August 15, 2025

FINAL REPORT

Prepared in Cooperation with the Texas Commission on Environmental Quality & U. S. Environmental Protection Agency

SETRPC
SOUTH EAST TEXAS REGIONAL PLANNING COMMISSION

TRANSPORTATION & ENVIRONMENTAL RESOURCES

Grant: 582-23-42200

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PREPARED IN COOPERATION WITH THE
TEXAS COMMISSIONON ENVIRONMENTAL QUALITY AND
U.S. ENVIRONMENTAL PROTECTION AGENCY

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Project Background

The South East Texas Regional Planning Commission (SETRPC) was awarded funding through the Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ) to develop a water quality education and outreach program for Fiscal Year (FY) 2024 and 2025.

Water quality initiatives are critical to Southeast Texas, where clean water supports public health, economic growth, and environmental sustainability. Access to clean water is essential for safe consumption and recreation, and it plays a key role in several major industries in the region.

Manufacturing facilities rely on large volumes of water for production, while the agricultural sector depends on water for irrigation and livestock. In addition, the tourism industry benefits from the region's natural water resources, and the marshes of Southeast Texas provide vital breeding grounds for aquatic species in the Gulf of Mexico.

Given the region's diverse use of water, public education is essential. The Water Quality Education and Outreach Program aims to increase community awareness of how individual and collective actions impact water quality. By promoting responsible water management practices and encouraging pollution prevention, the program helps protect this vital resource for current and future generations.

Study Area

The SETRPC Region is situated at the northern edge of the Texas Gulf Coast and comprises Hardin, Jefferson, Orange, and Jasper Counties. It is a voluntary association of local governments that strives to foster sustainable growth and development for the benefit of the region's 430,545 inhabitants (2020 Census Data).

Southeast Texas has a variety of water sources, including rivers, lakes, and groundwater. However, the water quality in these sources can vary depending on various factors, such as pollution and natural contaminants. Major rivers that run through the region are the Neches and Sabine Rivers, and the primary Aquifer in the area is the Gulf Coast Aquifer System.

The Neches River is a 416 miles long river that flows entirely within Texas before emptying into Sabine Lake near the city of Port Arthur. The Neches River's tributaries in Southeast Texas are the Angelina River, Village Creek, Pine Island Bayou, and B.A. Steinhagen Reservoir. Along the Angelina River is the Sam Rayburn Dam and Reservoir, located northwest of Jasper. The purposes of the Sam Rayburn Dam and Reservoir are flood control, hydroelectric power generation, and conservation of water for municipal, industrial, agricultural, and recreational uses. The purposes of B. A. Steinhagen Lake are to reregulate the intermittent power releases of Sam Rayburn Dam, provide a head for hydroelectric power and diversion into a water supply canal, and provide some water storage for flood control. Parts of Jefferson, Orange, Hardin, and Jasper Counties are in the Neches River Basin, commonly called the Lower Neches River Basin. Most of Jefferson County is also in the Neches-Trinity Coastal Basin. The Lower Neches Valley Authority provides for the present and long-term freshwater needs of municipal, agricultural, and industrial customers, and protects water quality in the Neches River and the Neches-Trinity Coastal Basin. The Neches Basin is the third largest river basin whose watershed area is entirely within Texas and the fourth largest by average flow volume.

The Sabine River, which is a 360-mile-long river that forms part of the boundary between Texas and Louisiana, flows into Sabine Lake before making its way into the Gulf of Mexico. The Sabine River has the second-largest

average flow volume of any river in Texas and shares surface water use with Louisiana. Most of Orange County and eastern Jasper County are located within the Sabine River Basin. The region's high precipitation and low evaporation rates make the Sabine Basin the second-largest average watershed yield of any major river basin in Texas.

The Sabine and Neches Rivers are undeniably among the most significant waterways in Texas. Their invaluable contribution to the state's economy and the endless outdoor recreation opportunities they offer make them an integral part of the landscape. Both rivers are known for their excellent fishing, especially for catfish and bass. The Sabine River is also popular for boaters and water skiers, while the Neches River offers scenic canoe and kayak trips. Besides their recreational value, the Sabine and Neches Rivers are critical transportation routes for transporting goods and commodities, including petroleum and agricultural products, making them a vital component of Texas's natural and economic landscape.

The primary Aquifer in the area is called the Gulf Coast Aquifer System, which includes the Chicot, Evangeline, and Jasper aquifers. It runs along the Gulf of Mexico coast, stretching from the Louisiana border to the Mexican border. Covering an area of 41,970 square miles, it spans fifty-six counties in Texas.

Discussion

All deliverables have been completed under this contract 582-23-42200.

This grant has been moving ahead with excellent guidance and support from the TCEQ program staff.

In the future, we plan to expand our coordination and outreach efforts to some of the other advisory committees that operate in our agency to help us meet our goals of improving the water quality in our South East Texas Region.

Amount of Project Funding & Amount Spent

The following table shows the amount pf project funding and the amount spent as of June 12, 2025.

