



## **2019 Clean Rivers Program Steering Committee Meeting**

**March 7, 2018, 10 a.m. to 2 p.m., 5D Steakhouse and Lounge  
130 Boardwalk, Kenedy, TX 78119**

**COMMITTED TO SAFE, CLEAN, ENJOYABLE CREEKS AND RIVERS**



# CRP Steering Committee Meeting Agenda

- CRP Overview
- TCEQ Integrated Report
- Budget and Allocation of Resources
- Draft 2019 Basin Update Report
- Coordinated Monitoring Meeting and Schedule
- Presentations





# CRP Overview

Established in 1991 by the 72nd Legislature enactment of Senate Bill 818.

Coordinates the regional monitoring resources to identify and address the water quality issues in the San Antonio River Basin.

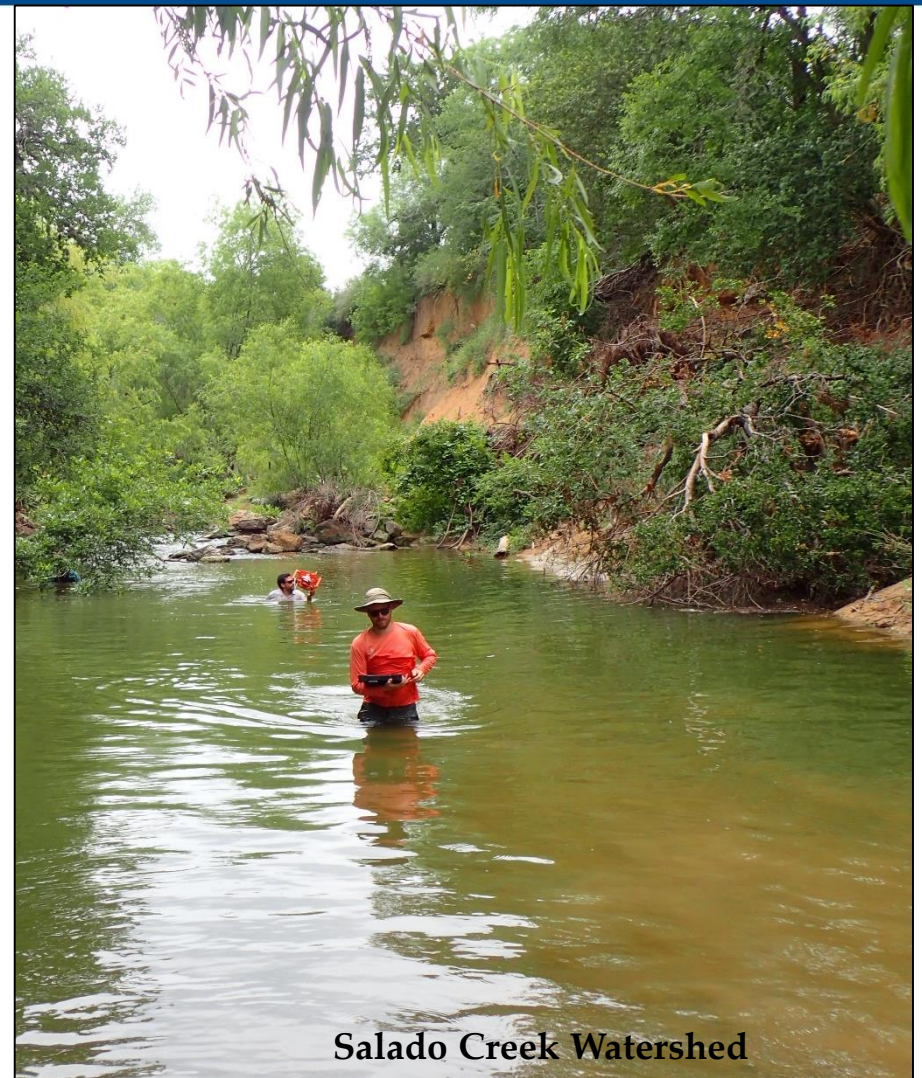
SARA, TCEQ, and the BCRAGD are the primary programs for the collection water quality data in the San Antonio River Basin.

