

# Private Water Systems in Puerto Rico



## Background:

The Puerto Rico Aqueduct and Sewer Authority (PRASA) Non-PRASA systems provide water for about 100,000 residents in rural Puerto Rico. These systems fill gaps left by the government utility but struggle with aging infrastructure, limited funding, and climate vulnerability. Puerto Rico has been impacted by many severe weather events, including two catastrophic hurricanes in 2017. Necessary adaptations, such as infrastructure and planning tools to better prepare for additional severe weather patterns, may help reduce the impact of climate-related events.

## Types of Systems

- Sources include shallow wells, deep wells, and springs.
- Community-operated systems managed by local residents.
- Household wells, often shallow and contamination-prone.
- Small-scale private operators selling water locally.

## Geographic Distribution

- Karst Belt: Groundwater aquifers, vulnerable to contamination.
- Coastal Plains: Shallow wells, highly drought-sensitive.
- Southern Coast: Mix of shallow & deep wells, water-stressed.
- Interior Mountains: Springs and deep wells for remote areas.

## Resilience Needs

- Stronger infrastructure and storage systems.
- Backup power for pumps and treatment.
- Local emergency response protocols for storms.

## Challenges

- Limited repair and maintenance funding.
- Infrequent water quality testing and oversight gaps.
- Severe storm impacts – 65% damaged in Hurricane Maria.

## Recommendations

- Upgrade infrastructure with backup systems.
- Standardize water quality monitoring.
- Clarify regulations and streamline permitting.
- Support community-based management models.
- Expand research on health impacts and solutions.