

# Texas Native Fish Conservation Areas



**Inland Fisheries**



# **Species of Greatest Conservation Need**

- **1300 Plant and animal species in Texas classified as SGCN**
- **Defined as declining or rare and in need of attention to recover or to prevent the need to list under state or federal regulation**
- **SGCN List is created by TPWD with expert consultation and public feedback**
- **Forms the basis of the Texas Conservation Action Plan**



# Texas Freshwater Fish Diversity

- 190 native freshwater fishes
- 90 Species of Greatest Conservation Need





# Texas Freshwater Fish Diversity

American Eel

Alligator Gar

Fountain Darter (Federally Endangered)

**Guadalupe Bass**

**Guadalupe Darter**

**Guadalupe Roundnose Minnow**



# Texas Freshwater Mussels



Texas Pimpleback (Guadalupe Orb)

Source: BioWest



Texas (Guadalupe?) Fatmucket

Source: BioWest



Golden Orb

Source: Travis Tidwell



False Spike

Source: Clint Robertson



# Native Fish Conservation Areas

A watershed-scale (10-digit HUC or larger) area where management emphasizes conservation and restoration for long-term persistence of native fishes and other native aquatic species while allowing compatible uses<sup>1</sup>.

<sup>1</sup>Williams, J.E. Richard N. Williams, Russell F. Thurow, Leah Elwell, David P. Philipp, Fred A. Harris, Jeffrey L. Kershner, Patrick J. Martinez, Dirk Miller, Gordon H. Reeves, Christopher A. Frissell, and James R. Sedell. Native Fish Conservation Areas: A Vision for Large-Scale Conservation of Native Fish Communities. 2011. Fisheries: 36(6) pp 267-277



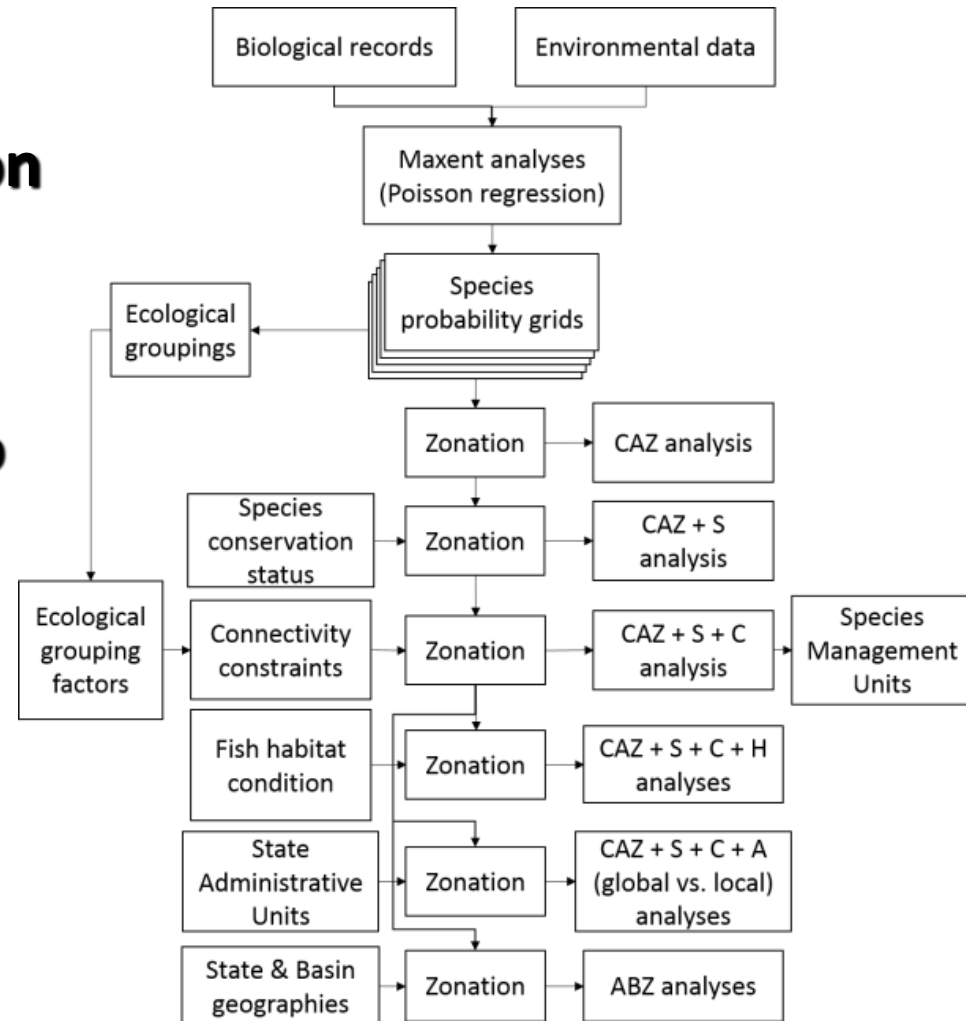
# Successful Native Fish Conservation Areas