Approved Budget	Project Expenditures	Budget Remaining
45,640	**23,305.64**	**20,334.36**

The SETRPC plans to spend some of the additional funds to meet with Lower Neches Valley Authority and Sabine River Authority staff members to discuss additional PSA's that we might develop to enhance our regional water quality campaign. Also, I will meet several times with my add agency and representatives from the two river authorities to define and layout some additional things that we might do to enhance our water quality public outreach campaign.

Summary of All Tasks

The SETRPC has created an educational and informative initiative to increase consciousness about water quality problems in the SETRPC area.

Task 1: Project Administration

Objective: To effectively administer, coordinate, and monitor all work performed under this project including technical and financial supervision and preparation of status reports.

The SETRPC maintained regular telephone and/or e-mail communication with the TCEQ Project Manager regarding the status and progress of the project and any matters that required attention between PRs. The summary of the meeting is available in Appendix A: Meeting Notes. The SETRPC submitted PRs to the TCEQ Project Manager. PRs included reporting on the status of Deliverables for that quarter.

Supporting Documents: Appendix A: Meeting Notes

Task 2: Conformance Review of CWSRF Projects

Objective: To review and provide input on CWSRF loan applications in the Performing Party's region and ensure conformance with the latest Water Quality Management Plan (WQMP).

The SETRPC did not receive any review requests for FY24.

Task 3: Water Quality Education and Outreach

Objective: To develop a targeted education and outreach program to address the most significant water quality problems in the Performing Party's region. The program will focus on water conservation, lawn care, proper disposal of household chemicals, and pet waste. An educational program will focus on disadvantaged communities and target elementary students at public, private, and parochial schools as well as preschool head start programs.

Program Description:

The SETRPC's Water Quality Outreach and Activity Plan addresses key water quality challenges specific to the Southeast Texas region. The Plan begins with an overview of the region, identifying significant water sources and listing Public Water Systems (PWS) by county.

Subsequent sections summarize the research conducted by staff on prevalent water quality issues affecting major water sources in the area. The Plan also includes a comprehensive list of relevant agencies and regulations to help the public understand how various levels of government are working to protect water resources.

Additional resources are provided to educate the community on water conservation practices and pollution prevention. A special section is dedicated to educational tools for teachers and environmental educators. The final section of the Plan focuses on outreach strategies for disadvantaged communities throughout Southeast Texas.

Community Engagement:

Throughout the program year, staff actively participated in community events to distribute water quality education materials. The largest outreach effort took place during the Household Hazardous Waste Event on May 17, 2025, where approximately 350 water quality packets containing approved materials were distributed to attendees.

Supporting Documents: Appendix B: Water Quality Outreach & Activity Plan

Task 4: Final Report

Objective: To produce a Final Report that summarizes all project activities and conclusions reached during the project. The Final Report will discuss the extent to which project goals and purposes have been achieved. The Final Report should emphasize successes, failures, and lessons learned.

This document discusses the project objectives and achievements.

Appendix A:
Meeting Notes

FY 2025 1st Quarter Call Notes
TCEQ-SETRPC Water Quality Management Program
November 15, 2024

Attendees: Bob Dickinson, T&ER Director
Kristin DeBone, TCEQ Project Manager – Non point Source Program
Rachael Robinson, Transportation Planner

Main points discussed

- Administrative Change:
  - Discussed upcoming administrative changes in the near future.
- Commercial Progress:
  - Reviewed the progress of the commercial, including the process for script review and final approval.
- Website Updates:
  - Discussed resending the website draft for approval.
  - Noted plans to finalize the Spanish version once approval is received.
- Grant Utilization:
  - Emphasized the importance of fully utilizing the current grant before transitioning to next year's funding.
- Public Information:
  - Discussed adding new items to the information provided to the public.
  - Highlighted the need for prior approval of materials to ensure compliance and accuracy.

FY 2025 2nd Quarter Call Notes
TCEQ-SETRPC Water Quality Management Program
March 7, 2025

Attendees: Bob Dickinson, T&ER Director
Savannah Hernandez, TCEQ

Main points discussed:

- Administrative Items:
  - The program is continuing as it has been.
  - New contracts are moving through the Texas Commission on Environmental Quality (TCEQ) for review as part of the normal process.
- Public Information:
  - Participants shared ideas about what other Councils of Governments (COGs) are doing with their grant funding.
  - There was a discussion about the need for prior approval of any presentations or materials before they are shared publicly.

FY 2025 3rd Quarter Call Notes
TCEQ-SETRPC
Water Quality Management Program
June 5, 2025

Attendees: Bob Dickinson, T&ER Director
Connie Grimm, Accountant
Savannah Hernandez, TCEQ

Main points discussed

- Administrative Items:
  - The program is continuing as it has been, and we talked about the slight increase in funding and the items that we need to change or submit to accept it from TCEQ.
  - We talked about documents that are due to TCEQ in the near future. Savannah will send an example of a draft final report.
- Public Information:
  - There was a discussion about the development of videos, or public service announcements.
  - TCEQ needs to review and approve the scripts for the proposal videos or public service announcements, also, TCEQ needs to review and approve the final produced video or public service announcement before it is presented to the public.

