



*Tarleton State University*  
A member of The Texas A&M University System



# Sweetwater Creek

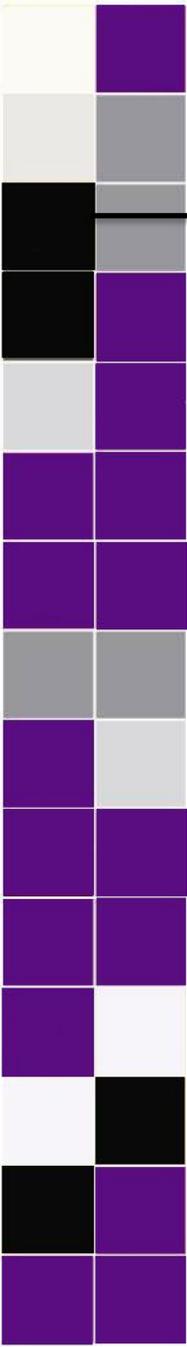
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## Recreational Use Attainability Analysis Overview

Texas Institute for Applied Environmental Research  
Stephenville, Texas

April 15, 2013

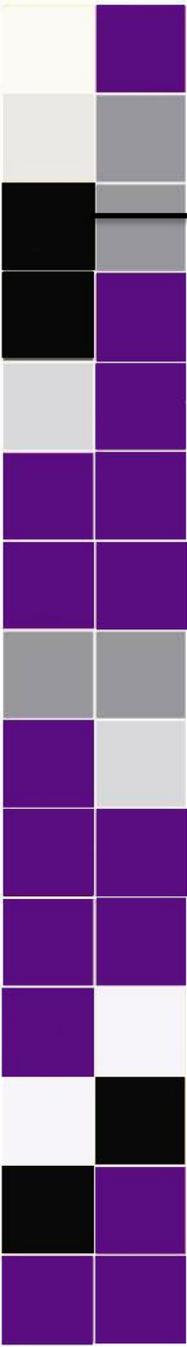




# Why are we here?

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- Sweetwater Creek listed as impaired
  - 2002 Texas Water Quality 303(d) List
  - Impaired for primary recreation
  - Based on elevated levels of bacteria

