



# THE MEADOWS CENTER FOR WATER AND THE ENVIRONMENT

*No natural resource is more important to our future than Water. Water is what we do.*

RESEARCH | STEWARDSHIP | SERVICE | EDUCATION



THE MEADOWS CENTER  
FOR WATER AND THE ENVIRONMENT  

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TEXAS STATE UNIVERSITY



# TEXAS STREAM TEAM

...is a joint partnership with Texas Commission on Environmental Quality, U.S. EPA Region VI, Texas State University-San Marcos, and numerous partners.

We bring together community members, students, educators, academic researchers, environmental professionals, and both public and private sector partners to conduct scientific research and to promote environmental stewardship.



# TEXAS STREAM TEAM

***Mission*** - To facilitate environmental stewardship by empowering a statewide network of concerned volunteers, partners, and institutions in a collaborative effort to promote a healthy and safe environment through environmental education, data collection, and community action.

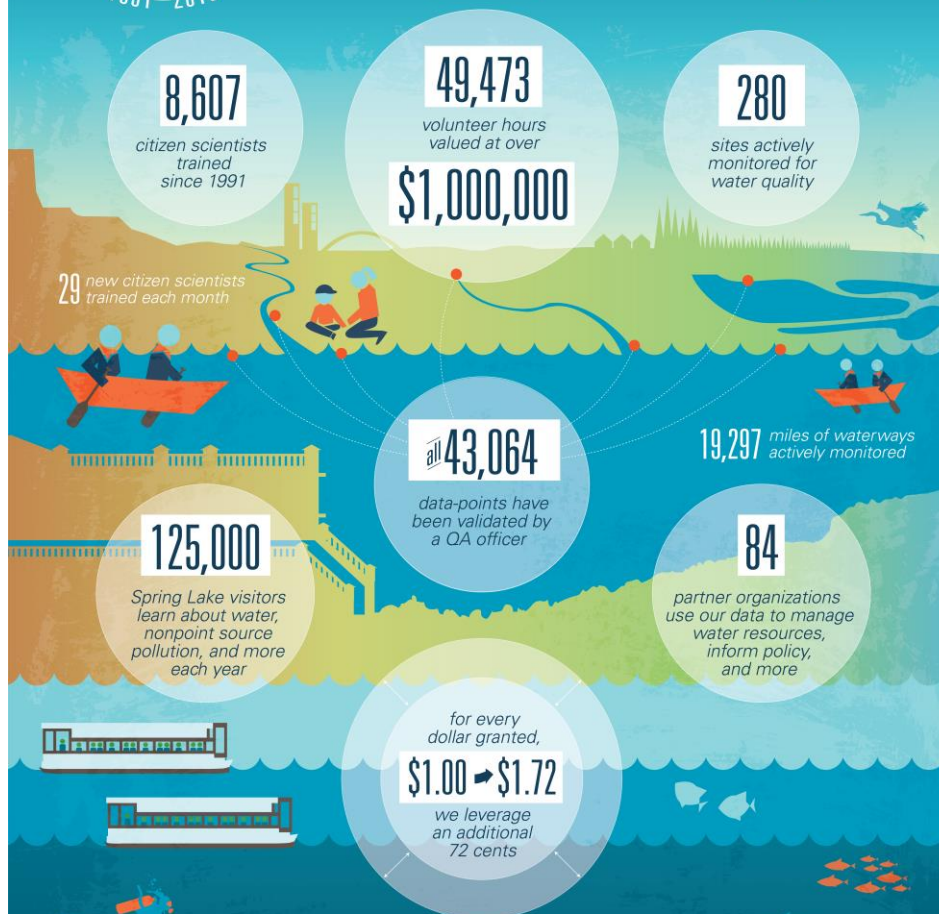






# OF CITIZEN SCIENCE AT TEXAS STREAM TEAM

Water Quality Monitoring — Education — Community Engagement



[JOINSTREAMTEAM.ORG](http://JOINSTREAMTEAM.ORG)



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# TEXAS STREAM TEAM

Volunteers collect water quality data from established sites

- Standard training for temperature, pH, dissolved oxygen, conductivity, water clarity, field observations
- Advanced training for E. coli, nitrates, phosphates, turbidity



