



Sabine River Basin Program Update 2014

*Prepared in Cooperation with the Texas Commission on Environmental Quality
under the Authorization of the Texas Clean Rivers Act*



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Sabine River Authority of Texas
P.O. Box 579
Orange, TX 77631
Phone (409) 746-2192
Fax (409) 746-3780

Introduction

Through the Texas Clean Rivers Program (TCRP), the Texas Commission on Environmental Quality (TCEQ) forms partnerships with regional water authorities to coordinate and conduct water quality monitoring, and to promote stakeholder interest to assist in improving the water quality of Texas surface waters. The Sabine River Authority of Texas (SRA-TX) is the planning agency for all TCRP activities within the Sabine River Basin.



Sabine River at US 190

The Sabine River Basin Program Update 2014 Report provides stakeholders with a summary of TCRP activities and water quality within the Sabine Basin over the past year. Included in this report are water quality monitoring highlights, public outreach activities, and a summary of basin water quality impairments and concerns from the 2012 Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d). A more thorough discussion of water quality within the Sabine Basin can be found in the Sabine River Basin 2013 Summary Report:

http://www.sratx.org/srwmp/tcrp/state_of_the_basin/summary_reports/default.asp

This Year's Highlights

The SRA-TX monitored 37 sites monthly within the Sabine Basin. An additional 22 sites were monitored by other entities including the TCEQ, Texas Institute for Applied Environmental Research (TIAER) and the City of Longview. Drought conditions persisted during 2014 with lower than normal lake levels and flows throughout the upper basin. The majority of water quality data continues to meet Texas Surface Water Quality Standards (TSWQS) and screening criteria. Bacteria, *Enterococcus* or *Escherichia coli* (*E. coli*), was the most commonly exceeded TSWQS parameter. Potential bacteria sources include storm water runoff from natural and urban areas, birds and other wildlife, on-site treatment systems and municipal point source discharges.

In August 2014, a 24-hour Dissolved Oxygen (DO) Study at site 21590 on Grace Creek (Segment 0505B) was initiated with the TCEQ under the TCRP for reassessment of a DO impairment. This study will be completed in October 2015 and will include a total of nine sampling events.

The Orange County Total Maximum Daily Load (OCTMDL) Project was initiated in 2002 to address low DO and elevated bacteria in Adams Bayou (Segment 0508), and to address low DO, low pH and elevated bacteria in Cow Bayou (Segment 0511). On January 21, 2015, the TCEQ Commissioners approved sending the OCTMDL Implementation Plan (I-Plan) out for public comment from February 6, 2015 through March 9, 2015.

Public Involvement / How to get involved

- The SRA-TX provides opportunities for public involvement by stakeholders. The 2014 Sabine Basin Steering Committee meetings were held in Orange, Longview and Emory, Texas, and allowed stakeholders to stay current on water quality concerns and participate in planning water quality monitoring in the basin. For more information concerning Sabine Basin Steering Committee meetings, please contact Terry Wilson at (903) 878-2420 or twilson@sratx.org.
- Coordinated Monitoring meetings are held in conjunction with the Steering Committee meetings and allow stakeholders to provide input on sample event scheduling, sample site locations, and additional sampling needs.
- The SRA-TX partners with Texas Stream Team, a citizen monitoring program of The Meadows Center for Water and the Environment at Texas State University. SRA-TX supports this program by providing sampling kits to volunteer monitors throughout the Sabine Basin.
- The SRA-TX provides assistance in the adoption process of the OCTMDL I-Plan by publicizing and facilitating stakeholder and issue-specific meetings. Additional information may be found at <http://www.sratx.org/srwmp/octmdl/>.
- Current and past water quality reports and historical monitoring data are available to the public at http://www.sratx.org/srwmp/tcrp/state_of_the_basin/.
- The SRA-TX participates in public outreach by giving presentations to area schools and civic groups, participating at environmental events, and hosting tours of SRA-TX facilities.
 - Sabine County Ag Day Water Quality Booth
 - Mineola MS Junior High Science Class



OC TMDL Stakeholder Meeting

Water Quality Monitoring

Table 1. 2014 Sabine River Basin Water Quality Monitoring Entities and Frequency

Monitoring Entity	Frequency
SRA-TX	37 sites monthly
TCEQ	18 sites quarterly / 2 sites annually
City of Longview	1 site, 9 months per year
TIAER	1 site monthly



Sabine River at SH 63

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Table 2. Sabine Basin Segment water quality impairments and concerns from the 2012 Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d)

