#### Research Brief

# Headwinds in the Heartland? Hazard Planning Lessons from Six Inland Jurisdictions in the Southern Plains

Ward Lyles and Penn Pennel, University of Kansas; Rachel Riley, University of Oklahoma

A comparative case study approach was employed to investigate three research questions: 1) How does the quality of local hazard mitigation planning efforts in an inland region vary? 2) How do local hazard mitigation planning networks vary in terms of membership, structure, and activities? 3) How do local communities vary in the use and influence of consultants to assist with hazard mitigation planning? Content analysis of 14 plans and semi-structured interviews with 11 key officials in six cities and their associated counties was conducted in 2018-2019. Prior literature primarily focused on coastal locations. This study addressed the need to assess the status of hazard planning in non-coastal (inland) communities.

### Case Study Locations



## **Results and Implications**

Three primary findings resulted from the analysis which help answer the research questions. First, the hazard mitigation plans were of low- to mediocre-quality, even when on-the-ground mitigation efforts in a county or city were robust or even excellent. Second, the networks of hazard mitigation stakeholders varied widely in composition and leadership, some suited for preparedness and response and some much better suited to long-term mitigation work. Third, the types of consultants and their roles varied across the jurisdictions, from expertise characteristic of narrow emergency management perspectives to more integrated expertise in long-range land use and infrastructure planning perspectives.

The implications of this research are that, while the Disaster Mitigation Act (DMA) of 2000 has likely led many locations across the country to account for hazards than they otherwise would have, there are numerous shortcomings. The structure of the DMA mandate coupled with it being primarily administered by officials whose primary expertise is in preparedness, response, and grant management, may actually inhibit innovation.

# **Location-Specific Results**

**Sedgwick County, KS (Wichita)** - While similar to Tulsa in terms of demographic characteristics and hazard profile, there was little evidence that the city and county had progressed in the realm of hazard mitigation. Integration of hazard mitigation and other local plans was limited.

Potter County, TX (Amarillo) - The hazard mitigation plan was of moderate-quality, and the perspectives were inherently local. Relationship-building was a key element in plan development and related initiatives. Integration of land use planning and hazard mitigation was not groundbreaking but was more robust than expected.

Payne County, OK (Stillwater) - A moderate-quality hazard mitigation plan, and second to Tulsa in its overall robustness. Though vague, the city's land use plan acknowledged hazard risks. The relationship between local emergency management leaders and planners was strong.

Tulsa County, OK (Tulsa) - Met the criteria for a national leader in long-term hazard risk reduction in many ways. While the hazard mitigation plans have improved over time, the most recent plan failed to meaningfully connect with the broader network of planning efforts across the city.

Benton County, AR (Bentonville) - Mitigation plans were of typical low-to-moderate quality, and evidence of integration of land use and hazard mitigation planning was lacking. But, the jurisdictions demonstrated a commitment to flood risk reduction through participation in the FEMA Community Rating System program.

McLennan County, TX (Waco) - Little connection between emergency managers and planners in existing plans, but, at the time of data collection, the new emergency manager had plans to foster local connections. Both the mitigation and land use plans accounted for floodplain risks.

For more details, see the full journal article: Lyles, W., P. Pennel, and R. Riley, 2023: Headwinds in the heartland? Hazard planning lessons from six inland jurisdictions in the southern plains. *International Journal of Mass Emergencies and Disasters*, **41**(2-3), 208-222, https://doi.org/10.1177/02807270231211838.



This research was funded by the NOAA Climate Program Office grant NA180AR4310337. Visit the Southern Climate Impacts Planning Program online at https://southernclimate.org.