

Texas Drought 2012: Are we prepared?

Impacts to Texas Fish, Wildlife and Recreational Resources

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TPWD Mission



To manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations.

TPWD Legislative Water Mandates

TPWD is the state agency with primary authority to protect state fish and wildlife resources. To do this we:

- Provide data and advocate for fish and wildlife needs during water planning and permitting activities;**
- Coordinate with TCEQ to address water quality issues that affect biological resources;**
- Establish and maintain environmental flow data collection programs.**
- Provide support to TPWD's member on the Environmental Flows Advisory Group (EFAG) and provide technical assistance to the Science Advisory Committee, science teams and stakeholder committees;**
- Serve on committees such as the Texas Water Conservation Advisory Council, the Drought Preparedness Council and the Edwards Aquifer Recovery and Implementation Program.**

Importance of Aquatic Ecosystems

- 191,000 miles of rivers and streams in Texas provide habitat for 255 species of fishes
- With over 150 species of native freshwater fishes, Texas ranks among the most biologically diverse states
- Texas ranks 2nd nationally in terms of angler days and the amount of money spent on fishing
- Sportsmen spend \$6.6 billion per year in Texas
- 91% of Texans polled felt protecting state's water resources "very important"

Threats to Aquatic Ecosystems

- At least 5 native Texas fishes are now extinct and 3 more are extirpated throughout the Texas portion of their range
- ~20% of Texas fishes are threatened with extinction or extirpation from the Texas portion of their range
- With 31 state and federally-listed endangered aquatic animals Texas ranks in the top 5 states for numbers of endangered aquatic species

Environmental Flows

Flows that remain in the stream and provide for aquatic and riparian habitat; water quality protection; recreation; navigation; and freshwater inflows to bays and estuaries

