

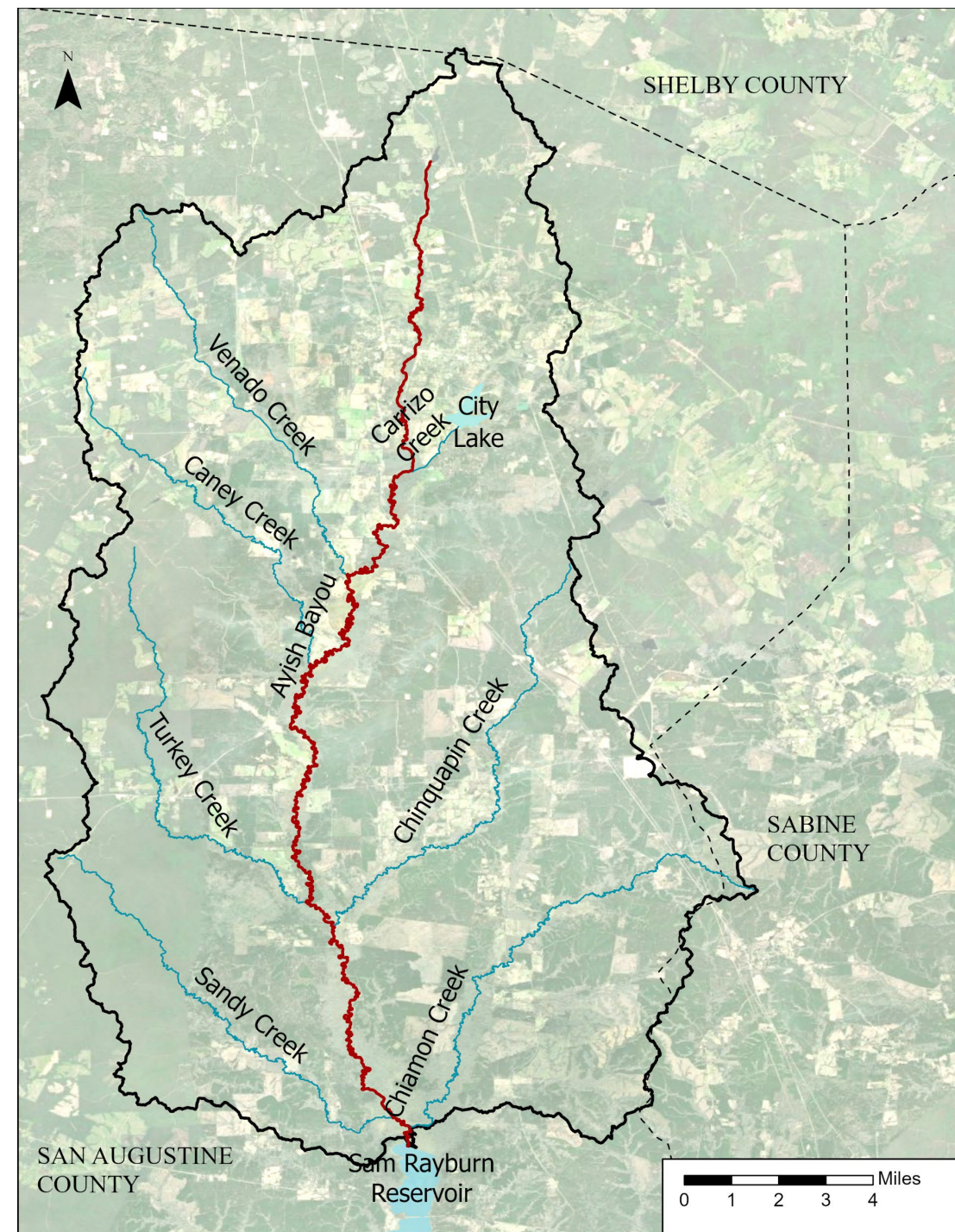
Ayish Bayou Water Quality Planning

- † *Ayish Bayou/Watershed properties*
- † *Water quality status*
- † *Watershed based planning*
- † *Current planning efforts*



