



Kickapoo Creek in Henderson County Watershed Protection Plan

Project Update

Texas Institute for Applied Environmental Research
Stephenville, Texas

July 13, 2022



Project Partners

- Texas State Soil and Water Conservation Board (TSSWCB)
- Texas Institute for Applied Environmental Research (TIAER)
- Angelina & Neches River Authority

Federal Clean Water Act

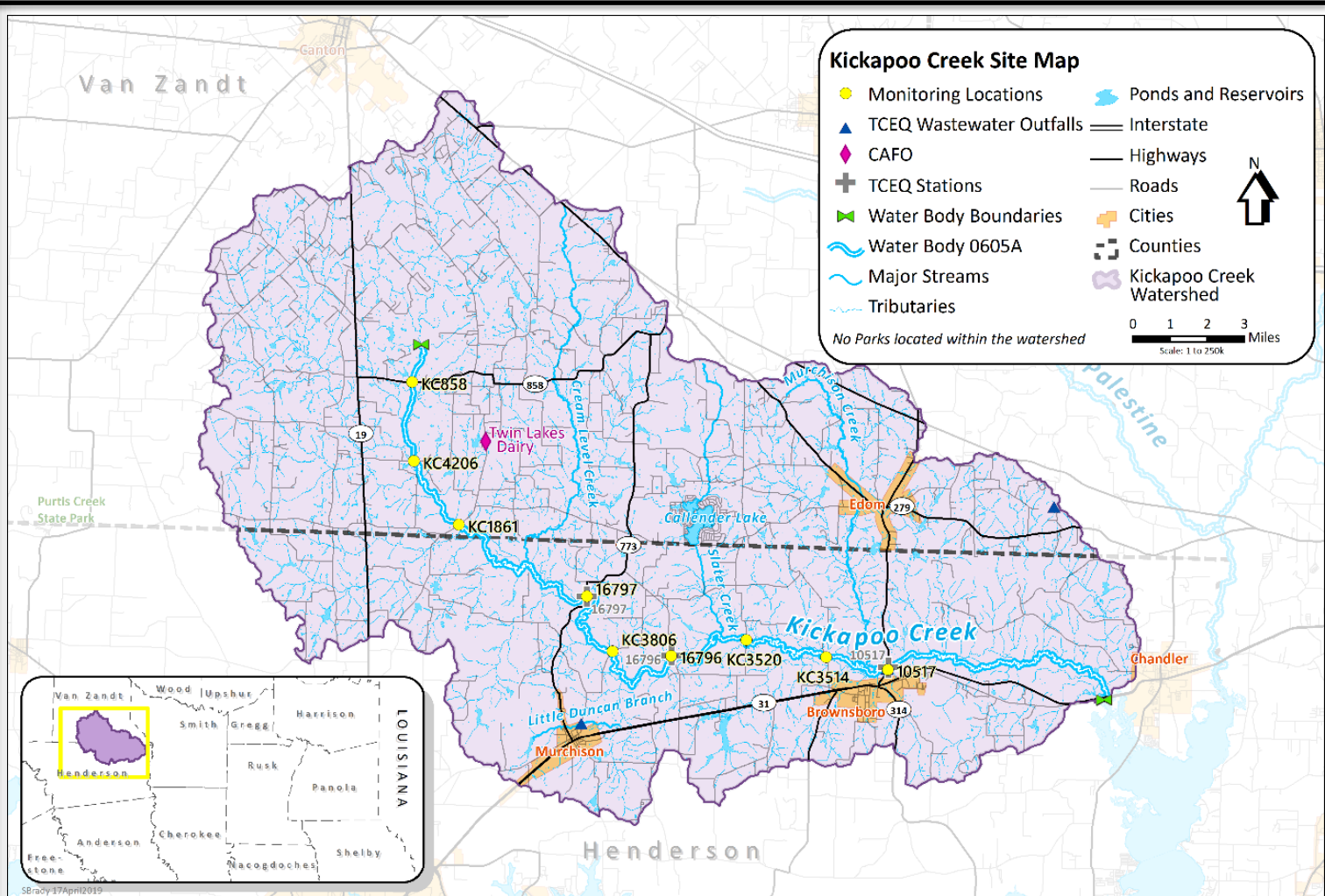
- Requires States to establish Water Quality Standards to achieve objective & goals
- Requires States to identify waterbodies failing to meet water quality standards & not supporting their designated uses
 - this list of impaired waterbodies is known as the *Texas 303(d) List*, developed by TCEQ

