Groundwater Ages to Constrain Paleo- to modern Recharge	University of Arizona	\$3,807	
Diversifying Voices in Water Resources	University of Arizona (WRRC)	\$23,269	
2022			
Adaptive Rotational Grazing: Increasing Soil Water Retention in Arid Landscapes	University of Arizona	\$8,932	
Model Optimization and Testing of Low-Energy Inland Brackish Water Desalination in Arid Climates	University of Arizona	\$10,000	
Impact of Climate Change on Localized Flooding and Affected Populations	University of Arizona	\$9,998	
Three-dimensional characterization of Grand Canyon's deep karst aquifer	Northern Arizona University	\$10,000	

Section 3- WRRC Selected Media Appearances			
Date	Title	Outlet	URL
2/16/2022	What the Megadrought could mean for Arizona's Water Future	KJZZ	https://theshow.kjzz.org/content/1756668/what-megadrought-could-mean-arizonas-water-future
3/3/2022	Tipping Point with Zach Yentzer	KVOI Radio	https://open.spotify.com/episode/7x75P9MzZHkr5TVMe45u3u?si=yCkj2OQOQG6AiJNFZtClfg&nd=1
3/22/2022	World Water Challenges and Solutions	Israel English Language TV	https://youtu.be/ELR2iQtJToo
5/2/2022	Colorado River Water Shortage	KOLD	https://r20.rs6.net/tn.jsp?f=0012neXBYz4BAQHEO_rrpqouQrnUNZHKR
5/13/2022	As homes move in, a rural West Valley community feels pushed out	ABC 15	https://www.abc15.com/news/national/two-americas/ as-homes-move-in-a-rural-west-valley-community-feels- pushed-out

5/19/2022	Drought Hits Pinal County Farm Family	KOLD	https://www.kold.com/2022/05/19/tucson-decide-lake- mead-water-allocation	
5/20/2022	Tucson votes to give up some CAP water to help save Lake Mead	KOLD	https://www.kold.com/2022/05/20/tucson-votes-give-up-some-its-cap-water-help-save-lake-mead	
5/28/2022	Lake Mead Allocation	KOLD	https://www.kold.com/2022/05/28/drought-hits-pinal- county-farm-family-hard/	
6/14/2022	Searching for Solutions to Drought	Scripps Media	https://www.kgun9.com/news/national/two-americas/ searching-for-solutions-to-drought	
7/18/2022	Tapped: When you touch it, it gets worse	Tapped Podcast	https://open.spotify.com/show/3pHk2T4yqTXZiHtcPGFhpp	
7/22/2022	What will Arizona do as its share of Colorado River water diminsihes	AZPM	https://www.azpm.org/p/headlines/2022/7/22/211895- what-will-arizona-do-as-its-share-of-colorado-river-water- diminishes/	
8/2/2022	Southwest Running Out of Fresh Water. Could the Ocean Provide a Cure?	KUNC, NPR Colorado	https://kjzz.org/content/1802887/southwest-running-out- fresh-water-could-ocean-provide-cure	
8/15/2022	Groundwater 101: Some Insight regarding a crucial resource	Herald Review, Cochise County	https://www.myheraldreview.com/news/cochise_county/ groundwater-101-some-insight-regarding-a-crucial- resource/article_51f59dd0-178a-11ed-a109- 2700292e252e.html	
8/15/2022	Phoenix Area Cities enacting Measures to Help Conserve Water Amid Drought	Fox 10 News Phoenix	https://www.fox10phoenix.com/news/phoenix-area-cities- enacting-measures-to-help-conserve-water-amid-drought- heres-what-you-need-to-know	
8/16/2022	Feds Announce Short Term Cut in Colorado River Water for Arizona	Arizona Daily Star	https://tucson.com/news/local/subscriber/feds-announce- short-term-cut-in-colorado-river-water-for-arizona/ article_7b757bee-1cf8-11ed-9170-77a3a5a1391c. html#tracking-source=home-the-latest	
8/16/2022	War of Words Escalates Between States as Feds Announce 2023 Colorado River Rations	TheCenterSquare	https://www.thecentersquare.com/arizona/war-of-words-escalates-between-states-as-feds-announce-2023-colorado-river-rations/article_a2f22648-1db8-11ed-9ae2-43b1b9927cb5.htm	
8/16/2022	Arizona Loses More of its Colorado River Water Allocation Under New Drought Plan	AZ Republic	https://www.azcentral.com/story/news/local/arizona- environment/2022/08/16/federal-officials-impose-cuts- colorado-river/10311378002/	
9/23/2022	Legislators consider desalination as solution to Arizona water shortage	ABC	https://www.abc15.com/news/state/legislators-consider- desalination-as-solution-to-arizona-water-shortage	
12/12/2022	Women in Science series	Permanent Forum of Binational Waters	https://www.youtube.com/embed/JRB2LHbYrKM	

