



BRA Update on Surface Water Resources in Brazos Planning Region G

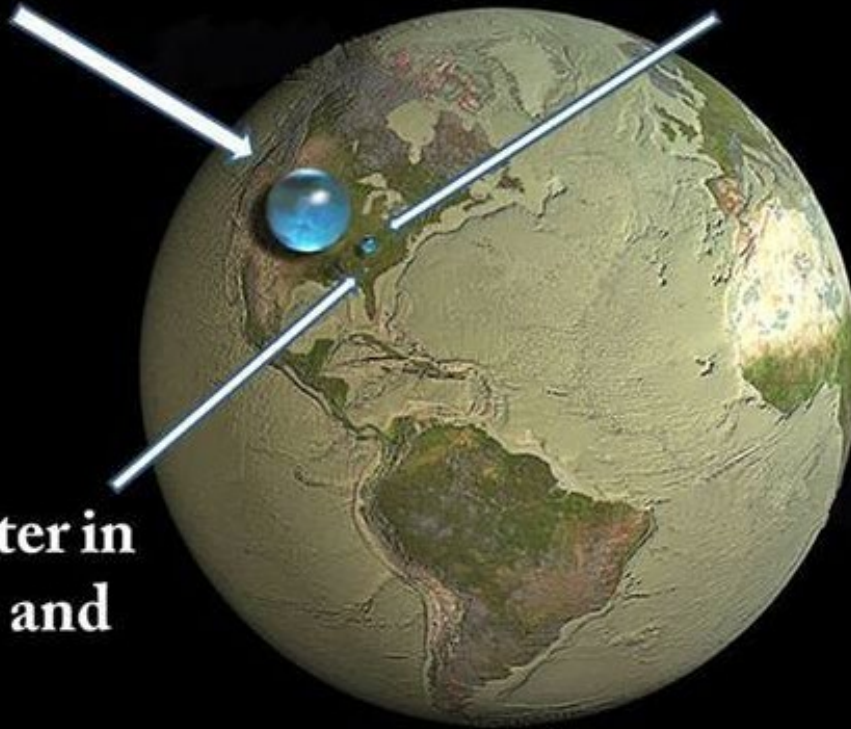
Bell County Water Symposium, November 17, 2021

***Presented by
Brad Brunett, Regional Manager – Central & Lower Basins***



All of Earth's water
(including oceans)

**All of Earth's
fresh water**



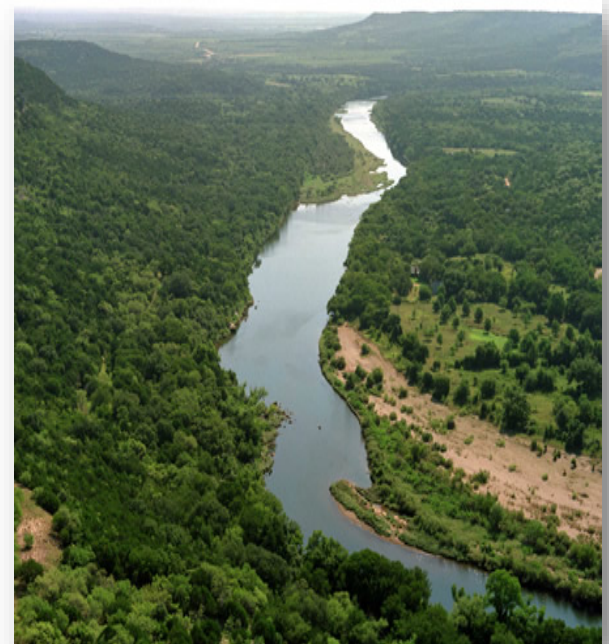
**Fresh water in
our lakes and
rivers**



Our Mission

**To develop, manage, and protect
the water resources of the Brazos River basin**

- **Oldest river authority in Texas**
- **Created by the Texas Legislature in 1929**
- **First entity of its kind in the nation**
- **Self-funded (not appropriated), do not levy taxes**
- **21 member Board appointed by Governor**
- **Territory:**
 - **Extends from the Texas-New Mexico state line west of Lubbock to the Gulf of Mexico near Freeport**
 - **More than 42,000 square miles**
 - **All or part of 76 counties**