- ◆ Wild, naturally-produced, self-sustaining populations
- ◆ Functional watersheds
  - Natural land cover
  - Intact riparian buffers
  - Natural river flow patterns
  - Instream connectivity
- ◆ Local stewardship
- ◆ Sustained conservation investments



# Conservation Assessment for Texas Fishes of Greatest Conservation Need

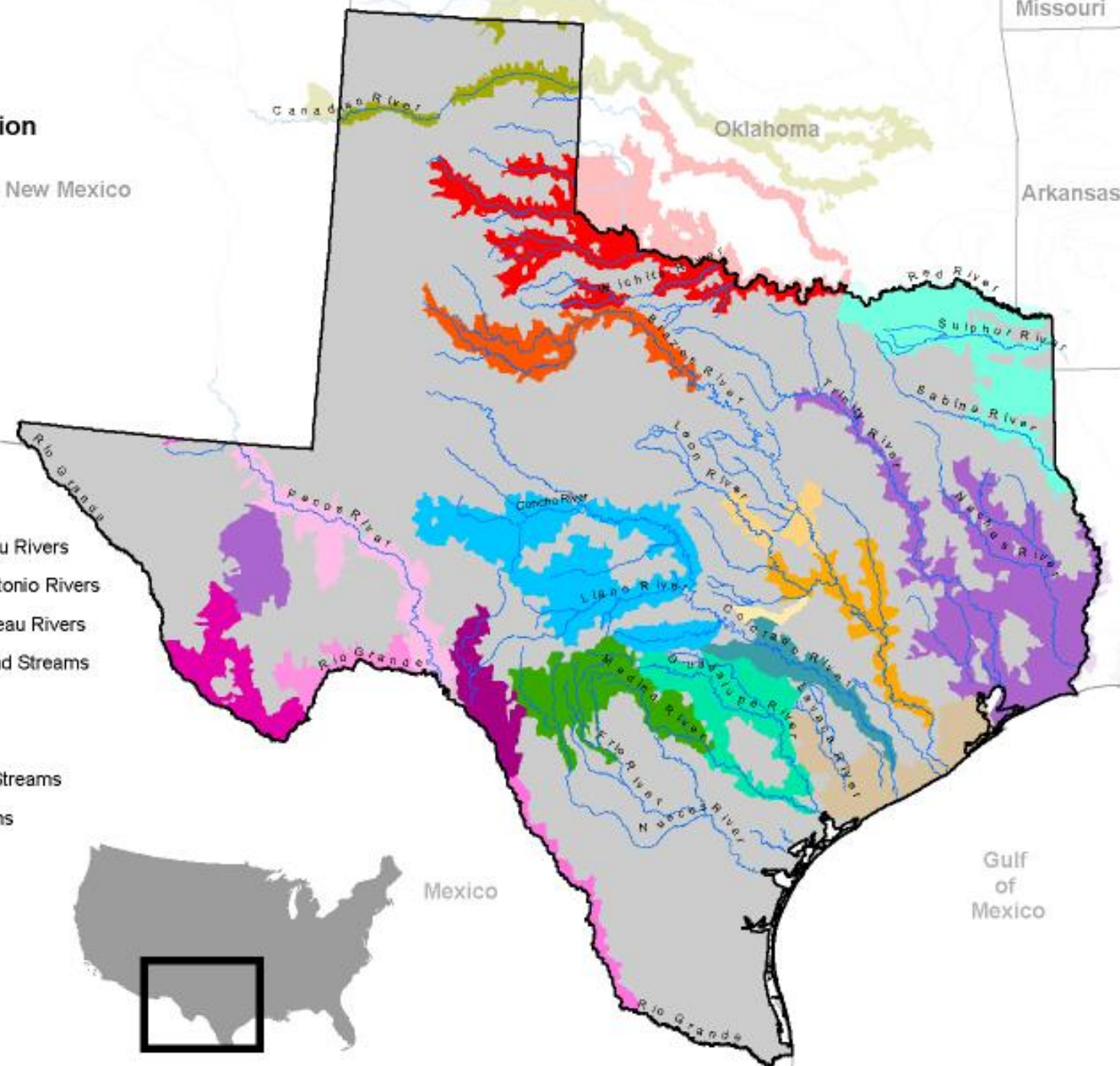
- ◆ **Assembled range-wide models of species distribution**
- ◆ **Conducted spatial prioritization considering species-specific responses to habitat alteration**
- ◆ **Identified proposed multi-species, watershed-based management units**





