

WATER for TEXAS

Water for the Future



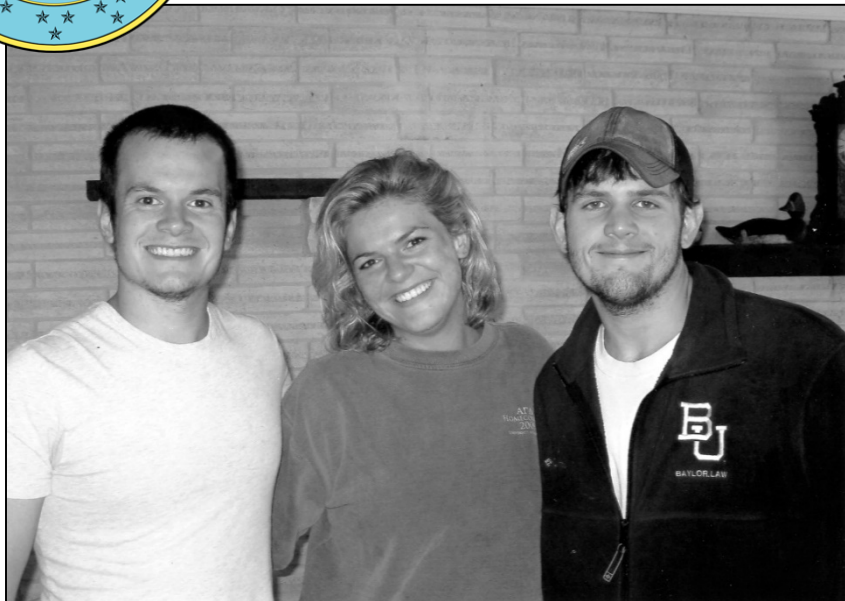
Kathleen Jackson, P.E.

23rd Annual Water Quality Management & Planning Conference

May 19, 2021



OUR MISSION



Leading the state's efforts in ensuring
a secure water future for Texas.

