



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



# Sweetwater Creek

## Recreational Use Attainability Analysis Summary of Findings

Texas Institute for Applied Environmental Research  
Stephenville, Texas



June 11, 2014



# Project Partners

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- Texas State Soil and Water Conservation Board (TSSWCB)
- Texas Institute for Applied Environmental Research (TIAER)



# TSSWCB

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- Provide state oversight
- Management and coordination of project activities
  - Project partners
  - Texas Commission on Environmental Quality (TCEQ)
- Provide project funding



# TIAER

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- Project administration
- Develop & maintain stakeholder relations
- Perform RUAA survey activities
- GIS inventory
- Facilitate meetings
- Develop final technical reports



# Why we are here

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- Texas 303 (d) List of Impaired Water bodies
  - Developed by TCEQ to summarize the condition of the state's surface waters, including concerns for public health, fitness for use by aquatic species and other wildlife, and specific pollutants and their possible sources.



# Bacteria Impairment

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- Sweetwater Creek is not meeting the water quality standard for primary contact recreation
  - Due to elevated levels of bacteria, *E. coli*.
  - Requires action to meet the standards that are set by the State of Texas and EPA.
    - Geometric mean should not exceed 126 cfu/ 100ml



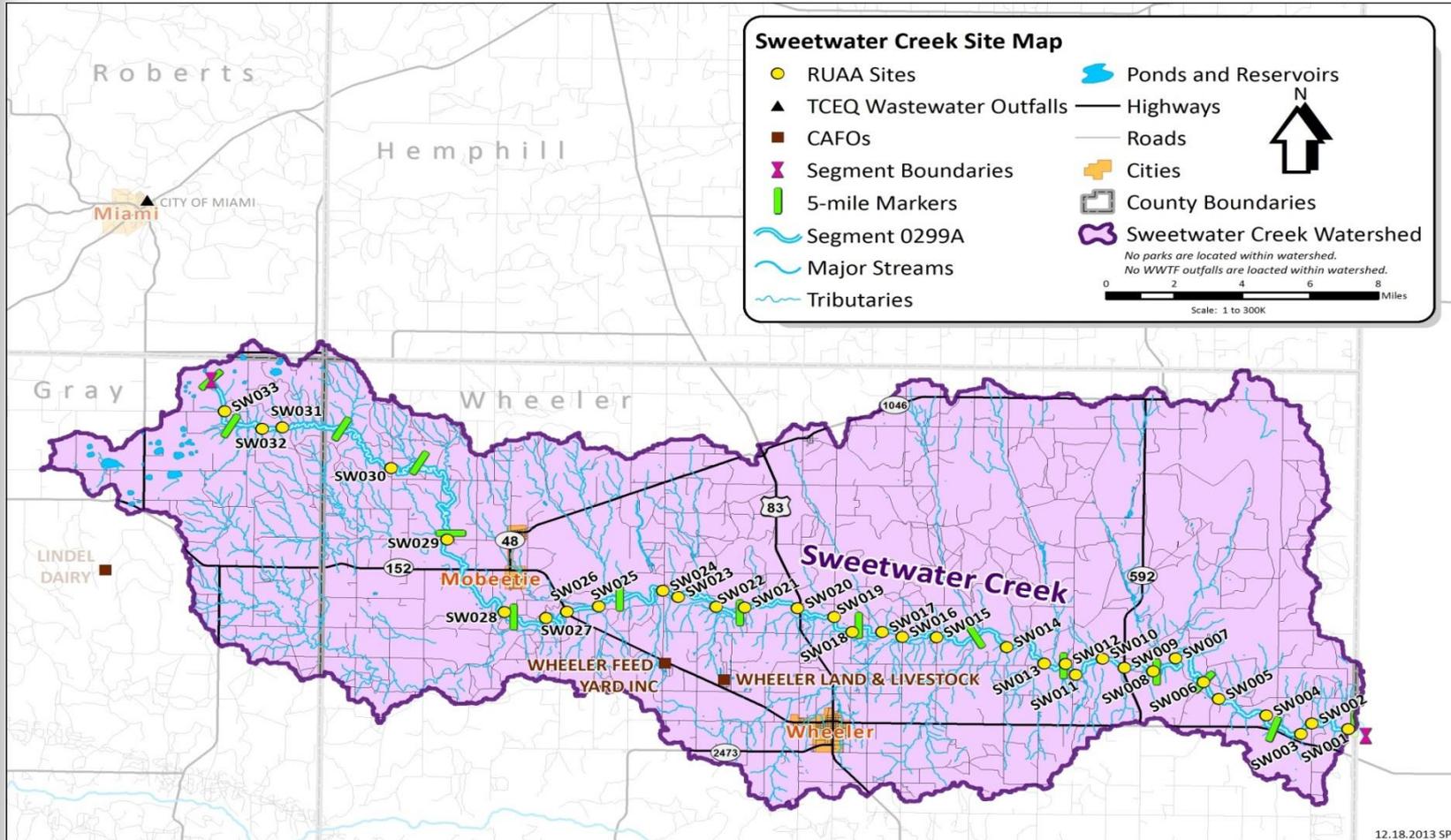
# Impaired Stream Segments

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- Sweetwater Creek (0299A)
  - 2000 Texas Water Quality 303(d) List
    - Bacteria
      - Current Geometric mean = 171 cfu/ 100mL