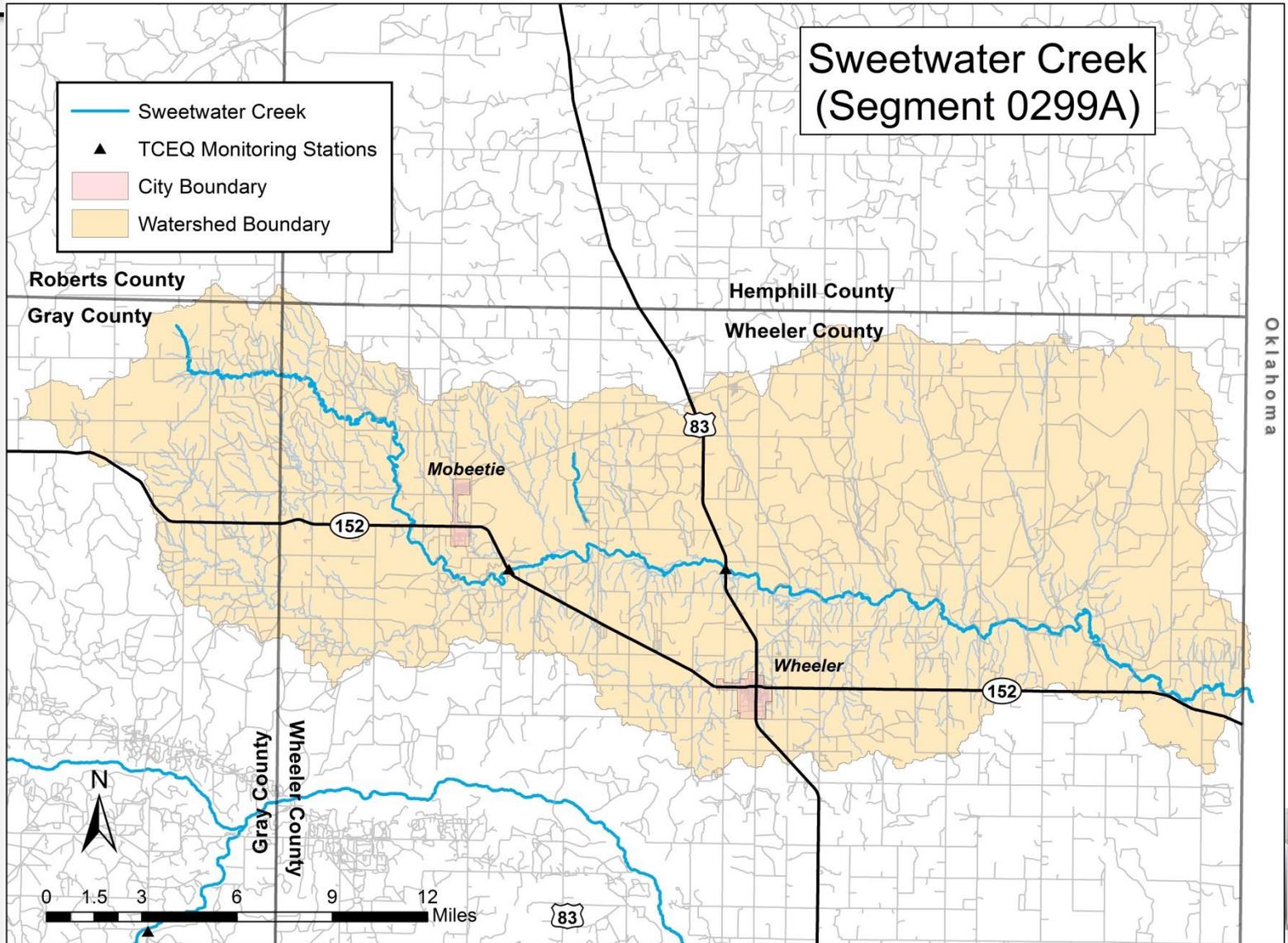


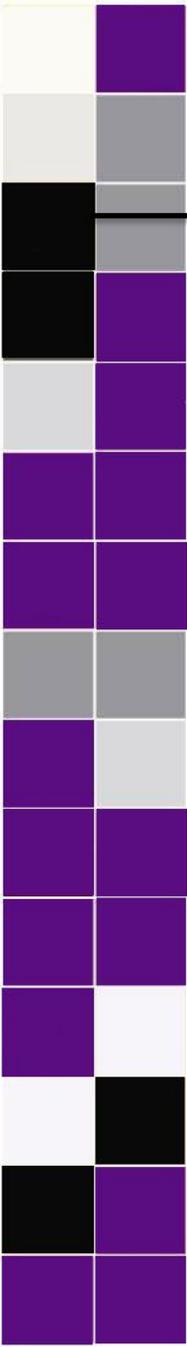
# Why are we here?

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- One potential way to get Sweetwater Creek off the impaired list
  - Assess if the recreational standard is appropriate via a recreational use attainability analysis (RUAA)
  - Primary recreation is presumed

# Monitoring Locations for 303(d) List





# RUAA Use Categories

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- **Primary Contact Recreation**

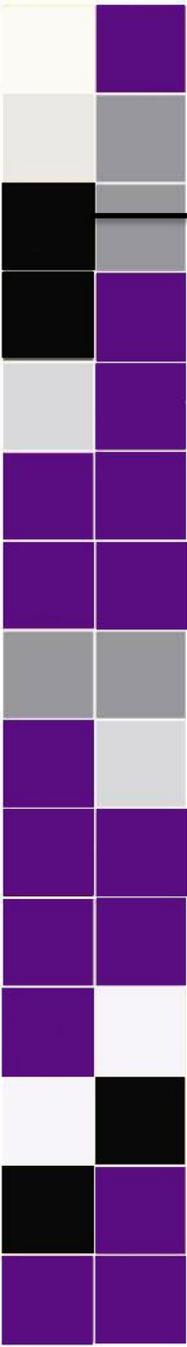
- Activities that are presumed to involve a significant risk of ingestion of water

- **Swimming**

- **Secondary Contact Recreation 1**

- Activities that commonly occur but have limited body contact incidental to shoreline activity

