



SAN ANTONIO
RIVER AUTHORITY

Leaders in Watershed Solutions

2018 CRP Basin Summary Report

September 21, 2018

INSPIRING ACTIONS FOR HEALTHY CREEKS & RIVERS

Strategic Plan Goal

Advance Watershed Health and Safety

- Generate lasting and recognized improvements to the health and safety of our creeks, rivers, estuaries and bays.
- Supports Watershed Modeling, Studies, and Planning Programs

Diversify and Leverage Resources

- Expand, diversify, and leverage funding sources and partnerships.



Clean Rivers Program Overview

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

Coordinates resources, identifies, and addresses water quality issues in the Basin.

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

Quality assured data for use in water quality decision making.



2018 Basin Summary Report

- 2014 Texas Integrated Report and Texas Surface Water Quality Standards
- Segment descriptions, maps, monitoring stations, concerns, impairments, and recommendations
- SARA, Environmental Advisory Committee, and TCEQ cooperation



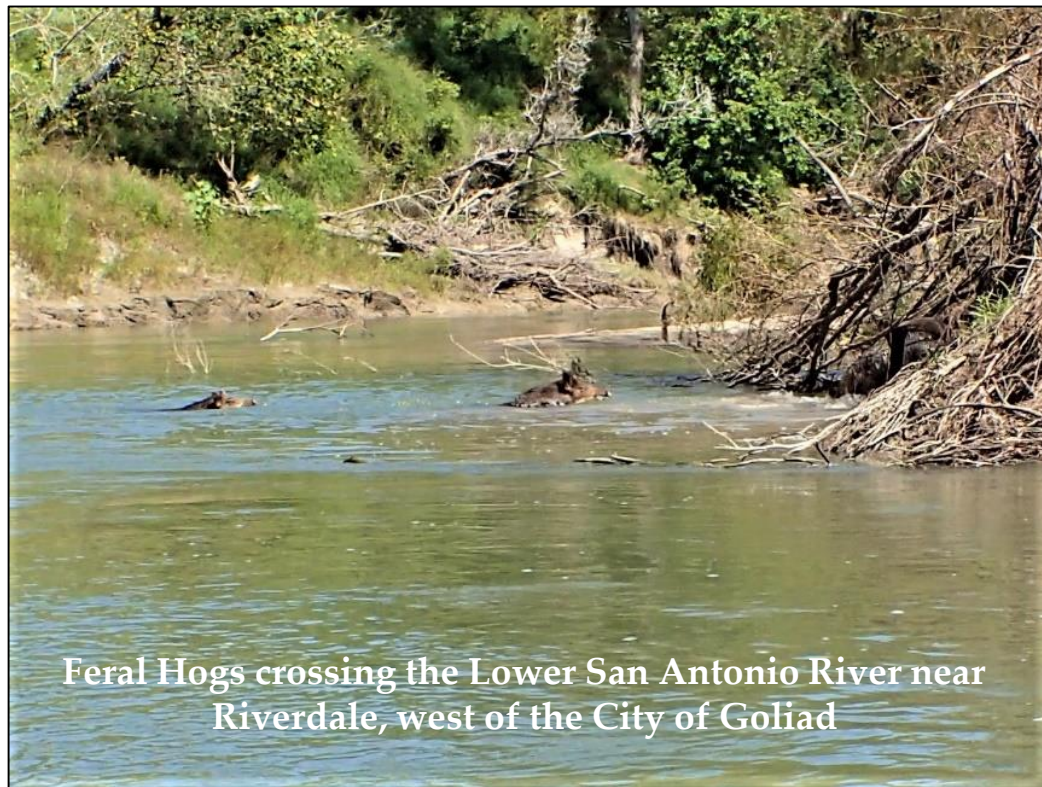
**Texas Clean Rivers Program San Antonio River Basin 2018
Summary Report**



Year	Report Type
2018	CRP Basin Summary Report
2019	CRP Update Report
2020*	CRP Watershed Characterization for Lower San Antonio River, Mid Cibolo Creek & Lower Cibolo Creek
2021*	CRP Basin Highlight Report
2022*	CRP Watershed Characterization for Medina River, Leon Creek & Medio Creek