## Native Fish Conservation Areas (NFCAs)

-  Upper Canadian River
-  Upper Red River
-  Northeast Texas Rivers
-  Southeast Texas Rivers
-  Upper Brazos River
-  Middle Brazos River
-  Lower Brazos River
-  San Gabriel River
-  Lower Colorado River
-  Central Edwards Plateau Rivers
-  Guadalupe and San Antonio Rivers
-  Southern Edwards Plateau Rivers
-  Central Coast Rivers and Streams
-  Upper Big Bend
-  Lower Big Bend
-  Guadalupe Mountains Streams
-  Davis Mountains Streams
-  Pecos River
-  Devils River
-  Lower Rio Grande





# **Texas Native Fish Conservation Areas Network**

- ◆ Partnership of conservation professionals from NGOs, state and federal agencies, and universities
- ◆ Shared vision of collaborative stewardship across interjurisdictional landscapes
- ◆ Mission – Protect and restore wild and native fishes and the habitats they need to survive.



# **Partner Roles and Responsibilities**

- ◆ **Review and adapt the NFCA prioritization to ensure that native fish strongholds are captured within the watershed prioritization**
- ◆ **Identify priority science needs and conservation actions for preservation of native fishes and their habitats in priority watersheds**
- ◆ **Serve as a catalyst for cooperation, collaboration, and leveraging of technical and financial resources**
- ◆ **Facilitate local implementation of the Texas Conservation Action Plan (i.e., TX SWAP)**

