

BASIN HIGHLIGHTS REPORT PROGRAM UPDATE



**Lower Neches Basin and
Neches-Trinity Coastal Basin**

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The Clean Rivers Program

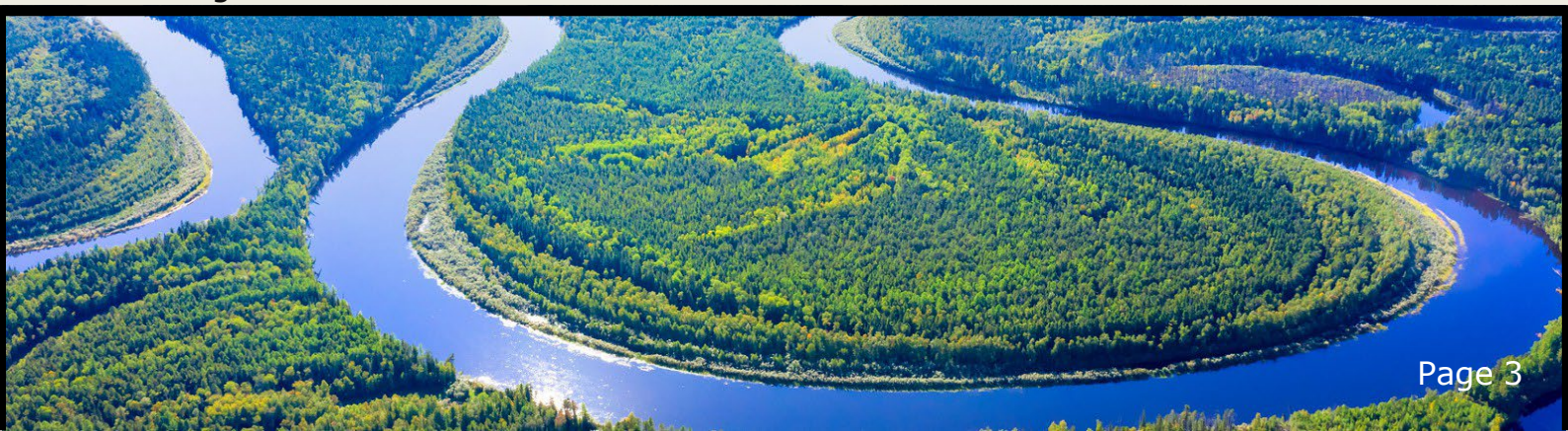
The Texas Clean Rivers Program was established in 1991. It is a state fee-funded, non-regulatory program that was created to provide a framework and forum for managing water quality issues using a holistic state-wide approach. The focus of the program is to work at the watershed level within each river basin and coordinate the efforts of the organizations included in each basin. There are currently 15 regional water agencies that have CRP contracts with the Texas Commission on Environmental Quality (TCEQ) to conduct water quality monitoring assessments and stakeholder outreach in the 23 major river and coastal basins of Texas. Of the 15, 12 are river authorities; one a water district; one a council of governments; and an international water commission.

In order to ensure the most cost-effective monitoring of the Neches River Basin and Neches-Trinity Coastal Basin, the CRP program relies on a cooperative effort between agencies within the basin. The Lower Neches Valley Authority (LNVA) coordinates monitoring activities in the lower portion of the Neches River Basin with TCEQ's Surface Water Quality Monitoring (SWQM) program, and TCEQ's Region 10 Field Office located in Beaumont. The upper portion of the Neches River Basin is monitored by Angelina River Authority headquartered in Lufkin, TX.

The LNVA participates in the annual Coordinated Monitoring Meeting for the Neches River Basin which is attended by all water quality monitoring agencies in the basin and TCEQ. Other agencies involved in this coordination effort include the Texas Water Research Institute and the Texas State Soil and Water Conservation Board.

Clean Rivers Program Successes

- This program generates approximately 60% of data used for water quality decision-making by the Texas Commission on Environmental Quality. The data is used to help with the development and implementation of TMDLs, Watershed Protection Plans, and other local actions.
- The program has produced enhanced coordination in monitoring efforts leading to increased sampling coverage throughout the river basins of Texas.
- Over the years, the cooperative nature of the program has led to strong relationships and effective communication with our partners all across the state. This allows the program to be successful and produce informative and reliable water quality data.
- The Clean Rivers Program has encouraged public outreach and awareness of water quality issues by bringing diverse stakeholders together to share information, identify and prioritize water quality issues in their basin and investigate workable solutions.



LOWER NECHES & NECHES TRINITY COASTAL BASINS



The LNVA's assessment area includes the Lower Neches Basin as well as the Neches-Trinity Coastal Basin.

The Lower Neches Basin is home to a variety of ecosystems, providing essential habitats for numerous wildlife species. Its rivers and wetlands are crucial for sustaining the region's biodiversity, supporting both aquatic and terrestrial life. Many segments within the Lower Neches Basin are densely forested. This basin is important to local communities, offering water resources and recreational opportunities that significantly impact the area's economy and lifestyle.

The Neches Trinity Coastal Basin serves as a vital barrier against storm surges and flooding. It features distinctive coastal ecosystems, including marshes and estuaries, which are key for water filtration and habitat preservation. The interaction between freshwater and saltwater in this area fosters a rich diversity of marine life, underscoring its ecological importance. Land use throughout the basin comprises forested regions, agricultural lands, urban development, and industrial activities. Water quality challenges arise from both the natural characteristics of the basin and potential human impacts, particularly in low-gradient streams and tidally influenced waters.

2025 Basin-wide Events

2025 Blizzard

The National Weather Service issued its first-ever blizzard warning for Jefferson and Orange counties in East Texas and parts of the Louisiana coast due to blowing snow dropping visibility along parts of the Gulf Coast for January 21, 2025. That warning ended on January 22. Many Texans woke up to their first winter wonderland since 2021. Authorities urged residents in Central, South, and Southeast Texas to stay home due to icy roads and hazardous driving conditions. The record for snowfall in the Beaumont-Port Arthur area is 30 inches on February 14-15, 1895.

Snow can increase runoff and pollutant concentrations because snow acts as temporary storage reservoir for both water and contaminants. When temperatures rise, especially over frozen ground, meltwater cannot easily infiltrate the soil and instead flows over the surface, increasing runoff volume. At the same time, any pollutants that have accumulated in the snow such as road salts, metals, or hydrocarbons are released in a first flush. This rapid release can produce higher pollutant concentrations than typical rainfall runoff, leading to short term spikes in contaminants entering storm drains, streams, and other surface waters.

Snowfall totals have varied greatly, even within a few miles of each other. Here are some of the notable snowfall totals in the lower Neches, Neches-Trinity, and Sabine River Basins on Tuesday morning, Jan. 21, 2025:

- Mauriceville: 5.5 inches
- Beaumont: 5.2 inches
- Deweyville: 4.5 inches
- Vidor: 4 inches
- Nederland: 3 inches
- Silsbee: 3 inches



Figure 1: Snow at the LNVA Saltwater Barrier

Top 10 Measurable Snowfalls in Beaumont-Port Arthur from 1895 to 2025:

1. Feb. 14-15, 1895 -- 30.0 inches
2. Jan. 21, 2025 -- 4.5 inches
3. Feb. 12-13, 1960 -- 4.4 inches
4. Jan. 11, 1973 -- 3 inches
5. Dec. 8, 2017 -- 3 inches
6. Feb. 12, 1958 -- 2.9 inches
7. Jan. 23, 1940 -- 2.5 inches
8. Feb. 15, 2021 -- 2.1 inches
9. Dec 22, 1929 -- 2.0 inches
10. Jan. 30, 1949 -- 1.8 inches

Source: National Weather Service



Figure 2: Hog, raccoon, and deer photos captured January 25-27, 2026. Photos courtesy of Terry Corbett.



2025 Drought Conditions in Southeast Texas

The year 2025 was characterized by above-average temperatures and below-average rainfall in Southeast Texas, leading to dry conditions throughout much of the year. For instance, Jefferson County recorded a significant shortfall in precipitation, marking it as one of its driest years on record with notable rainfall deficits. Drought intensity fluctuated across the region; according to drought monitoring tools, areas in Southeast Texas (including Jefferson and Hardin counties) experienced moderate drought (D1) conditions by late 2025. Statewide drought maps from late December 2025 confirmed that drought classifications continued to impact counties in this region.

Jefferson County (2025 Drought Specifics)

Jefferson County faced a marked reduction in precipitation during 2025, with rainfall falling below the long-term average, further intensifying dry conditions. National drought data indicated that parts of Jefferson County were experiencing moderate drought conditions in December 2025.

Hardin County (2025 Drought Specifics)

Hardin County displayed mixed signs of drought early in the year, featuring some wet periods and near-normal rainfall totals during various parts of 2025. However, drought classifications were also noted in late-year regional assessments.

By late 2025, drought conditions encompassed a vast area of Texas, with approximately 66% of the state classified under drought conditions (D1–D4) as early as 2026.

Burn Bans in Jefferson and Hardin Counties

In October 2025, Jefferson County implemented a burn ban due to dry conditions and an increased risk of wildfires, along with several neighboring counties. This ban prohibited most outdoor burning as a precautionary measure against wildfire threats.

Later in October 2025, the Commissioners Court extended the burn ban for an additional 90 days in unincorporated areas, as the drought and fire risk remained elevated. However, following rainfall and increased humidity that lowered fire danger indices (e.g., the Keetch-Byram Drought Index) in late October, county officials lifted the burn ban while still advising caution regarding outdoor fires.

Hardin County also issued a burn ban in mid-October 2025 under a local disaster declaration due to fire risks driven by drought conditions. This burn ban was officially lifted on October 26, 2025, as conditions improved, although officials cautioned residents to remain vigilant with outdoor burning due to ongoing dryness.

The burn bans in Southeast Texas during 2025 were primarily linked to dry soil, low humidity, elevated fire danger indices (such as the Keetch-Byram Drought Index), and a lack of sustained rainfall, all of which increased the risk of wildfires in the autumn.

Rainfall in late October 2025 temporarily alleviated fire risk, allowing counties like Jefferson and Hardin to lift their burn bans. Local officials, including county judges and commissioner's courts, utilized disaster declarations and burn ban orders to mitigate wildfire risks. These orders were adjusted as conditions evolved, whether through extensions or lifting of bans.

Highway Construction continues on US 69

The Texas Department of Transportation is currently working on a project along the US 69 corridor, situated between FM 1943 near Warren and FM 1003 in Kountze. This section is referred to as the "US 69 Gateway to the Big Thicket." The project aims to enhance safety and mobility along US 69, particularly during emergency evacuations, by minimizing conflict points and improving access. Key improvements in this construction project include: Widening and enhancing US 69 from FM 1943 to FM 1003 in Hardin and Tyler Counties to create a four-lane divided roadway with shoulders. Adding an evacuation lane in the northbound lanes. Incorporating a median. Including two 12 foot travel lanes in each direction. Installing four-foot inside shoulders, a 10-foot outside shoulder on the southbound lanes, and a 12-foot outside shoulder on the northbound lanes, which will function as a hurricane evacuation lane. Additionally, the project will extend the existing 7 mile paved hike-and-bike trail along the entire stretch of the project area. This aims to enhance connectivity to the current hike-and-bike trails within the Big Thicket National Preserve. Plans also include three new trail heads and one new parking area. Evidence of this project can be seen at site #15349 Hickory Creek in the Village Creek Watershed Segment, 0608D. Currently, Segment 0608D shows no impairments and is not listed in the Texas Integrated Report. Future data collection will assess whether the construction project has impacted the water quality of Hickory Creek.

US 69 Lumberton-Kountze project

TxDOT's Beaumont District is planning a US 69 relief route about 23 miles long, running from Cooks Lake Road south of Lumberton to FM 420 north of Kountze in Hardin County. US 69, a north-south highway from Port Arthur to Denison, is also a designated hurricane evacuation route. The goal of the project is to improve safety, ease congestion, and handle growing traffic from development and freight while offering an alternate evacuation route for Hardin and nearby counties. Plans call for a new roadway with two 12-foot lanes in each direction, wide outside shoulders for evacuation use, and two-lane frontage roads on both sides, with considerations for truck parking, bicycles, and pedestrians. Key milestones include completing preliminary design and a draft environmental review by 2029, holding a public hearing in 2030, and starting phased construction in 2036, depending on funding.

Total Maximum Daily Load and Implementation Plan Project Updates

Sandy Creek and Wolf Creek (Segment 0603) in East Texas have elevated bacteria levels that pose health risks for swimming and wading, so TCEQ and local stakeholders developed Total Maximum Daily Loads (pollution "budgets") and an Implementation Plan to reduce bacteria, improve water quality, and protect recreational use. The project includes public involvement through Texas Water Research Institute, an I-Plan approved in June 2023, TMDLs adopted in May 2022 and approved by EPA in August 2022, and ongoing annual status updates to track progress and adjust actions as needed.