Section 4 - WRRC Seminars and Co-Sponsored Events			
Date	Speaker	Title	
1/24/2022	Ranalda Tsosie, Chemistry, Geoscience, and Environmental Studies, University of Montana	Utilizing Diné Science and Innovation to tackle longstanding water challenges in Diné communities	
2/2/2022	Mary-Belle Cruz Ayala, PhD, WRRC Postdoc, US-Mexico Transboundary Aquifer Assessment Program	Recent Research on Policies for Managed Aquifer Recharge in Mexico	
2/14/2022	Cherie DeVore , Postdoctoral Scholar in Earth System Science at Stanford University	Mining and wildfire driven changes alter metals mobilization: Restorative and mechanistic insights	
2/15/2022	Colby Pellegrino, Deputy General Manager, Resources, Southern Nevada Water Authority	All In: Confronting Southern Nevada's New Water Reality	
3/14/2022	Otakuye Conroy-Ben, Assistant Professor in the School of Sustainable Engineering and the Built Environment at Arizona State University	Wastewater-Based Epidemiology in Tribal Communities	
3/22/2022	Sharon Megdal, WRRC Susanna Eden, WRRC Adelita Grijalva, Pima County	World Water Day Teach-In	

3/29/2022	Moderated by Jennifer Gimbel, Interim Director and Senior Water Policy Scholar, Colorado Water Center Steve Wolff, General Manager, Southwestern Water Conservation District Jim Lochhead, CEO/Manager, Denver Water	Looking Upstream: An Upper Basin Perspective
4/7/2022	Sophia Borgias, Assistant Professor, School of Public Service, Boise State University	Public Interest, Indigenous Rights, and the Los Angeles Aqueduct
4/11/2022	Tommy Rock, Ph.D. in Earth Science and Environmental Sustainability, Northern Arizona University	Environmental Justice
4/19/2022	Carlos A. de la Parra, Chair of the Board, Restauremos el Colorado, AC	Civil Society in the Binational Agreements of the Colorado River: Advocacy Meets Shuttle Diplomacy
5/2/2022	Jim Enote, CEO, Colorado Plateau Foundation	Special Event: Counter Mapping Articulates What Is Between
5/16/2022	Moderated by Rebecca Tsosie, J.D, Regents Professor of Law, James E. Rogers College of Law at the University of Arizona Dr. Michael Kotutwa Johnson, Assistant Specialist, UArizona Indigenous Resilience Center, School of Natural Resources and the Environment Costa Boutsikaris, Co-Director/Cinematographer Anna Palmer, Co-Director/Producer	Special Event: INHABITANTS: Indigenous Perspectives On Restoring Our World
8/24/2022	Kathleen M. Chavez, P.E., Water Policy Manager, Pima County Office of Sustainability and Conservation Michael Seronde, Program Manager, Water Resources Research Center	Pima County Water Factsheet: Tailoring Meaningful Water Information at the County Scale for and with Local Stakeholders
8/30/2022	Moderator: Melissa McCann, Director at University City Exchange, Arizona State University R.J. Cardin, Director at Maricopa County Parks and Recreation Nichole Engelmann, Biologist, US Fish and Wildlife Service Tice Supplee, Audubon Southwest Director of Bird Conservation	The Rio Reimagined Initiative: River and Community Revitalization Along the Salt – Gila River Corridor
8/31/2022	Ryan E. Emanuel, Associate Professor, Nicholas School of the Environment, Duke University	Environmental Justice and Indigenous Rights in Eastern North Carolina
9/12/2022	Sharon Nappier, National Program Leader for Water Reuse, US Environmental Protection Agency	Water Reuse Action Plan and REUSExplorer Demo
9/22/2022	Holly Thomas-Hilburn, Director, Arizona Project WET Kevin Sirois, Design Director, Esser Design	Arizona Project WET's Groundwater Videos in the Making
9/28/2022	Lani Tsinnajinnie, Assistant Professor, Community and Regional Planning, University of New Mexico	Collaborative Hydrology Research with the Navajo Nation
10/13/2022	William M. Alley, Director, Science and Technology, National Ground Water Association	The Water Recycling Revolution: History and Lessons from Four Western States
10/20/2022	Leana Hosea, Director Thirst for Justice; Nayyirha Shariff, Director, Flint Rising; Chris Shuey, Director, Uranium Impact Assessment Program; Laura Sullivan, Professor, Kettering University; Janene Yazzie, CEO Sixth World Solutions	WRRC Imagine a Without Water Special Event: Thrist For Justice Screening and Panel
10/26/2022	Melissa Clutter, Assistant Professor, Geosciences Department, Fort Lewis College	Groundwater to Snow Science: My Research and Teaching Path to Becoming a "Jack(lyn)- Of-All-Trades"
11/10/2022	Chandler Noyes, PhD Candidate, Hydrology, UArizona Simone Williams, PhD Candidate, Arid Lands Resource Sciences, UArizona	104(b) Grant Program - Student Research Presentations
11/18/2022	Lisa Shipek, Executive Director, Watershed Management Group; Amanda Webb, Ecological Monitoring Program Coordinator, Pima County	Watershed Collaboration in the Tucson Basin: Santa Cruz Watershed Collaborative Adopts a Watershed Restoration Plan to Promote Flowing Rivers