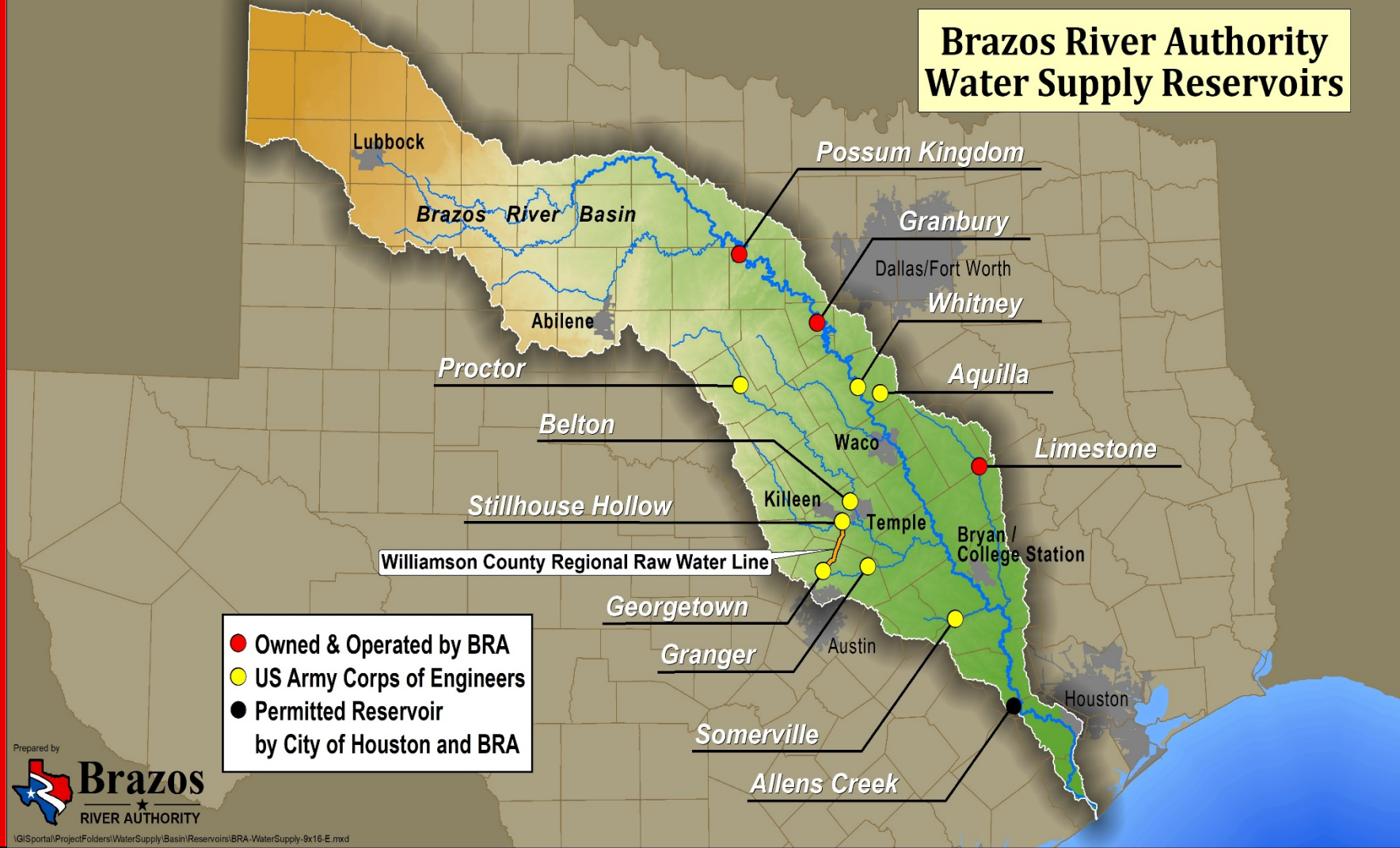
Our Business

- **Raw Water Supply**
- **Water & Wastewater Treatment**
- **Water Quality & Environmental Stewardship**





Brazos River Authority Water Supply Reservoirs



Prepared by

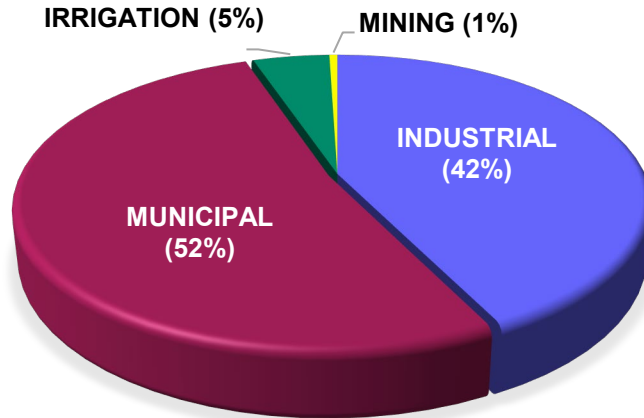


Water Contracts

Long Term Agreements

- About 160
- Contracts & commitments total about 742,000 acre-feet/yr
- Some lakeside
- Some downstream of reservoirs