Segment Number	Description	Impairment	Concern
0501	Sabine Basin Tidal	Bacteria, PCBs in edible tissue	
0501B	Little Cypress Bayou*	DO, Bacteria, Toxicity in Water	Orthophosphate, DO
0502_01	Sabine River from Old River up to Indian Bayou		DO
0502A	Nichols Creek*	DO, Bacteria,	
0502B	Caney Creek*	Bacteria	
0502E	Cypress Creek*	DO	Impaired habitat and macrobenthic community
0504	Toledo Bend	Mercury in edible tissue	
0504_06	Tenaha Creek Arm		Orthophosphate
0504_07	Uppermost 5120 acres of Reservoir		DO, Nitrate-nitrogen, Chlorophyll-a
0504_09	San Miguel Arm		pH
0504_10	San Patricia Arm		DO
0504_11	Toledo Bend near Buzzard Bend		Chlorophyll-a
0504E	Clear Lake*	Mercury in edible tissue	
0505_04	Sabine River Above Toledo Bend Reservoir	Bacteria	
0505B_02	Grace Creek*	Bacteria, DO	Impaired macrobenthic community
0505D	Rabbit Creek*		Bacteria
0505G	Wards Creek*	DO	Impaired habitat, Ammonia
0505O	Hills Lake*	Mercury in edible tissue	
0506_02	Sabine River from Big Sandy Creek to Lake Fork Creek		Chlorophyll-a
0506_03	Sabine River from Lake Fork Creek to Grand Saline Creek		Bacteria
0506_04	Sabine River from Grand Saline Creek to SH19		DO, Chlorophyll-a
0506A	Harris Creek*	DO	Bacteria, DO
0506C_01	Wiggins Creek*		Ammonia
0506C_02	Wiggins Creek*		DO
0506H	Lake Gladewater		Chlorophyll-a

* Unclassified Water Body
 ** Included in Orange County Total Maximum Daily Load Project

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Table 2 cont. Sabine Basin Segment water quality impairments and concerns from the 2012 Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d)

Segment Number	Description	Impairment	Concern
0507	Lake Tawakoni		Chlorophyll-a
0507_04	Cowleech Fork of Sabine River Arm	pH	
0507_05	South Fork Sabine River around Kitsee Inlet		Chlorophyll-a, Orthophosphate
0507A_01	Cowleech Fork * Lower 10 miles		DO, Nitrate-nitrogen, Orthophosphate,
0507A_02	Cowleech Fork * Upper 20 miles		Chlorophyll-a
0507B	Long Branch*		Nitrate-nitrogen
0507G	South Fork of Sabine River*	Bacteria	
0507H	Caddo Creek*		DO
0508	Adams Bayou Tidal**	DO, Bacteria	DO, pH
0508A	Adams Bayou Above Tidal **	DO	
0508B	Gum Gully**	DO, Bacteria	
0508C	Hudson Gully **	DO, Bacteria	DO, Orthophosphate
0509	Murvual Lake		Chlorophyll-a
0510	Lake Cherokee		pH, DO
0511	Cow Bayou Tidal**	DO, Bacteria, pH	DO
0511A	Cow Bayou Above Tidal **	DO	DO
0511B	Coon Bayou**	DO, Bacteria	DO
0511C	Cole Creek**	DO	DO
0511E	Terry Gully**	Bacteria	DO, Orthophosphate
0512_03	Lake Fork (Running Creek Cove)		Orthophosphate
0512_05	Uppermost area of the Lake Fork Creek Arm		pH, Chlorophyll-a
0512A	Running Creek*	Bacteria	DO, Nitrate-nitrogen, Ammonia
0512B	Elm Creek*	Bacteria	DO, Ammonia
0513	Big Cow Creek		Chronic toxicity of lead
0514	Big Sandy Creek	Bacteria	
0514_02	Upstream of FM49 to upper end of segment		DO, Chlorophyll-a
* Unclassified Water Body			
** Included in Orange County Total Maximum Daily Load Project			