Appendix B: Draft Water Quality Outreach and Activity Plan

SETRPC Region

The South East Texas Regional Planning Commission (SETRPC) Region lies at the northern tip of the Texas Gulf Coast. It encompasses an area of 3,361 square miles with a 2020 population of 430,545. The SETRPC is a voluntary association of local governments that serves Hardin, Jefferson, Orange, and most recently Jasper County. The SETRPC works to ensure that the region grows and develops in a sustainable way that benefits everyone who lives in the area.

Southeast Texas has a variety of water sources, including rivers, lakes, and groundwater. However, the water quality in these sources can vary depending on various factors, such as pollution and natural contaminants. Major rivers that run through the region are the Neches and Sabine Rivers, and the primary Aquifer in the area is the Gulf Coast Aquifer System.

The Neches River is a 416-mile-long river that flows entirely within Texas before emptying into Sabine Lake near the city of Port Arthur. The Neches River's tributaries in Southeast Texas are the Angelina River, Village Creek, Pine Island Bayou, and B.A. Steinhagen Reservoir. Along the Angelina River is the Sam Rayburn Dam and Reservoir, located northwest of Jasper. The purposes of the Sam Rayburn Dam and Reservoir are flood control, hydroelectric power generation, and conservation of water for municipal, industrial, agricultural, and recreational uses. The purposes of B. A. Steinhagen Lake are to reregulate the intermittent power releases of Sam Rayburn Dam, provide a head for hydroelectric power and diversion into a water supply canal, and provide some water storage for flood control. Parts of Jefferson, Orange, Hardin, and Jasper Counties are in the Neches River Basin, commonly called the Lower Neches River Basin. Most of Jefferson County is also in the Neches-Trinity Coastal Basin. The Lower Neches Valley Authority provides for the present and long-term freshwater needs of municipal, agricultural, and industrial customers, and protects water quality in the Neches River and the Neches-Trinity Coastal Basin. The Neches Basin is the third largest river basin whose watershed area is entirely within Texas and the fourth largest by average flow volume.

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excellent fishing, especially for catfish and bass. The Sabine River is also popular for boaters and water skiers, while the Neches River offers scenic canoe and kayak trips. Besides their recreational value, the Sabine and Neches Rivers are critical transportation routes for transporting goods and commodities, including petroleum and agricultural products, making them a vital component of Texas's natural and economic landscape.

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Significant Water Quality Issues

Gulf Coast Aquifer

According to the "Texas Aquifers Study" by the Texas Water Development Board, the water quality of the Gulf Coast Aquifer varies depending on depth and locality. In the aquifer's northeastern portion, the total dissolved solids concentrations are less than five hundred milligrams per liter, which is considered good. However, the closer the aquifer reaches the Gulf of Mexico, the more saline is observed. Areas of increased salinity may be associated with saltwater intrusion in response to groundwater pumping or brine migration in response to oil field operations and natural flows from salt domes intruding into the aquifer. The majority of the aquifers in Hardin, Jasper, and Orange Counties is considered "Fresh Water."

The most significant threats to aquifers are contamination and depletion. Industrial discharges, urban activities, agriculture, groundwater pumpage, and waste disposal can affect groundwater quality. Contaminants can come from leaking fuel tanks, toxic chemical spills, pesticides, and fertilizers. Pathogens, like bacteria, can enter water supplies from failing septic systems and waste-disposal sites.

There are two main categories of pollution, point source pollution, and nonpoint source pollution. Nonpoint source pollution originates from multiple locations and is carried primarily by rainfall runoff. Point source pollution can be traced to a specific location, such as an industrial operation or a wastewater treatment facility. Nonpoint source pollutants are more challenging to control because they often come from many different people's everyday activities. To combat nonpoint source pollutants, a community must work together to prevent contaminants from entering water sources. Safe practices while using fertilizer, pesticides, household chemicals, and paint can help avert pollutants from entering a body of water. Southeast Texas has more than sixty-five inches of rainfall annually. It has an increased risk of severe flooding, much like what the region saw in the aftermath of Hurricane Harvey, which the area received over 60.58 inches from. This increased rainfall rate makes it even more critical to properly dispose of known pollutants, so they do not end up in the water system after heavy rainfall. In other words, never dump anything you would not want to drink or swim in on the ground, onto the street, down a storm drain, or into a drainage ditch.

A positive effect of the high annual rainfall rates is that rainfall can help an aquifer replenish water supplies. Depletion can happen when more is taken than is able to be recharged. Depletion affects water quality and leads to the compaction of dewatered clays and significant land surface subsidence. Conserving water is crucial in preventing depletion. It can also help save money by decreasing the monthly water bill. Simple acts can save a lot of water, including turning the faucet off when brushing your teeth, watering your lawn or garden in the morning, and replacing your showerhead with an efficient one.

Neches & Sabine Rivers

According to the Sabine River Authority of Texas, the main concerns of the Sabine River are bacteria *(Enterococcus or Escherichia coli (E. coli.))*, dissolved oxygen (DO) depression, and invasive species. The Lower Neches River Valley Authority reports that the main issues in various locations of the Neches River are mercury and dioxins in the edible tissue of fish and bacteria levels.

