



# BRAZOS-COLORADO

## coastal basin

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### EXECUTIVE SUMMARY

The *Basin Characterization Report for the Brazos-Colorado Coastal Basin for Indicator Bacteria* presents data and makes recommendations on how to reduce bacteria levels in the project area, known as Basin 13. High levels of bacteria in surface water can cause gastrointestinal illness and infections, as well as other health issues.

This Executive Summary takes a big-picture look at Basin 13, including report highlights, recommendations, and links to state and regional water quality education programs.

### REPORT HIGHLIGHTS

- Representatives from six counties, 13 cities, and multiple civic/social organizations in Basin 13 provided feedback and guidance.
- Comprehensive GIS mapping produced valuable data analysis and modeling techniques.
- Modeling of monitoring data was conducted to identify potential bacteria sources.
- Using stakeholder feedback and data analysis, staff concluded that agricultural areas in Basin 13 have higher bacteria levels.
- Data suggested that the high concentration of on-site sewage facilities (OSSF) in Basin 13 are a bacteria contributor, especially during dry weather.

The full report can be found at [h-gac.com/go/basin13](https://h-gac.com/go/basin13).

# SEGMENT SUMMARIES

Four waterways in Basin 13 were analyzed in the *Basin Characterization Report: Segments 1301, 1302, 1304, 1305*.<sup>\*</sup> A summary of those findings and recommendations is provided below.

## PROBLEM

Impaired for bacteria (part or all of segments)

## POSSIBLE CAUSES

- Animal waste from agricultural production, livestock, and invasive species
- Malfunctioning or failing OSSF and wastewater treatment facilities (WWTF)
- Urban runoff in segments with larger population centers

## RECOMMENDATIONS

- Continue Texas Commission on Environmental Quality's (TCEQ) Clean Rivers Program water quality monitoring, with additional monitoring if possible
- Increase participation by volunteer monitors through the Texas Stream Team program
- Restore and preserve riparian buffers
- Install fencing to keep livestock out of waterways and replace with alternative sources of water and shade
- Increase public outreach and education activities, specifically focusing on OSSF maintenance and water management tools/techniques available to landowners and agricultural producers
- Increase communication about OSSF permitting, installation, maintenance, and inspection requirements
- Encourage feral hog abatement measures

## Basin 13 At A Glance

Of the 4,538 permitted OSSF near water, an **estimated 12% may be failing**.



