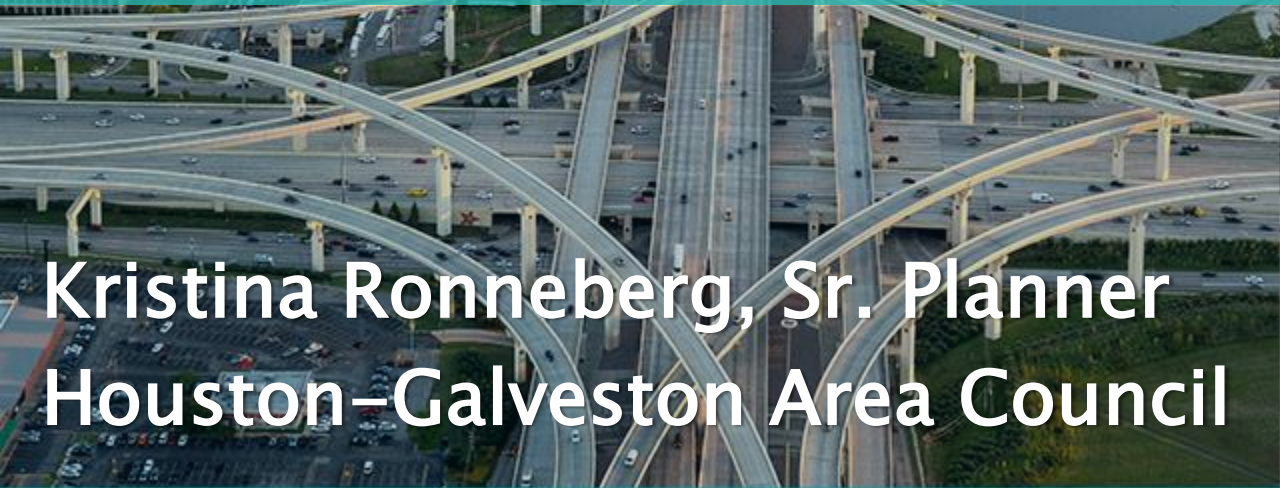




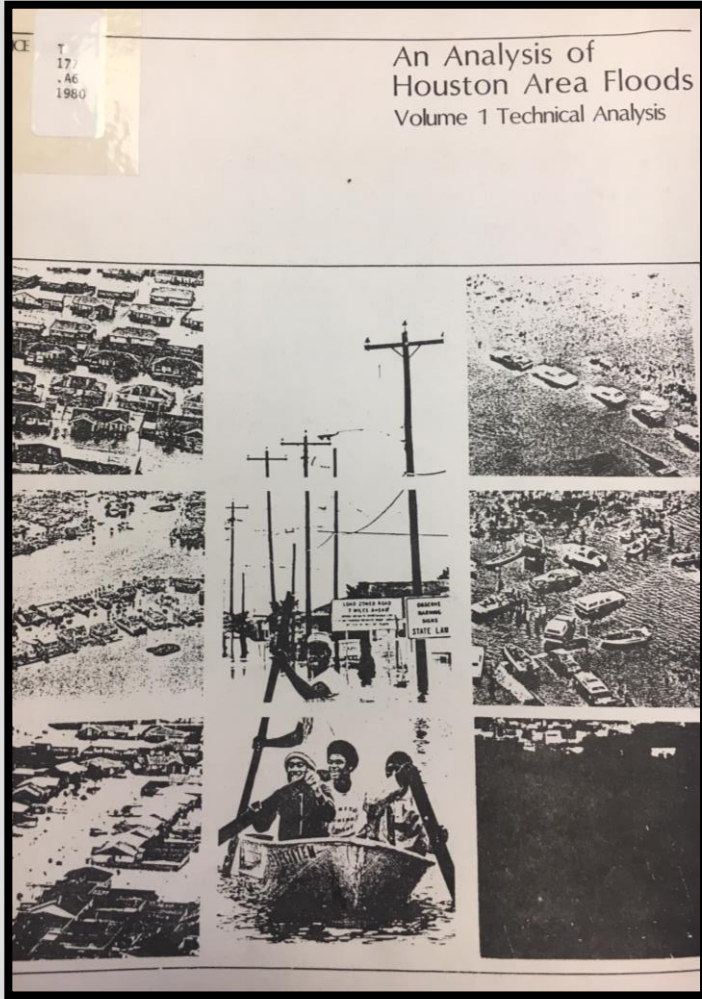
# Planning for a Resilient Houston–Galveston Region