Why we are here

Bacteria Impairment

- Kickapoo Creek is not meeting the water quality standard for primary contact recreation
 - Due to elevated levels of bacteria, *E. coli*.
 - Depressed dissolved oxygen impairment is classified as 5c – indicating that additional data or information needed
- TIAER performed a Recreational Use Attainability Analysis on Kickapoo Creek in 2014
- TIAER completed a Characterization Project in 2021
 - Project's purpose was to better assess and identify potential causes and sources of pollution, through additional water quality monitoring and a greater data inventory

Kickapoo Creek in Henderson County





Routine Monthly Monitoring

Routine Monitoring Locations

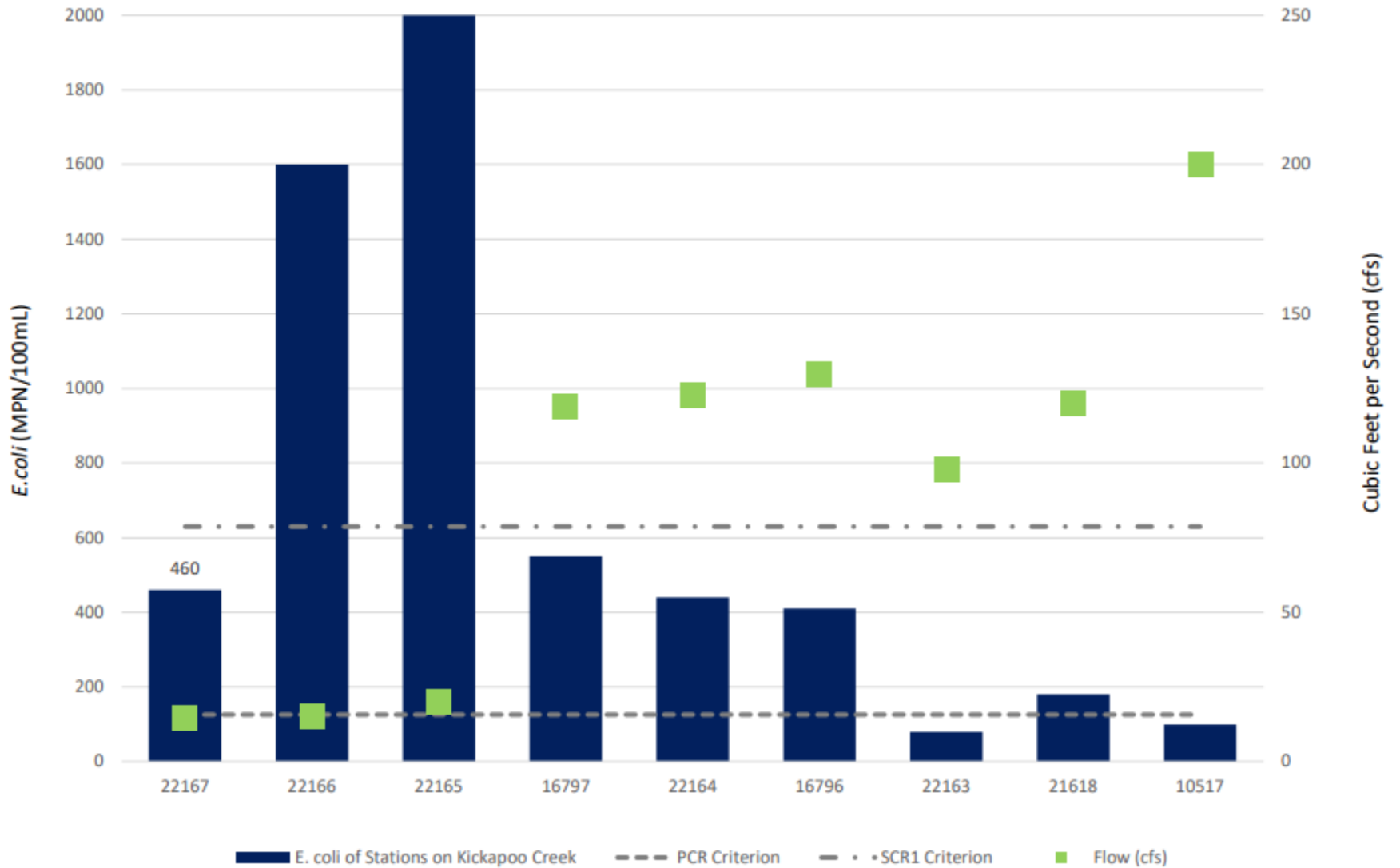
Kickapoo Creek

Site ID	Site Description	Latitude	Longitude
10517	Kickapoo Creek crossing at FM 314 in Henderson County*	32.309099	-95.605826
KC3514	Kickapoo Creek crossing at Henderson CR 3514 in Henderson County	32.309099	-95.605826
KC3520	Kickapoo Creek crossing at Henderson CR 3520 in Henderson County	32.319451	-95.67152
16796	Kickapoo Creek crossing at FM1803 in Henderson County	32.312309	-95.705716
KC3806	Kickapoo Creek crossing at Henderson CR 3806 in Henderson County*	32.313565	-95.732693
KC16797	Kickapoo Creek crossing at FM 773 Henderson County	32.334668	-95.745165
KC1861	Kickapoo Creek crossing at 1861 in Van Zandt County	32.361167	-95.805017
KC4206	Kickapoo Creek crossing at CR 4206 in Van Zandt County*	32.385408	-95.826422
KC858	Kickapoo Creek crossing at FM 858 in Van Zandt County	32.416093	-95.828130