Elevated concentrations of bacteria have also been observed in the Neches River Tidal portion of the river (Segment 0601). The Neches River Tidal project is actively moving through implementation, with TCEQ providing regular opportunities for stakeholders to report progress, evaluate what actions are working, and adjust strategies as needed. Status updates are published annually, including the Year 1 report from October 2024 and the Year 2 report scheduled for July 2025, which track how well the Implementation Plan is being carried out in both the Neches River Tidal and Hillebrandt Bayou watersheds.

More information and updates on these projects can be found through TCEQ's website at: <https://www.tceq.texas.gov/waterquality/tmdl/nav>.

Water Quality Monitoring Program

Routine Water Quality Monitoring

LNVA's Clean Rivers Program consists of 23 routine monitoring sites within the Lower Neches River and Neches-Trinity Coastal Basins. These stations are sampled quarterly for field, conventional, and bacteriological parameters. Field parameters are collected on site while conventional and bacteriological parameters are analyzed by a NELAP certified laboratory from water samples collected during the routine sampling event. Routine monitoring is crucial to the Clean Rivers Program and provides important water quality data used to identify long-term trends and assess the overall water quality conditions of the basin. Data from these sampling efforts along with data collected from other entities is available through the Texas Commission on Environmental Quality <https://www80.tceq.texas.gov/SwqmisPublic/index.htm>.

LNVA Routine Monitoring Parameters

Field	Conventional	Bacteriological
Dissolved Oxygen, pH, Specific Conductivity, Water Temperature, Total Water Depth, Secchi Depth, Flow Severity, Present Weather, Days since Rainfall, Instantaneous Flow	Chloride, Sulfate, Total Phosphorus, Ammonia-N, Nitrite+Nitrate, Total Hardness, Total Suspended Solids, Turbidity, Total Alkalinity	<i>E.coli</i> (freshwater) <i>Enterococcus</i> (tidal water)

Continuous Water Quality Monitoring Station (CAMS) 749

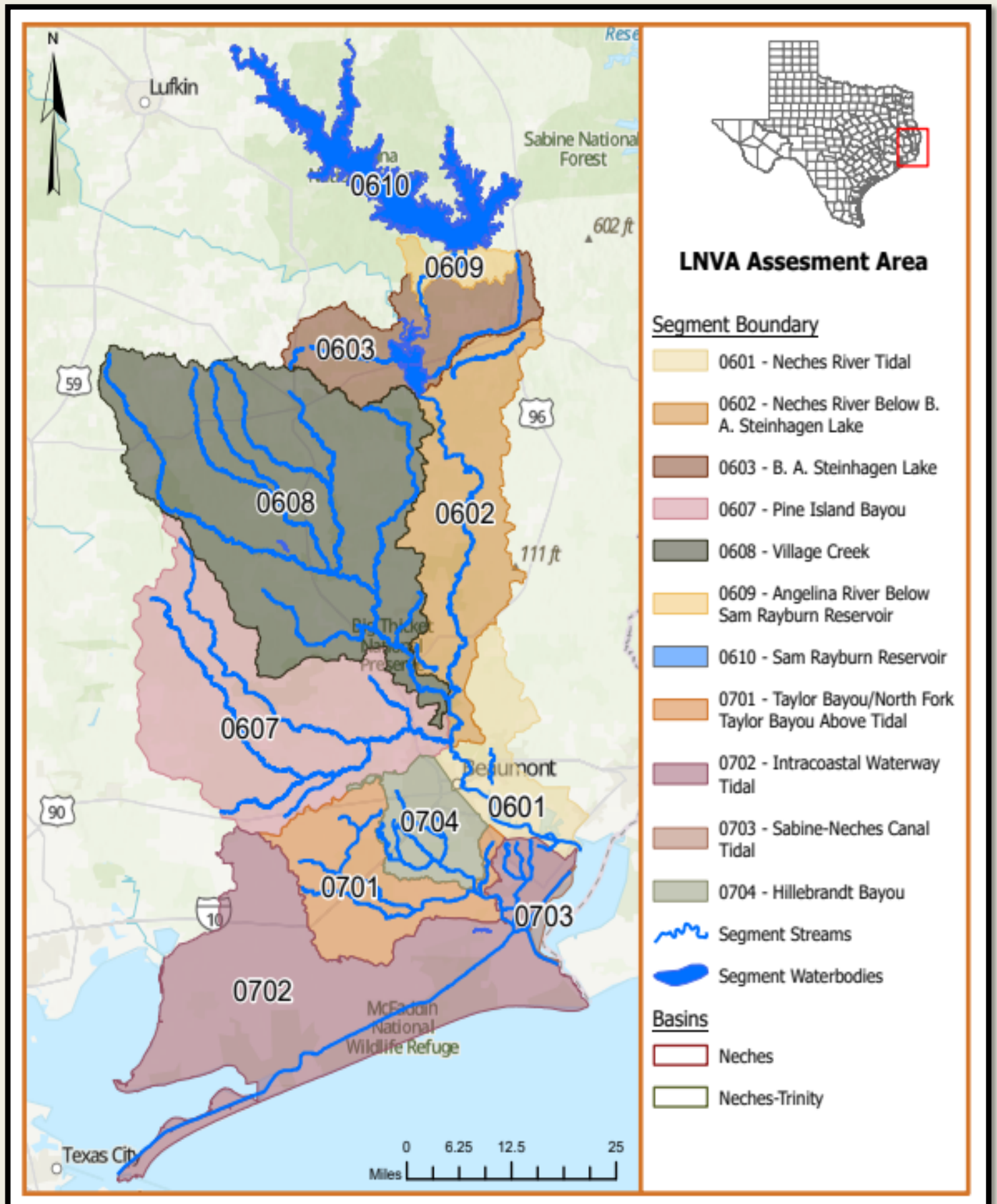
The TCEQ, in cooperation with the LNVA, operates Continuous Ambient Monitoring Station (CAMS) 749 on Pine Island Bayou. The station was installed in June 2008 to provide continuous, real-time water quality data for this tidally influenced waterbody in the Lower Neches River Basin.

CAMS 749 is located near the LNVA BI Canal pump station along Pine Island Bayou and is maintained and operated by LNVA as part of the TCEQ Continuous Water Quality Monitoring Network (CWQMN).

The station continuously monitors key water quality parameters, including dissolved oxygen, pH, water temperature, specific conductance, turbidity, total dissolved solids, and water depth. These parameters are critical for evaluating aquatic life use support and understanding short-term and seasonal variability associated with hydrologic conditions, tidal influence, and weather events. Data is transmitted in near real time and are publicly available through TCEQ's online monitoring platforms: [Pine Island Bayou C749 Data by Site by Date](#).

CAMS 749 has undergone equipment upgrades over time to maintain data quality and reliability, including replacement of legacy monitoring sondes with newer multi-parameter instruments. Following flood impacts associated with Hurricane Harvey, station infrastructure was relocated to a higher elevation to improve resilience during high-water events and ensure continuity of data collection. More upgrades are expected in the spring of 2026.

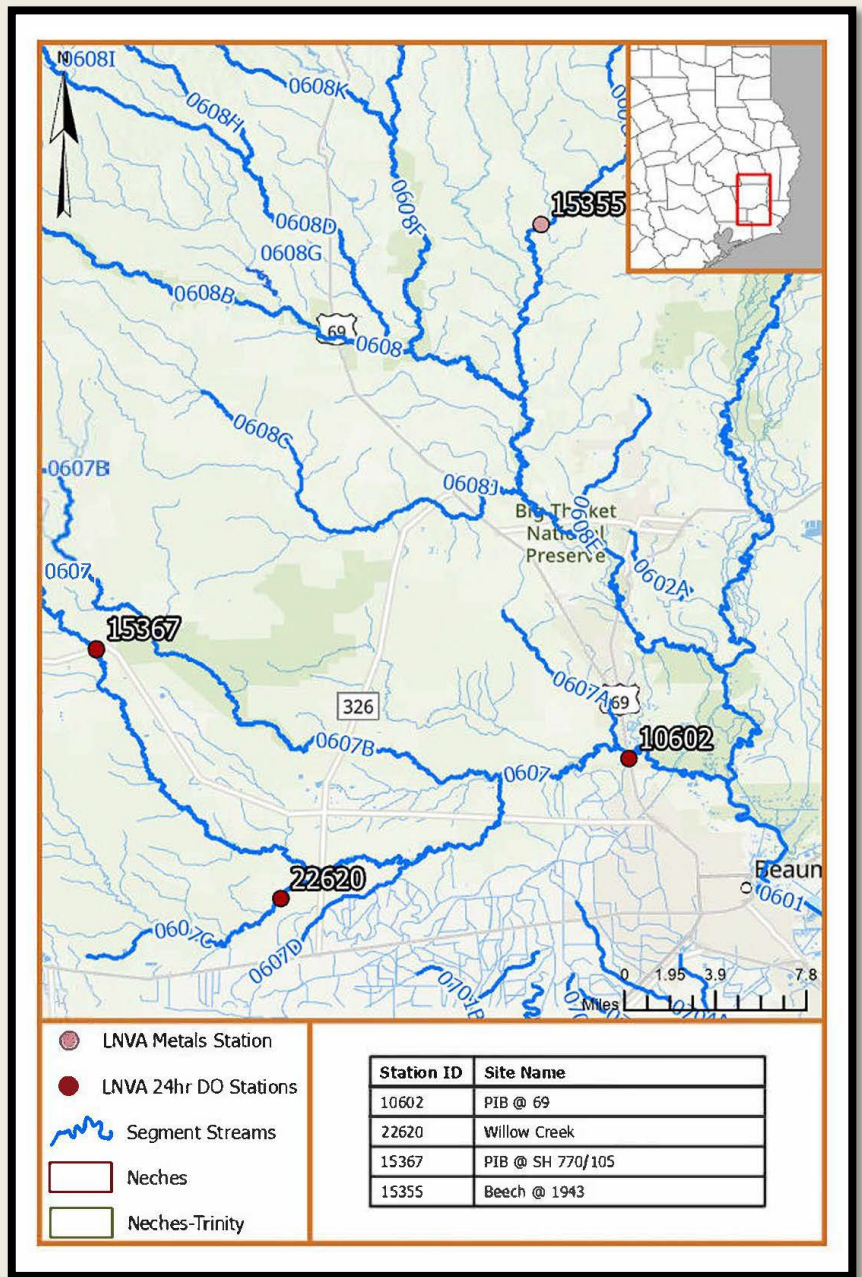
Map 1: The Lower Neches Basin and Neches-Trinity Coastal Basin assessment areas with stream segments.



CRP Monitoring Studies

24 Hour Dissolved Oxygen Monitoring

Along with routine sites, LNVA currently has 3 sites that are monitored for 24 hour dissolved oxygen (DO). Twenty-four (24) hour DO monitoring involves deploying a sonde to automatically record and store DO measurements over a 24 hour period. Although DO is the main parameter of interest, pH, conductivity, and temperature are also recorded. Measurements are generally taken once every 15 minutes and the overall average, minimum, and maximum values are reported. These values are then compared to the corresponding criteria set for the water body sampled. Twenty-four (24) hour DO sampling efforts are targeted to water bodies where routine monitoring has indicated an impairment or concern. Twenty-four (24) hour monitoring helps verify impairments by avoiding the bias that can occur when sampling DO only at certain times of the day. The map in Figure 2 shows the 3 stations where 24 hour DO monitoring is being conducted by LNVA in FY26. The Willow Creek site had to be relocated in 2025 to a site on the stream with no access restrictions.



Map 2: LNVA 24 hour dissolved oxygen monitoring stations and metals in water monitoring station.

Metals in Water

A special study monitoring metals in water was being conducted by LNVA for Beech Creek at Station 15355. Beech Creek was first listed on the Texas Integrated Report as having a copper impairment in 2014.

New data will demonstrate if copper levels are still a concern. Metals has a distinctive sampling method that must be followed to ensure samples are not contaminated. Samples were monitored for dissolved metals including calcium, sodium, potassium, arsenic, cadmium, chromium, copper, iron, lead, nickel, silver, zinc, and aluminum. Total metals analyzed include selenium and mercury.

LNVA will discontinue metals monitoring in FY26 when Angelina Neches River Authority begins a two-year metals study at 8 sites in the Neches Basin and 1 in the Guadalupe Basin.

Pine Island Bayou Bacteria Source Tracking Study (FY 2025)

A bacteria source tracking (BST) special study was initiated by the LNVA in FY 2025 to improve understanding of bacterial impairments in Pine Island Bayou (Segment 0607) and select tributaries. This study is intended to support stakeholder education and inform future management strategies and is not used for regulatory assessment purposes.