**Gently-sloping Gulf Coast plain** is the primary geographical characteristic.

**Development accounts for only 2%** of land use, leaving large natural areas available for wildlife.



**51% of land use** is classified as agricultural (crop production and cattle grazing).

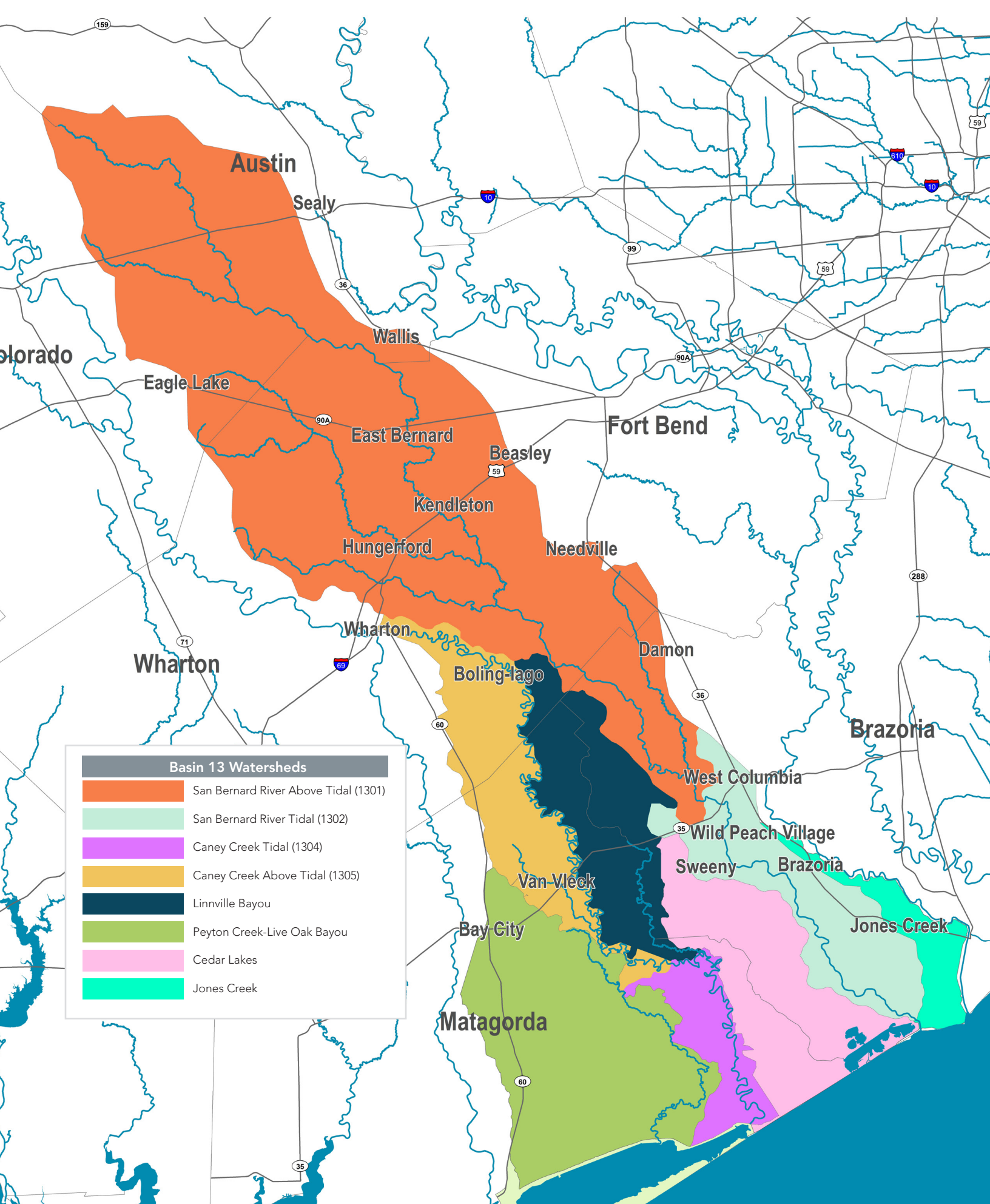
The basin includes all or a portion of **20 communities and six counties**.



Rate of **population growth is 3.5%**, slower than the rest of the Houston-Galveston region.

<sup>\*</sup>Other segments in the basin do not currently have enough data for evaluation. Additional monitoring will be conducted to provide more information.

# Basin 13 Project Area





# WANT TO LEARN MORE?

There's a lot of good work happening in Basin 13.  
Here are a few ways you can get involved.

## **H-GAC TEXAS STREAM TEAM**

A network of trained volunteers make frequent observations about the conditions in their waterways and conduct on-site water quality testing. [www.h-gac.com/texasstreamteam](http://www.h-gac.com/texasstreamteam)

## **TEXAS WATERSHED STEWARD PROGRAM**

Local stakeholders learn about their watersheds, impairments and concerns, and the steps to improve water quality through one-day workshops and online courses. <http://tw.s.tamu.edu/>

## **LONE STAR HEALTHY STREAMS**

Texas farmers, ranchers, and landowners review proper grazing, feral hog management, and riparian area protection with workshops and an informative website. <http://lshs.tamu.edu/>

## **ONSITE WASTEWATER TREATMENT TRAINING PROGRAM**

Texas A&M AgriLife Extension Service's short courses and trainings educate homeowners and improve skills for installers, site evaluators, and designers of onsite wastewater treatment systems. <http://ossf.tamu.edu/>

## **OSSF REAL ESTATE INSPECTION TRAINING COURSE**

The Houston-Galveston Area Council's (H-GAC) Texas Real Estate Commission-approved OSSF training course protects potential homeowners by training real estate agents and inspectors to identify failing OSSFs through visual inspection. [www.h-gac.com/go/septic](http://www.h-gac.com/go/septic)

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This executive summary, and its corresponding report, was prepared by the Houston-Galveston Area Council in cooperation with the Texas Commission on Environmental Quality under authorization from the TMDL Program.