LONG-TERM CONTRACTS BY TYPE (MAY 2020)





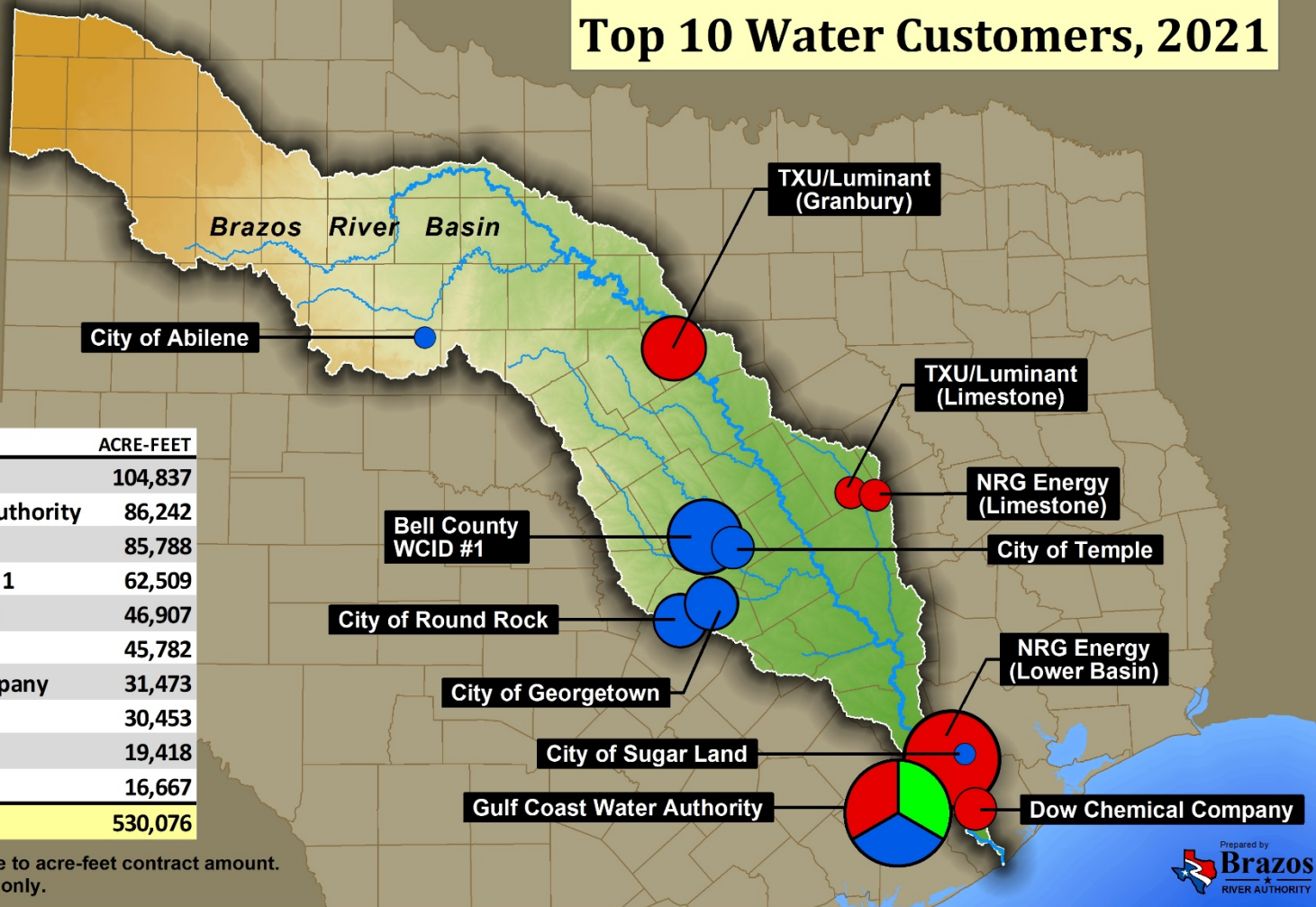
Top 10 Water Customers, 2021

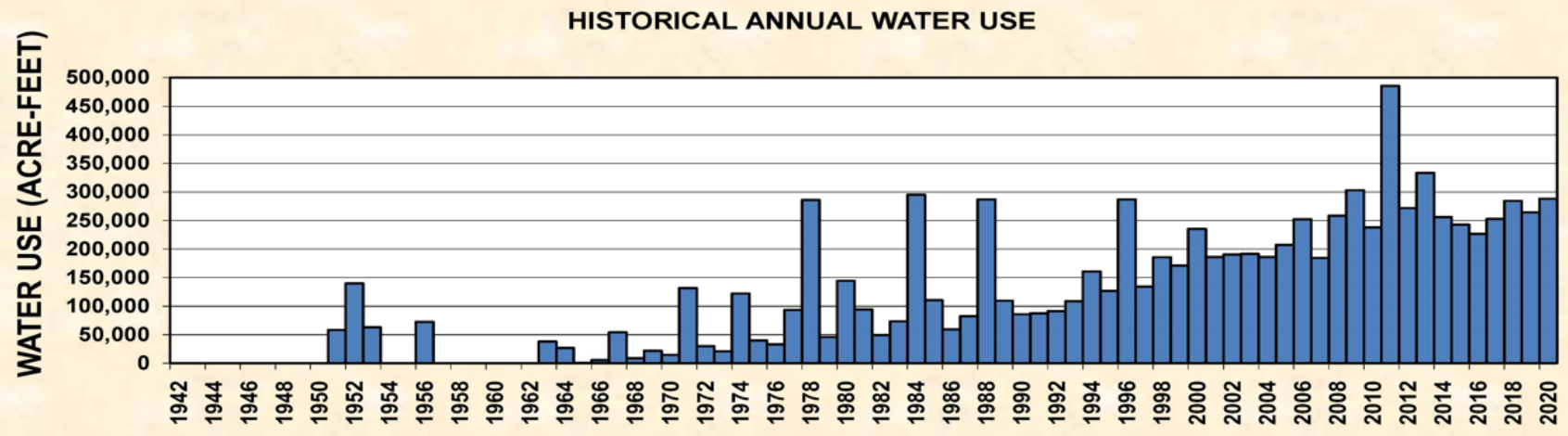
Use Type

- Municipal
- Industrial
- Irrigation

CUSTOMER	ACRE-FEET
NRG Energy	104,837
Gulf Coast Water Authority	86,242
TXU/Luminant	85,788
Bell County WCID # 1	62,509