Bacteria levels in rivers and other bodies of water can enter from failing septic systems, wastewater treatment plant releases, livestock, and urban stormwater. Waste from pets and wildlife is another source of bacteria. In addition to bacteria, human and animal waste may contain pathogens such as viruses and protozoa that could be harmful to humans and other animals. Reminding a community to maintain septic systems and properly dispose of pet and toxic waste (paint, chemicals, batteries, tires, etc.) can help improve water quality.

DO is the amount of oxygen in the water. When DO levels decline, aquatic creatures suffer from oxygen deprivation, which can lead to death or migration. The introduction of organic waste, especially domestic and animal sewage, industrial waste from factories like paper mills, and crop wastewater, dramatically reduces the DO in water. This is because the microorganisms that decompose organic waste consume oxygen, resulting in a decrease in DO levels. Therefore, regular monitoring of DO levels is essential to prevent the negative impacts of organic waste on water bodies and aquatic life. At least thirty-two bodies of water in Southeast Texas are affected by decreased DO levels. It is worth mentioning that Southeast Texas has slow-moving water. Fast-moving water helps aerate the water as it encounters objects like rocks, creating turbulence that allows air to mix with the water. However, in areas with slower-moving water, the reintroduction of oxygen is limited to photosynthesis and oxygen from the atmosphere that is dissolved into water through surface contact. Invasive species are plants, animals, or pathogens that are non-native (or alien) to the ecosystem under consideration and whose introduction causes or is likely to cause harm. Invasive species can be introduced to an area by ship ballast water; smaller boats may carry them on their propellers, accidental release, and by people, often unintended. According to the Sabine River Authority, Giant Salvinia and Zebra Mussels are the top concern for the Sabine River. Giant Salvinia can affect DO levels, and Zebra Mussels can cause severe aquatic life problems and clog water intakes. According to the Big Thicket National Preserve, which the Neches River runs through, Giant Salvinia and Water Hyacinth are two concerns. These plants can affect DO levels and can cover an entire body of water in a short amount of time.

The issue that faces the Neches and Sabine Rivers is similar to the rest of the United States. Unfortunately, Southeast Texas does have a lot of flooding. Most of the drainage is ushered into the bayous that are connected to rivers or directly into the rivers. As drainage projects increase in the area to help prevent another Hurricane Harvey level of flooding, it becomes even more critical that the public watches what is put into storm drains and how different pollutants like pet waste and yard clippings can affect our water supply.

SETRPC Activity Plan

To raise awareness of water quality issues in the SETRPC region, SETRPC has developed the following outreach campaigns.

Outreach and Education Plan

The SETRPC's primary objective is to enhance public awareness regarding water quality concerns. These environmental issues include bacteria, water conservation, pollutants, and the impact of invasive species on water quality. Since a significant portion of our drinking water is derived from surface water, educating people about water quality is crucial. This involves providing information about the source of drinking water, the purification process, and how poor water quality can increase the cost of purification. Additionally, it is essential to educate people about ways to preserve water, as water levels also play a significant role in maintaining clean water. The region faces several other challenges in ensuring water quality, and it is crucial to create awareness about these challenges as well.

Our intended audience includes:

- Children in daycare.
- Head Start programs.
- Public, private, and parochial schools.
- Homeowners.
- Organizations with significant outreach.

To educate and spread awareness effectively, we need to deliver a clear and compelling message. This may involve simplifying complex information into easy-to-understand language and using engaging visuals or other interactive formats. We will tailor the message delivery based on the audience. For example, we may use coloring books and fun activities for younger children and provide them with a list of ways they can help water quality, such as turning off the water while brushing their teeth. Teenagers may prefer to learn about activities like clean-ups and water testing. We can collaborate with high school chemistry teachers to include water testing in their curriculum, and the SETRPC can provide testing kits.

It is important to raise awareness about the resources available in our area and ways to protect the water, which is crucial for the region's well-being. Fortunately, our region has several state and federal protected areas with dedicated organizations that provide outreach and education about the environment. These areas include Sea Rim State Park[1], McFaddin National Wildlife Refuge[2], J.D. Murphree Wildlife Management Area[3], Big Thicket National Preserve[4], and Village Creek State Park[5]. Exploring these areas can offer valuable insights into how the local water sources contribute to the overall water supply of the region. We aim to establish connections with water-focused organizations, such as the river authorities, and statewide resources like the Texas Stream Team and the Southeast Texas Resource Conservation and Development Council.

A strategic and multifaceted approach is crucial for achieving our water quality education goals.