# Sweetwater Creek Site Map



# Description and Location of RUAA Field Survey Sites

TCEQ ID	Site ID	Site Description	Latitude	Longitude	Distance from Previous Site (mi) <sup>1</sup>	Distance from Confluence (mi) <sup>1</sup>	Distance from Upper Reach (mi) <sup>1</sup>	Access
	SW001	Sweetwater Creek on private property, 0.25 miles west of State Line Road, East of Wheeler	35.443954	-100.003792	-	0.45	66.85	Private
	SW002	Sweetwater Creek, East of Wheeler, at County Rd 29	35.446533	-100.022742	2.35	2.81	64.49	Public*
	SW003	Sweetwater Creek on private property, 0.62 river miles west of CR 29, east of Wheeler	35.441365	-100.028398	0.62	3.43	63.87	Private
	SW004	Sweetwater Creek on private property, 0.46 river miles Northwest of County Rd 28. East of Wheeler	35.450298	-100.046504	2.33	5.75	61.55	Private
	SW005	Sweetwater Creek on private property, 2.30 miles east of Ranch Road 592, northeast of Wheeler	35.458063	-100.071495	2.85	8.60	58.70	Private
	SW006	Sweetwater Creek on private property, 2.0 miles east of Ranch Road 592 and 3.3 river miles downstream of confluence with Williams Creek, northeast of Wheeler	35.466318	-100.079502	1.41	10.01	57.29	Private
	SW007	Sweetwater Creek on private property, 0.15 river mile west of confluence with Williams Creek. northeast of Wheeler	35.477873	-100.094140	3.46	13.47	53.83	Private
	SW008	Sweetwater Creek on private property, 1.41 river miles east of RR 592, northeast of Wheeler	35.471474	-100.105703	1.63	15.11	52.19	Private
	SW009	Sweetwater Creek at RR 592, northeast of Wheeler, east of road.	35.472910	-100.120793	1.41	16.52	50.78	Public*
	SW010	Sweetwater Creek on private property, 0.93 river mile upstream RR 592, northeast of Wheeler, on private property	35.477395	-100.132038	0.93	17.45	49.85	Private
	SW011	Sweetwater Creek on private property, 0.10 river mile downstream of CR 22, northeast of Wheeler, on private property	35.469328	-100.146057	1.87	19.32	47.98	Private



