



# ***Allens Creek Reservoir Update***

***Presented by  
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# ***Need for Reservoir***

- **BRA's existing water supply system –  $\approx 700,000$  acre-ft/yr**
- **Texas population expected to grow 70% by 2070**
  - 25 million people to more than 51 million people
- **Meet water needs of the rapidly growing Lower basin**



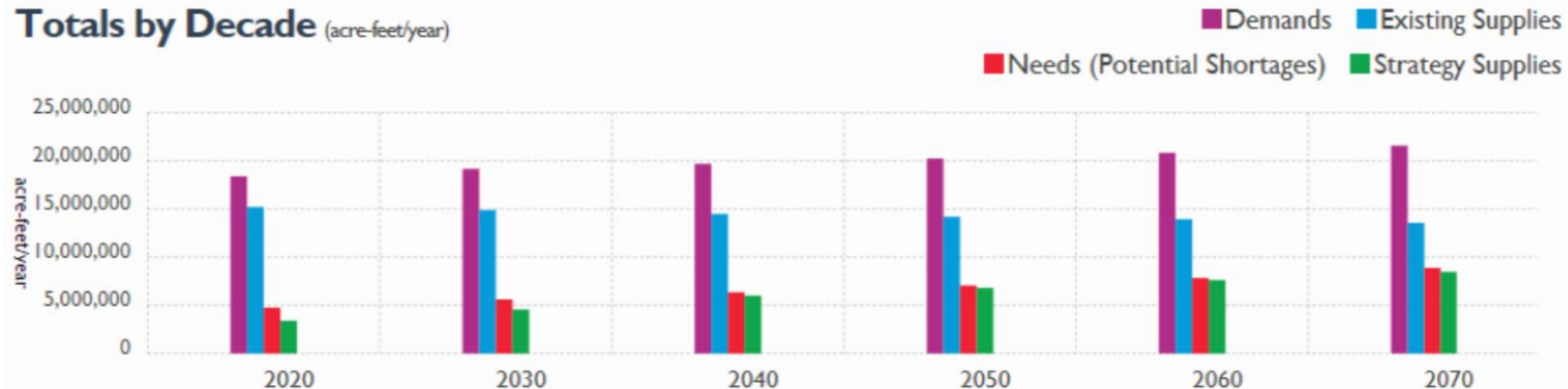
Allens Creek at Mixville Road During Flood



