WELCOME!

Thompsons Creek Watershed Protection Plan Development

Stakeholder Meeting - 02
July 31, 2024
Bryan, Texas

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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Funding provided by the Texas Commission on Environmental Quality through a Clean Water Act Section 319(h) grant from the EPA

About today!

- *Ask Questions!*
- *Get to know your fellow stakeholders!*
- *Have fun!*

Stakeholder Meeting for the Thompsons Creek Watershed Partnership

- ❑ Partnership serves as the forum for public input.
- ❑ Discuss the watershed planning process, surface water quality management, and stakeholder structure.

AGENDA

- ❑ Introductions
- ❑ Surface Water Quality Management
- ❑ Watershed Based Planning
- ❑ Stakeholder Organization
- ❑ Draft Chapters 1 and 2
- ❑ Next steps
- ❑ Q&A

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WHO WE ARE

- ❑ Established in 1952
- ❑ Unit of Texas A&M

WHAT WE DO

- ❑ Restoring & Protecting
- ❑ Sustaining & enhancing
- ❑ Engaging & Educating

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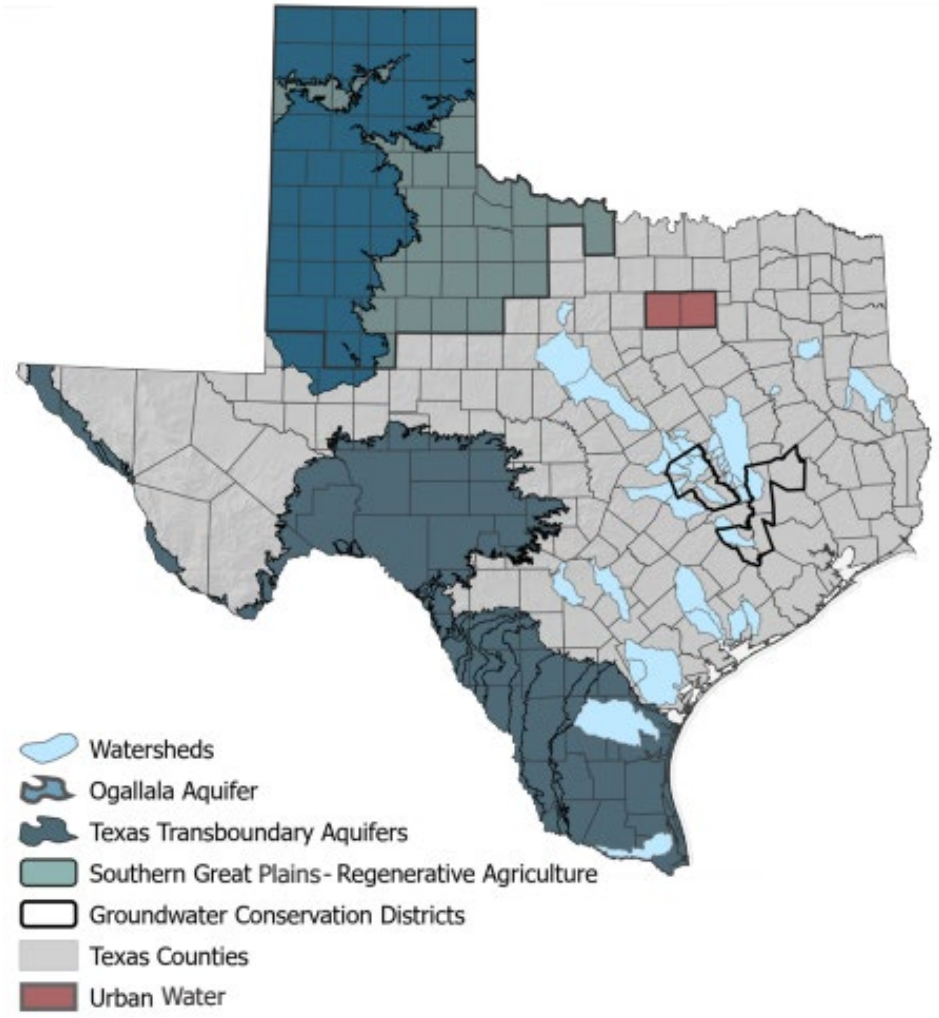
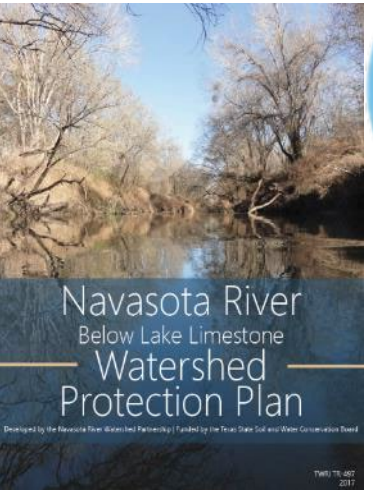
WHERE WE WORK



Surface Water Quality Management in Texas



Water Quality Monitoring
Collect data about water quality

Assessments
Study and analyze data from water samples

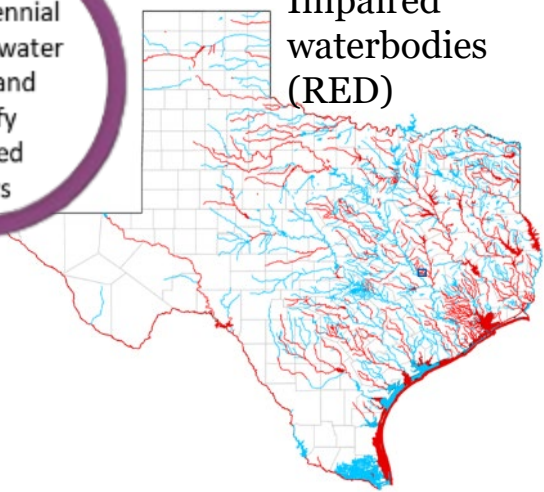
Reporting
Issue a biennial report on water quality and identify impaired waters

Cleanup Studies
Plans for restoring impaired waters (TMDL or WPP)