Prepared in cooperation with the Texas Commission on Environmental Quality and the United States Environmental Protection Agency		<b>THE MEADOWS CENTER FOR WATER AND THE ENVIRONMENT</b> Texas Stream Team <b>ENVIRONMENTAL MONITORING FORM</b> PLEASE PRINT (Black Ink or #2 Pencil)		Send to: Texas Stream Team Texas State University Riverside Apts - Unit C4 601 University Drive San Marcos, TX 78666-4616 Toll Free: (877) 506-1401 Email: <a href="mailto:txstreamteam@txstate.edu">txstreamteam@txstate.edu</a>	
Group ID # _____		Monitor's Name _____			
Station ID # _____		Site Description _____			
Sample Date _____		Sample Time (military) _____		Sample Depth (meters) _____ (not total depth)	
Meter Calibration: (Within 24 hours of sampling.) Store and calibrate standard at room temperature.					
Conductivity	Calibration	Date	Time	Standard Value	Standard Temp (°C)
pH (7.0)					
<b>Core Tests and Measurements:</b> <input type="checkbox"/> CONDUCTIVITY (µS/cm) <input type="checkbox"/> TDS Tester 3 (Low) <input type="checkbox"/> TDS Tester 4 (High) <input type="checkbox"/> Other <input type="checkbox"/> WATER TEMPERATURE (°C) <input type="checkbox"/> AIR TEMPERATURE (°C) <input type="checkbox"/> DISSOLVED OXYGEN (mg/L) 1st titration _____ 2nd titration _____ Average _____ <input type="checkbox"/> pH (standard units) <input type="checkbox"/> SECCHI DISK TRANSPARENCY (meters) <input type="checkbox"/> TOTAL DEPTH (meters) <input type="checkbox"/> TRANSPARENCY TUBE (meters)				<b>Reagents/Media:</b> Are any reagents (or media) expired? <input type="checkbox"/> Yes <input type="checkbox"/> No List any expired: _____ <b>Bacteria Test:</b> <input type="checkbox"/> E. COLI (cfu/100 mL) Average Sample 1 _____ Sample 2 _____ INCUBATION: Period (hrs) _____ (28-31 hrs) Temp (°C) _____ (33±3°C) SAMPLE 1: Sample size _____ mL Dilution factor (100/sample size) _____ Colonies counted _____ x dilution factor _____ = _____ cfu/100 mL SAMPLE 2: Sample size _____ mL Dilution factor (100/sample size) _____ Colonies counted _____ x dilution factor _____ = _____ cfu/100 mL FIELD BLANK: Any colony growth (circle one) YES / NO DATA QUALITY REVIEW: Checklist completed (circle one) YES / NO	

# Data Uses

- Inform citizens, communities about local water quality
- Act as an early warning system for water quality issues
- Municipalities can incorporate into outreach messaging and monitoring efforts
- Supplemental data and education components applied towards WPP and TMDL activities
- Interpretive displays, education and outreach event
- Teachers and students use data for research projects
- *Presented on [Dataviewer](#)*
- *Compiled in Annual Data Summary Reports*
- *Submitted to EPA's water quality database*

# TEXAS STREAM TEAM

Participation in local planning, protection,  
restoration and educational events

- Watershed protection plans, TMDLs, water conservation initiatives
- University research, long term monitoring efforts
- Clean ups, restoration, habitat monitoring
- Community events, school programs, youth programs



# TST Partners, Network

- Provide kits, supplies, materials when budget allows
- Host trainings and educational events
- Create Monitoring Plans for citizen scientists
- Conduct quality assurance and submit data
- Incorporate TST data into projects, planning
- Use TST data to supplement professional water quality monitoring
- Act as watershed ambassadors, regional hubs
- Provide education and outreach, special projects, other support



## Current TST Partners Active in the UTRB

- Aquatic Alliance
  - Rich Grayson
    - <http://www.whiterocklake.org/index.php/programs/water-monitoring/texas-stream-team-and-aquatic-alliance>
- City of Dallas
  - Christopher Morris



## Specialized Data Collection Options

- Determine priority volunteer monitoring sites within your watershed
- Pick and choose parameters to test on a monthly or quarterly basis
- Schedule site specific grab samples to be brought to certified lab



# Training and WQ Monitoring Kit

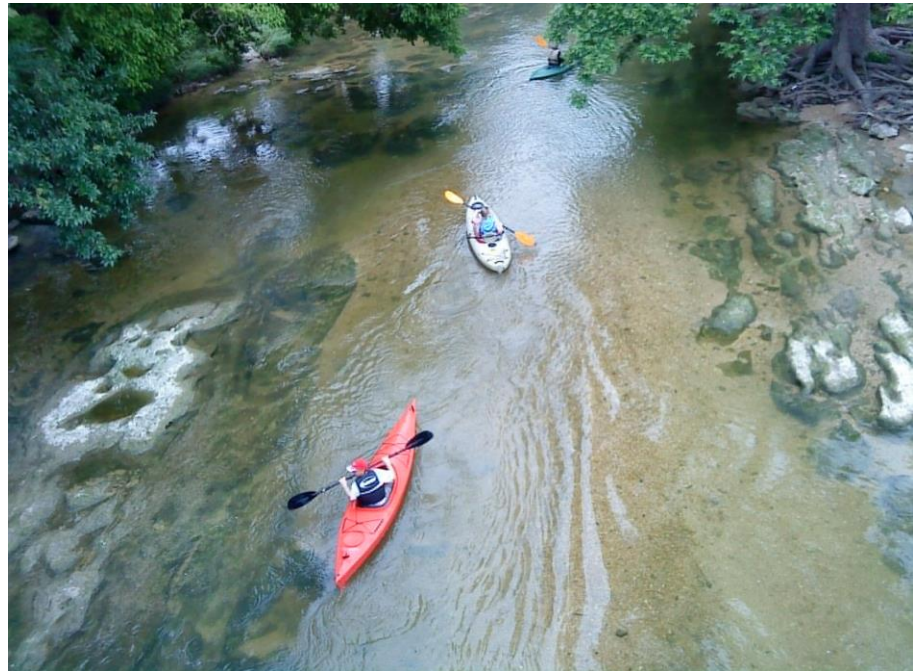
- Become trained as a Texas Stream Team instructor and recruit/train citizen scientists as needed
- Purchase kits to check out to volunteers directly
- Team up with existing Stream Team chapters in DFW area to share kits and training opportunities





# New TST Programs

- TST Paddlers
- TST Anglers
- TST Divers
- TST on Campus
- Monofilament Finders
- Biomonitoring
- Riparian Assessments
- Video





# THANK YOU

Visit [www.joinstreamteam.org](http://www.joinstreamteam.org) for more info.

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