



**Brazos River Authority**

# ***State of the Basin Meeting***

***February 27, 2020***



# ***Opening Remarks & Introductions***

***David Collinsworth  
General Manager/CEO***

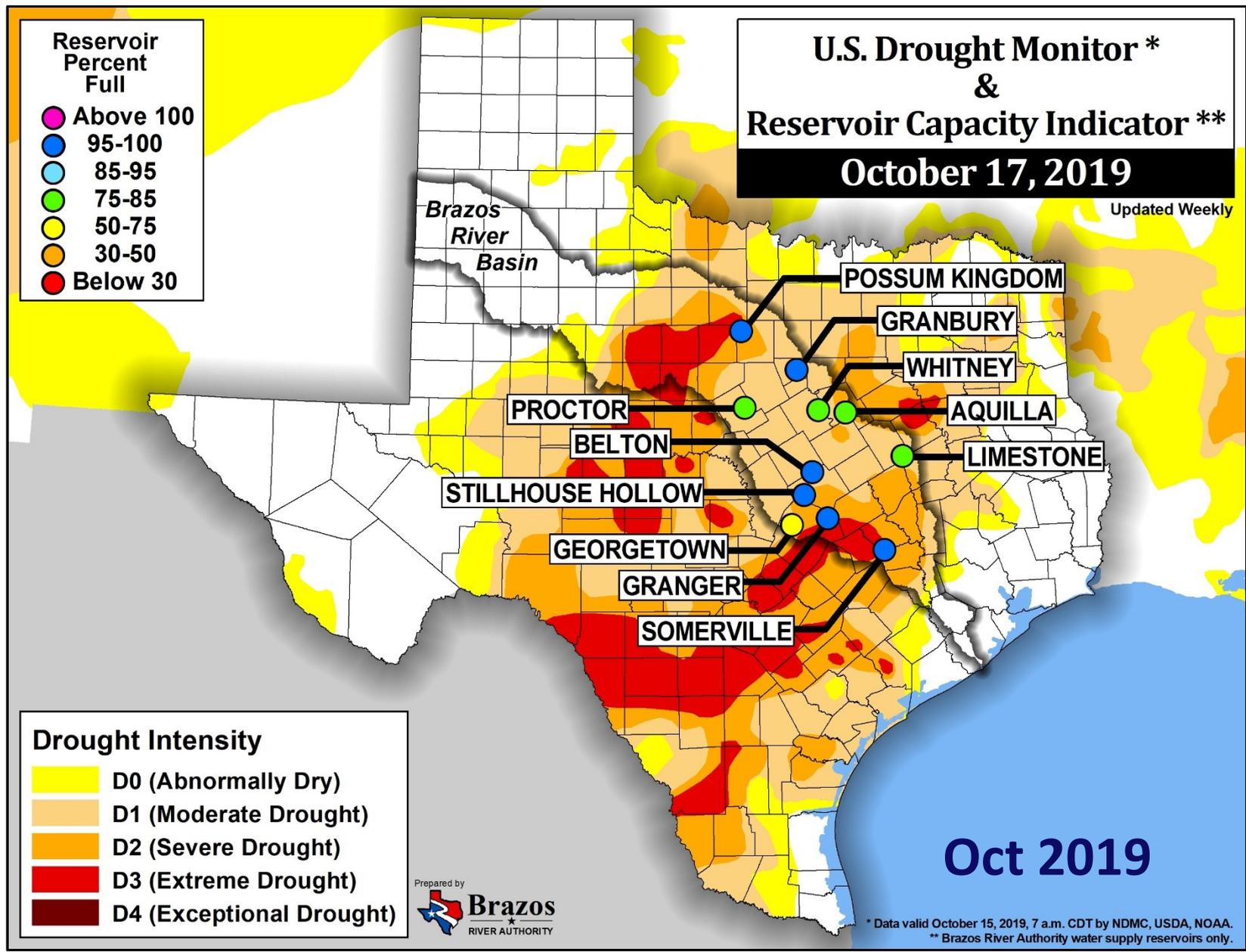
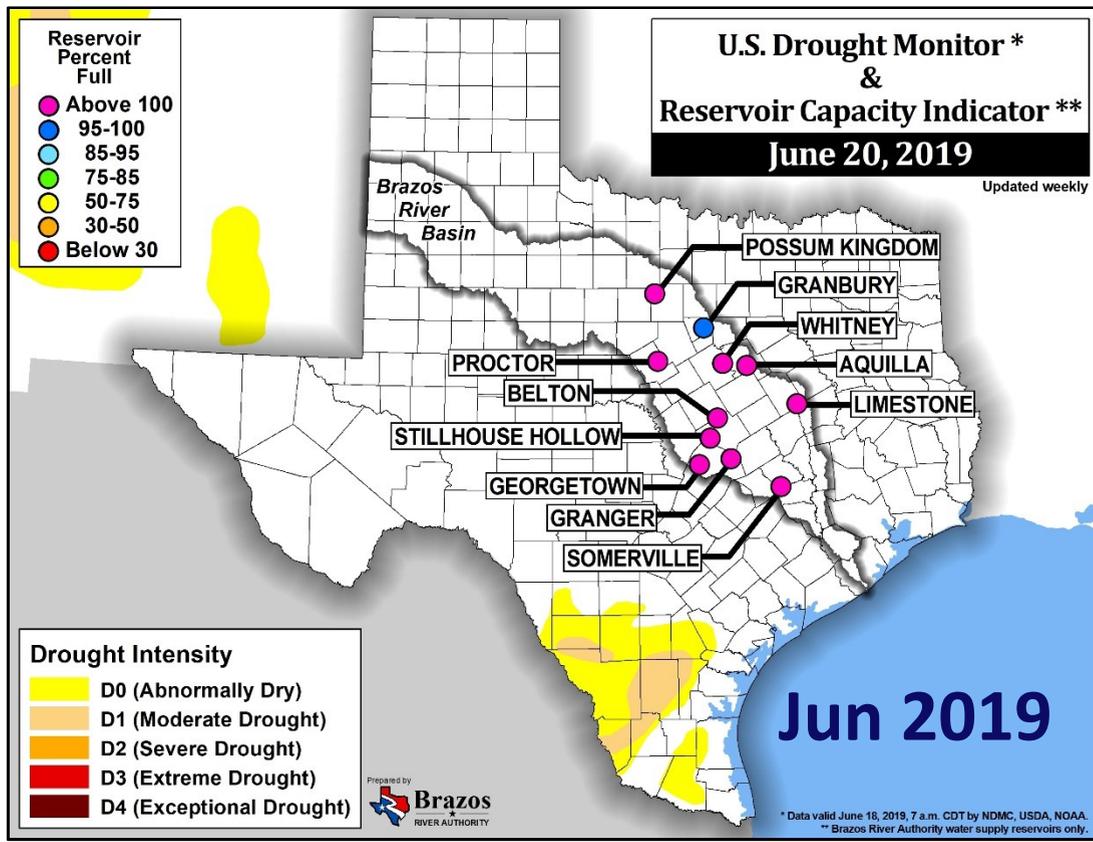
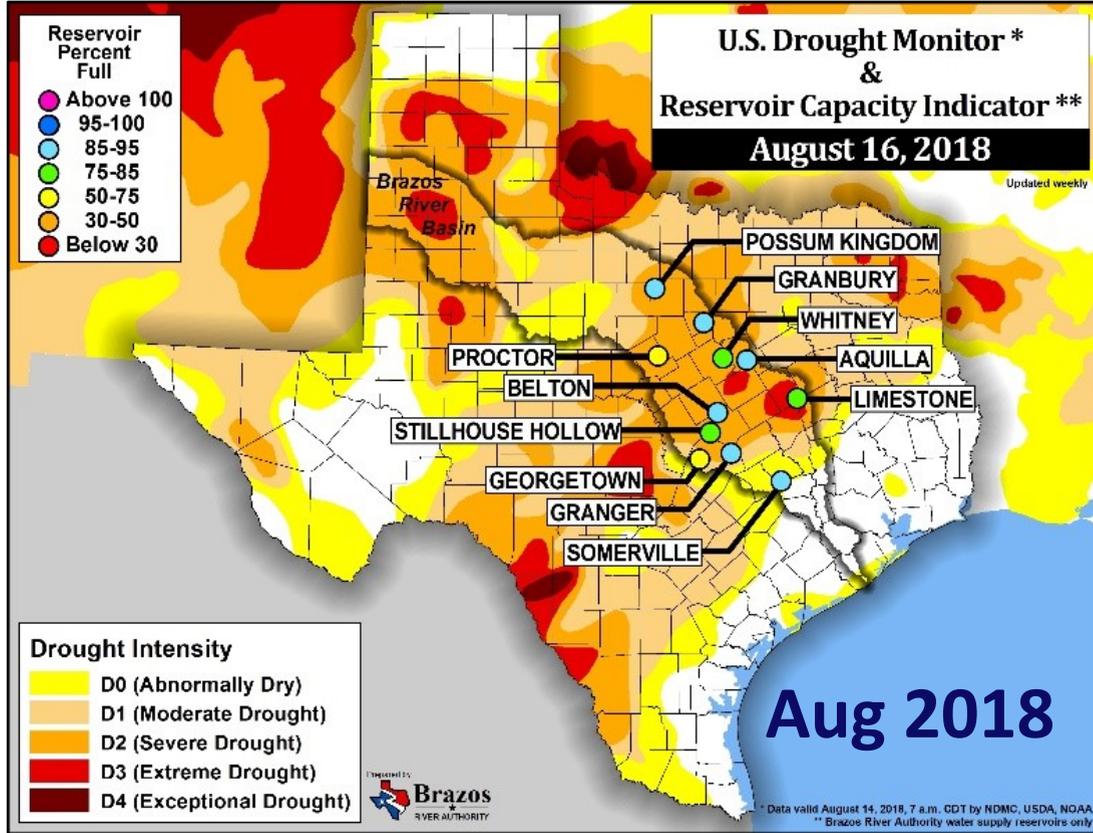