# Description and location of RUAA Field Survey Sites

TCEQ ID	Site ID	Site Description	Latitude	Longitude	Distance from Previous Site (mi) <sup>1</sup>	Distance from Confluence (mi) <sup>1</sup>	Distance from Upper Reach (mi) <sup>1</sup>	Access
	SW012	Sweetwater Creek on private property, 0.42 river mile upstream of CR 22, 0.2 river mile downstream from confluence with Coburn Creek, northeast of Wheeler	35.474517	-100.151486	0.53	19.84	47.46	Private
	SW013	Sweetwater Creek, Northeast of Wheeler, on private property, 1.1 river mile upstream from confluence with Coburn Creek.	35.474586	-100.162442	1.04	20.88	46.42	Private
	SW014	Sweetwater Creek on private property, 1.5 river mile downstream from confluence with Goodlin Creek, northeast of Wheeler	35.482457	-100.182238	2.45	23.34	43.97	Private
	SW015	Sweetwater Creek on CR 18, northeast of Wheeler, east of road	35.486929	-100.218843	3.41	26.74	40.56	Public*
	SW016	Sweetwater Creek on CR 17, northeast of Wheeler, west of road.	35.485544	-100.236763	1.52	28.26	39.04	Public*
	SW017	Sweetwater Creek, on private property, 0.74 river miles west of CR 17, north-northeast of Wheeler near confluence with Jenkins-Jones Creek.	35.489176	-100.247114	0.74	29.00	38.30	Private
	SW018	Sweetwater Creek on private property, 2 river miles east of Hwy 83, north-northeast of Wheeler	35.489027	-100.262778	1.31	30.31	36.99	Private
	SW019	Sweetwater Creek on private property, 0.84 river mile East of Hwy 83, North of Wheeler,	35.496383	-100.272271	0.54	30.85	36.45	Private
<b>10072</b>	SW020	Sweetwater Creek, north of Wheeler, west of Hwy 83.	35.500476	-100.291368	0.84	31.69	35.61	Public*
	SW021	Sweetwater Creek on private property, 1 river mile west of confluence with Dubbs Creek and 3 river miles west of Hwy 83, northwest of Wheeler	35.500592	-100.318992	3.06	34.75	32.55	Private
	SW022	Sweetwater Creek on private property, 2.09 river miles East of RR 3182, northwest of Wheeler	35.500728	-100.333801	1.35	35.50	31.20	Private



# Description and location of RUAA Field Survey Sites

TCEQ ID	Site ID	Site Description	Latitude	Longitude	Distance from Previous Site (mi) <sup>1</sup>	Distance from Confluence (mi) <sup>1</sup>	Distance from Upper Reach (mi) <sup>1</sup>	Access
	SW023	Sweetwater Creek, on private property, 0.57 river mile East of RR 3182, northwest of Wheeler	35.505332	-100.353598	1.52	37.62	29.68	Private
	SW024	Sweetwater Creek at RR 3182, northwest of Wheeler, west of road.	35.508284	-100.361771	0.57	38.19	29.11	Public*
	SW025	Sweetwater Creek on private property, 1.5 river mile West of confluence with Russell Creek and 0.2 river mile East of Adobe Creek, southeast of Mobeetie	35.500166	-100.394938	2.89	41.08	25.62	Private
<b>10074</b>	SW026	Sweetwater Creek at Hwy 152, southeast of Mobeetie, west of road.	35.497465	-100.411569	1.70	42.78	24.52	Public*
	SW027	Sweetwater Creek on private property, 0.9 river mile southwest of Hwy 152, south of Mobeetie	35.494157	-100.422387	0.90	43.68	23.62	Private
	SW028	Sweetwater Creek on private property, 1.46 river mile upstream from confluence with Graham Creek, 2.73 river mile upstream from Hwy 152, south of Mobeetie	35.496861	-100.444134	1.83	45.51	21.79	Private
	SW029	Sweetwater Creek on CR F, northwest of Mobeetie, south of road.	35.532031	-100.474459	4.23	49.74	17.56	Public*
	SW030	Sweetwater Creek, on CR 2, northwest of Mobeetie, west of road	35.566614	-100.504330	5.48	55.22	12.08	Public*
	SW031	Sweetwater Creek on private property, 1.77 river mile east of RR 120 (CR 29) in Gray County Northwest of Mobeetie	35.585865	-100.561449	7.31	62.53	4.77	Private
	SW032	Sweetwater Creek on private property, 0.80 river mile east of RR 120 (CR 29) in Gray County, northwest of Mobeetie	35.585149	-100.571943	0.97	63.50	3.80	Private
	SW033	Sweetwater Creek on Hoffer Rd (CR B) in Gray County, northwest of Mobeetie, north of road.	35.593337	-100.591795	2.58	66.08	1.22	Public*

\*indicates that the site was publically accessible at a road crossing but that further access was limited by fencing of private property.

<sup>1</sup> Distances were digitally estimated using the measuring tool in ArcGIS 9.3 with the 2010 NAIP –m DOQQs and the NHD layer as a reference guide.