Pine Island Bayou and its tributaries have long-standing bacteria impairments, with Pine Island Bayou listed in 2008, Little Pine Island Bayou in 2006, and Willow Creek most recently listed in 2022. In the most recent data assessment, the geomeans for *E.coli* on Pine Island Bayou 0607_03 was 179 colonies/100 mL. 0607_04 was 128 colonies/100 ml . The geomean for Willow Creek was 304 colonies/100 mL. The geomean for Little Pine Island Bayou was 196 colonies/100 mL. Though concentrations of bacteria assessed are not much over the 126 colonies/100 ml standard limit, the continued listings and the addition of Willow Creek seem to suggest a worsening trend. Land use in the upper watershed is primarily forested with timber production, pastureland, agriculture, and oil and gas activities, while the lower watershed drains developed communities including Sour Lake, Bevil Oaks, Pinewood Estates, and northern Beaumont. Identified bacteria sources in the watershed are classified as nonpoint source or unknown, making impairment resolution particularly challenging.

The BST study evaluated three monitoring sites within the watershed and included three ambient-flow samples and one stormwater sample per site. Samples were analyzed at the Texas A&M University Soil and Aquatic Microbiology Laboratory to classify *E. coli* isolates into general source categories (human, domesticated animals/livestock, or wildlife) and more specific subcategories where possible.

Results from two completed sampling events (stormwater and ambient) indicate that wildlife and livestock/domesticated animals are the predominant identifiable sources of bacteria, while a substantial portion of isolates could not be definitively classified using the existing Texas BST library. Across sites and events, wildlife (particularly non-avian wildlife such as feral hogs, deer, rodents, and other mammals) was the most frequently identified source when classification was possible. Human sources were detected at some locations, primarily during ambient conditions, but did not dominate the overall results. The proportion of unidentified isolates highlights both the complexity of bacteria sources in the watershed and the limitations of current DNA fingerprinting methods.

Overall, preliminary BST findings suggest that bacteria impairments in Pine Island Bayou and its tributaries are largely driven by diffuse, nonpoint sources, particularly wildlife and agricultural-related activities, rather than a single controllable source. These results reinforce the need for watershed-scale management strategies and continued stakeholder engagement rather than site-specific corrective actions.



Upstream Pine Island Bayou @ 69



Upstream Little Pine Island Bayou @ 326



FY 25 Downstream Willow Creek site

WATER QUALITY OVERVIEW

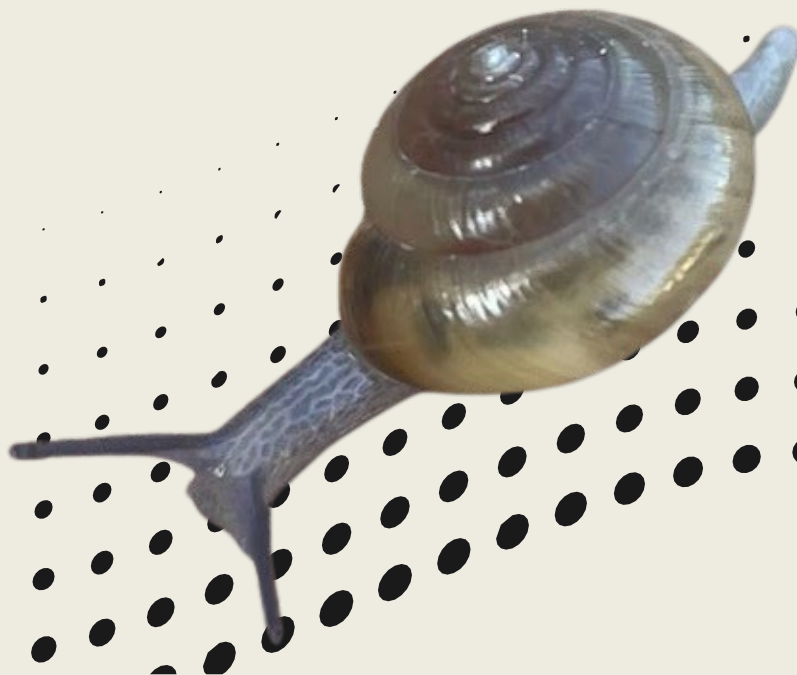
Texas Surface Water Quality Standards

Water quality conditions within the basin are assessed using the Texas Surface Water Quality Standards (TSWQS), which establish the regulatory framework for protecting the physical, chemical, and biological integrity of surface waters across Texas. The standards are developed and maintained by the TCEQ to protect public health, support recreational uses, and sustain aquatic life, while remaining consistent with the state's long-term economic and resource management goals. The TSWQS assign designated uses to each classified water body in the basin, including aquatic life use (exceptional, high, intermediate, or limited), contact recreation, and public water supply. These designated uses define the water quality expectations for individual stream segments, reservoirs, and tidal waters and serve as the basis for water quality assessments conducted under the Clean Water Act.

Support of designated uses is evaluated using numeric and narrative criteria for key water quality parameters. These criteria include dissolved oxygen, temperature, pH, salinity and dissolved minerals, toxic substances (such as metals and organic compounds), and indicator bacteria used to assess recreational safety. Aquatic life criteria are further informed by biological indicators and habitat conditions where applicable.

The standards are codified in Title 30, Chapter 307 of the Texas Administrative Code and are adopted under the authority of the Texas Water Code and the federal Clean Water Act. TCEQ periodically reviews and revises the TSWQS through a public rule-making process, including the development of site-specific criteria when sufficient scientific data are available to better reflect local hydrologic, chemical, or ecological conditions within the basin.

The Texas Surface Water Quality Standards meet federal Clean Water Act requirements and are approved by the U.S. Environmental Protection Agency (EPA). The standards provide the foundation for basin-wide water quality assessments, including the identification of impaired waters, development of the Texas Integrated Report, and prioritization of watershed management and restoration activities.



Texas Integrated Report

The Texas Integrated Report (IR) is the statewide assessment prepared by TCEQ in accordance with Sections 305 (b) and 303 (d) of the federal Clean Water Act. The IR evaluates whether Texas surface waters are meeting their designated uses as defined in the Texas Surface Water Quality Standards and identifies waters that are impaired or of concern based on available and quality-assured monitoring data. The report is developed on a biennial cycle and is reviewed and approved by the EPA.

During the 2024 Texas IR assessment cycle, water quality conditions in the Neches–Coastal Basin were evaluated using data collected through the Clean Rivers Program and other qualifying data sources. Monitoring data supported assessment of numerous classified streams, reservoir, and tidal segments and their associated assessment units, providing a basin-wide evaluation of water quality conditions.

Assessment results indicate a mix of fully supporting waters, persistent impairments, and screening-level concerns across the basin. Several long-standing impairments remain in select segments, particularly those related to depressed dissolved oxygen concentrations, excessive algal growth, and edible tissue contaminants. These impairments reflect the combined influence of natural watershed characteristics, hydrologic conditions, and ongoing land use pressures.

In addition to established impairments, the 2024 IR identified screening-level concerns that highlight localized water quality issues involving bacteria, nutrients, select metals, and habitat quality. While these concerns do not meet the criteria for listing as impaired, they indicate areas where continued monitoring, data review, or targeted management actions may be appropriate.

Comparison of the 2024 Integrated Report with the Draft 2026 Integrated Report indicates overall stability in water quality conditions within the Neches–Trinity Coastal Basin. Changes between assessment cycles largely reflect refinements in assessment methodology, expanded data coverage, and updated use support determinations rather than widespread changes in water quality. They are two new impairment listings expected in from the draft 2026 Texas Integrated Report. New impairments listed in 2026 for 0603 B. A. Steinhagen Lake is excessive algal growth. New impairments in 0701 Taylor Bayou/ North Fork Taylor Bayou Above Tidal are chloride in water and total dissolved solids in water. These findings support continued basin monitoring and prioritization of watershed management and restoration efforts.

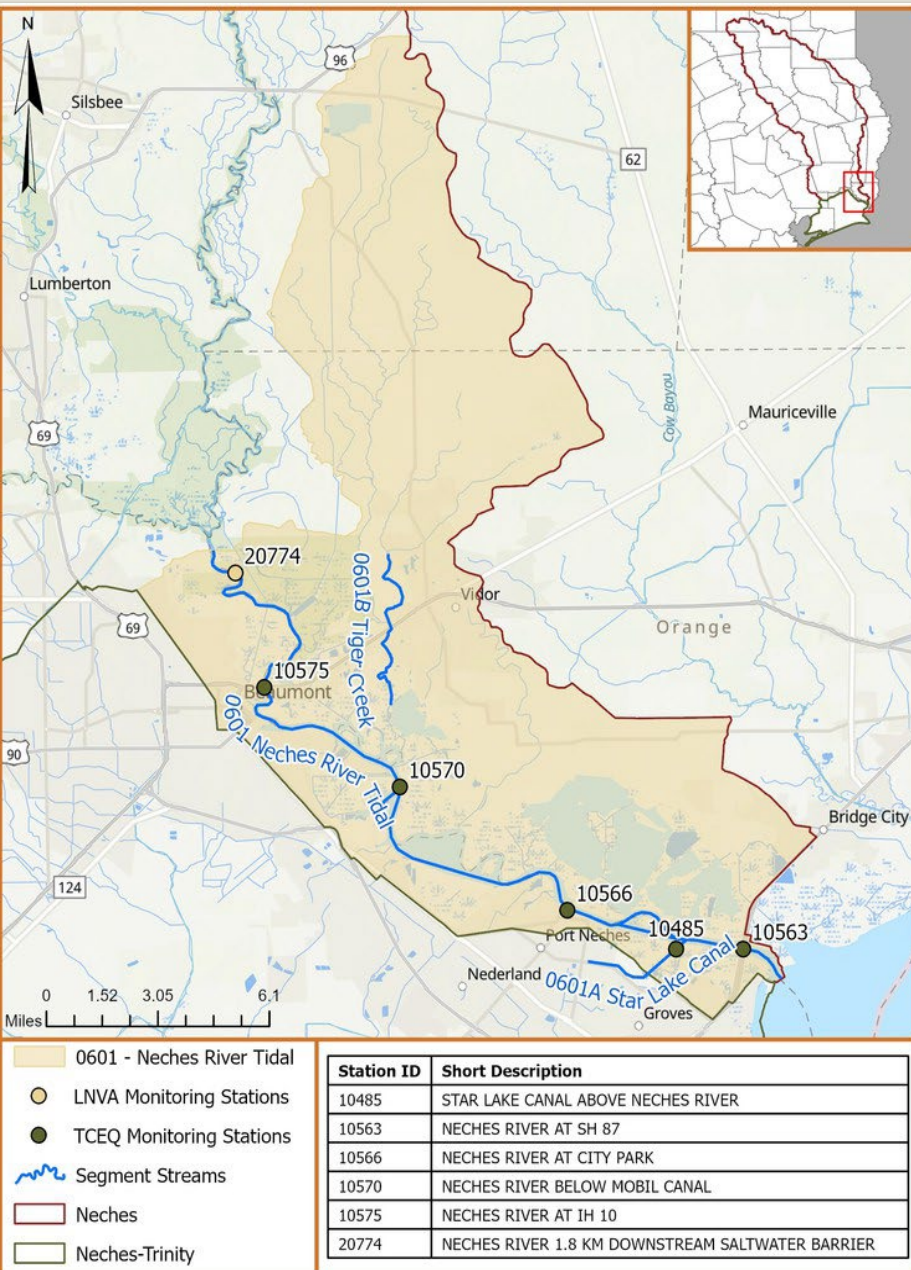


SEGMENT DESCRIPTIONS

Exploring the unique attributes of each basin

SEGMENT 0601 DESCRIPTION: NECHES RIVER TIDAL

The Neches River Tidal is the segment of the Neches River from Sabine Lake in Orange County to the Neches River Saltwater Barrier, a half-mile downstream of the confluence of Pine Island Bayou. Segment 0601 is classified as a tidal stream segment with intermediate aquatic life use and primary contact recreation use designations. Tidal exchange and fresh water inflows are the hydrologic influences in this segment. The substrates in this area consist primarily of sand, silt, and clay and consists of low, flat plains with some of the area being tidal marshes with bayous. Common reed and grasses, including little bluestem, yellow indiagrass, switchgrass, and salt meadow cord grass, are prevalent in the lower part of Segment 0601. Star Lake Canal (Segment 0601A) is a tidally influenced, dredged canal receiving industrial effluents, which discharge into the Neches River. The canal was constructed in the late 1940's and has been utilized for industrial and storm water purposes by chemical and manufacturing facilities.