# ***Water Supply Overview***

***Presented by  
Aaron Abel  
Water Services Manager***

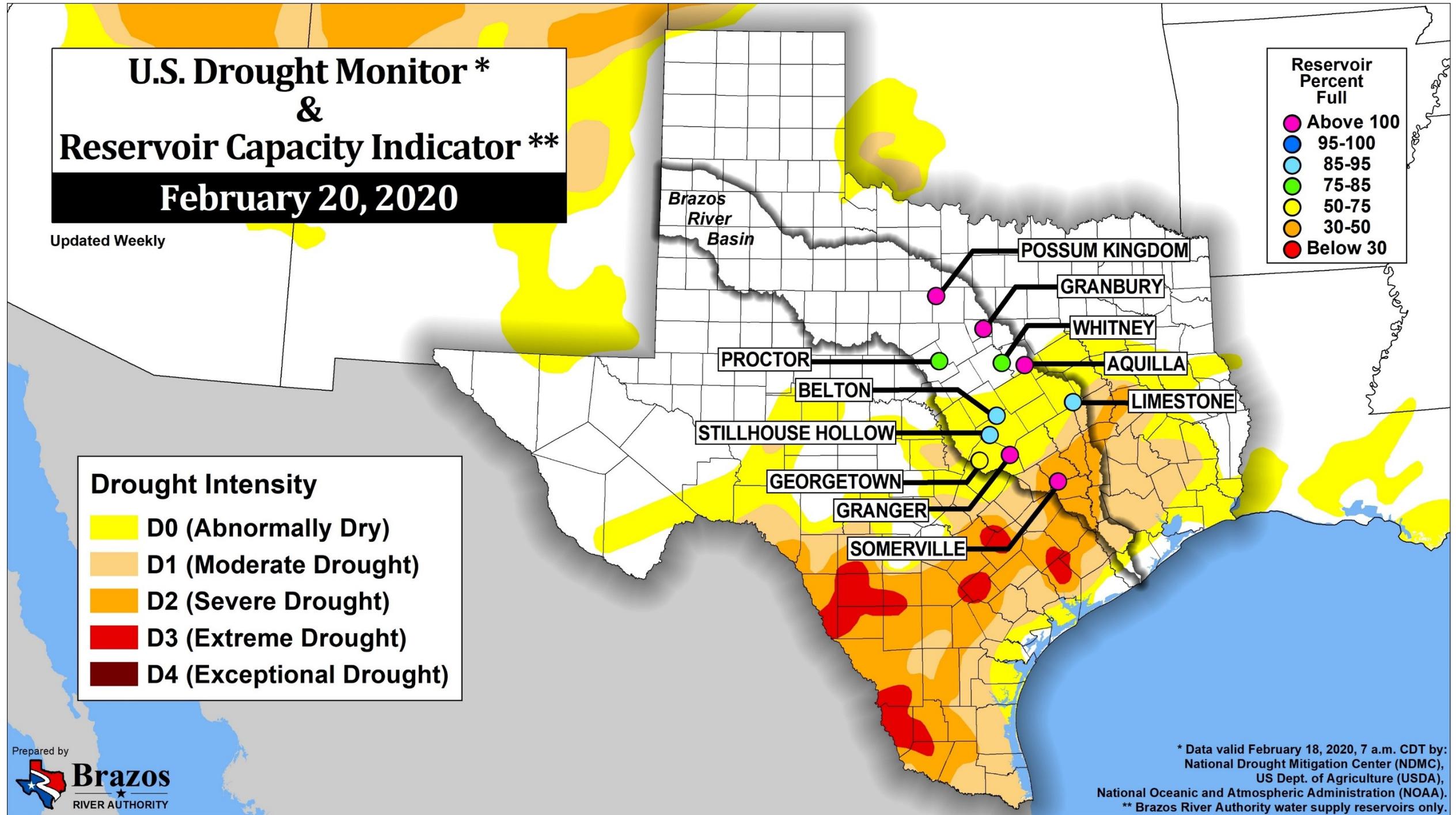


# Drought Monitor & Reservoir Status





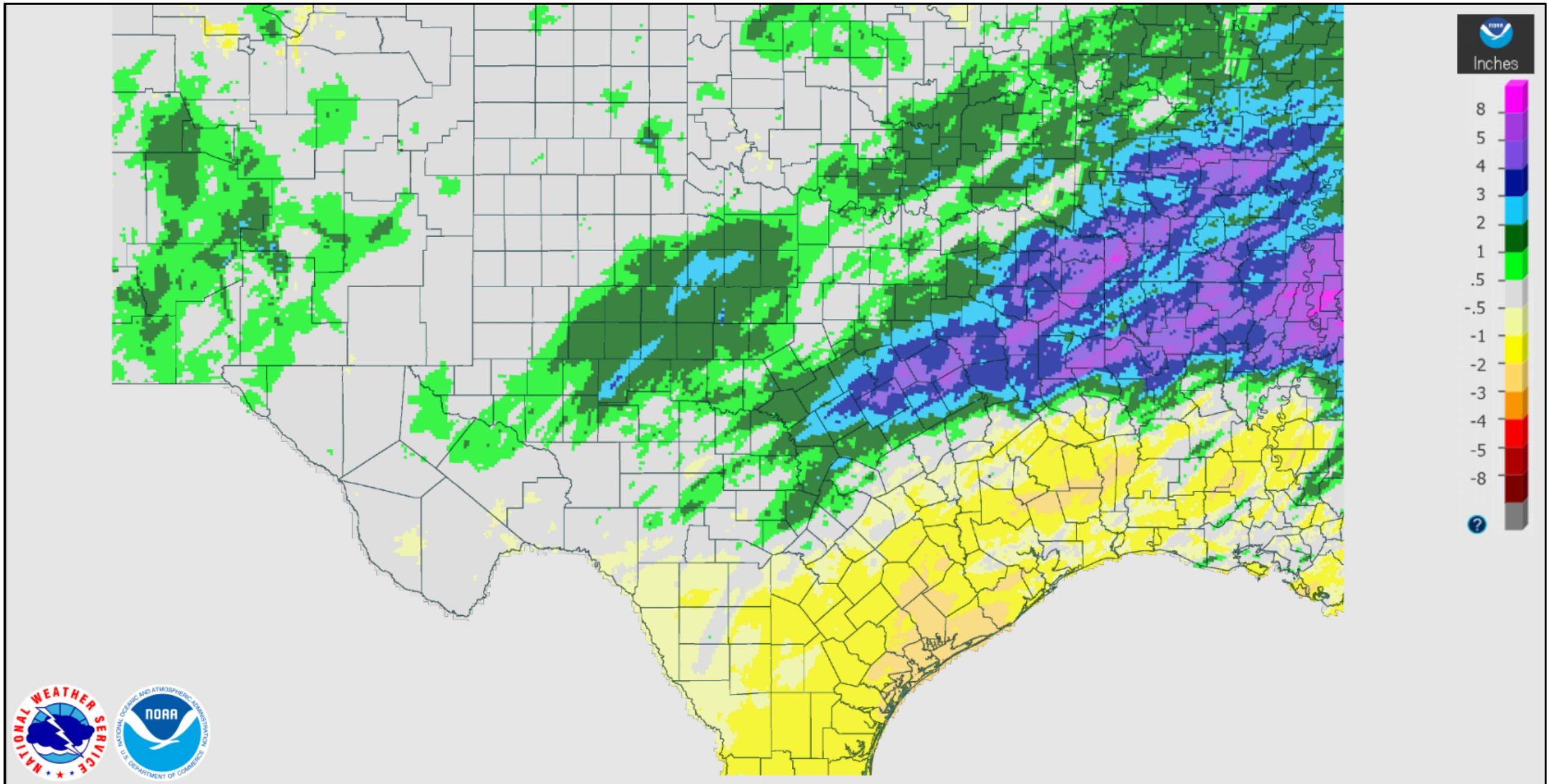
# Current Drought Monitor and Reservoir Status





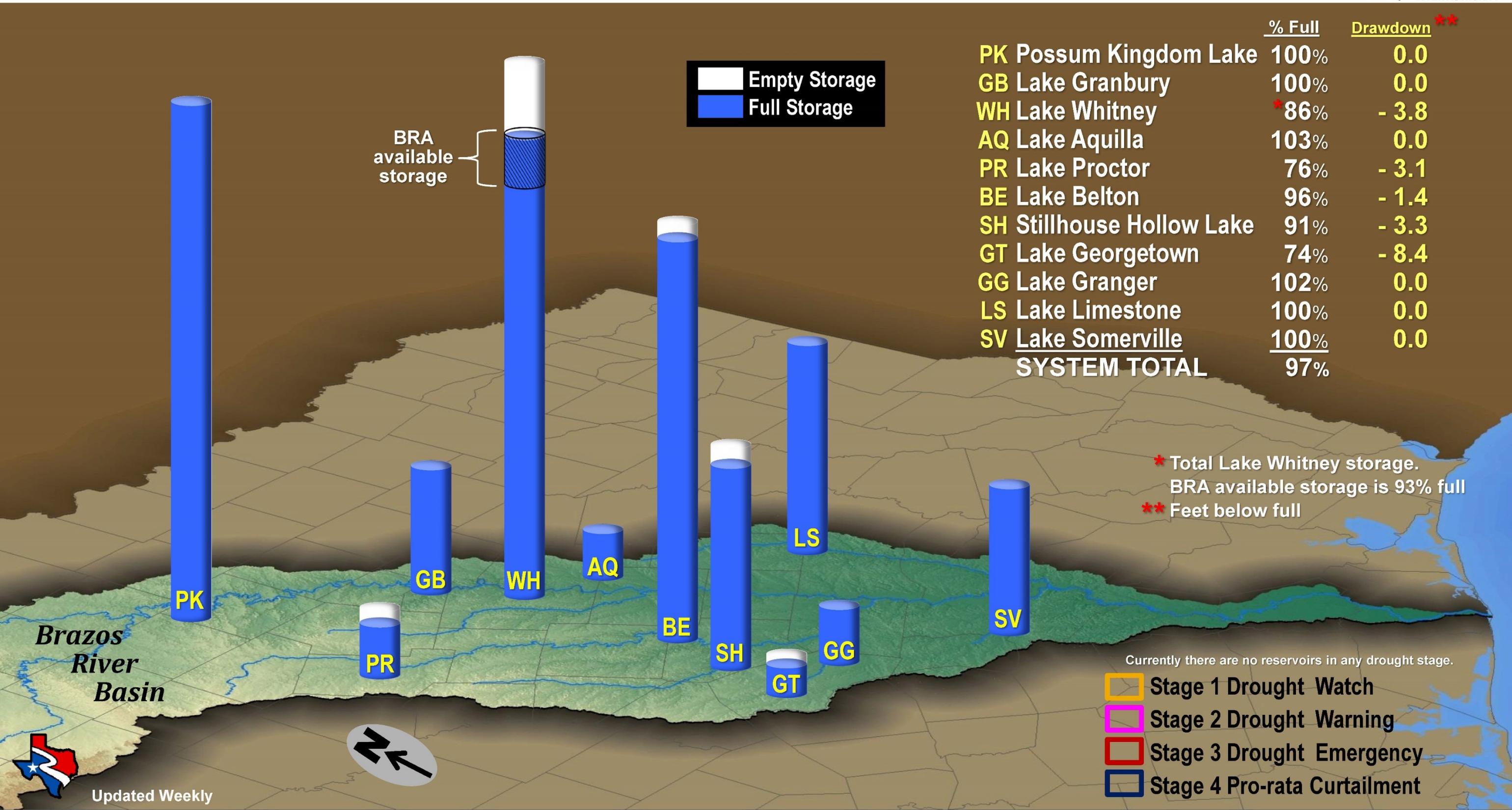
# 30-Day Departure from Normal Rainfall

Jan. 26, 2020 – Feb. 25, 2020



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# BRA Water Supply Reservoirs "PERCENT FULL" February 26, 2020