Cleanup I-Plans
Plans for actions needed to restore water quality

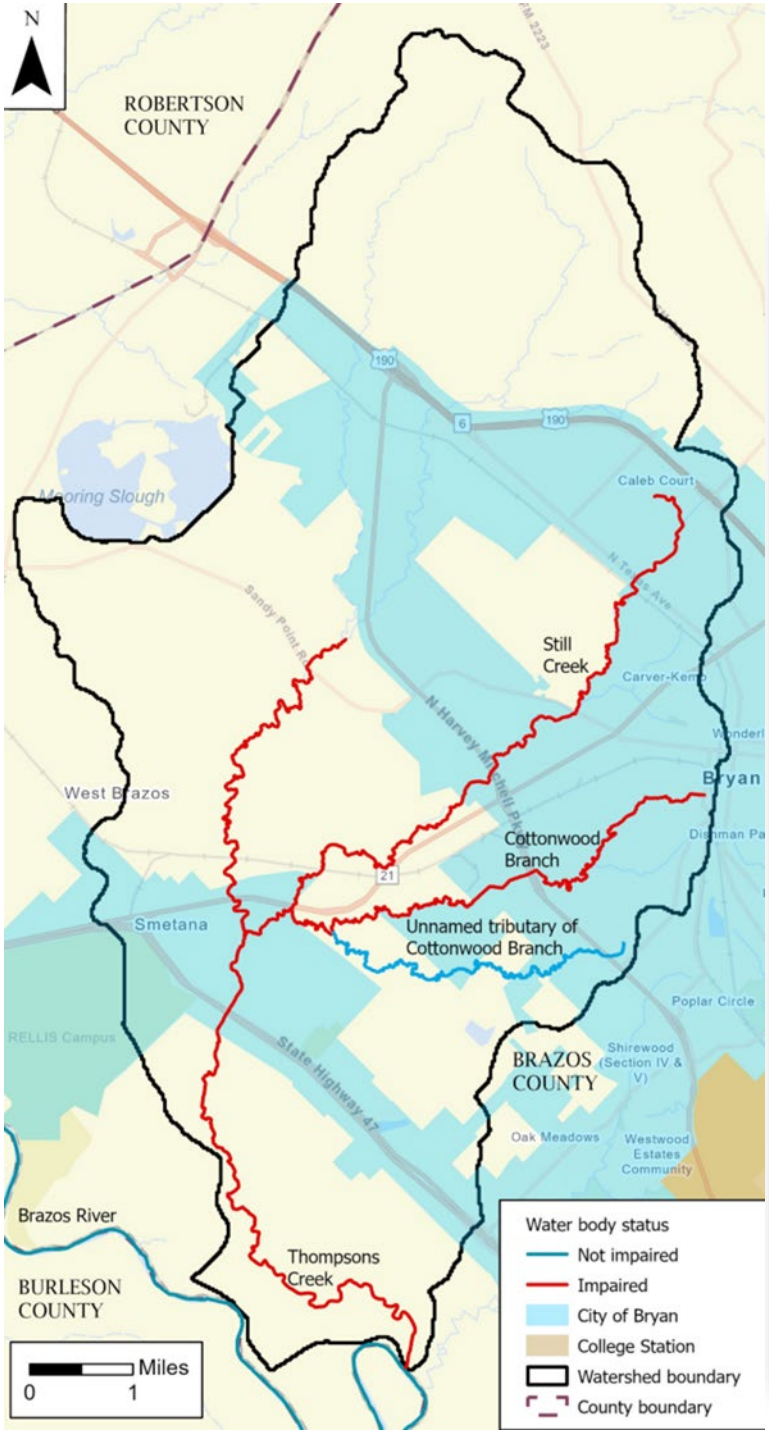
Implementing Control Measures
Permits, BMPs, grants, cleanup actions

Water Quality Standards



Impaired waterbodies (RED)

Thompsons Creek Watershed – Water Quality



- Watershed drained by the Thompsons Creek and its tributaries
- Is about 52 sq. miles – includes part of the City of Bryan.
- Elevated bacteria, depressed DO, and other concerns exist in the watershed.

Waterbody	Impairment or concern
Cottonwood Branch	Bacteria, Nitrate, Total phosphorous
Still Creek	Bacteria, Dissolved oxygen, Nitrate, Total phosphorous
Thompsons Creek	Bacteria, DO, Nitrate, TP, Ammonia, Chlorophyll-a, Fish community, Macrobenthic community

Improving Water Quality

Existence of impairments creates a need for implementing actions that improve and restore water quality

Strategies

- Total Maximum Daily Loads (TMDL): Driven by CWA requirements
  - Implementation Plan (I-Plan): Stakeholder driven plan that outlines how the TMDL will be achieved

- Watershed Protection Plan (WPP): Voluntary Stakeholder driven plan

Watershed Protection Planning in the Watershed

- TWRI in partnership with TCEQ is engaging local stakeholders to develop a WPP.
- A voluntary, stakeholder-driven mechanism addressing water quality issues.
- WPP will describe how to best protect and improve water quality in this watershed.
- Accepted plans can make funding for local educational and project resources easier to acquire.

- *Gather & analyze data.*
- *Identify causes and sources of pollution that need to be controlled.*
- *Estimate pollutant loads and reductions needed.*
- *Develop effective management measures*

Questions/ Comments

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Possible Stakeholder Organizational Frameworks and Decision-Making Processes

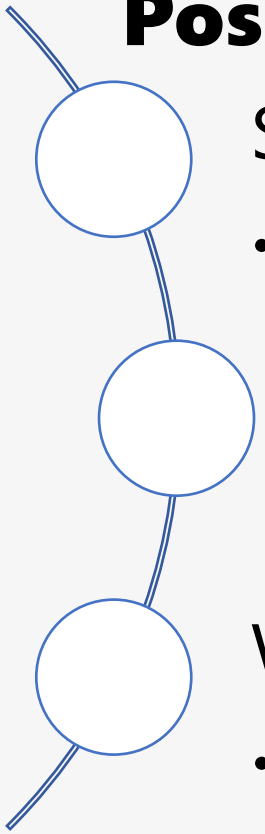
Who are Stakeholders

- Landowners and homeowners
- County or regional representatives
- Local municipal representatives
- State and federal agencies
- Business and industry representatives
- Community service and religious organizations
- Universities, college, and schools
- Environmental and conservation groups
- Soil and Water Conservation Districts

Stakeholder Tasks

- Provide guidance and input on potential sources of bacteria and estimated pollutant loads
- Guide identification of measures that could be implemented to address bacteria
- Identify levels of implementation that are reasonable
- Identify outreach and education activities that are needed

Possible Stakeholder Structure



Stakeholder Group

- The general body of individuals who participate in public meetings

Coordination (Steering) Committee

- A decision-making body made up of stakeholders from diverse interest/backgrounds

Workgroups

- Groups made up of stakeholders of a similar interest/background

Possible Framework for Organizing Stakeholders

Option 1

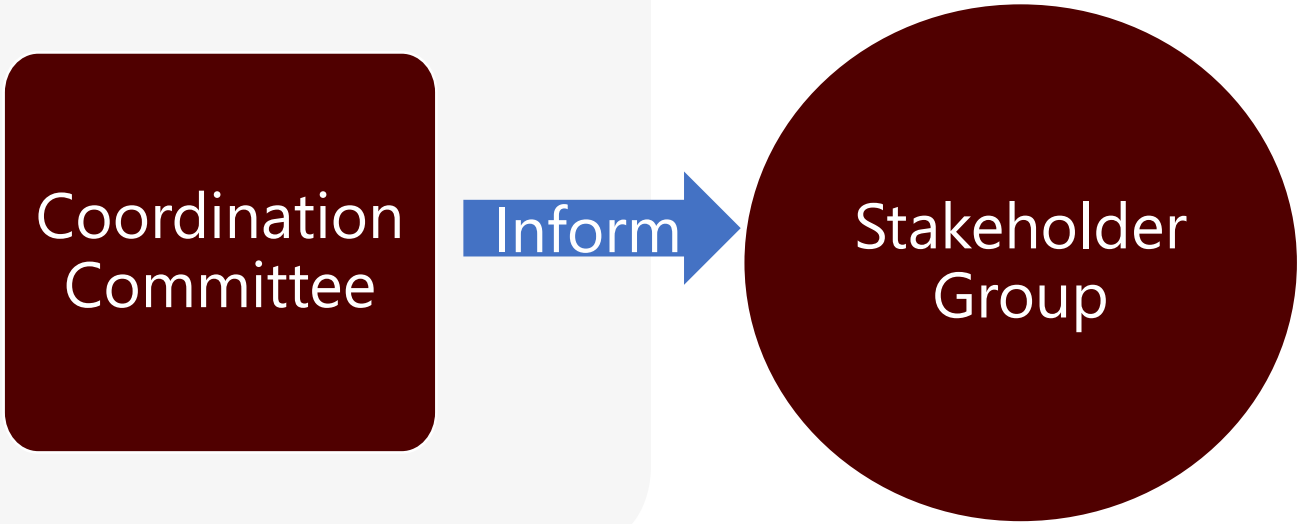
- Decision making through consensus building
- Use general ground rules to govern the group

- Strive to have most stakeholder groups represented in meetings
- Will also see feedback via email

Possible Framework for Organizing Stakeholders

Option 2

- Establish bylaws that govern the actions of the committee
- Adhere to Open Meeting Act Requirements
- Formal voting of Coordination Committee



