MAAPnext Update

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Flood Control District was working with FEMA with advanced modeling from 2012. In early 2018, the Flood Control District initiated a year-long planning and preparation effort. The planning team developed a new hydrologic methodology and proposed a hydraulic modeling approach that involves a one-dimensional (1D) representation of stream channels coupled with a two-dimensional (2D) representation of overbank (floodplain) areas outside of the channel banks. The planning team developed a series of Technical White Papers and Guidance Documents to document the technical basis for the study approach and promote consistency in terms of the methods and approaches used by multiple consultants in 22 watersheds. Using new methodologies and technologies and the most granular data available MAAPnext will develop the next generation of flood mapping, including urban flooding, which is flood risk due to rainfall run-off draining through streets and neighborhoods on the way to the bayous. Along with new Flood Insurance Rate Maps (FIRMs), new tools will be developed for communicating the results of this project.

Following Hurricane Harvey, the Harris County Flood Control District (Flood Control District) initiated an update to Harris County flood risk information. The Flood Control District received grants from the Federal Emergency Management Agency (FEMA), which funded 50% of the work effort. Harris County authorized the use of bond funds to cover the remainder of the cost. The overall work effort included updates to modeling data for all twenty-two (22) Harris County watersheds, development of new Flood Insurance Rate Maps (FIRMs), revisions to the Harris County Flood Insurance Study (FIS) report, and development of non-regulatory flood risk products. Updated information yielded by MAAPnext will impact how future projects, new development, and associated flood mitigation strategies are planned and implemented. The author will share his experience and thinks this type of analysis will help to protect future flood damage by informing the risk.