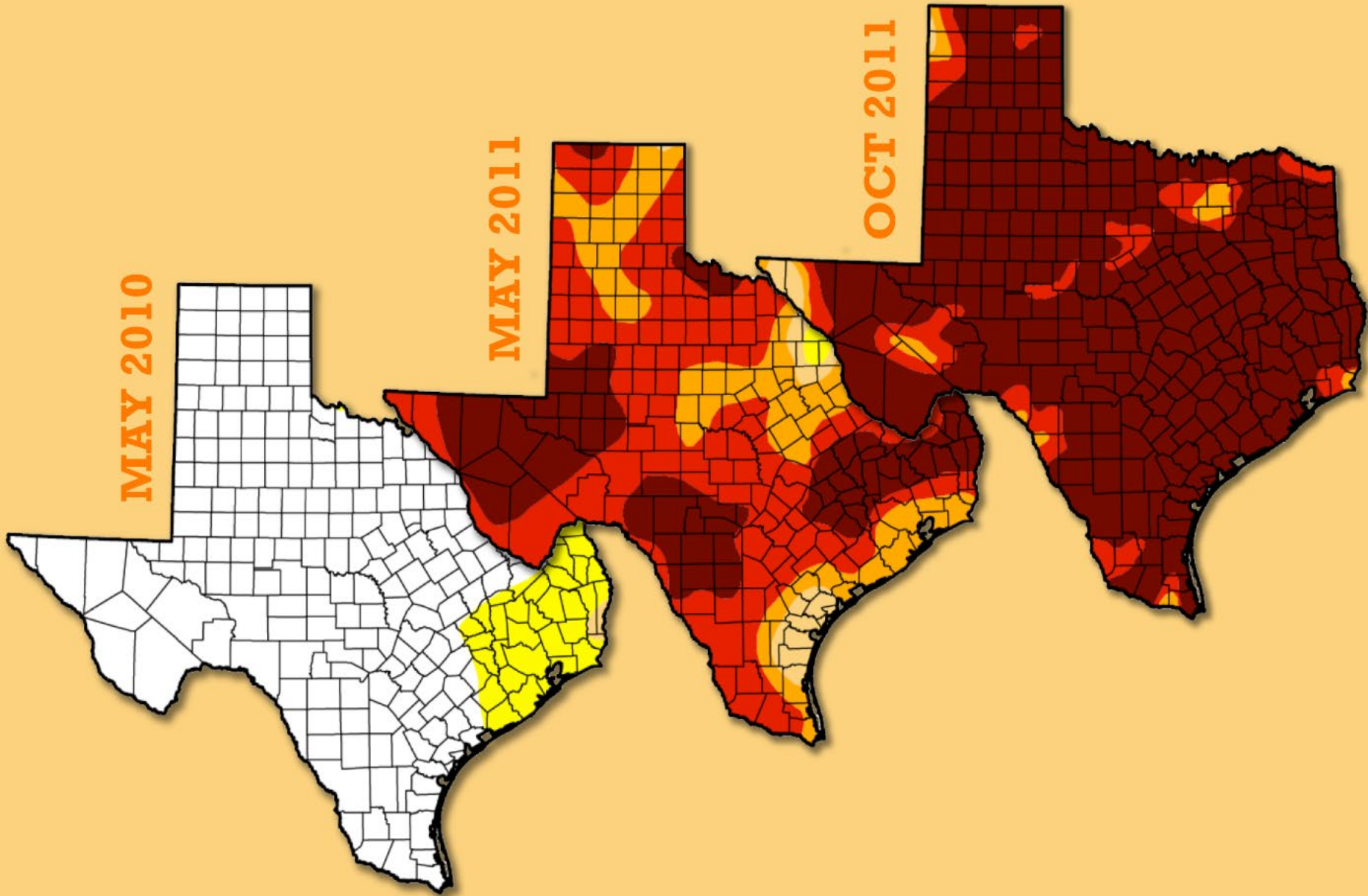


Water Science and Conservation

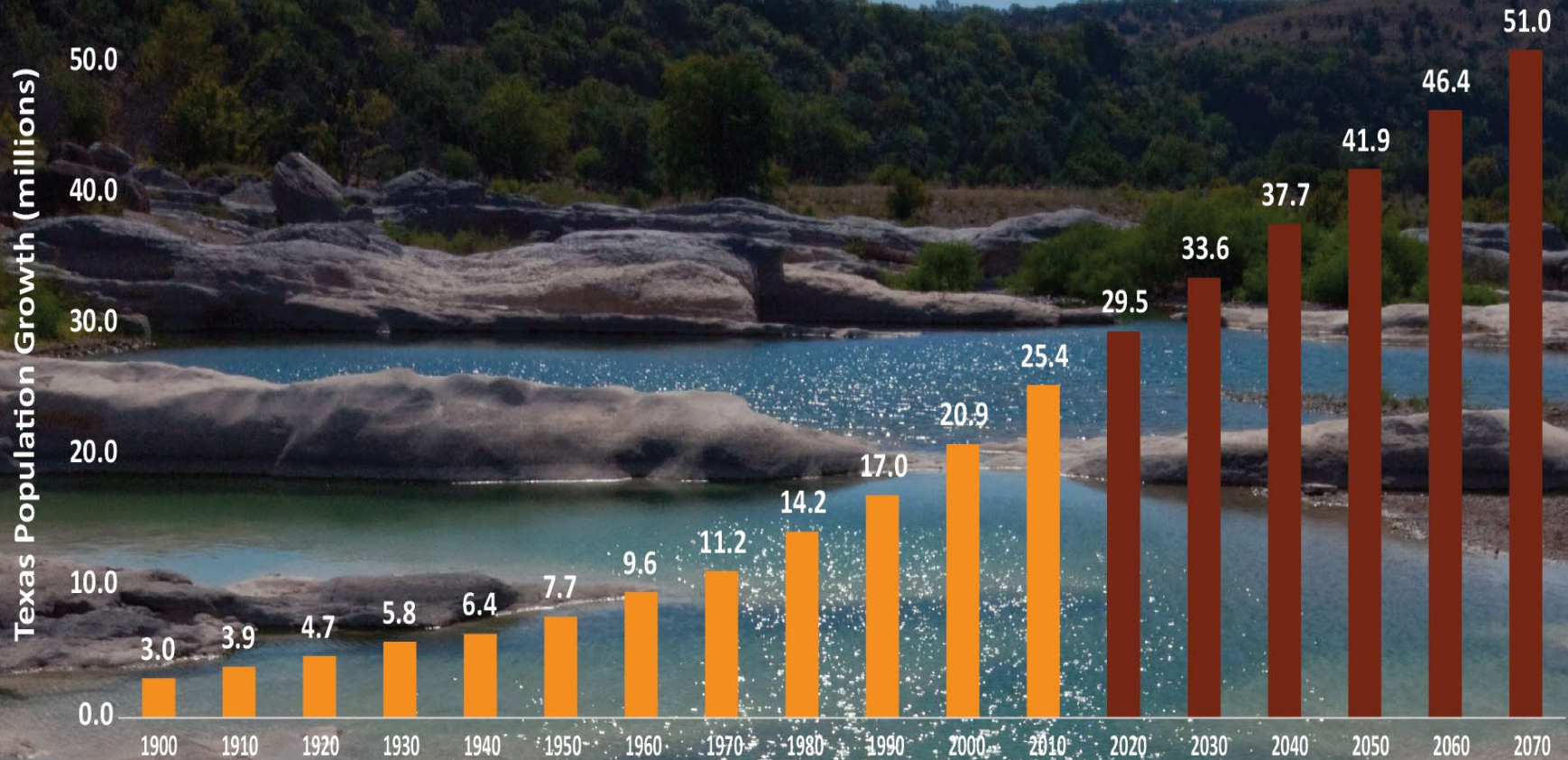
Water Planning

Infrastructure Financing

DROUGHT IN TEXAS

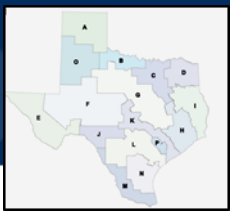


HISTORIC AND PROJECTED TEXAS POPULATION GROWTH



HOW CAN WE PROMOTE RESILIENCY?

- **Conservation**
- **Reuse**
- **Brackish Groundwater Desal**
- **Seawater Desal**
- **Aquifer Storage and Recovery**
- **Aquifers**
- **Reservoirs**



REGIONAL WATER PLANNING GROUPS



Region N



Region M

- Local Political Subdivision serves as administrator
- Public, consensus-driven
- Local/regional decision making process



Region L

SNAPSHOT OF DRAFT 2022 STATE WATER PLAN



Texas Water Development Board

Notice of Opportunity to Comment on the Draft 2022 State Water Plan

Comment period will close at 5:00 p.m. on May 26

The public comment period for the [Draft 2022 State Water Plan](#) is now open. The Texas Water Development Board (TWDB) will receive public comments until 5:00 p.m. on Wednesday, May 26.

In accordance with Texas Water Code § 16.051 and 31 Texas Administrative Code § 358.4(a), the TWDB will receive public comment on the Draft 2022 State Water Plan at a hearing to be held at 1:00 p.m. on May 24 in room 170 of the Stephen F. Austin Building, 1700 North Congress Avenue, Austin, Texas, and via GoToWebinar at <https://attendee.gotowebinar.com/register/5975860404445666574>.

- Texas' population is projected to increase 73%
- Water demand is projected to increase 9%
- Existing water supplies are expected to decline 18%
- Potential water shortages during a drought of record: 6.9M ac-ft