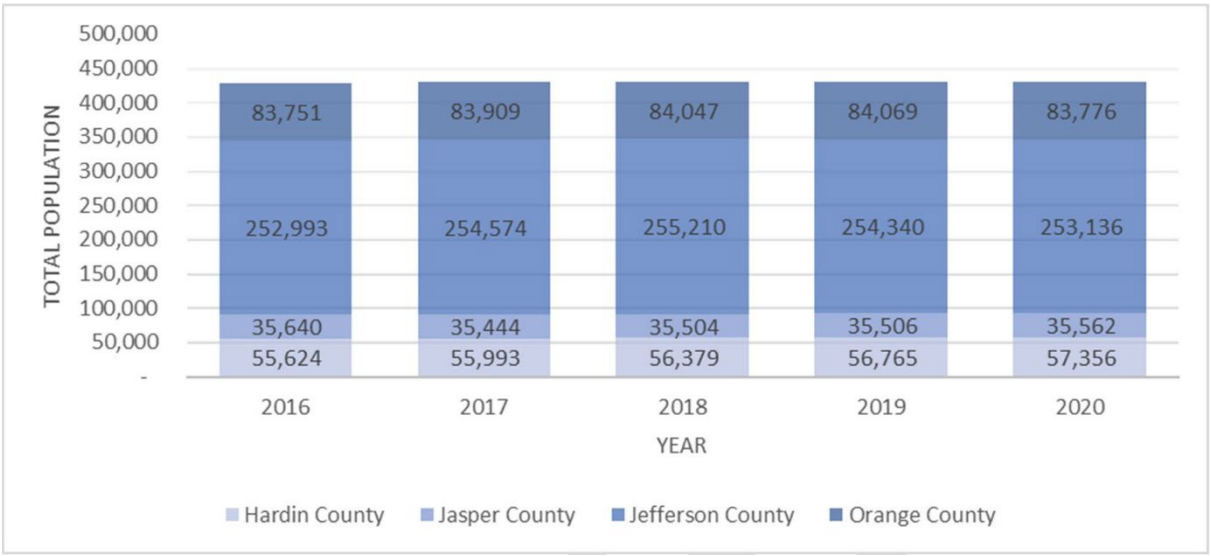
[1] https://tpwd.texas.gov/state-parks/sea-rim
[2] https://www.fws.gov/refuge/mcfaddin
[3] https://tpwd.texas.gov/huntwild/hunt/wma/find_a_wma/list/?id=40
[4] https://www.nps.gov/bith/index.htm
[5] https://tpwd.texas.gov/state-parks/village-creek

Outreach to Underserved Areas and Populations in the Region

General Demographics in the SETRPC

Analysis of general demographic characteristics of the SETRPC's region is an essential step in determining informed decisions and one the best outreach methods. The total population by counties in the SETRPC are shown in Figure 1.

Figure 1: Total Population by County



Source: U. S. Census Bureau. 2016-2020, 2015-2019, 2014-2018, 2013-2017, and 2012-2016 American Community Survey 5- Year Estimates. Table B01003.

The SETRPC gives due consideration to low-income and minority populations when making outreach decisions. Identifying locations of minority and low-income populations and improving the public involvement process is key in accounting for environmental justice in the relation to water quality. Data from the United States Census Bureau's decennial Census and its annual American Community Survey provide the most recent official source of this information. The SETRPC has used this information to identify population characteristics and geographic distributions of minority and low-income populations in the region. Table 1 shows the racial distribution within the region, and Table 2 shows the median household income (in inflation adjusted dollars) within the region.

Table 1: Racial Distribution in the MPA

	Hardin County	Jasper County	Jefferson County	Orange County	SETRPC MPA
White alone*	86.04%	74.42%	39.91%	80.09%	56.75%
Black or African American alone*	5.66%	16.45%	33.39%	8.65%	23.47%
American Indian and Alaska Native alone*	0.24%	0.03%	0.20%	0.25%	0.20%
Asian alone*	0.73%	0.42%	3.79%	1.15%	2.59%
Native Hawaiian and Other Pacific Islander alone*	0.00%	0.13%	0.05%	0.00%	0.04%
Some other race alone*	0.20%	0.15%	0.05%	0.12%	0.09%
Two or more races*	1.11%	1.55%	1.41%	1.64%	1.43%
Hispanic or Latino	6.01%	6.86%	21.20%	8.10%	15.43%
**Not Hispanic or Latino*					

Source: U. S. Census Bureau. 2016-2020 American Community Survey 5-Year Estimates. Table B03002.

Table 2: Median Household Income (in inflation adjusted dollars)

	2016	2017	2018	2019	2020
Hardin County	$54,352	$56,131	$59,105	$60,339	$61,221
Jasper County	$44,552	$41,960	$46,088	$44,370	$42,756
Jefferson County	$44,965	$46,315	$48,463	$51,248	$50,840
Orange County	$51,443	$53,667	$55,700	$59,399	$63,488
Average for SETRPC MPA	$48,828	$49,518	$52,339	$53,839	$54,576

Source: U. S. Census Bureau. 2016- 2020, 2015- 2019, 2014- 2018, 2013- 2017, and 2012- 2016 American Community Survey 5- Year Estimates. Table B19013.

Methodology

The SETRPC has updated its demographic and socioeconomic maps for this analysis based on data from the U.S. Census Bureau 2017-2021 American Community Survey (ACS) 5-Year Estimates. The analysis provides an overview of the environments and settings that describe the underserved communities in the region. Identifying the locations of protected communities is essential to understanding and recognizing the impacts these communities may be exposed to.

Determination of the characteristics of the protected community can also guide targeted public outreach efforts and inform public engagement strategies throughout the SETRPC process. Having the ability to identify the needs of the protected population would permit strategic outreach efforts to those underserved communities.

Communities sensitive for environmental justice in the SETRPC planning area are identified through a threshold analysis. A census block-group that meets or exceeds this threshold value is considered sensitive for environmental justice.