11/29/2022	Sharon Megdal, Director, WRRC, UArizona Javiera Herrera, Head of Water Policies, CNR - Chile; Channah Rock, Professor and Extension Specialist, UArizona; Andrés Rodríguez, Agricultural Attaché in the US Embassy of Chile; Tom Davis, General Manger, Yuma County Water Users Association; Rodrigo Valdés, Hydrologist, UArizona	Water and Agriculture - Chile-Arizona Experience
11/30/2022	Kato Dee, PhD, University of Oklahoma	An Indigenous Hydrogeochemists Career Trajectory through Academia and Industry

## **Section 5 - WRRC Publications (By First Author)**

Bernat, R.F.A., and Megdal, S.B. (2022) Water Federalism in the United States of America Oxford Research Encyclopedias, Environmental Science (Online) and The Oxford Encyclopedia of Water Resources Management and Policy (Printed book) 11/23/2022. <a href="https://doi.org/10.1093/acrefore/9780199389414.013.795">https://doi.org/10.1093/acrefore/9780199389414.013.795</a>

Coronado, I., Lara-Valencia, F, Mumme, S., Brown, C., Ganster, P., Garcia, H., Lybecker, D., Megdal, S., Sanchez, R., Sweedler, A., Varady, R.G., Zuniga, A. (2022) Water Management on the US-Mexico Border: Achieving Water Sustainability and Resilience through Cross-Border Cooperation White Paper. <a href="https://sts.asu.edu/about/research/pubprmedia">https://sts.asu.edu/about/research/pubprmedia</a>

Cruz Ayala, M.-B., and Megdal, S.B.(2022) Managed Aquifer Recharge as a tool to improve water security and resilienceOxford Research Encyclopedias, Environmental Science (Online) and The Oxford Encyclopedia of Water Resources Management and Policy (Printed book) 10/19/2022. https://doi.org/10.1093/acrefore/9780199389414.013.774

Dillon, P., Ward, J., Megdal, S., Zheng, Y., Alley, W, Hipke, W., Thomas, P., Tuthill, D., Carson, R. (2022) Considerations for Water Resources Planning and Management Managed Aquifer Recharge: Overview and Governance, IAH (International Association of Hydrogeologists) Special Publication. ISBN 978-1-3999-2814-4. https://recharge.iah.org/

