



## News Release: Greater Houston Flood Mitigation Consortium Brief on Improved Flood Alert System

*What is needed to implement an enhanced Flood Alert System in Harris County?*

HOUSTON – December 8, 2017 – A more technologically advanced, real-time, and targeted Flood Alert System (FAS) developed by the SSPEED Center at Rice University could be updated and built with real-time models for all 22 watersheds across Harris County to quickly allocate emergency services and personnel as well as prevent flood damages, according to the Greater Houston Flood Mitigation Consortium.

A **flood warning system** provides accurate information that allows residents, businesses, first responders, and emergency officials to make informed decisions during an emergency event. Some flood warning systems simply provide data on current flood conditions, but an advanced flood warning system can actually predict future flood conditions and give advanced warning.

A **flood alert system** builds on a flood warning system by providing specific, targeted alerts. It can notify individuals and decision-makers when pre-defined actions need to be taken during a weather emergency.

Harris County has a countywide flood warning system in place that is operated by the Harris County Flood Control District. During Harvey, local residents were able to go to the Harris County Flood Warning System website to get live stream levels at 154 gauges along bayous and side channels.

More sophisticated systems can actually predict flooding hours in advance. The Flood Alert System developed by the SSPEED Center, collects real time rainfall data and uses sophisticated computer models to predict the flooding that will result from that rainfall. This system has been in place on Braes Bayou since 1997, providing information to the Texas Medical Center.

In other cities, this kind of predictive warning system has been linked to individualized alert systems. In Austin, any resident can register for cell phone alerts for their specific neighborhood.

In Harris County, gages and NEXRAD rainfall are already in place from the Harris County Flood Control District and the National Weather Service. However, funding is needed to update and build real-time models for all 22 watersheds and to maintain servers which can run the models every 15 minutes. The physical elements for the system are already in place, but the model development and additional computing capability is required to implement a FAS4 or similar system in Harris County.

Christof Spieler, project manager for the Greater Houston Flood Mitigation Consortium, vice president of Huitt-Zollars and urban planner, and Dr. Philip Bedient, the Herman Brown Professor of Engineering in Civil Environmental Engineering at Rice University, along with fellow consortium members have prepared the brief [“Flood Warning Systems”](#).

The Greater Houston Flood Mitigation Consortium includes the Greater Houston area's leading researchers together to compile, analyze and share a rich array of scientifically-informed data about flooding risk and mitigation opportunities to help guide decision-makers during the region's redevelopment post Hurricane Harvey. The consortium is focused on landscape-scale and neighborhood-level flood mitigation strategies that are feasible and have high potential for impact. Consortium members have a deep expertise in hydrology, climate science, engineering, coastal resiliency, energy, community development and urban planning and a full list is available here. The consortium is funded with support from Houston Endowment, Kinder Foundation, and the Cynthia & George Mitchell Foundation with additional support from the Walton Family Foundation and Harte Charitable Foundation.

Biographies: [Christof Spieler](#); [Dr. Phi Bedient](#)

Other consortium information available:

- [Fact Sheet: What is a floodplain](#)
- [Fact Sheet: How do we assess damages](#)
- [Fact Sheet: What is a detention basin?](#)

To come: Briefing: Flood Regulations; Fact Sheets: How are floodplains designated, How does water drain to the bayous, and What is the different between storm surge and rain flooding. More at [houstonconsortium.org](http://houstonconsortium.org).

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