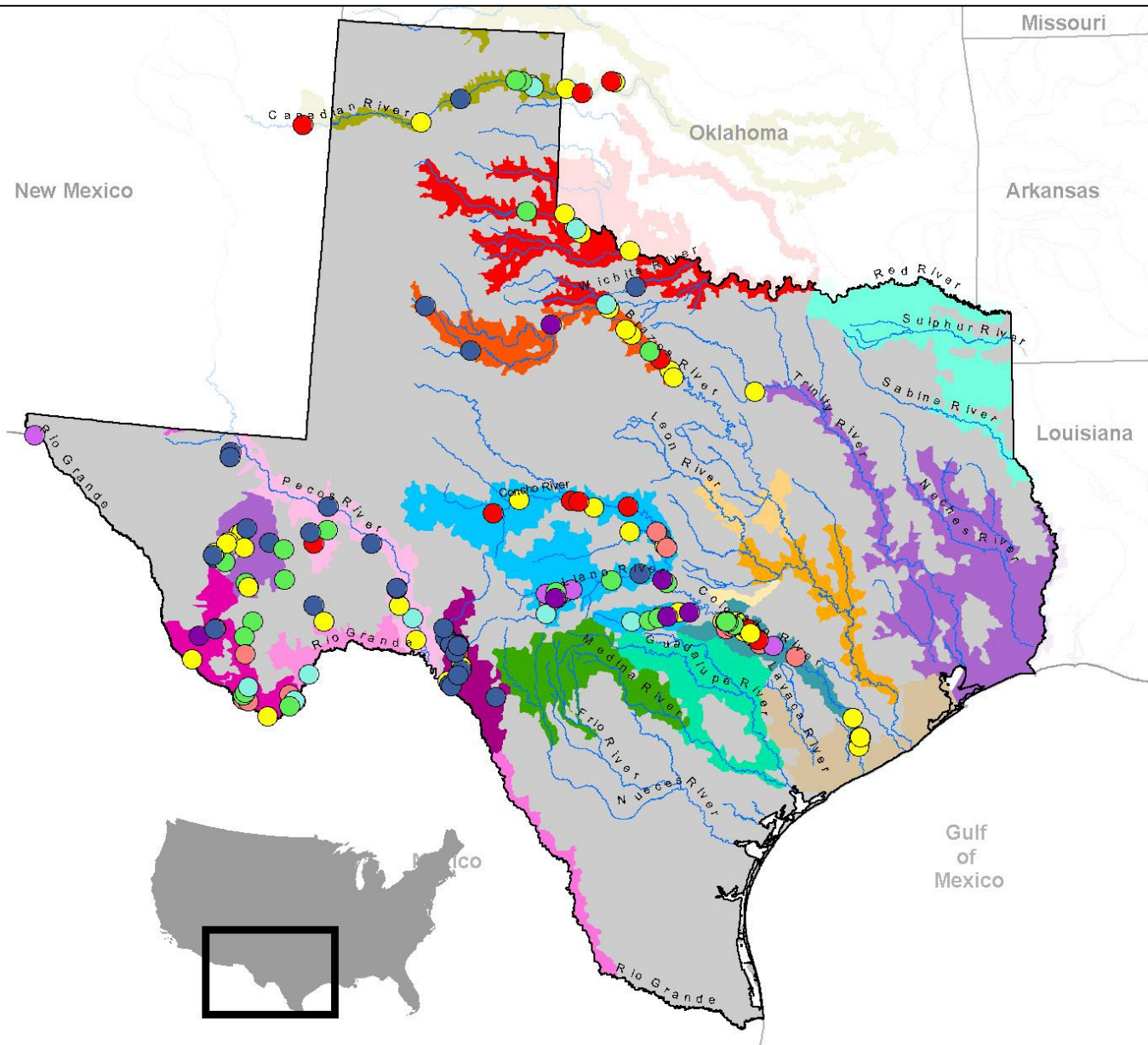


## Goals of the Texas NFCAs Network

- Protect and maintain intact habitats
- Restore altered habitats
- Restore instream and floodplain connectivity
- Mitigate effects of invasive species
- Organize and facilitate conservation partnership networks
- Establish conservation demonstration areas
- Conduct Research to fill critical science needs
- Monitor conservation outcomes and perform adaptive management

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# Assessment → Planning → Action

*Bridging the 'Knowing-Doing' Gap in Native Fish Conservation*

FIND OUT MORE

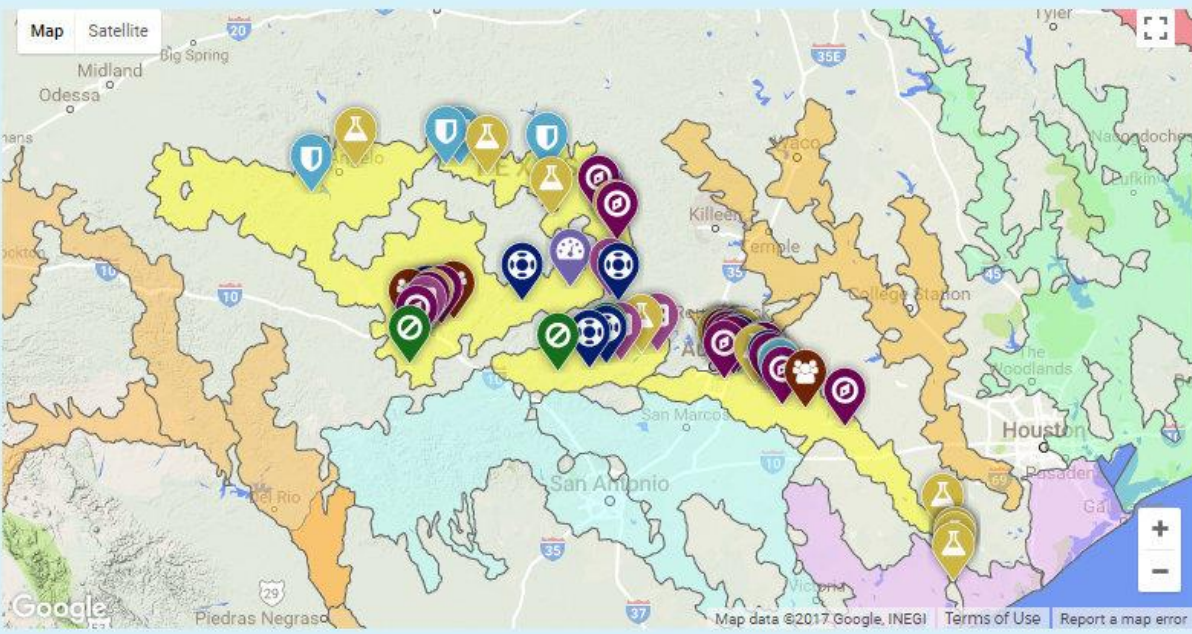
**[Nativefishconservation.org](https://nativefishconservation.org)**