# Purpose of RUAA

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- Collect information that will:
  1. Confirm or deny primary contact recreation
  2. Provide evidence to support a change in recreational use category of Sweetwater Creek
- Recreational Use Categories:
  1. Primary Contact Recreation
  2. Secondary Contact Recreation 1
  3. Secondary Contact Recreation 2
  4. Noncontact Recreation



# Survey Dates for Sweetwater Creek

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- First RUAA Survey
  - Conducted May 26 - 28, 2013
  
- Second RUAA Survey
  - Conducted July 28 - 29, 2013



# Findings for First RUAA Survey

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- Conducted May 26 – 28, 2013
- Summary
  - Limited water for recreation
  - No direct recreation observed
  - Limited public access, mostly private property



# Sweetwater Creek Photographs

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**Downstream at SW001**



**Steep Banks at SW001**



# Sweetwater Creek Photographs

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**Public Access at SW002**



**Wildlife Tracks at SW002**



# Sweetwater Creek Photographs

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**Hydrophytes and surface  
scum at SW009**



**Obstruction at SW011**

# Sweetwater Creek Photographs

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**Upstream at SW013**



**Beaver Activity at SW020**



# Sweetwater Creek Photographs

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**Livestock Tracks at SW020**



**Dense Vegetation at SW024**



# Sweetwater Creek Photographs

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**Upstream at SW027**



**Upstream at SW029**



# Sweetwater Creek Photographs

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**Downstream at SW030**



**Upstream at SW033**



# Sweetwater Creek Photographs

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**Trap at SW026**



**ATV Tracks at SW003**



# Sweetwater Creek Photographs

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**Picnic Area at SW032**



**Fishing Tackle at SW024**

# Findings for Second RUUA Survey

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- Conducted July 28-29, 2013
- Summary
  - Limited water for recreation
  - No direct recreation observed
  - Limited public access, mostly private property



# Sweetwater Creek Photographs

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**Upstream at SW001**



**Steep Banks at SW001**



# Sweetwater Creek Photographs

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**Limited Public Access at  
SW002**



**Obstruction at SW002**



# Sweetwater Creek Photographs

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**Upstream at SW009**



**Upstream at SW011**



# Sweetwater Creek Photographs

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**Duckweed at SW013**



**Downstream at SW020**



# Sweetwater Creek Photographs

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**Beaver Gnaw at SW020**



**Dense Vegetation at SW024**

# Sweetwater Creek Photographs

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**Upstream at SW027**



**Upstream at SW029**



# Sweetwater Creek Photographs

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**Downstream at SW030**



**Downstream at SW031**



# Sweetwater Creek Photographs

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**Steep Banks at SW031**



**Obstruction at SW031**



# Sweetwater Creek Photographs

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**Downstream at SW033**



**Upstream at SW033**



# Summary of Activity

Site Name	Swimming	Adult Wading	Children Wading	Hunt	Fish	Boat , Canoe, Kayak
SW001						
SW002						
SW003						
SW004						
SW005						
SW006						
SW007						
SW008	0,0,0	0,0,0	1,0,0	0,0,0	0,0,0	0,0,0
SW009						
SW010	0,0,0	0,0,0	0,0,0	0,0,0	0,0,0	0,0,0
SW011 <sup>a</sup>						
SW012						
SW013						
SW014						
SW015						
SW016						
SW017	0,0,0	1,1,1	1,1,1	1,1,1	0,0,0	0,0,0
SW018		*	*	*		
SW019		*	*	*		
SW020						
SW021						
SW022						
SW023	1,0,0	1,0,0	1,0,0	1,0,0	1,0,0	0,0,0
SW024	0,0,0	0,0,0	0,0,0	0,0,0	1,1,0	0,0,0
SW025						
SW026					0,1,0 <sup>b</sup>	
SW027						
SW028	0,0,0	0,0,0	0,0,0	1,0,0	1,0,0	0,0,0
SW029						
SW030						
SW031	1,0,0	1,0,0	1,0,0	1,0,0	0,0,0	0,0,0
SW032	*	*	*	*		
SW033	0,0,0	0,0,0	0,0,0	0,0,0	0,0,0	0,0,0
General AU	0,1,1	1,2,1	1,2,1	1,1,0	0,1,2	
Totals	2,1,1	4,3,2	5,3,2	5,2,1	3,3,2	0,0,0

An \* indicates recreation at multiple sites from one interview form.