Provide quality assured data to the TCEQ for use in water quality decision making.



# CRP Goal

- Partnership
- Watershed Management approach
  - Identify/evaluate WQ issues
  - Prioritize/implement corrective actions
  - Adapt to changing priorities



Salado Creek Watershed



# CRP Objectives

- Quality-Assured Data
- Cooperative Watershed Planning
- Inform and Engage
- Identify and Evaluate WQ Issues
- Efficient Use of Public Funds
- Adapt Program to Emerging WQ Issues



ESD Inter Jason Rodriguez and ~~Dinner~~ Friend







Texas Logperch (*Percina carbonaria*)

- aquatic life
- contact recreation
- fish consumption
- public water supply
- general use

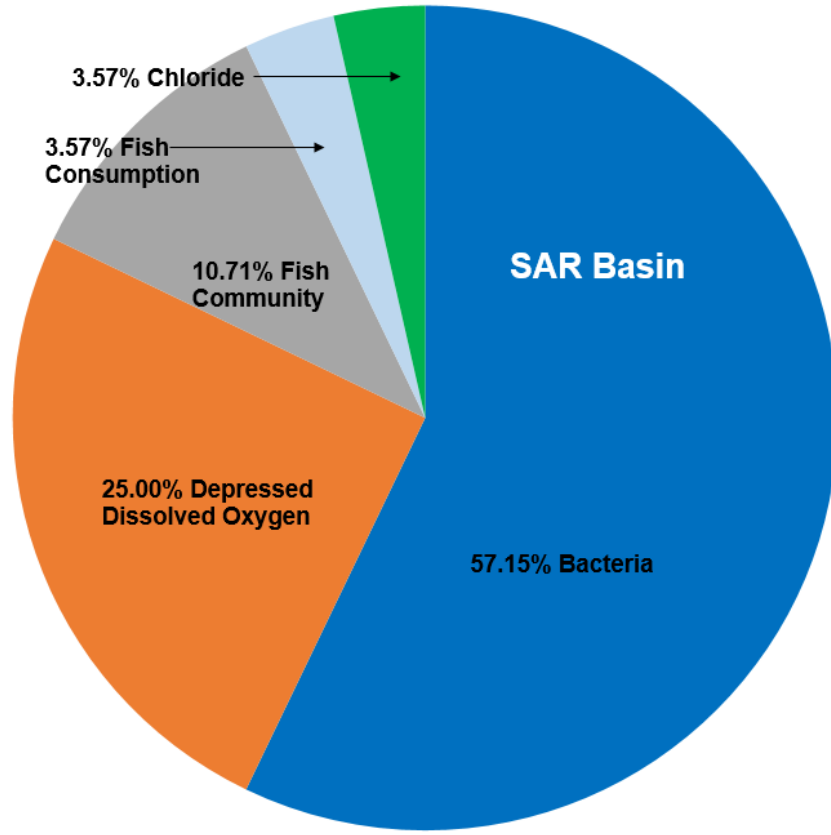
## Integrated Report and the TSWQS Designated Uses