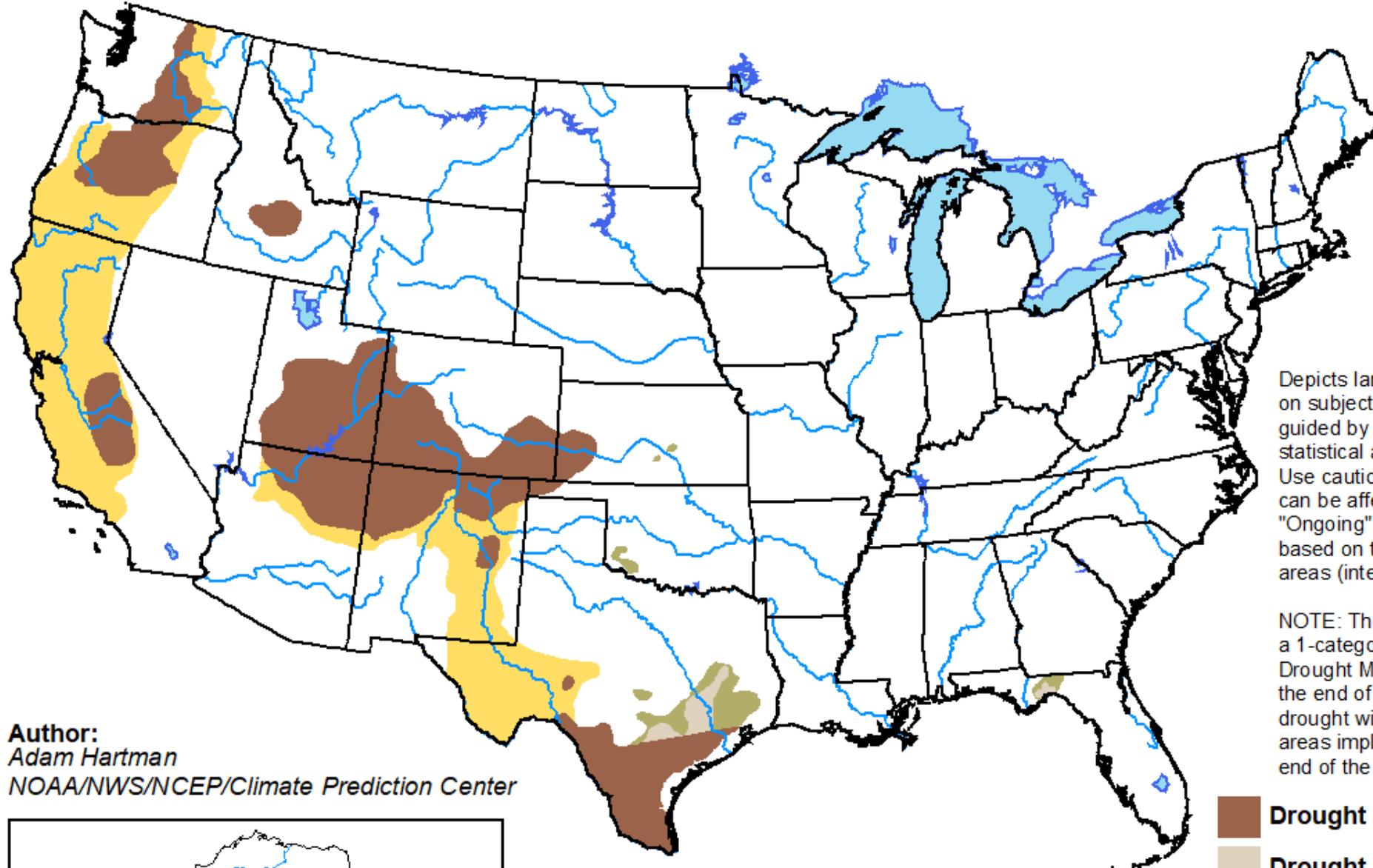


# U.S. Seasonal Drought Outlook

## Drought Tendency During the Valid Period

Valid for February 20 - May 31, 2020  
Released February 20

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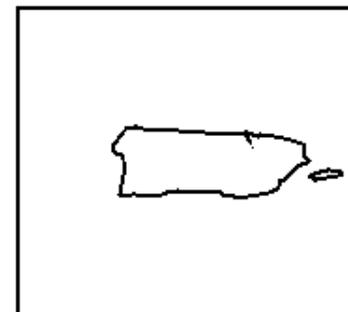
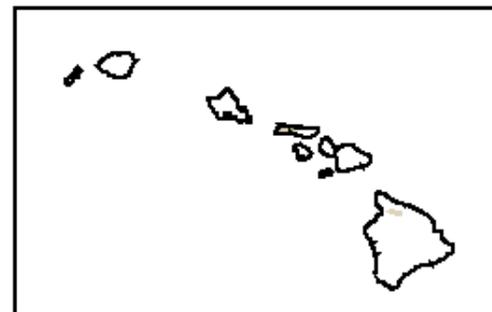
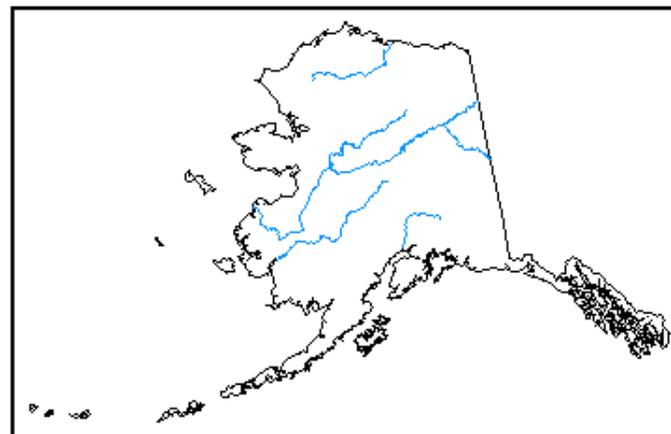


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

Author:  
Adam Hartman  
NOAA/NWS/NCEP/Climate Prediction Center

-  Drought persists
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely



<http://go.usa.gov/3eZ73>



# ***TWDB State Flood Planning Process***

## **86<sup>th</sup> Legislature**

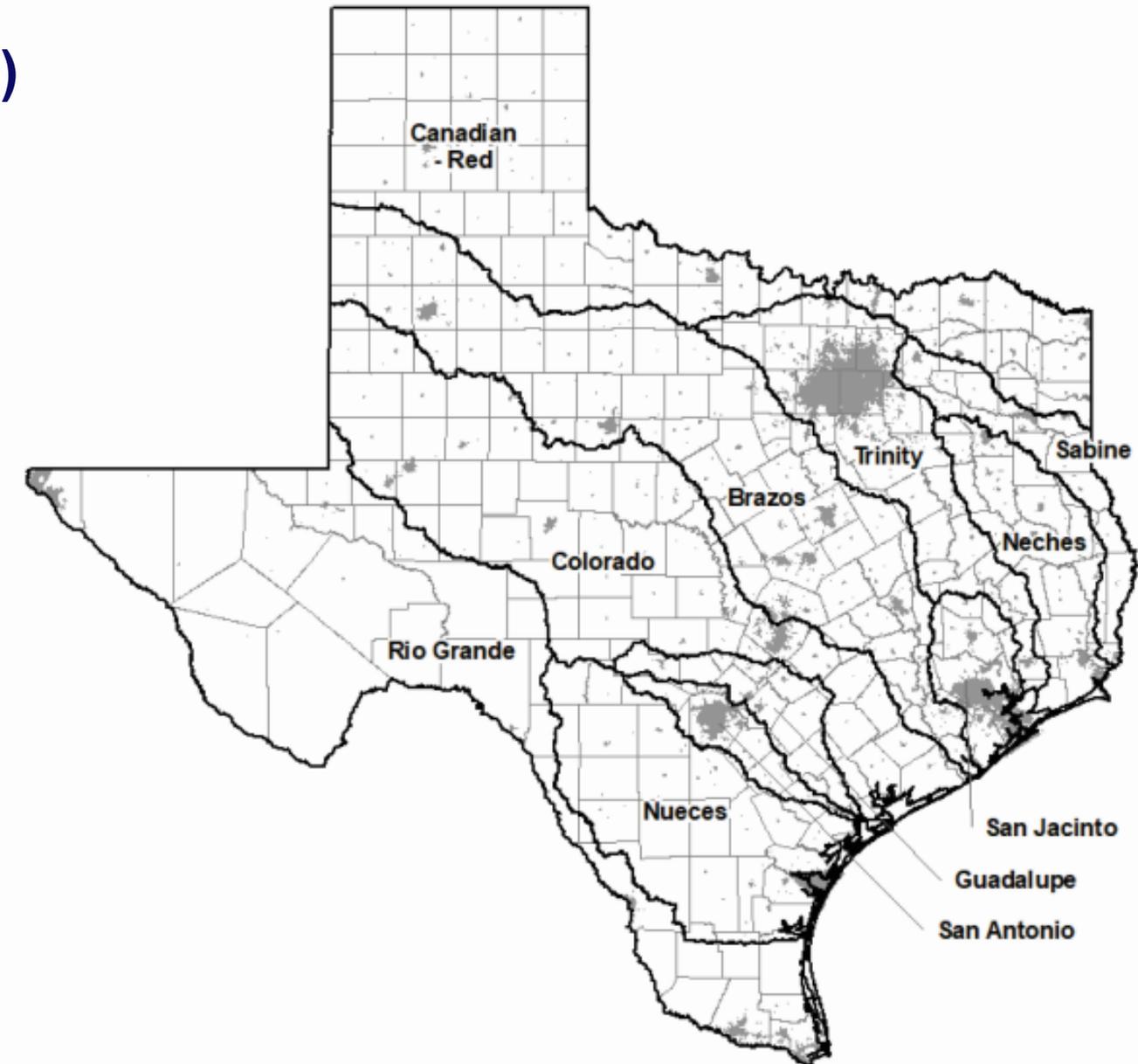
**New state-wide flood planning effort**