Possible Framework for Organizing Stakeholders

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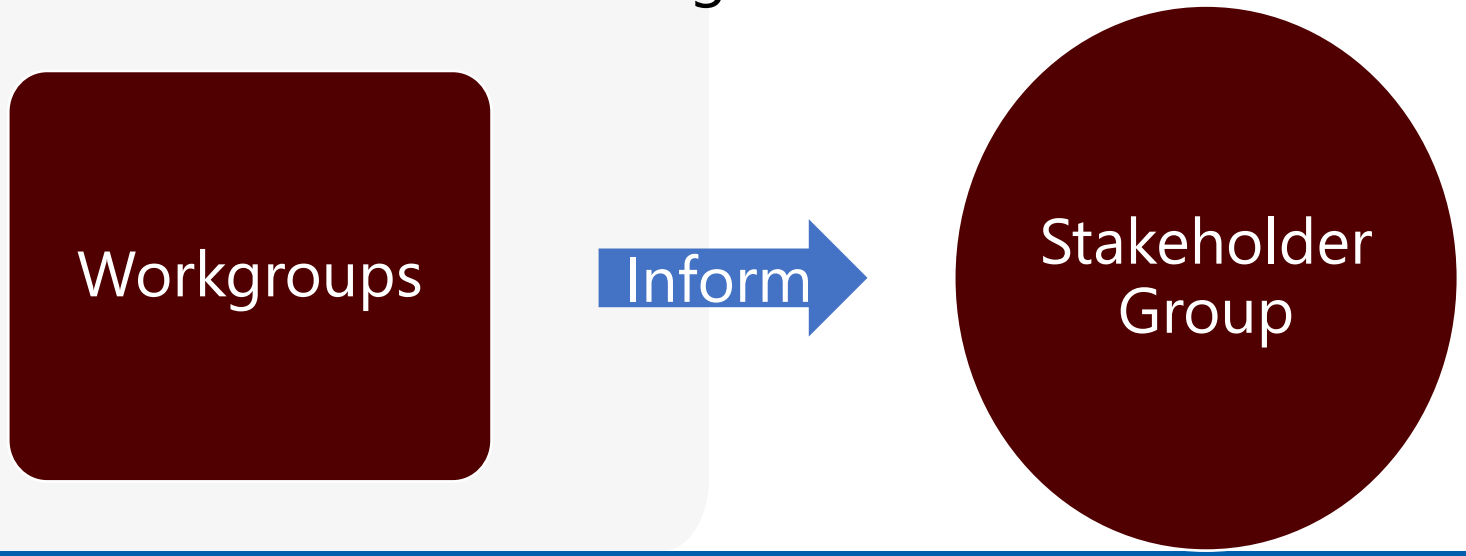

Possible Committee Members – If Needed

- Landowners
- Agricultural Producers
- Business and Industry Reps
- Academia
- County and City Officials
- Educators
- Soil and Water Conservation Districts
- Nonprofit Organizations
- Others

Possible Workgroups – If Needed

- Agriculture & Wildlife
- Wastewater
- Urban runoff

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Ground Rules Examples

More formal

- Quorum
- Formal voting process
- Membership selection
- Steering committee
- Workgroups
- Technical advisory
- Replacement/additions
- Alternates
- Facilitators

Less formal

- No formal voting committee/representative
- Speak up
- Disagree respectfully
- Silence is presumed consent
- Listen during discussion
- Respect opinions and don't criticize people
- Be open to new ideas
- Enjoy the process

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WPP Timeline & Document Review

Document Review

- Chapters to be provided to stakeholders as they are developed for review.

WPP Outline

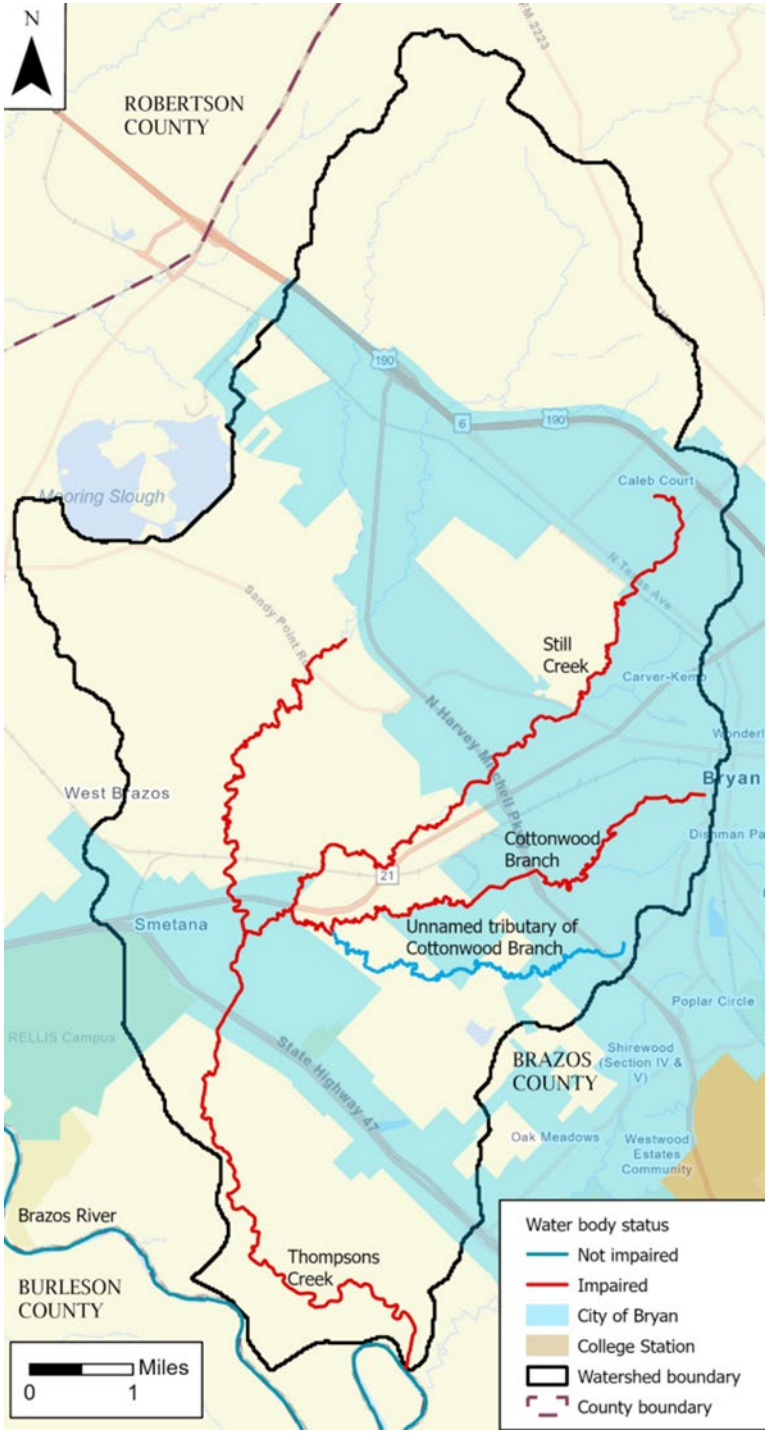
Chapter 1 – Introduction
Chapter 2 – Watershed Characterization
Chapter 3 – Water Quality
Chapter 4 – Potential Pollution Sources
Chapter 5 – Pollutant Source Assessment
Chapter 6 – Management Measures
Chapter 7 – Education and Outreach Plan
Chapter 8 – Implementation Resources
Chapter 9 – Measures of Success

Meeting Frequency

- Generally, have about 2 months between meetings
- Present 1 to 2 draft WPP chapters per meeting
- Send out and post online meeting reminders and recap of previous meeting
- Have a complete draft WPP by May 2025

