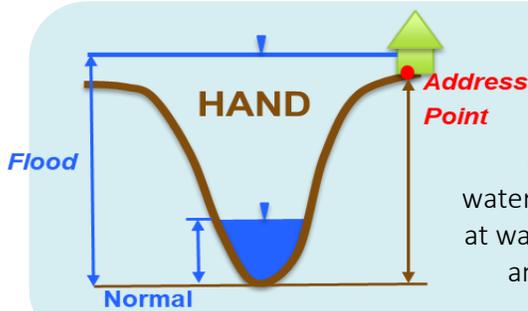


What is Pin2Flood?

Pin2Flood is a web-based app which allows the on-scene first responder to make their own flood maps - on demand! By clicking on the mobile app, while standing at water's edge (dropping a 'pin'), the map automatically returns the boundary of the flood waters, along with identifying impacted address points & roadways.

Pin2Flood is currently two apps—one for field responders (*pins drops, flood extent*) and one for emergency managers (*pins, flood extent, export*). With both apps simultaneously displaying the same data, the result is a common operating picture with real-time flood impact maps.



What is the science behind it?

The general concept of HAND (height above nearest drainage or waterway) is simple—it is elevation contours based on the stream bed elevation rather than on sea level. HAND provides a 'topographic map' of water coverage at 1 foot depth increments. When a first responder drops a pin at water's edge, the system looks up the closest HAND contour at that location and immediately displays the flood inundation. While the math to generate HAND is complicated, the results are quick and easy to use.

Why do responders need it?

How many times has a responder tried to 'describe' the flood in front of them to a Chief or Emergency Manager? Not only is it difficult, both parties are required to verbally describe changes during the flood such as additional homes being impacted or more roads being closed.

Pin2Flood not only provides the current boundary of the flood based on a pin drop at waters edge, but it also provides a common language to work from. Pin2Flood is accessible in the field and the emergency operations center—displaying the same results!



What can it do for responders?

With Pin2Flood's output being a flood boundary, we have the ability to identify impacted homes, population, and roads within the boundary. The Pin2Flood map can also inform regional and state Emergency Managers on flood severity and the need for additional resources. Finally, the exportable data can be used for damage assessments with observed flood extent.



42 homes
126 people
Response from both sides of creek

CONTACT INFORMATION—UNIVERSITY OF TEXAS

Dr. David Maidment—Science
Professor of Hydrology
maidment@utexas.edu

Dr. David Arctur—GIS
Research Scientist
david.arctur@utexas.edu

Dr. Xing Zheng —Spatial Modeling
Post-doctoral Fellow
zhengxing@utexas.edu

Harry Evans—First Responders
Sr. Research Fellow
harryevans@utexas.edu

Christine Thies—First Responders
Engineering Scientist
christine.thies@austin.utexas.edu

PROJECT PARTNERS



Texas Dept of
Emergency
Management



Austin Fire
Department

