



Phase 2 Freshwater Mussel CCAA Contract

***Presented by
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Meeting Date: January 30, 2023

Status History

- **TPWD State Threatened and Endangered Species List has listed multiple freshwater mussel species for over 15 years**
- **2008 – USFWS petitioned to list 12 Texas mussel species**
- **2011 – USFWS identifies 5 Central Texas mussel species as candidate species (3 occur in the Brazos Basin)**
- **2013 – USFWS sued in federal court for inaction**
 - **In settlement USFWS agrees to complete a Species Status Assessment and render a finding on 5 Central Texas Mussel Species sometime after FY 2017**

Status History continued

- **2015 – Texas Comptroller of Public Accounts (CPA) begins holding work sessions with impacted river authorities in hopes of negotiating a joint Candidate Conservation Agreement with Assurances (CCAA) for impacted basins**
 - **Funds research in Guadalupe and Colorado basins**
- **2016 – BRA contracts with TAMU to perform mussel surveys in basin**
- **April 2018 – CPA not able to reach consensus with participating river authorities on state-negotiated CCAA**

Status History continued

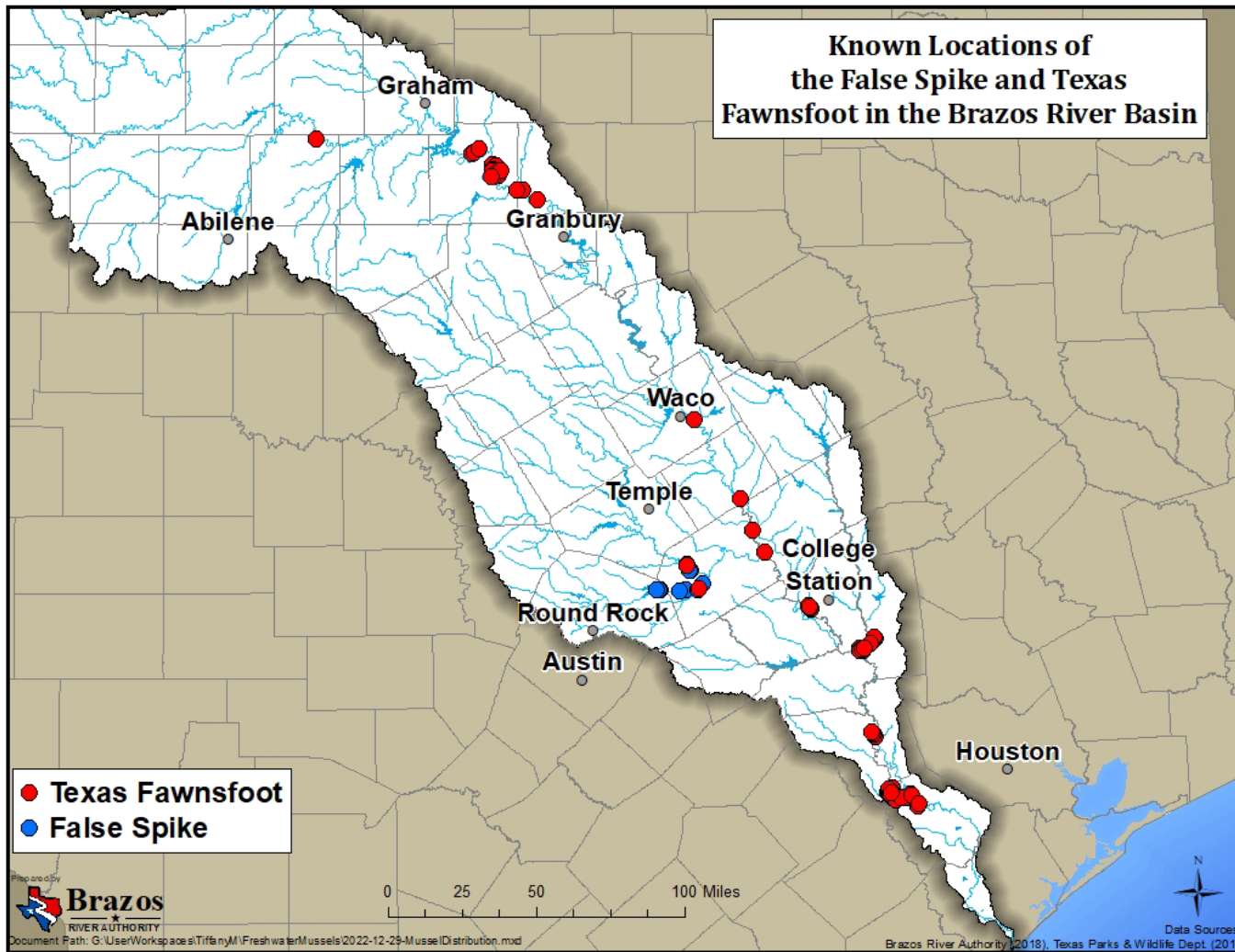
- **July 2018 – BRA Board approves contract with Bio-West, Inc. to assist BRA with negotiating and implementing a CCAA for BRA**
- **July 2020 – BRA Board authorizes GM/CEO to execute CCAA for BRA**
- **June 2021 – USFWS executes CCAA and issues an Incidental Take Permit to BRA**

