

## State of the Basin

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- EPA mandated back in early 2000s that states incorporate numerical nutrient criteria into water quality standards
- In 2010, TCEQ adopted chlorophyll a criteria for 75 reservoirs
- EPA approved standards for 39 reservoirs in 2013
- Remaining reservoirs still unresolved



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#### Site-Specific Nutrient Criteria

Reservoir Name	Chlorophyll <i>a</i> criterion (µg/L) (calculated criterion, where applicable)
Possum Kingdom	10.74
Stillhouse Hollow	5.00 (2.07)
Belton	6.38
Pat Cleburne	19.04
Graham	6.07
Hubbard Creek	5.61
Cisco	5.00 (4.64)
Stamford	16.85
White River	13.85
Georgetown	5.00 (3.87)



- 219 river miles of damaged riparian zone
- Increased erosion
- Increased sedimentation
- Flooding
- Water quality impacts
- Habitat fragmentation







# Top 5 Concerns Related to Water Quality

- **1. Increased eutrophication**
- 2. Water quality standard development for nutrients
- 3. Further degradation of riparian communities
- 4. Increased proliferation of reverse osmosis TPDES permits authorizing discharge of concentrated brine
- 5. Uncertainty and instability of regulatory climate



## **Endangered Species**

- Since 1973, the Endangered Species Act (ESA) has proven to be one of the nation's strongest conservation laws
- 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



## Endangered, Threatened, or Candidate Species

- Salamanders
  - Georgetown
  - Salado
  - Jollyville Plateau
- Freshwater Mussels
  - False Spike
  - Texas Fawnsfoot
  - Candidate Conservation
    Agreement with Assurances





#### **Future Species of Concern**

- Federal
  - Western Chicken Turtle
  - Other freshwater mussels
- State
  - Brazos Water Snake





- Impact on infrastructure
- Water quality
- Recreation
- Fisheries
- Species
  - Zebra Mussels
  - Salt Cedar
  - Feral Hogs
  - Aquatic Plants