*Homo erectus* and *Pylodictis olivaris*



# SAR Basin Draft 2016 IR Impairments

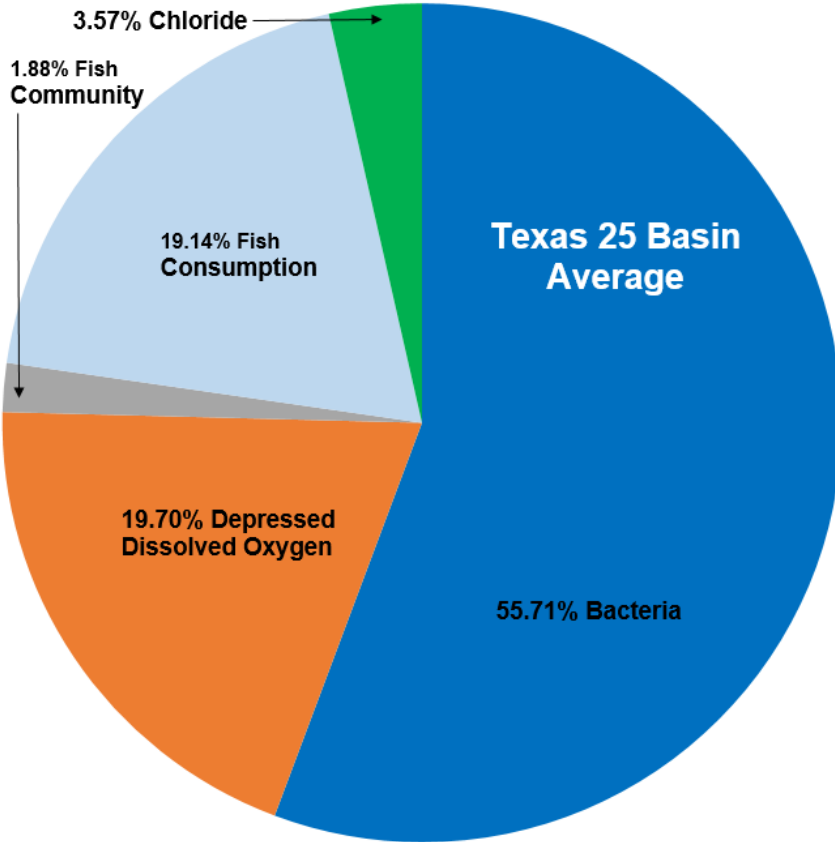


42 segments assessed with 28 Impairments

Impairments	Number of Impairment Segments	Impairment Percentages
Bacteria	16	57.15%
Dissolved Oxygen	7	25.00%
Fish Community	3	10.71%
Fish Consumption	1	3.57%
Chloride	1	3.57%
Total Impairments	28	100.00%



# Texas Basin Draft 2016 IR Impairments



483 segments asses with 533 Impairments

Impairments	Number of Impairment Segments	Impairment Percentages
Bacteria	297	55.71%
Dissolved Oxygen	105	19.70%
Fish Community	10	1.88%
Fish Consumption	102	19.14%
Chloride	19	3.57%
Total Impairments	533	100.00%





# Draft 2016 IR Impairment Comparison Summary

SAR Basin	Element	Texas 25 Basins Averages
42	Segments Assessed	481
28	Total Number of Impairments	533
57.15%	Bacterial Impairments	55.71%
25.00%	Depressed Oxygen Impairments	19.70%
10.71%	Fish Community Impairments	1.88%
3.57%	Fish Consumption Impairments	19.14%
3.57%	Chloride Impairments	3.57%
20	Segments with No Impairments	43



**Move to a four year agreement**

**FY 18/21 Budget and Allocation of  
Resources**



# Budget Amendment #3 and the New FY2018/2021 CRP Agreement

Categories	Original FY18/19 CRP Agreement	Revision #1 (\$51,841.00)	Revision #2 (\$25,000.00)	FY2018/2021 Agreement (\$545,540.00)
<b>a. Personnel/Salary</b>	\$ 240,900.00	\$ 259,825.00	\$ 276,716.89	\$ 617,622.29
<b>b. Fringe Benefits (38% of Labor)</b>	\$ 91,542.00	\$ 98,733.50	\$ 105,152.42	\$ 234,696.48
<b>c. Travel</b>	\$ 8,008.00	\$ -	\$ -	\$ 9,000.00
<b>d. Supplies</b>	\$ 28,000.00	\$ 28,000.00	\$ 28,000.00	\$ 57,000.00
<b>e. Equipment</b>	\$ -	\$ 31,840.00	\$ 31,840.00	\$ 31,840.00
<b>f. Contractual</b>	\$ -	\$ -	\$ -	\$ -
<b>g. Other</b>	\$ 3,000.00	\$ 3,000.00	\$ 3,000.00	\$ 6,000.00
<b>h. Total Direct Costs (sum a-g)</b>	\$ 371,450.00	\$ 421,398.50	\$ 444,709.31	\$ 956,158.77
<b>i. Indirect costs (10% of Labor)</b>	\$ 24,090.00	\$ 25,982.50	\$ 27,671.69	\$ 61,762.23
<b>j. Total Reimbursable Costs (h+i)</b>	\$ 395,540.00	\$ 447,381.00	\$ 472,381.00	\$ 1,017,921.00