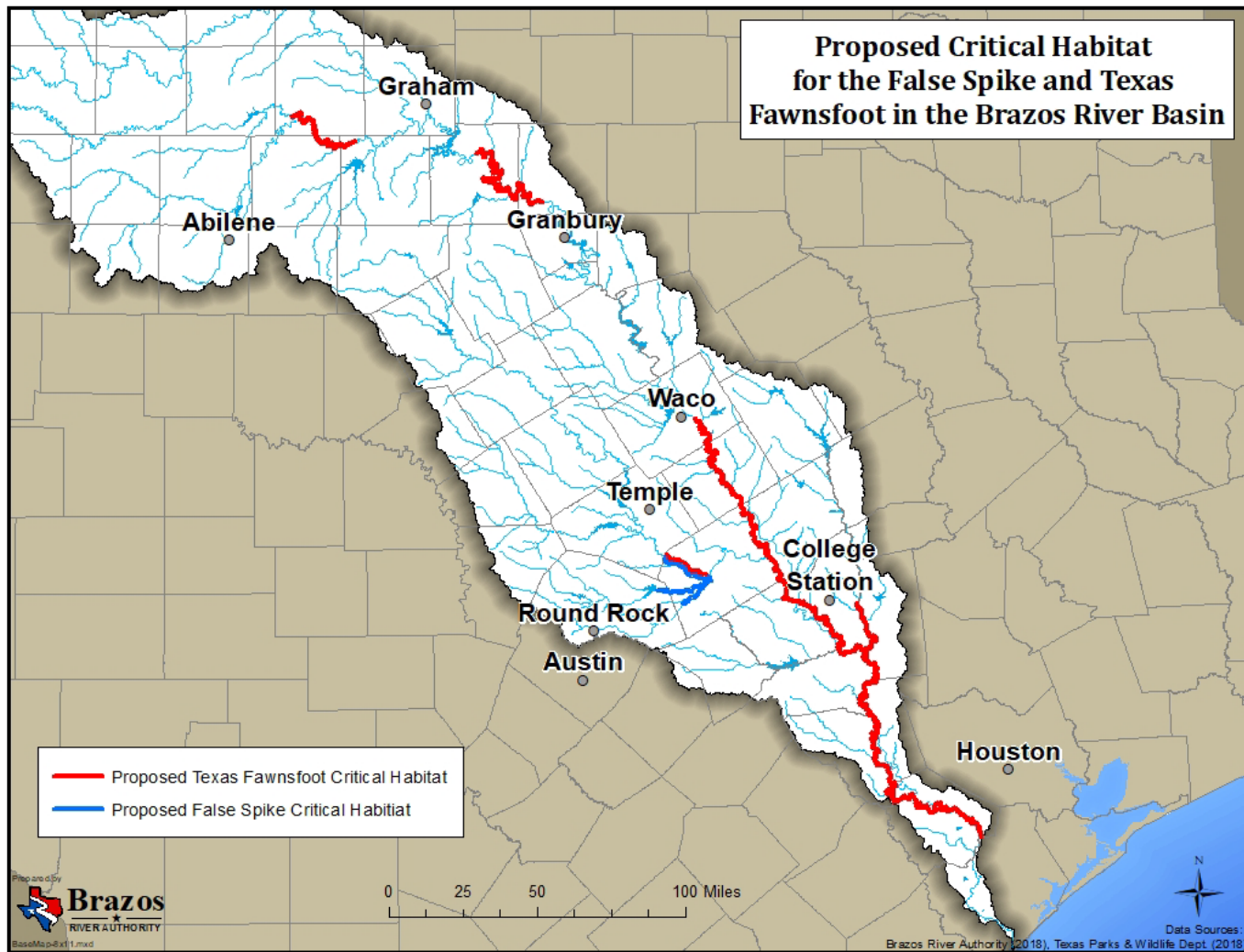


Freshwater Mussels Proposed for Federal Protection in Brazos River Basin

- **August 26, 2021, USFWS proposed federal protections under the Endangered Species Act (ESA) for two freshwater mussel species known to occur in the Brazos River Basin and established critical habitat**
- **Final decision anticipated in 2023**









Why do we care?

- **Since 1973, the Endangered Species Act (ESA) has proven to be the nation's strongest conservation laws**
 - **Has been widely upheld in the court system**
 - **Never substantially defeated**
- **ESA can, and has, affected state-based water rights and regulations in other states**
 - **Can limit the traditional exercise of established water rights**
 - **Restrict or modify new water projects**
 - **Any water use that results in the direct or incidental take or harm of listed species falls within the ESA's reach**
- **ESA's ability to preempt state law derives from the U.S. Constitution's Supremacy Clause**

Examples of ESA Impacting Water Resources

- **TVA v. Hill – 1978 - Tennessee**
 - Congress' intent in writing the **ESA** was to halt and reverse the trend towards species extinction, whatever the cost – halted dam construction
- **Riverside Irrigation District v. Andrews – 1983 – Nebraska**
 - Lawsuits on Platte River water use resulted in three state compact between CO, WY, and NB
 - Phase 1 **\$75 million** in water projects to create 70,000 ac-ft for species,
 - Phase 2 states must deliver an additional 60,000 ac-ft for species
