

Texas Stream Team

Clean Rivers Program Steering Committee Meeting March 20, 2014

Prepared in cooperation with the Texas Commission
on Environmental Quality and U.S. EPA.

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Texas Commission on Environmental Quality.



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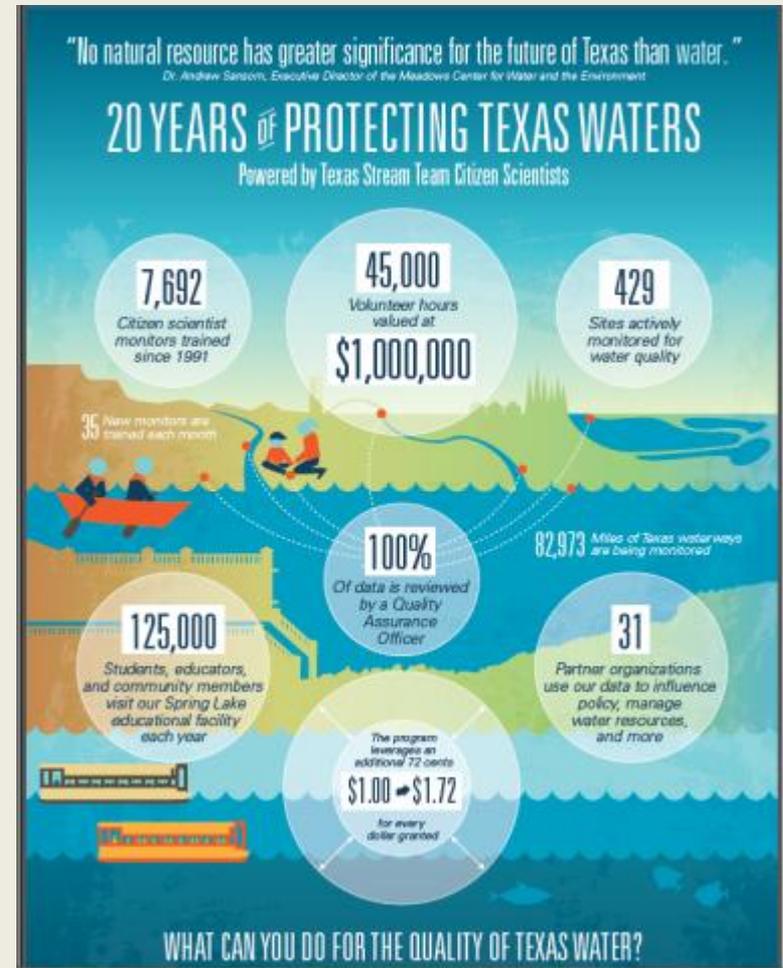
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TEXAS STREAM TEAM STRUCTURE



PROGRAM DATA

- 7,692 trained citizen scientists since 1991
- 45,000 volunteer hours
- 429 actively monitored sites
- 82,973 miles of Texas waterways monitored
- 35,146 monitoring events



How Are The Data Used?

THE DATAVIEWER

Texas Stream Team
Caring for Our Waters

Texas Stream Team Water Quality Data

Retrieve detailed water quality information collected by volunteer monitors for the State of Texas

Click on any of the icons on the map to the right to retrieve detailed water quality data for that location. You can zoom and pan around the map as you can with any other [Google Maps](#) application. The information on the TST water quality data site is principally designed for use by volunteer water quality monitors and is subject to revision.