## Interactive NFC Project Map

Outcomes of the Watershed-Based Conservation Planning Workshops - As of April 2016, watershed-based conservation planning workshops have been conducted for the Native Fish Conservation Areas in the Brazos, Canadian, Colorado and Red rivers.

Over 60 subject-matter experts participated in the workshops. Workshop participants recommended more than 150 project-level actions to conserve freshwater biodiversity in these priority watersheds. Top tier projects are presented.



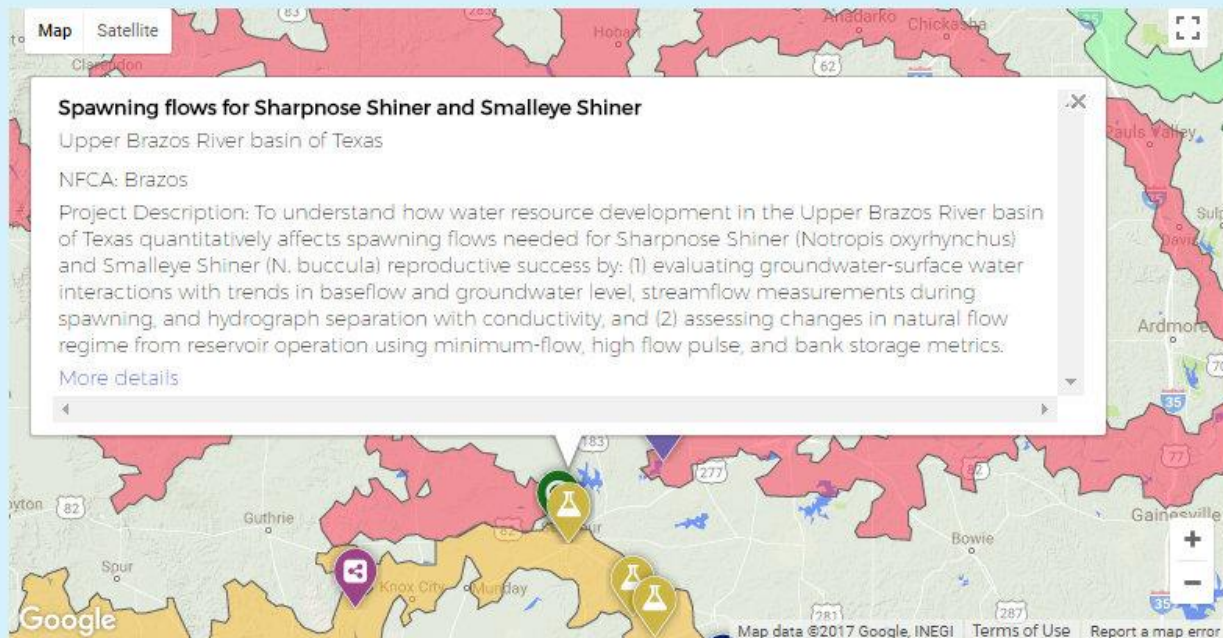
- ☐ Adaptive management and reporting
- ☐ Conduct monitoring to evaluate conservation action
- ☐ Conduct research to fill critical information gaps
- ☐ Develop conservation demonstration areas
- ☐ Mitigate effects of invasive species
- ☐ Organize networks of public and private landowners
- ☐ Protect and maintain intact, healthy habitats
- ☐ Restore impacted habitats
- ☐ Restore stream and habitat connectivity