Questions/ Comments

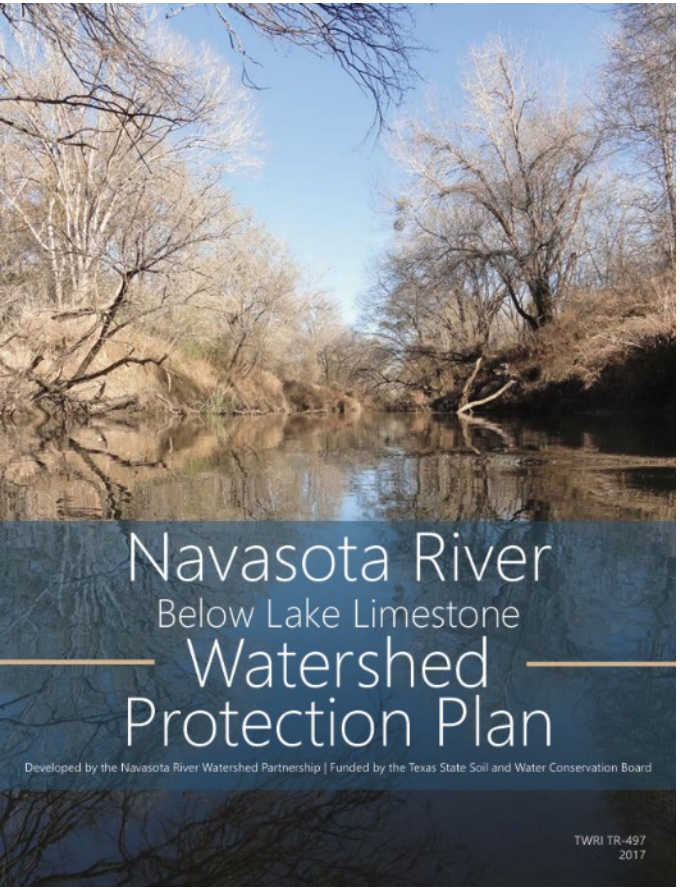
CHAPTER 01
WATERSHED MANAGEMENT



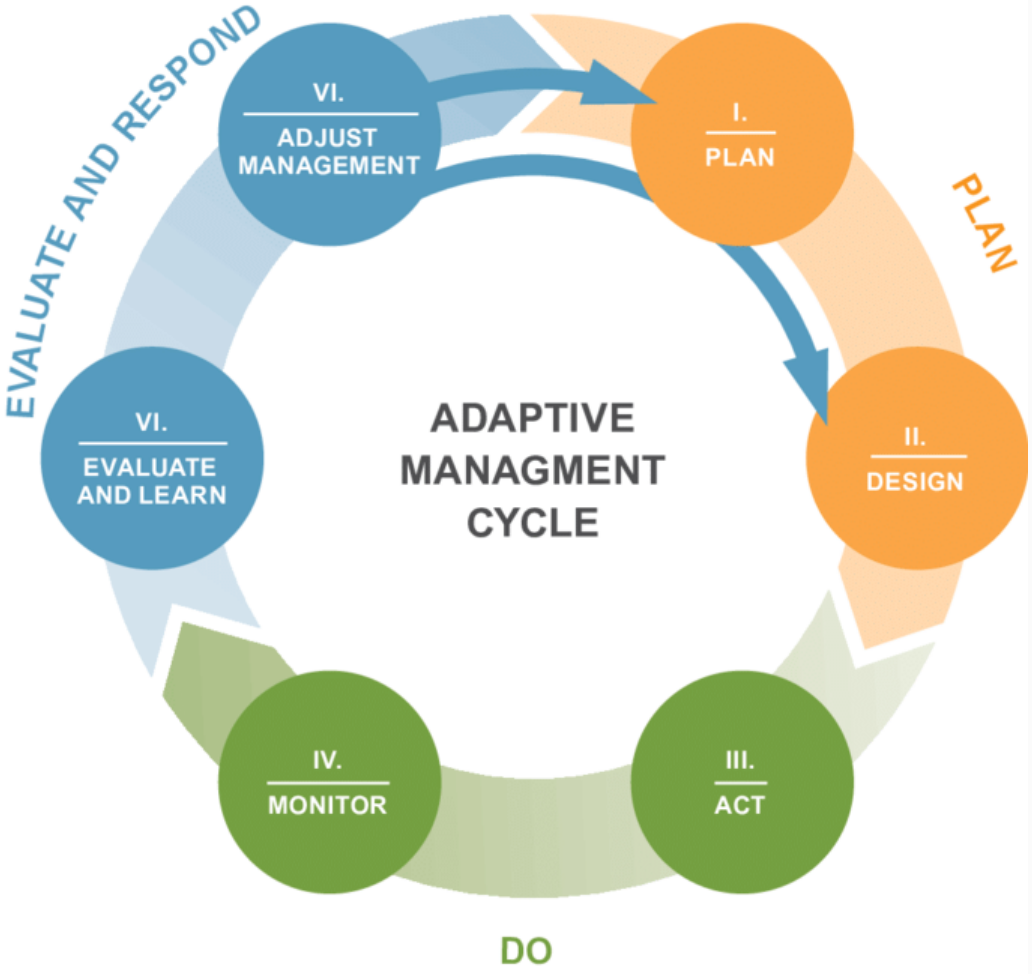
Watershed Approach

- Watershed – Area that drains to a common waterway, such as a stream, river, estuary, wetland, or ocean.
- Watershed Approach - Framework for managing water resources within a specified drainage area or watershed

