



Welcome to the Texas Water Research Network

May 16, 2022
Virtual Spring Meeting
University of Texas at Austin

Sponsored by The Cynthia & George Mitchell Foundation, www.cgmf.org



The University of Texas at Austin
Environmental Science Institute



TWRN Mission

Bringing researchers together in addressing the resilience of Texas water resources to changes in natural and human systems, and to facilitate connections between researchers, stakeholders, and decision makers



Goals for meeting

- Provide a setting for new and existing members to network
- Provide learning opportunities on key issues related to Texas water resources
- Promote interaction between researchers, stakeholders, and decision makers



TWRN Meetings Evolution

- May 2015: Network purpose and niche
- December 2015: Grand challenges, mission
- August 2016: Nodes and network efficacy
- May 2017: Science of communication, key issues for policy makers and managers
- January 2018: Science-stakeholder interaction in producing research
- September 2018: Water markets, flood resilience
- May 2019: Water technologies, climate projections
- May 2021: Polar vortex, COVID, vulnerable communities
- December 2021: Water infrastructure, Equity, Sustainability



TWRN Recent products & opportunities

Glazer, Y., Tremaine, D. Banner, J., Cook, M., Mace, R., Nielsen-Gammon, J., Grubert, E., Kramer, K., Stoner A.M., Wyatt, B.M., Mayer, A. Beach, T., Correll, R., & Webber, M. (in press). Winter Storm Uri: A test of Texas' water infrastructure and water resource resilience to extreme winter weather events. *Journal of Extreme Events*.

Nielsen-Gammon, J., Banner, J.L., Cook, B.I., Tremaine, D.M., Wong, C.I., Mace, R.E, Gao, H., Yang, Z.-L., Gonzalez, M.F., Hoffpauir, R., Gooch, T., and Kloesel, K., 2020, Unprecedented drought challenges for Texas water resources in a changing climate: What do researchers and stakeholders need to know? *Earth's Future*, doi/full/10.1029/2020EF001552

NSF INCLUDES proposal. *WATE³R: A national alliance to broaden participation by URM students & communities through water resilience and environmental justice.* Over 15 institutions, including UT RGV (Cheng), TAMU Prairie View (Fares), UTSA (Godet), UT Austin (Banner).

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TWRN: Where do we go from here?

- 2021-2023: Quarterly virtual meetings convened around research topics of timely societal significance
- Re-engage existing membership, increase representation of URM members, and enhance JEDI activities
- Workshop within meeting to synthesize key findings for communication (Environmental Science Institute website, white paper, journal articles, etc.)
- Positioning TWRN expertise to aid in decision making for future water resilience of communities



Grand Challenges

What forcing factors and feedbacks drive the coupled natural-human system that comprises a rapidly-growing and demographically-shifting sentinel community in a climatically-sensitive region (100th Meridian)?

How can we project the impacts of the natural and human systems on each other to produce a regional-scale assessment of urban water resiliency that can be used to inform effective solutions through education, policy and technology?