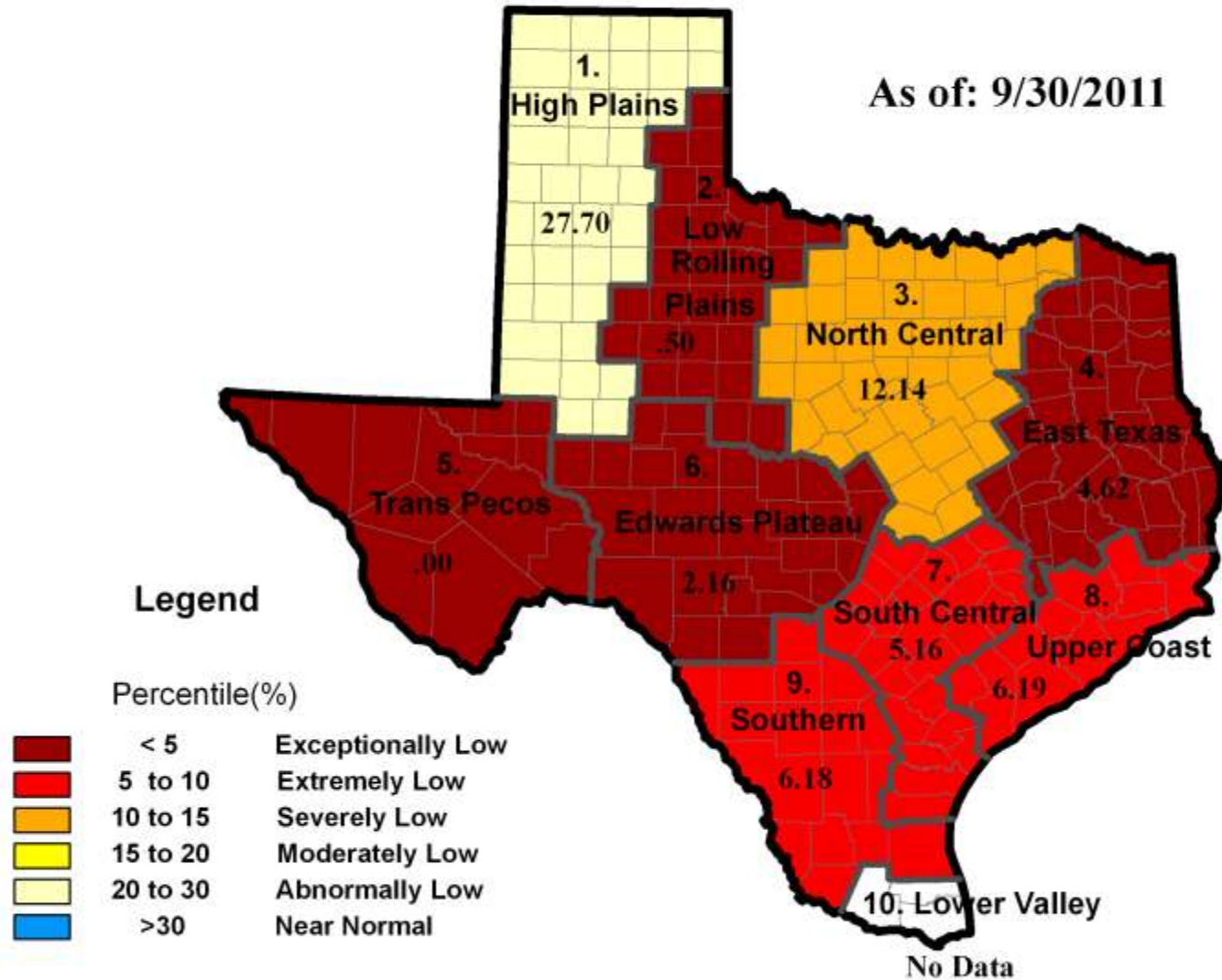


2011 Drought



Streamflow Index (SFI)

