



System Operation Permit Water Allocation

Jim Forté

Planning and Development Manager

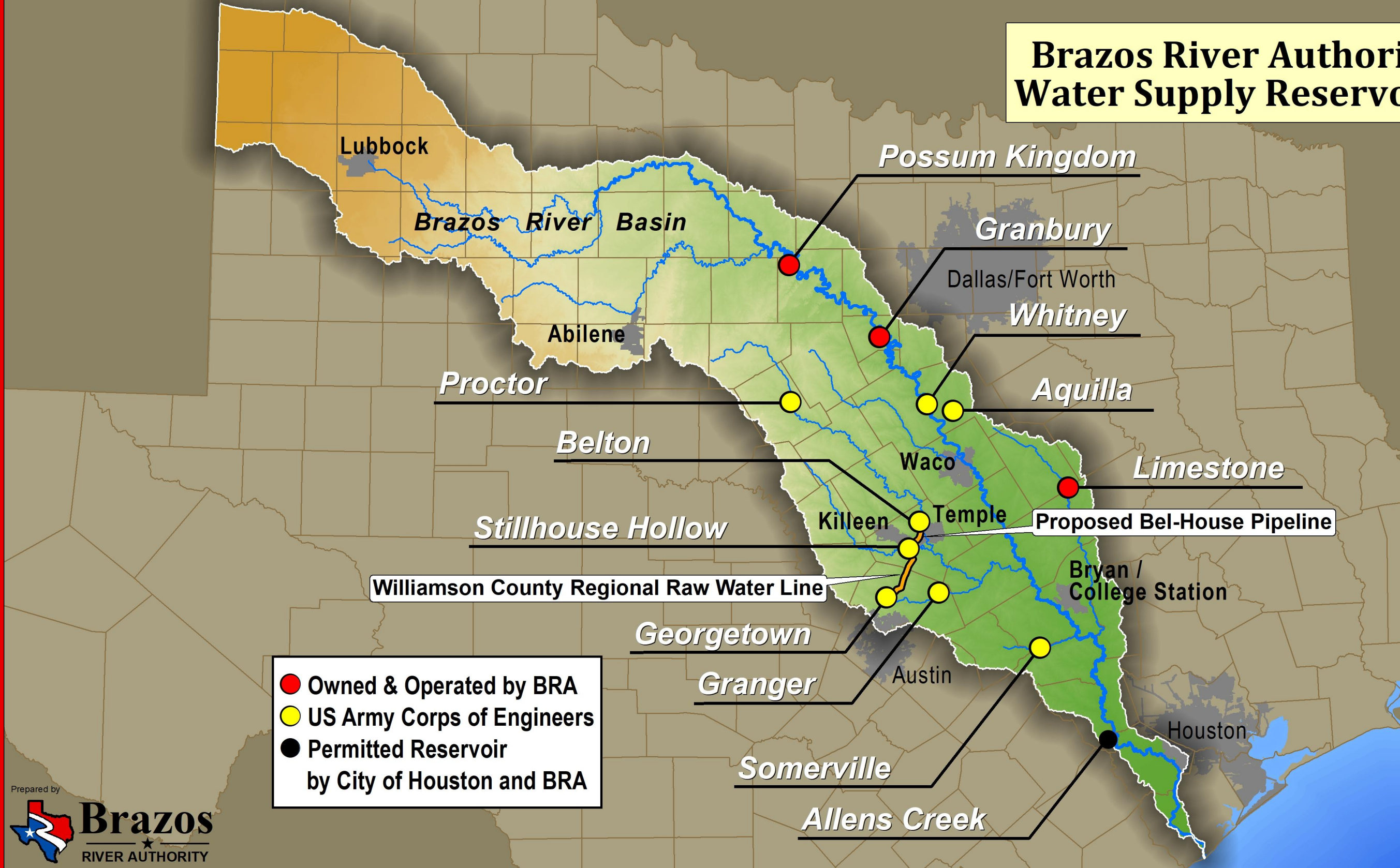


System Operation Permit

- **Unique and Complex**
 - **Project Approval by BRA Board of Directors – April 2003**
 - **Permit Approval by Texas Commission on Environmental Quality – November 2016**
 - **Permit Incontestable – September 2018**
- **Not a Reservoir**
 - **Up to 334,000 acre-feet of Non-Firm Water**
 - **Backed up by existing Reservoir Storage**
 - **40 individual Stream Segments (Reaches) basin-wide**
 - **Conformed Water Management Plan**
 - **Diversion Limits**