Impairments and Concerns in 0601

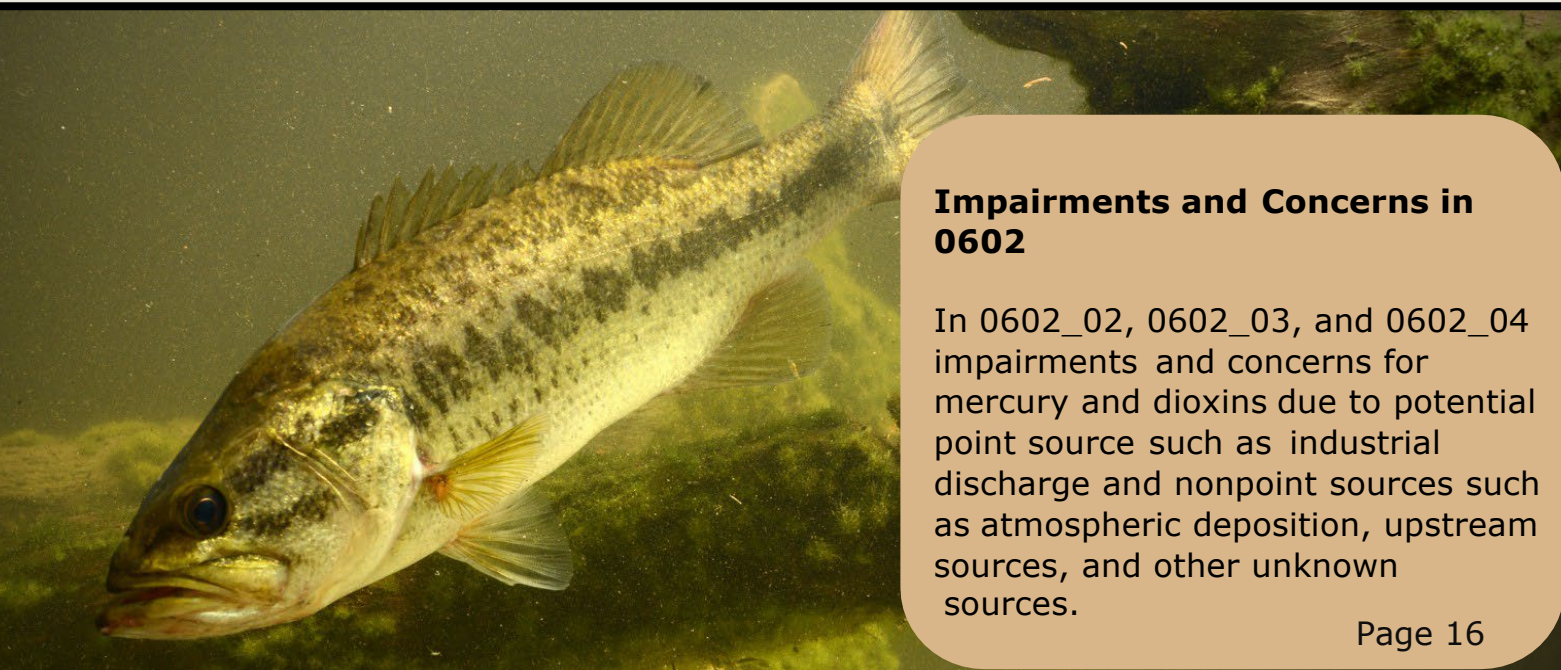
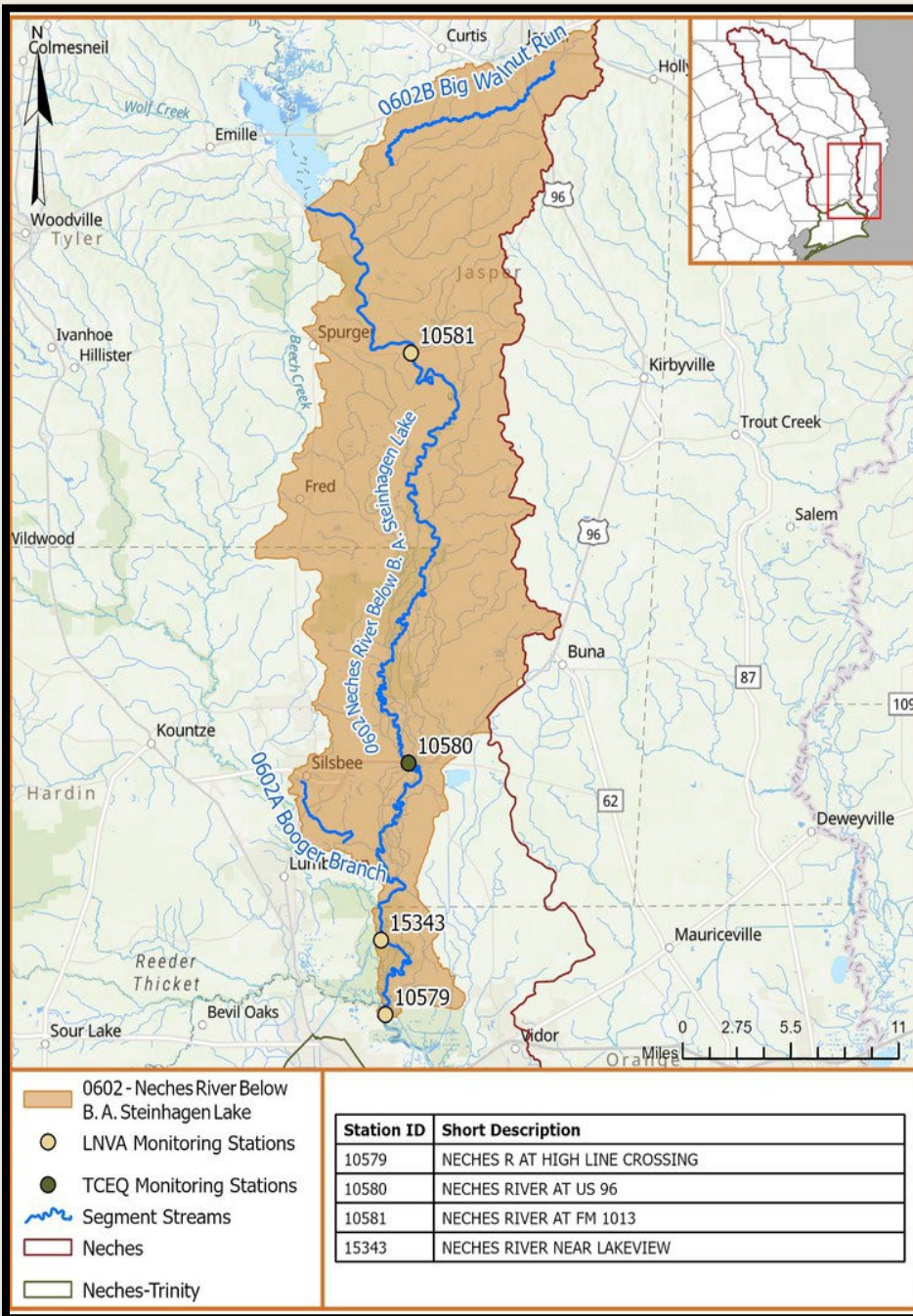
Concern for malathion from potential nonpoint source pesticide application and other unknown sources.

Fish Consumption impairments due to malathion and polychlorinated biphenyls (PCBs) in 0601_01, 0601_02, 0601_03, and 0601_04 from upstream nonpoint sources and unknown sources.

Bacteria Impairments for *Enterococcus* due to unknown sources in 0601A_01.

SEGMENT 0602 DESCRIPTION: NECHES RIVER BELOW B.A. STEINHAGEN LAKE

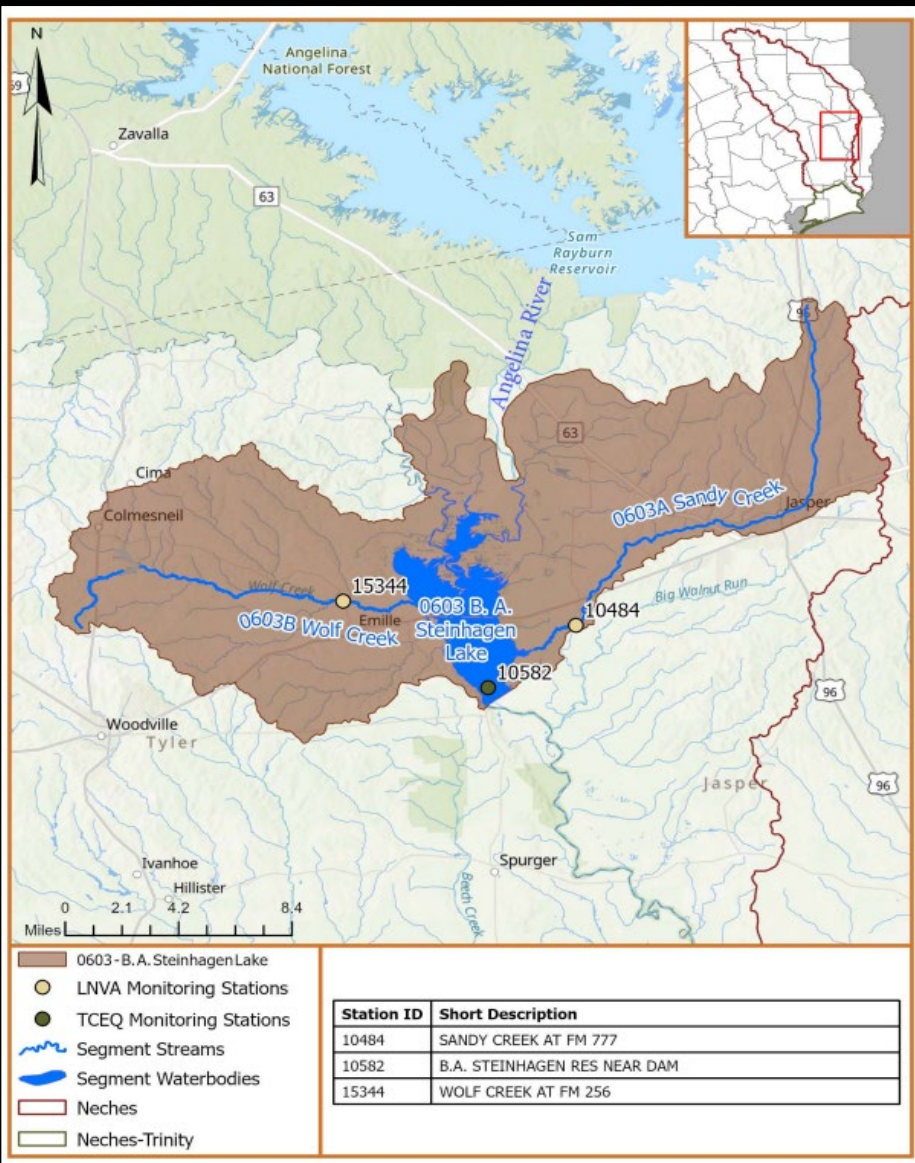
The Neches River below B. A. Steinhagen Lake is defined in the TSWQS as a river segment from the Neches River Saltwater Barrier which is at a point 0.8 kilometers (0.5 miles) downstream of the confluence of Pine Island Bayou, [a point 11.3 kilometers (7.0 miles) upstream of IH 10] in Orange County to Town Bluff Dam in Jasper/Tyler County. Situated in a broad flood plain, the segment is 84 miles long with major tributaries of Village Creek and Pine Island Bayou. Segment 0602 is situated in the ecological region termed the "piney woods". The segment is dominated by loblolly and shortleaf pines, but several oak species, sweetgum, flowering dogwood, and longleaf pine are present throughout.



Impairments and Concerns in 0602

In 0602_02, 0602_03, and 0602_04 impairments and concerns for mercury and dioxins due to potential point source such as industrial discharge and nonpoint sources such as atmospheric deposition, upstream sources, and other unknown sources.

SEGMENT 0603 DESCRIPTION: B.A. STEINHAGEN LAKE



B.A. Steinhagen Lake is a reservoir managed by the U.S. Army Corps of Engineers covering over 13,000 acres and is situated in the piney woods. B.A. Steinhagen assists Sam Rayburn Reservoir in flow regulation, produces electric generation, and supplies raw water to the LNVA and City of Beaumont's intakes. The lake is defined as from Town Bluff in Jasper/Tyler County to a point immediately upstream of the confluence of Hopson Mill Creek on the Neches River Arm in Jasper/Tyler County and to a point immediately upstream of the confluence of Indian Creek on the Angelina River arm in Jasper County, up to the normal pool elevation of 83 feet. The Angelina River (Segment 0609), Sandy Creek (Segment 0603A) and Wolf Creek (Segment 0603B) are major tributaries of B.A. Steinhagen Lake. The Sandy Creek segment, from the confluence of B.A. Steinhagen Lake southwest of Jasper County to the confluence of Big and Little Sandy Creeks in the City of Jasper, is 23 miles long. The Wolf Creek segment, from the confluence of B.A. Steinhagen Lake southeast of Colmesneil in Tyler County to the upstream perennial portion of the stream south of Colmesneil in Tyler County, is 12 miles long. Segment 0603 mainly has pine-hardwood forests and includes large expanses of loblolly and shortleaf pine. Soils are acidic and sandy and supports upland longleaf pine woodlands, longleaf pine savannas, and hardwood slope forests.