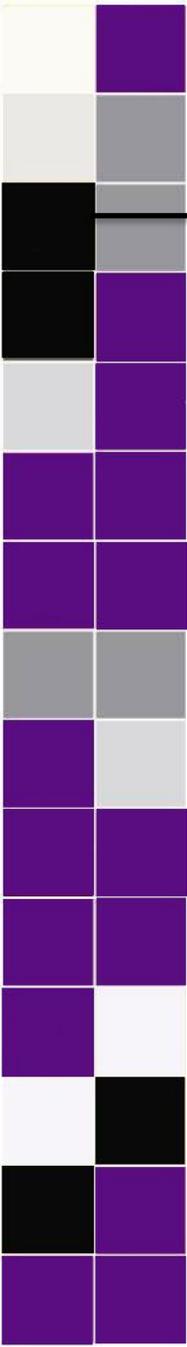
- wading by adults, fishing, canoeing
- activities are presumed to pose a less significant risk of water ingestion than primary contact recreation but more than secondary contact recreation 2.



# RUAA Use Categories

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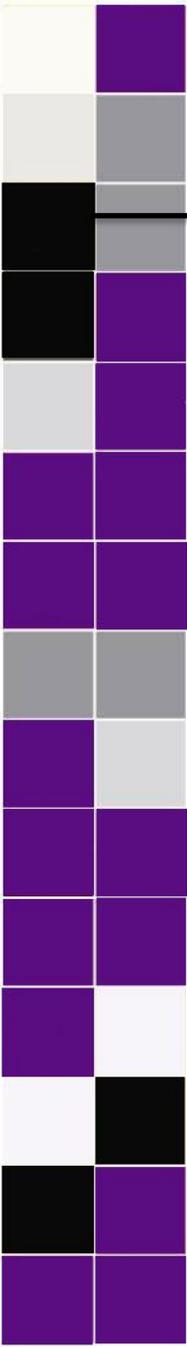
- **Secondary Contact Recreation 2**
  - These activities occur less frequently than secondary contact recreation 1 due to physical characteristics of the water body or limited public access.
- **Noncontact Recreation**
  - Activities that do not involve a significant risk of water ingestion, such as those with limited body contact incidental to shoreline activity, including birding, hiking, and biking.



# Purpose of RUAA

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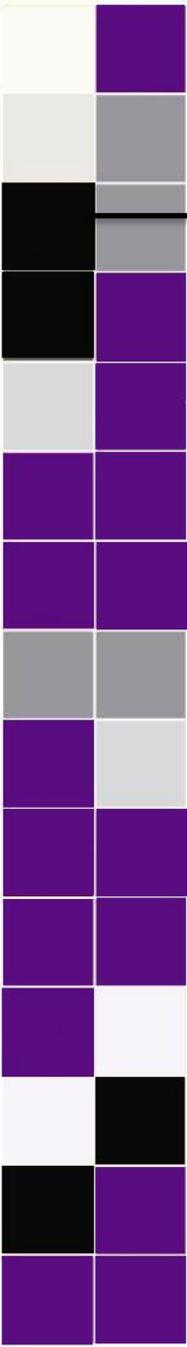
- To confirm primary contact recreation or provide information that might support changing the recreational use category of the creek



# Components of a RUAA

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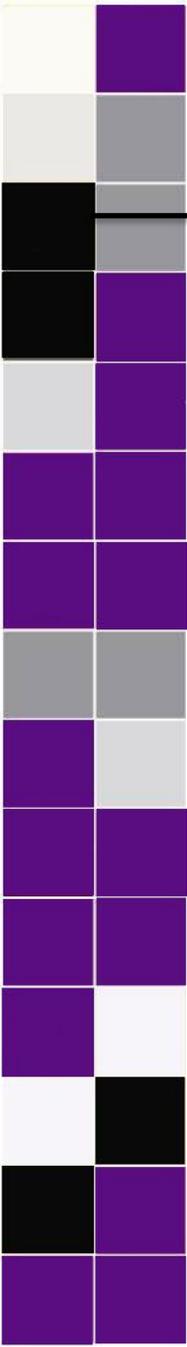
- **Historical Information Review**- to document past recreational uses
- **Interviews**- to obtain feedback on current and past recreational uses from stakeholders
- **Field Surveys**- to document current stream conditions and uses