**Creation of the Flood Infrastructure Fund (FIF) and Texas Infrastructure Resiliency Fund (TIRF)**

## **TWDB Flood Planning Timeline**

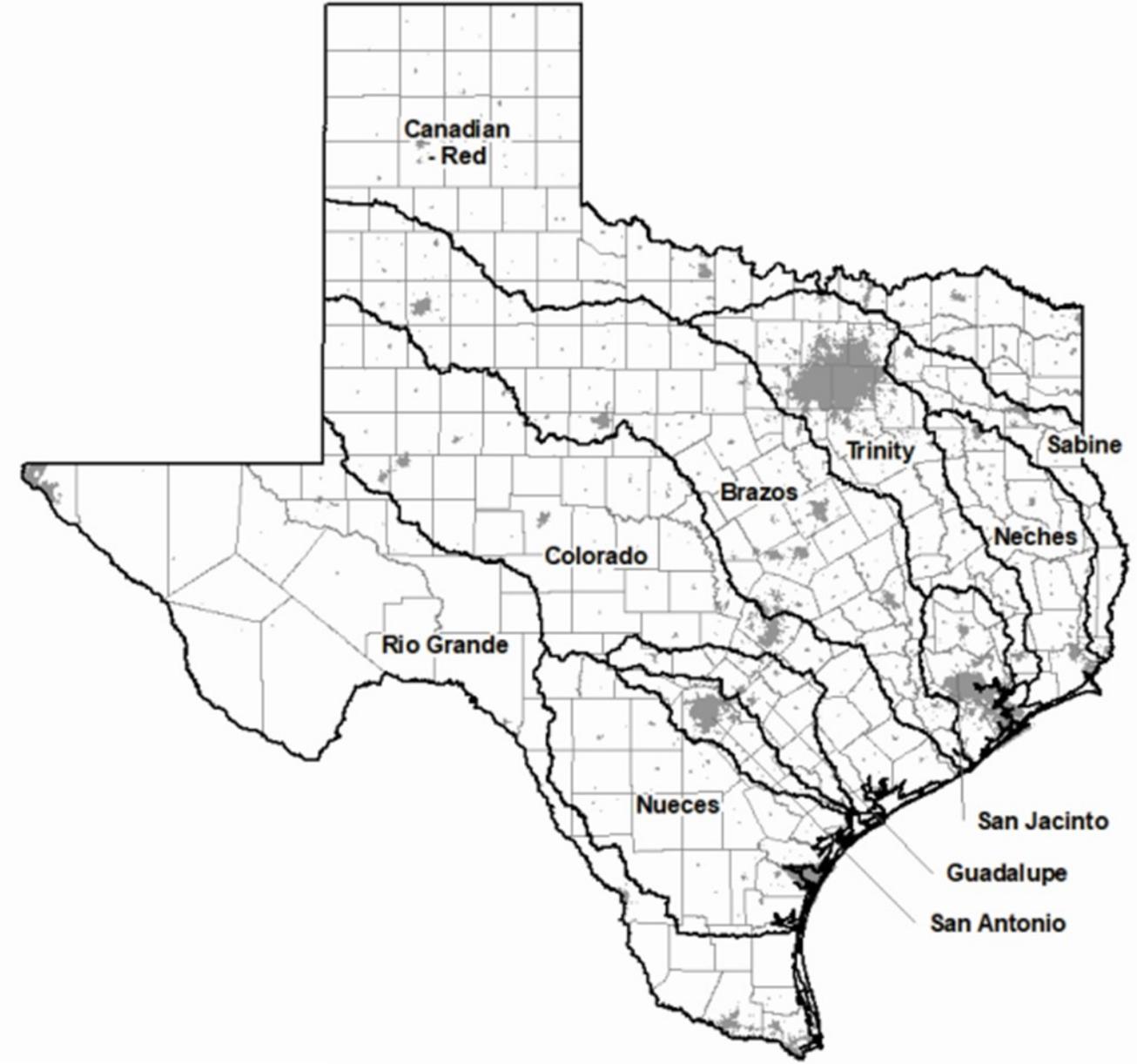
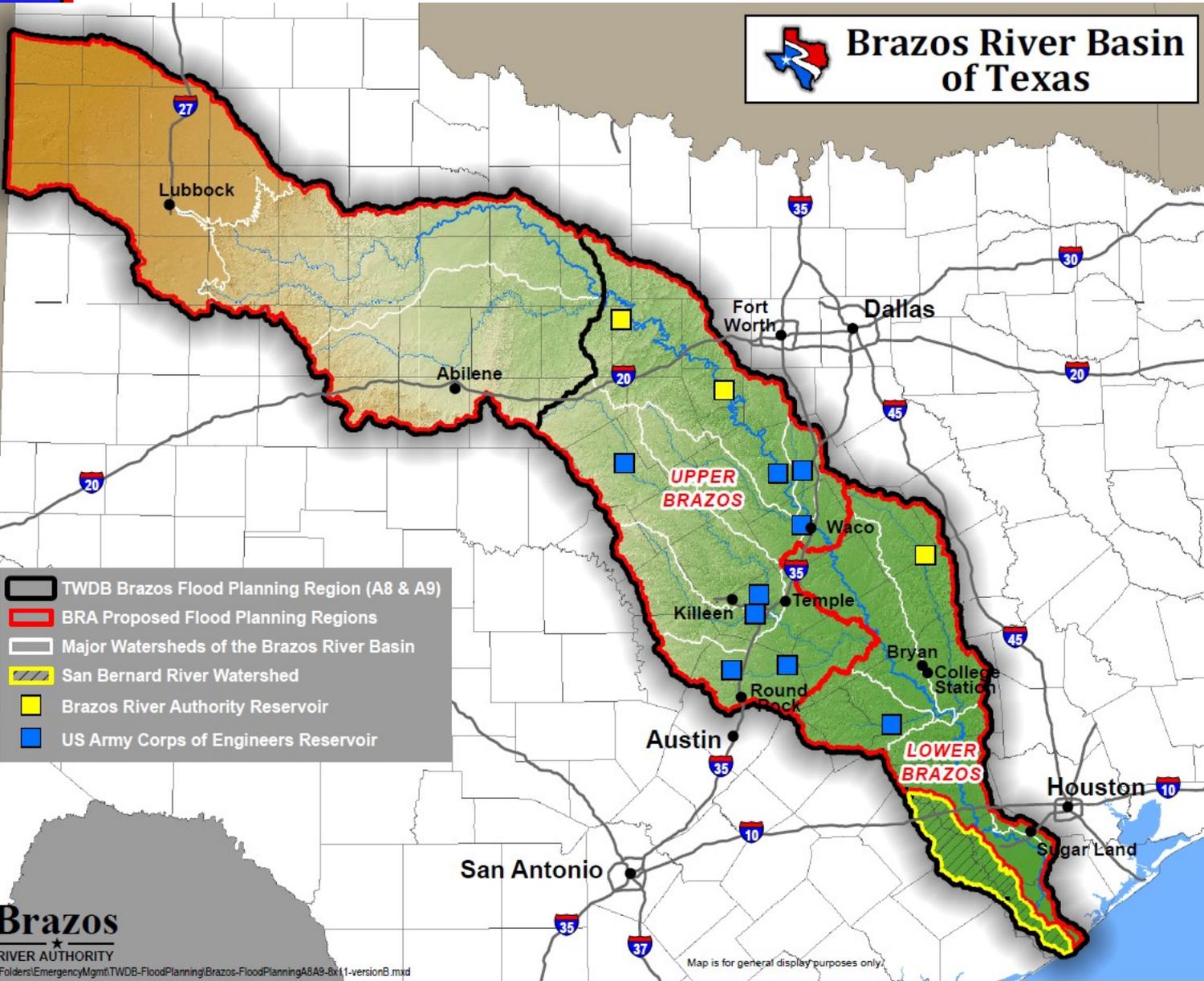
- **Comments received on proposed rules/proposed flood planning boundaries**  
**Basin size concerns**
- **TWDB rules to be adopted in early 2020**
- **Flood planning regions formed summer 2020**
- **First regional flood plans must be delivered to the TWDB by Jan. 10, 2023**
- **First state flood plan to be adopted by September 1, 2024**  
**(5 year flood planning cycle)**