# Sweetwater Creek Activity Map



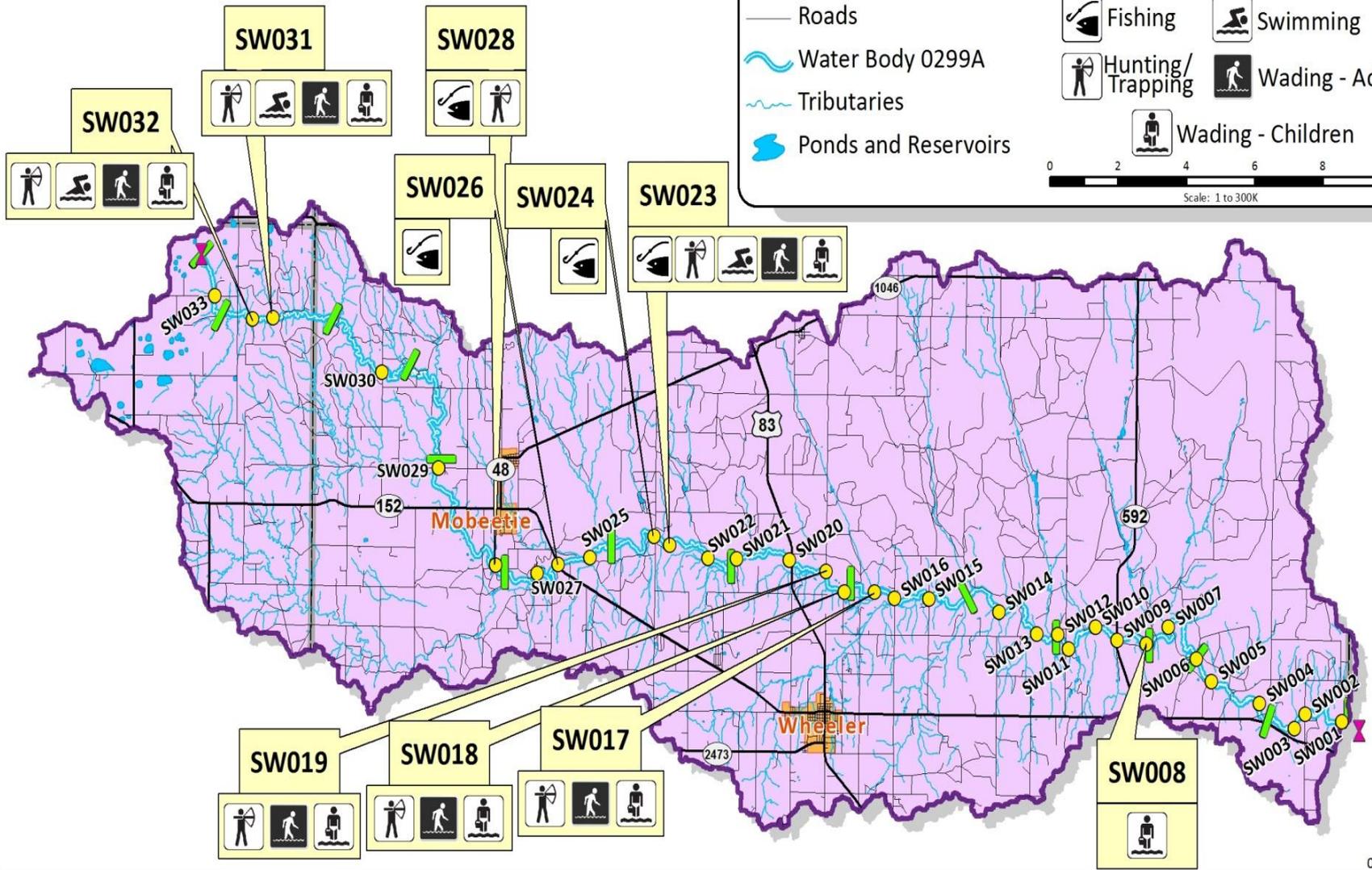
**General to Sweetwater Creek (0299A)**



- RUAA Sites
- ✂ Water Body Boundaries
- ▬ 5-mile Markers
- Highways
- Roads
- ~ Water Body 0299A
- ~ Tributaries
- ☪ Ponds and Reservoirs
- ⊕ Cities
- ▭ County Boundaries
- 👤 Sweetwater Creek Watershed

## Recreational Symbols

- 👤 Fishing
- 🏊 Swimming
- 🏹 Hunting/Trapping
- 👤 Wading - Adults
- 👤 Wading - Children



# Next Steps

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- Public Comment Period
  - **Open from June 11 – July 11, 2014**
    - Please take this opportunity to review the Red River RUAA Report
    - Provide Comments
    - Report can be viewed:  
<https://www.tsswcb.texas.gov/en/managementprogram/ruaasweetwater>



# Contact Information

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# Questions?

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## Project Website:

<https://www.tsswcb.texas.gov/en/managementprogram/ruaasweetwater>

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Leah Taylor

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