Indicators and thresholds for the SETRPC environmental justice analysis include:

- Minority Populations: Percent minority Greater than or Equal to 50 percent.
- Low-Income Household: Medium Household Income below current Texas Health and Human Services (HHS) Supplemental Nutrition Assistance Program (SNAP) Eligibility Threshold (see Table 1).
- LEP Population: LEP Population greater than fifty persons in population and greater than or equal to 5 percent of population.
- Senior Population: sixty-five and Over Population greater than or equal to 25 percent.

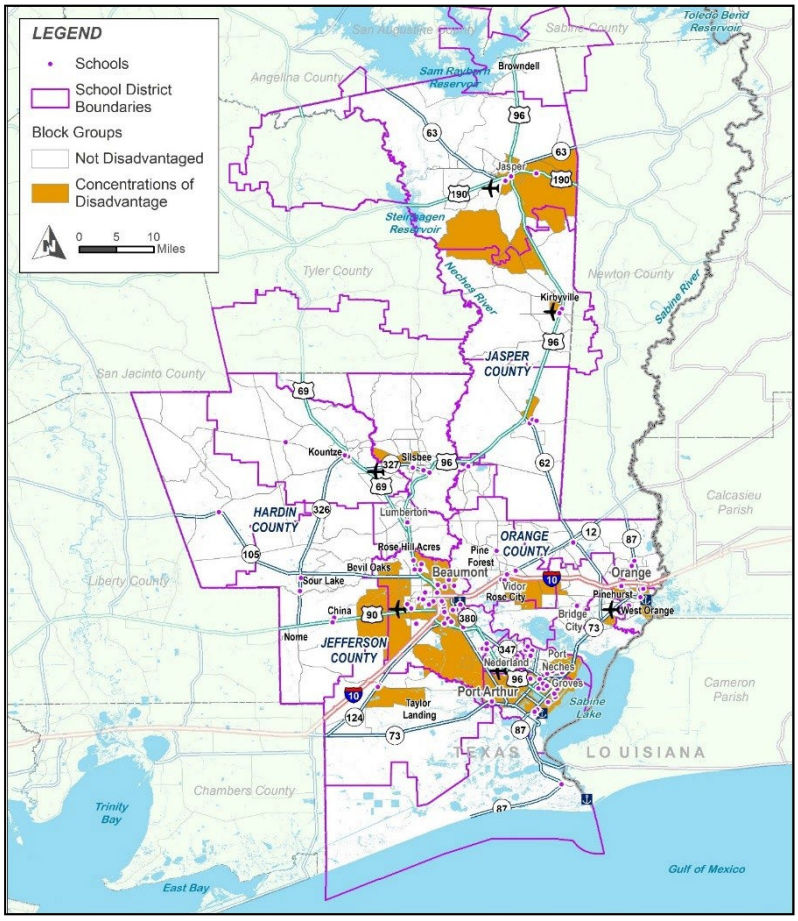
SETRPC developed an EJ composite score for the number of indicators for which each Census block-group met or exceeded the defined thresholds. Census block-groups were scored a 1 or a 0 for each indicator. Census block-groups that met or exceeded the indicator threshold were scored a one. Census block-groups that were below the indicator threshold were scored a zero. A composite score was developed by adding the sum of the scores across all indicators for each Census block-group. Census block-groups with composite scores of two or greater are defined as Concentrations of Disadvantage.

About 41 percent of the Census block-groups within the 4-county SETRPC region are defined as Concentrations of Disadvantage.

Outreach to Schools

Part of the SETRPC's outreach efforts involve ensuring that disadvantaged communities and populations are not ignored or underserved. The SETRPC identifies schools for targeted outreach which are located within the region's Concentrations of Disadvantage. The SETRPC uses the Block Groups identified as Concentrations of Disadvantage through the methodology to determine targeted outreach to schools within the region to ensure that disadvantaged communities and populations are not ignored or underserved. Figure 2 identifies schools located within the region's Concentrations of Disadvantage.

Figure 2: Schools, School Districts, and Concentrations of Disadvantage



Source: WSP analysis of U. S. Census Bureau, 2017- 2021 American Community Survey 5-Year Estimates and Texas Educational Agency data.

SETRPC Water Quality Page

The SETRPC is committed to keeping the water quality webpage up-to-date with essential information on water and water quality within the region. This page provides the public with valuable insights into the importance of water quality and offers a centralized resource for accessing information about the organizations that monitor and protect our water. The SETRPC will also continue working on a PSA commercial for FY 2025 and will be displayed on the website. The SETRPC will also be working on translating the website into Spanish.

Agencies

Federal

The United States Environmental Protection Agency (EPA) is the federal agency that handles most water quality issues.

- About the EPA
  - https://www.epa.gov/aboutepa/our-mission-and-what-we-do

The Office of Water (OW) is a division under the EPA that ensures drinking water is safe, and restores and maintains oceans, watersheds, and their aquatic ecosystems to protect human health, support economic and recreational activities, and provide healthy habitat for fish, plants, and wildlife.