*Pending Contract Negotiations

Basin Highlight Report Cycle



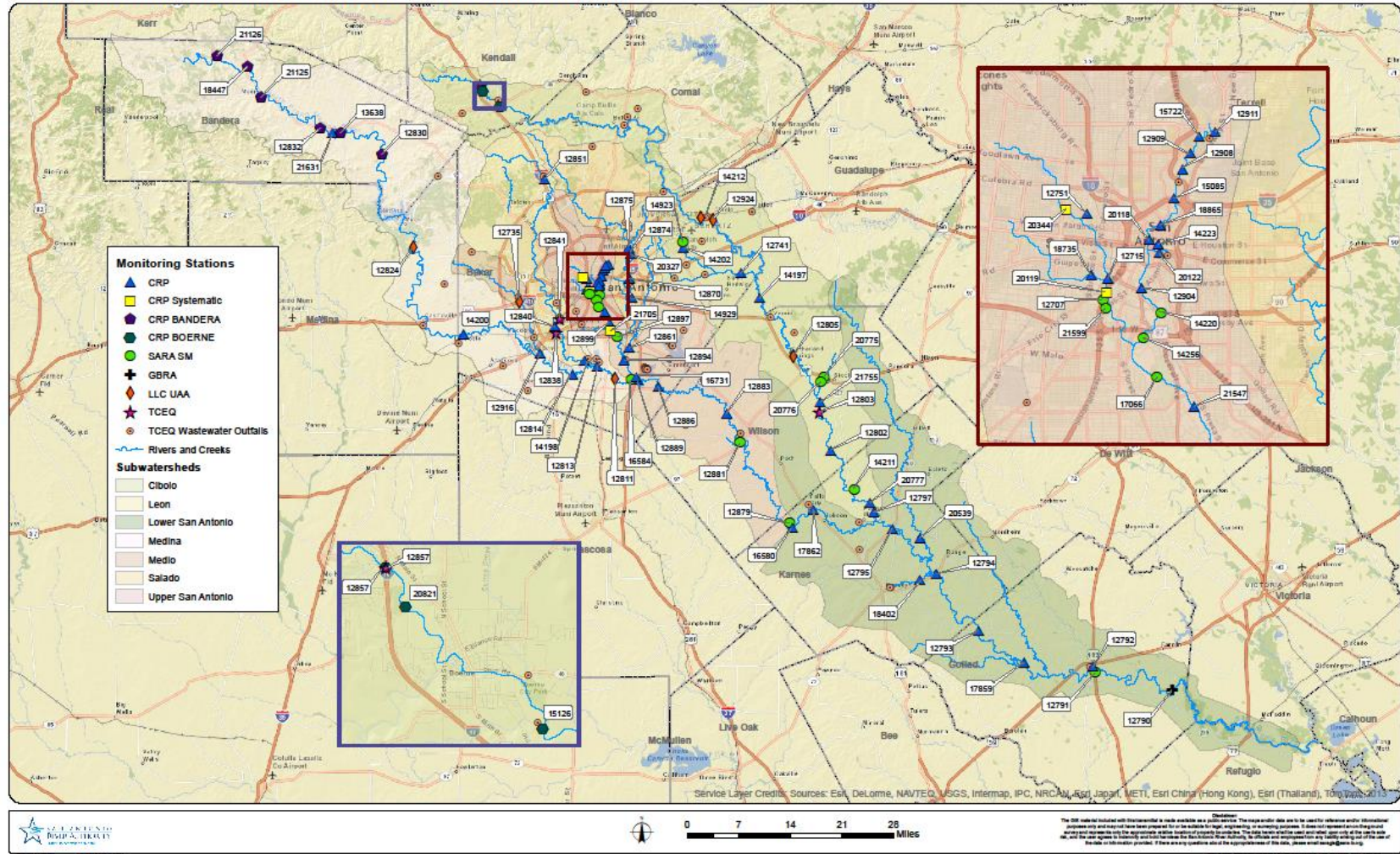
CRP 2018 Basin Summary Report

- Watershed location, number of segments, assessment units, and monitoring stations
- Segment descriptions, land uses, and permitted facilities
- Impairments, Concerns, and Special Projects
- Technical Discussions and Trending