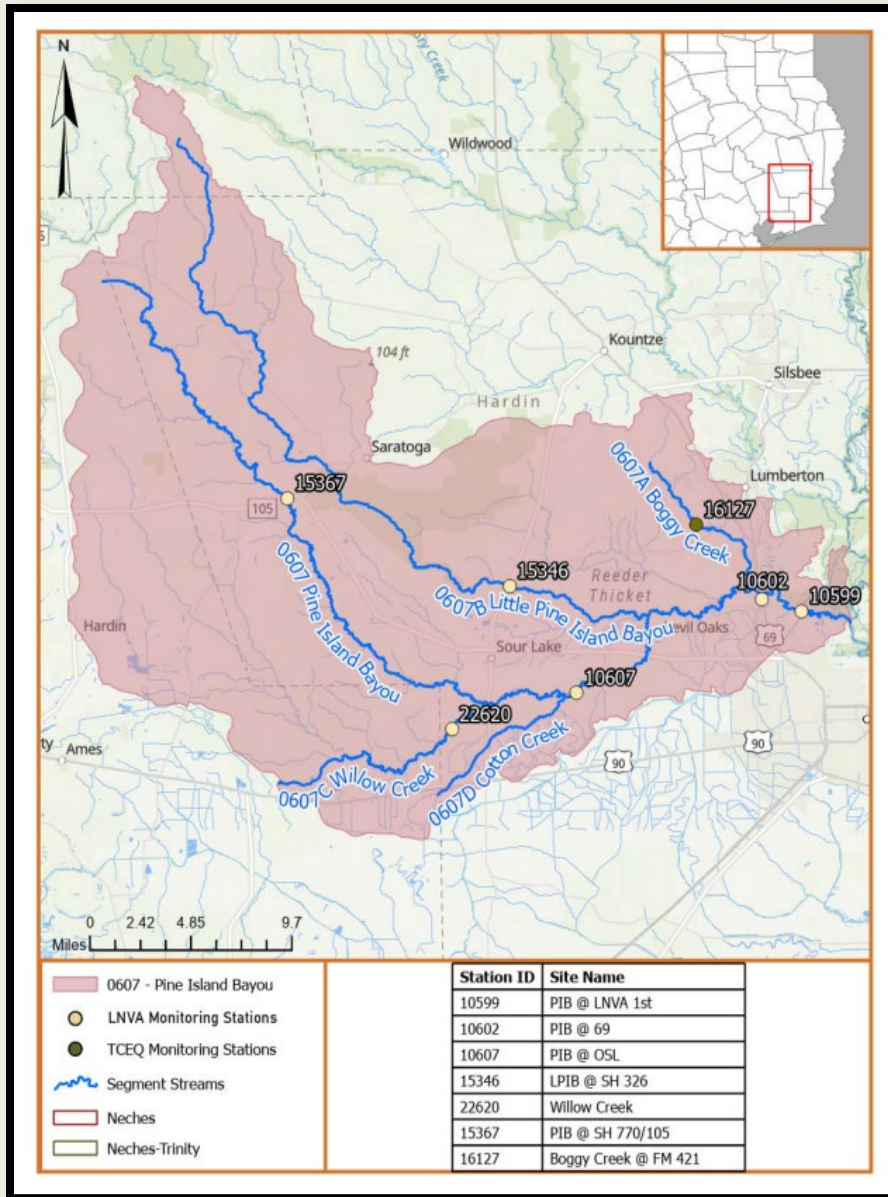


Impairments and Concerns in 0603

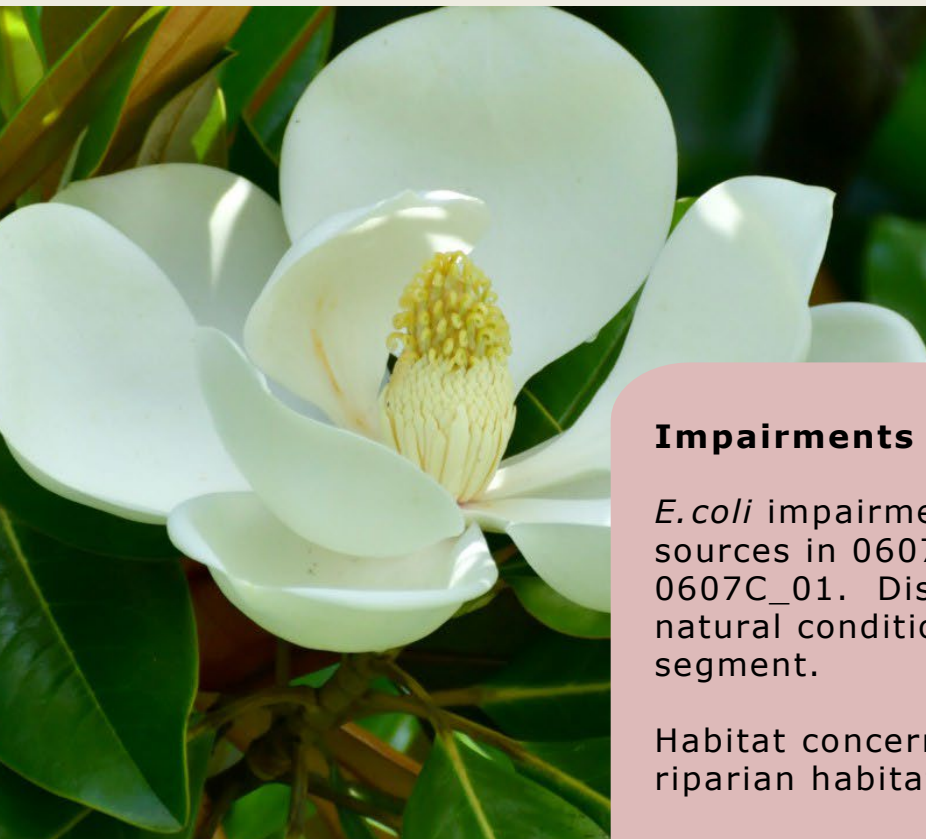
Fish consumption impairments due to mercury and dioxins potentially from industrial point source discharge, nonpoint source atmospheric deposition and unknown sources in 0603_01 and 0603_02.

Bacteria impairments for *E. coli* due to nonpoint source agriculture or livestock grazing and feeding forests in 0603A_01 and 0603B_01.

SEGMENT 0607 DESCRIPTION: PINE ISLAND BAYOU



Texas Surface Water Quality Standards describe Pine Island Bayou as spanning from the confluence with the Neches River in Hardin/ Jefferson County to FM 787 in Hardin County. Little Pine Island Bayou, which flows from southeastern Polk County southeast through Hardin County to the Jefferson county line at Bevil Oaks, and Willow Creek, which originates northeast of Devers in Liberty County and flows northeast for 15 miles before reaching its confluence with Pine Island Bayou in Jefferson County, are the only two major tributaries for Pine Island Bayou (PIB). Boggy Creek is a smaller tributary flowing from west of Lumberton to its confluence with PIB, south of Lumberton in Hardin County. Loblolly pines are accompanied by sweetgums, multiple oak species, and southern magnolias.



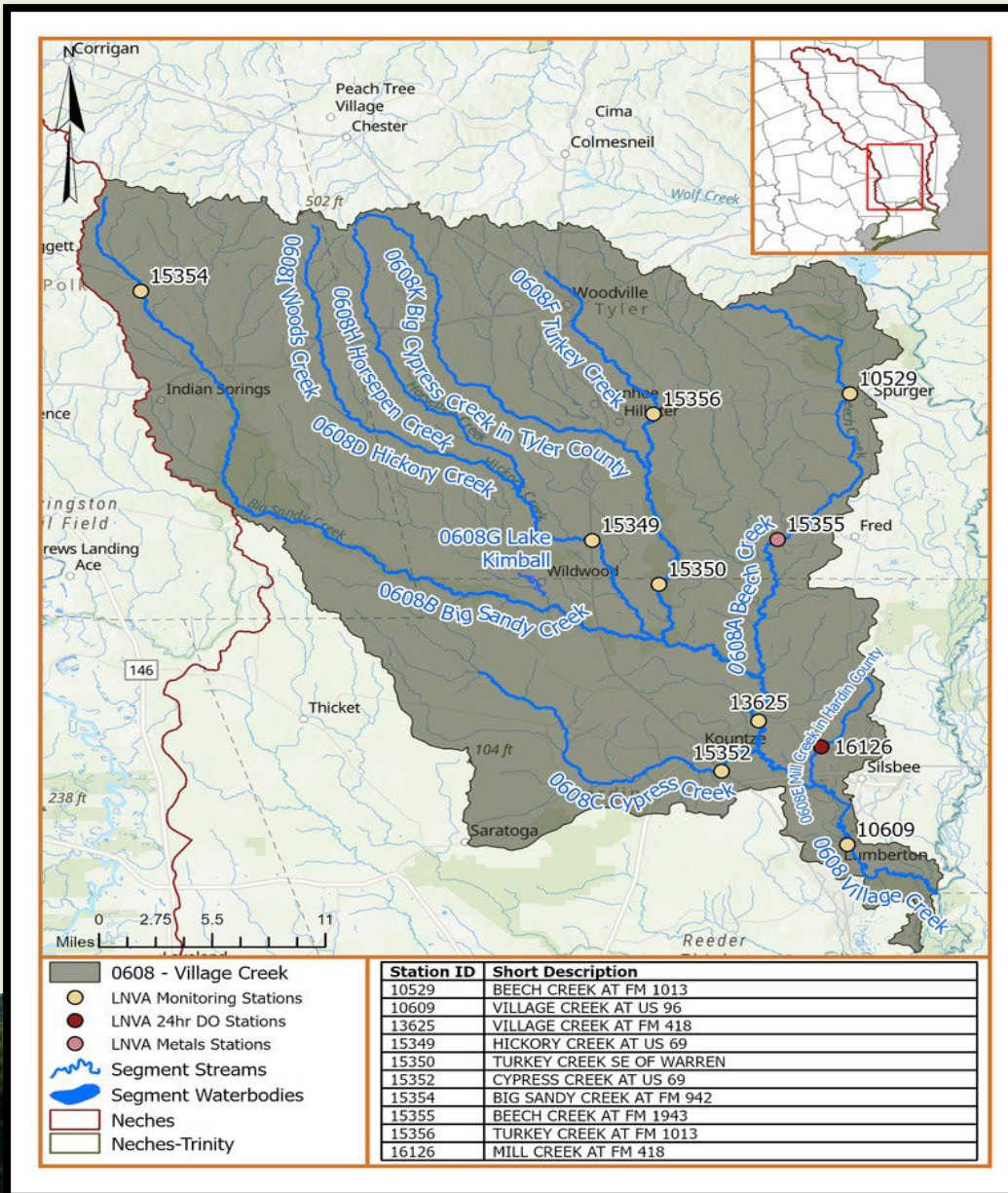
Impairments and Concerns in 0607

E. coli impairments due to non-point and unknown sources in 0607_03, 0607A_02, 0607B_01, 0607C_01. Dissolved oxygen impairments due to natural conditions in the same portions of the segment.

Habitat concerns due nonpoint source loss of riparian habitat.

SEGMENT 0608 DESCRIPTION: VILLAGE CREEK

Village Creek, the main tributary in this watershed, is defined in the Texas Surface Water Quality Standards as from the confluence with the Neches River in Hardin County to the confluence of Big Sandy Creek and Lake Kimball in Hardin County. Unclassified water bodies feeding into Village Creek include Beech Creek, Big Sandy Creek, Cypress Creek, Mill Creek, Turkey Creek, and Lake Kimball, or Segments 0608A, 0608B, 0608C, 0608E, 0608 F, and 0608G, respectively. The Village Creek Watershed is located in the region of southeast Texas known as the Big Thicket National Preserve. It is part of the piney woods ecoregion of East Texas.



Impairments and Concerns in 0608

E. coli in 0608A_02, 0608F_02 due to non-point and unknown sources.

Habitat concerns due to unknown sources.