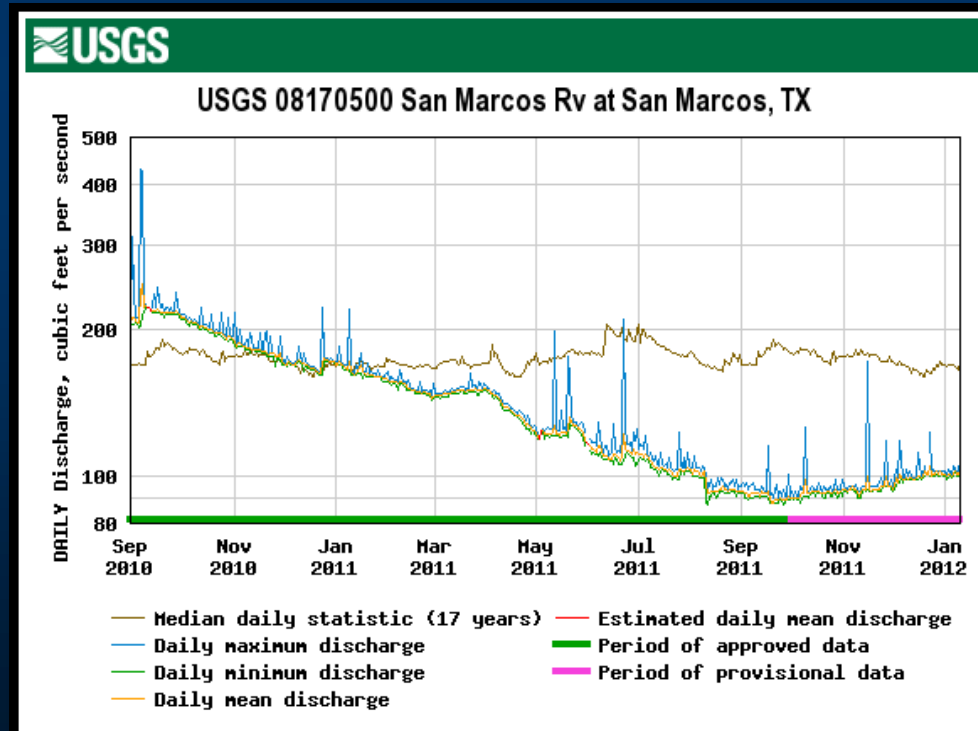
As of: 9/30/2011



Drying Rivers threaten rare fish



Declining groundwater levels threaten spring flow dependent species

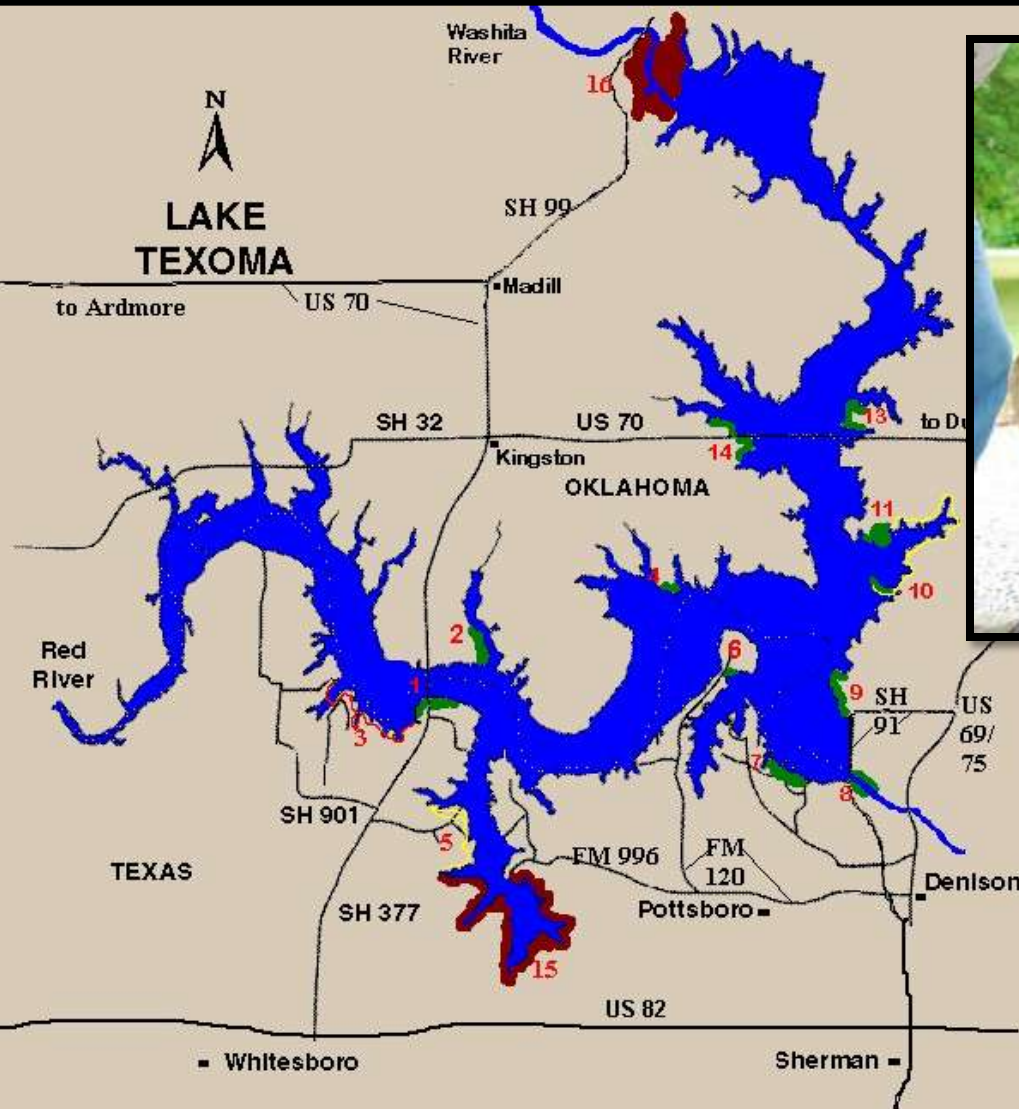


Critically Low Lake Levels impact fisheries and recreation



Zebra Mussels

North Texas



Reduced Freshwater Inflows to Bays and Estuaries

- Bay and estuary salinities are higher than normal due to low freshwater inflows and high temperatures
- Red tides commonly occur during drought years – current bloom started in September
- Oysters have been impacted by parasites and diseases – commercial oyster season closed



2011 Fire Damage to TPWD Lands

- Davis Mountains SP
- Possum Kingdom SP
- Bastrop SP and Regional Office



Houston toad

- First amphibian to be placed on the endangered species list in 1970
- Lives only in Texas, in Austin, Bastrop and Leon counties
- For breeding they require still or slow-flowing bodies of water that persist for at least 30 days near areas they can use to burrow
- Numbers have been declining, mainly due to habitat fragmentation
- 2012 drought followed by Bastrop Fire cause for concern for future survival of wild population
- Biologists are currently monitoring populations during breeding season to estimate number of surviving toads



TPWD Wish list:

Continue current monitoring and improve tools to better monitor, manage and conserve groundwater and surface water resources. Data and tools should be web-accessible to stakeholders and the public.

Surface water example: **LCRA's** Hydromet system and Water Management Plan – tools used to manage Lakes Travis and Buchanan to meet firm water needs, interruptible water needs and environmental water needs.

Groundwater example: **Edwards Aquifer Authority** groundwater monitoring and Critical Period Rules based on aquifer levels and spring flow levels – tools to manage municipal, industrial and agricultural pumping while protecting San Marcos and Comal springflows.

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PARKS &

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