Brazos River Authority Water Supply Reservoirs



- Owned & Operated by BRA
- US Army Corps of Engineers
- Permitted Reservoir by City of Houston and BRA



System Operation Permit

- **Contract Analysis Tool (CAT)**
 - **Determine Surpluses and Shortages in River Segments**
 - **Evaluate System Efficiency**
 - **Consider Effects of USACE Operations**
 - **Evaluate BRA Downstream Release Procedures**
- **Modeling Assumptions**
 - **Hydrology Extended through 2015 Drought (BRA Mandatory Drought Study)**
 - **2050 Reservoir Sedimentation Conditions**
 - **Senate Bill 3 Environmental Flow Rules**
 - **TPWD MOU – Texas Water Trust Donation**
 - **Conservative Use of Return Flows and Water Rights**
 - **Possum Kingdom/Granbury Balancing Protocol**
 - **Drought Contingency Plan**



System Operation Permit

- **Assessment of Customer Requests**
 - Requests received beginning in 2005
 - Other needs identified
 - Validation with follow-up letter/email/phone calls/meetings
 - Consistency with State and Regional Water Plans
 - Immediacy/Decade of Need
 - Alternate Future Sources of Supply
 - Approximately 50 individual customers
 - Approximately 400,000 acre-feet of Firm Water
- **Outcome of Review Process**
 - Not all Requests currently valid
 - Not all needs can be met
 - Methodical, Iterative Refinements