City of Georgetown	46,907
City of Round Rock	45,782
Dow Chemical Company	31,473
City of Temple	30,453
City of Abilene	19,418
City of Sugar Land	16,667
TOTAL	530,076

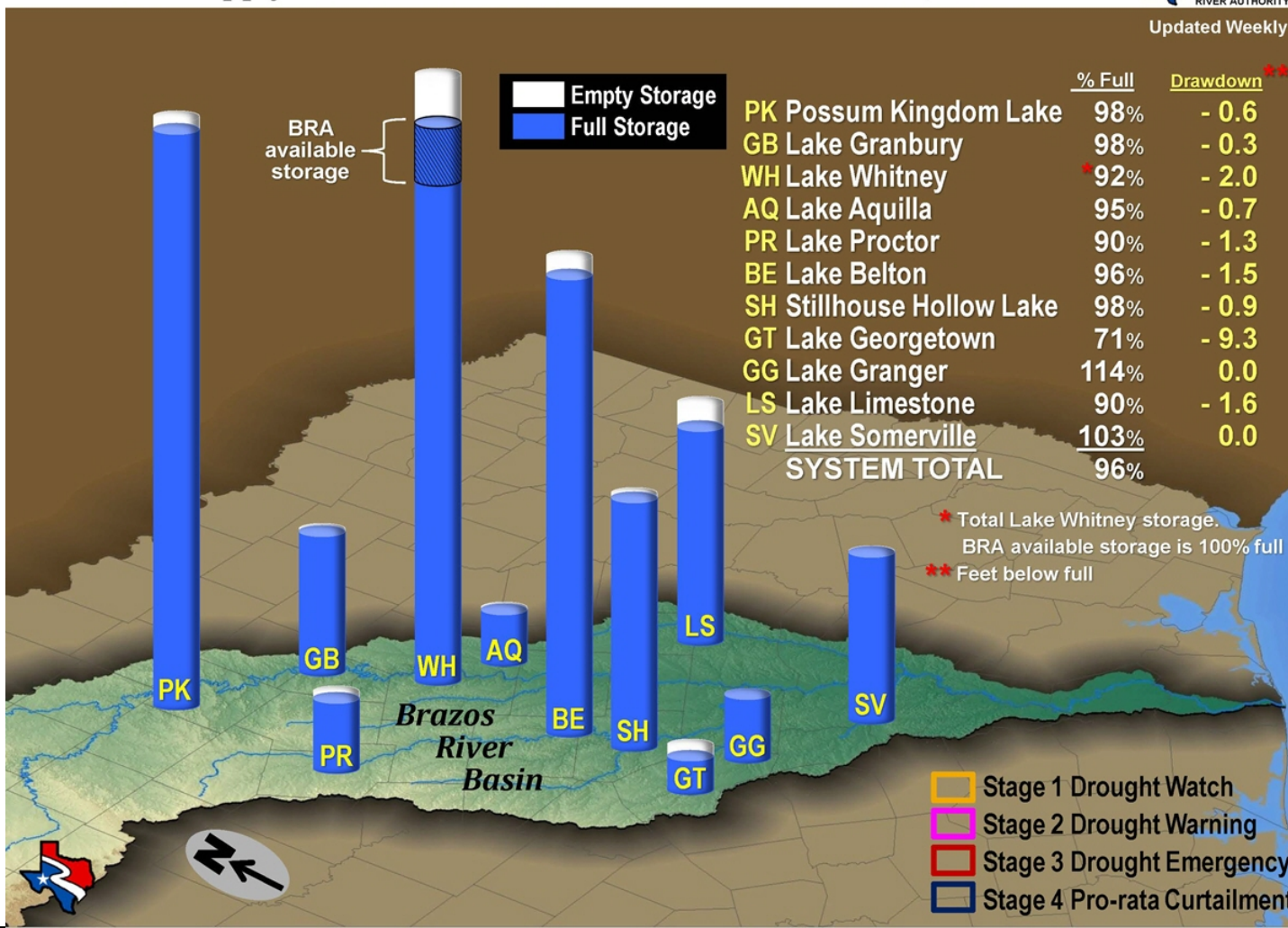
Circle size is proportionate to acre-feet contract amount.
Map is for general display only.