- **Carson-Truckee Water Conservancy District v. Clark – 1984 – California**
 - **ESA needs trump municipal and industrial water use** - changed water releases and pumping from a reservoir
- **Columbia Dam Project – Duck River, Tennessee**
 - **\$83 million** dam project 90% complete when two species of freshwater mussels declared endangered
 - Dam never completed and constructed portion removed in 1999 at a cost of **\$2.4 million**
 - Alternative water supply projects estimated at **\$62 million**

Examples of Lost Opportunity Costs due to ESA Requirements

- **California State Water Project and Central Valley Project**
 - Federal Courts imposed dedicated flow requirements to San Francisco Bay
 - Reduced water supply by 800,000 acre-feet, approximately 8% of total supply
 - Cost-estimate of water supply replacement projects **\$16 billion**
 - At FY 2023 BRA System Rate a loss of 8% of system water would result in an annual loss in revenue of **\$4,840,000**
- **Colorado Municipal Water District**
 - Low-flow release requirements for Concho Water Snake equates to 0.5% of total reservoir storage
 - At FY 2023 BRA System Rate a loss of 0.5% of system water would result in an annual loss in revenue of **\$475,640**

Bio-West, Inc. Contract Phase 1

- **Not to exceed \$950,000**
- **Tasks**
 - CCAA Drafting and Negotiation support
 - Field sampling and habitat assessments
 - Hydrologic Modeling
 - Habitat Quantification Tool
 - Drought Contingency Plan
 - Study Design for Tolerance Studies
- **Will be complete in FY 2023, within budget**