Bullhead Minnow (*Pimephales vigilax*) Pre-Dorsal Scales



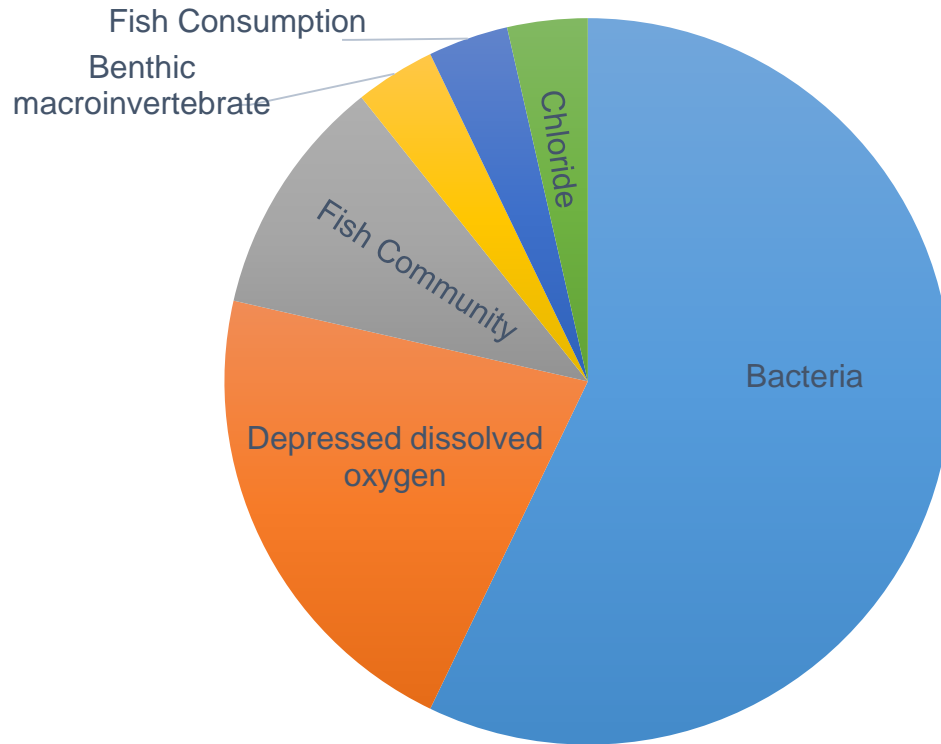
SAN ANTONIO RIVER BASIN 2016 CLEAN RIVERS PROGRAM MONITORING



0 7 14 21 28 Miles

The data included on this map is for informational purposes only. The map is not to be used for navigation or other purposes. The map is not to be used for navigation or other purposes. The map is not to be used for navigation or other purposes.