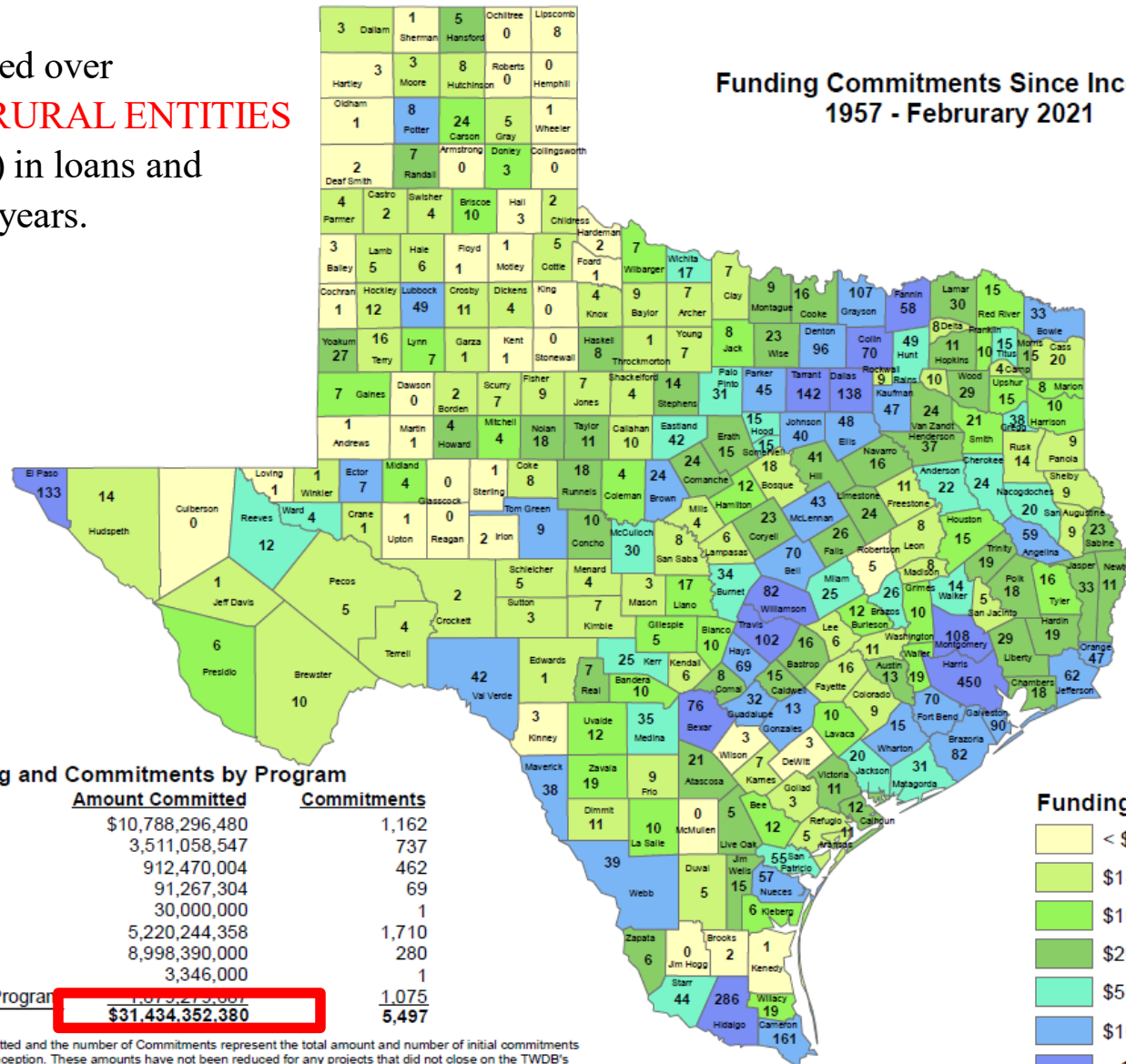
PUBLIC HEARING MAY 24 & PUBLIC COMMENTS DUE MAY 26

<https://www.twdb.texas.gov/waterplanning/swp/2022/index.asp>

COMMUNITIES TURNING PLANNING INTO PROJECTS!

TWDB has committed over
\$1.3 BILLION TO RURAL ENTITIES
 (population < 10,000) in loans and
 grants in the last 10 years.

Funding Commitments Since Inception
 1957 - February 2021



Funding and Commitments by Program

Program	Amount Committed	Commitments
CWSRF	\$10,788,296,480	1,162
DWSRF	3,511,058,547	737
EDAP	912,470,004	462
FIF	91,267,304	69
FLOOD	30,000,000	1
STATE	5,220,244,358	1,710
SWIFT	8,998,390,000	280
WIIN	3,346,000	1
Historical Federal Program	1,075,275,807	1,075
Total	\$31,434,352,380	5,497

Notes: The Amount Committed and the number of Commitments represent the total amount and number of initial commitments made since the Agency's inception. These amounts have not been reduced for any projects that did not close on the TWDB's financial assistance. The Historical Federal Program referenced was the Construction Grant Program, a federal grant program created to fund wastewater projects prior to the CWSRF.

STATE FLOOD PLANNING & FUNDING PROGRAMS

OUTCOME OF 2019 TEXAS LEGISLATIVE SESSION

PLANNING

 **47 MILLION**

- Update Floodplain Mapping
- Coordinated Regional Planning
- State Flood Plan

FUNDING

 **1.4 BILLION**

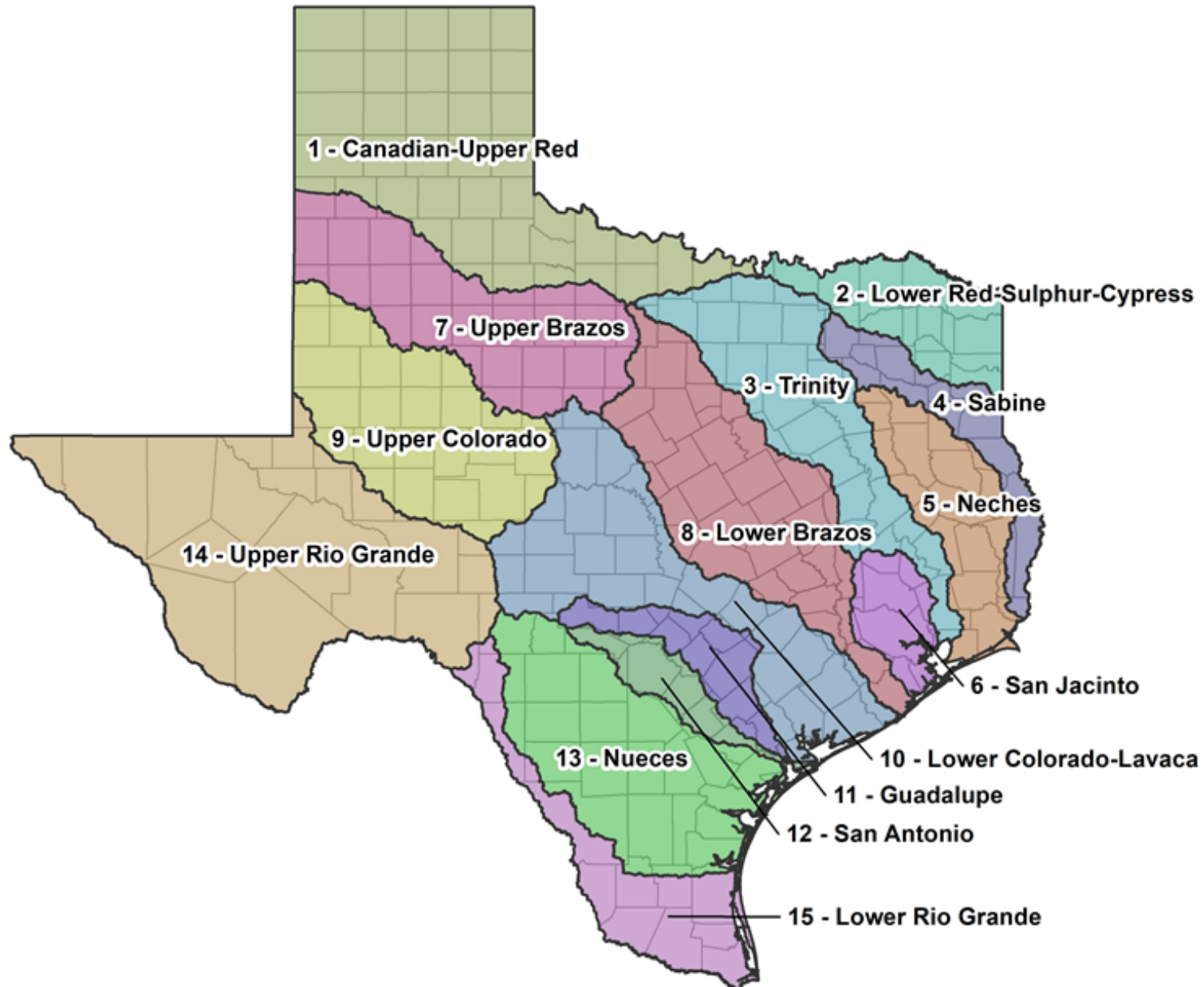
- Texas Infrastructure Resiliency Fund (TIRF)
 - Hurricane Harvey Account – \$638M
TWDB to provide funding to TDEM
 - Hazard Mitigation Grant Program – \$273M
 - Public Assistance Grant Program – \$365M
 - Floodplain Management Account – \$47M
- Flood Infrastructure Fund (FIF) – \$793M

BE CHAMPIONS FOR REGIONAL COLLABORATION!