Frisvold, G.B., Fernandez, L.M., Lehner, F., McAfee, S.A., Megdal, S., Payton, E., Schmidt, J., Vano, J., Woodhouse, C. (2022) Featured Collection Introduction: Severe Sustained Drought Revisited: Managing the Colorado River System in Times of Water Shortage 25 Years Later—Part I. JAWRA Journal of the American Water Resources Association, 58(5):597-603. https://doi.org/10.1111/1752-1688.13062

Frisvold, G.B., Fernandez, L.M., Lehner, F., McAfee, S.A., Megdal, S., Payton, E., Schmidt, J., Vano, J., Woodhouse, C. (2022) Featured Collection Introduction: Severe Sustained Drought Revisited: Managing the Colorado River System in Times of Water Shortage 25 Years Later—Part II.JAWRA Journal of the American Water Resources Association, 58(6):1049-1052. https://doi.org/10.1111/1752-1688.13085

McGreal, Brian, Eden, Susanna, McHugh, Taylor (2022) Arroyo 2022, Water Resilience - Indigenous Perspectives, <a href="https://wrrc.arizona.edu/publication/arroyo-2022-water-resilience-indigenous-perspectives">https://wrrc.arizona.edu/publication/arroyo-2022-water-resilience-indigenous-perspectives</a>

Megdal, S.B. and Matherne, A-M (2022) Advances in Transboundary Aquifer Assessment Water (Editors, Special Issue) 3/15/2022. https://www.mdpi.com/journal/water/special\_issues/transboundary\_aquifer

Megdal, S.B., Mumme, S., Salmón, R. Sánchez, Rosario, Tapia-Villaseñor, E.M. Cruz Ayala, M.-B., and Ibañez, O. (2022) Reaching Groundwater Agreements on the Border Between Mexico and the United States: Science and Policy FundamentalsTransboundary Aquifers – Challenges and the way forward, Rosario Sánchez, ed., UNESCO, Paris, France. pp. 46-51. ISBN 978-92-3-100563-3. <a href="https://unesdoc.unesco.org/ark:/48223/pf0000383775/PDF/383775eng.pdf.multi">https://unesdoc.unesco.org/ark:/48223/pf0000383775/PDF/383775eng.pdf.multi</a>

Megdal, S.B. (2022) Book Review, The Water Recycling Revolution: Tapping into the Future, by William M. Alley and Rosemarie Alley, Rowman & Littlefield 2022. WRRC Summer Wave, Vol 10, Issue 2 6/10/2022. <a href="https://wrrc.arizona.edu/sites/wrrc.arizona.edu/files/sbm-book-review-water-recycling-revolution.pdf">https://wrrc.arizona.edu/sites/wrrc.arizona.edu/files/sbm-book-review-water-recycling-revolution.pdf</a>.

Megdal, S.B. Contributing Author (2022) Chapter 8 "Regional perspectives on groundwater," United Nations. The United Nations World Water Development Report 2022: Groundwater: Making the invisible visible. UNESCO, Paris. <a href="https://www.unwater.org/publications/unworld-water-development-report2022/#:~:text=The%202022%20edition%20of%20the.of%20groundwater%20across%20the%20world.">https://www.unwater.org/publications/unworld-water-development-report2022/#:~:text=The%202022%20edition%20of%20the.of%20groundwater%20across%20the%20world.</a>

Megdal, S.B. (2022) Managed Aquifer Recharge – MAR as a Mechanism to Advance Water Policy Goals: A Perspective. The Water Report, Issue #220, pp. 1-9, 6/15/2022. https://wrrc.arizona.edu/publications/reports/managed-aquifer-recharge.

Megdal, S.B. (2022) Reflections: Adapting to a Drier Future. Arizona Journal of Real Estate & Business, Vol. 37, No. 6, June 2022, pp 12-13. Reprint of Reflections essay. 8/20/2021. <a href="https://mydigitalpublication.com/publication/?m=44665&i=749100&p=1&ver=html5">https://mydigitalpublication.com/publication/?m=44665&i=749100&p=1&ver=html5</a>.