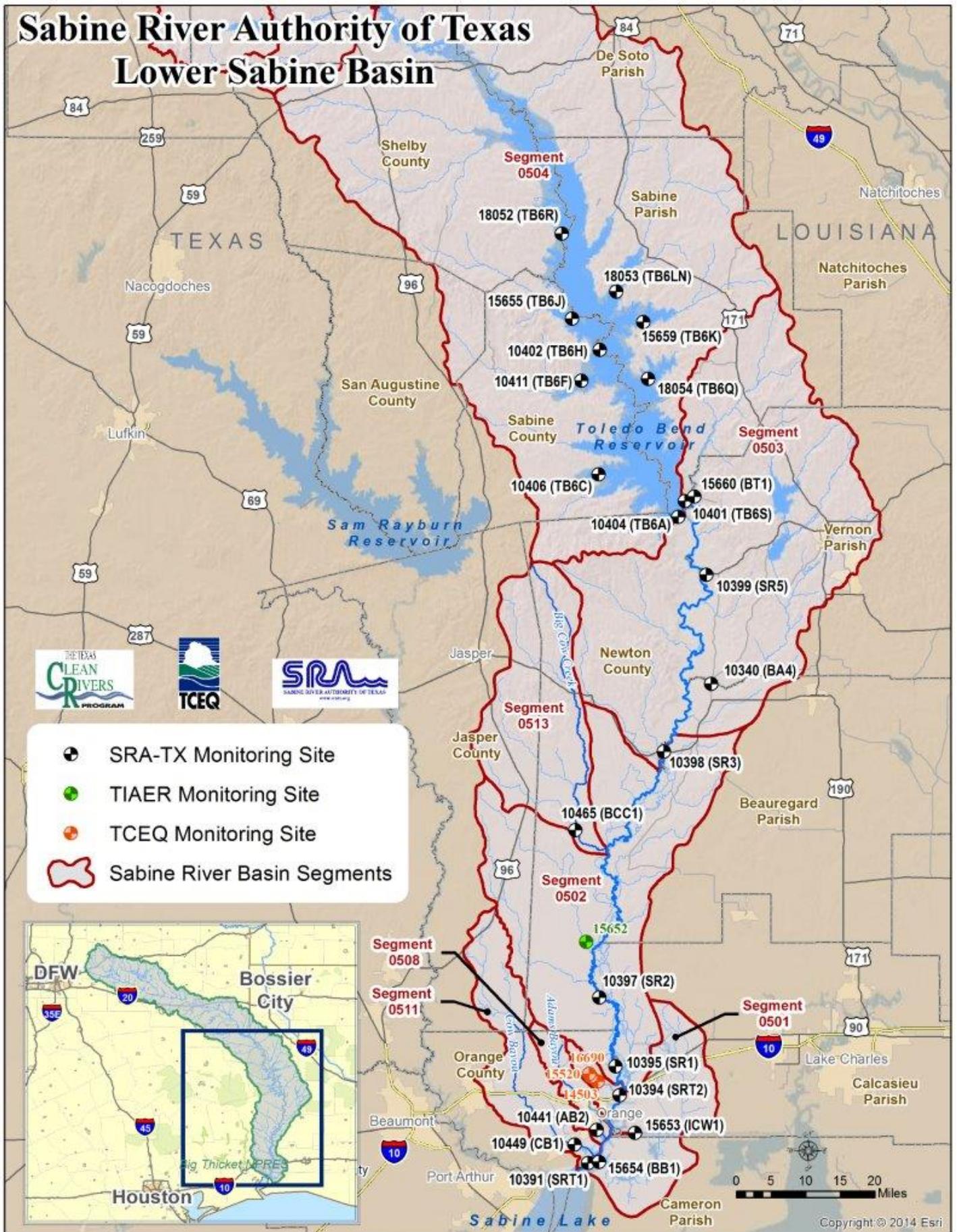


Table 3. Lower Basin Monitoring Entities, Sites and Frequencies

Segment Number	Segment Name	Monitoring Entity	Number of Sites	Frequency
0501	Sabine River Tidal	SRA-TX	4	Monthly
		TCEQ	3	Quarterly
0502	Sabine River Above Tidal	SRA-TX	2	Monthly
		TIAER	1	Monthly
0503	Sabine River Above Caney Creek	SRA-TX	5	Monthly
0504	Toledo Bend Reservoir	SRA-TX	9	Monthly
		TCEQ	1	One-time survey
0508	Adams Bayou Tidal	SRA-TX	1	Monthly
0511	Cow Bayou Tidal	SRA-TX	1	Monthly
0513	Big Cow Creek	SRA-TX	1	Monthly



Lower Sabine River

Table 4. Upper Basin Monitoring Entities, Sites and Frequencies

Segment Number	Segment Name	Monitoring Entity	Number of Sites	Frequency
0505	Sabine River Above Toledo Bend Reservoir	SRA-TX	3	Monthly
		TCEQ	3	Quarterly
			1	One-time survey
0506	Sabine River Below Lake Tawakoni	SRA-TX	3	Monthly
		TCEQ	6	Quarterly
0507	Lake Tawakoni	SRA-TX	3	Monthly
0509	Murvaul Lake	TCEQ	1	Quarterly
0510	Lake Cherokee	City of Longview	2*	9 times
0512	Lake Fork Reservoir	SRA-TX	3	Monthly
		TCEQ	1	Quarterly
0514	Big Sandy Creek	SRA-TX	1	Monthly
		TCEQ	1	Quarterly
0515	Lake Fork Creek	SRA-TX	1	Monthly
		TCEQ	1	Quarterly

*Monitoring at site 15195 discontinued in March 2014



Sunset over Lake Tawakoni