



# San Jacinto River Authority Update on the Flood Management Division

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In mid-March, Governor Greg Abbott issued a series of directives that gave the San Jacinto River Authority (SJRA) the opportunity to become involved with regional flood management. SJRA's Board of Directors and Senior Management made the decision to move swiftly in response to the Governor's request and created a Flood Management Division. The new division was formed to develop and implement a variety of flood management strategies, a role that is highly unusual for river authorities in Texas. While almost every river authority in the state has language in their statute that allows them to conduct flood management activities, they have not historically exercised those powers because they have no taxing authority of other funding mechanism to support those activities, and they have not been asked by local cities and other entities with flood management responsibilities to partner in those efforts. Hurricane Harvey has created a unique opportunity for SJRA and other river authorities around the state to partner with other agencies to develop larger, regional solutions to flooding.

SJRA's new Flood Management Division oversees the partnership and implementation of planned and funded projects and serves three primary functions:

- o Develop short-term and long-term management strategies
- o Build partnerships with federal, state, and local government entities
- o Identify funding sources and opportunities

To provide experienced and focused leadership for these new functions, SJRA hired Chuck Gilman to assume the role of Flood Management Director. Alongside Mr. Gilman, the Flood Management Division includes two other full time employees. The newly-formed division is currently involved in the following initiatives:

## **Flood Protection for the West Fork of the San Jacinto River Watershed - Phase I Study:**

This study includes an update to the hydrologic and hydraulic (H&H) models upstream of Lake Conroe and immediately downstream of the dam. It also includes enhancements/upgrades to the flood early warning system to include new rain gages, new field instrumentation, and new software. This project is approximately 80% complete. SJRA expects a draft report to be complete before the end of the calendar year.

## **Flood Protection for the West Fork of the San Jacinto River Watershed - Phase II Study:**

This study has not begun. SJRA is currently waiting on a response from the Texas Water Development Board on a grant application that was submitted in July of this year and expects to receive a response in September.

If the funds become available, this study will include two components. A Spring Creek Siting Study and a Lake Conroe Gate Operations Tool. The siting study for Spring Creek will identify specific location(s) where one or more flood storage



reservoirs are feasible in the Spring Creek Watershed. The study will determine location, approximate size, and boundaries of storage facilities. A Benefit Cost Analysis and the identification of potential funding sources are also included in the scope of this study.

The study will also include the development of

a Decision Support System (DSS) for Lake Conroe. The DSS is a computer program that will take into account the precipitation forecasts from the National Weather Service, rain gage data from the recently installed rain gages in the watershed, current lake level, stream flow, and the current gate position and combine all the aforementioned data to





develop predictions of the anticipated peak lake level associated with each rainfall event. These predictions will allow more time for emergency responders to prepare during large rainfall events.

**San Jacinto River Regional Watershed Study:**

This study includes an update to the hydrologic and hydraulic (H&H) models for the entire San Jacinto River watershed, including: the East Fork of the San Jacinto River, Luce Bayou, Peach Creek, Caney Creek, the West Fork of the San Jacinto River, Cypress Creek, Spring Creek, Lake Creek, as well as other watersheds in Harris County. In addition to updating the models, the study will include analysis of gage data, review of existing conditions of watersheds and historical storm events, modeling of future conditions, evaluation of different flood mitigation strategies in various basins, a Benefit Cost Analysis of identified flood mitigation strategies, the development of a sediment management plan, and improvements to existing flood warning systems.

This study will be led by the Harris County Flood Control District (HCFCD) in partnership with SJRA, Montgomery County, and the City of Houston. This study hasn't started yet. The HCFCD is waiting on a response from the Texas Division of Emergency Management and Federal Emergency Management Agency on the grant application.

In the five months since the Flood Management Division was created, Mr. Gilman and his team have made much progress on identifying projects for flood management as well as educating Montgomery and Harris County residents on the San Jacinto Watershed. ♦