

**The Woodlands Township
Storm Drainage Task Force Meeting
Meeting Summary
October 11, 2016**

Purpose of this Document: This document is designed to capture the essence of the discussion, and will serve to summarize the results, actions and follow-up items agreed to during this meeting.

- **Call meeting to order – The Woodlands Township**

Task Force members and visitors were welcomed by Township Director and Task Force Chairman Jeff Long, who introduced task force members in attendance, including: Jim Stinson, General Manager – The Woodlands Joint Powers Agency (WJPA); Helen Bostock, Albert Tomchesson, Bob Leilich, Deborah Sargeant, and Roland Johnson – Montgomery County Municipal Utilities Districts; Zach Toups, (Harris County) MUD 386; Jace Houston, – San Jacinto River Authority (SJRA); Mark Mooney, County Engineer – Montgomery County; Joshua Stuckey – Harris County Engineering Department; Stuart Schroeder – Cochran’s Crossing Village Association; and, David Brown – Gulf Coast Program Office, US Geological Survey.

- **Public Comment - directed to the committee**

Frank Kern and Mike Bass addressed the committee: Mr. Kern presented his concerns with drainage issues in the Red Sable area of Grogan’s Pt and the need for the original drainage systems to be re-established and maintained. Mr. Bass mentioned the early warning system and grant obtained by SJRA, a need to develop action plan, and for the WJPA/MUDs to communicate what has been done and what they are planning to have done.

- **Review problem areas (water in houses and garages) and discuss short term and long term recommendations**

WJPA Jim Stinson updated the Task Force on work that has been completed to date, work that is in progress and pending work to be determined by the MUD Boards. WJPA has identified 133 issues that have been or are being reviewed.

Most homeowners affected by floods have been contacted by the MUD for their area. 14 projects are in the process of soliciting pricing and 15 more projects are in the proposal stage. Many projects involve coordination with Montgomery County relative to roadside ditches.

WJPA/ MUDs are meeting with affected neighbors in project areas to receive “buy-in” for about \$2.5M for the identified projects.

- Mr. Stinson introduced Byron Bevers of Lockwood, Andrews & Newnam, Inc., who is under contract for WJPA on behalf of Montgomery County MUD's. Mr. Bevers presented a video on the storm development and flooding impact, using 2-D modeling technology under development to demonstrate a sample of time-lapse flow and ponding of flood water during April 18, and May 26-27, rain events. As channels filled, water flow intensity reached 100-year storm level; within reasonable range of elevation of recorded high-water mark. Data collected from existing gauges were used to replicate event, to measure and trace direction of flow, due to slope increase, flow impaired by high volume over short time period.

Further discussion about Bear Branch and potential improvements including clearing out many trees and creating a well-defined channel which would involve numerous issues with Army Corps of Engineers and others; modeling of downstream (East county) effect appears to be negligible. Additionally, the topic of Bear Branch Reservoir and operating flood gates was discussed.

Request was made for WJPA to share the list of projects currently in development – Township has offered to assist with communicating info once it is provided.

- Presentation by Zach Toups, Harris County MUD 386, addressing primarily Creekside area affected by Spring Creek; demonstrated natural flow across neighborhood, due to water level. Potential list of improvements, outreach efforts, attending homeowner association meetings. The level of flooding experienced have not been planned for nor designed for. Improving sheet flow 12, emergency overflow 12, remove blocking by trees, manhole covers; 23 feasible projects, currently identifying funding, estimated at \$150K, also having engineers prioritize 75 additional projects. Discussion around downstream impact of projected improvements, attempting to do so without increasing the watershed elevation downstream; restoring to original design, for 100-year event. Projects proposed by and for MUD 386, not Harris County Flood Control District. Township to assist with communication to Creekside area residents.
- **Receive a presentation from the SJRA on early flood warning devices that could be installed and monitored on creeks and tributaries in or near The Woodlands if funding is available**
 - Presentation by Jace Houston, San Jacinto River Authority (SJRA), concerning early flood warning devices. Three primary agencies involved, with specific expertise/focus: SJRA – collect gauge data; United States Geological Survey (USGS) – maintain gauges; Harris County Flood Control District (HCFCD) – report the information to the public. Most SJRA gauges are concentrated near Lake Conroe with primary purpose of gate operations at the dam, and are located within the watershed that feeds into Lake Conroe. Need to know as early as possible, what kind of inflow into Lake Conroe can be expected; one on Lake Creek, one east of Conroe. HCFCD concentration in Harris County, monitoring all the bayou systems, with concern for life and property, in extremely flat area, where drainage is difficult. USGS has a nationwide network of streamflow and other gauges, shared by and viewable on SJRA and HCFCD websites.

Gauges serve four primary functions: rainfall, stage (water level height), flow, or predictive stage and flow. USGS has this capability for accurate stage and flow at a point only; predictive is performed by the National Weather Service. Upgrade and expansion planned for increased coverage by SJRA; consideration to pool resources for regional support. At this time, viewing both HCFCFCD and USGS websites provides current readings from the gauges, not predictive of future status. Discharge gauges were not addressed here.

In agreement with SJRA, HCFCFCD plans to add stage gauges to their network, including 8 in The Woodlands, due to potential impact on Lake Houston. Three gauges to come on board include perimeter points of Panther Branch, Bear Branch, Alden Bridge; locations for others have not been finalized. Measurement devices are placed on the downstream side.

In summary, joint project with SJRA and HCFCFCD, to place rainfall stage gauges; cautioned by USGS to consider ongoing maintenance costs, and serving the public at large; SJRA recommends design and locate gauges to collect data in keeping with USGS standards, and to engage USGS resources, to install and maintain any involving flow. Contact name offered for HCFCFCD to begin conversation about adding more gauges in The Woodlands area.

- **Receive and discuss a matter brought forward from the Grogan's Point Neighborhood Association meeting regarding de-snagging of Panther Branch.**
 - MUD 41 & MUD 46 are reviewing the conditions via WJPA staff.
 - Conclusion, water will flow naturally to lowest level; request construction projects to include appropriate retention ponds, etc., and better communicate efforts to the surrounding community recognizing that agency standards vary.

- **Updates from Committee members – open discussion generated by presentations.**
 - How is data provided to the National Weather Service, to be included in alerts? Direct communications links with gauges, i.e., via satellite uplinks, from the gauge communications transmitter.
 - Bayou Land Conserv-thing – recognized as a problem, not represented at this meeting in order to address.
 - Timeline for WPJA to adopt 2-D modeling – getting close to having detailed information to share, within a few weeks.

- **Establish timeframe for the next meeting**
 - Estimated to take place in 6 to 8 weeks.

- **Meeting adjourned.**