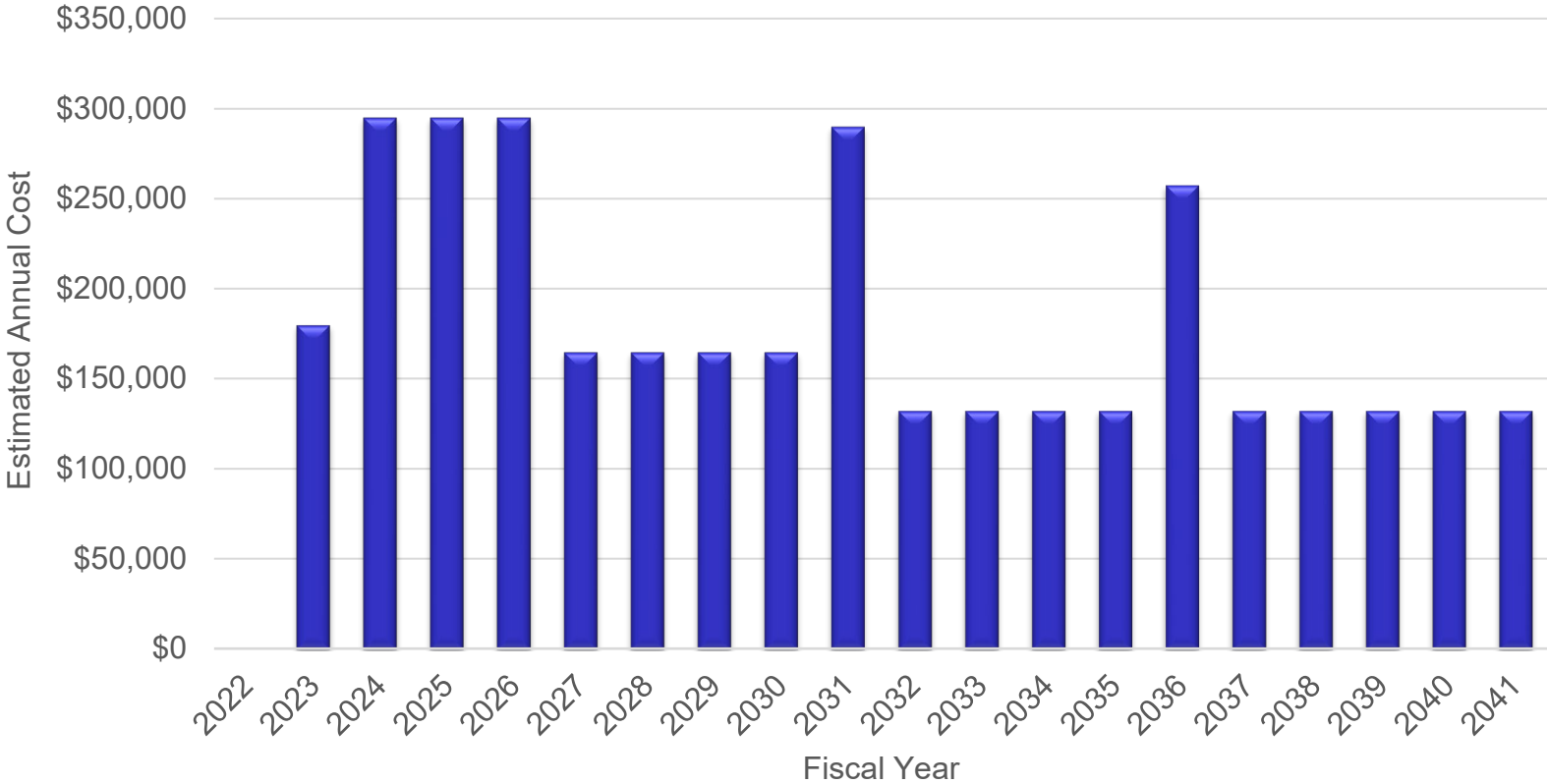
Bio-West, Inc. Contract Phase 2

- Support BRA with implementation over 20-year term of CCAA
- Not to exceed \$3,665,000, includes \$200,000 for contingencies
- Tasks include but are not limited to
 - Scientific diving and long-term monitoring of key populations
 - Applied research into habitat needs and physiological tolerances
 - Environmental Flow Methodologies
 - Periodic updates to hydrologic modeling
 - Participate in annual adaptive management reviews





Estimated Annual Cost of Phase 2 Over 20-Year Term of the CCAA



“BE IT RESOLVED that the Board of Directors of the Brazos River Authority hereby authorizes the General Manager/CEO to execute an amendment for Phase Two – Candidate Conservation Agreement with Assurances Implementation of the Bio-West, Inc. contract. The not to exceed cost for the amendment to implement Phase 2 over the 20-year term of the agreement is \$3,665,000”



**Brazos
River
Authority**