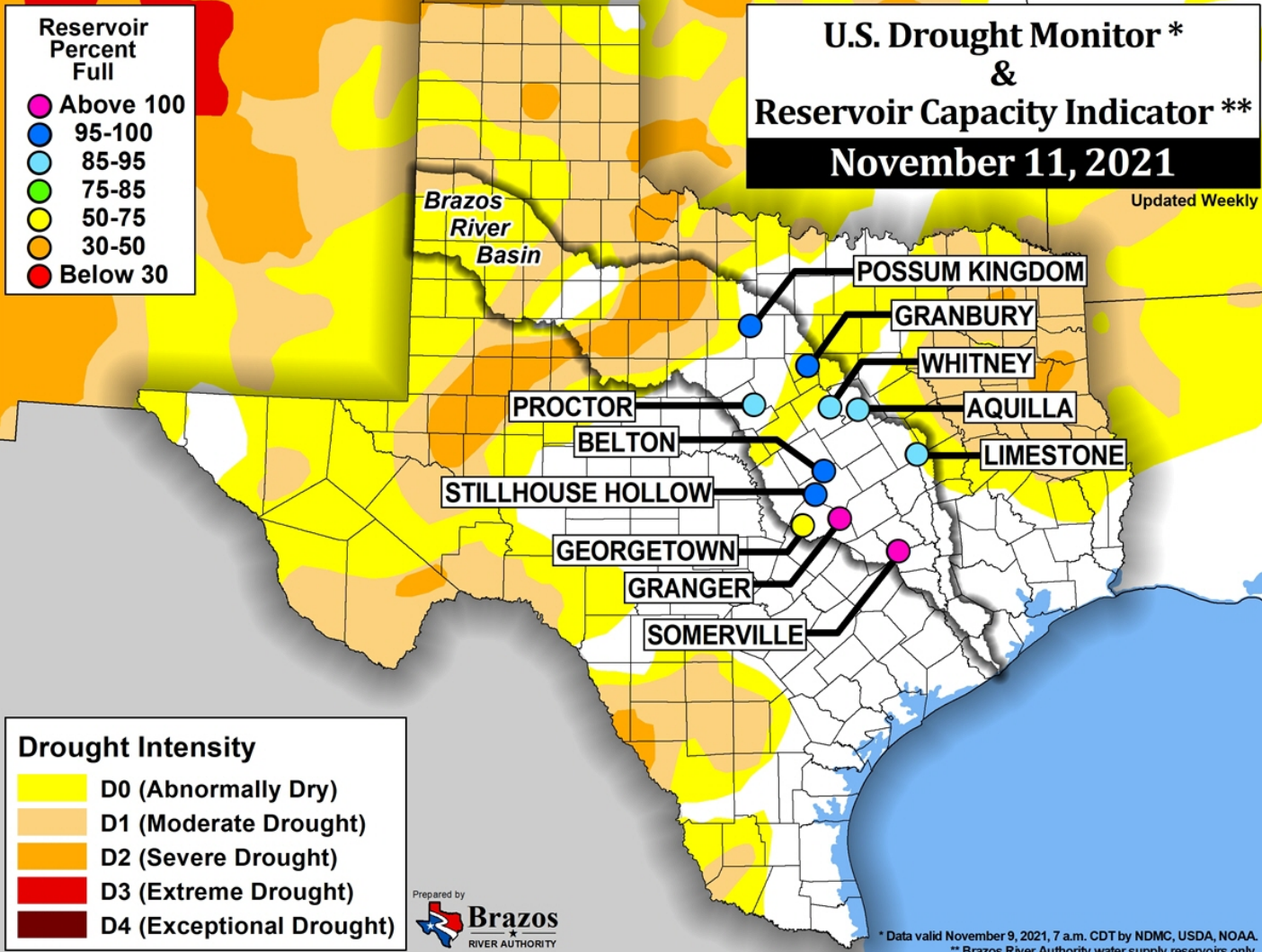




BRA Water Supply Reservoirs "PERCENT FULL" November 10, 2021

Updated Weekly

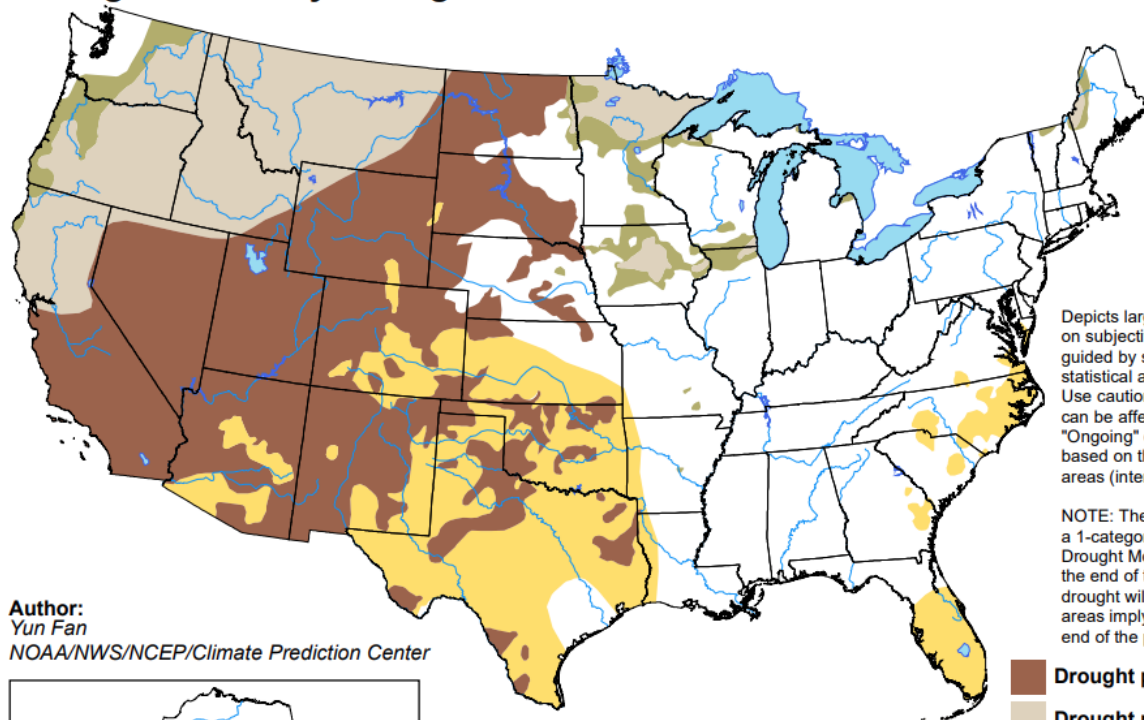




U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for October 21, 2021 - January 31, 2022
Released October 21, 2021



Author:
Yun Fan
NOAA/NWS/NCEP/Climate Prediction Center

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).