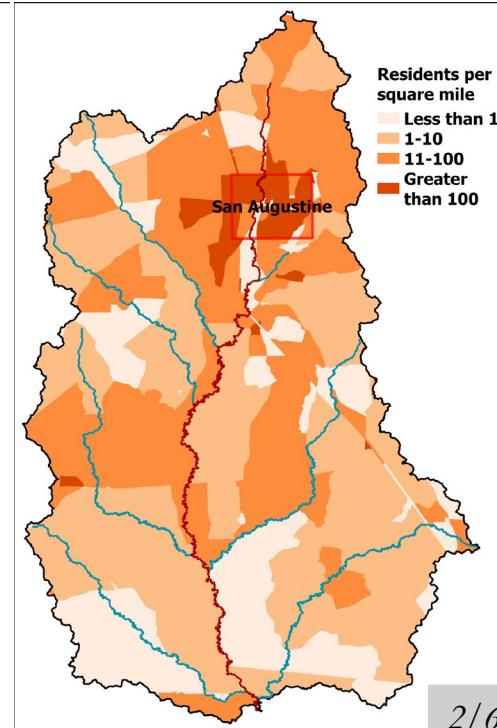
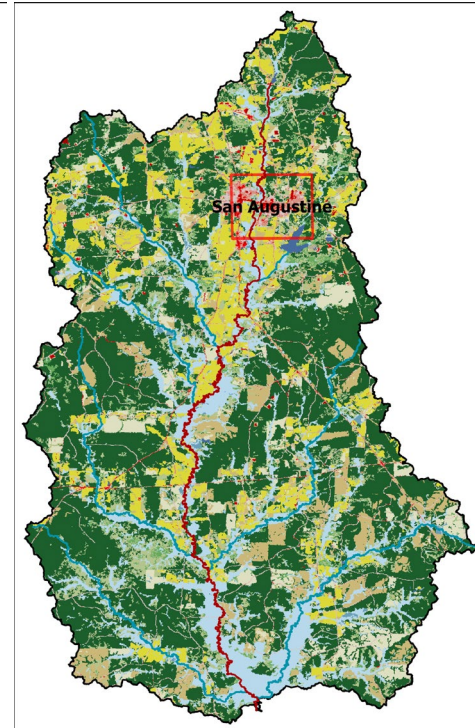
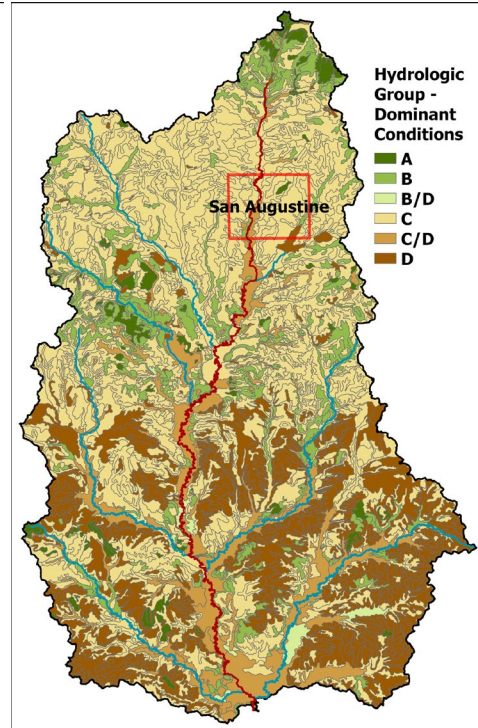