# RUAA Components

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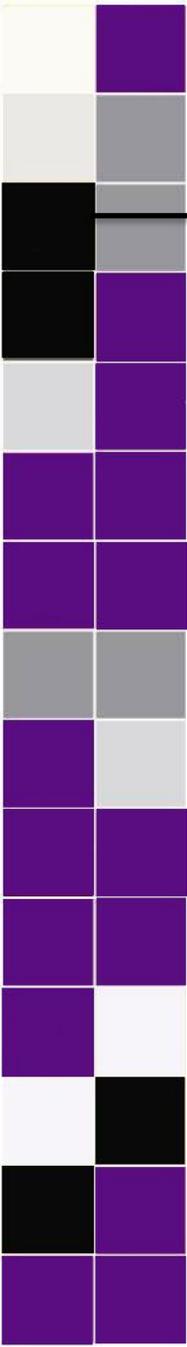
- Historical Information Review
  - November 28, 1975 – PresentLooking for anything that documents recreational use of Sweetwater Creek
  - Newspaper clippings or other publications
  - Historical or Museum Records
  - Personal pictures or letters
  - Etc.



# RUAA Components

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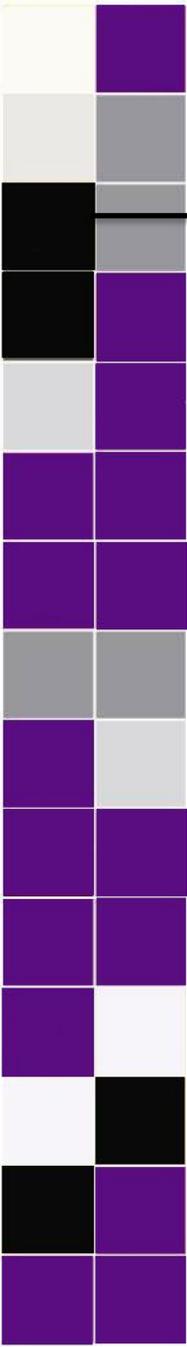
- Stakeholder Interviews- document use of Sweetwater Creek from individuals
    - Conducted during field surveys (if individuals are encountered)
    - Streamside landowners
    - Local residents
    - Other users
- Interviews can be anonymous and conducted by phone, USPS mail, or email.



# RUAA Field Surveys

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- What they entail:
  - Goal: 3 sites for every 5 miles
  - At each site:
    - 300 meter reach traversed
  - Document
    - Stream characteristics that may promote or hinder recreational use
    - Observations of direct use or signs of recreational use
    - Interviews with individuals



# RUAA Field Surveys

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- 2 Surveys during

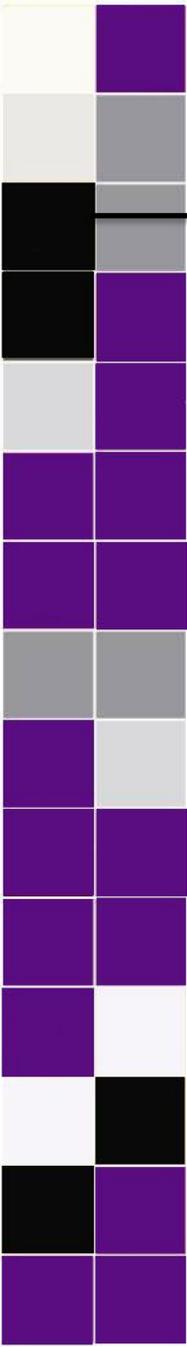
## Base Flow Conditions

1. Sustained typical dry warm-weather flow
2. Between rainfall events

## Periods of Likely Use (May-Sept)

Air Temperature > 70°F

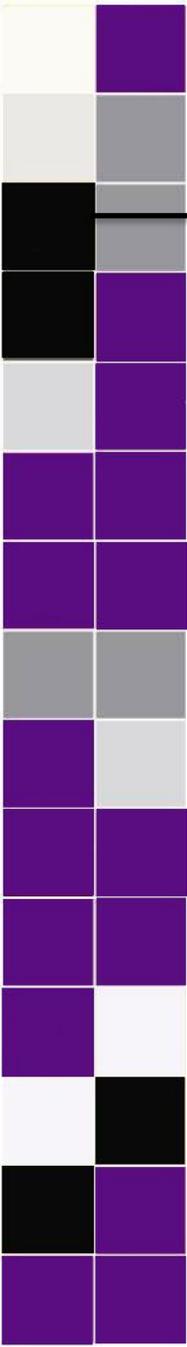
1. Spring Break
2. Weekends
3. Holidays
4. Summer