Watershed Protection Plan



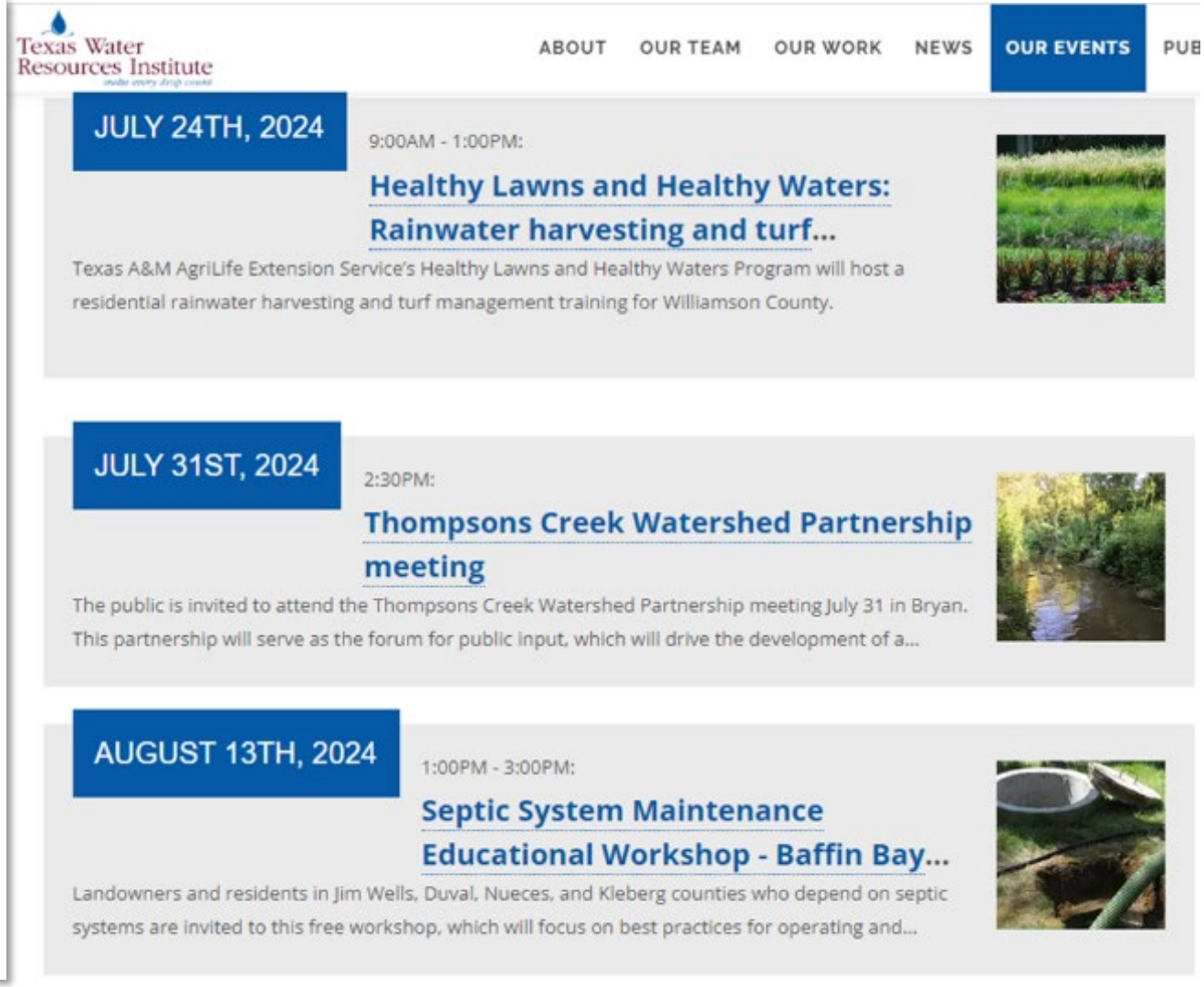
Adaptive Management



- Encourages continuous re-evaluation/prioritization to account for new information/ changing conditions.
- Approach promotes flexibility for stakeholders in their decision-making process to improve the performance of management measures

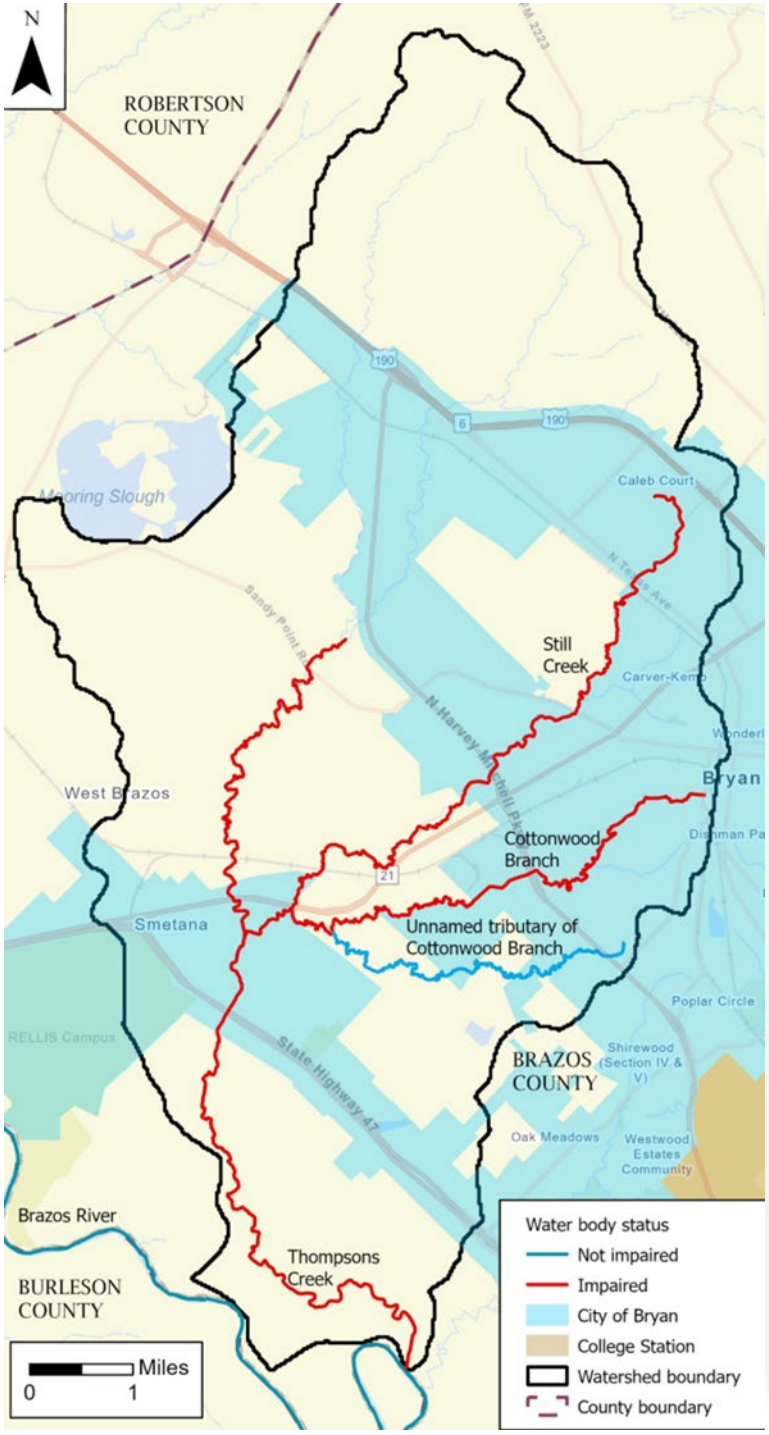
Education and Outreach

- E&O provides the platform for the delivery of information to stakeholders.
- E&O is integrated into many of the management measures in the WPP.



Questions/ Comments

CHAPTER 02
WATERSHED CHARACTERIZATION



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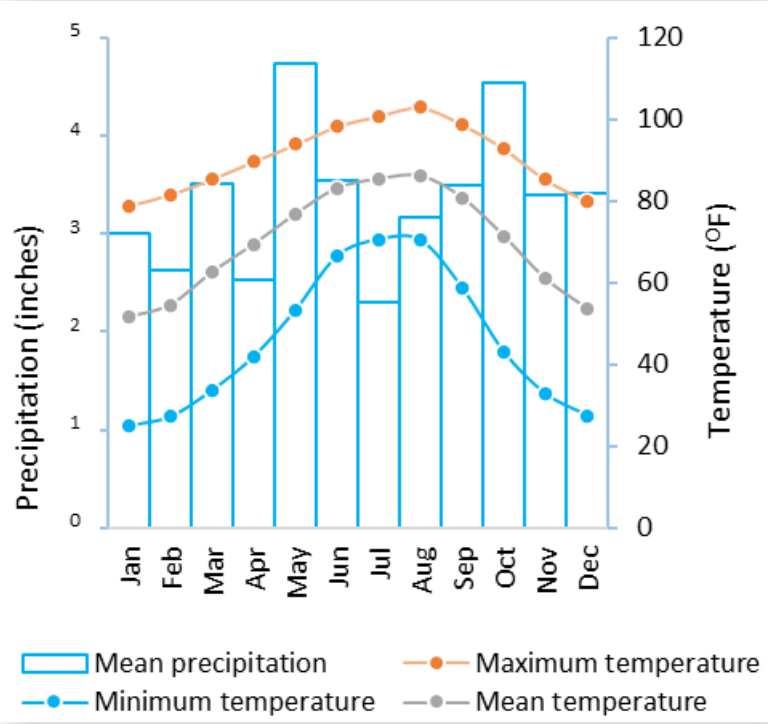
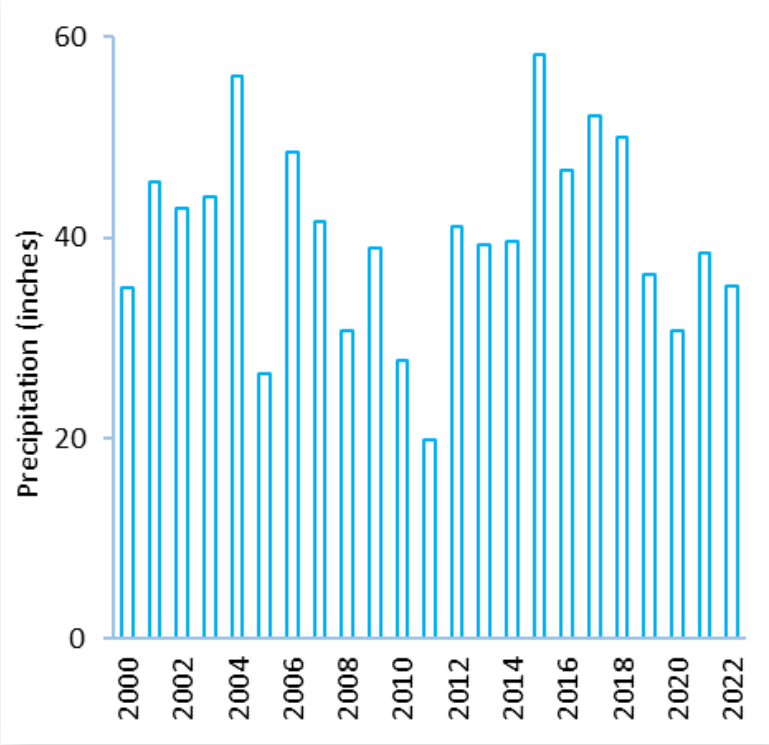
Segments, Assessment Units