Toggle map data below

Monitoring Stations

- Currently Monitored
- Not Currently Monitored

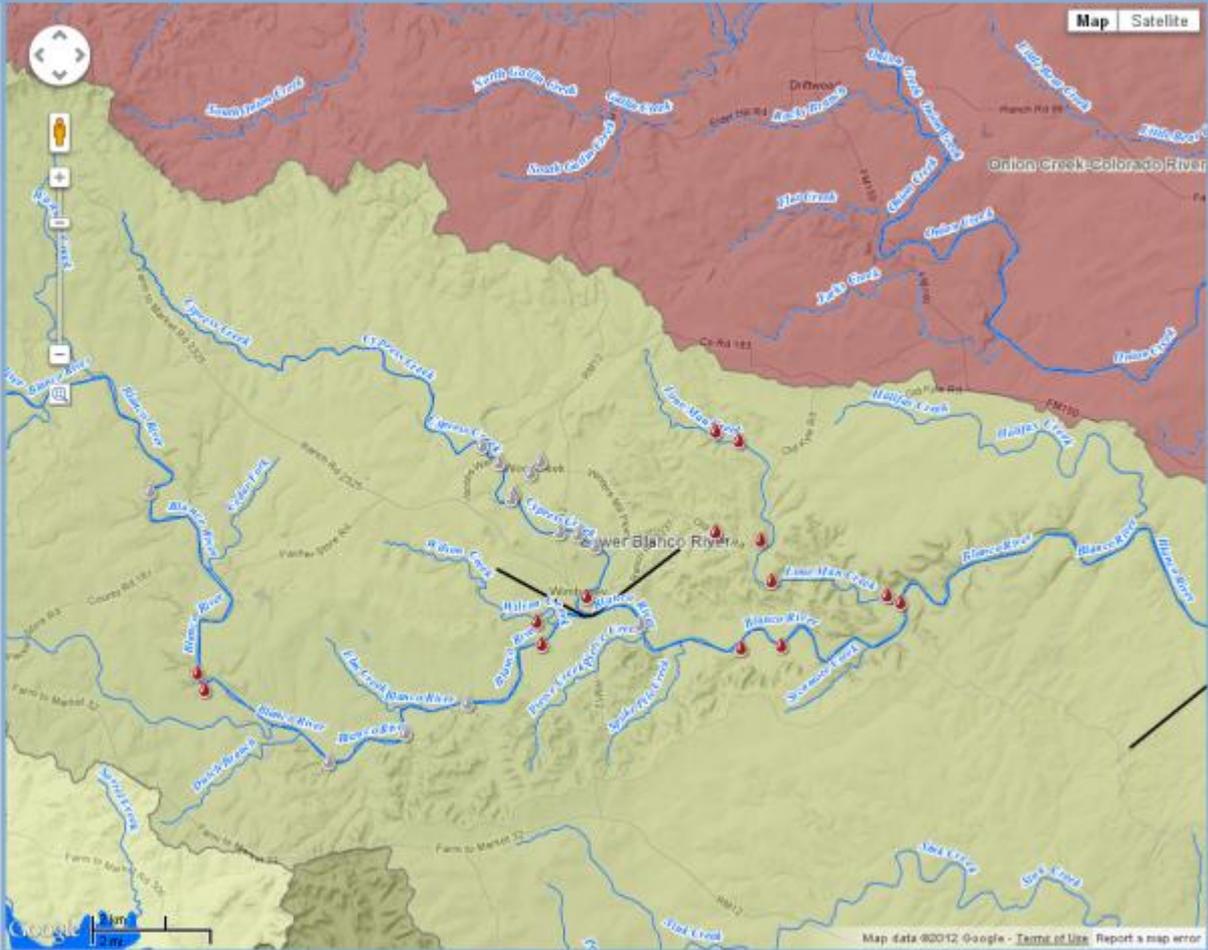
Base Map Data

- Stream Overlay
- Watershed Overlay
- County Boundaries

Other Data

- Wastewater Outfalls

Disclaimer: Data is automatically retrieved and subject to revision.