# RUAA Field Surveys

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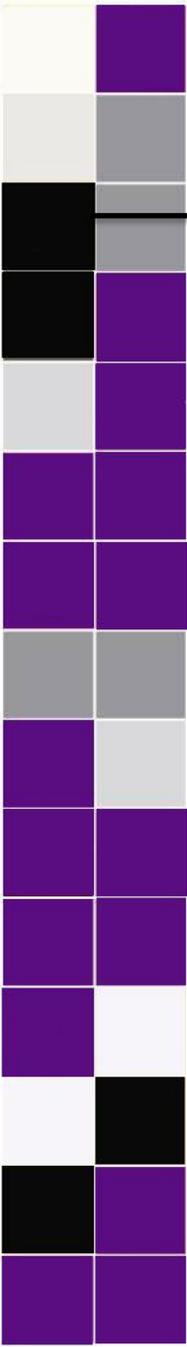
- Data Sheet Includes:
  - Stream characteristics
  - Current weather conditions & daily conditions for the previous month
  - Riparian zone, ease of bank access, dominant substrate
  - Document recreation observed (if any)
  - Stream and pool measurements



# RUAA Field Surveys

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- Field Surveys also Include
  - Photographic Record (Each Site)
    - Upstream
    - Left
    - Right Bank
    - Downstream
      - At 30, 150, 300 M