Megdal, S.B. (2022) Reflections: Commemorating World Water Day 2022, Part IWRRC Weekly Wave, Vol 10, Issue 10, 3/18/2022. <a href="https://wrrc.arizona.edu/sites/wrrc.arizona.edu/site

Megdal, S.B. (2022) Reflections: Commemorating World Water Day 2022, Part IIWRRC Weekly Wave, Vol 10, Issue 12. 4/1/2022. https://wrrc.arizona.edu/sites/wrrc.arizona.edu/files/Reflections-On-WWD-Part-II.pdf

Megdal, S.B. (2022) Reflections: Connecting Globally at Stockholm World Water Week WRRC Weekly Wave, Volume 10, Issue 22. 9/9/2022. <a href="https://wrrc.arizona.edu/reflections-connecting-globally-stockholm-world-water-week">https://wrrc.arizona.edu/reflections-connecting-globally-stockholm-world-water-week</a>

Megdal, S.B. (2022) Reflections: Energized by Highly Engaged Students WRRC Summer Wave, Vol 10, Issue 1, 5/27/2022. <a href="https://wrrc.arizona.edu/files/Reflections-Energized-by-Highly-Engaged-Students.pdf">https://wrrc.arizona.edu/files/Reflections-Energized-by-Highly-Engaged-Students.pdf</a>.

Megdal, S.B. (2022) Reflections: Looking Back 20 Years and a Call to Action WRRC Weekly Wave, Vol 10, Issue 72/18/2022. <a href="https://wrrc.arizona.edu/reflections-looking-back-20-years-and-call-action">https://wrrc.arizona.edu/reflections-looking-back-20-years-and-call-action</a>

Megdal, S.B. (2022) Reflections: On Connecting Land Planning and Water Planning WRRC Weekly Wave, Vol 10, Issue 31/21/2022. <a href="https://wrrc.arizona.edu/reflections-connecting-land-planning-and-water-planning">https://wrrc.arizona.edu/reflections-connecting-land-planning-and-water-planning</a>

Megdal, S.B. (2022) Reflections: On Key Themes from the WRRC's 20th Annual Conference WRRC Summer Wave, Vol 10, Issue 5, 7/22/2022. https://wrrc.arizona.edu/sites/wrrc.arizona.edu/files/Reflections-Key-Themes-Conference.pdf

Megdal, S.B. (2022) Reflections: Partnering to Address Food, Water, and Energy Security WRRC Weekly Wave, Volume 10, Issue 32, 11/18/2022. <a href="https://wrrc.arizona.edu/sites/wrrc.arizona.edu/files/Reflections-food-water-energy-security.pdf">https://wrrc.arizona.edu/sites/wrrc.arizona.edu/files/Reflections-food-water-energy-security.pdf</a>

Megdal, S.B. (2022) Reflections: The Colorado River is Not Waiting, WRRC Weekly Wave, Volume 10, Issue 20, 8/26/2022. <a href="https://wrrc.arizona.edu/files/Reflections-Colorado-River-Is-Not-Waiting.pdf">https://wrrc.arizona.edu/files/Reflections-Colorado-River-Is-Not-Waiting.pdf</a>

Megdal, S.B. (2022) Water Policy Options as Arizona Adapts to a Drier Colorado River: A Perspective Renewable Resources Journal 37 (3): pp. 2-10. https://rnrf.org/wp-content/uploads/2022/05/RRJV37N3.pdf.

Petersen-Perlman, J.D., Aguilar-Barajas. I. Megdal, S.B. (2022) Drought and Groundwater Management: Interconnections, challenges, and policy responses, Current Opinion in Environmental Science & Health. <a href="https://doi.org/10.1016/j.coesh.2022.100364">https://doi.org/10.1016/j.coesh.2022.100364</a>

Quanrud, David (2022) Arroyo 2022 Special Edition, Addressing Environmental Challenges of Arid Lands, <a href="https://wrrc.arizona.edu/publication/arroyo-2022-special-edition-addressing-environmental-challenges-arid-lands">https://wrrc.arizona.edu/publication/arroyo-2022-special-edition-addressing-environmental-challenges-arid-lands</a>

Tapia-Villaseñor, E.M., Shamir, E., Cruz Ayala, M.-B., and Megdal, S.B. (2022) Assessing Groundwater Withdrawal Sustainability in the Mexican Portion of the Transboundary Santa Cruz River AquiferWater 14, 233. <a href="https://doi.org/10.3390/w14020233">https://doi.org/10.3390/w14020233</a>

WRRC, Arizona Water Factsheet, Pima County, https://wrrc.arizona.edu/publication/arizona-water-factsheet-pima-county

