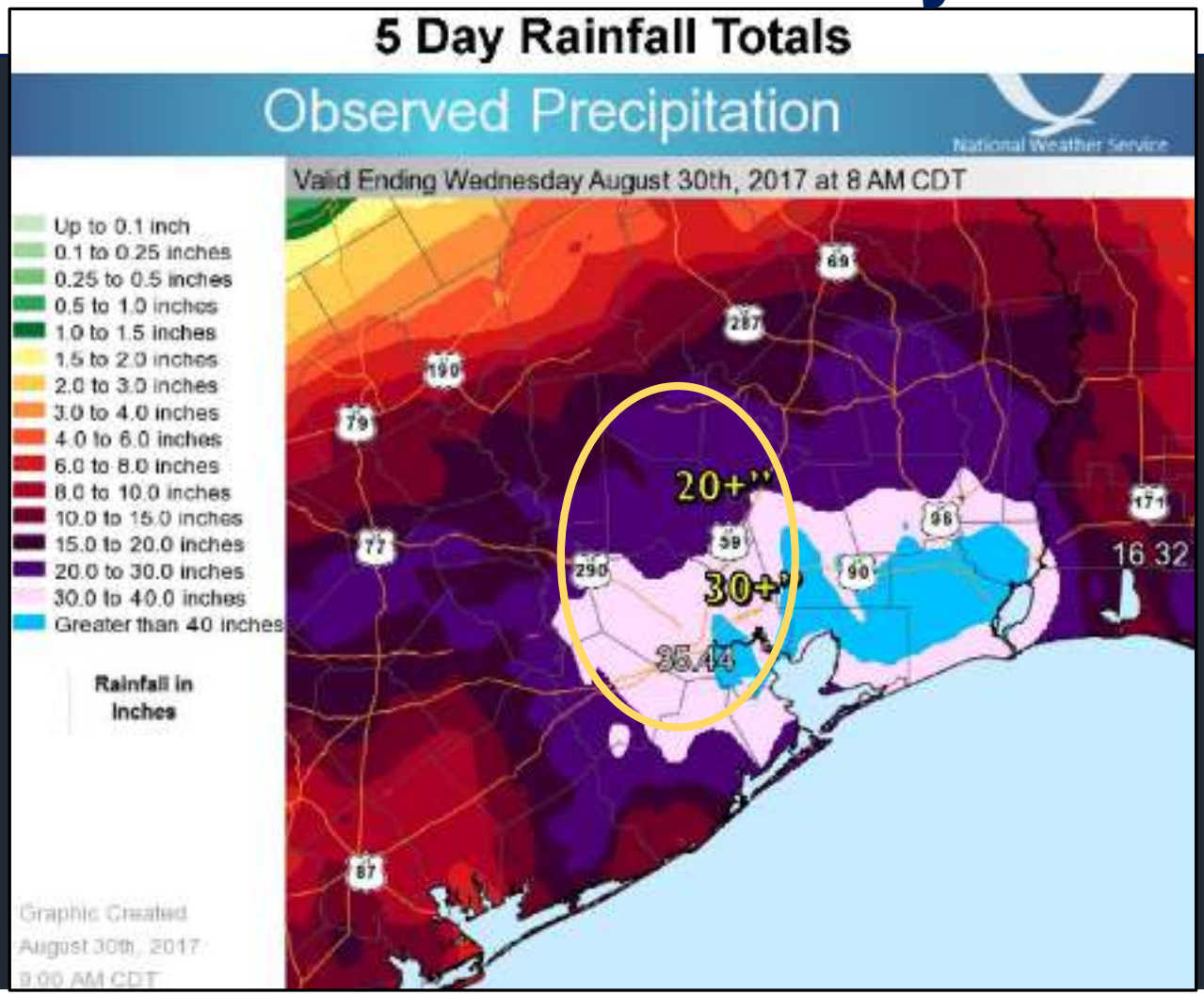
San Jacinto River Authority

SJRA's Flood Management Division

Creation of SJRA

- 1937: SJRA was created by the Texas Legislature with a mission to develop, conserve, and protect the water resources of the San Jacinto River Basin.
- SJRA's jurisdiction includes the entire San Jacinto River Basin and covers seven counties, partly or entirely, but excludes Harris County.
- One of 10 major river authorities in Texas.
- Included four operating divisions (Woodlands, Highlands, Lake Conroe, GRP) until 2018, when the Flood Management Division was added.

Hurricane Harvey



Creation of the Flood Management Division

- **August 2017**: After Hurricane Harvey the call for flood control efforts in the San Jacinto River Basin resurfaced.
- **March 2018**: Governor Abbott calls on SJRA to become more involved with regional flood management.
- **April 2018:** SJRA Board and SJRA leadership create a new Flood Management Division.
- **May 2018:** SJRA staffs the Flood Management Division with Director of Flood Management and Project Coordinator.