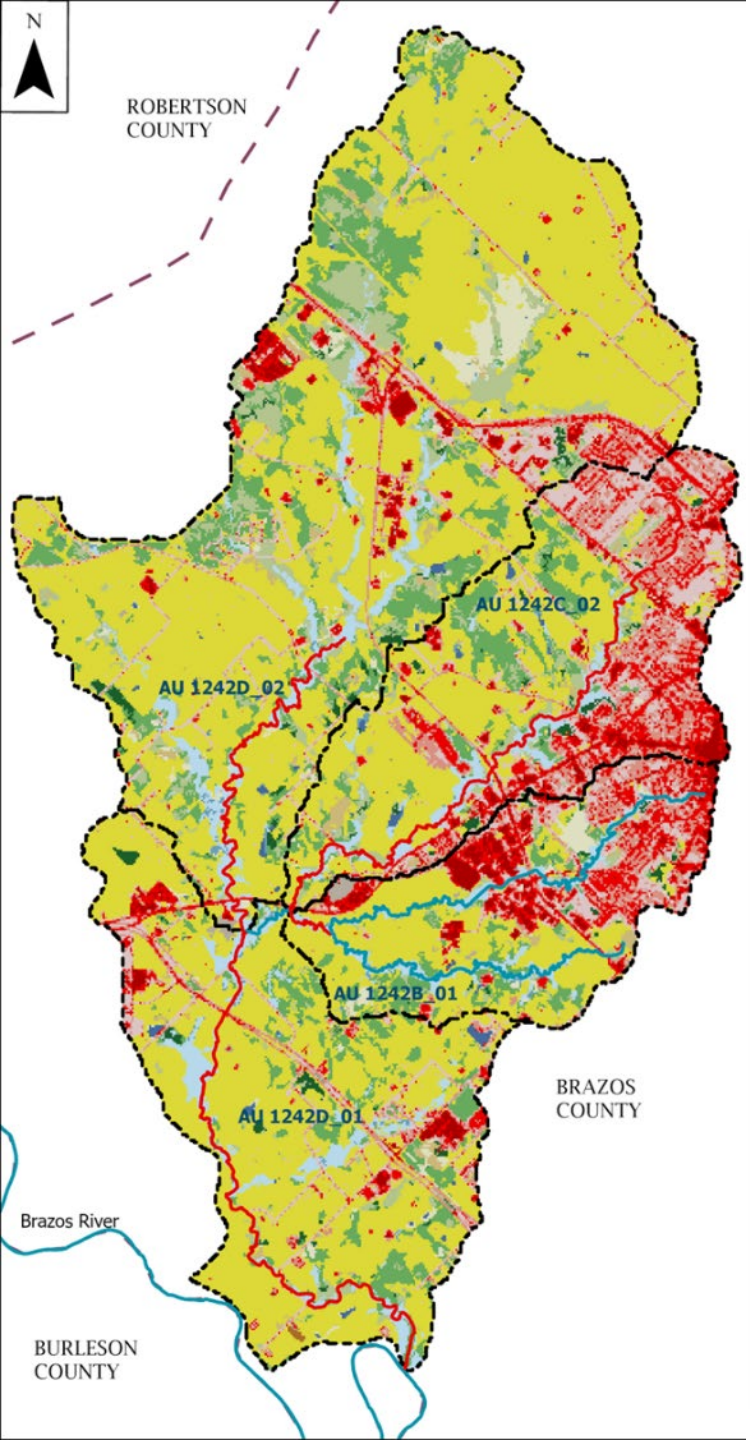
Waterbody	Segment ID	Assessment Unit ID
Cottonwood Branch	1242B	1242B_01 1242B_02
Still Creek	1242C	1242C_01 1242C_02
Thompsons Creek	1242D	1242D_01 1242D_02
Unnamed Tributary of Cottonwood Branch	1242G	1242G_01

Climate



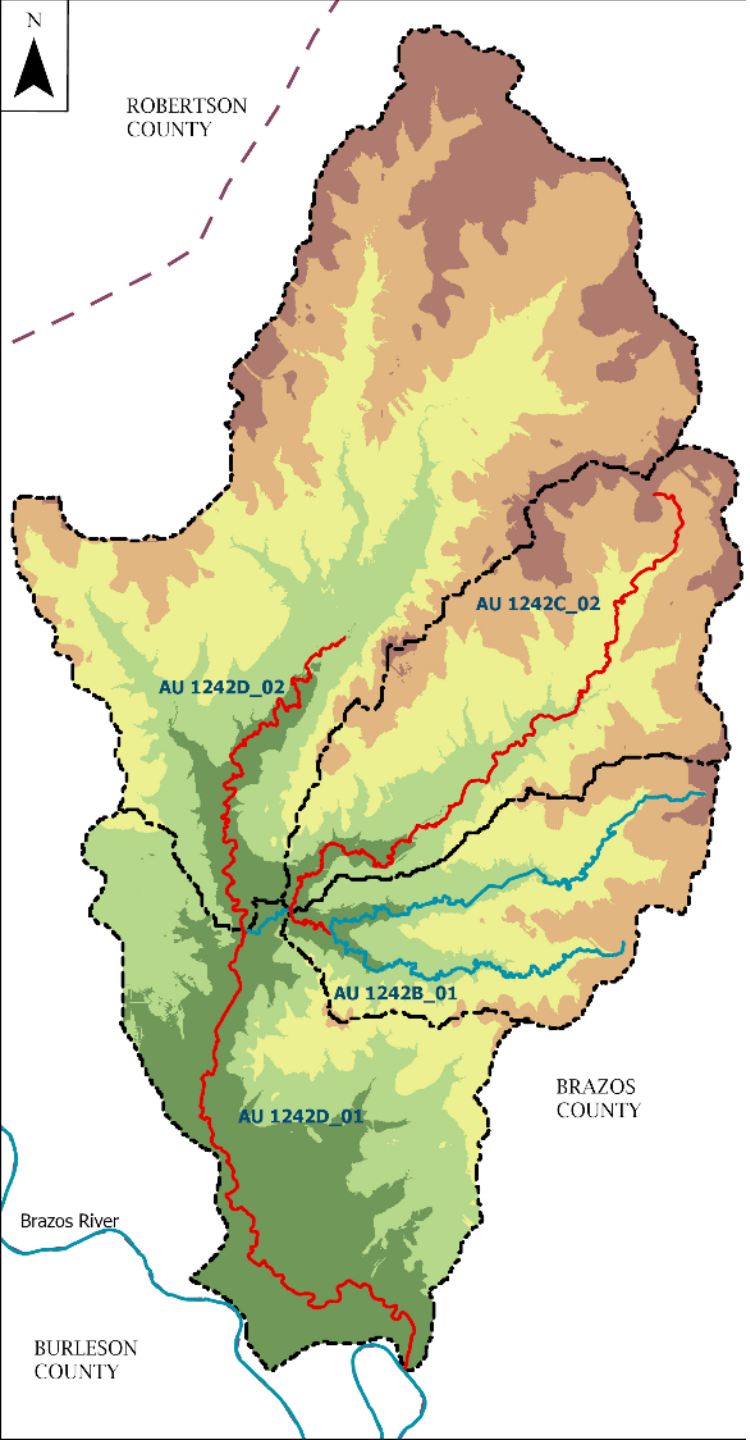


- Temperature and precipitation for College Station Eastwood Field, Texas, 2000 – 2022.
- May is the wettest month; July is the driest month.
- Mean annual precipitation is about 40 inches.