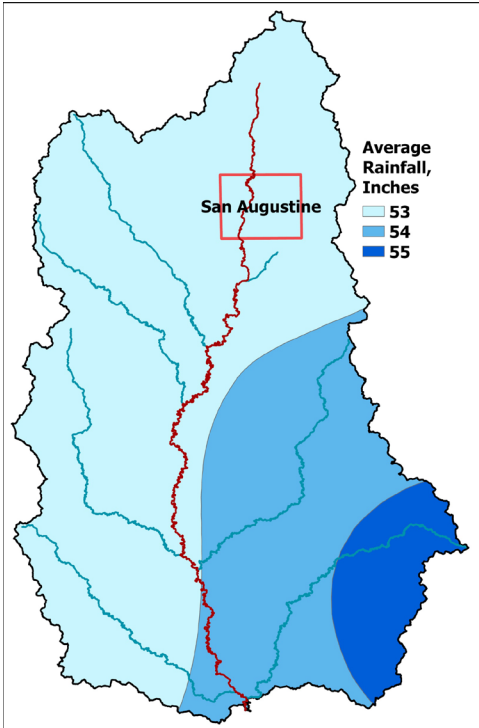
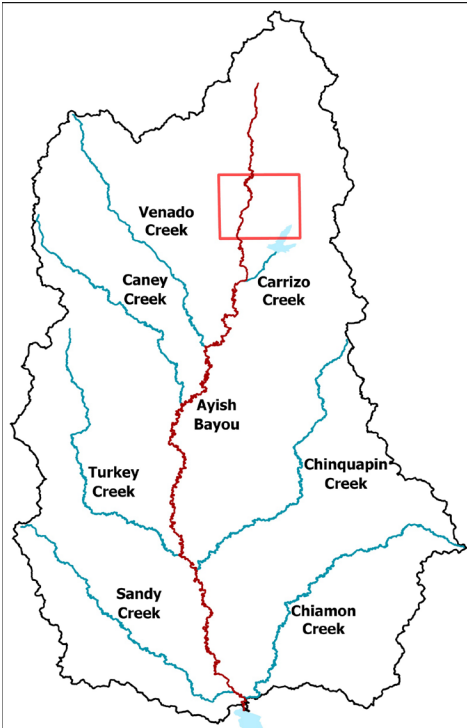
TEXAS COMMISSION ON
ENVIRONMENTAL
QUALITY