### **Proposed Flood Planning Region Boundaries**





# Proposed Flood Planning Region Boundaries



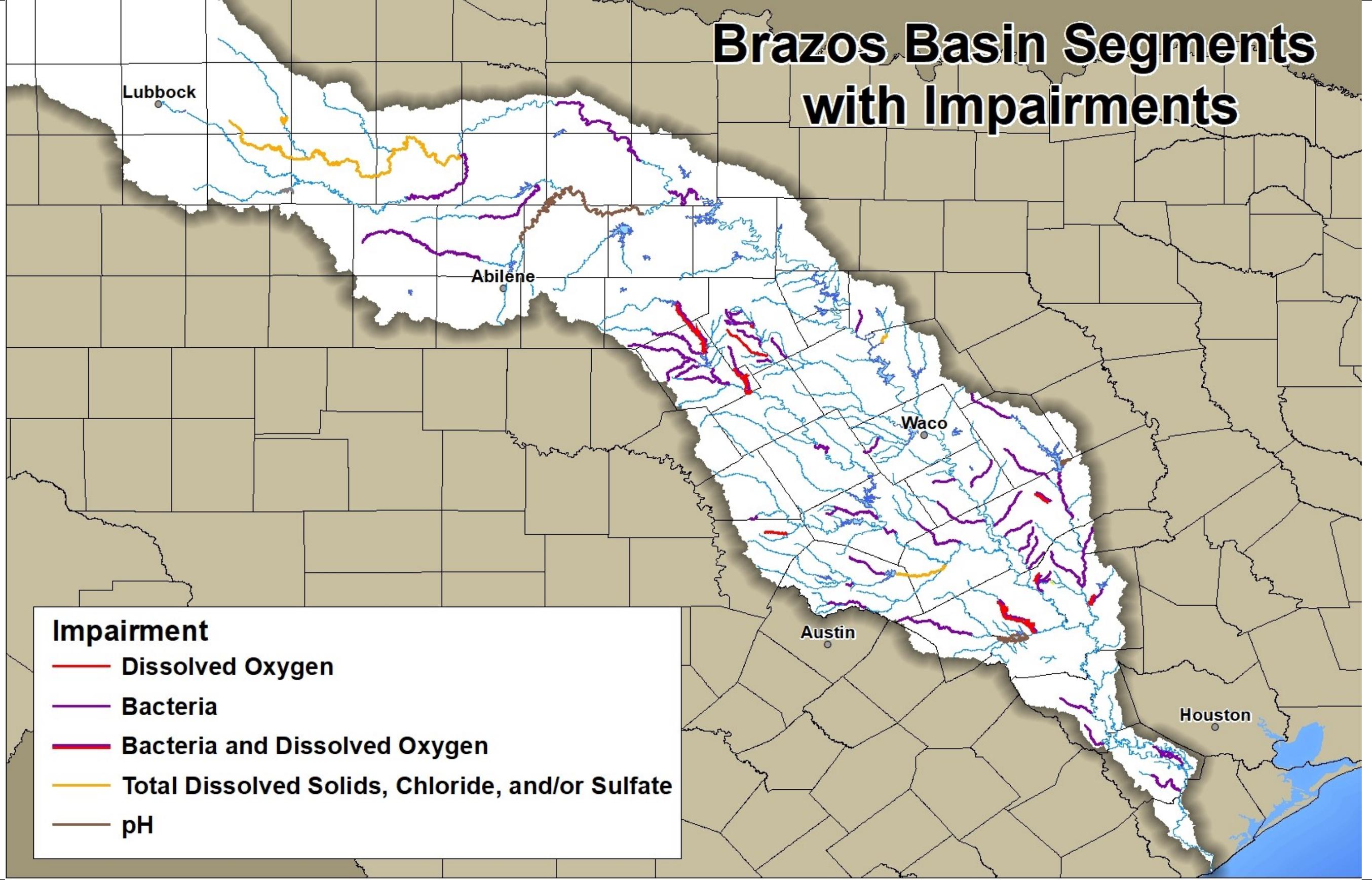


# ***Environmental Update***

***Tiffany Malzahn***  
***Environmental & Compliance Manager***

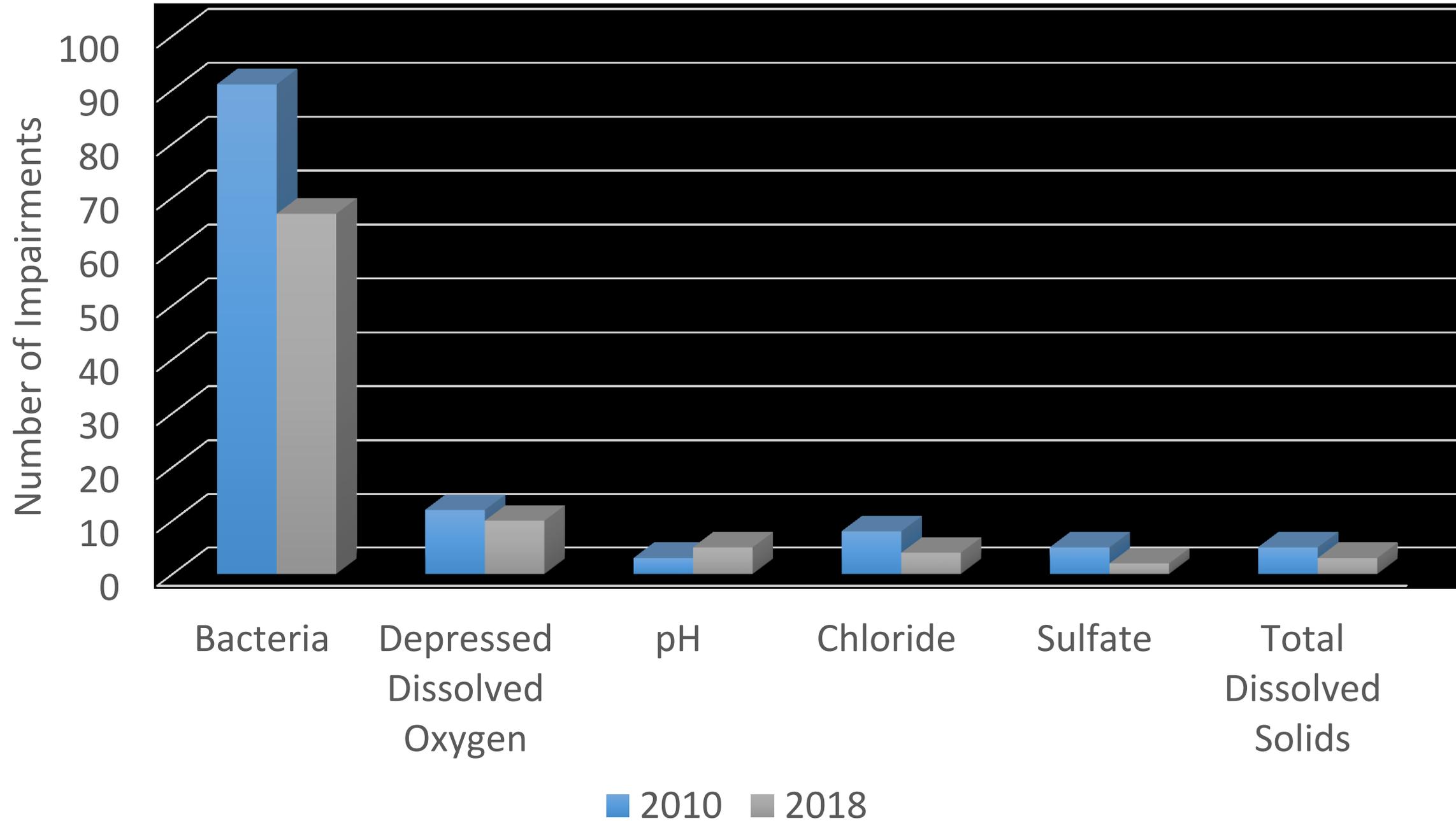


# Brazos Basin Segments with Impairments



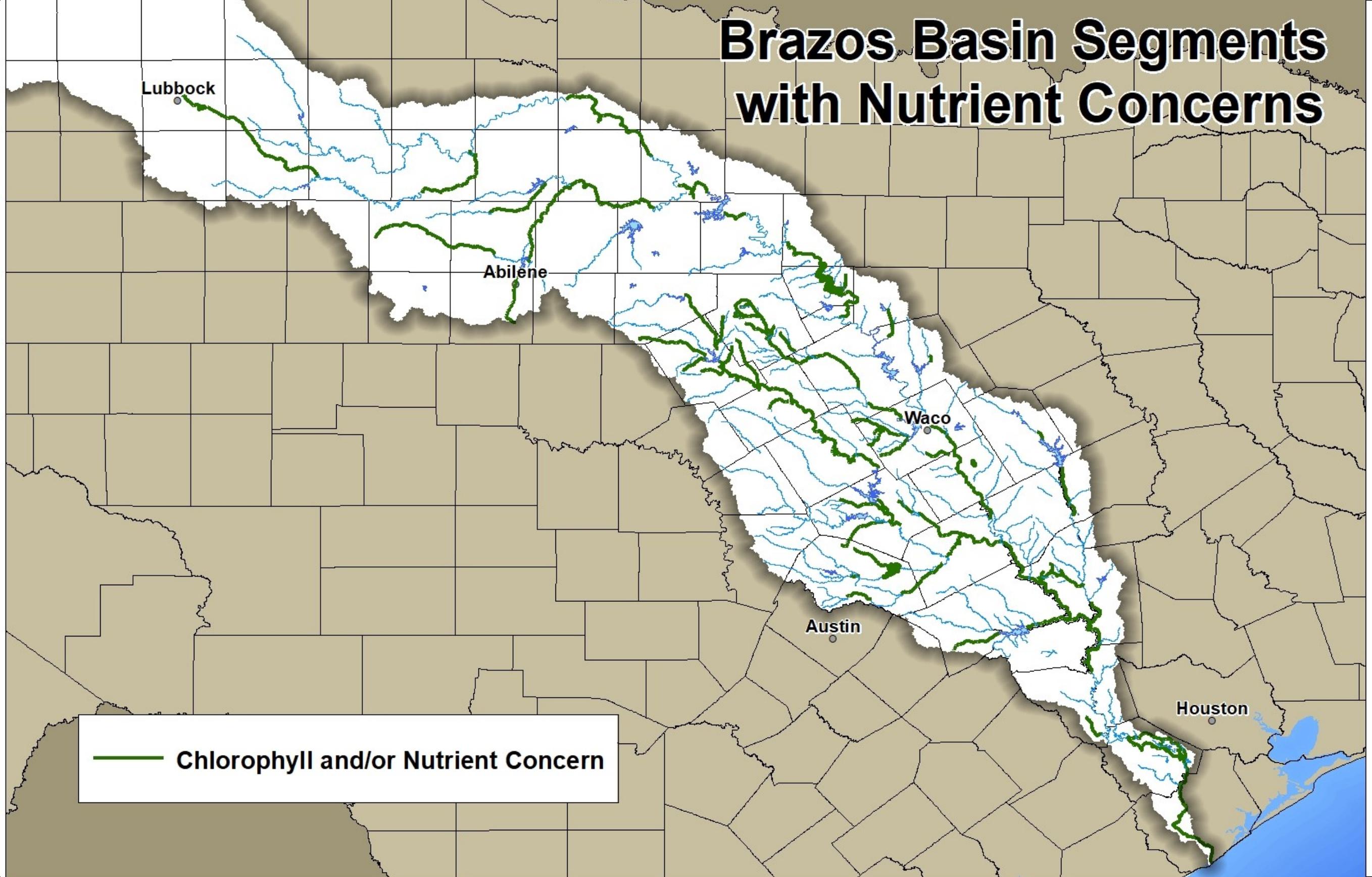


# Brazos Basin Impairments



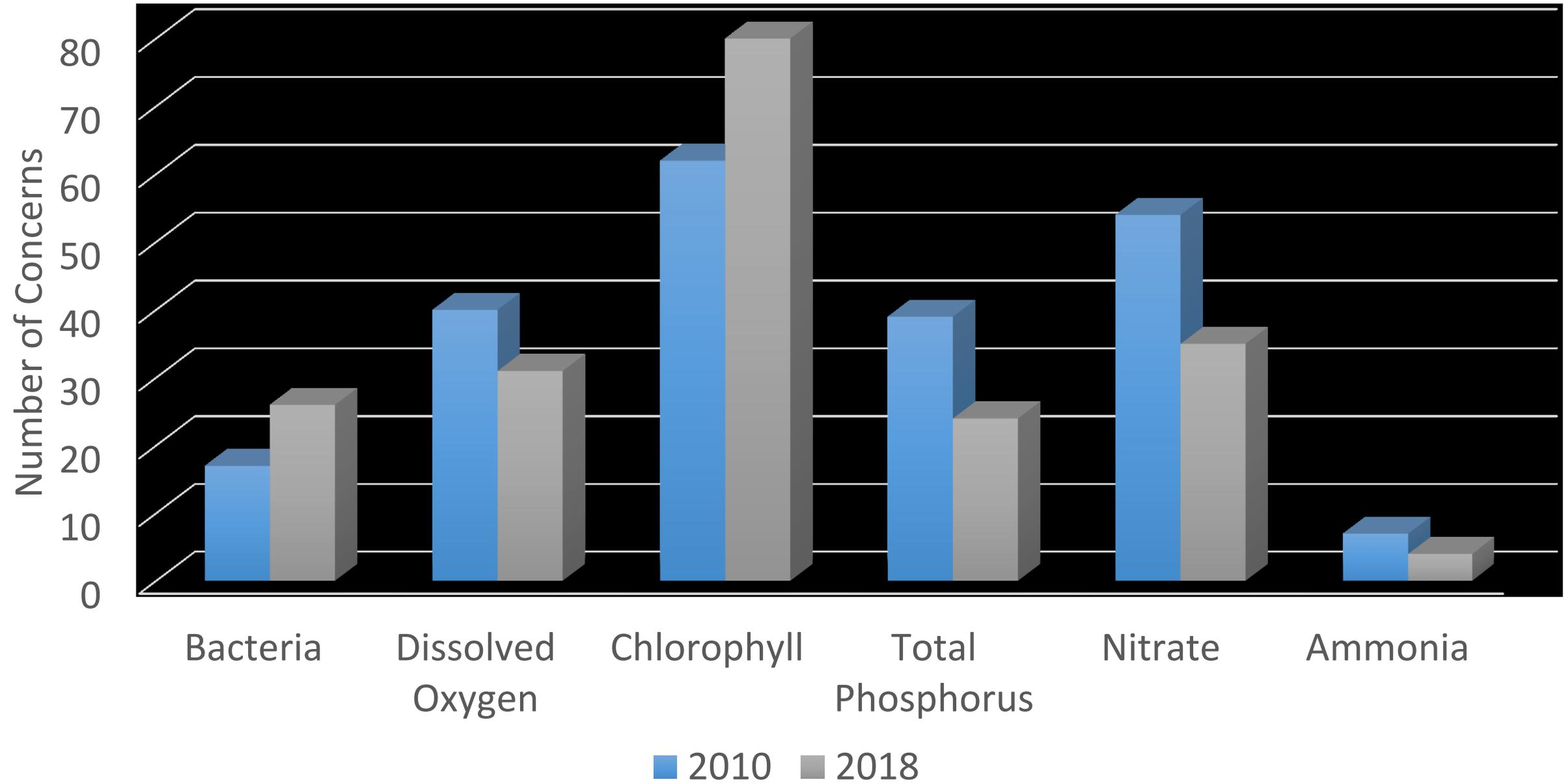


# Brazos Basin Segments with Nutrient Concerns



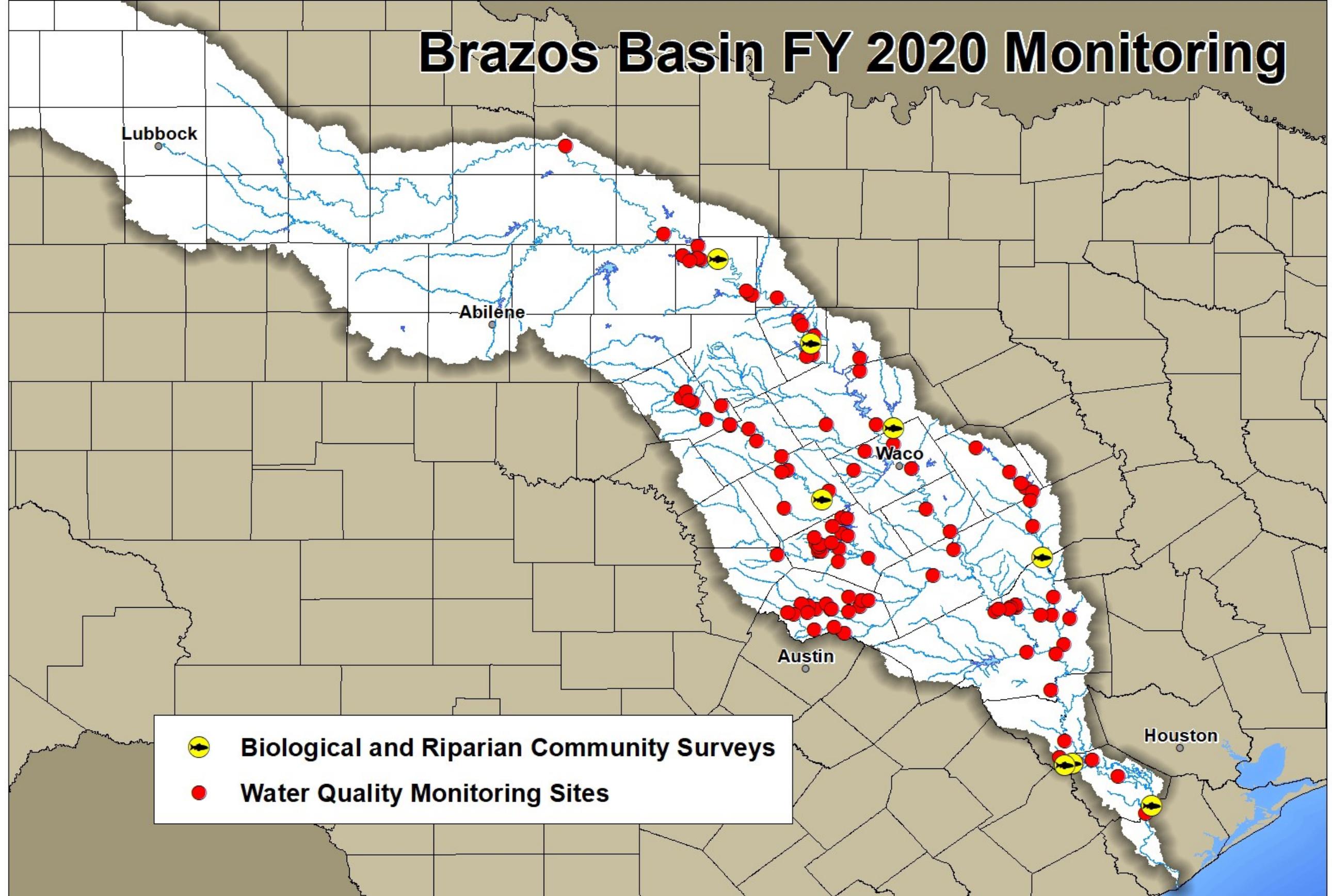


# Brazos Basin Concerns





# Brazos Basin FY 2020 Monitoring



-  **Biological and Riparian Community Surveys**
-  **Water Quality Monitoring Sites**



# Water Quality Data Available Online

Brazos River Authority

Get Data - Brazos River Watershe x +

crpdata.brazos.org/GetData?

Brazos River Watershed Information Center Data Search About Watersheds About Data Instructions Contact Us

## Data Search



### Select Stations

Watershed:

Stream Segment:

Station:

### Date Range

Start Date:

End Date:

This site contains no data prior to **September 2016**.

### Parameters

<input type="checkbox"/> Basic Water Quality Chemistry	<input type="checkbox"/> Observational Field
<input type="checkbox"/> Nutrients	<input type="checkbox"/> Dissolved Minerals
<input type="checkbox"/> Dissolved Solids	<input type="checkbox"/> Carbamates
<input type="checkbox"/> Total Suspended Solids	<input type="checkbox"/> Bacteriological
<input type="checkbox"/> Volatile Organic Compounds	<input type="checkbox"/> Dissolved Metals
<input type="checkbox"/> Semi Volatile Organic Compounds	



# Coordination of Activities

- Water Quality Monitoring
- Instream Flow Sampling
- Golden Algae Monitoring
- Reservoir Fishery Habitat Improvement
- Threatened and Endangered Species Monitoring/Studies
- Invasive species early detection monitoring
- Emergency Response
- Environmental Crimes





# *Future Species of Concern*

- **Federal**
  - **Western Chicken Turtle**
  - **Alligator Snapping Turtle**
  - **Smalleye Shiner**
  - **Sharpnose Shiner**
  - **Texas Salamander**
  - **Other freshwater mussels**
- **State**
  - **Brazos Water Snake**