TCEQ 2014 Integrated Report Impairments



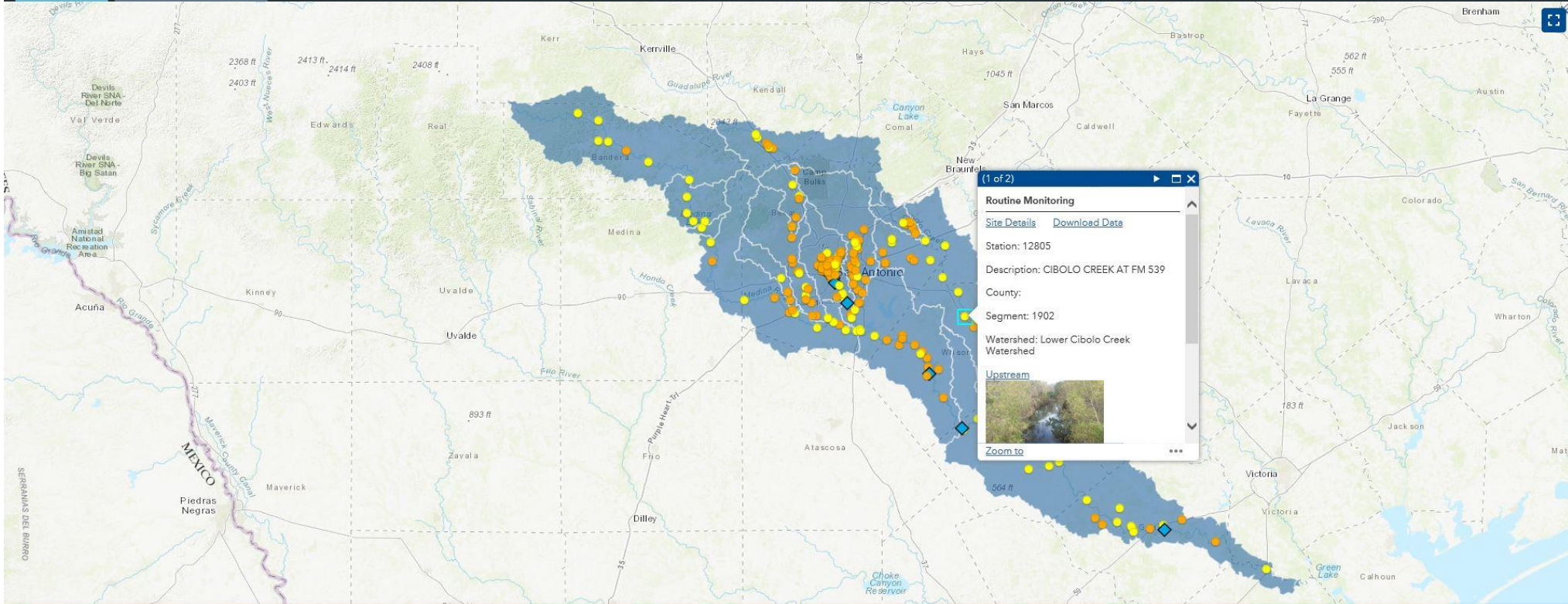
- Bacteria - 57.14%
- Depressed dissolved oxygen - 21.43%
- Fish community - 10.72%
- Benthic macroinvertebrate - 3.57%
- Fish consumption - 3.57%
- Chloride - 3.57%