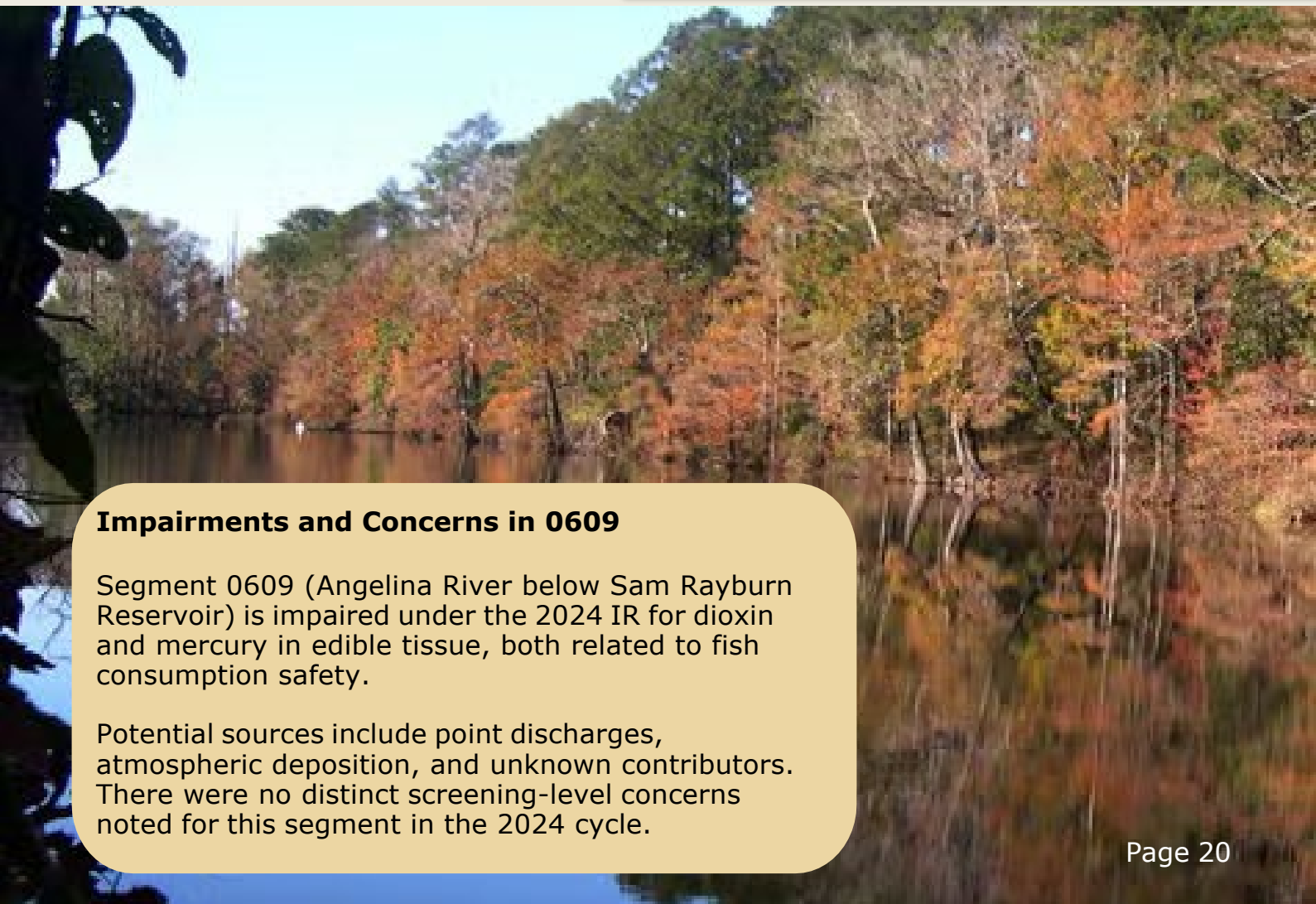
Fish consumption advisories for mercury concerns and impairments due to atmospheric deposition and sources unknown in 0608_01, 0608_02, 0608_03 and 0608G_01.

Dissolved copper impairment from unknown sources in 0608A_01.

Dissolved oxygen impairments due to natural conditions with a UAA recommended. Other possible sources of the impairments include unknown sources.

SEGMENT 0609
DESCRIPTION: ANGELINA
RIVER BELOW SAM
RAYBURN RESERVOIR

Segment 0609, Angelina River below Sam Rayburn Reservoir, is defined in the TSWQS as from point immediately upstream of its confluence of Indian Creek in Jasper County to Sam Rayburn Dam in Jasper County. This river meanders through the rolling hills of the heart of the East Texas Piney Woods (Level III Ecoregion 35), through forested bottomlands that contain bald cypress, pine, and hardwood trees. Common wildlife to the area is whitetail deer, squirrel, wild turkey, quail, dove, and duck. The 153,000-acre Angelina National Forest borders the upper part of Segment 0609, and land use includes recreational use and public property near the national forest. Longleaf pine is the dominant tree type in the southern part of the segment, while loblolly and shortleaf pine are dominant in the northern section.



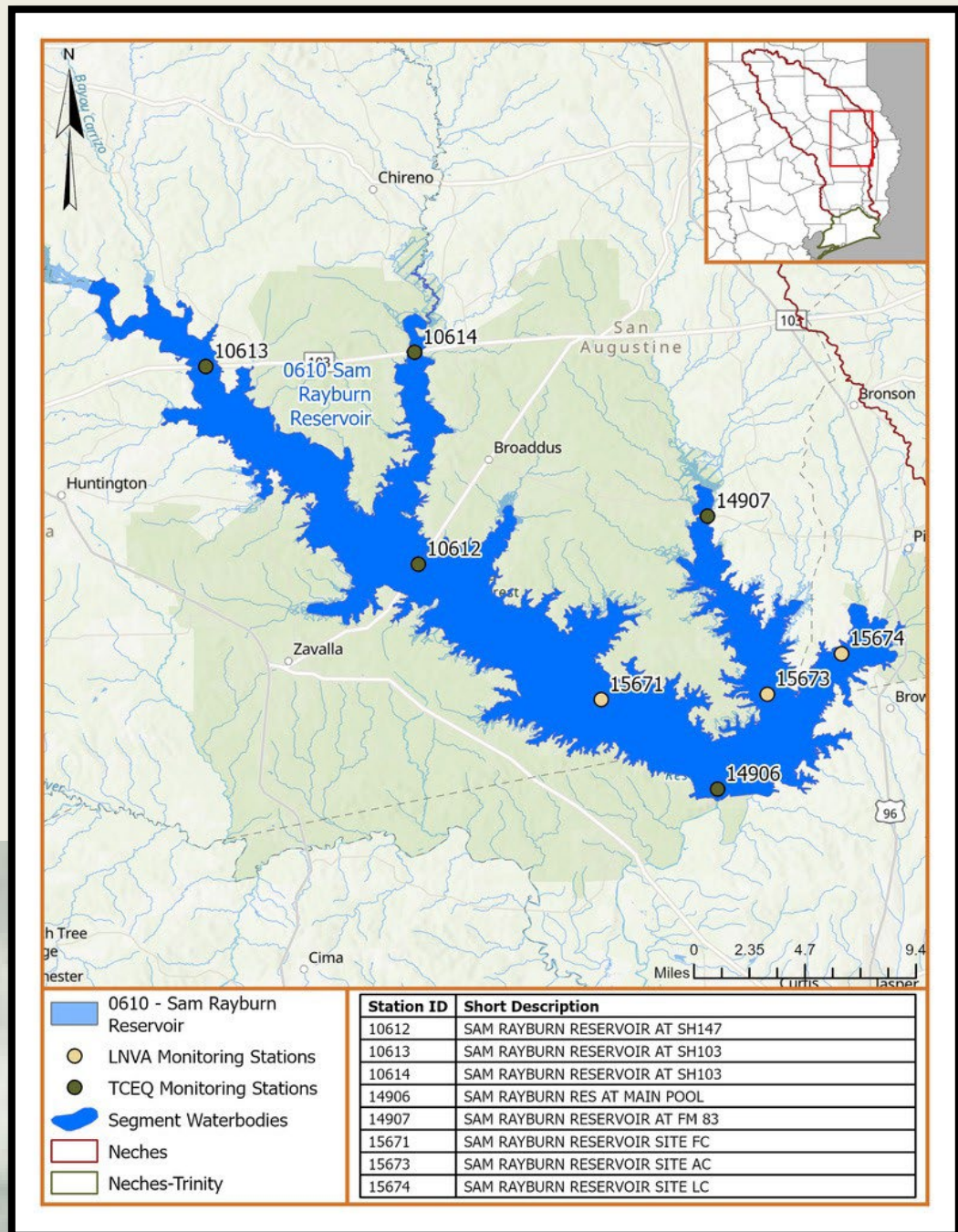
Impairments and Concerns in 0609

Segment 0609 (Angelina River below Sam Rayburn Reservoir) is impaired under the 2024 IR for dioxin and mercury in edible tissue, both related to fish consumption safety.

Potential sources include point discharges, atmospheric deposition, and unknown contributors. There were no distinct screening-level concerns noted for this segment in the 2024 cycle.

SEGMENT 0610 DESCRIPTION: SAM RAYBURN

Segment 0610, Sam Rayburn Reservoir, is described in the Texas Surface Water Quality Standards as from the Sam Rayburn Dam to a point 3.5 miles upstream of Marion's Ferry on the Angelina River Arm and to a point 2.4 miles downstream of Curry Creek on the Attoyac Bayou Arm, up to normal pool elevation of 164.4 feet. Sam Rayburn Reservoir includes 106,666 acres with a variety of recreational areas including hiking trails, campgrounds, boating ramps, marinas, and swimming areas.