# 2019 CRP Basin Update Report

San Antonio River-Guadalupe  
River Confluence



## San Antonio River Basin 2019 Basin Highlight Update Report



Figure 1: Lower San Antonio River Confluence with the Guadalupe River



Figure 2: The preparation of this report was financed through grants from and in cooperation with the Texas Commission on Environmental Quality

### Basin Overview

The San Antonio River Basin is located in south central Texas. While the San Antonio River Authority's political jurisdiction is comprised of four counties (Bexar, Wilson, Karnes and Goliad), the actual basin consists of all or part of 13 counties. The basin extends north into the Texas Hill country in the lower portion of Kerr County and continues southeast to the Guadalupe River about 10 miles from San Antonio Bay. Most of the basin is rural, except Bexar County, which is in the center of the basin and consists of the City of San Antonio and various smaller municipalities. Five major perennial streams flow into the San Antonio River: Cibolo Creek, Leon Creek, Medina River, Medio Creek and Salado Creek. The Texas Commission on Environmental Quality (TCEQ) divides the streams into 13 designated stream segments.

### The Texas Clean Rivers Program

Texas Clean Rivers Program, Senate Bill 818 (SB 818), known as the Texas Clean Rivers Act, was enacted in 1991 by the 72nd Legislature to ensure the comprehensive regional assessment of water quality in each watershed and river basin of the State. This program is administered by the TCEQ and is very different from any other monitoring program in Texas.

The [Texas Clean Rivers Program](#) (CRP) creates a partnership with river authorities, local and special area agencies to create a network of monitoring stations that reported data to the TCEQ. Partnering with other agencies created an atmosphere of cooperation, and built bonds and communication between the agencies.

Another aspect of the CRP was the early use of stakeholders to guide the program. Currently, the San Antonio River Authority (SARA) uses an [Environmental Advisory Committee](#) (EAC) made up of stakeholders from various geographical areas within the basin who represent a variety of professional interests. This group meets quarterly, and is routinely contacted through email. The EAC serves as SARA's CRP Steering Committee and provides input to the CRP and a variety of other SARA projects and programs that have an environmental component.

Perhaps the most unique aspect of the CRP is the attention to quality assurance. Early on, the CRP provided quality control and data management training to its partners as part of its program. By 1996, all work performed under a TCEQ contract involving the acquisition, generation and collection of environmental data was conducted in accordance with a TCEQ-approved Quality Assurance Project Plan (QAPP). Current QAPP's must meet all applicable TCEQ and U. S. Environmental Protection Agency (EPA) requirements. The [EPA QA/R-5, EPA Requirements for Quality Assurance Project Plans](#) describes a QAPP as a formal document that comprehensively details the required quality assurance and quality control (QA/QC) and other technical activities must be implemented to ensure that the results of the work performed will satisfy the stated performance criteria. The QAPP must provide a project-specific "blueprint" for obtaining the type and quality of environmental data needed for TCEQ regulatory decisions and assessments. The QAPP should identify:

# 2019 CRP Basin Update Report

## Brief updates on 2018 Basin:

- Educational and Awareness Initiatives
- Water Quality Projects and Activities
- Draft TCEQ 2016 Integrated Report
- Accessible Report