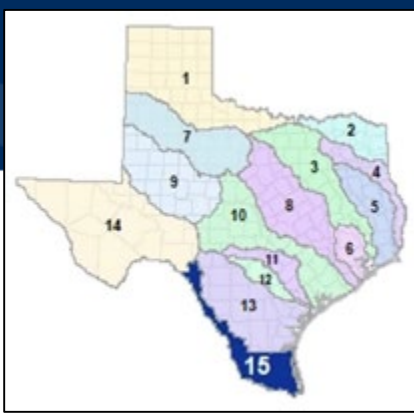
- “Future-proofing” Texas
- Neighbors upstream and downstream promoting resiliency



15 REGIONAL FLOOD PLANNING GROUPS



REGION 15: LOWER RIO GRANDE REGIONAL FLOOD PLANNING GROUP



Member Introductions:

Initial Voting Members - 11

Jose "Joe" Angel Hinojosa, *Agricultural Interests*
 David A. Garza, *Counties*
 Daniel Lucio, Jr., *Electric Generating Utilities*
 Hudson DeYoe, *Environmental Interests*
 David L. Fuentes, *Flood Districts*
 Plinio Joey Trevino, *Industries*
 Vanessa Rosales-Herrera, *Municipalities*
 Joe A. Califa, *Public*
 Jose Luis Caso, *Small Businesses*
 Sonia Lambert, *Water Districts*
 Riazul I. Mia, *Water Utilities*

Initial Non-Voting Members - 7

Shonda Mace, *GLO*
 David Ramirez, *TCEQ*
 Nelda Barrera, *TDA*
 Tim Frere, *TDEM*
 Willy Cupit, *TPWD*
 Adrian Perez, *TSSWCB*
 Megan Ingram, *TWDB*

www.twdb.texas.gov

www.facebook.com/twdbboard [@twdb](https://twitter.com/twdb)

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Texas Water
Development Board

Region 15 Lower Rio Grande

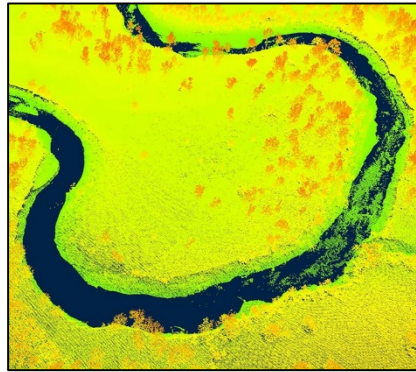
- May 5, 2021
 - [Public Notice](#)
 - [Meeting Materials](#)
- February 24, 2021
 - [Region 15 Public Notice](#)
 - [Region 15 Meeting Materials](#)
- January 13, 2021
 - [Region 15 Public Notice](#)
 - [Region 15 Meeting Materials](#)
- December 3, 2020
 - [Region 15 Public Notice](#)
 - [Region 15 Meeting Materials](#)
- November 5, 2020
 - [Region 15 Public Notice](#)
 - [Region 15 Meeting Materials](#)

Planning Group Sponsor: Hidalgo County Drainage District No. 1

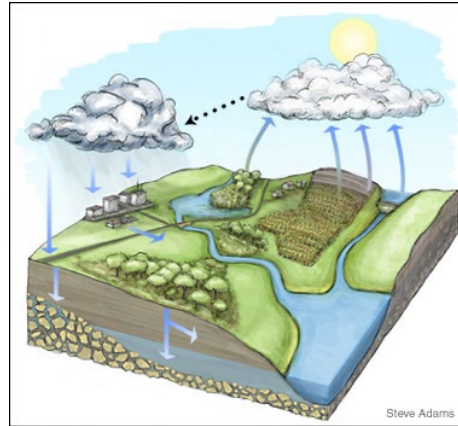
Planning Group Chair: David Garza

RFPG Meetings: <https://www.twdb.texas.gov/flood/planning/regions/schedule.asp>

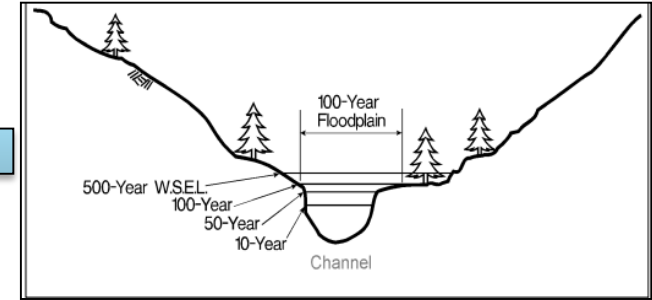
THE BETTER THE DATA, THE BETTER THE SCIENCE... THE BETTER THE SCIENCE, THE BETTER THE POLICY!



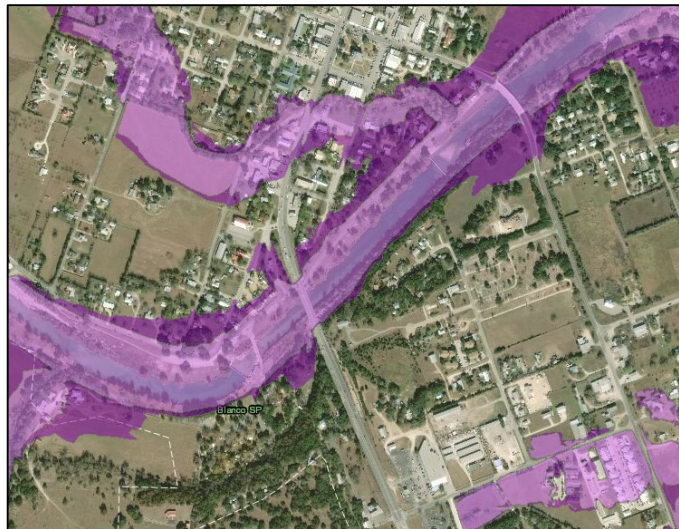
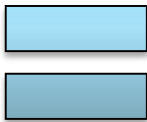
LiDAR