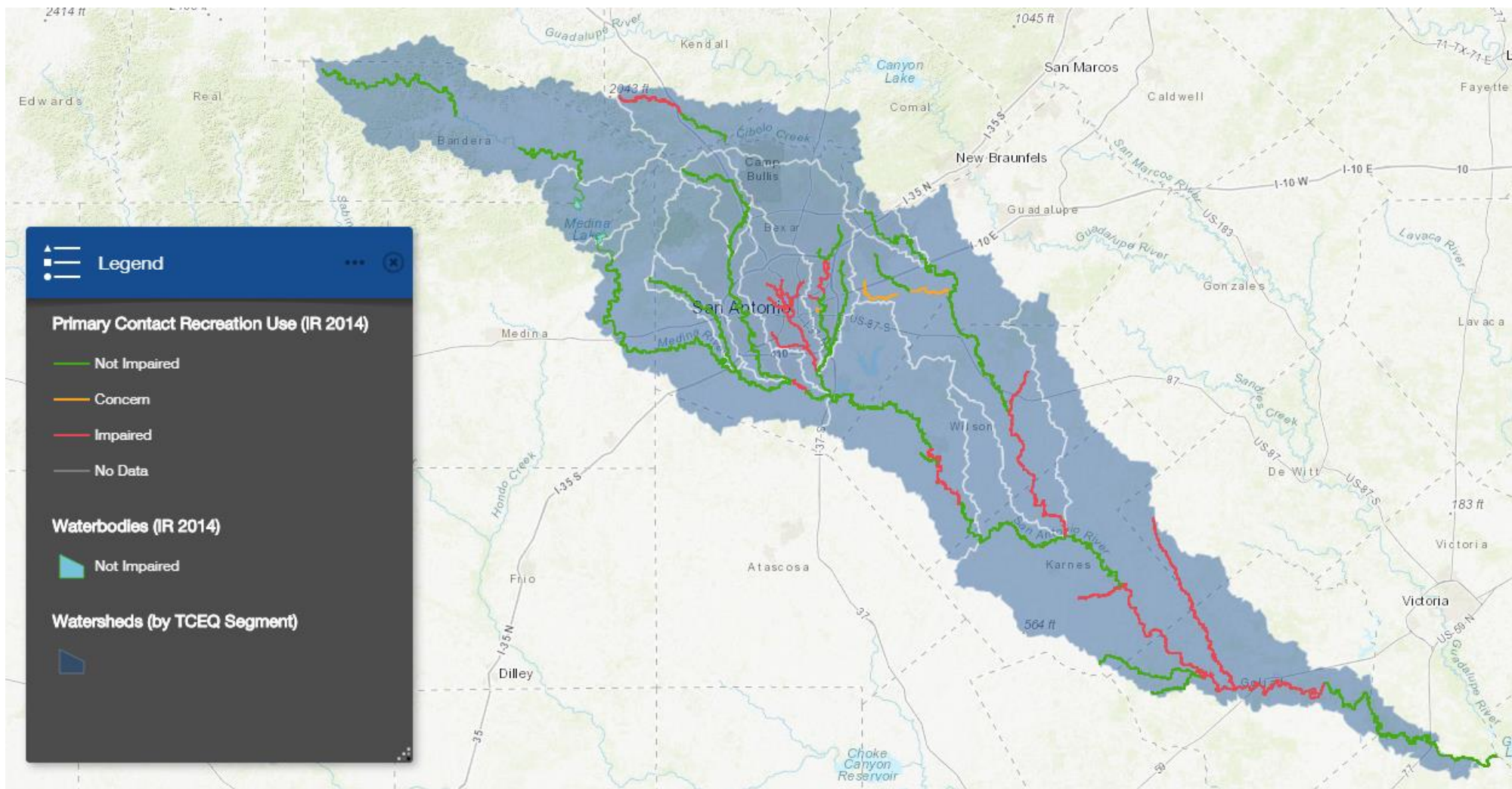


ESD Webviewer

- <https://sara-tx.maps.arcgis.com/apps/MapSeries/index.html?appid=3a4ca132222e41589e6f41eebfe6d36d>







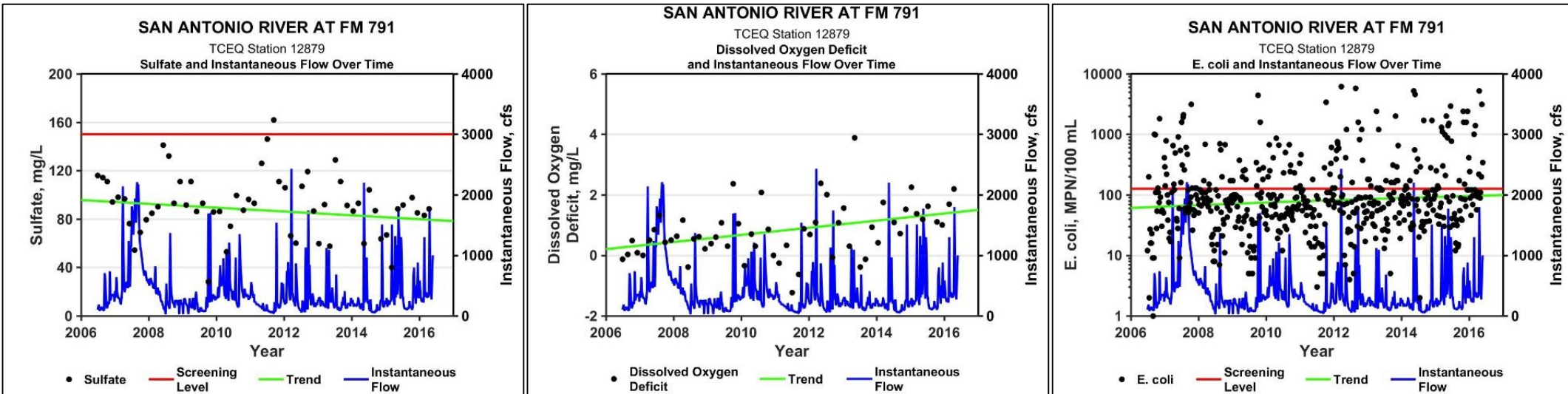
Significant Trends (June 2006-May 2016)