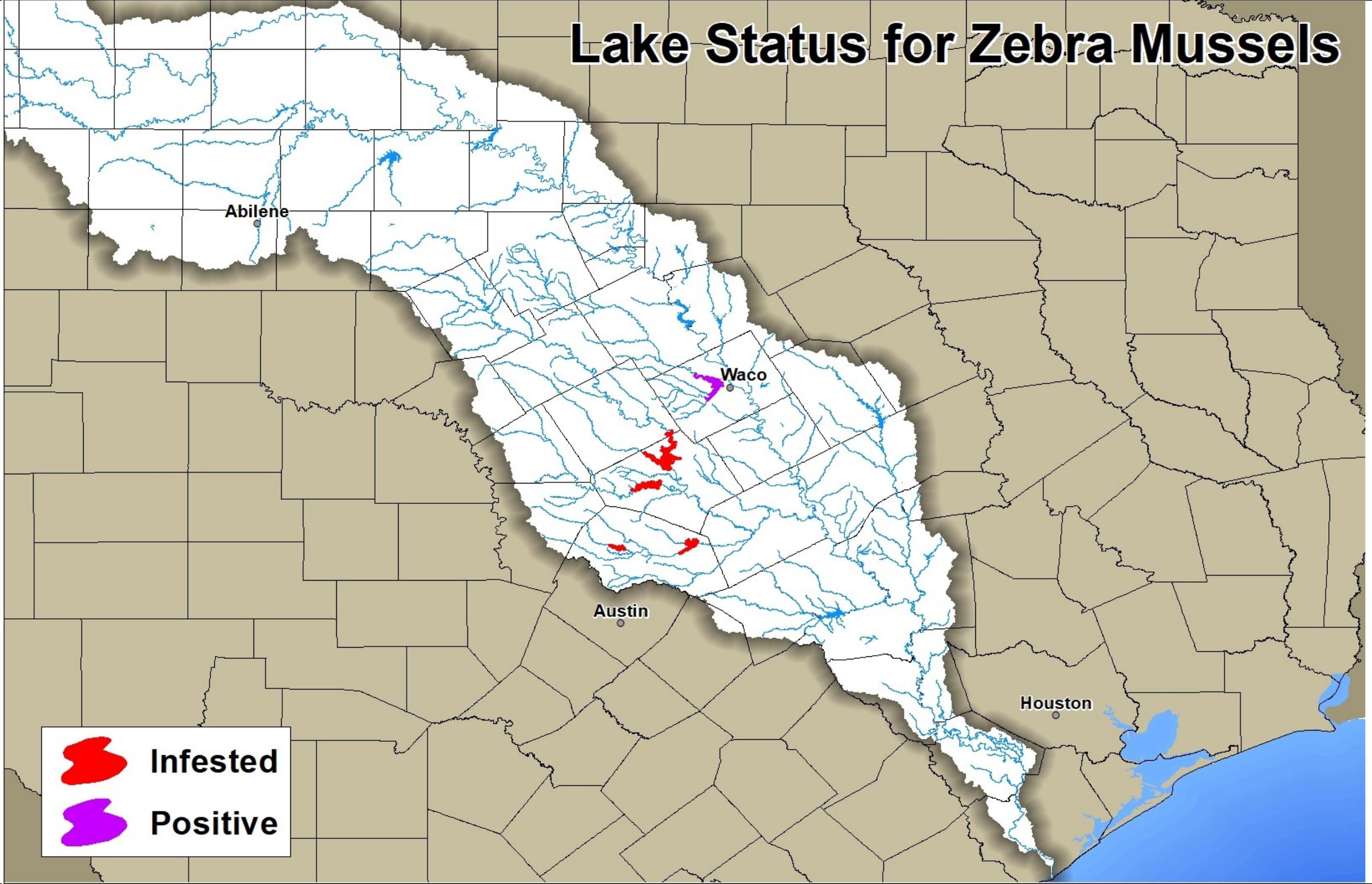


# *Fresh Water Mussel Candidate Conservation Agreement with Assurances Status Update*

Task	% Completion
Permit Type Determination	100%
Internal Meetings, Coordination, Reporting	98%
Consultation with USFWS	98%
Data Compilation and Analysis	100%
Future Drought Scenario and Environmental Flows Analysis	100%
Habitat Quantification Tool	20%
Field Work to Fill Data Gaps	50%
Permit Development	98%
NEPA Support to USFWS	5%
Operations/Business Plan	10%
Sampling Plan/Standard Operating Procedures	5%
Scientific Collection Permits	0%
Staff Training	0%



# Lake Status for Zebra Mussels



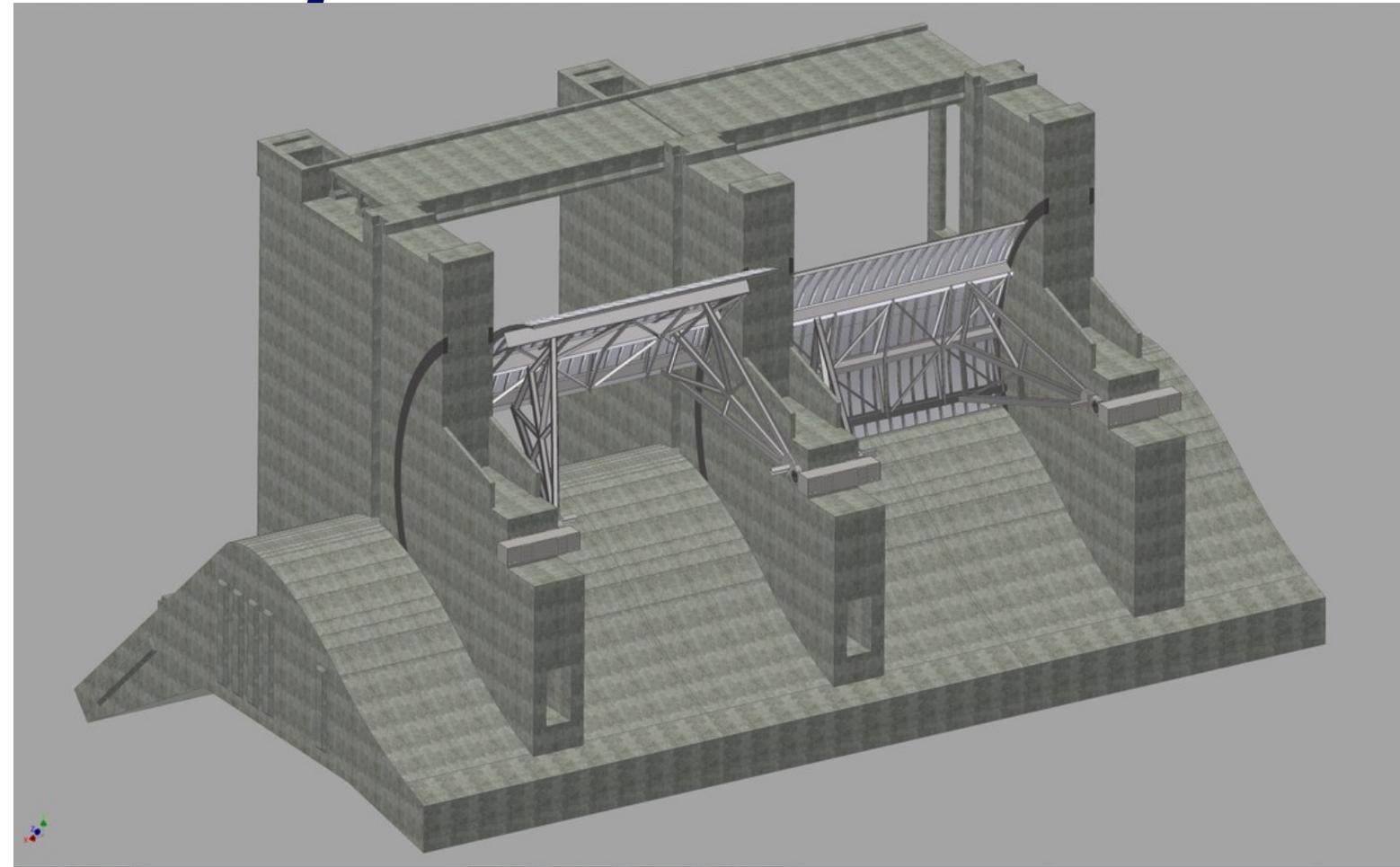
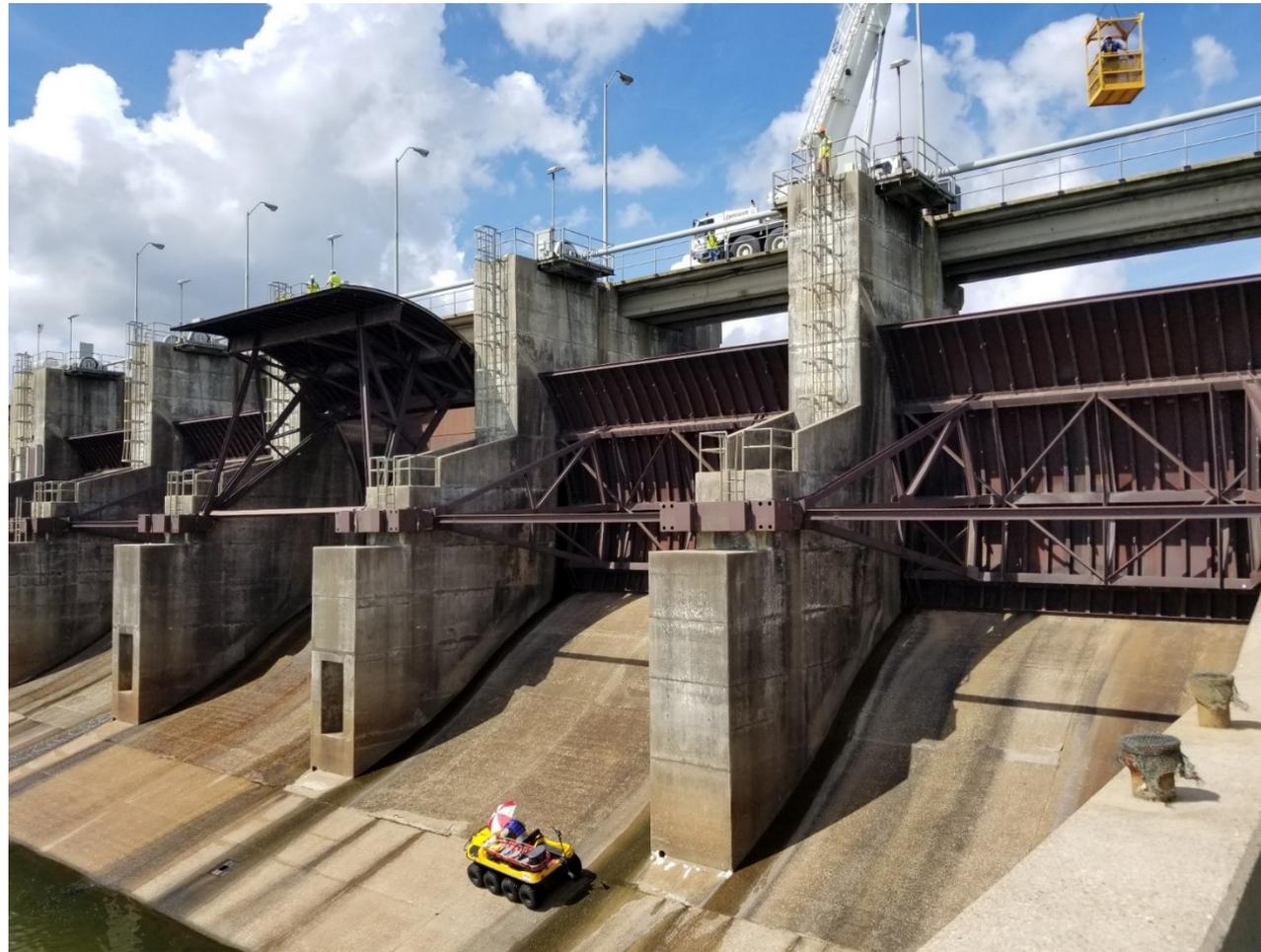