Conroe, Hurricane Harvey

Flood Management Division

Develop short-term and long-term flood management strategies

Building partnerships with federal, state, and local government entities

Identify funding sources and opportunities

Initiatives

Flood Protection for the West Fork San Jacinto River Watershed Phase I:

- Awarded a grant from TWDB.
- Partners: City of Conroe and Montgomery County.
- Flood Warning Enhancements.
- Update floodplain information on various streams within the watershed upstream and downstream of the dam.

New Installation at FM 1375

Initiatives

Flood Protection for the West Fork San Jacinto River Watershed Phase II:

- Develop an operational tool for the Lake Conroe watershed using the following:
  - Real-time data from the rain gages
  - Precipitation forecasts from NWS
  - Stream flow
  - Current lake level
  - Current gate position
- Provide more accurate data to estimate the peak lake level and peak discharge during rainfall events

Initiatives

Temporary Lake Lowering at Lake Conroe:

- Normal pool level is 201’ msl
- Seasonal lowering will occur:
  - **Spring:** *April 1- May 31* to 200’
    - Gradual reduction starts *April 1st*
    - Recapturing starts on *June 1st*
  - **Fall:** A*ugust 1-September 30* to 199’ msl
    - Gradual reduction starts *August 1st*
    - Recapturing starts on *October 1st*
  - *Special Board Meeting tonight @6:00pm*

Initiatives

San Jacinto Regional Watershed Master Drainage Plan:

3,000 SQUARE MILES OF STUDY AREA

The watershed for the streams to be studied covers an expanse of nearly 3,000 square miles, located in seven different counties:

- Grimes County
- Harris County
- Liberty County
- Montgomery County
- San Jacinto County
- Walker County
- Waller County

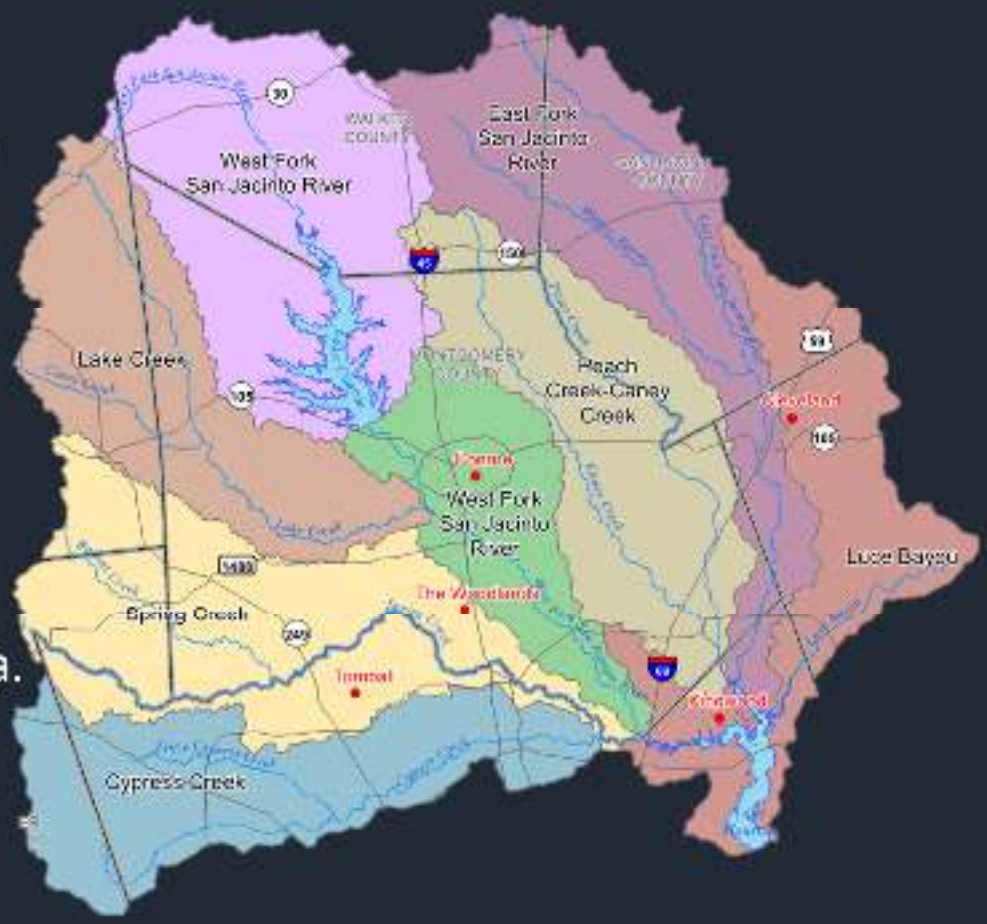
The study includes approximately 535 miles of stream, including West Fork San Jacinto River, East Fork San Jacinto River, San Jacinto River, Lake Creek, Cypress Creek, Little Cypress Creek, Spring Creek, Willow Creek, Caney Creek, Peach Creek, Luce Bayou, Tarkington Bayou, and Jackson Bayou.