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

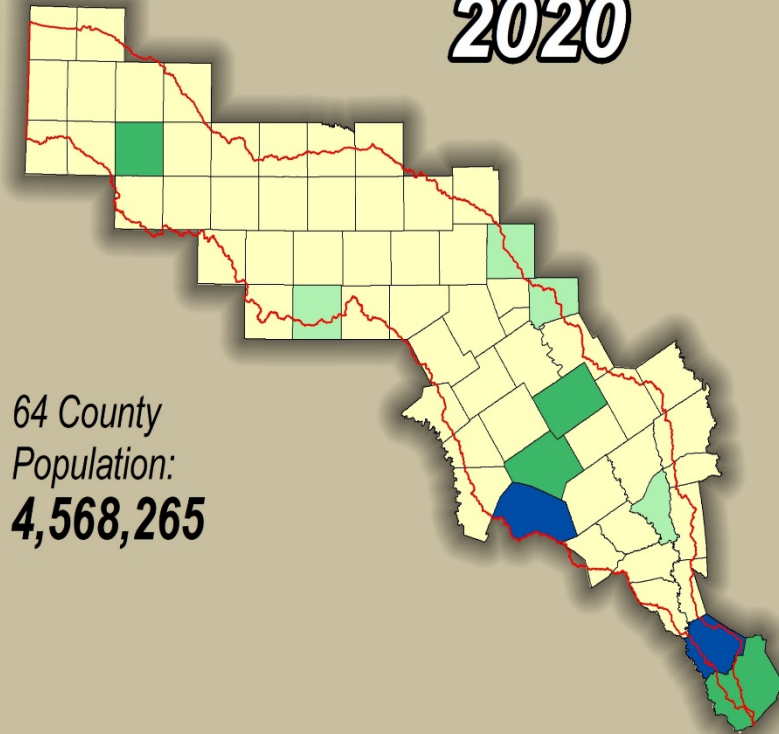


<http://go.usa.gov/3eZ73>

Brazos Basin Population Growth

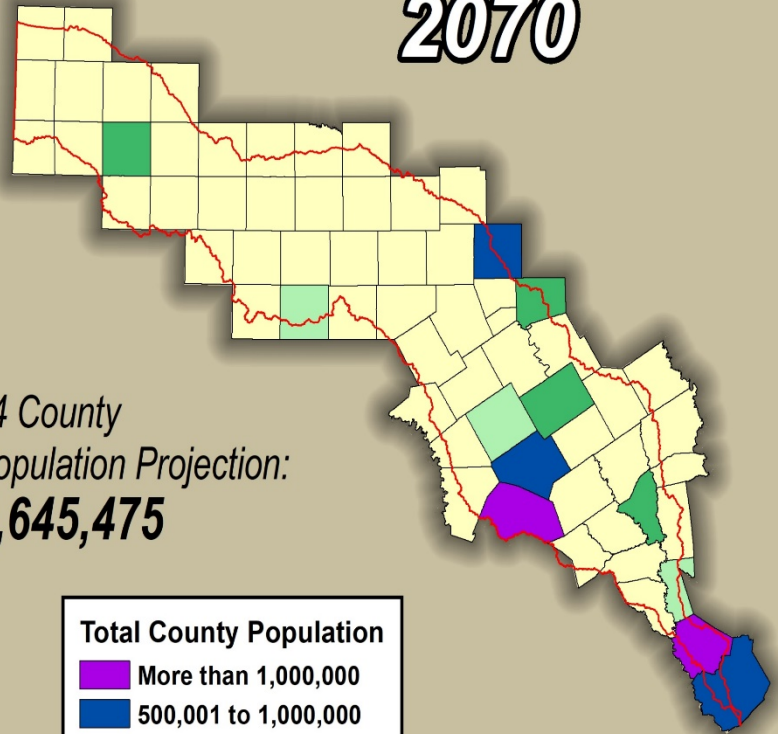
Projected Increase: 4,077,210

2020



64 County
Population:
4,568,265

2070



64 County
Population Projection:
8,645,475

Total County Population

- More than 1,000,000
- 500,001 to 1,000,000
- 250,001 to 500,000
- 100,001 to 250,000
- Less than 100,000

Prepared by



Brazos River Basin

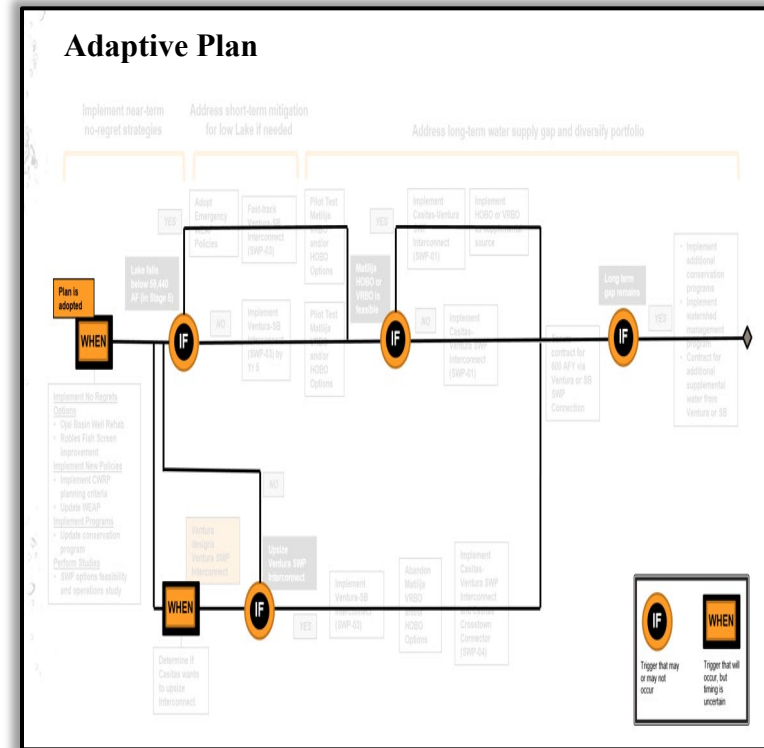
Considers risk criteria and incorporates advanced planning, modeling, and decision making

