



PHOTO CRED: TIM MOSSHOLDER ON UNSPLASH

EQUITY & ACCESS

Whether due to drought, flood, freeze, or contamination, marginalized and vulnerable communities are the hardest hit, and relief is often not equally available. Disasters are, however, not the only way that issues of equity and access exist. Many Texans still lack **secure access to clean, reliable and affordable water and wastewater treatment**. Resilience requires addressing equity and access challenges at the individual household level, as well as within communities and regional or state decisions. **What equity challenges exist in Texas water?**

DEFINITIONS



WATER EQUITY

secure access for all communities to clean, reliable, and affordable water, and the ability to participate in the economic, social, and environmental benefits of water.



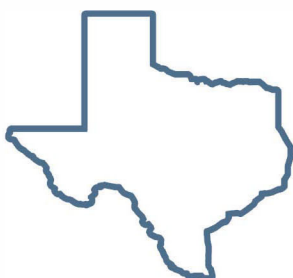
HOUSEHOLD WATER INSECURITY

lack of **safe, reliable, and affordable water** and wastewater treatment



MARGINALIZED COMMUNITIES

persons **marginalized on the basis of their identities, associations, experiences, and communities**, including due to age, disabilities, economic status, language, race, religion, or immigration status



42,000
TEXAS HOUSEHOLDS

Estimated households in Texas that lack access to plumbing facilities¹

500,000
RESIDENTS OF COLONIAS²

>40% live below the poverty line
337 colonias lacked access to basic infrastructure in 2014
Many still lack access to running water or sewer systems.

¹United States Census Bureau (US Census), 2018. American Communities Survey (ACS).

²Unincorporated or substandard housing developments, often found along the Texas-Mexico border, where residents lack basic services such as drinking water, sewage treatment, and paved roads. (Texas Secretary of State)



THINGS THAT IMPACT WATER SECURITY

Race and immigration status: households with undocumented immigrants are 4.2X more likely to be water insecure³

Economic capacity: water affordability, and the cost of aging infrastructure, affects both safe access and water quality

Unconventional housing: water insecurity is higher for people living without stable or conventional housing

Rural communities: rural and peri-urban⁴ communities often lack access to water and wastewater treatment⁵

Communities served by small systems: <2% of small systems have technologies to treat contaminants of concern⁶

Mobile homes: residents of mobile homes and trailer parks have consistently worse water quality and reliability⁷

FRAMING THE CHALLENGE



HOUSEHOLD

- Wealth gaps due to race, socio-economic status, and historic housing trends contribute to water insecurity⁸
- Aging and damaged infrastructure increases costs and risk
- Contamination disproportionately affects marginalized communities
- Some, but not all water utilities, offer bill assistance or affordability programs



REPRESENTATION

- Stakeholder driven planning groups impact how and where resources are allocated
- Marginalized communities are not always represented in decision making, planning, or opportunities for public input



COMMUNITY

- Aging and damaged infrastructure decreases a community's water security and ability to plan for resilience
- Economic capacity impacts ability to access funds for water infrastructure improvements
- Historically underserved communities require an intentional reinvestment to address inequities.



DISASTERS

- Disasters disproportionately affect marginalized communities
- Relief is often disproportionately available and applied⁹

³Jepson, W., & Vandewalle, E. (2016). Household water insecurity in the global north: A study of rural and periurban settlements on the Texas–Mexico border. *The Professional Geographer*, 68(1), 66– 81.

⁴Communities surrounding urban areas that are neither urban or rural.

⁵Deitz, S., & Meehan, K. (2019). Plumbing poverty: Mapping hot spots of racial and geographic inequality in U.S. household water insecurity. *Annals of the American Association of Geographers*, 109(4), 1092– 1109.

