



**Lower Neches Valley Authority  
Clean Rivers Program  
Steering Committee Meeting Minutes**

**Location:** LNVA Saltwater Barrier  
6790 Bigner Rd  
Beaumont, TX 77708  
**Date:** July 30, 2026  
**Time:** 1:30 pm

**Attendees:**

|                                                   |                                       |
|---------------------------------------------------|---------------------------------------|
| Jeannie Mahan- LNVA                               | Bruce Walker- Big Thicket Association |
| Bethany Stanton- LNVA                             | Brian Fife- LNVA                      |
| Terry Stelly- Southeast Texas Clean Air and Water | Paul Bertrand- TMN/LIT                |
| Katrina Smith-TCEQ                                | Jeff Phillips- JCOEM                  |
| Jennie Knapp- Big Thicket Association             | Qin Qian- Lamar University            |
| Matt Stellbauer-TWRI                              | Madgellen Cleary-Texas Sea Grant      |
| Chelsea Carrillo-Texas Sea Grant                  | Diane Thompson- BTA                   |
| Jason Watson-LNVA                                 | Terry Corbett-LNVA                    |

**Welcome and Introductions 1:30 pm**

A sign in sheet was provided for attendees to fill out as well as a copy of the meeting's agenda and presentation handouts. Jeannie Mahan, LNVA CRP project manager, welcomed everyone who gathered for the steering committee meeting and all the attendees introduced themselves and their affiliations. A Big Thicket Association representative updated everyone with their organization activities and the upcoming Neches River Rally on September 12 to be held at the LNVA Saltwater Barrier.

## **LNVA Clean Rivers Program Updates**

Jeannie Mahan continued with an overview of the Texas Clean Rivers Program (CRP) and an update on FY26 water quality monitoring activities. LNVA currently monitors 23 sites, with TCEQ Region 10 CRP monitoring an additional 22 sites. FY26 activities included three 24-hour dissolved oxygen study sites on Pine Island Bayou, completion of monitoring for the Bacteria Source Tracking Study, and continued operation of Continuous Water Quality Monitoring Station (CAMS) 749. Equipment upgrades for CAMS 749 are anticipated in FY27. LNVA discontinued metals monitoring in FY26, while the Angelina & Neches River Authority is beginning a two-year metals study.

Updates to the Draft 2026 Texas Integrated Report were reviewed as well. New impairment listings within the study area include excessive algal growth in B.A. Steinhagen Lake, bacteria in Big Sandy Creek, and chloride and total dissolved solids in Taylor Bayou/North Fork Taylor Bayou Above Tidal. No water bodies were de-listed in the Lower Neches or Neches-Trinity Coastal basins.

Long-term water quality trends from 1999 through early 2020 were presented along with a historical overview of drought and hydrologic conditions from 1999–2026. The discussion emphasized the influence of drought, flooding, hurricanes, and changing streamflow on water quality conditions and the interpretation of long-term trends.

LNVA CRP data manager, Bethany Stanton, provided information on alligator snapping turtles as well as a contact email for sightings of alligator snapping turtles.

## **Neches Tidal and Hillebrandt Bayou TMDL Update**

Matt Stellbauer with the Texas Water Resources Institute provided an update on bacteria Total Maximum Daily Loads (TMDLs) and Implementation Plans for Hillebrandt Bayou and Neches River Tidal.

The Hillebrandt Bayou impairment is primarily associated with nonpoint-source runoff, with substantial reductions in bacteria loading needed during runoff conditions to meet water quality requirements. The Neches Tidal watershed is more complex due to tidal hydrology and the variety of potential bacteria sources.

The Implementation Plan, developed with local stakeholders and implemented beginning in 2023, includes conservation planning, feral hog and septic system management, reduction of sanitary sewer overflows, forestry best management practices, water quality monitoring, watershed education, and municipal stormwater activities.

Progress on implementation activities was reviewed. Current monitoring indicates that bacteria concentrations in Hillebrandt Bayou remain above the applicable criterion but are not showing a significant increasing or decreasing trend. In Neches Tidal, substantial decreases in

Enterococci concentrations have been observed in three downstream assessment units since 2015.

### **Hurricane Preparedness**

Jeff Phillips, Deputy Emergency Management Coordinator, provided a presentation on hurricane preparedness. Topics included personal and family preparation, protection of important documents, hurricane naming, and environmental factors affecting tropical cyclone development and movement.

The presentation discussed the influence of the Saharan Air Layer, water temperature, wind shear, and the Bermuda High on hurricane development and tracks. Information was also provided on hurricane season, the 2026 hurricane outlook, voluntary and mandatory evacuations, evacuation routes, re-entry into affected areas, and procedures for essential personnel following a storm.

A stakeholder from Texas Sea Grant offered copies of the new edition of ***Homeowner's Handbook to Prepare for Natural Disasters*** recently released by Texas Sea Grant to the office of emergency management.

### **Water Quality Prediction Using Machine Learning**

Dr. Qin Qian with Lamar University presented research on water quality prediction in the Lower Neches River using machine-learning models and wireless sensor measurements.

The research uses continuous water quality and hydrologic data to develop predictive models for bacteria, dissolved oxygen, and turbidity. Results identified flow, conductivity, dissolved oxygen, pH, temperature, and alkalinity as important factors associated with Enterococci concentrations.

Machine-learning models were also developed to forecast dissolved oxygen under varying hydrologic conditions. Results demonstrated the potential to predict hourly dissolved oxygen concentrations up to 14 days in advance and illustrated the effects of drought, heat, and flooding on dissolved oxygen conditions.

Research using Pine Island Bayou monitoring data was also presented for predicting turbidity. Results showed strong relationships among rainfall, stream conditions, and turbidity, with turbidity generally responding rapidly following rainfall events. The research demonstrates the potential for continuous monitoring and machine-learning tools to provide advanced information for water resource and water quality management.

Stakeholder questions included the potential use of total suspended solids data in the model, as well as comparisons between the machine learning model results and those obtained using other statistical testing methods.

Meeting was adjourned by Jeannie Mahan at approximately 2:45 pm.