Kristina Ronneberg, Sr. Planner  
Houston–Galveston Area Council



# Resiliency Planning

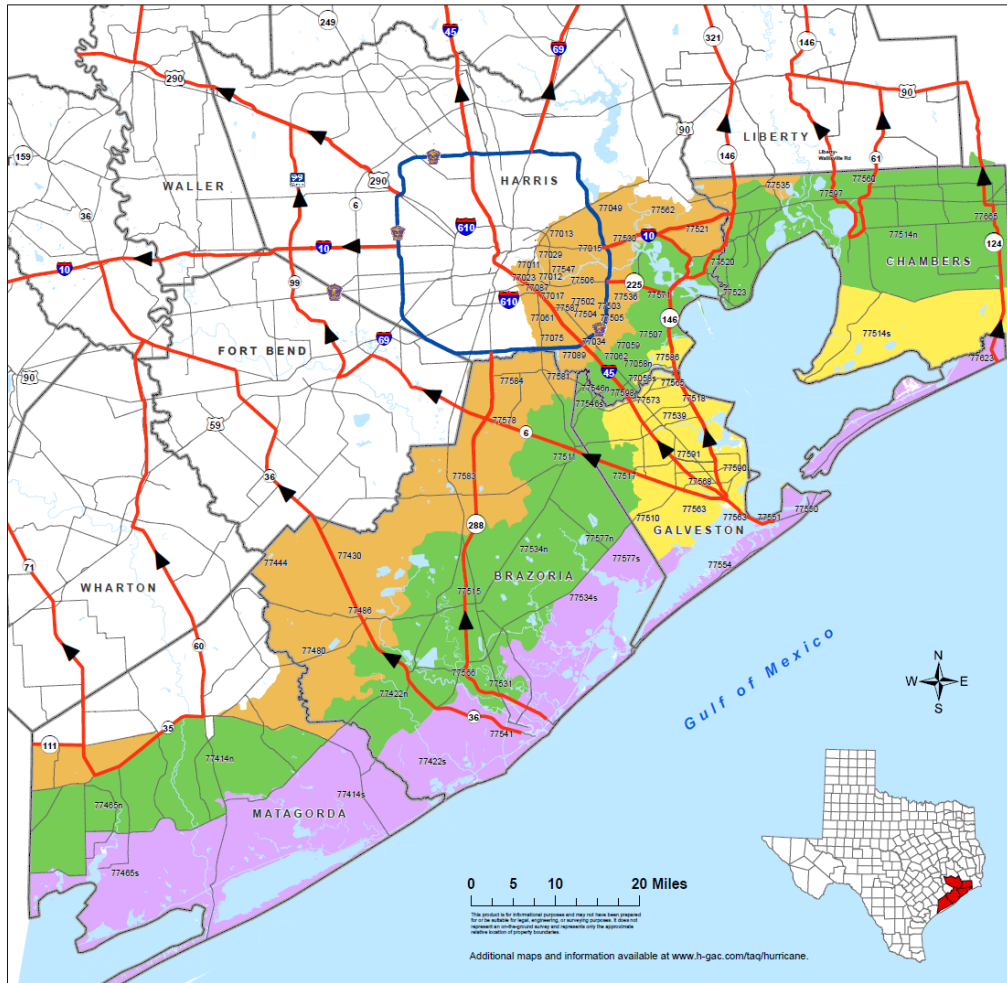


June 1980

## Regional Planning

- Regional Flood Management Council
- Hazard Mitigation Plans
- Our Great Region 2040
- Foresight Panel on Environmental Effects
- **Transportation**