Hydrology



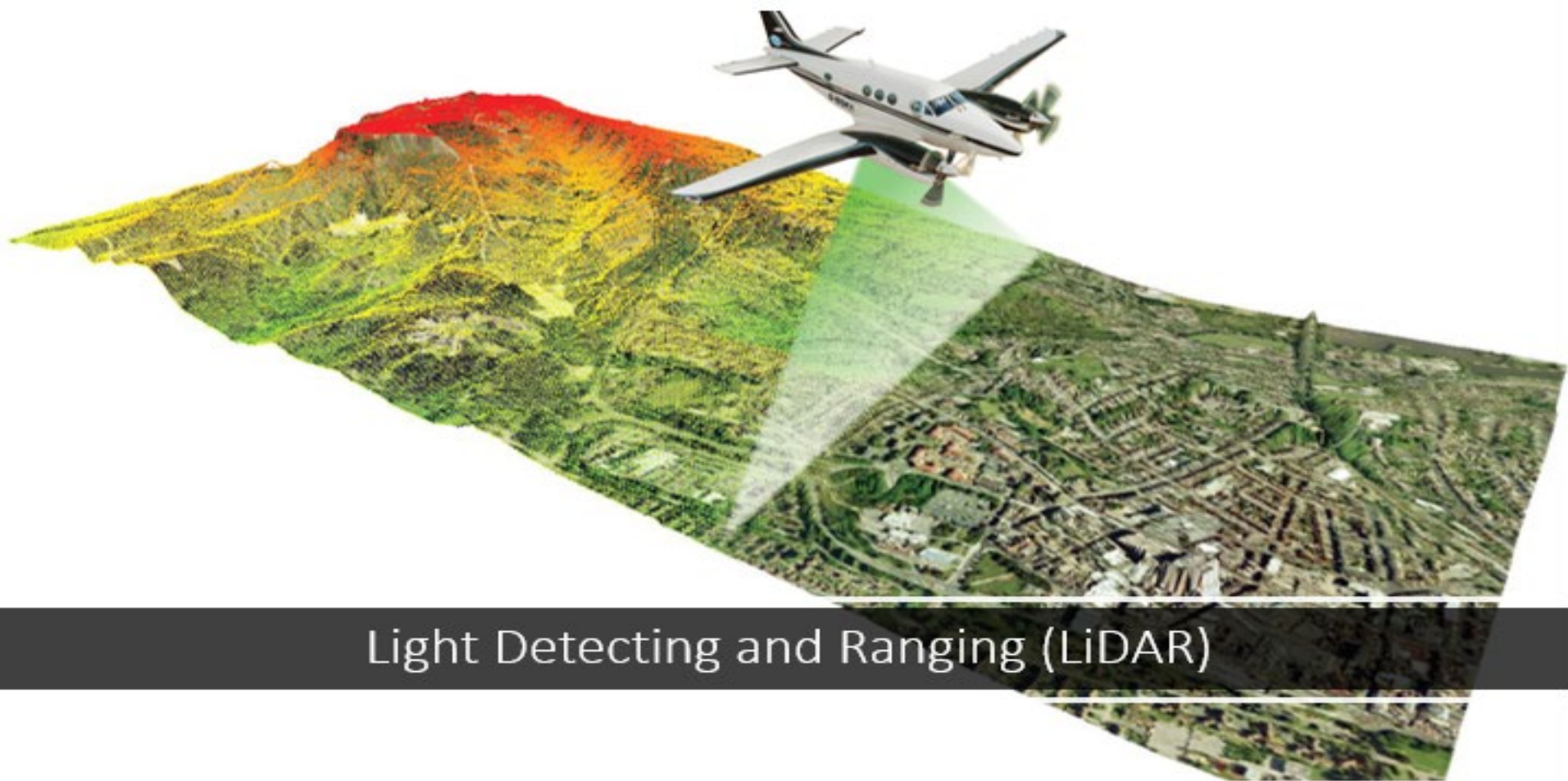
Hydraulics



FLOOD MAP

DATA DRIVES SCIENCE BASED APPROACH!

Texas Natural Resources Information System (TNRIS)

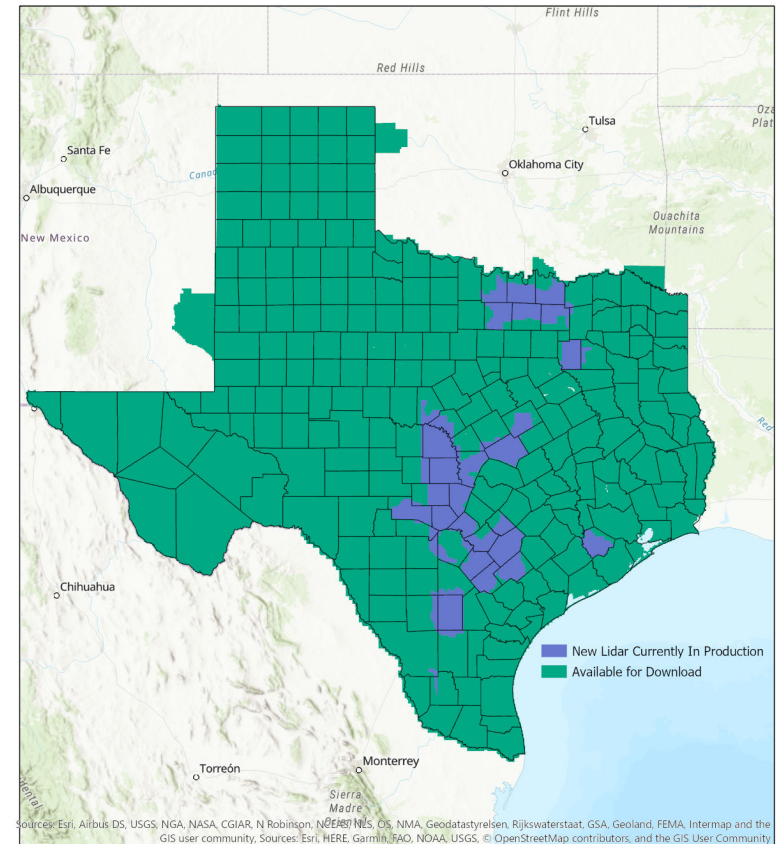
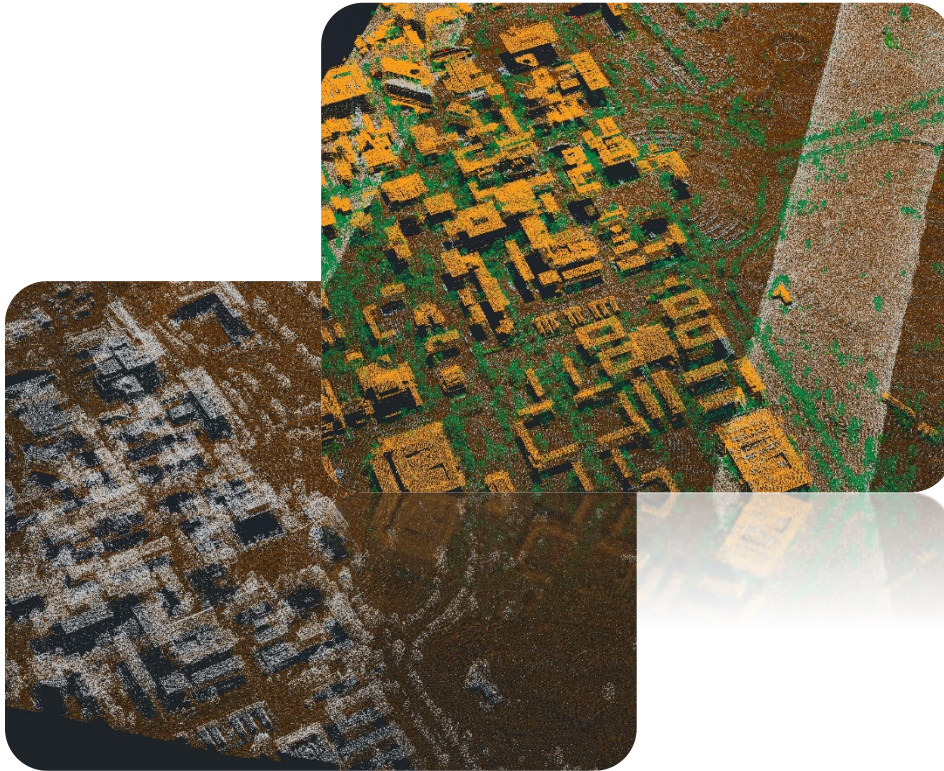