WRRC, Arizona Water Factsheet, Cochise County, https://wrrc.arizona.edu/publication/arizona-water-factsheet-cochise-county

## Section 6 - WRRC Presentations (By Chronological Order)

January 18, 2022, Sharon B. Megdal, Speaker: 10-minute talk about AZ water issues and relationship to the project, UC Davis project virtual launch, Zoom

February 10, 2022, Sharon B. Megdal, Presentation, Pinal AMA Groundwater Management Issues, 2022 Arizona Cotton Symposium

February 23, 2022, Sharon B. Megdal, Paul Orme, Speaker: Cotton Field Days, Pinal County Cap Water Update, Zoom, <a href="https://honors.arizona.edu/big-ideas-grand-challenges-sustainability">https://honors.arizona.edu/big-ideas-grand-challenges-sustainability</a>

March 1, 2022, Sharon B. Megdal, Panelist: Pre-recorded 30-minute panel to air on ILTV (Israel english language TV), Water+Israel+JNF

March 1, 2022, Sharon B. Megdal, Workshop comments, CNRS-UArizona International Research Center, France-Arizona Institute for Global Grand Challenges, 2022 Conference, Tucson, AZ

March 22, 2022, Sharon B. Megdal, Pre-recorded presentation, Collaborative Research for Water Resilience, AZ Water Association Research Symposium: Water Research Benefitting Arizona Utilities, Phoenix, AZ

March 22, 2022, Sharon B. Megdal, Keynote Presentation, Managed Aquifer Recharge in Semi-Arid Regions, International Conference on Water Resources Management and Sustainability: Solutions for Arid Regions, Dubai Expo 2020, Dubai, United Arab Emirates,

March 22, 2022, Sharon B. Megdal, Keynote Presentation, Addressing Water Scarcity through Innovation and Collaboration, KKL-JNF Expo Dubai World Water Week Program, Innovative Water Utilization in Arid Environments, Israeli Pavilion, Dubai Expo 2020, Dubai, United Arab Emirates

March 22, 2022, Sharon B. Megdal, Recorded Presentation, Raising Awareness about Groundwater, Pima County District 5 World Water Day Teach-in, Virtual

March 30, 2022, Ashley Hullinger, Presentation, Drought Planning Meeting, City of Benson

April 06, 2022, Sharon B. Megdal, Panel moderator: Udall workshop on Green Infrastructure, The origins and evolution of GI in Tucson, State of the Art in Green Infrastructure Research & Practice: Reframing Stormwater from a Hazard to a Resource in Tucson, Arizona, University of Arizona, Tucson

April 08, 2022, Sharon B. Megdal, Panelist: Ag100 meeting at Stadium, Impact of Colorado River Shortage on AZ agriculture, University of Arizona, Tucson

April 11, 2022, Sharon B. Megdal, ISMAR11 Workshop, Meeting Water Management Objectives with Managed Aquifer Recharge: The Role of MAR Governance and Policy, Long Beach, CA

April 12, 2022, Sharon B. Megdal, ISMAR11 Opening Panel -- Moderate and introduce Bruce Babbitt, The role of MAR in implementing Israel's water master plan: Integrative Water Resources Management in Israel, Conference, Long Beach, CA

April 12, 2022, Sharon B. Megdal, ISMAR11 Moderate Plenary Session, Managed Aquifer Recharge in Action, Conference, Long Beach,

April 27, 2022, Sharon B. Megdal, Panelist, Flowing Through the Colorado River: History of Water Rights and Management Challenges, University of Arizona, Tucson

May 09, 2022, Sharon B. Megdal, French Night of Ideas program, Adapting to a Drier Future, University of Arizona, Tucson

May 10, 2022, Sharon B. Megdal, Tucson Association of Realtors talk, Tucson

May 11, 2022, Sharon B. Megdal, Panelist at MAR Workshop, Recorded answers to questions re Joint Institute shown at program in CA, <a href="https://www.youtube.com/watch?v=x\_joG7ob5Rg">https://www.youtube.com/watch?v=x\_joG7ob5Rg</a>

May 11, 2022, Sharon B. Megdal, Recorded answers to questions re Joint Institute shown at program in CA