San Antonio River Basin Highlight Report Cycle	
Year	Report Type
2013	<a href="#">CRP Basin Summary Report</a>
2014	CRP Update Report
2015	CRP Watershed Characterization for Medina River, Leon Creek & Medio Creek
2016	CRP Standard Highlight Report
2017	CRP Watershed Characterization for the Upper San Antonio River, Salado Creek & Upper Cibolo Creek
2018	<a href="#">CRP Basin Summary Report</a>
2019	CRP Update Report
2020*	CRP Watershed Characterization for the Upper and Lower San Antonio River
2021*	CRP Standard Highlight Report
2022	CRP Watershed Characterization for the Upper/Lower Medina River and Medio Creek
2023	CRP Update Report
2024	CRP Watershed Characterization for Upper/Lower Leon Creek, Salado Creek & Upper/Mid/Lower Cibolo Creek
2025	<a href="#">CRP Basin Summary Report</a>

\*Pending Contract Negotiations

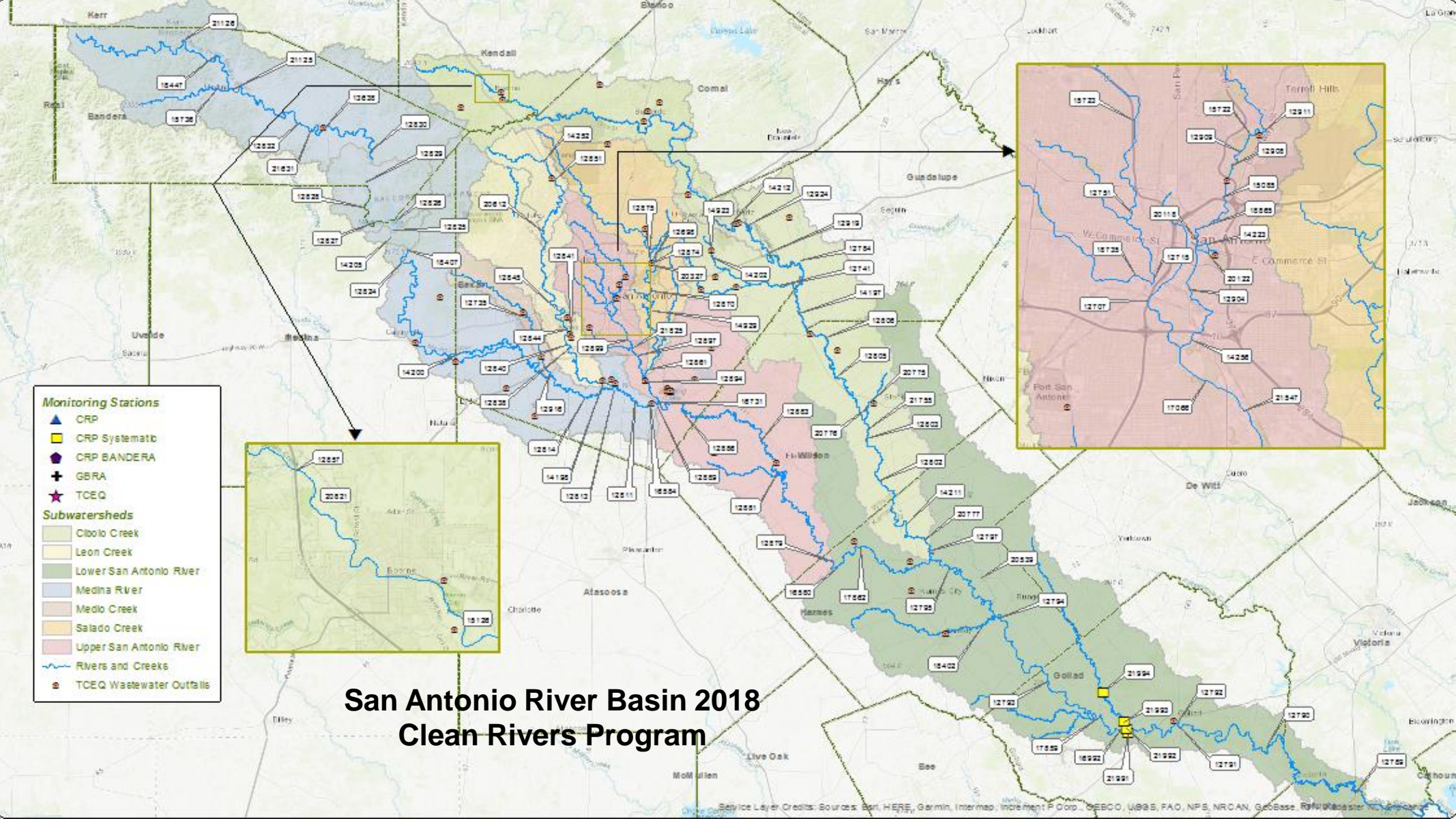
# Basin Highlight Report Cycle



Water Quality Monitoring in the Salado Creek Watershed







# Educational and Awareness Initiatives

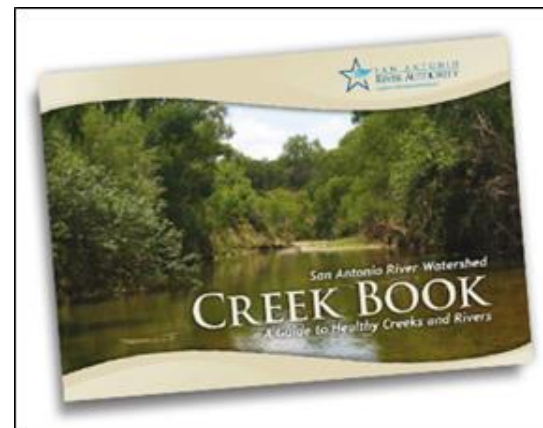
The San Antonio River Authority, TCEQ and CRP partners are passionately committed to the sustainability, preservation, and protection of waterbodies in the San Antonio River Basin.