- About the OW
  - https://www.epa.gov/aboutepa/about-office-water
- Drinking Water Regulations
  - Overview: EPA sets legal limits on over ninety contaminants in drinking water. The legal limit for a contaminant reflects the level that protects human health and that water systems can achieve using the best available technology. EPA rules also set water-testing schedules and methods that water systems must follow.
  - https://www.epa.gov/dwreginfo/drinking-water-regulations
- Schools and Child Care Facilities
  - Technical and Case Study Presentations on Reducing Lead in Drinking Water in Schools and Child Care Facilities: EPA host webinars on lead testing and reduction in drinking water in schools and childcare facilities. These webinars include presentations from federal agencies, states, school districts, and/or water systems on best practices, lessons learned, challenges, funding, and available resources.
  - https://www.epa.gov/dwreginfo/technical-and-case-study-presentations-reducing-lead-drinking-water-schools-and-child

State

The Texas Commission on Environmental Quality (TCEQ) is the environmental agency for the state. The TCEQ maintains water quality and availability for municipalities, businesses, and homeowners.

- About the TCEQ
  - https://www.tceq.texas.gov/agency/about-the-tceq
- Water Quality: Rivers, Lakes, and Estuaries: surface water quality standards for rivers, lakes, and estuaries; monitor and assess their status; and implement pollution control projects to protect or restore natural waterways.
  - https://www.tceq.texas.gov/waterquality
- Wastewater and Stormwater: Types of wastewaters and stormwater permits and registrations, and how to apply for them. Permitti ng requirements. Participating in the permitti ng process.
  - https://www.tceq.texas.gov/permitti ng/wastewater
- Groundwater and Wells: Assessing and protecting groundwater, drinking water and its source. Operating groundwater-treatment plants and water wells.
  - https://www.tceq.texas.gov/groundwater

- The TCEQ Total Maximum Daily Load (TMDL) Program works with communities to improve water quality in rivers, lakes, and estuaries in Texas.
    - https://www.tceq.texas.gov/waterquality/tmdl/tmdlprogram.html
- The TCEQ Nonpoint Source Program is a federally funded program to reduce and prevent water pollution caused by runoff from urban and other non-agricultural nonpoint sources.
    - https://www.tceq.texas.gov/waterquality/nonpoint-source/index

Local

- The Lower Neches Valley Authority is one of the 23 River Authorities created by the State of Texas to develop and manage the waters of the State. Each of these River Authorities granted powers to conserve, store, control, preserve, utilize, and distribute the waters of its respective area for the benefit of its residents.
    - https://lnva.dst.tx.us/
- The Sabine River Authority of Texas (SRA-TX) was created as a conservation and reclamation district with responsibilities to control, store, preserve, and distribute the waters of the Sabine River and its tributary system for useful purposes.
    - https://www.sratx.org/

Basics

General Information

- United States Environmental Protection Agency (EPA) Basic Information about Your Drinking Water
    - https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-your-drinking-water
- Basic Information about Nonpoint Source (NPS) Pollution
    - https://www.epa.gov/nps/basic-information-about-nonpoint-source-nps-pollution
- Polluted Runoff: Nonpoint Source (NPS) Pollution
    - https://www.epa.gov/nps
- National Nonpoint Source Program (Report)
    - https://www.epa.gov/sites/default/files/2016-10/documents/nps_program_highlights_report-508.pdf
- Nonpoint Source Pollution Tutorial
    - https://oceanservice.noaa.gov/education/tutorial_pollution/04nonpointsource.html
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- Infographic: How does your water system work?
    - Infographic on how your water system works. Learn about how water gets to your drinking water tap every day, the different types of public water systems and the basics of a Consumer Confidence Report.
    - https://www.epa.gov/sites/default/files/2017-10/documents/epa-ogwdw-publicwatersystems-final508.pdf
- Preserving & Improving Water Quality
    - If you are looking to become more educated regarding Water Quality the Texas Commission on Environmental Quality (TCEQ) has a great document explaining key terms and important information regarding the programs in Texas
    - https://www.tceq.texas.gov/publications/gi/gi-351
- After the Flood: Is Your Water Safe to Drink?

    - Regardless of whether you have your own water supply, get water from a public water system, or operate a public water system, you might have to take special steps to ensure that your drinking water is safe after the well or water treatment plant has been flooded.
    - https://www.tceq.texas.gov/drinkingwater/homeland_security/flood_safewater.html
- Texas Parks & Wildlife's Texas Waters: Exploring Water and Watersheds
    - Inform and educate Texans about the most precious natural resource Texas possesses, its water.
    - https://tpwd.texas.gov/publications/pwdpubs/media/pwd_bk_k0700_1931_watershed_curriculum.pdf
- TPW Magazine Water Issues
    - https://tpwd.texas.gov/education/water-education/stateofwater/magazine