May 12, 2022, Ashley Hullinger, Presentation, Drought Planning Meeting, Patagonia, Flood and Flows Subteam Presentation

June 07, 2022, Ashley Hullinger, Presentation, Drought Planning Meeting, City of Benson

June 09, 2022, Ashley Hullinger, Presentation, Drought Planning Meeting, Flood and Flows Subteam Presentation

June 17, 2022, Sharon B. Megdal, Panelist at Boulder Conference, Crafting a Rural-Tribal-Urban Social Compact in a Warming World; Lessons Learned from Around the Basin, University of Colorado, Boulder, CO

June 22, 2022, Sharon B. Megdal, Presentation, MAR in Action: The Role of Managed Aquifer Recharge in Meeting Water Policy Goals, American Water Resources Association (AWRA) Monthly Webinar

June 23, 2022, Ashley Hullinger, Presentation, Drought Planning Meeting, Drought Response Planning for Water Resilient Communities: Town of Superior

June 24, 2022, Sharon B. Megdal, Wicked Water Problem Session EDT at AGU Conference; Session Number 504, Wicked Water: Addressing Water Security, Equity, Sustainability, and Environmental Justice through Research, Education, and Engagement I Panel, AGU conference - Session 110

June 29, 2022, Sharon B. Megdal, Presentation, MAR in Action: The Role of Managed Aquifer Recharge in Meeting Water Policy Goals, Interstate Technology and Regulatory Council (ITRC) Managed Aquifer Recharge Team

July 6-7, 2022, Sharon B. Megdal, Lecture for Dror Avisar, Agriculture, Food, and Water Policy: The Case of the Colorado River Basin, Tel Aviv University

August 05, 2022, Ashley Hullinger, Presentation, Drought Planning Meeting, Flood and Flows Subteam Presentation

August 06, 2022, Sharon B. Megdal, Wicked Water Problems: The Case of the Colorado River Basin, Udall Foundatio Undergraduate Scholars Program, Tucson, AZ

August 10, 2022, Sharon B. Megdal, Panelist, Arizona's Water Resources: Progress, Politics, and Possibilities, 2022 Arizona Cooperative Extension Annual Conference

August 10, 2022, Michael Seronde, Ashley Hullinger, Amanda Trakas, Poster Presentation, Arizona Water Factsheets, CE Conference

August 15, 2022, Ashley Hullinger, Presentation, Drought Response Planning for Drought Resilient Communities

August, 24, 2022, Michael Seronde, Presentation, Pima County Water Factsheet: Tailoring Meaningful Water Information at the County Scale for and with Local Stakeholders, Webinar

August 31, 2022, Sharon B. Megdal, Presentation at World Water Week, Water Storage to Maximize Aquifer Value in a Changing Climate, Stockholm, Sweden

September 13, 2022, Sharon B. Megdal, Presentation, Tucson Regional Water Council Meeting, Water Update, Tucson, AZ

September 18, 2022, Valerisa Gaddy, Grant Presentation, MIT SOLVE Challenge Finals

September 19, 2022, Sharon B. Megdal, Panel with journalists from Thailand, Tucson

September 19, 2022, Sharon B. Megdal, Presentation, Using MAR to advance water policy goals in semi-arid Arizona, USA: What have we learned from 30 years of experience? 49th IAH Congress (held virtually), Topic 15: Managed Aquifer Recharge, Session coorganized by the IAH MAR Commission

October 05, 2022, Susanna Eden, Featured Speaker at the Rose Society of Tucson's October meeting, Water: The Lifeblood To Sustaining Life, http://www.rosesocietyoftucson.org/

October 07, 2022, Sharon B. Megdal, ASU Research Park Board of Directors, Arizona Water Challenges and Solutions, Virtual: TV Feature

October 08, 2022, Valerisa Gaddy, Presentation, Agents of Change in Environmental Justice Retreat, Philadelphia, PA

October 11, 2022, Sharon B. Megdal, Invited Panelist; Arizona Forward Statewide Sustainability Summit, Future of Water: Science & Technology Solutions, Tempe

October 12, 2022, Sharon B. Megdal, Western Region, National Association of County Agricultural Agents, Professional Improvement Conference, Arizona's water issues, efforts, actions, Tucson