Map data ©2012 Google - Terms of Use Report a map error

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THE DATAVIEWER

Texas Stream Team														Log In
Caring for Our Waters														
SITE: 80443 Download Data View Map														
CYPRESS CREEK AT OLD KYLE ROAD														
Date	Time	Air Temp (C)	Water Temp (C)	Flow	pH	Nitrates-N (mg/L)	DO Avg (mg/L)	Cond (µS/cm)	Days Since Rain	Rainfall (in.)	GTI-T	Secchi (M)	E.coli (cfu's)	
9/5/2012	09:00	26.0	25.0	2	7.5		5.8	570	21	0.0	>	1.2		
5/27/2012	09:00	24.0	24.0	3	7.4		6.0	540	11	0.0		1.0		
5/7/2012	09:00	21.0	21.0	3	7.4		6.8	550	0	1.5		0.9		
3/18/2012	09:00	21.0	20.0	3	7.4		7.4	580	2	2.4		0.9		
1/22/2012	09:00	16.0	15.0	2	7.4		7.3	620	11	0.0		0.8		
12/21/2011	09:00	9.0	12.0	2	7.2		7.3	590	2	0.3		0.9		
8/24/2011	09:00	28.0	26.0	2	7.4		4.0	590	36	0.0	>	7.0		
7/12/2011	09:00	27.0	26.0	2	7.4		4.5	620	21	0.0	>	0.8		
6/19/2011	14:10	30.8	26.0	2	8.0		3.5	600		0.0		1.0	480	
5/15/2011	09:00	21.0	19.0	2	7.4		5.8	600	13	1.0		0.9		
3/20/2011	09:00	20.0	19.0	2	7.4		7.2	580	30	0.0		0.8		
2/27/2011	09:00	20.0	17.0	2	7.4		7.0	620	28	0.0		0.8		
1/29/2011	14:00	20.5	19.0	2								3.0	230	
1/23/2011	09:00	12.0	10.0	2	7.4		9.2		7	0.0		0.9		
12/12/2010	09:00	8.0	13.0	2	7.4		7.7	590	39	0.0	>	0.9		
11/15/2010	09:00	11.0	16.0	2	7.8		7.2	600	12	0.0	>	0.8		
10/24/2010	13:23	23.0	22.0	3	8.0		7.8	560				0.8	280	
10/3/2010	09:00	18.0	20.0	2	8.0		8.1	570	9	0.0	>	0.9		
9/5/2010	10:40	26.0	25.0	2	8.5			530			>	1.8	270	
9/5/2010	09:00	26.0	27.0	1			6.1	570	2	1.2		0.9		
8/20/2010	15:41	28.0		2				580				2.5		
8/26/2010	13:25	25.5	26.0	3	8.0		11.6	550		0.0	>	2.2	14	
5/31/2010	09:00	24.0	23.0	2	7.7		6.6	570	8	0.0	>	0.9		
2/10/2010	13:08	6.0	5.2	3	8.0		11.8	580	1			1.4	100	
1/23/2010	14:00	19.0	7.5	3	7.9		7.6	590	3			2.8	40	
12/19/2009	12:00	14.0	13.0	2	8.0		5.0	620	2			1.0	70	
11/8/2009	09:00	19.0	19.0	2	7.6		7.6	580	13	0.0	>	0.9		
10/2/2009	09:00	19.0	21.0	2	7.4		5.7	670	9	0.0	>	0.8		
8/30/2009	09:00	24.0	23.0	2	7.4		3.5	570	3	0.2	>	0.2		
4/15/2009	09:00	17.0	16.0	2	7.4		6.2	560	8	0.0		0.8		
3/15/2009	09:00	12.0	13.0	3	7.5		7.5	550	3	2.5		1.2		
2/8/2009	09:00	17.0	16.0	2	7.4			580	30	0.0		0.7		
1/4/2009	09:00	17.0	18.0	2	7.4		6.6	580	60	0.0		0.8		

DATA REPORTS

- Upper San Marcos Data Report: Submitted to TCEQ.
 - 1,880 samples taken between 1995 and 2013.
- Cypress Creek Data Report: In progress.