Allows for multiple scenarios of future water demand

Includes stakeholder involvement

Establishes a repeatable framework for project evaluation and prioritization

Results in an adaptive roadmap that will guide the development of integrated, reliable, resilient, and sustainable water supply resources





Little River Watershed IWRP

1.1 Refine Work Plan

- 1.1.1 Kickoff and work plan development meeting
- 1.1.2 Compile and review reference information
- 1.1.3 Determine Technical Approaches
- 1.1.4 Develop Work Plan

1.2 Identify and Prioritize Issues, Risks and Uncertainties

- 1.2.1 Conduct Risk Workshops
- 1.2.2 Prioritization of Risks and Uncertainties

1.3 Select Key Performance Indicators and Level of Service Goals

- 1.3.1 Identify Key Performance Indicators
- 1.3.2 Establish Level of Service Goals
- 1.3.3 Conduct Key Performance Indicator and Level of Service Workshops

1.4 Estimate Future Water Demands

- 1.4.1 Review Water Demand Estimates
- 1.4.2 Develop Demand Forecasts
- 1.4.3 Demand Verification

1.5 Assemble Modeling System and Pilot Decision Support System

- 1.5.1 Develop Water Resources Models
- 1.5.2 Create Data Management System
- 1.5.3 Modeling Approach Engagement

2.1 Assess Hydrologic and System Vulnerabilities

- 2.1.1 Baseline Conditions
- 2.1.2 Future Hydrology
- 2.1.3 Risk Modeling

2.2 Develop Planning Scenarios

- 2.2.1 Key Drivers
- 2.2.2 Scenario Definition

2.3 Identify and Analyze Water Management Strategies

- 2.3.1 Identify Water Management Strategies
- 2.3.2 Additional Strategy Engineering
- 2.3.3 Subject Matter Expert Engagement

2.4 Develop and Evaluate Strategies and Portfolios

- 2.4.1 Strategy Modeling
- 2.4.2 Project Evaluation Tool
- 2.4.3 Evaluate Strategies
- 2.4.4 Water Management Portfolios

2.5 Prepare Little River Watershed IWRP

- 2.5.1 Preferred Portfolio
- 2.5.2 Prioritized Water Management Strategies and Selected Portfolio Technical Memorandum
- 2.5.3 Adaptive Plan
- 2.5.4 IWRP Report



Brazos



RIVER AUTHORITY

www.brazos.org



information@brazos.org

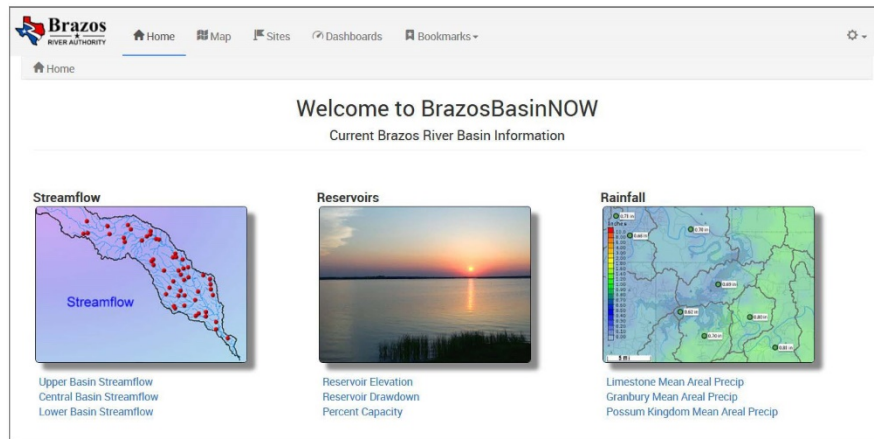
www.BrazosBasinNow.org



@BrazosWater



YouTube





**Brazos
River
Authority**