# ***Capital Projects Update***

***Presented by  
Blake Kettler  
Technical Services Manager***



# Lake Limestone Improvements



60% Design Submittal Received



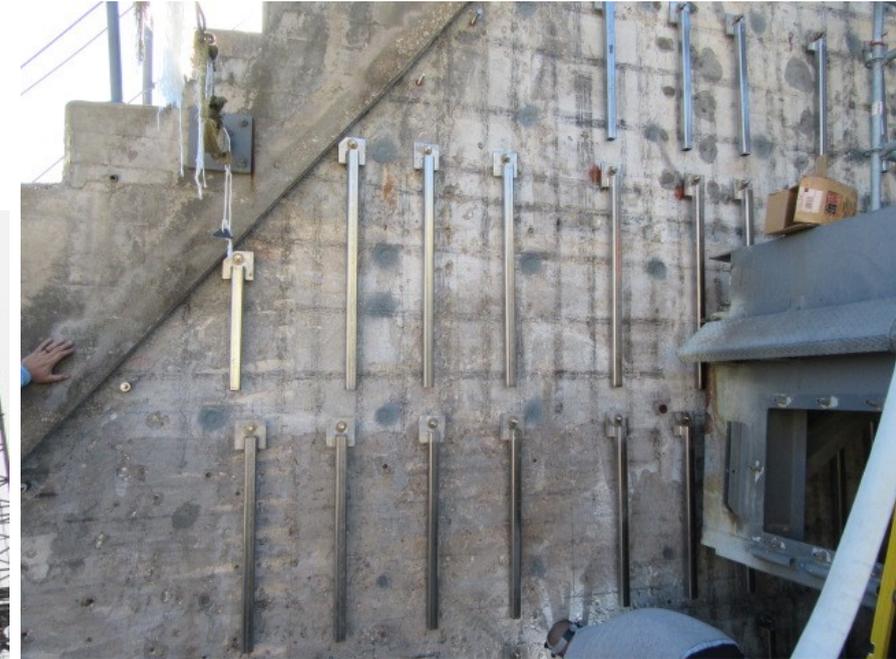
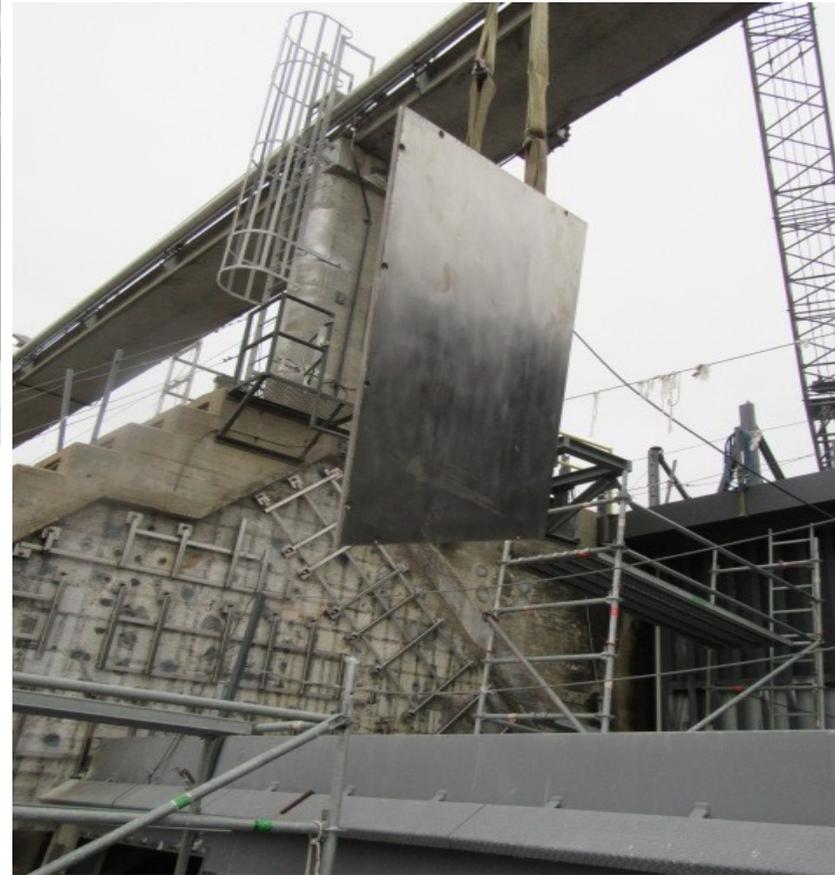
# Trinity Groundwater Well



Substantial Completion



# Side Seal Plate Improvements



Fabrication and Construction Underway



# *Concrete Assessment And Service Life Extension (CAASLE)*

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Initiating Testing Phase



# *Spillway Pump and Piping*



Reviewing Proposals



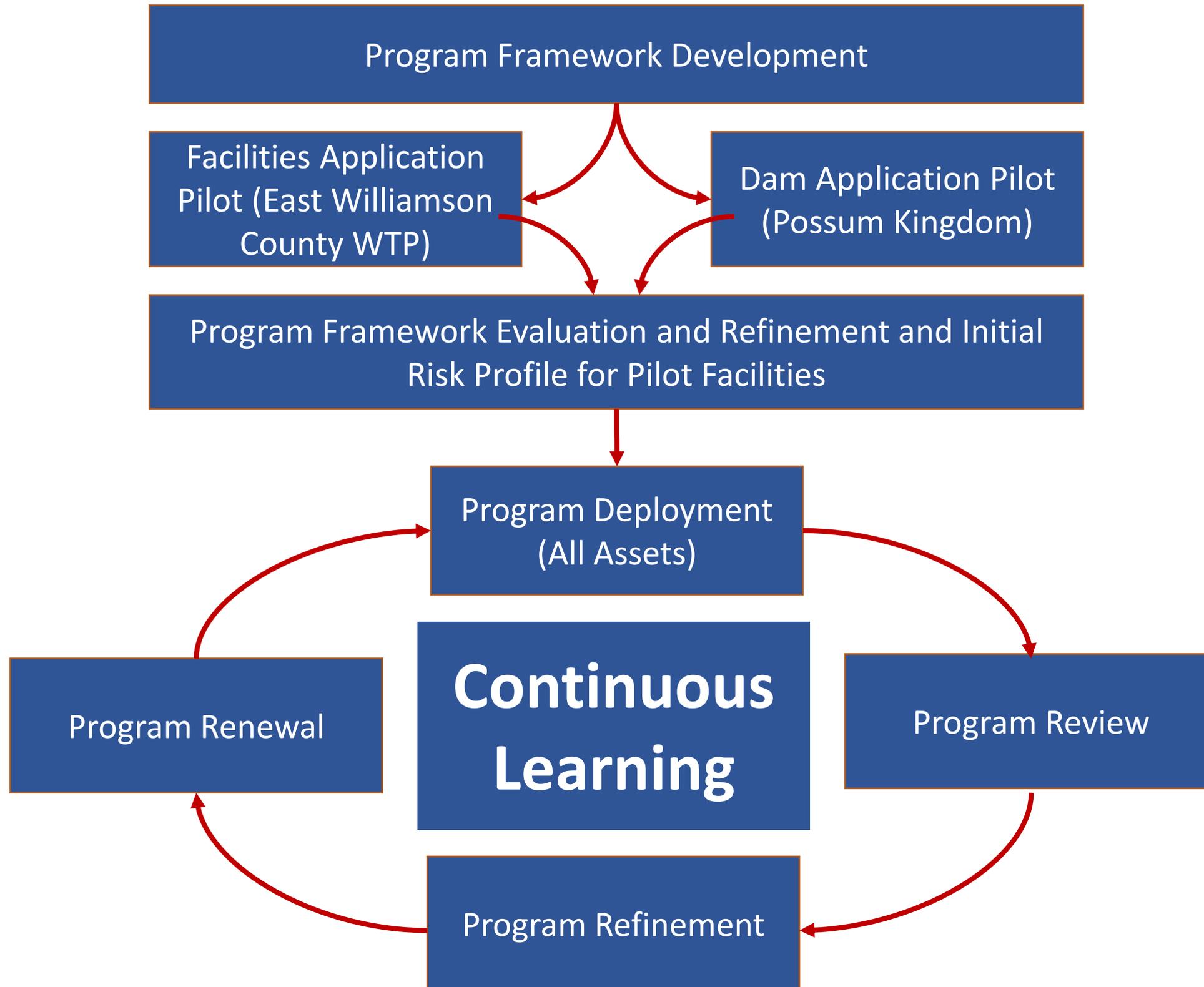
# ***Risk-Based Asset Management Program***

## **MicroMain (Current System)**

- **Maintenance Management Software – Tracks asset costs, preventative/demand maintenance, labor tracking, warranty, parts, etc.**

## **Moving Forward...Risk-Based AMP**

- **Implement a risk-based asset management program**
- **Rank assets based on risk (likelihood of failure x consequence of failure x redundancy)**
- **Prioritize rehabilitation replacement projects based upon risk**
- **Develop a long term capital replacement plan**





# ***Integrated Water Resources Plan***

***Presented by  
David Collinsworth  
General Manager/CEO***



# ***Integrated Water Resource Plan (IWRP)***

## **Development of a comprehensive Integrated Water Resources Plan**

- 1) Leverage advanced planning, modeling, and decision-making techniques to build a plan that addresses potential future demand and operational scenarios.**
- 2) Improve water supply resiliency through integration into BRA's risk management framework.**
- 3) Engage customers/stakeholders in a transparent and proactive process.**
- 4) Provide information that can integrate into the Regional and State Water Planning process.**



# ***Final Remarks & Questions***



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**Brazos**

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