# Water Need Projections

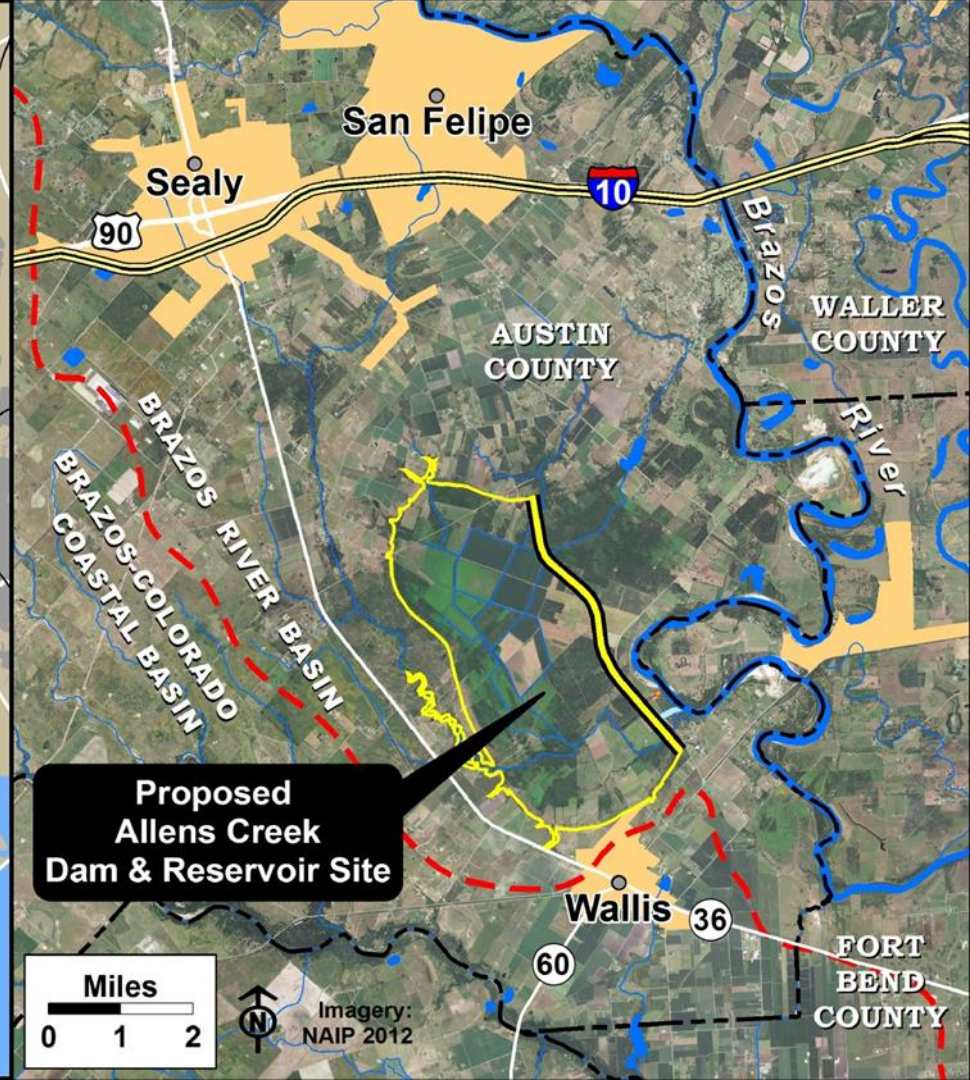
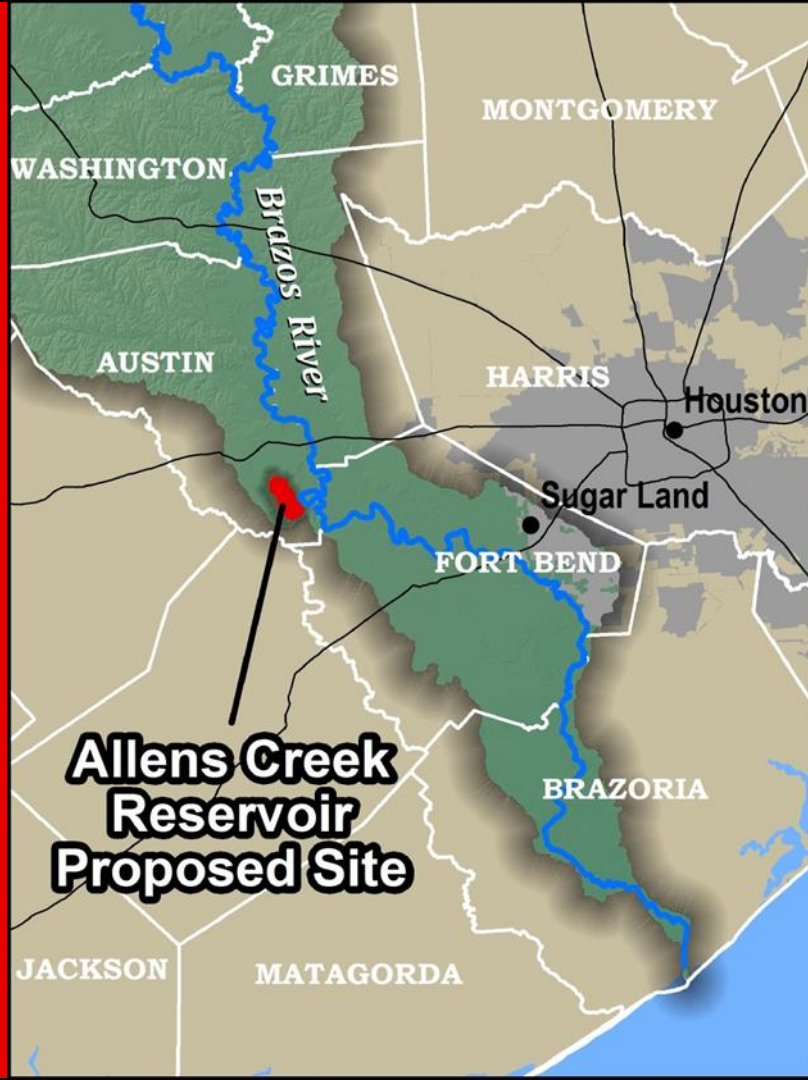
(Draft 2017 Texas State Water Plan – Texas Water Development Board)

