

# HOW RESILIENT AND JUST IS YOUR WATER PLAN?

## THE RESILIENCE JUSTICE POLICY ASSESSMENT TOOL

Craig Anthony (Tony) Arnold,  
Audrey Ernstberger, &  
Andrew Schuhmann

UNIVERSITY OF  
**LOUISVILLE**  
CENTER FOR LAND USE  
AND ENVIRONMENTAL  
RESPONSIBILITY

### Concepts

**Community Resilience:** The response of communities to disturbances and changes

- Strength/Resistance
- Bounce-Back/Recovery
- Adaptation
- Transformation

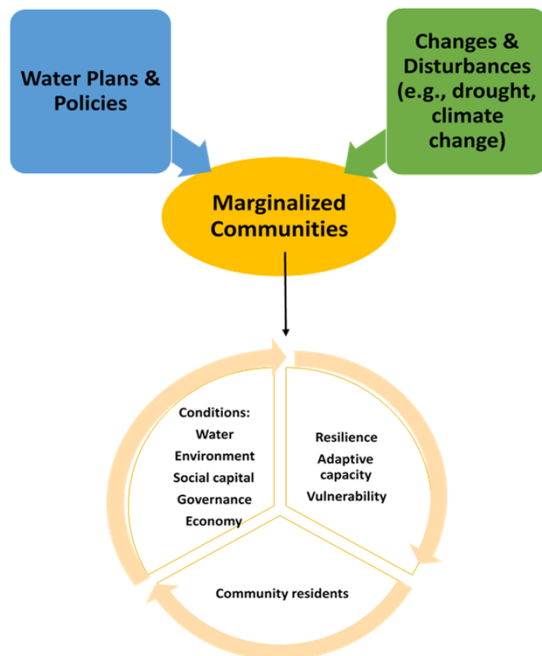
**Resilience Justice:** Equity in the capacities, vulnerabilities, and conditions of marginalized communities

- Low-income communities
- Communities of color
- Native American communities
- Other communities with inequitable resources, power, and/or vulnerabilities

\*The Resilience Justice Policy Assessment Tool Framework was developed with support from The City Project, the Surdna Foundation, and the University of Louisville Boehl Chair Endowments.

### Assessment Focus

Water plans and policies are assessed for their impacts on the resilience, adaptive capacities, and vulnerabilities of marginalized communities.



### No-Cost Resilience Justice Policy Assessments

The University of Louisville Center for Land Use and Environmental Responsibility will assess water plans, policies, or programs, using its Resilience Justice Policy Assessment Tool, for:

- government agencies;
- non-profit organizations;
- and community-based groups

This service is free, funded by the Boehl Chair Endowment at the University of Louisville, but on a capacity-available basis. Please contact:

- **Professor Tony Arnold**, Resilience Justice Team Leader, [tony.arnold@louisville.edu](mailto:tony.arnold@louisville.edu) or (502) 852-6388
- **Audrey Ernstberger**, Resilience Justice Fellow, [alerns01@louisville.edu](mailto:alerns01@louisville.edu)
- **Andrew Schuhmann**, Resilience Justice Fellow, [andrew.schuhmann@louisville.edu](mailto:andrew.schuhmann@louisville.edu)

### Resilience Justice Policy Assessment Tool Framework

The Resilience Justice Assessment Team gathers, analyzes, and synthesizes a wide range of qualitative and quantitative data about the water plan's impacts on marginalized communities, organized around six core elements of the Resilience Justice:

1. Builds community capacity?
  - Water
  - Environment (including green & blue infrastructure)
  - Social capital
  - Governance
  - Economy
2. Engages community residents in diverse & meaningful ways?
3. Improves community conditions?
4. Reduces disparities in community conditions & capacities?
5. Includes community-engaged feedback loops?
6. Avoids, minimizes, & mitigates adverse impacts on community resilience?

The Assessment identifies the extents to which the water plan or policy advances or inhibits the resilience of marginalized communities, and recommends reforms to address negative impacts.

### Example: Resilience Justice Assessment of the Fresno CA Urban Water Plan

#### Impacts on Marginalized Communities:

- +/- Community participation in planning but not in feedback loops
- +/- Adapted to recent drought data, but fails to consider multiple models of climate change, cumulative/synergistic effects, & other vulnerabilities
- +/- Increased supply and reduced demand (conservation, recharge, treatment facilities, & water recycling), yet still vulnerable
  - Inadequate rate assistance and rebate programs
    - » Coupled with likely higher rates (infrastructure improvements) and drought rates
  - Inadequate measures to address severe water contamination from lead, nitrates, and other contaminants (e.g., contaminant plumes)

#### Policy Reforms Identified:

1. More water quality accountability mechanisms with diverse stakeholder involvement
2. Embedded participatory feedback loops
3. Expanded low-income assistance programs adapted to changing rates and emergencies
4. Run supply and demand through multiple climate change models/scenarios
5. Government-community partnerships for private infrastructure upgrades in Fresno

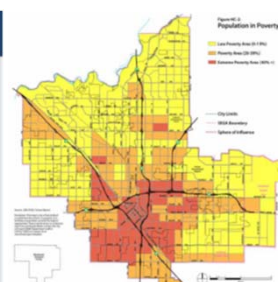
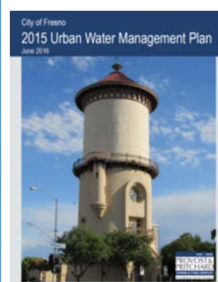


Image sources: City of Fresno; City of Fresno; Brad Rippey, U.S. Department of Agriculture; Sarah Mirk, Wikimedia Commons