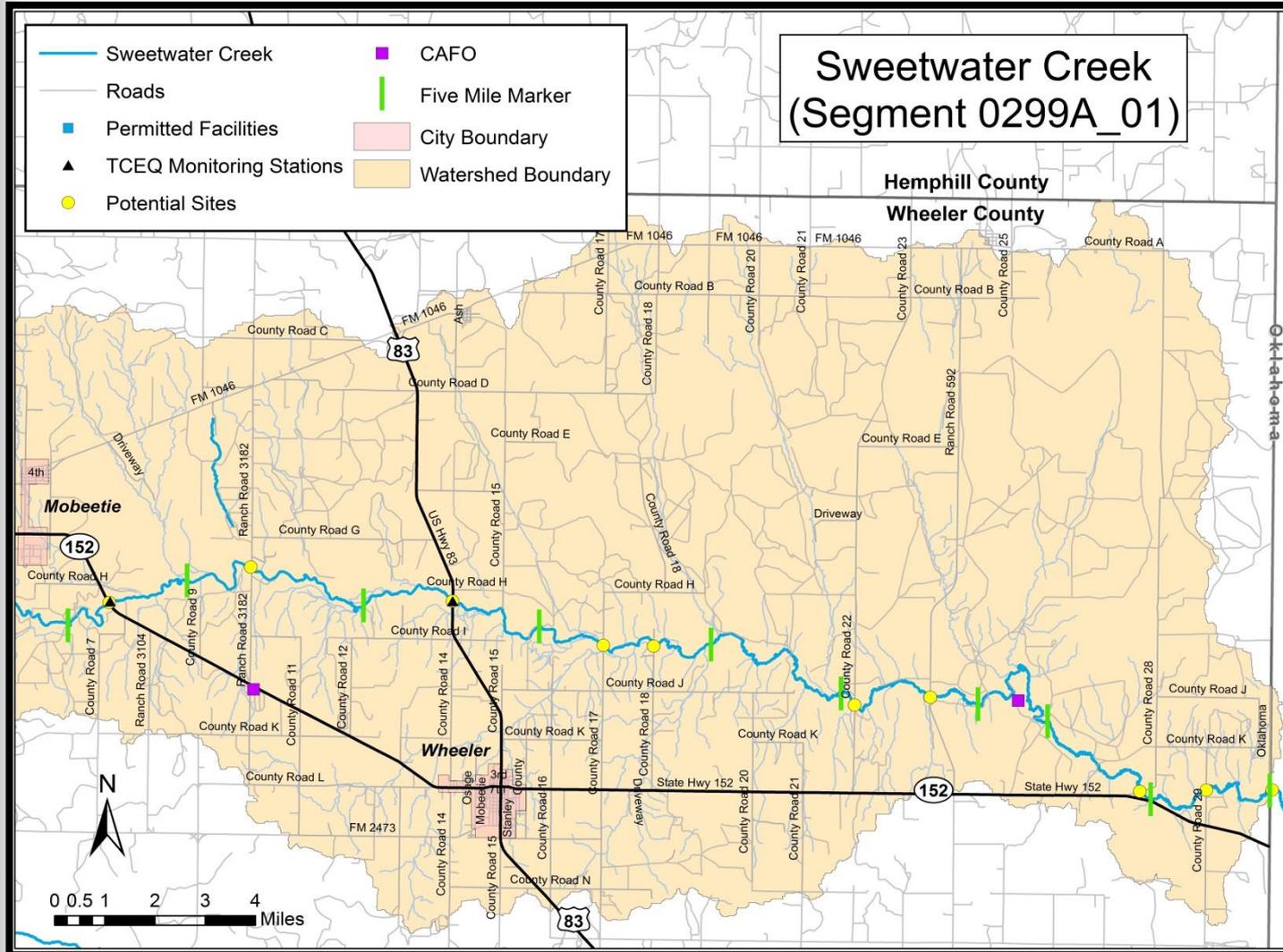


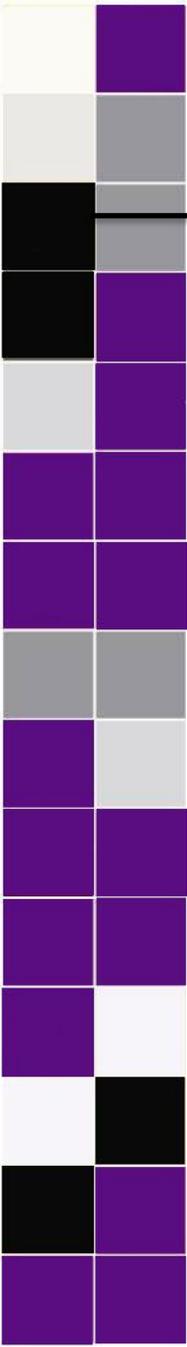
# Site Selection for RUAA

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- Currently proposed sites represent public road crossings, many of which are fenced
- Seeking Landowner permission to access points above and below road crossing and additional points on the river
- Need stakeholder input on
  - Site selection and additional sites