<https://www.sara-tx.org/public-information/about-sara/newsletters/>



<https://www.sara-tx.org/watershed-wise/>



<https://www.sara-tx.org/education-outreach/new-education/creek-book/>





# Educational and Awareness Initiatives

The San Antonio River Authority, TCEQ and CRP partners are passionately committed to the sustainability, preservation, and protection of waterbodies in the San Antonio River Basin.

**THE SAN ANTONIO RIVER AUTHORITY**

## WATER QUALITY DATA LESSON EXTENSION

**Objective:**

This lesson extension is to provide students and educators a resource to use real-time, real-world water quality monitoring data for analysis and evaluation.

Student will need to have mastered an understanding of abiotic factors that are measured to indicate water quality. Students should be encouraged to create their own usable data tables whether it is on paper or a spreadsheet.

**Note:** The dates in which water quality data is collected are highly variable. Students should pay close attention to the dates from which the data was obtained at the monitoring sites.

**Materials:**

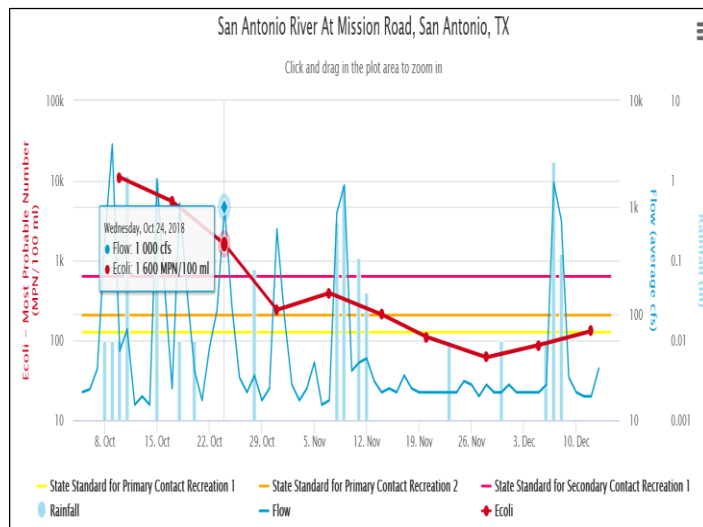
Computers or tablet with internet capability  
Water Quality Data & Webviewer Guide Handouts  
Data recording materials

