

South Lilly Creek

Recreational Use Attainability Analysis Summary of Findings

Texas Institute for Applied Environmental Research
Stephenville, Texas

August 21, 2017



Project Partners

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



TSSWCB

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



TIAER

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



Bacteria Impairment

- South Lilly Creek is not meeting the water quality standard for primary contact recreation
 - Due to elevated levels of *E. coli*
 - Requires action to meet the standards that are set by the State of Texas and EPA.



What is the Texas 303 (d) List?

- Texas 303 (d) List of Impaired Water bodies
 - Requirement of the Clean Water Act
 - 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.



Why we chose this approach

- Once on the 303(d) List, action is required by the state
 - Viable Candidate
 - The Most Cost Effective
 - Non Regulatory Approach
 - State Led, Not Federal



RUAA

- One method of removing the South Lilly Creek from the impaired list for bacteria
 - Assess if the recreational standard is appropriate
 - Recreational use attainability analysis (RUAA)



Purpose of RUAA

- To determine if primary contact recreation is the correct use or if another recreational use category may be more appropriate.

RUAA

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



Impaired Stream Segments

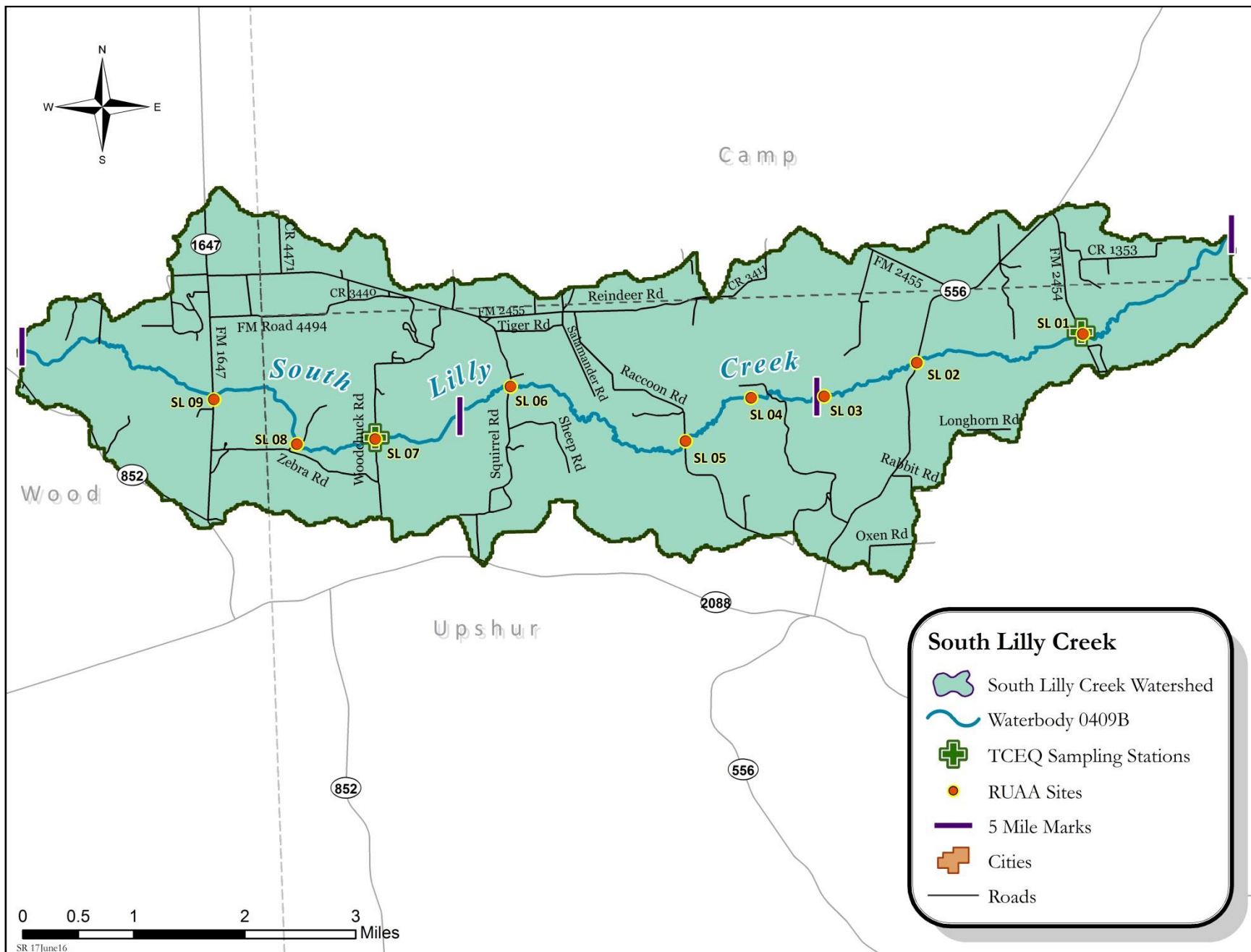
- South Lilly Creek (0409B)
 - 2006 Texas Water Quality 303(d) List
 - Bacteria
 - Current Geometric mean = 243 cfu/ 100mL



Survey Dates for South Lilly Creek

- First RUAA Survey
 - Conducted **June 20 – 21, 2016**
 - Summary
 - Thick vegetation & steep banks making it difficult to access water
 - No direct recreation observed
 - Limited access at 6 road crossings
 - Multiple poisonous snakes spotted throughout the stream
- Second RUAA Survey
 - Conducted **August 23 – 24, 2016**
 - Summary
 - Thick vegetation & steep banks making it difficult to access water
 - No direct recreation observed
 - Limited access at 6 road crossings
 - Multiple poisonous snakes spotted throughout the stream





South Lilly Creek

- South Lilly Creek Watershed
- Waterbody 0409B
- TCEQ Sampling Stations
- RUAA Sites
- 5 Mile Marks
- Cities
- Roads



TCEQ Water Quality Monitoring Stations

Site Description

South Lilly Creek at FM 2454 about 1.8 KM south of the intersection with FM 556 and Southwest of Pittsburg – TCEQ 17954

South Lilly Creek at Woodchuck Road 3.11 KM downstream of FM 1647 and 15.3 KM south of Lake Cypress Springs – TCEQ 17953



South Lilly Creek Photographs



**SL01 Downstream at 150m
first survey**



Log Jam at SL02 first survey

South Lilly Creek Photographs



**SL03 Left Bank at 150m
second survey**



**SL04 Upstream at 300m first
survey**

South Lilly Creek Photographs



Water Moccasin at SL05 first survey



SL05 Downstream at 300m second survey

South Lilly Creek Photographs



**SL06 Downstream at 0m
second survey**



**Right bank at SL07 at 150m
first survey**

South Lilly Creek Photographs



**SL08 Downstream at 150m
second survey**



**SL09 Upstream at 150m first
survey**

Next Steps

- Public Comment Period
 - Open from Now – September 19, 2017
 - Please take this opportunity to review the South Lilly Creek Draft Report
 - Provide comments

Report can be viewed:

<http://tiaer.tarleton.edu/ruaa/south-lilly-creek.html>





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Questions?

Project Website:

<http://tiaer.tarleton.edu/ruaa/south-lilly-creek.html>

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