Duncan Kikoyo
TWRI
July 2020



Ayish Bayou Watershed Properties

- ❑ 32 mi long freshwater stream, flowing into the Sam Rayburn Reservoir.
- ❑ Flows southwards, has several tributaries.
- ❑ Watershed area is about 192 mi², 99% in the San Augustine County.
- ❑ Mean annual precipitation is 53in, wettest month is Dec., driest is Jul.
- ❑ Maximum temperatures occur in Aug., lowest in Jan.
- ❑ Generally, soils have low infiltration rates, high runoff potential.
- ❑ Largely rural watershed - forests cover about 56%, dev. land is 5%.
- ❑ Estimated 2020 pop. is 4,264 people. Most live in/around the City



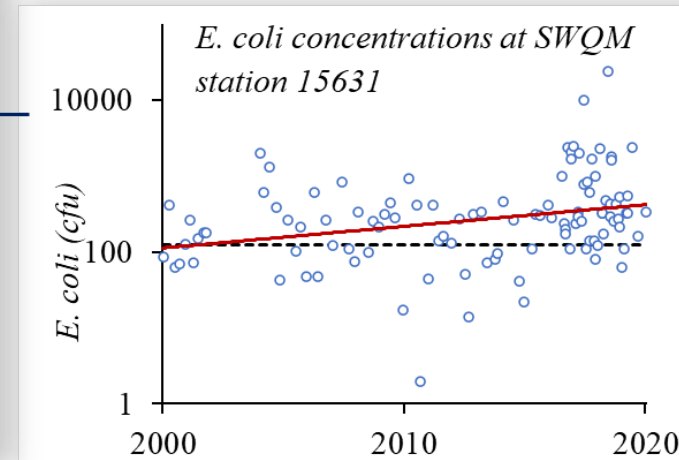
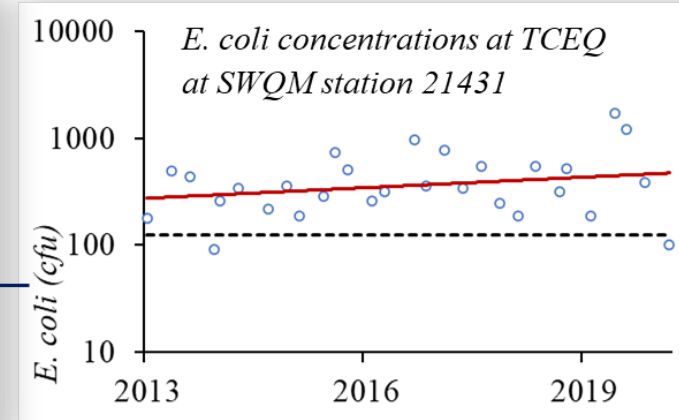
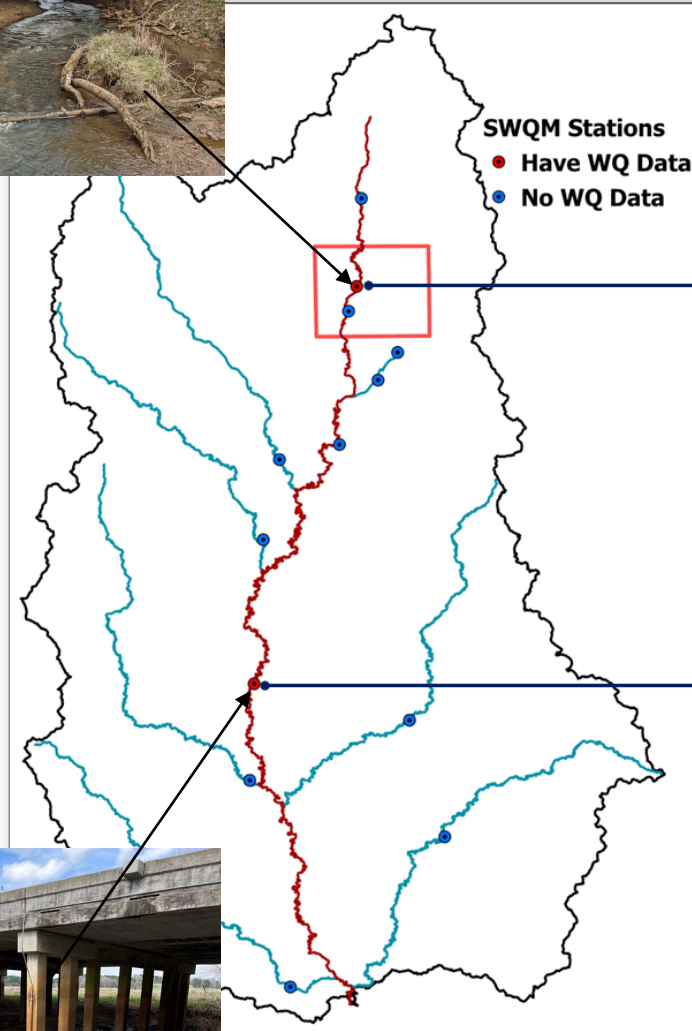
Water Quality Status

Water quality is routinely monitored by the state of Texas for recreational safety.

- ❑ Data shows elevated fecal indicator bacteria levels in Ayish Bayou.
- ❑ Recreational users in water bodies with high levels of fecal bacteria have an increased risk of contracting a gastrointestinal illness.