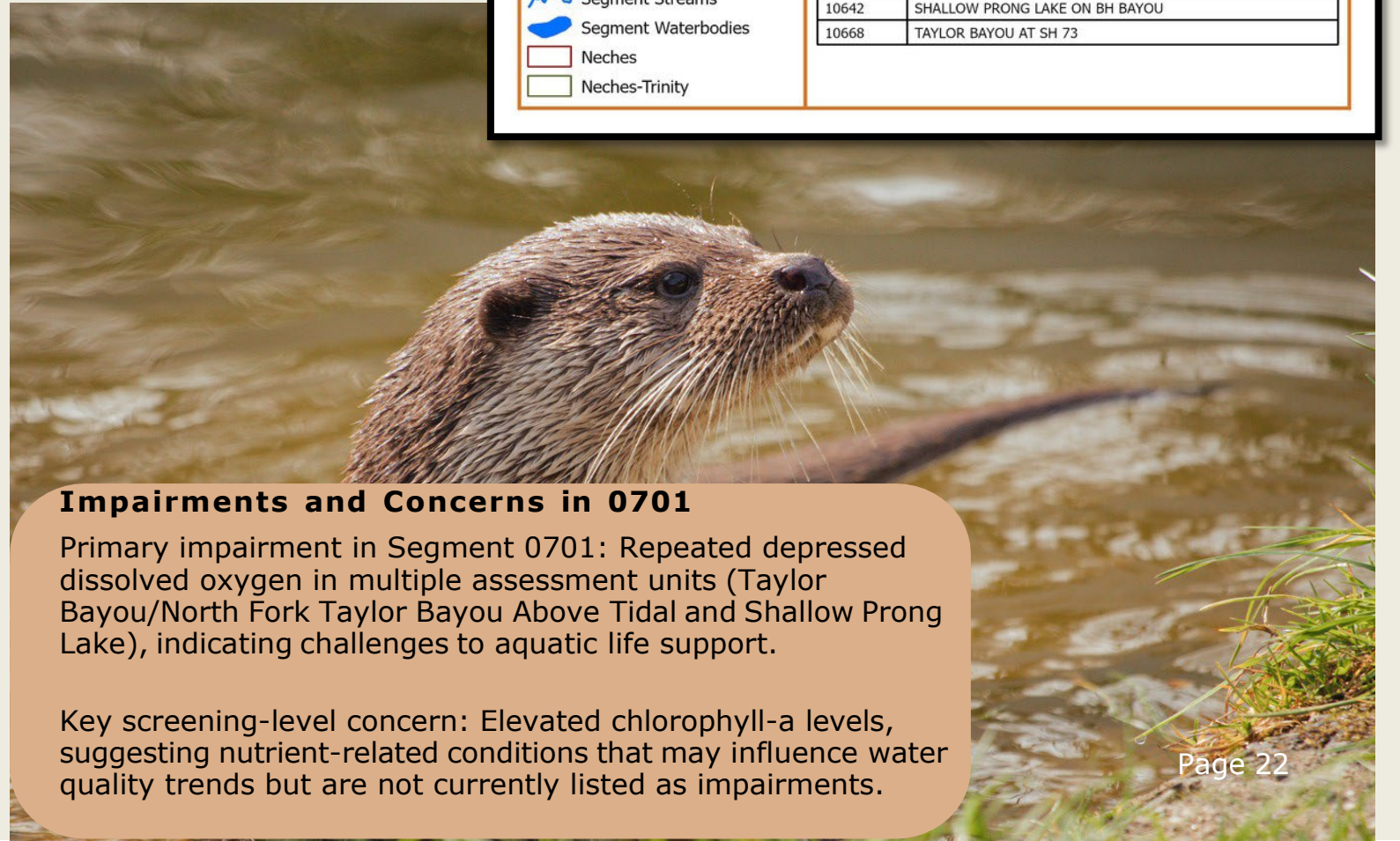
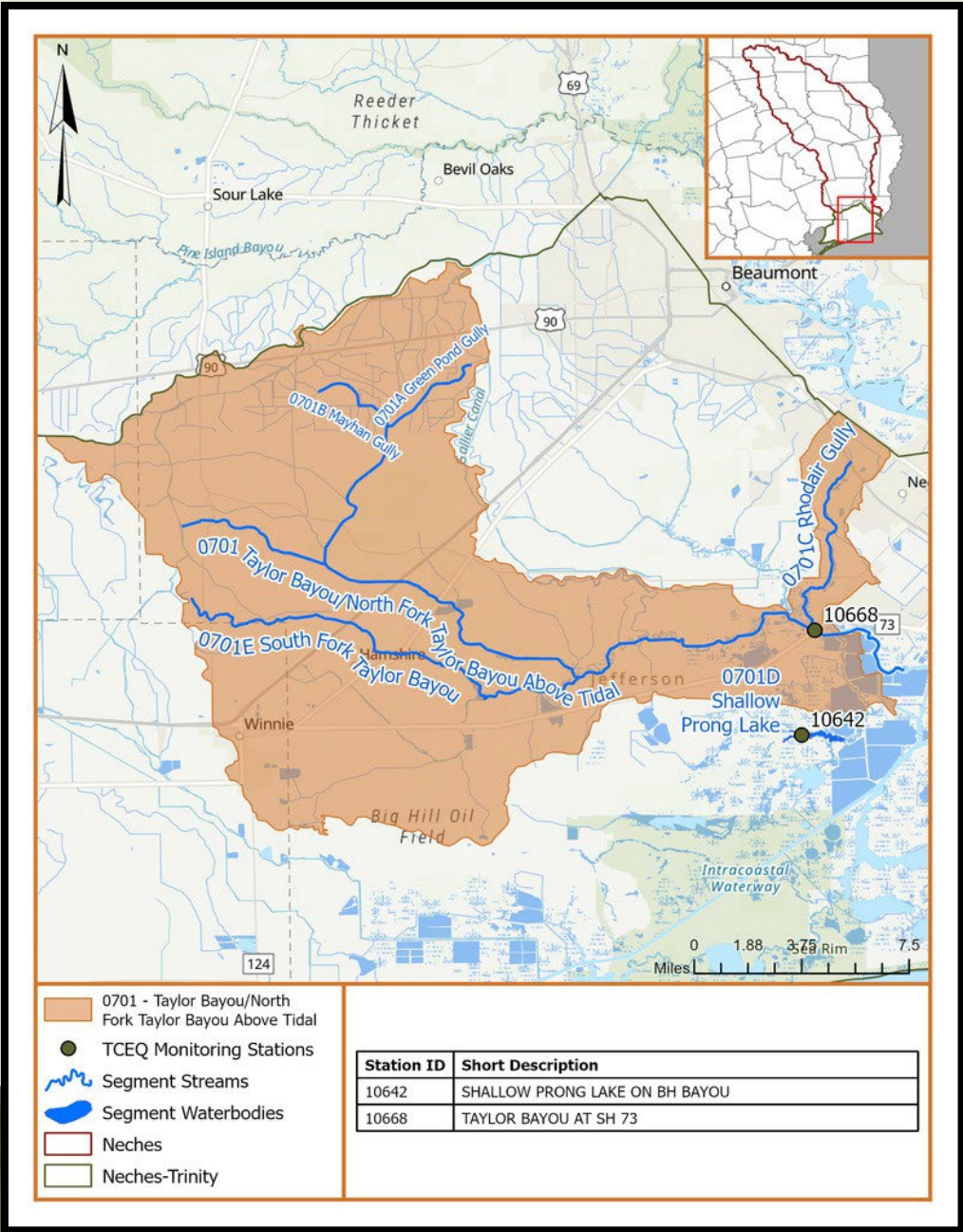


Impairments and Concerns in 0610

Segment 0610 (Sam Rayburn Reservoir) continues to show long-standing impairments for fish tissue contaminants (dioxin and mercury), excessive algal growth, and at some stations pH criteria, and a sediment concern for elevated iron that merits continued monitoring and potential management focus.

SEGMENT 0701 DESCRIPTION: TAYLOR BAYOU ABOVE TIDAL

Taylor Bayou Above Tidal is defined as the portion of the bayou between the Taylor Bayou Saltwater Barrier and the confluence of Hillebrandt Bayou, which includes Shallow Prong Lake on Big Hill Bayou. Segment 0701 is located in the ecoregion known as the Western Gulf Coastal Plain and has a mix of two ecoregions present: the Northern Humid Gulf Coastal Prairies and the Texas-Louisiana Coastal Marshes. The Western Gulf Coastal Plain is generally about fifty to ninety miles wide, relatively flat, and adjacent to the Gulf of Mexico. The natural dominant vegetation in this segment is grasslands, but further inland are some forest and savanna-type vegetation.

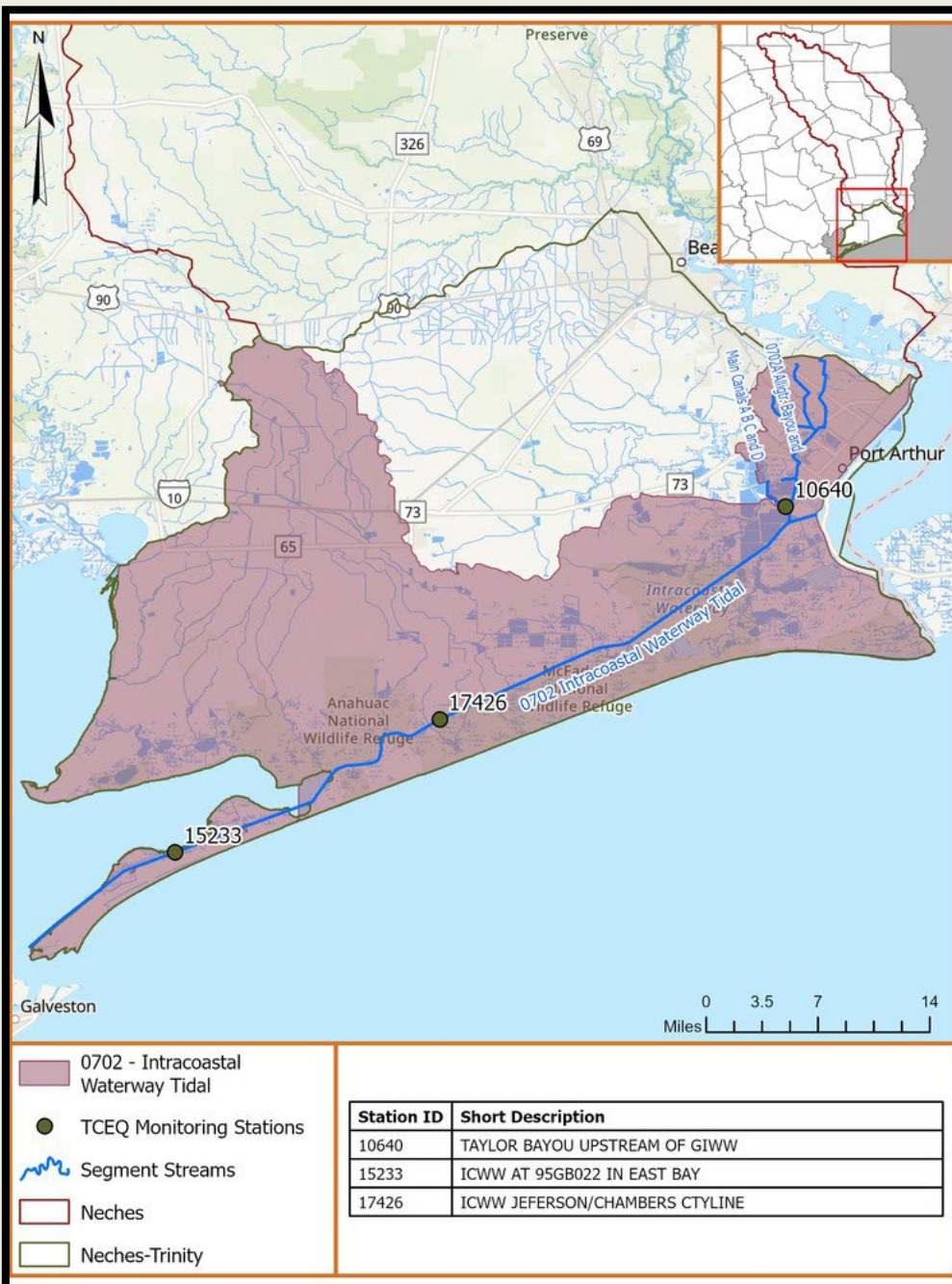


Impairments and Concerns in 0701

Primary impairment in Segment 0701: Repeated depressed dissolved oxygen in multiple assessment units (Taylor Bayou/North Fork Taylor Bayou Above Tidal and Shallow Prong Lake), indicating challenges to aquatic life support.

Key screening-level concern: Elevated chlorophyll-a levels, suggesting nutrient-related conditions that may influence water quality trends but are not currently listed as impairments.

SEGMENT 0702 DESCRIPTION: INTRACOASTAL WATERWAY TIDAL



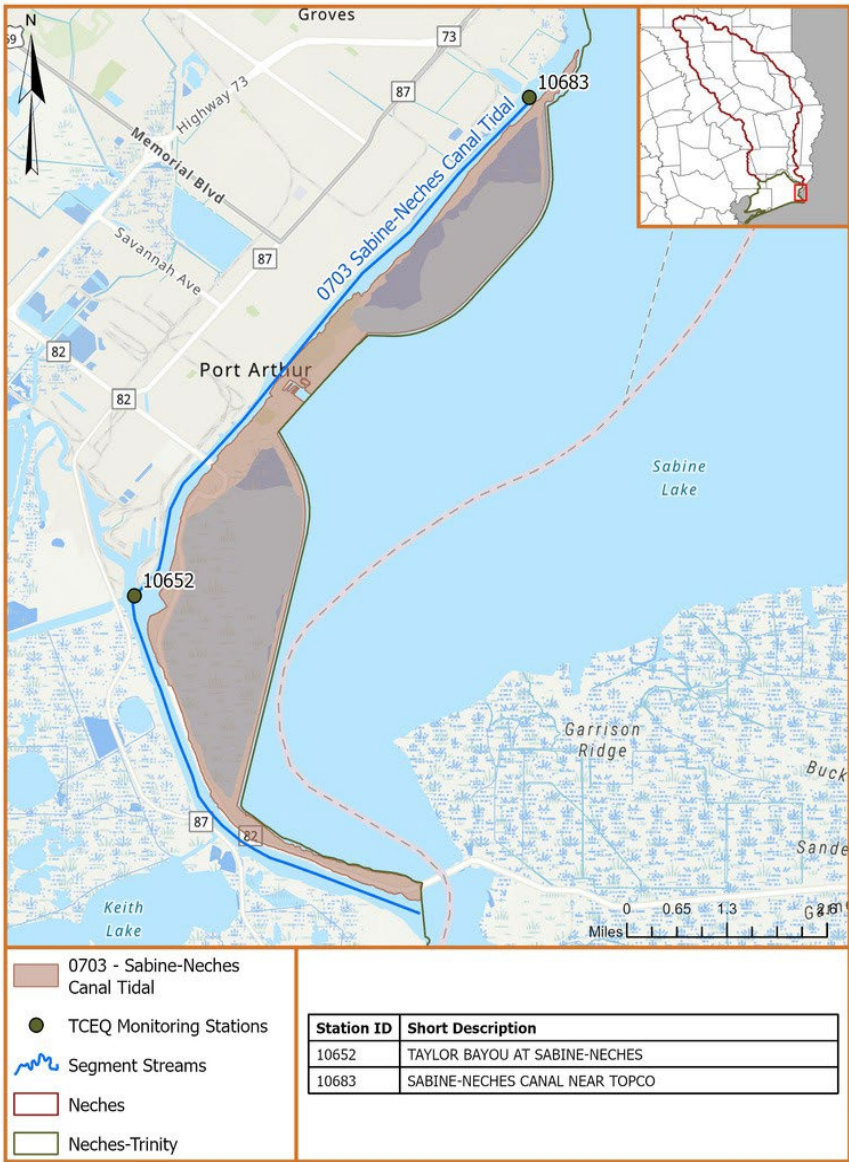
Segment 0702 begins at the confluence of Galveston Bay at Port Bolivar in Galveston County and ends at the confluence of the Sabine-Neches/Port Arthur Canal in Jefferson County. This segment also includes Taylor Bayou Tidal from the confluence with the Intracoastal Waterway up to the Taylor Bayou Saltwater Barrier downstream of SH 73 in Jefferson County. The segment is 63 miles long and includes the unclassified segment Alligator Bayou (0702A). Segment 0702 is primarily located in the Level IV Ecoregion known as Texas-Louisiana Coastal Marshes. This ecoregion is five hundred and thirty-nine square miles, and is comprised of flat plains with most of the land covered in standing water, beach ridges, cheniers (defined as a sandy or shelly beach ridge), canals, and tidal marshes with bayous meandering throughout.