# Proposed Survey Sites





# Proposed Survey Sites

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## Site Description

**Sweetwater Creek at N 1670 crossing**

**Sweetwater Creek at County Road 29 crossing**

**Sweetwater Creek on County Road 28 crossing**

**Sweetwater Creek at Farm Road 592**

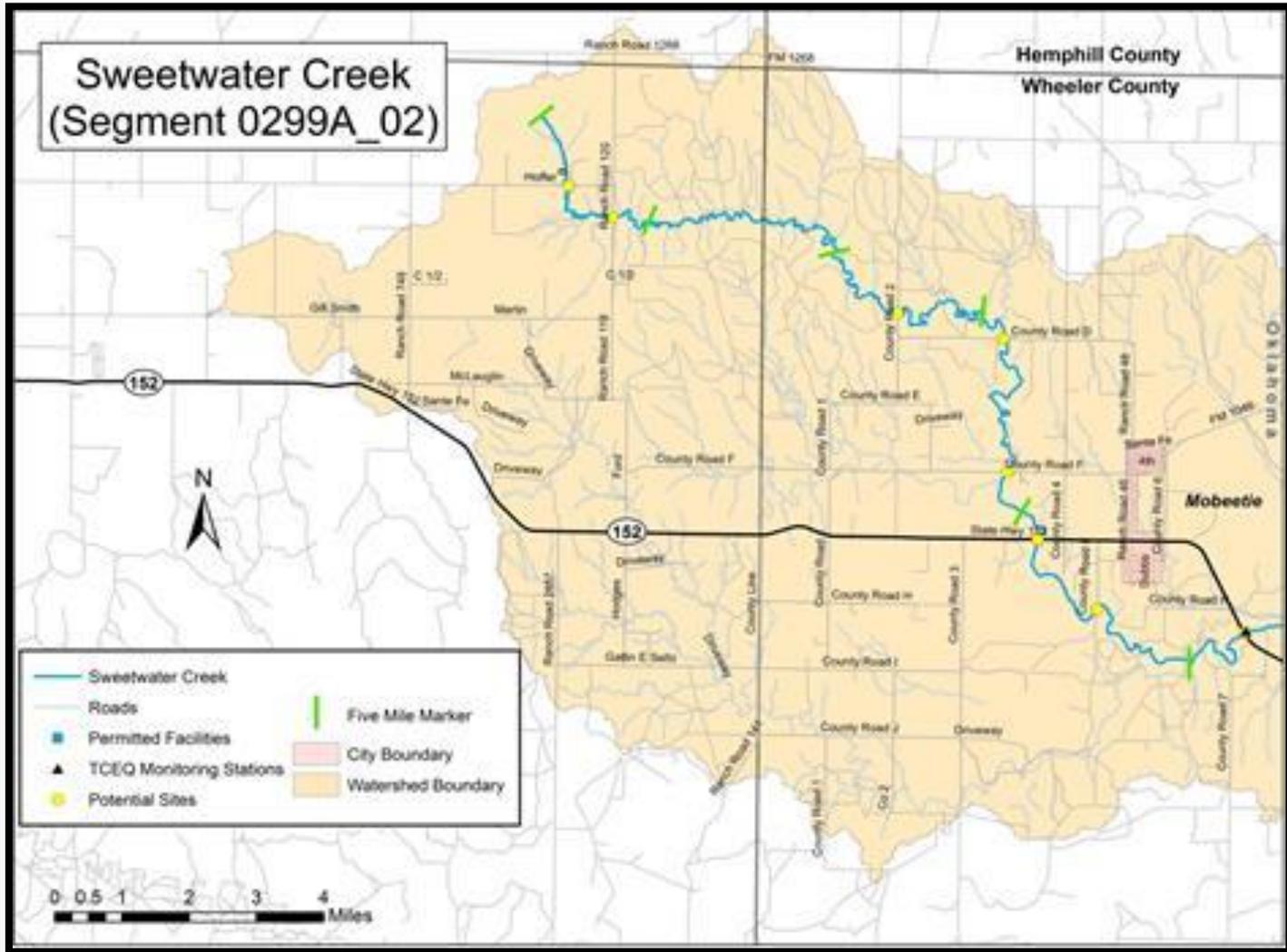
**Sweetwater Creek at County Road 220**

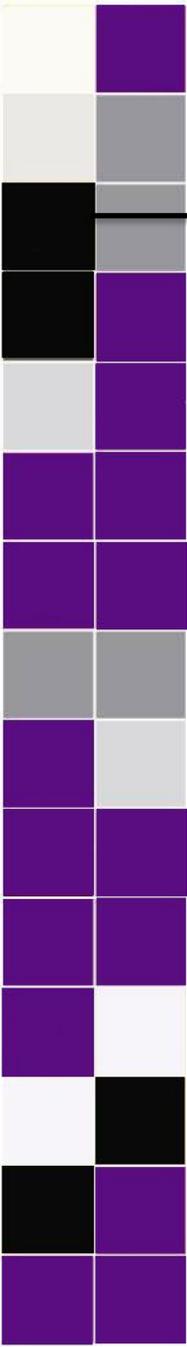
**Sweetwater Creek at County Road 18**

**Sweetwater Creek at County Road 17**

**Sweetwater Creek at Hwy 83**

# Proposed Survey Sites

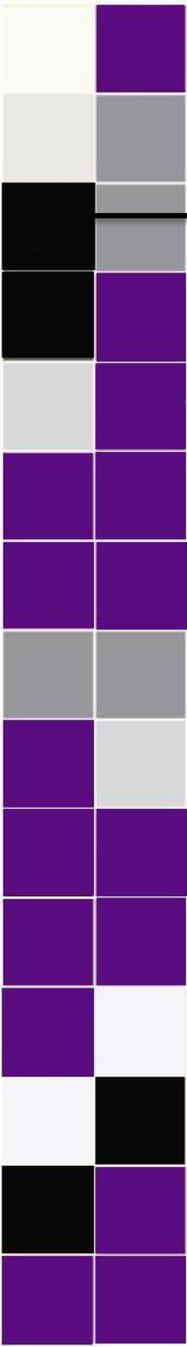




# Proposed Survey Sites

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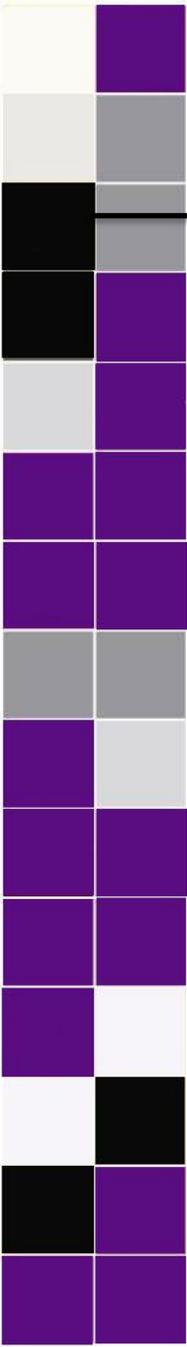
Site Description
Sweetwater Creek at FM 3182
Sweetwater Creek at Hwy 152
Sweetwater Creek at County Road 5
Sweetwater Creek at Hwy 152
Sweetwater Creek at County Road F
Sweetwater Creek at County Road D
Sweetwater Creek at County Road 2
Sweetwater Creek at County Road 29
Sweetwater Creek at County Road B