**Totals by Decade** (acre-feet/year)



	2020	2030	2040	2050	2060	2070
<u>Demands</u>	18,407,297	19,185,187	19,708,441	20,256,778	20,854,480	21,597,430
<u>Existing Supplies</u>	15,218,204	14,892,293	14,502,941	14,209,786	13,953,724	13,571,551
<u>Needs (Potential Shortages)</u>	4,759,781	5,633,971	6,365,565	7,070,952	7,842,062	8,891,808
<u>Strategy Supplies</u>	3,408,550	4,571,931	6,014,911	6,817,703	7,631,950	8,486,215







# ***Four Requirements to Build a Reservoir***

- **Water Right Permit**
  - Complete
- **Property Acquisition**
  - Substantially complete
- **Environmental Permitting**
  - In early stages
- **Design**
  - Will be initiated soon



Upland Chorus Frog at Allens Creek Site



## ***Permitting***

- **U.S. Army Corps of Engineers 404 Permit**
  - **National Environmental Policy Act (NEPA) - Public meetings and hearings throughout process**
- **Federal Emergency Management Agency Floodplain Permitting**
- **TCEQ 401 Water Quality Certification**
- **Texas Historical Commission Texas Antiquities Permit**





# ***Environmental Studies to Support Permitting***

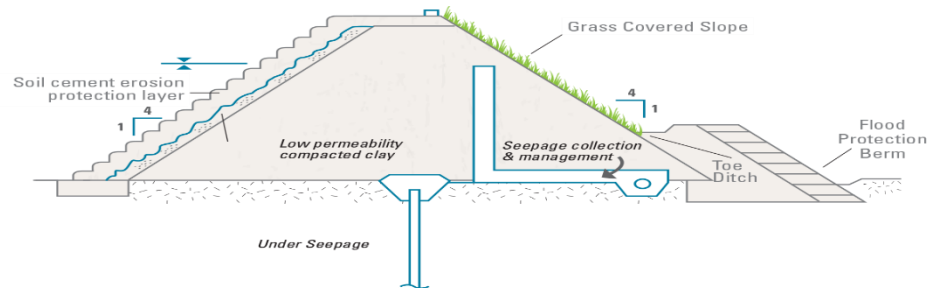
- **Water operations**
- **Water rights**
- **Floodplain**
- **Stream Flows**
- **Habitat**
- **Wetlands**
- **Threatened and Endangered Species**
- **Cultural Resources**



Texas Spider Lilies at Allens Creek Site.

# Design

- Dam
- Pump Station(s)
- Sedimentation Basin
- Outlet
- Spillway



Embankment Dam





## ***Anticipated Schedule***

- **Environmental Assessments and 30% Design**
  - 2016 – 2019
- **Permit Approval, Public Interaction, Archaeological Relocation, Construction Preparation**
  - 2019 – 2021
- **Construction**
  - 2021 - 2024



# ***Operations***

- **Water supply reservoir**
- **Water levels will not be constant**
- **Water levels will fluctuate significantly and frequently**
- **Provide enough water to supply 150,000 households each year**
- **Some recreational opportunities will be available**



Future Allens Creek Reservoir site.



**Brazos  
River  
Authority**