Light Detecting and Ranging (LiDAR)

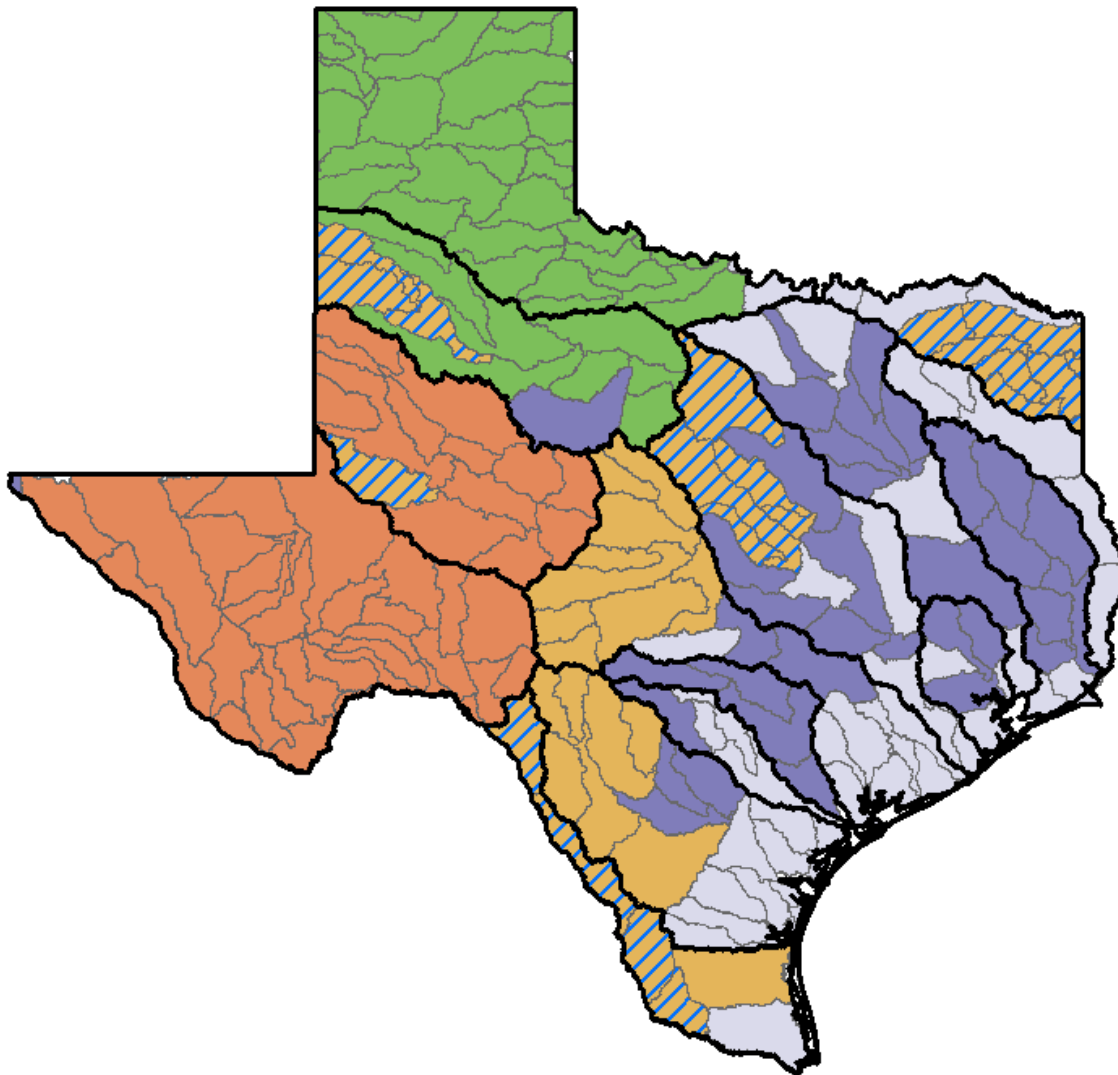
STATEWIDE LIDAR COVERAGE IS COMPLETE!