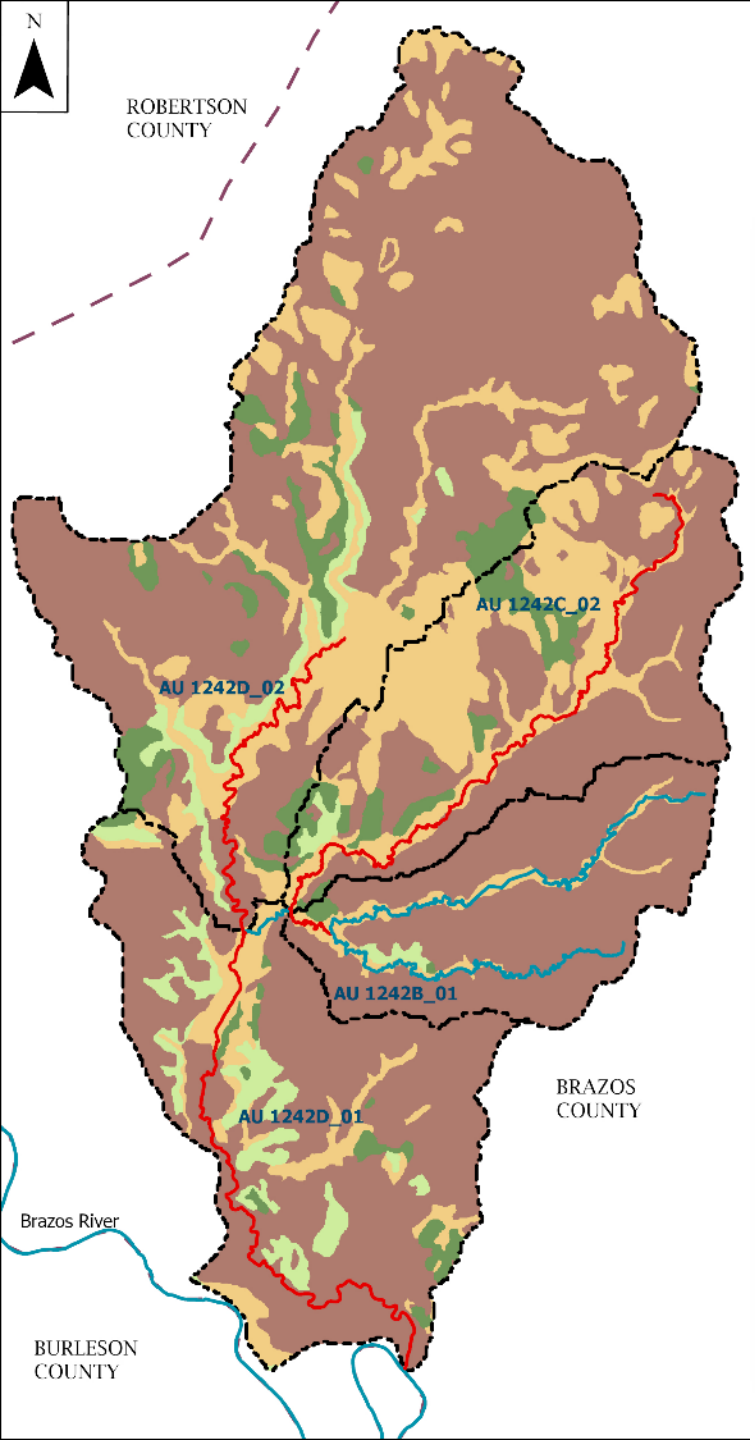
Land Use/Land Cover

- LULC has a strong influence on water quality/quantity
- Dominant LCs are pasture/hay (53%), developed land (23%)
- From 2001 – 2021, developed land has increased by 21%. Forest and pasture lands have decreased by 11% & 7% resp.



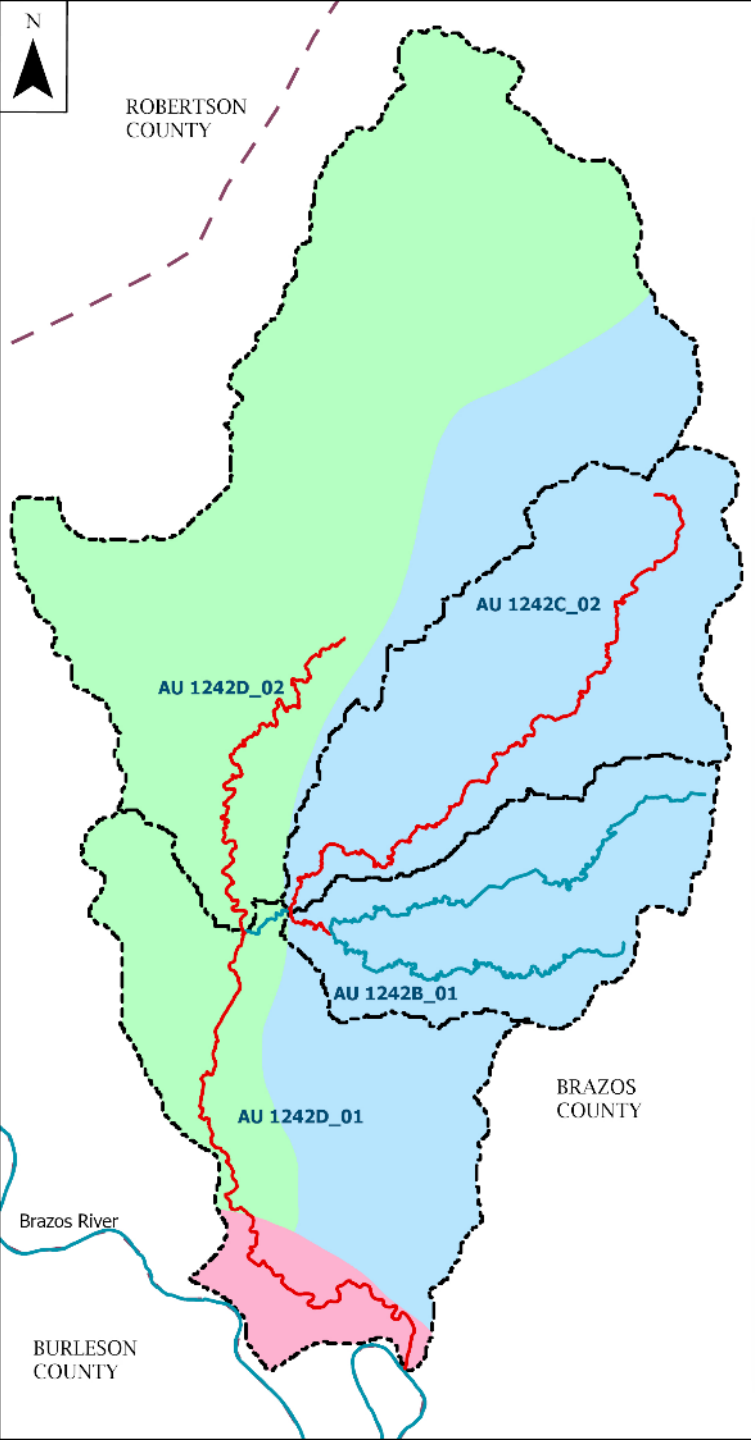
Topography

- Topography determines the direction of water flow and influences the quantity and speed of infiltration and overland flow
- Elevation: Ranges from 128 to 56 meters above sea level
- Slope: Less than 3% (Flat)