*indicate sites where TIAER will conduct 24-hour DO

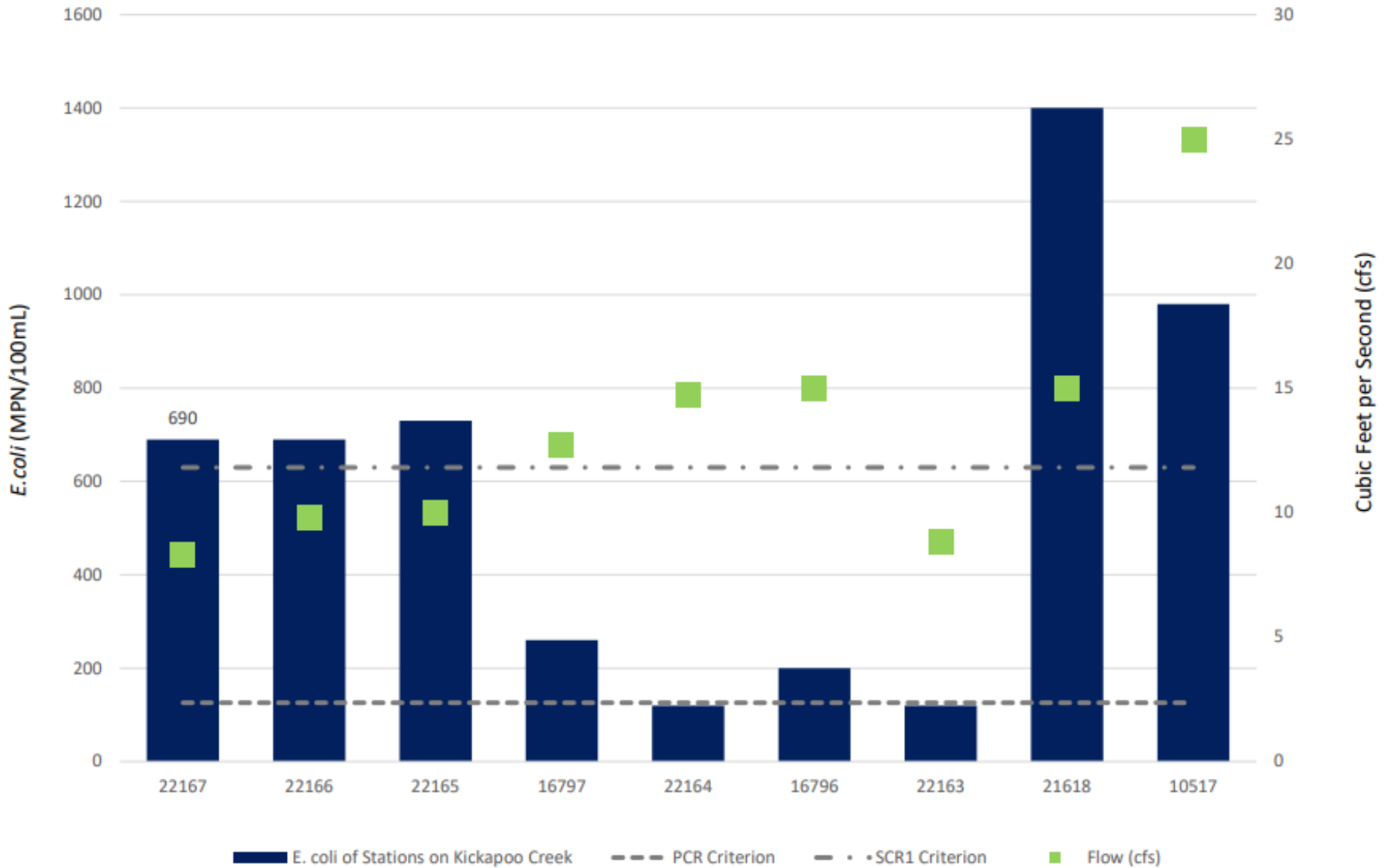
All data are preliminary and subject to change.