October 14, 2022, Sharon B. Megdal, Educational Webinar for Long Realty, Water Matters, Virtual

October 18, 2022, Sharon B. Megdal, CSG (Council of State Governments)-WEST Colorado River Forum, Identifying Pathways to Solutions: Focus on the Lower Colorado River Basin, Henderson, NV

October 19, 2022, Ashley Hullinger, Workshop, Drought Response Planning Workshop for Small Towns, Virtual

October 24, 2022, Sharon B. Megdal, Kasser Joint Institute for Food, Water, and Energy Security Meeting, Introduction to Arizona: The University of Arizona as a Kasser Joint Institute Partner, Arava Valley, Israel

October 27, 2022, Sharon B. Megdal, Presentation to group convened by the Dead Sea and Arava Draining Authority flood research group, Impact through Applied Research and Cooperation, Sapir, Israel

October 31, 2022, Sharon B. Megdal, Porter School of Environment and Earth Sciences Seminar, Faculty of Exact Sciences, Transboundary Water Cooperation in the Colorado River Basin, Tel Aviv University, Tel Aviv, Israel

November 03, 2022, Sharon B. Megdal, Southwest Groundwater Sustainable Agricultural Systems Annual Symposium, Water Challenges in the Southwestern US – Focus on the Colorado River Basin and AZ, UC-Davis

November 05, 2022, Sharon B. Megdal, Keynote Talk, National Water Task Force Meeting, JNF National Conference, Water and Israel Boston, MA

November 06, 2022, Sharon B. Megdal, Panelist, Food, Water, and Energy: The Driving Forces of National Security in Israel and the World, JNF National Conference, Panelist, Food, Water, and Energy: The Driving Forces of National Security in Israel and the World, JNF National Conference, Boston, MA

November 08, 2022, Valerisa Gaddy, Moderator, Panel discussion, American Water Resources Association Annual Conference, Renton, WA

November 08, 2022, Sharon B. Megdal, Panelist, Diversity, Equity, Inclusion and Justice Plenary Panel, American Water Resources Association (AWRA) Annual Conference, Panelist, Diversity, Equity, Inclusion and Justice Plenary Panel, American Water Resources Association (AWRA) Annual Conference, Renton, WA

November 08, 2022, Sharon B. Megdal, Moderator, Tribal Priorities in Water Resources Panel, American Water Resources Association (AWRA) Annual Conference, Moderator, Tribal Priorities in Water Resources Panel, American Water Resources Association (AWRA) Annual Conference, Renton, WA

November 15-16, 2022, Sharon B. Megdal, Presentation, Transboundary Aquifer Assessment Program: University of Arizona Water Resources Research Center Effort, USGS-WRRI-IBWC planning meeting for the TAAP, El Paso, TX

November 18, 2022, Sharon B. Megdal, Presentation, Arizona Water: There are Solutions! Tucson Association of Realtors, (2022) Reflections: Partnering to Address Food, Water, and Energy Security, Tucson

November 29, 2022, Sharon B. Megdal, Presentation, Water and Agriculture: Chile-Arizona Experience Webinar, Water Situation in Arizona and initiatives to face drought, including aguifer recharge, Webinar

December 6-8, 2022, Sharon B. Megdal, Invited Rapporteur (Transboundary Aquifers Session) and attendee, United Nations Groundwater Summit, Paris, France

December 16, 2022, Sharon B. Megdal, Invited Presentation, AGU Session H53A: Advances in Managed Aquifer Recharge for Groundwater Sustainability, AGU Conference, Legal and regulatory considerations for deployment of Managed Aquifer Recharge, Webinar

Section 7 - WRRC Students				
UNDERGRADUATES	UNDERGRADUATES			
Nanez, Rocky	Environmental Science	BS	May 2023	
Johnson, Hannah	Ecology and Evolutionary Biology	BS	May 2022	
GRADUATES				
McHugh, Taylor	Landscape Architecture	MA	May 2023	
Morales, David	Hydrology	MS	May 2023	
Presson, Luke	Environmental Engineering	PhD	May, 2024	
Speight, Garland	Water, Society, and Policy	MS	December, 2023	
Simmons, Taylor	Environmental Health Sciences	MS	May, 2024	
Williams, Simone	Arid Lands Resource Science	PhD	December 2023	