Upper San Marcos Watershed Data Report DRAFT

December 2013



THE MEADOWS CENTER
FOR WATER AND THE ENVIRONMENT
TEXAS STATE UNIVERSITY



TEXAS STATE
UNIVERSITY
SAN MARCOS
The rising STAR of Texas

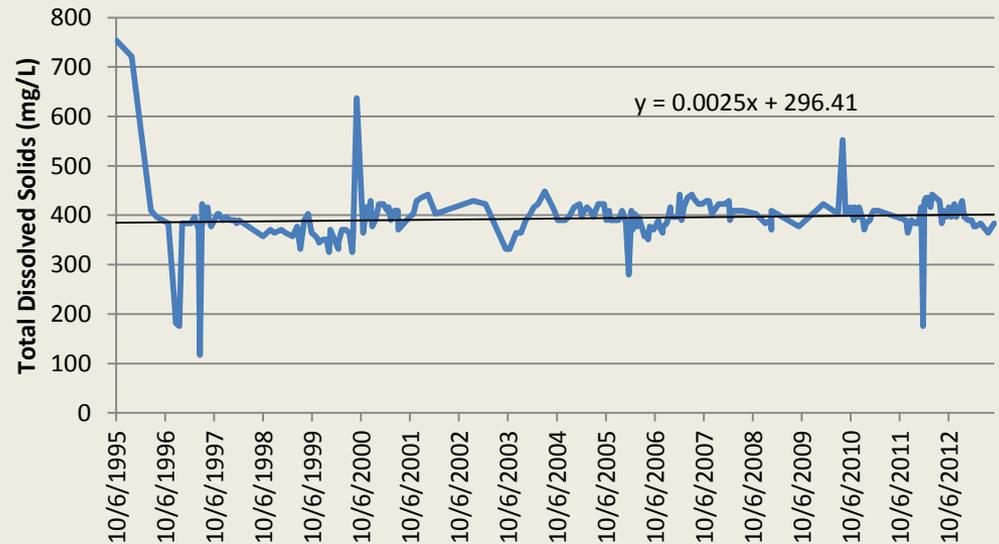
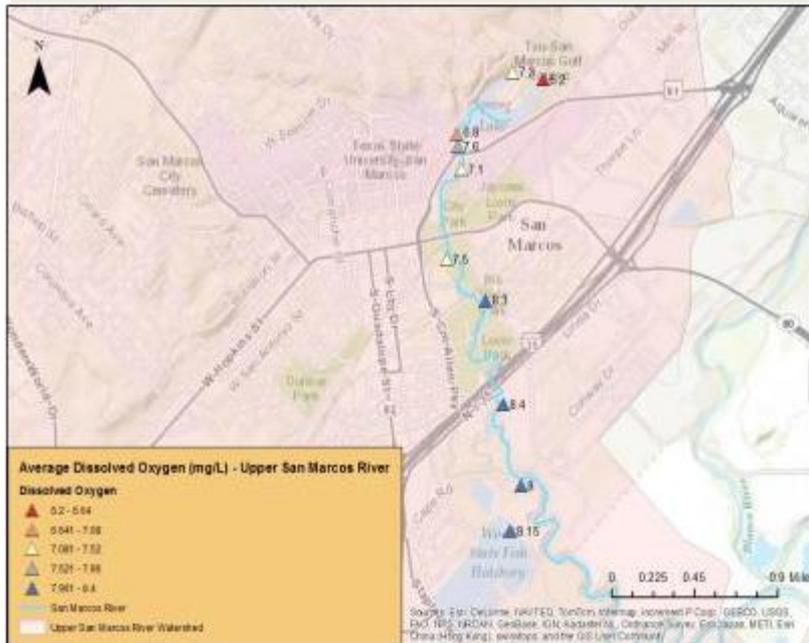


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DATA REPORTS

- Comprehensive Watershed Analysis
- GIS Mapping
- Site by Site Analysis

Upper San Marcos September 1995 – November 2013				
Parameter	% Complete	Mean ± Standard Deviation	Min	Max
Total Dissolved Solids (mg/L)	86.8%	399.2 ± 62.2	117.0	819.0
Water Temperature (°C)	96.5	21.6 ± 2.9	0	36.5
Dissolved Oxygen (mg/L)	92.2	7.6 ± 1.6	1.1	12
pH	96.2	7.6 ± .3	5.3	9.8
E. coli Bacteria (CFU/100 mL)	1.0	110 ± 183	0	633.3



SAN MARCOS WATERSHED INITIATIVE

- Upper San Marcos Dataset being used to calibrate models for SMWI.
- Data collected by San Marcos River Rangers and supported by San Marcos River Foundation



CYPRESS CREEK

- Texas Stream Team Citizen Scientists mean more eyes on the water.
- Fish Kill on Cypress Creek in September
 - 25 – 30 sunfish and bass died below the second dam in Woodcreek
- Witnessed by Nancy Russell – A Texas Stream Team Citizen Scientist who contacted TPWD Kills and Spills
- Likely cause of fish kill: Low DO due to low flow conditions, and sulfur dioxide in the bottom layer of water from anaerobic respiration that was mixed in the entire water column after a recent rain event.

TST PADDLERS

- Implementing a new program.
- Encourage paddlers to get involved in citizen science.
- Paddlers are on the water consistently, and can access locations that monitors from land can't.
- TST Paddlers potential locations:
 - Guadalupe River
 - Blanco River
 - San Marcos River
 - Lake Dunlap



Thank you