# Impacts of Disasters & Disruptions



# 486 High water locations

# 1 000+ Emergency repairs

(signal systems, sinkholes, washouts)

# Harris County

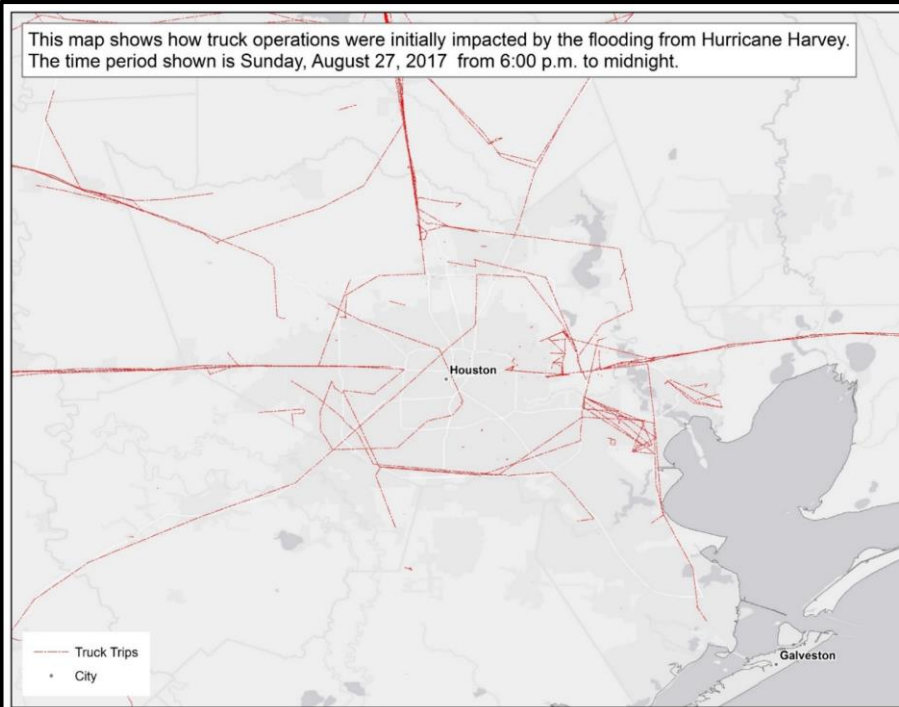
- **1 trillion gallons of water**
- **120,000 structures flooded**
- **36 deaths**