# RUAA Site Selection Guidelines

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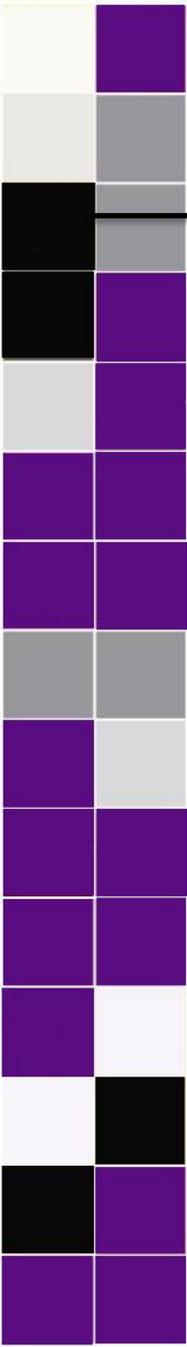
- Identify areas where the water body is
  - Accessible to the public
  - Has a high potential for recreational use
    - Road crossings
    - Public lands
    - Parks
    - Populated areas
- Characterize the full river reach



# RUAA Site Selection Guidelines

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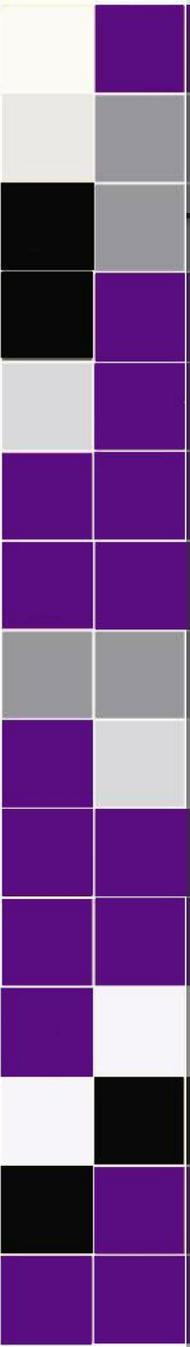
- Goal for RUAA Survey
  - 3 sites for every 5 miles of stream
- Sweetwater Creek is about 69 river miles long
  - Goal: 42 sites



# Time Frame

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- Proposed Field Survey Dates
  - May 6-11, 2013
  - July 29-August 3, 2013



# Questions on RUAA Overview?

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## Project Website:

[www.tsswcb.texas.gov/en/managementprogram/RUAASWEETWATER](http://www.tsswcb.texas.gov/en/managementprogram/RUAASWEETWATER)

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