 **StratMap** Strategic Mapping Program

Texas Water
Development Board



BASE LEVEL ENGINEERING (BLE) STATUS



 **Completed**

 **In Progress**

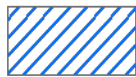
Next Steps

 **FY 2022***

 **FY 2023***

 **FY 2024***

Project Assignments

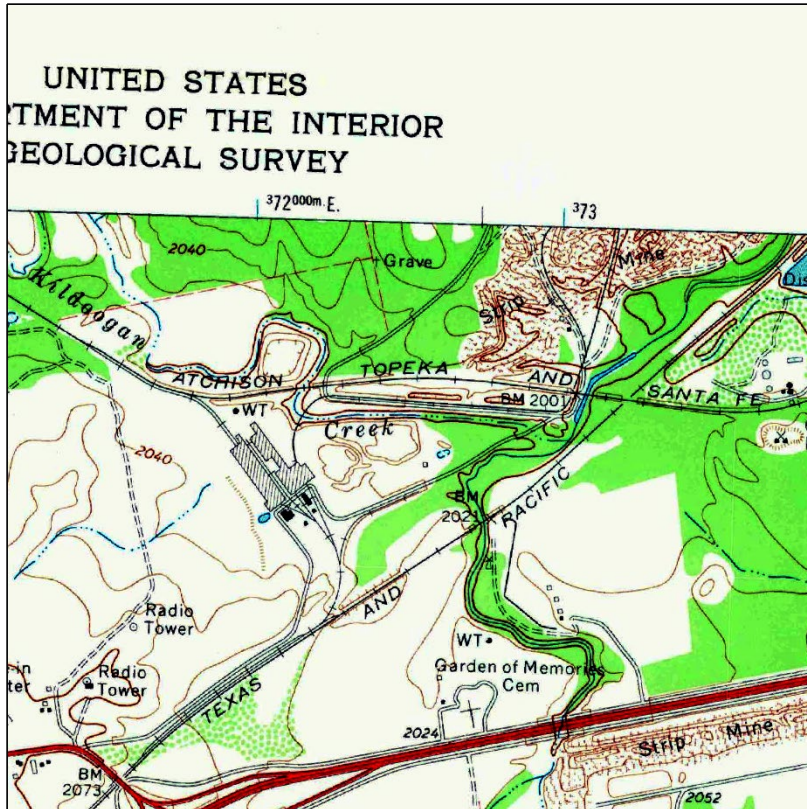
 **Contracted beginning February 2021**

*Estimated fiscal year completion dates

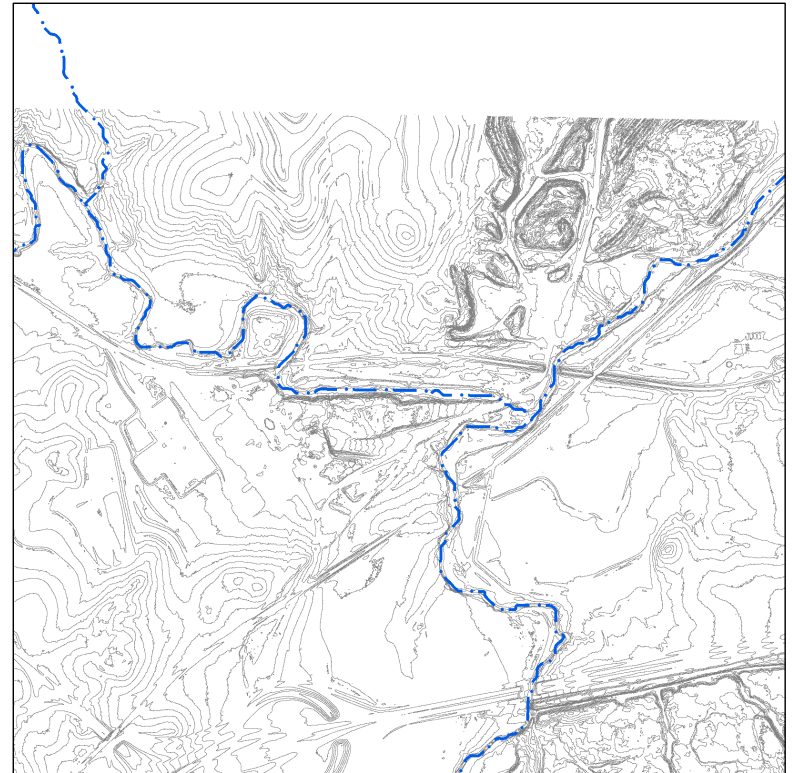
Estimated Base Flood Elevation Viewer
<https://webapps.usgs.gov/infrm/estBFE/>

MAPPING: BASE LEVEL ENGINEERING IMPROVED AND UPDATED FLOOD MAPPING AND MODELING

1960 USGS Topo Data



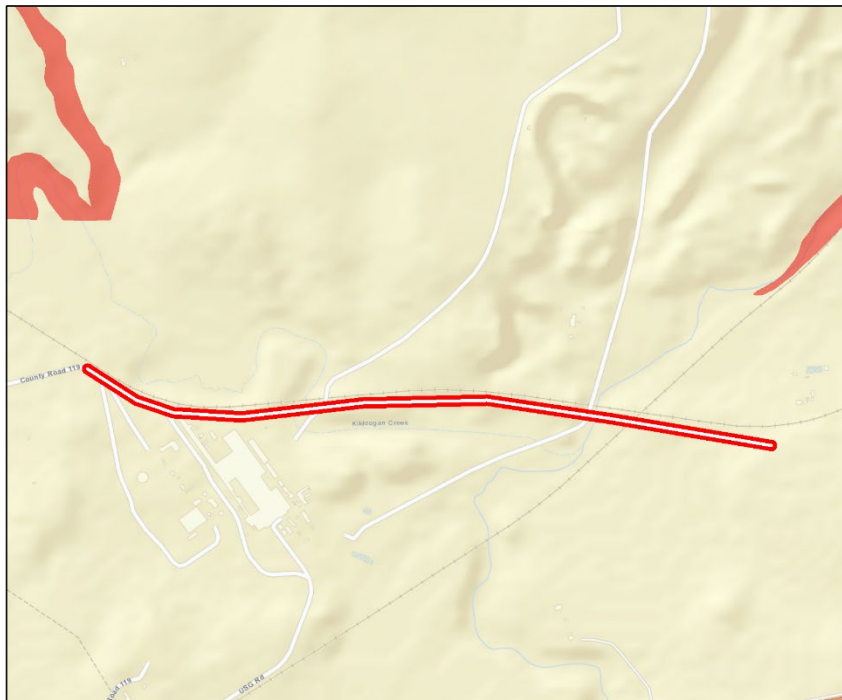
Contours derived from 2014 LiDAR





PLANNING: DETERMINE FLOOD RISK FLEXIBILITY TO UTILIZE DATA

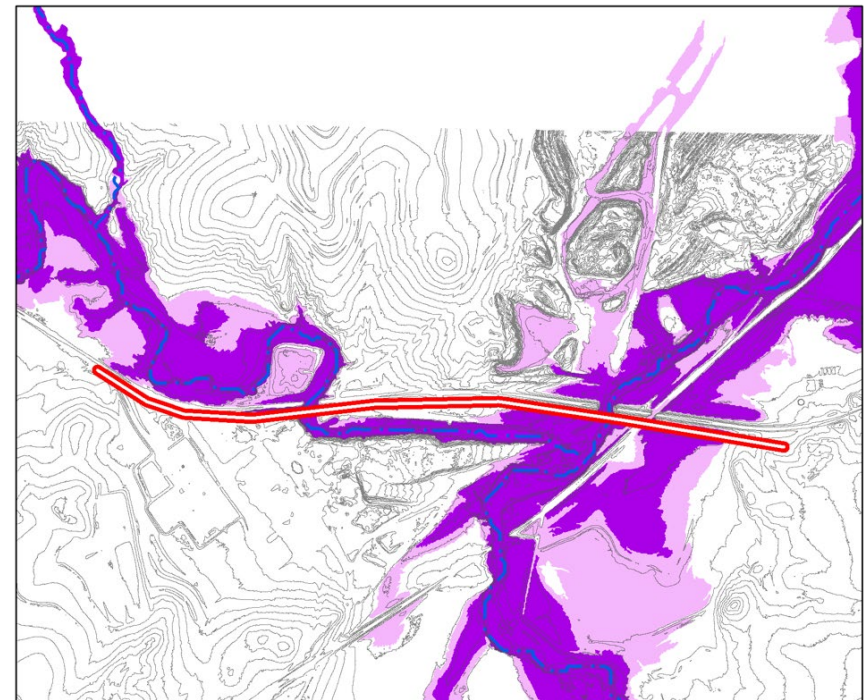
FEMA Approximate Flood Risk Data vs. Base Level Engineering




