## Group C-3 | Risk-based hurricane evacuation zone planning for the Texas Gulf Coast





Dr. Douglas Wunneburger

Tropical cyclones and their associated surge are major threats to the Gulf Coast of Texas. To prepare for conditions warranting calls for household evacuation, thorough planning is essential to prevent overwhelming the carrying capacity of evacuation routes which would otherwise lead to severe congestion and transportation risk to evacuees.

Zone planning begins with storm surge models provided by the National Hurricane Center to identify regions at high physical risk. Based upon estimates of populations, household characteristics, and vehicles in impacted areas, evacuation zones are carefully designed to facilitate orderly and efficient clearance within the constraints of available routes of egress. These zones must be defined with recognizable boundaries to ensure easy communication over radio channels.

This presentation outlines the steps developed by the Hazard Reduction & Recovery Center in hurricane evacuation studies of the Texas Gulf Coast to prepare draft evacuation zone maps and present them to local stakeholders for review.