⁶Ibid

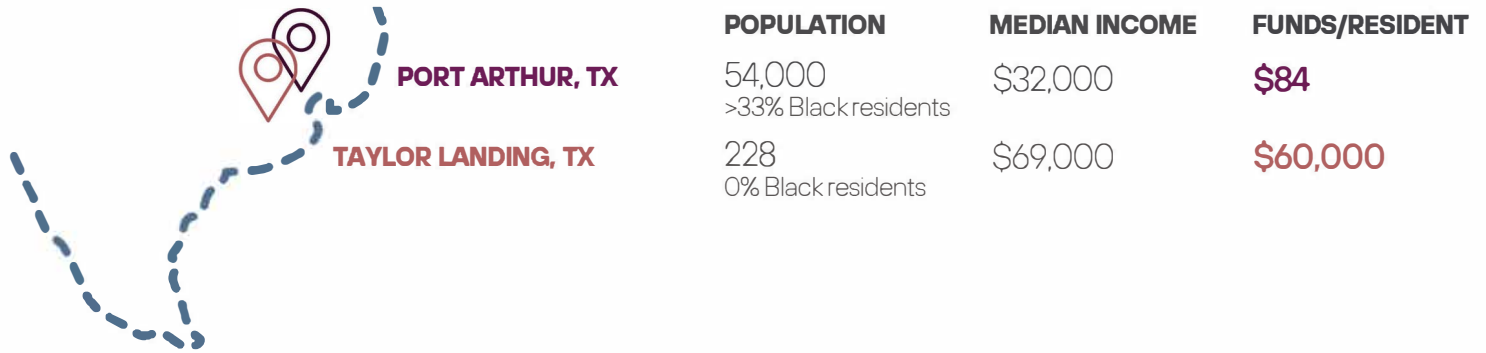
⁷Pierce, G., & Jimenez, S. (2015). Unreliable water access in U.S. Mobile homes: Evidence from the American housing survey. *Housing Policy Debate*, 25(4), 739– 753.

⁸Meehan, K., Jurjevich, J. R., Chun, N. W., & Sherrill, J. (2020). Geographies of insecure water access and the housing-water nexus in U.S. cities. *Proceedings of the National Academy of Sciences of the United States of America*.

⁹Emrich, C. T., Tate, E., Larson, S. E., & Zhou, Y. (2020). Measuring social equity in flood recovery funding. *Environmental Hazards*, 19(3), 228–250.



HURRICANE HARVEY: TWO STORIES OF RELIEF¹⁰



GOOD TO KNOW

- **American Jobs Plan:** commits \$111 billion in water infrastructure to ensuring clean, safe drinking water is a right in all communities
- **TWDB's Economically Distressed Areas Program (EDAP):** provides financial assistance for projects serving economically distressed areas where water or sewer services to do exist or meet minimum state standards
- **TCEQ's Environmental Equity Program:** includes supporting participation in decision-making and ensuring all people receive equal benefit from environmental regulation and protection
- **Texas House Natural Resources Committee Interim Report 2020:** includes consideration of equity and inclusivity in planning
- **The Pillars of Water Equity:** the US Water Alliance's framework for water
- **Colonias Legislative Reports:** 2014, 2010 and 2006 reports track progress made on state funded projects benefitting Colonias

POLICY CONSIDERATIONS

Representation

- Ensure equitable representation in local and regional water planning
- Prioritize community resilience in regional water and flood management planning
- Consider inclusivity practices, such as the time and location of meetings, to allow diverse participation in planning and decision making

Funding

- Identify financial support and grant opportunities for small and rural water systems
- Maintain state assistance for EDAP, and consider additional debt service needed to use \$200 million in bonds approved for EDAP

Local water providers

- Consider water affordability rates and bill forgiveness programs
- Ensure proactive and inclusive communication practices
- Institute programs to prevent or reduce water and sewage shutoffs

¹⁰Collins, T.W., Grineski, S. E., Chakraborty, J., & Flores, A. B. (2019). Environmental injustice and Hurricane Harvey: A household-level study of socially disparate flood exposures in Greater Houston, Texas, USA. Environmental research, 179, 108772.