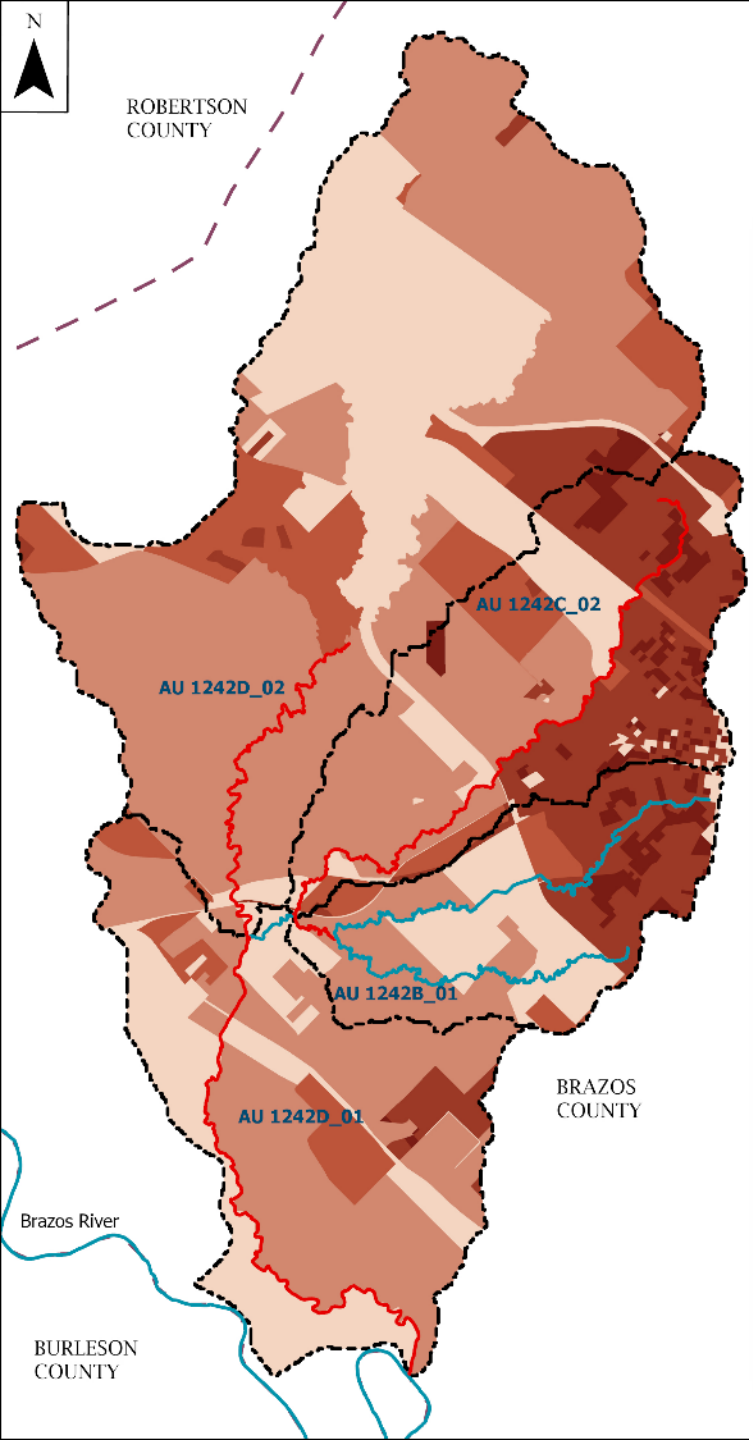
Soils

- Soil properties influence the quantity and speed of infiltration and overland flow.
- Soils are primarily Group D soils.
- Runoff generation potential across the watershed is high.



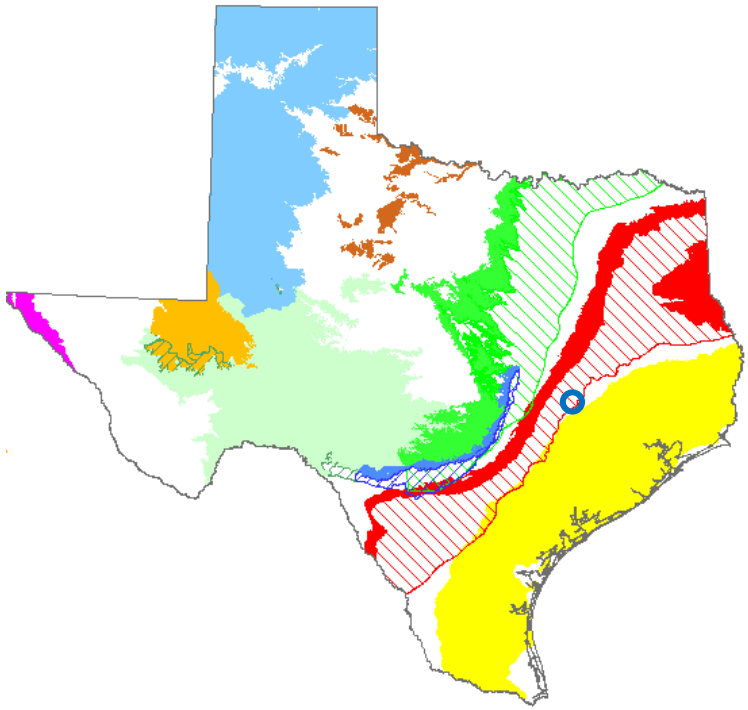
Ecoregions

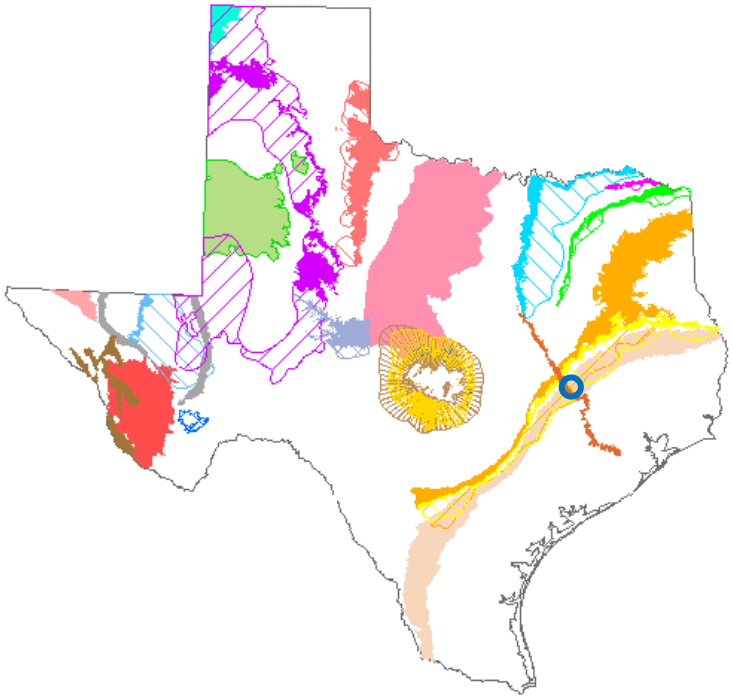
- Ecoregions: Have similar quality/ quantity of natural resources.
- Cattle ranching is the major agricultural industry.
- East: Vegetation is mostly tallgrass prairie.
- West: Patches of oak woodland interspersed with grassland.



Population

- Population density is highest in the eastern parts of Cottonwood Branch and Still Creek subwatersheds
- Nearly 26,800 people live in the watershed (2020)
- Population is expected to increase by about 107% by 2070





Groundwater

- Major aquifer: Carrizo-Wilcox
- Minor aquifers: Brazos River Alluvium, Queen City, Sparta
- GCD: Brazos Valley

Questions/ Comments