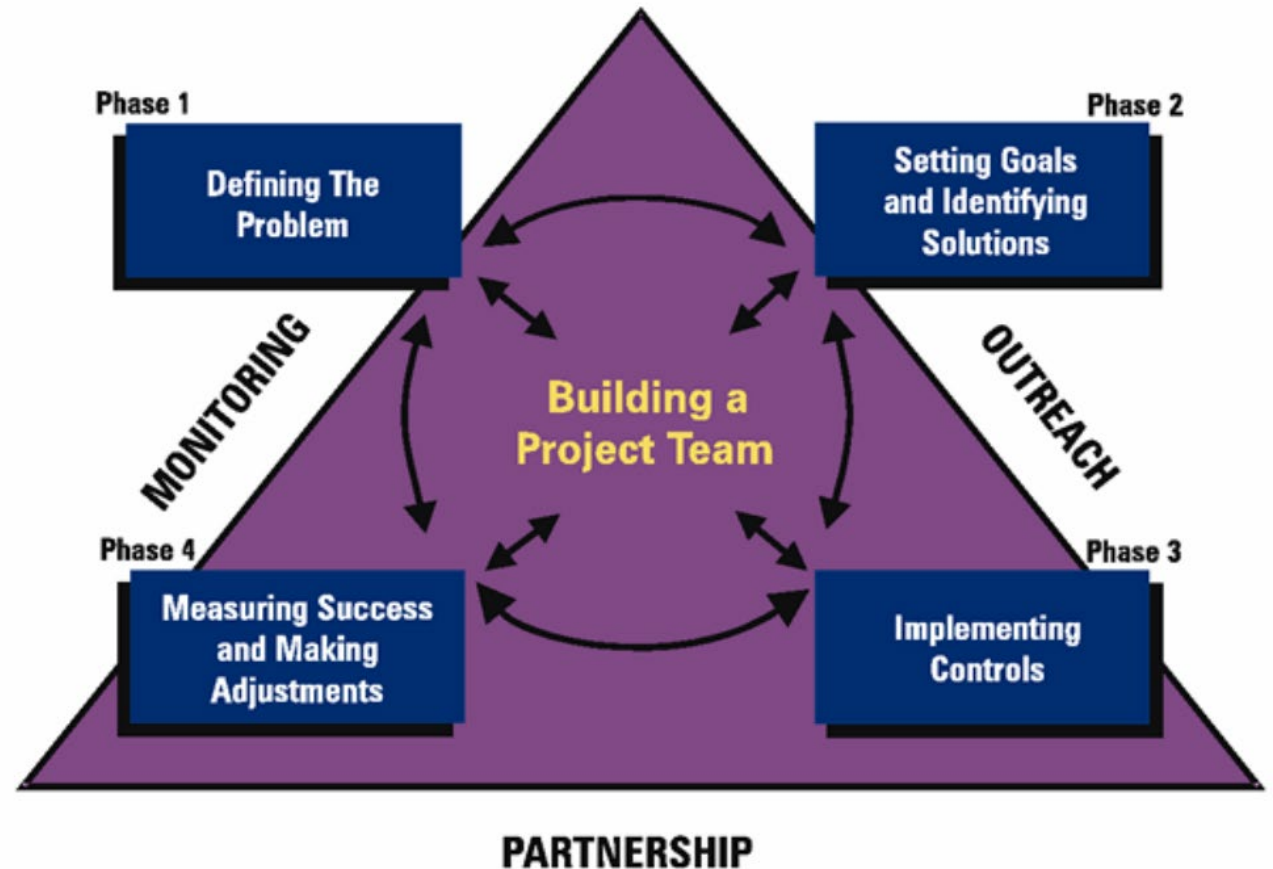
Typical sources of contamination:

- ❑ Human waste from degraded sewer infrastructure, failing onsite septic tanks, etc..
- ❑ Domesticated, farm and wild animal waste can migrate into surface waters via runoff.



The Watershed Based Planning Approach

Addresses impairments by involving local stakeholders in developing and implementing voluntary action plans that improve water quality.





Defining the Problem

Current phase

- ☐ **Gather existing data and create a watershed inventory.**
- ☐ **Identify data gaps and collect additional data if needed.**
- ☐ *Analyze data*
- ☐ *Identify causes and sources of pollution that need to be controlled*
- ☐ *Estimate pollutant loads*



Stay Engaged

TWRI & the Angelina & Neches River Authority (ANRA) are working with the TCEQ to monitor water quality, engage residents, and develop strategies for improving water quality in the Ayish Bayou watershed.

Please sign up for emails and updates at:

<https://ayish.twri.tamu.edu/>

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