**Procedures:**

1. Locate the "Water Quality Data" webpage on the San Antonio River Authority's website by following the link: <https://www.sara-tx.org/webviewer/>
2. For full education on the use of this Water Quality Data tool, read and review the Webviewer User Guide provided.
3. Once the Water Quality Data tool is understood, group students into groups of 3, and assign each group their own computer. Assign roles for each student per group.
  - a. Navigator: Uses mouse and keyboard to navigate the webpage.
  - b. Data collector: Writes down the appropriate water quality data on the group data table.
  - c. Director: Assists group in targeting data needs per teacher's instructions.

1

<https://www.sara-tx.org/education-outreach/>



## SARA River Recreation Website

<https://www.sara-tx.org/river-recreation/water-quality/>

**THE SAN ANTONIO RIVER AUTHORITY**

## RAINFALL RUNOFF AND POLLUTANT TRAVEL THROUGH WATERSHEDS

**OBJECTIVES**

- Learn the difference between point and non-point source pollution
- Discover how non-point source pollutants can travel through a watershed

**TOPICS**

- Watersheds
- Non-point source pollution

**TEKS ALIGNMENT**

**Grade 7 Science:**  
1A, 2A, 2B, 2C, 2D, 2E, 3B, 3C, 4A, 8C

**Grade 8 Science:**  
1B, 8D, 11B, 11C

**BACKGROUND MATERIAL**

Pollution is a negative change to the environment, frequently resulting from human activity. There are two major types of pollution that affect rivers, streams and their ecosystems: point source pollution and non-point source pollution.

Point source pollution is pollution that is produced by one source. This type of pollution is usually discharged directly into a stream or river and is fairly easy to trace. As a result, point source pollution is easier to regulate and reduce. The US Environmental Protection Agency (USEPA) and the Texas Commission on Environmental Quality (TCEQ) are responsible for regulating point source pollution.


Non-point source pollution is the result of a combination of many smaller sources of pollution acting together. It does not come from one single source. Often, non-point source pollution is not discharged directly into a stream or river, but ends up being transported with rainfall runoff water that flows from a watershed and to rivers and streams. Some major non-point source pollutants are sediments, nutrients, chemicals and bacteria, resulting from human activities such as construction, urbanization and agriculture. Since non-point sources can come from many places and are not directly discharged into the water, they are much harder to discover and trace. It is also much harder to regulate non-point sources than it is to regulate point sources.

<https://www.sara-tx.org/education-outreach/>



# Water Quality Projects

Water quality projects are used to preserve, restore, and protect the aquatic health in the San Antonio River Basin, estuaries, bays, and creeks.