Stream Name	Stream Length (Miles)
West Fork San Jacinto River	61.4
East Fork San Jacinto River	73.2
San Jacinto River	16.3
Lake Creek	58.9
Cypress Creek	60.5
Little Cypress Creek	20.8
Spring Creek	69.6
Willow Creek	19.8
Caney Creek	49.3
Peach Creek	53.5
Luce Bayou	10.8
Tarkington Bayou	36.9
Jackson Bayou	4.6
Total	**535.6**

Initiatives

San Jacinto Regional Watershed Master Drainage Plan:

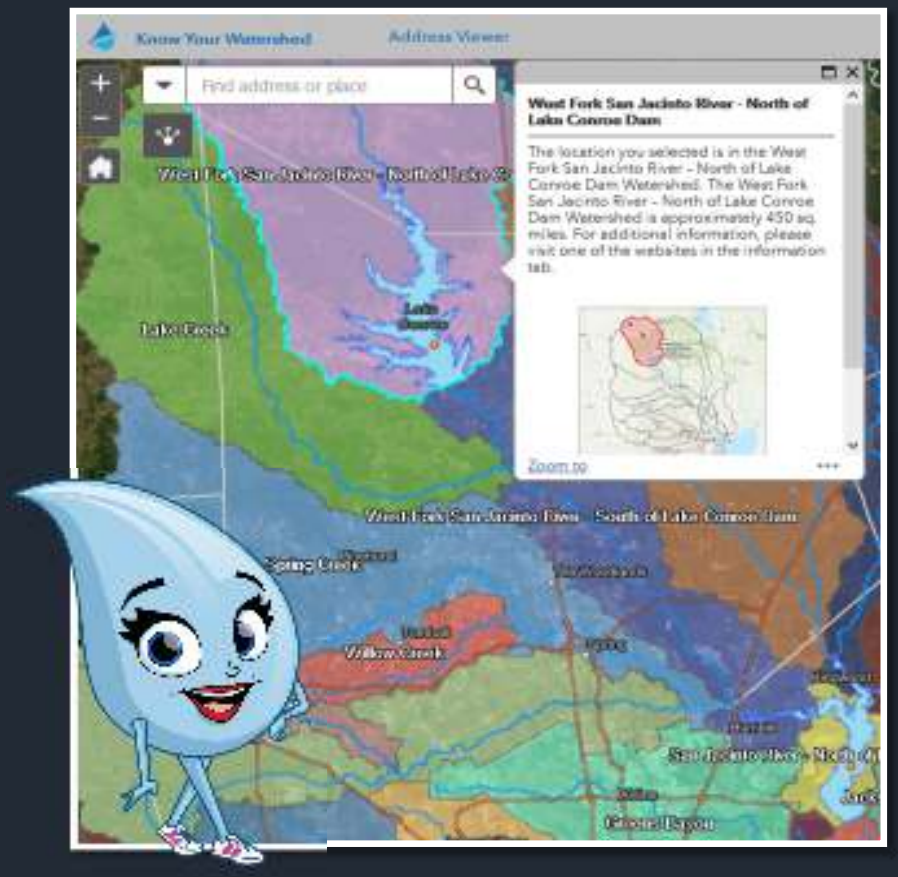
- Develop H&H models that will help predict flood risks in the study areas.
- Evaluate flood mitigation measures.
- Evaluate sediment management strategies.
- Analyze existing watershed conditions.
- Identify flood mitigation projects that will potentially reduce the flood risk in the study area.
- Study Goal: to identify vulnerabilities to flood hazards and develop a comprehensive flood mitigation plan.



Initiatives

Know Your Watershed Campaign:

- Provides the public with a better understanding of the watersheds in the San Jacinto River Basin, as well as how watersheds interact in the basin.
- The first phase of the campaign consists of two tools:
  - An address viewer to show residents the watershed they reside in.
  - An interactive story map that gives viewers an educational digital “tour” of the West Fork of the San Jacinto River.



Initiatives

Sediment and Siltation Removal in Lake Houston:

- $30 million allocated by the State of Texas during the 86th legislative session.
- Study being led by HCFCD, SJRA is a funding and technical partner.
- Study is first step in the potential development of a long-term strategy for managing siltation and sedimentation in Lake Houston.
- Continuous removal of siltation and sediment has the potential to provide additional river conveyance capacity and lake storage.