# Impacts of Disasters & Disruptions

## Business as usual



## Disruption



**1,750 miles**

**Out of service**

**2,440 miles**

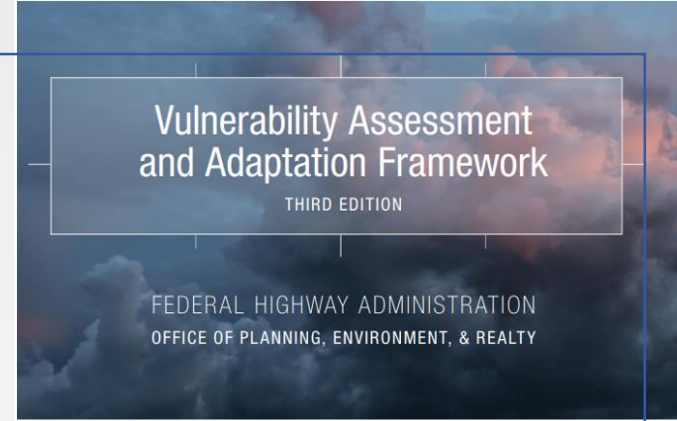
**Impacted**



# Transportation Resiliency Efforts



2018 Call for Projects



Resilience and Durability Pilot



Long Range Plan

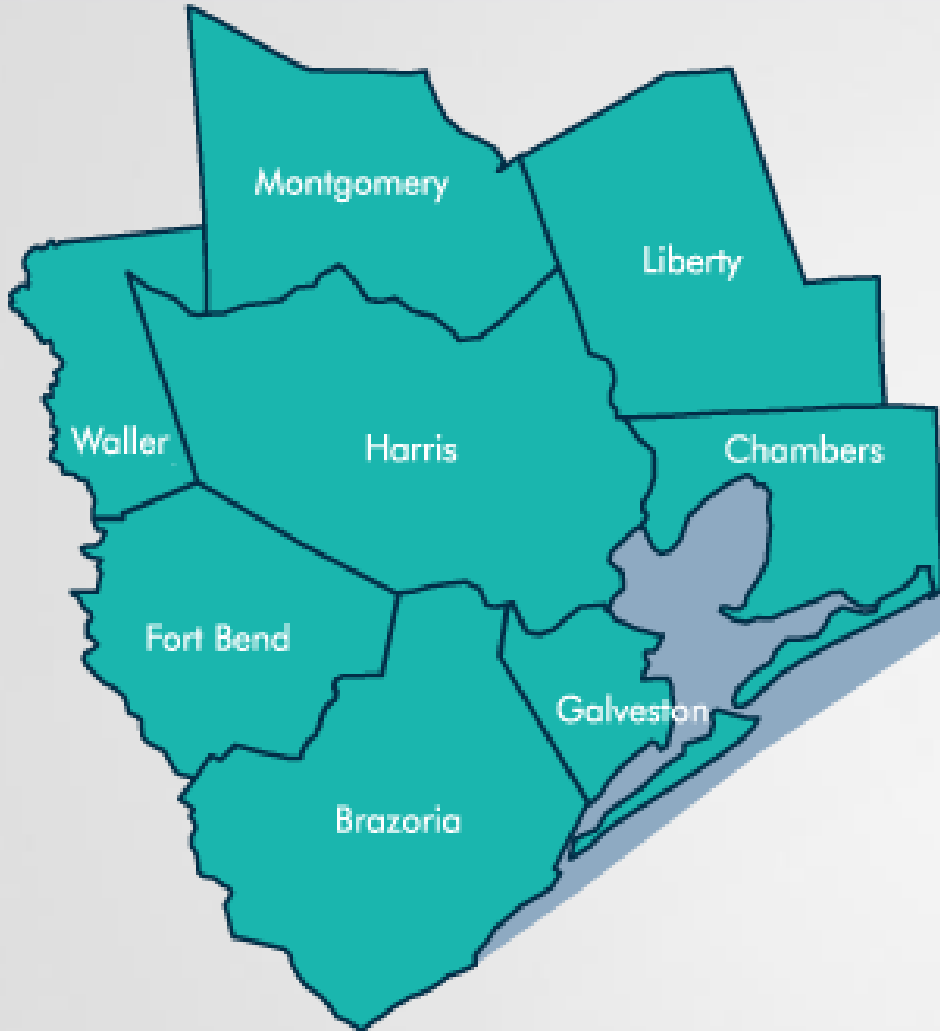


Coordination

# Call for Projects-- Project Categories

- Access Management/  
Safety/Grade Separations
- Active Transportation
- AV/CV Infrastructure
- Infrastructure Resiliency
- Innovative Freight  
Movement
- Regional ITS  
Infrastructure
- Rehabilitation/Reconstruction
- Roadway Added Capacity/New  
Construction/Complete Streets
- Transit Expansion
- Transit Facility State of Good  
Repair
- Transit Passenger Facilities
- Transit Priority Infrastructure

# Resilience and Durability Pilot



## Geography

- 8-County Region

## Climate Variables

- Flooding
- Sea Level Rise
- Storm Surge
- Heat
- Expansive Soils
- Coastal Erosion