Ways to Protect Water

- Protect Your Water Source
    - This brochure includes the definition of source water, how it can become contaminated, some easy things homeowners and individuals can do to help, and background and contact information for the Source Water Protection Program and the Drinking Water Inventory and Protection Team.
    - https://www.tceq.texas.gov/downloads/drinking-water/swap/gi-604-reader.pdf
- How Can You Help Protect Source Water?
    - Communities, citizen groups, and individuals can take an active role in protecting their drinking water sources from contamination. The resources below provide information about source water protection and steps you can take at the local level to protect your drinking water.
    - https://www.epa.gov/sourcewaterprotection/how-can-you-help-protect-source-water#everyday
- Drought Survival
    - Wise water conservation habits help people and wildlife in times of plenty and in drought. Including tips on how to cut your water bill, save your yard, and helping wildlife.
    - https://tpwd.texas.gov/education/water-education/stateofwater
- Wetlands Assistance Guide for Landowners
    - The State recognizes that private landowners are stewards of a natural resource in which many of the benefits are accrued to the public. Ninety-seven percent of Texas' land is privately owned and managed, and as such, management decisions on these lands are made by private landowners. Because economics often dictate what these management strategies will be, the Wetlands Assistance Guide for Landowners was developed as a comprehensive guide to federal, state, and private programs offering technical and/or financial assistance to private wetland owners within the State of Texas. The programs are designed to enhance, create, and conserve wetlands in Texas in exchange for technical, financial, and educational assistance to private landowners.
    - https://www.landcan.org/pdfs/pwd_bk_r0400_0020_11_00.pdf
- Conducting a Household Water Audit
    - Conducting a water audit can help you save money by reducing your home water bill (and sewer bill if you are connected to a public sewer system). Conducting a water audit will make you aware of how you use your water and help to identify ways you can minimize water use by implementing certain conservation measures. It is possible to cut your water usage by as much as 30 percent by implementing simple conservation measures and without drastically modifying your lifestyle.
    - https://www.landcan.org/article/Conducting-a-Household-Water-Audit/145/
- Water Conservation for Industries, Businesses, and Institutions

    - With rising costs of operations for many businesses, conserving water is one way to cut costs without compromising services.
    - http://www.twdb.texas.gov/publications/brochures/conservation/doc/Industrialbrochure-final.pdf?d=44582
- Agricultural Water Conservation in Texas
    - Texas farmers and ranchers are leading the way in agricultural water conservation and innovation, implementing regional water planning strategies to address future water needs.
    - http://www.twdb.texas.gov/publications/brochures/conservation/doc/Agricultural-Water-Conservation-in-Texas.pdf?d=44582
- On-Site Sewage Facilities (Septic Systems): Information for Homeowners https://www.tceq.texas.gov/permitti ng/ossf/ossfhomeowners.html

For Educators

- Texas Parks & Wildlife: Water Education Overview
    - https://tpwd.texas.gov/education/water-education
- Become a Texas Waters Specialist
    - Through the Texas Water Specialist program, you can become a part of a corps of well-informed volunteer specialists who provide education, outreach, and service dedicated to the beneficial management of aquatic resources and aquatic habitats within the community for the state of Texas.
    - https://tpwd.texas.gov/education/water-education/texaswatersprogram/texaswatersspecialist
- Texas: The State of Water
    - Texas Parks and Wildlife's documentaries explore the rich diversity of the Gulf's unique ecology, diverse flora and fauna and important habitats.
    - https://tpwd.texas.gov/education/water-education/stateofwater/vidlist
- Drinking Water Activities for Students and Teachers
    - Lesson Plans, Teacher Guides, and activities for Students K-12
    - https://www.epa.gov/ground-water-and-drinking-water/drinking-water-activities-students-and-teachers
- Loaner Trunks
    - These trunks are available for loan free of charge to formal and informal educators, and youth leaders. Each trunk contains activities and materials appropriate for multiple age level groups.
    - https://tpwd.texas.gov/education/resources/resources/loaner-trunks
- The TWDB Kids Web site serves as the gateway to the agency's K-12 conservation education resources. The web site also features visualization, interactive games, and other activities to help students learn about key concepts.
    - http://www.twdb.texas.gov/conservation/education/kids/index.asp
- Water for Texas Coloring Book
    - In the "Water for Texas" coloring and activity book, Billy the Bull, Amanda Armadillo, Sally Mander, and Grandpa Lizard guide children through fun facts about water in Texas, teach them the names of aquifers and rivers through word finds, give them information on how to conserve water at home, and apply what they have learned to create a story and draw a picture. There is even a maze and a connect-the-dots page. This entertaining 16-page booklet is targeted for ages Kindergarten through third grade.

    - http://www.twdb.texas.gov/publications/brochures/conservation/doc/ColoringBook.pdf?d=44582
- Conservation Educational Resources
    - https://www.twdb.texas.gov/conservation/resources/educational-resources.asp#interactive
- Water Conservation and STEM
    - The popularity of STEM learning has the potential to aid water conservation efforts by engaging young people to make a difference in our current and future water usage.
    - https://techbootcamps.utexas.edu/blog/water-conservation-and-stem/ e flora and fauna and important habitats.
    - https://tpwd.texas.gov/education/water-education/stateofwater/vidlist
- Point Source and Nonpoint Sources of Pollution
    - For the purposes of regulation, the United States Environmental Protection Agency identifies two broad categories of pollution: point-source pollution and nonpoint-source pollution.
    - https://education.nationalgeographic.org/resource/point-source-and-nonpoint-sources-pollution/