Table ES1: Significant Trends in the San Antonio River Basin

Watershed	AU	Abbreviated Descriptions	Flow	TSS	Chloride	Sulfate	Total Dissolved Solids	Dissolved Oxygen Deficit	TKN	pH Range	Temperature	E. coli	Ammonia Nitrogen	Nitrate Nitrogen	Total Phosphorus	Chlorophyll-a
Upper San Antonio River	1911_01	Station 12879 San Antonio River at FM 791 Southwest of Falls City				↓		↑	↑			↑				
	1911_08	Station 17066 San Antonio River downstream of the SAR and San Pedro Creek Confluence				↑				↑					↑	
	1911_09	Station 12908 San Antonio River at Woodlawn	↓	↑	↑	↑	↑	↑		↑				↑	↑	
Lower San Antonio River	1901_02	Station 12791 SAR Bridge on US 77-A and 183 Southeast of Goliad									↓			↑		↓
	1901_02	Station 17859 SAR at North Riverdale Road 15 KM (9.32 miles) West of Goliad		↓		↓		↑			↓					↓
	1901_04	Station 12794 SAR at SH 72 near Runge	↓							↑	↓			↑	↑	↓
Upper Cibolo Creek	1908_01	Station 16702 Cibolo Creek SE of Boerne downstream end of City Park in the Nature Preserve									↓					
Mid Cibolo Creek	1913_08	Station 14212 Cibolo Creek Upstream of Cibolo Creek Municipal Authority's WWTP	↓		↓							↑				↓
Lower Cibolo Creek	1902_02	Station 14211 - Cibolo Creek at CR 389 near Cestohowa Texas				↓	↓		↑		↓			↑		
	1902_05	Station 14197-Cibolo Creek at Sculls Crossing		↑	↑					↑	↑					
Upper Medina River	1905_01	Station 12830 Medina River at Old English Crossing above Bandera Falls			↑							↑				
Medina Lake	1904_01	Station 12825-Medina Lake at Medina Lake Dam West of San Antonio				↑	↑									
Medina Diversion Lake	1909_01	Station 18407 Medina Diversion Lake Near Dam				↑										
Lower Medina River	1903_02	Station 12813- Medina River at Cassin Crossing	↓	↓	↑		↑	↑			↓			↑	↑	↓
	1903_01	Station 12811- Medina River at FM 1937			↑		↑				↓	↑	↑	↑	↑	↓
Upper Leon Creek			Insufficient Data													
Lower Leon Creek	1906_01	Station 14198 Leon Creek Upstream from Leon Creek WWTP				↓	↓	↑						↓	↓	↑
Salado Creek	1910_01	Station 12861 Salado Creek at Southton Road			↓	↓	↓			↓		↑		↓	↓	
	1910_02	Station 12870 Salado Creek at Gemblar Road	↓	↓				↑		↓	↓			↓	↓	
	1910_03	Station 12874 Salado Creek at Rittiman Road	↓					↑		↓	↓	↑			↓	↓
Medio Creek	1912_01	Station 12916 Medio Creek at Hidden Valley	↓	↓		↓			↑	↑		↑				↑



Upper San Antonio River



Accomplishments

- Upper San Antonio River Bacteria WPP - 2015
- Upper San Antonio River Bacteria TMDL I- Plan - 2016
- Lower San Antonio River Bacteria TMDL I-Plan – underway
- Mid and Lower Cibolo Creek Bacteria WPP - underway
- Increase Zebra Mussel Awareness





Accomplishments

- Upper Cibolo Creek Aquatic Life Monitoring
- Upper Medina River Aquatic Life Monitoring
- Lower Leon Creek Use Attainability Analysis
- Cibolo Creek Watershed Segment Boundary Re-Definition Effort
- Delisting of the Lower Cibolo Creek 1902_02 for fish community





Questions?