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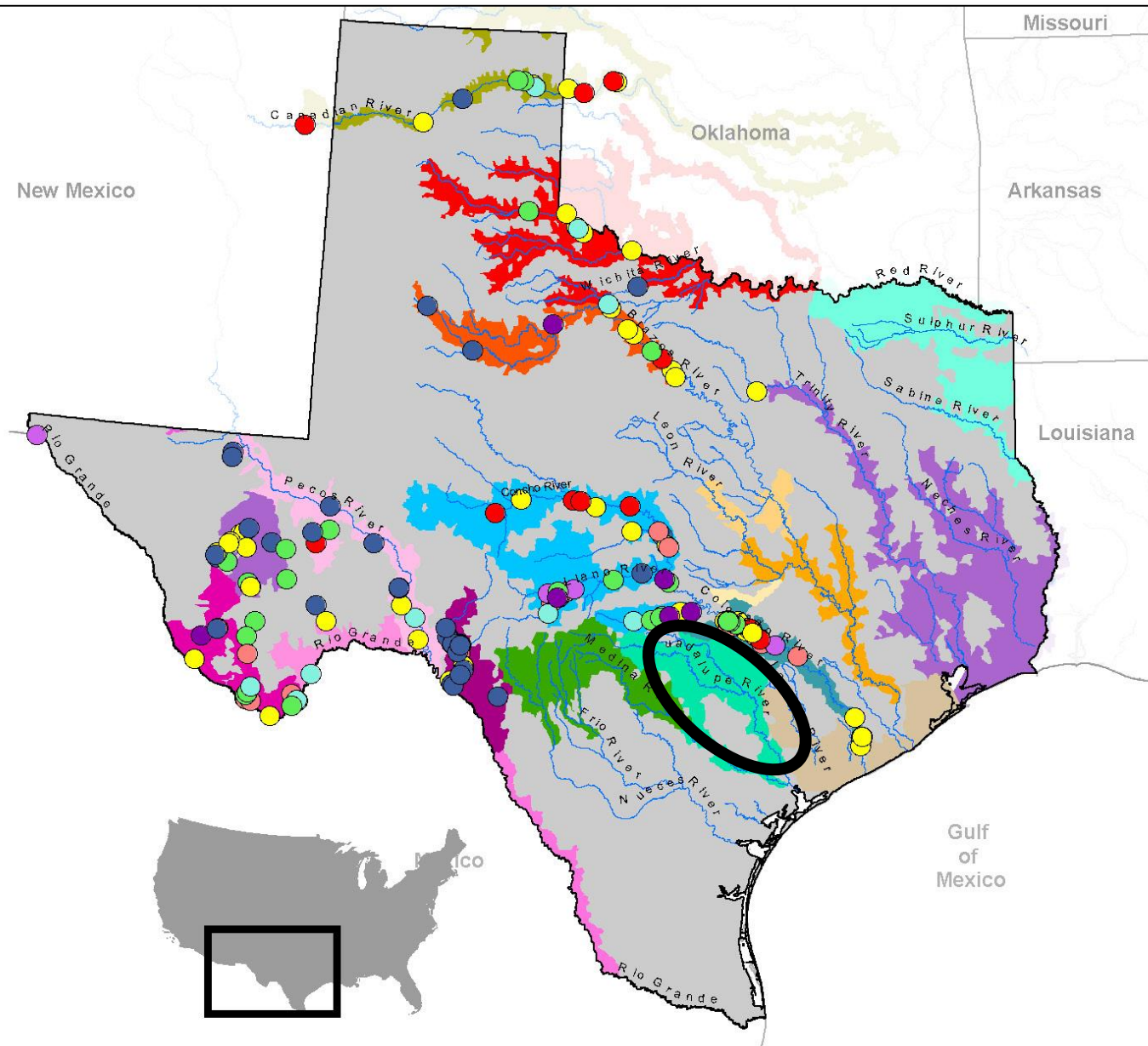


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# **Texas Native Fish Conservation Network**

## **2010-2018 Outcomes**

- ◆ **\$1.2M in TPWD funds leveraged against \$4.5M in project funds and \$11M in partner matching funds**
- ◆ **61 river conservation workshops with engagement of > 2,000 landowners**
- ◆ **123,000 acres committed to watershed conservation**
- ◆ **15,890 acres under conservation easements**
- ◆ **> 9,677 acres of habitats restored, including 50 springs and spring complexes**
- ◆ **2 dams and 1 low water crossing removed**
- ◆ **2 bridges redesigned and 1 replaced**