April 7, 2022 monitoring event



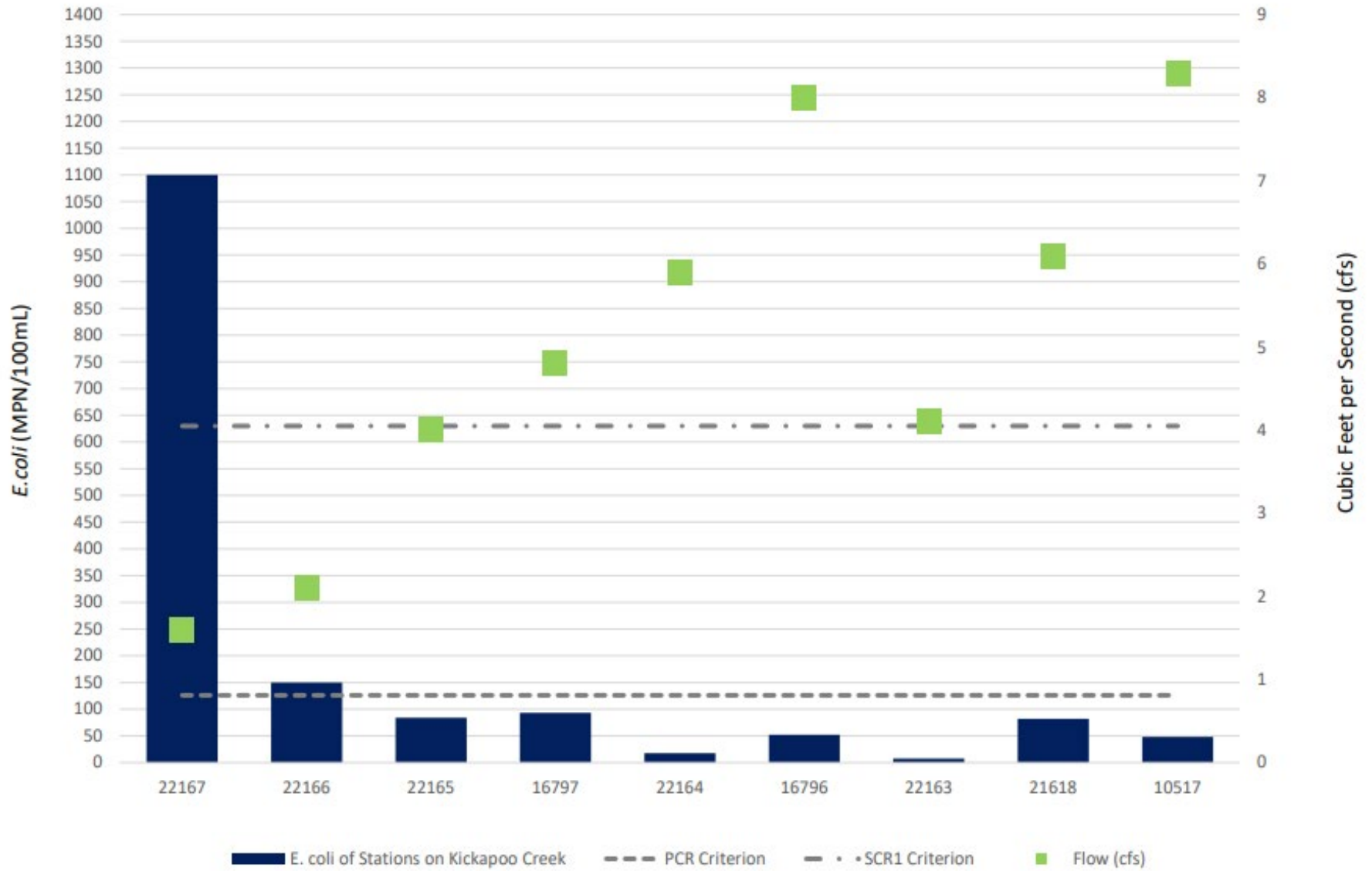
All data are preliminary and subject to change.

May 5, 2022 monitoring event



All data are preliminary and subject to change.

June 9, 2022 monitoring event



What is a Watershed Protection Plan

- Goal = improve, restore, or maintain good water quality within a particular watershed
- WPPs address complex water quality issues
- WPPs are tools to better leverage the resources of local governments, state and federal agencies, and non governmental organizations
- WPPs are a voluntary and proactive approach to integrating activities and prioritizing best management practices

Goals of the WPP



- Address impairments in Kickapoo Creek
- Dependent on stakeholder support and participation

Major Tasks for Stakeholders

- Provide guidance and input for potential sources of bacteria and nutrients and estimated pollutant loads
- Set goals and objectives
- Guide identification of measures that could be implemented to address bacteria
- Identify outreach and education that is needed
- Oversee development of implementation plan and schedule

WPP Outline

- Chapter 1 – Introduction to Watershed Management
- Chapter 2 – Watershed Characterization
- Chapter 3 – Water Quality
- Chapter 4 – Pollutant Sources of Pollution
- Chapter 5 – Pollutant Source Assessment
- Chapter 6 – Strategies for WPP Implementation
- Chapter 7 – Education and Outreach
- Chapter 8 – Plan Implementation
- Chapter 9 – Resources to Implement the WPP
- Chapter 10 – Measuring Success



Next Steps

- Next stakeholder meeting:
 - Late summer/fall 2022
- Chapter updates
 - Chapters 1 – 3 are drafted
 - Chapter 4 is in progress

Questions?

Project Website:

www.kickapocreekwpp.com

Funding Provided through a State Nonpoint Source grant from Texas State Soil and Water Conservation Board.

Leah Taylor

Texas Institute for Applied Environmental Research

ltaylor@tarleton.edu

(254) 968-0513