Transportation Resiliency in the Houston-Galveston Region - Goal

Improving transportation resiliency for people and goods within the Houston-Galveston region

Objectives:

- Build on previous and on-going high-quality and consensus-based resiliency efforts in the Houston-Galveston region
- Add resiliency considerations to the 2045 Regional Transportation Plan
- Utilize FHWA’s resiliency tools in transportation resiliency planning
- Disseminate results of the planning process
Transportation Resiliency in the Houston-Galveston Region - Tasks

**TASK 1– Data Collection**

- Previous and ongoing resiliency planning efforts
- Collect data relevant data on vulnerability of transportation infrastructure
- Make projections for the extent of climate impacts
- Identify vulnerabilities in transportation infrastructure

*Total Rainfall by County*

- Austin: 24.66
- Brazoria: 50.04
- Chambers: 42.00
- Colorado: 25.91
- Fort Bend: 39.17
- Galveston: 56.00
- Harris: 52.30
- Liberty: 49.31
- Matagorda: 18.26
- Montgomery: 31.22
- Walker: 26.20
- Waller: 37.23
- Wharton: 20.47
This map shows normal truck flows to and from the Mexico border on Monday, August 21, 2017.
This map shows how truck flows to and from the Mexico border were impacted by Hurricane Harvey. The time period shown is Monday, August 28, 2017.
This map shows normal truck flows in and out of Houston on Sunday, August 20, 2017 from 6:00 p.m. to midnight.
This map shows how truck operations were initially impacted by the flooding from Hurricane Harvey. The time period shown is Sunday, August 27, 2017 from 6:00 p.m. to midnight.
Transportation Resiliency in the Houston-Galveston Region - Tasks

**TASK 2—Assessment**

- Use FHWA’s Climate Data Processing Tool and Sensitive Matrix
- Define Critical Regional Transportation Assets
- Use FHWA Vulnerability Assessment Scoring Tool (VAST) to score all critical transportation assets
- Analyze and prioritize adaptation options based on the results of VAST scores
- Prepare a Vulnerability Assessment Summary Report
Transportation Resiliency in the Houston-Galveston Region - Tasks

**TASK 3– Strategy Development**

- Develop strategies to maintain and improve vulnerable transportation assets
- Integrate resiliency planning to inform project identification and selection in the TIP and RTP
- Update H–GAC Foresight Panel on Environmental Effects Report
Transportation Resiliency in the Houston-Galveston Region - Tasks

**TASK 4– Information Dissemination**

- Disseminate vulnerability assessment findings
- Create and disseminate final report through website
- Deliver presentations to relevant H-GAC committees
- Disseminate on-going resiliency updates for government officials and the public
Funding: Federal $250,000 and Local Match $125,000

H-GAC

- Patrick Mandapaka, PhD, AICP, Assistant Director
- Stephan Gage, Principal Planner
- Eric Gayetsky, Planner

TxDOT

- Megan Campbell, Project Manager

Additional partners FHWA, City and County governments, transportation agencies, universities, and other stakeholders