USGS Topo Data



-  Hypothetical Pipeline
-  1% Annual Chance

Base Level Engineering data
derived from LiDAR



-  Hypothetical Pipeline
-  1% Annual Chance
-  .2% Annual Chance

PLANNING: DETERMINE FLOOD RISK

FLEXIBILITY TO UTILIZE DATA

Digital FEMA Flood Insurance Rate Map
developed from USGS maps



1% Annual Chance

Base Level Engineering data
developed from LiDAR



1% Annual Chance

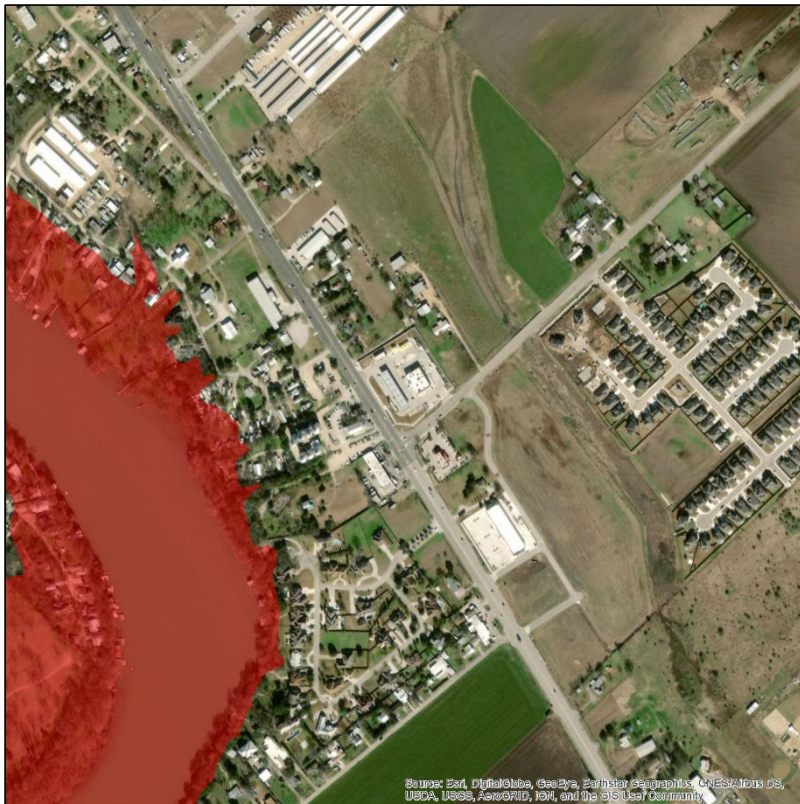


.2% Annual Chance

MITIGATION: PROTECT PEOPLE AND PROPERTY

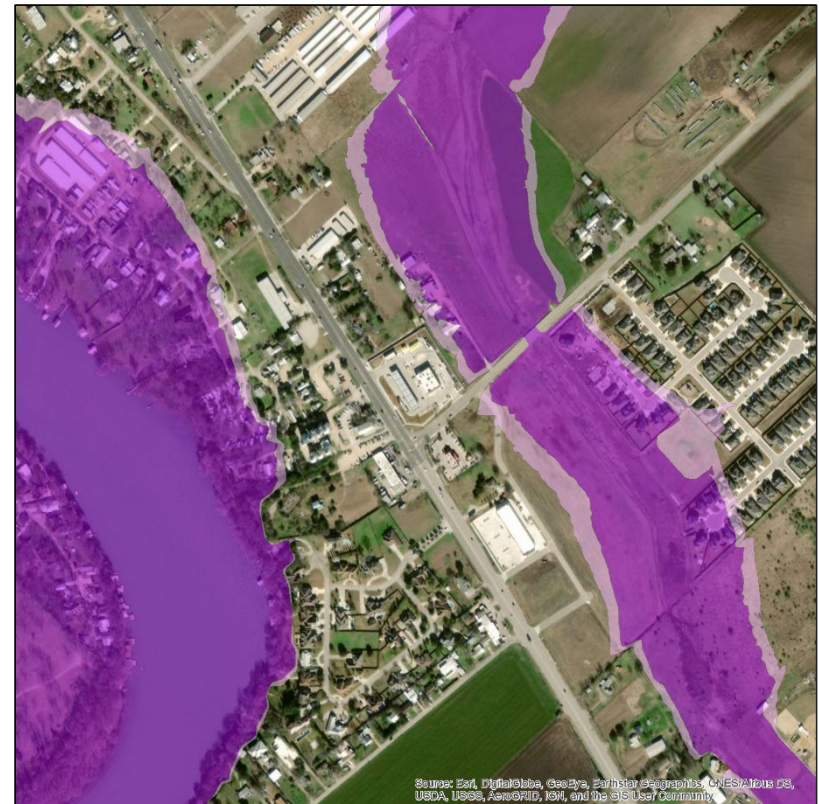
Enhanced Risk Identification

Digital FEMA Flood Insurance Rate Map
Guadalupe County



1% Annual Chance

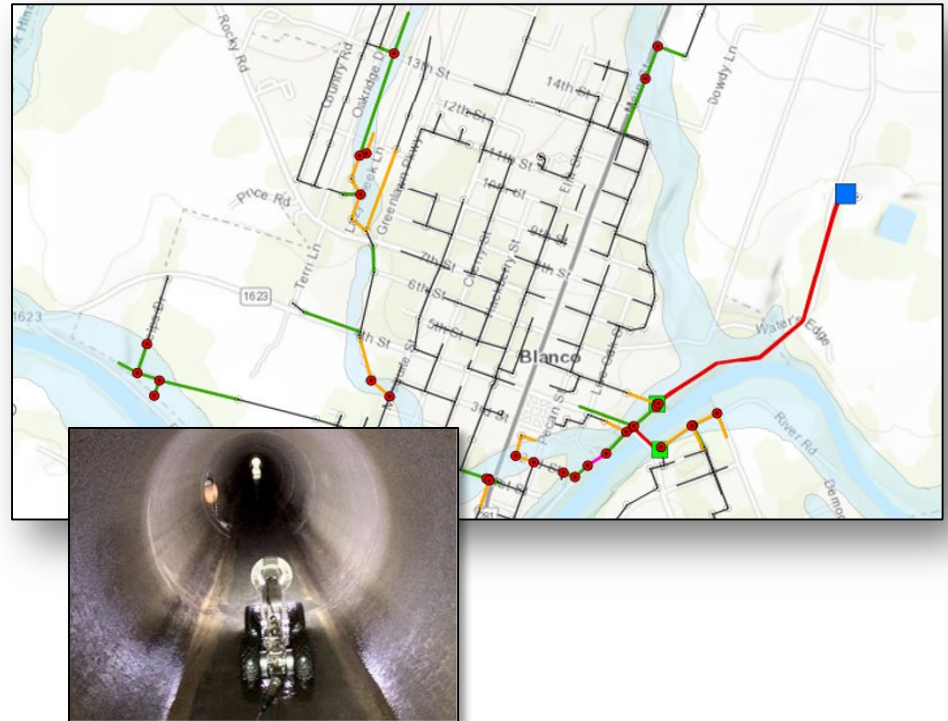
Base Level Engineering data
Guadalupe County



1% Annual Chance
.2% Annual Chance

A RESILIENT FUTURE!

- Asset management pays off
- Build it with today's dollars
- Take advantage of low interest rates
- Promote reliability and operational integrity



TWDB IS HIRING!

We're Hiring!

Apply today and come join our team!

www.twdb.texas.gov/jobs

#txwater

Texas Water 
Development Board

TWDB INTERNSHIP PROGRAM

Volunteer Internship Opportunities:

- Applications are accepted year round
- 3-month commitment, minimum of 10 hours a week

SUMMER: June – August

FALL: September – December

SPRING: January – May

- To apply visit:

<http://www.twdb.texas.gov/jobs/internship.asp>



Questions - contact Human Resources at (512) 475-2142



BUILDING A STRONGER TEXAS



Thank You for your Continued Partnership!



21st Annual Water Quality Management & Planning Conference
May 2019

STAY IN TOUCH!

WWW.TWDB.TEXAS.GOV



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