Initiatives

Initiatives

Sediment Management Program:

- SJRA has coordinated with aggregate companies operating along the West Fork to identify opportunities to minimize sediment migration and remove materials from the river that may be impeding water conveyance.
- HB 1824 passed the 86th Legislature and exempts SJRA and HCFCD from state permitting and royalty fees for sand and gravel removal in the San Jacinto River and its tributaries.
- Currently partnered with HCFCD and working with a consulting team including TAMU Galveston on a feasibility study.

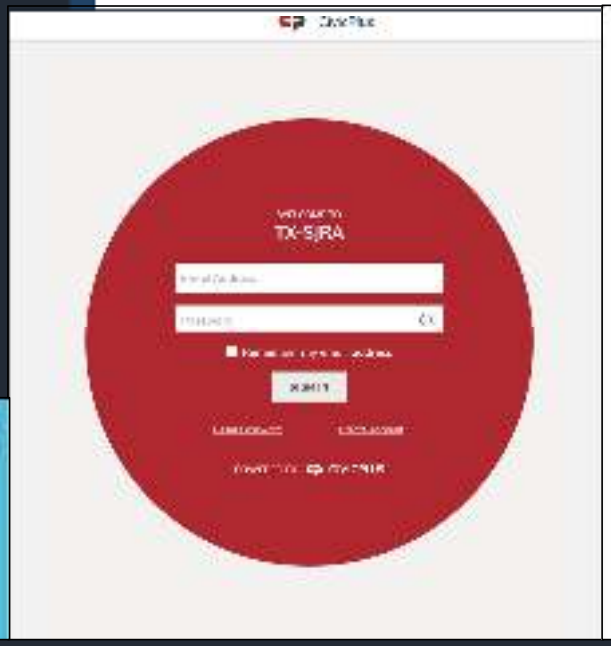
Flood Protection within the San Jacinto River Watershed

To effectively reduce the risk of flooding and improve public safety, there are four main goals that must be met:

1. Flood early warning and emergency response systems must be improved and enhanced; and
2. New flood mitigation projects must be developed.
3. Development standards must be updated and kept current;
4. Flood plain administration must be consistently and effectively implemented throughout the entire watershed;

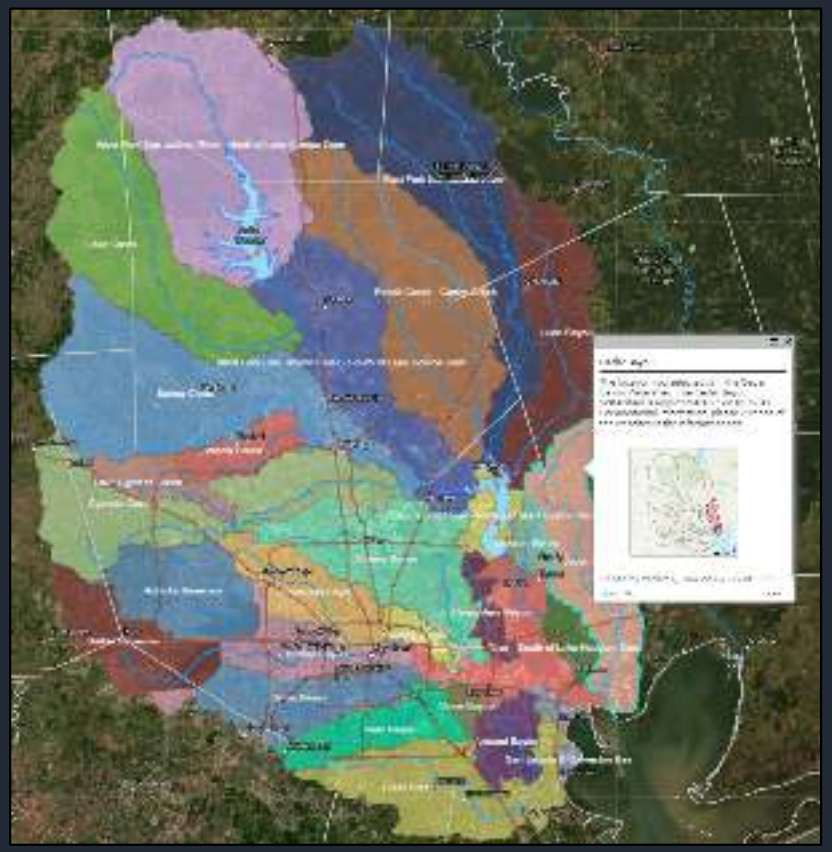
SJRA Information

- www.sjra.net
- CivicReady-Text
- Constant Contact-Email
- Facebook
- Twitter



Other Resources

- SanJacStudy.org
- KnowYourWatershed.com
- HarrisCountyFWS.org



Questions?