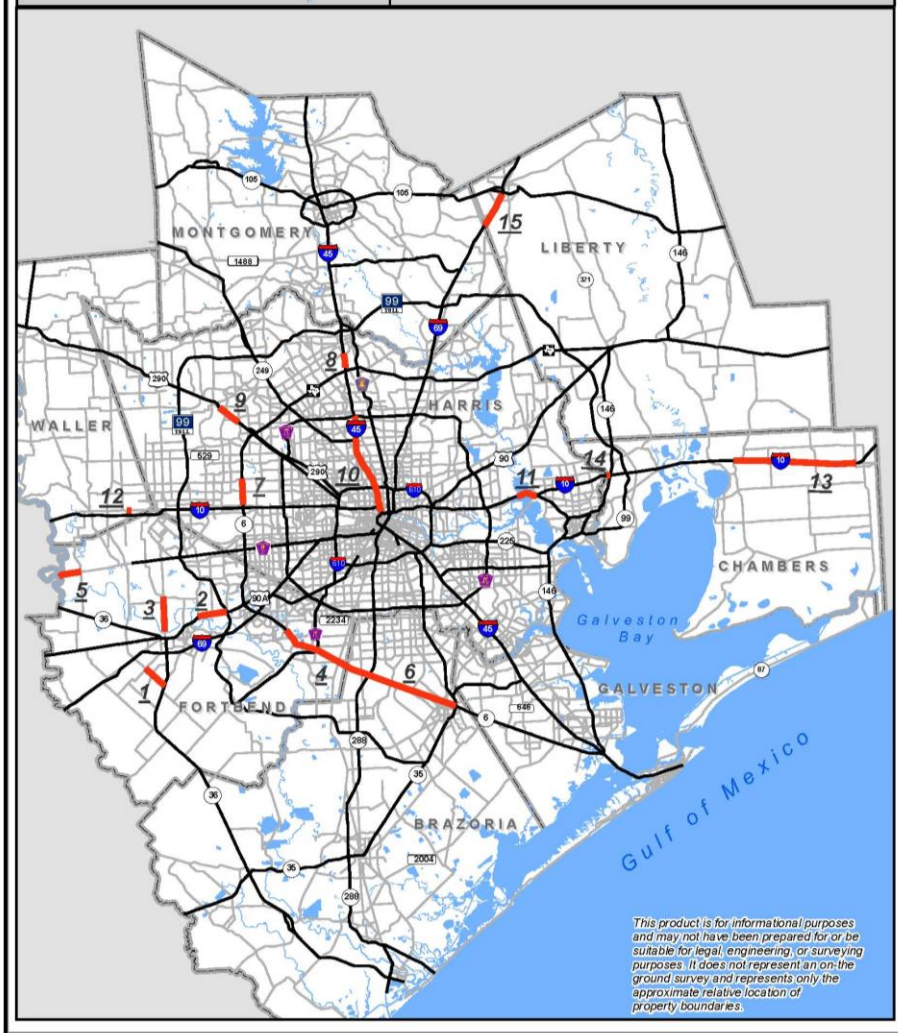
## Time Horizons

- Current
- 2045
- 2100

## Assets to Consider

- Roads
- Bridges
- Transit routes
- Rail lines
- Connections to airports

# Transportation Vulnerabilities



15 Candidate projects

## Project types

- Pavement elevation
- Bridge replacements
- Intersection rebuilds

\$2.6 Billion



# Coordination and Vision



- Holistic approach to resilience
- Better coordination of federal, state, regional and local programs
  - Infrastructure
  - Policy
  - Public awareness
- Multi-benefit projects
  - Transportation
  - Water Supply
  - Parks and Green Space

# Contact/ Resources

Kristina Ronneberg

713-993-2443, [Kristina.Ronneberg@h-gac.com](mailto:Kristina.Ronneberg@h-gac.com)

## Resources Links

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**Houston-Galveston Area Council** *h-gac.com*

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**Regional Flood Information** *<http://arcgis02.h-gac.com/flood/>*

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