

Texas Stream Team Summary

Date: September 18, 2026

Host Location: North Central Texas Council of Governments

Trainers: Aspen Navarro, Delaney Hankins, Megan Paliwoda, Lauren Plunk

Program Purpose & Impact

The Texas Stream Team supports Total Maximum Daily Load (TMDL) implementation by providing supplemental surface-water-quality monitoring through trained volunteers and partner organizations. Its data can expand monitoring coverage, address data gaps in impaired subwatersheds, and support evaluations of the existing E. coli monitoring network.

As a participant in the Monitoring Coordination Forum, the Texas Stream Team contributes information that may be reviewed alongside data from regulatory and regional monitoring programs. Although Stream Team data may not always meet formal regulatory quality-assurance requirements, it can provide screening-level information to identify potential bacterial sources, prioritize additional sampling, and inform assessments of implementation strategies and best management practices.

Overall, the program strengthens TMDL implementation through supplemental monitoring, public participation, and improved access to water-quality information.

- Texas Stream Team mobilizes 14,000+ community scientists, 160+ partners, and 250+ active monitoring sites to support environmental education, data collection, stewardship, and community action.
- Monitoring results help identify watershed trends, investigate nonpoint-source pollution, conduct research, and supply publicly accessible state and federal databases.
- A TCEQ-approved Quality Assurance Project Plan and standardized statewide methods underpin data reliability.

Why Community Monitoring Matters

- Land use across a watershed directly affects the water receiving its runoff, sediment, and pollutants.
- Community scientists can monitor them more frequently and cost-effectively than professionals and provide early warnings to local TMDL program managers and other stakeholders in water quality management.

What Participants Learned

- Core measurements included field observations, air and water temperature, transparency, depth, conductivity, dissolved oxygen, and pH.
- Field observations such as flow severity, algae coverage, surface conditions, weather, and water appearance must be classified consistently rather than estimated casually.

- Participants practiced sample collection and instrument-based procedures, including the Winkler method for dissolved oxygen, conductivity-meter calibration, and pH testing.
- Quality control is embedded throughout preparation, sampling, documentation, equipment cleaning, data submission, and waste disposal.

Actions after training

Organizations can divide responsibilities across seven roles: a Training Host provides facilities, while a Trainer organizes and leads at least one Texas Stream Team training annually. A Supply Funder finances monitoring and training materials; an Equipment Host provides secure, weather-protected storage; and an Equipment Coordinator stocks, maintains, organizes, and schedules shared equipment. A Data Coordinator reviews submissions for quality and follows up on missing, unclear, or unusual entries, while Community Scientists/Monitors visit designated sites monthly and submit their findings.

Texas Stream Team supports organizations across 10 complementary areas. It provides matching support through training, technical assistance, volunteer time, equipment access, and monitoring supplies that may count toward grant or partner-match requirements. It advances participation goals by helping partners meet outreach, education, volunteer-engagement, and community-participation targets. For existing monitoring, the program adds trained volunteers, standardized methods, shared equipment, and dependable schedules; for new monitoring coverage, it helps establish data collection at priority sites, tributaries, restoration projects, parks, schools, and communities that lack routine monitoring. Its watershed analysis support builds locally relevant datasets for identifying trends, comparing sites, recognizing concerns, and understanding changing conditions over time.

The program also contributes to watershed protection plans by supplying community-science data, local knowledge, and public participation for planning, implementation, and progress tracking. It strengthens grant applications by demonstrating volunteer capacity, partnerships, monitoring plans, community involvement, and clear local data needs. Through project evaluation, monitoring can track conditions before, during, and after restoration, green-infrastructure, education, or stewardship initiatives. Its community education activities connect residents, students, staff, and volunteers with local streams through hands-on field science and watershed learning. Local data storytelling turns monitoring results into accessible maps, summaries, presentations, and conversations that strengthen outreach and inform organizational and community decision-making. Graduates are expected to adopt or establish a monitoring site and submit data at least monthly.

- The DFW program currently reports 26 active sites, 33 monitors, seven trainers, and five training sessions per year, supported by municipal, regional, nonprofit, and volunteer partners.

1. Danny Flores TRWD
2. Breanna Davis City of Duncanville
3. Sergio Molina City of Duncanville
4. Hannah Parks City of Irving
5. Kylie Wieden City of Grand Prairie
6. Jason Heflin City of Grand Prairie
7. Ehsan Shirani City of Irving
8. Hope Mathis City of Fort Worth
9. Ava Playle City of Fort Worth
10. Zoey Suasnovar City of Fort Worth
11. Brayden Keblawi City of Fort Worth
12. Karen Herrera City of Lewisville
13. Sandra Wing-Tolleson City of Tyler
14. Brandon Meadows City of Lewisville
15. Randy Bright City of Colleyville
16. Yesenia Olguin City of Garland
17. Raquel Sierra City of Garland
18. Andrew Campola City of Garland
19. Jayce Johnson City of Garland
20. Thomas Owens City of Garland
21. Sayaka Koga City of Denton
22. Cassandra Simpson City of Grand Prairie
23. Lauren Herrera
24. Michael Tijerina
25. Kayla Lipinski City of Flower Mound
26. Jessie Silverstein TRWD
27. Darin Ford
28. Adolfo Reyes
29. Nadine Hutcheson
30. Joy Douglas North Central Texas Council of Governments

31. Lauren Plunk Trainer North Texas Municipal Water District
32. Megan Paliwoda Trainer City of Fort Worth
33. Aspen Navarro Trainer The Meadows Center for Water and the Environment
34. Delaney Hankins Trainer The Meadows Center for Water and the Environment