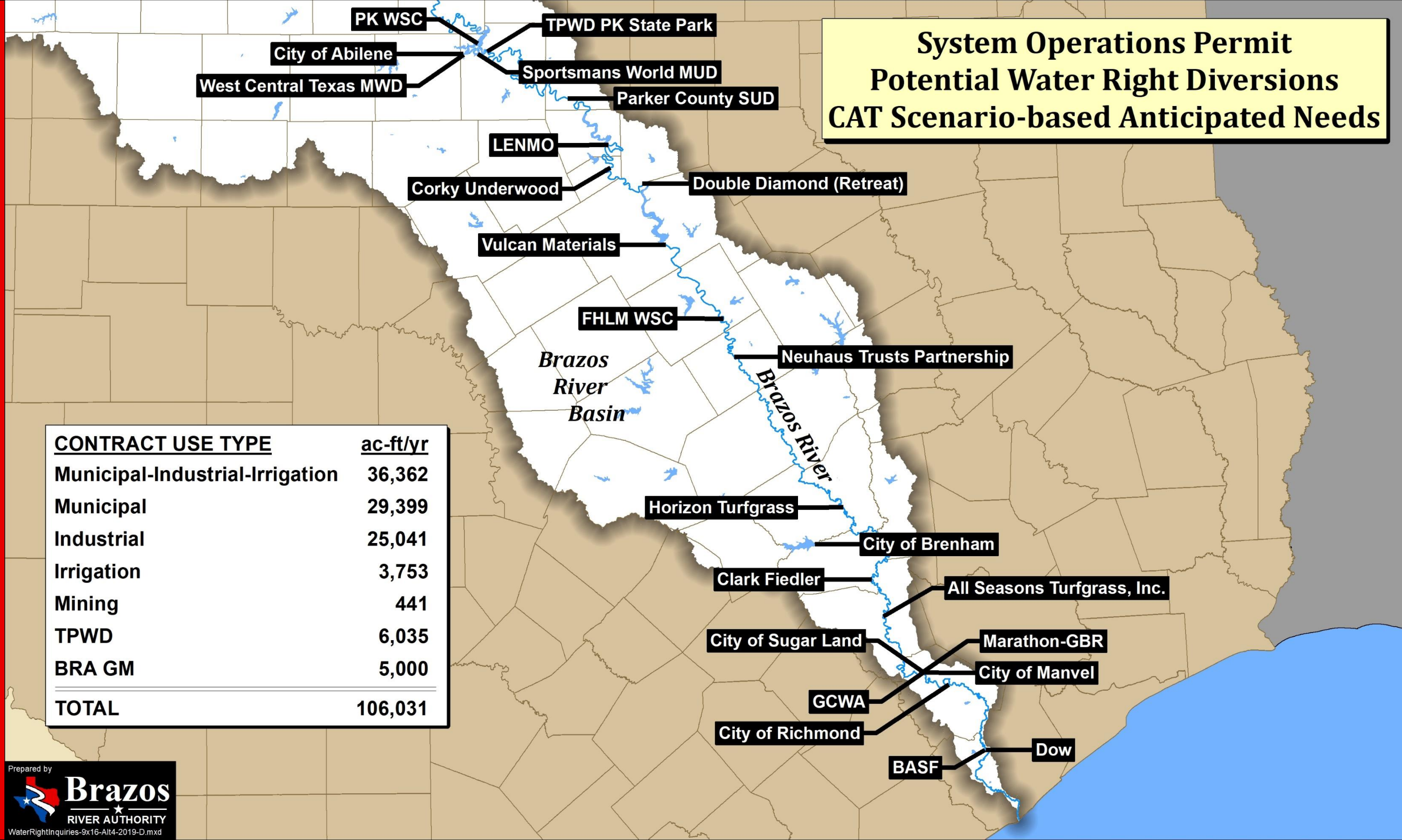
System Operation Permit

CAT Scenario-Based Anticipated Needs

- **Customer Characteristics**
 - **Type of Use**
 - **Seven Agricultural/Irrigation Customers for approximately 3,750 acre-feet per year**
 - **Five Industrial/Mining Customers for approximately 26,250 acre-feet per year**
 - **Ten Municipal Customers for approximately 29,400 acre-feet per year**
 - **Gulf Coast Water Authority for approximately 36,400 acre-feet per year**
 - **BRA GM Reserve of approximately 5,000 acre-feet per year**
 - **TPWD/Water Trust Donation of approximately 6,000 acre-feet per year**
 - **Diversion Location**
 - **Upper Basin – Eight Customers for approximately 13,000 acre-feet per year**
 - **Central Basin – Two Customers for approximately 2,250 acre-feet per year**
 - **Lower Basin – Thirteen Customers for approximately 79,800 acre-feet per year**



System Operations Permit Potential Water Right Diversions CAT Scenario-based Anticipated Needs



<u>CONTRACT USE TYPE</u>	<u>ac-ft/yr</u>
Municipal-Industrial-Irrigation	36,362
Municipal	29,399
Industrial	25,041
Irrigation	3,753
Mining	441
TPWD	6,035
BRA GM	5,000
TOTAL	106,031



System Operation Permit

Conclusions

- **BRA ability to contract for Long Term Firm Supply**
 - **Approximately 106,031 acre-feet available**
- **BRA Water Supply System Revenue Potential**
 - **Approximately \$7.2 million per year at FY 2019 rates**



System Operation Permit

The following resolution is presented for consideration to the Board of Directors of the Brazos River Authority for adoption at its April 29, 2019 meeting:

“WHEREAS in June 2004 the Brazos River Authority submitted a water right permit application to the Texas Commission on Environmental Quality for a System Operation Permit, and

WHEREAS following an extensive permitting process, including hearings before the State Office of Administrative Hearings and multiple appearances before the Commissioners of the Texas Commission on Environmental Quality, in September 2016 a final order was issued approving the System Operation Permit; and

WHEREAS following the denial of an appeal to the District Court in Travis County, the System Operation Permit became incontestable in September 2018; and

WHEREAS hydrological analysis of water rights held by the Brazos River Authority, including the System Operation Permit, indicate that an additional 106,031 acre-feet of long-term, firm water is available to be contracted for by the Brazos River Authority;

NOW THEREFORE BE IT RESOLVED that the Board of Directors of the Brazos River Authority hereby authorizes the General Manager/CEO to enter into additional contracts for the sale of water in an amount not to exceed 106,031 acre-feet per year.”



Brazos River Authority



Brazos

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RIVER AUTHORITY