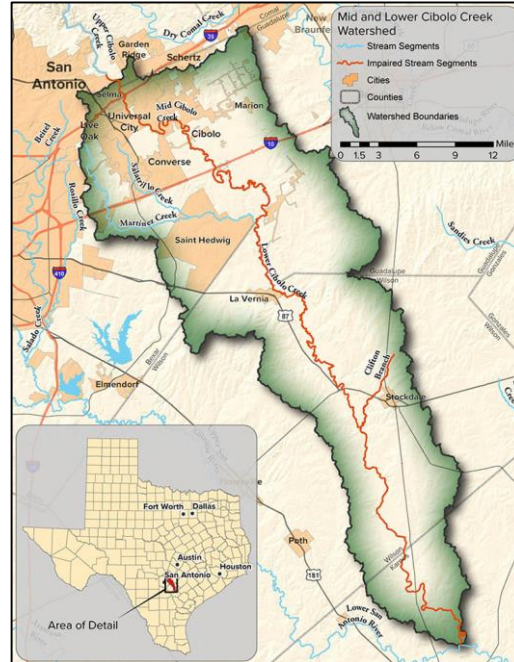
Approved August 8, 2018

## Implementation Plan for Five Total Maximum Daily Loads for Bacteria in the Lower San Antonio River Watershed

Segment 1901  
Assessment Units 1901\_01, 1901\_02, 1901\_03, 1901\_04, 1901\_05

Prepared by the San Antonio River Stakeholders  
With Support from the TMDL Team, Water Quality Planning Division, Office of Water  
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

<https://www.tceq.texas.gov/assets/public/waterquality/tmdl/34lowersa/34-lsar-iplan-approved.pdf>



## Mid and Lower Cibolo Creek WPP

<http://cibolo.tamu.edu/>



Feral Hog, picture courtesy of Texas A&M AgriLife Extension

## Feral Hog Management Program

<http://www.tpr.org/post/san-antonio-river-authority-offers-feral-hog-help-landowners>





Celicia Garza, 2018 Mike  
Gonzales Memorial Intern



FY19 Coordinated Monitoring



# FY19 Coordinated Monitoring Meeting

- SARA's CMM will be held April 3, 2019
- Maximizing regional efforts
- TCEQ Biennial Texas Integrated Reports (IR)
- Information from CRP partners and the Environmental Advisory Committee stakeholders





# Coordinated Monitoring

FY19				Watershed	FY20			
SARA CRP	Partners	Total Sites Monitored	Biological Nekton		SARA CRP	Partners	Total Sites Monitored	Biological Nekton
11	1-GBRA	12	4	Segment 1901: Lower San Antonio River	11	1-GBRA	12	4
14	1-TCEQ	15	4	Segment 1902: Lower Cibolo Creek	14	1-TCEQ	15	4
8	0	8	2	Segment 1903: Lower Medina River	8	0	8	2
0	5-BCRAGD	5	0	Segment 1904: Medina Lake	0	5-BCRAGD	5	0
0	8-BCRAGD	8	2	Segment 1905: Upper Medina River	0	8-BCRAGD	8	2
2	2-TCEQ	4	2	Segment 1906: Lower Leon Creek	2	2-TCEQ	4	2
3	0	3	0	Segment 1907: Upper Leon Creek	3	0	3	0
2	1-TCEQ	3	2	Segment 1908: Upper Cibolo Creek	2	1-TCEQ	3	2
0	1-BCRAGD	1	0	Segment 1909: Medina Diversion Lake	0	1-BCRAGD	1	0
7	0	7	4	Segment 1910: Salado Creek	7	0	7	4
30	0	30	6	Segment 1911: Upper San Antonio River	25	0	25	8
2	0	2	2	Segment 1912: Medio Creek	2	0	2	2
3	0	3	0	Segment 1913: Mid Cibolo Creek	3	0	3	0
82	19	101	28	TOTAL	77	19	96	30





Questions



# PRESENTATIONS

A close-up photograph of a Texas Logperch (Percina carbonaria) being held gently in a person's hand. The fish is small, with a yellowish-brown body and dark, irregular vertical stripes. Its dorsal fin is prominent, showing a series of sharp spines. The background is a soft-focus view of a person's skin and a red mesh net, suggesting a fishing or aquatic setting.

**Steven Schauer, Director of Government and Community Affairs (SARA)**

**Shaun Donovan, Aquatic Biologist II(SARA)**

***Bacterial Source Tracing***

**Bill Harrison, TCEQ Surface Water Quality Monitoring**  
***Aquatic Life Monitoring Update***

**Texas Logperch (*Percina carbonaria*)**

# Slide Title

- Text
  - Bullet Points





# Section header