Impairments and Concerns in 0702

Segments in 0702 and 0702A have nutrient screening level concerns for chlorophyll-a, toxicity in sediment for lead, acute ambient toxicity in freshwater, as well DSHS limited fish consumption advisories for dioxins and PCB's.

SEGMENT 0703 DESCRIPTION: SABINE-NECHES CANAL TIDAL



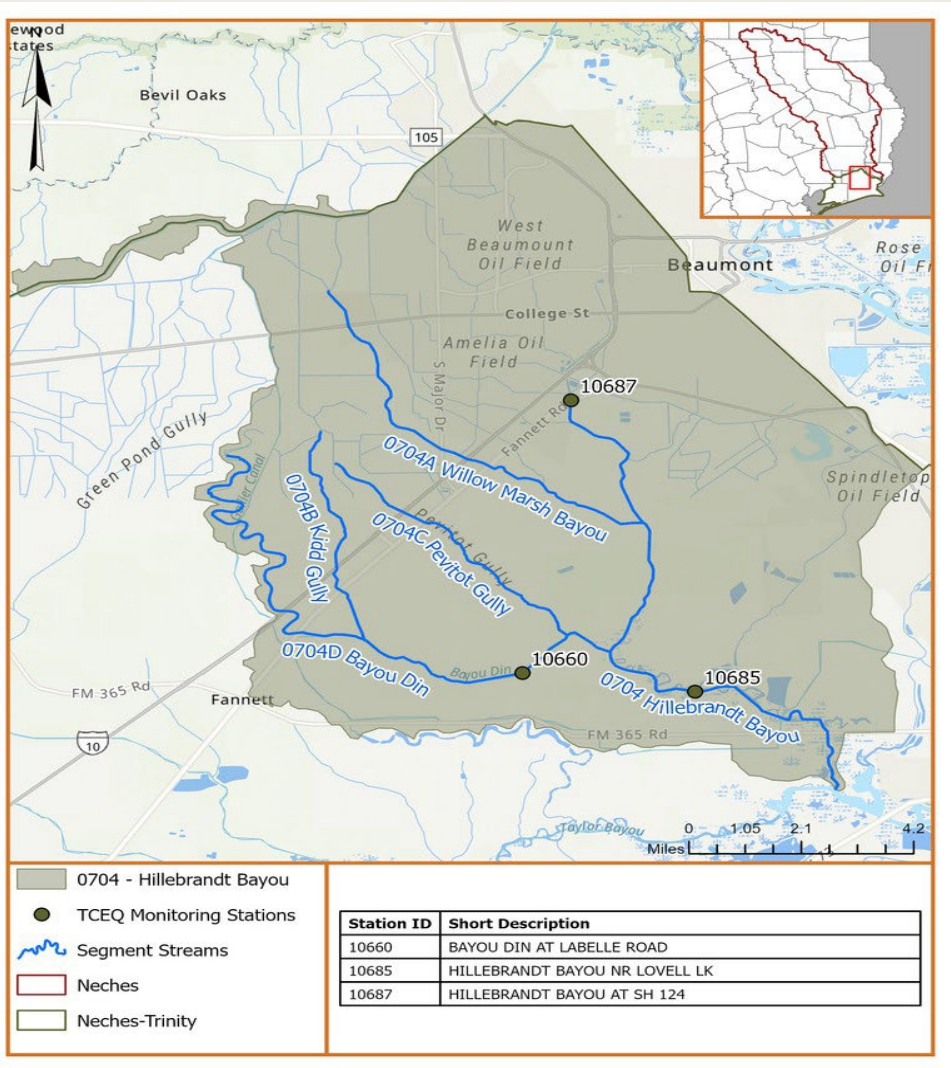
Segment 0703 is defined in the Texas Surface Water Quality Standards as from the confluence with Sabine Pass at the southern tip of Pleasure Island in Jefferson County to the Sabine Lake seawall at the northern tip of Pleasure Island in Jefferson County. This water body is considered a tidal stream and is 16 miles in length. The ecoregion encompassing Segment 0703 is Western Gulf Coastal Plain, and more specifically Ecoregion IV known as Texas Louisiana Coastal Marshes. There is extensive fresh water and saltwater coastal marshes consisting of grasses, sedges (pictured below), and rushes. Most of the area is covered by standing water, and bayous, lakes, and canal course through low lying areas.



Impairments and Concerns in 0703

Segment 0703 is currently meeting surface water quality standards for uses assessed in the 2024 IR, with neither impairments nor screening-level concerns documented in the final listings.

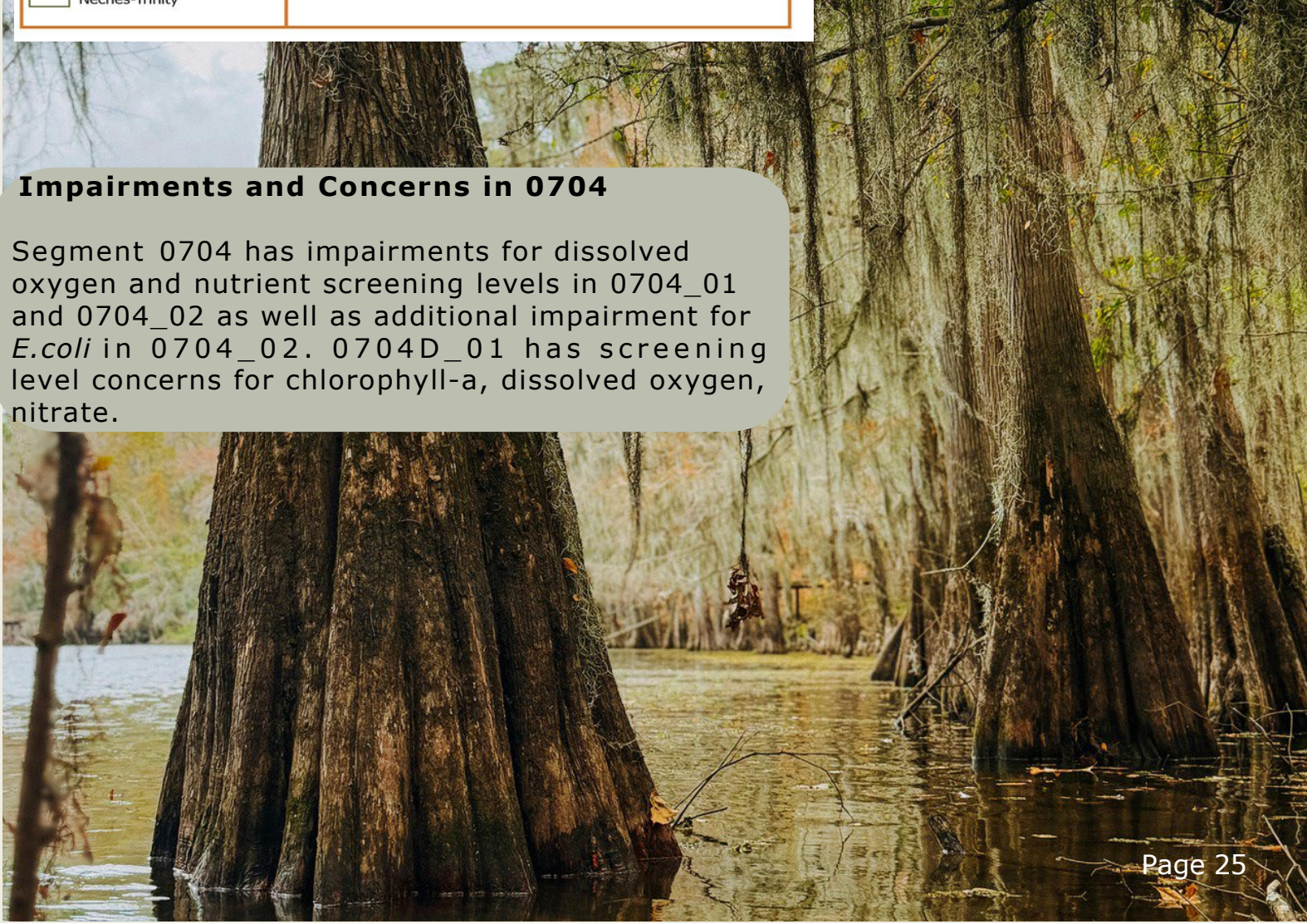
SEGMENT 0704 DESCRIPTION: HILLEBRANDT BAYOU



Segment 0704 Description: Hillebrandt Bayou is a freshwater stream from the confluence of Taylor Bayou in Jefferson County originating near SH 124 in a south easterly direction fourteen miles to the confluence of Taylor Bayou. In the northern part of Segment 0704, water oak, pecan, southern live oak, American elm, and loblolly pine are common much resembling the floodplain forests of Ecoregion 35. Bald cypress and water tupelo is more prevalent in the inundated portions of the bayou. Prairie land is abundant in the southern section of Segment 0704, and as Hillebrandt Bayou converges with Taylor Bayou, low flat plains with freshwater and saltwater marsh grass is abundant.

Impairments and Concerns in 0704

Segment 0704 has impairments for dissolved oxygen and nutrient screening levels in 0704_01 and 0704_02 as well as additional impairment for *E.coli* in 0704_02. 0704D_01 has screening level concerns for chlorophyll-a, dissolved oxygen, nitrate.



Public Outreach Events

Texas Stream Team

Since 2009, LNVA has supported local members of the Texas Stream Team, a state program directed by the Texas State University's Meadow Center. This program aims to increase awareness of water quality issues by involving the public and training volunteers to be citizen scientists. Citizen scientists are trained to test for parameters such as dissolved oxygen, pH, and conductivity at approved water bodies on a monthly basis. The LNVA supports Texas Stream Team by providing local members with monitoring kits and supplies as well as by hosting trainings with the assistance from Angelina Neches River Authority training personnel to help new volunteers become certified Texas Stream Team members.

Upcoming trainings are posted to

LNVA's website at:

<https://lnva.dst.tx.us/>.



THE MEADOWS CENTER
FOR WATER AND THE ENVIRONMENT
TEXAS STATE UNIVERSITY

TEXAS STREAM TEAM

Kountze High School Career Day

In August of 2025, Kountze High School held its third annual school Career Day for its students. Events like this help expose students to multiple types of jobs and can help spark interest in certain career fields. The LNVA highlighted the science field by teaching students about differing water quality parameters and the impacts those conditions can have on the environment, as well as how LNVA and CRP use them to make important decisions for the basin.

Neches River Adventures Floating Classroom

The Neches River Adventures "floating classroom" offers educational opportunities for teachers, students and other related groups. The TEKS aligned curriculum includes a 2-hour Field Lab for 5th -12th grade, as well as a 1-hour habitat lesson for pre-K - 4th grade. Proceeds from this endeavor go to the Big Thicket Association. On October 21, 2025, LNVA Clean Rivers staff participated in one of these events as a land activity for area 5th graders. The importance of water quality and sources of point source pollution were discussed. A water shed model was used to demonstrate how water runoff travels through the environment. The students had the chance to act as the pollution sources using cocoa powder as oil and drink mix as point source pollution.

Neches River Festival River Day

The Neches River Festival (NRF) has been a part of Southeast Texas' history since 1949. The NRF works to recognize and celebrate the Southeast Texas area and its greatest natural resource, the Neches River. Each year, a festival week is held to bring local businesses and the community together while focusing on the area's high school seniors. The event also highlights local organizations and how they are working to improve the environment in and around the Neches River. The one-day focus allows the LNVA to set up its educational booth and have staff ready to answer any questions graduating seniors may have. The April 2025 River Day event was held at Cattail Marsh in Beaumont. Cattail Marsh is a popular site for bird watchers from around the world.



LNVA Steering Committee and Stakeholder Participation

The LNVA steering committee plays a vital role to the success of the Clean Rivers Program (CRP). This committee comprises basin stakeholders who play a key role in establishing realistic water quality objectives and setting basin priorities. These stakeholders include:

- Local industry representatives
- Municipal officials
- State and federal agencies
- Environmental organizations
- Members of the general public

A diverse steering committee ensures that all components of the watershed are represented and that various concerns are addressed. Each year, LNVA organizes a steering committee meeting for stakeholders to review the latest basin water quality reports and suggest actions to tackle any issues. It also provides an opportunity for stakeholders to participate in the meeting by presenting projects and studies being conducted through their own organizations.

For more information about LNVA's Steering Committee and upcoming meetings, please reach out to us at 409-892-4011.



Contact us for more information:
Lower Neches Valley Authority
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