Sabine River Basin

Program Update Report 2019

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Prepared in Cooperation with the Texas Commission on Environmental Quality
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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 in improving the water quality of Texas surface waters. The Sabine River Authority of Texas (SRA-TX) is the TCRP planning agency within the Sabine River Basin.

The Sabine River Basin Program Update Report 2019 provides stakeholders with a summary of TCRP activities and water quality within the Sabine Basin from September 2018 through August 2019. Included in this report are water quality monitoring highlights, public outreach activities, and a list of Sabine Basin water quality impairments and concerns from the 2018 Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d) [1]. The period of record used for the Integrated Report was from September 2009 through November 2016. A more thorough discussion of water quality within the Sabine Basin can be found in the Sabine Basin Summary Report 2018[2] .

This Year's Highlights

The SRA-TX monitored 39 sites monthly within the Sabine Basin which included 37 routine sites and two permit support sites, one on Hawkins Creek (Segment 0505) and one on Little Saline Creek (Segment 0506). An additional 15 sites were monitored by other entities including the TCEQ and the City of Longview (Table 1). Inclement weather, elevated flows or boat ramp access prevented SRA-TX from sampling at three sites during several scheduled sampling events. The Sabine Basin 2019 Coordinated Monitoring Schedule[3] provides a detailed list of TCRP monitoring activities within the basin.

The majority of water quality data continues to meet Texas Surface Water Quality Standards (TSWQS) (Tables 3 - 8). The most frequently exceeded standard within the basin was for bacteria, *Enterococcus* or *E. coli.* During periods of significant rainfall and increased stream turbidity, elevated levels of bacteria continued to be detected. Potential sources of bacteria are attributed primarily to non-point sources including storm water runoff from natural and urban areas, birds and other wildlife. Additional sources may include industrial and municipal point source discharges, on-site treatment

[1] Commission adopted second submission of the Draft 2018 303(d) List September 27,2019, https://www.tceq.texas.gov/waterquality/assessment/18twqi/18txir, EPA adopted second submission 12/23/19
[2] https://www.sratx.org/about/forms/#clean-rivers-program accessed 12/31/2019.
[3] https://cms.lcra.org/schedule.aspx?basin=5&FY=2019 accessed 12/31/2019

systems, sanitary sewer overflow discharges, and package plant or other permitted small flow discharges[4]. Depressed dissolved oxygen was the most frequently observed parameter of concern. A concern is when a parameter is near non-attainment based on TSWQS numeric criteria. An exceedance is when a parameter exceeds the TSWQS numeric criteria. Depressed dissolved oxygen levels are not uncommon in small, unclassified, rural, low gradient streams with seasonal flow.

Three Sabine Basin water bodies were added to the 2018 Texas Integrated Report 303(d) list which identified impaired waterbodies or those not meeting the TSWQS. Lake Cherokee (Segment 0510) was listed for sulfate; Big Cow Creek (Segment 0513_01) was listed for bacteria; and Big Sandy Creek (Segment 0514_02) was added for pH. There were no water bodies removed from the 2018 Texas Integrated Report 303(d) list.

The Orange County Total Maximum Daily Load (OCTMDL) Project was initiated in 2002 to address low dissolved oxygen and elevated bacteria in Adams Bayou (Segment 0508) as well as to address low dissolved oxygen, low pH, and elevated bacteria in Cow Bayou (Segment 0511). Measures to reduce these impairments were developed by stakeholders with the support of TCEQ. Stakeholders reported the measures to the public in an implementation plan (I-Plan) which was given final approval by the TCEQ on August 5, 2015. The latest stakeholder activities were submitted to TCEQ on August 29, 2019. TCEQ updates to the TMDL for both Adams and Cow Bayous, are due to be completed over the next fiscal year.

Public Involvement / How to Get Involved

The SRA-TX provides opportunities for public involvement by stakeholders. The 2019 Sabine Basin Steering Committee meetings were held in Orange, Longview, and Emory, TX, 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 ubfo@sratx.org.

Coordinated Monitoring meetings are held in conjunction with the Steering Committee meetings and allow various entities to coordinate monitoring efforts and 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 volunteers throughout the Sabine Basin.

The SRA-TX provided assistance in the adoption process of the OCTMDL I-Plan by publicizing and facilitating stakeholder and issue-specific meetings. Additional information may be found on the SRA-TX OCTMDL page[5].

Current and past water quality reports[6] and historical monitoring data are available to the public.

[4] TCEQ Potential Sources of Impairments and Concerns , https://www.tceq.texas.gov/assets/public/waterquality/swqm/assess/18txir/2018_sources.pdf, accessed 1/9/2020
[5] https://www.sratx.org/water-quality/tmdl/ accessed 12/31/2019
[6] https://www.sratx.org/water-quality/water-quality-monitoring/ accessed 12/31/2019

Water Quality Monitoring

Table 1. 2019 Sabine River Basin Water Quality Monitoring Entities and Frequency

2019 Sabine River Basin Water Quality Monitoring				
Sampling Entity	**Field**	**Conventional**	**Bacteria**	**Metals in Water**
Sabine River Authority of Texas	37 sites monthly / 2 sites monthly for flow only			32 sites annually
TCEQ Region 5	10 sites quarterly / 3 sites monthly for bacteria only			
City of Longview	2 sites, 9 months per year			1 site annually

Table 2. Lower Basin Monitoring by Segment

Segment Number	Segment Name	Monitoring Entity	Number of Sites
0501	Sabine River Tidal	SRA-TX	4
0502	Sabine River Above Tidal	SRA-TX	2
0503	Sabine River Above Caney Creek	SRA-TX	5
0504	Toledo Bend Reservoir	SRA-TX	9
0508	Adams Bayou Tidal	SRA-TX	1
0511	Cow Bayou Tidal	SRA-TX	1
0513	Big Cow Creek	SRA-TX	1

Lower Sabine Tidal Near Cow Bayou

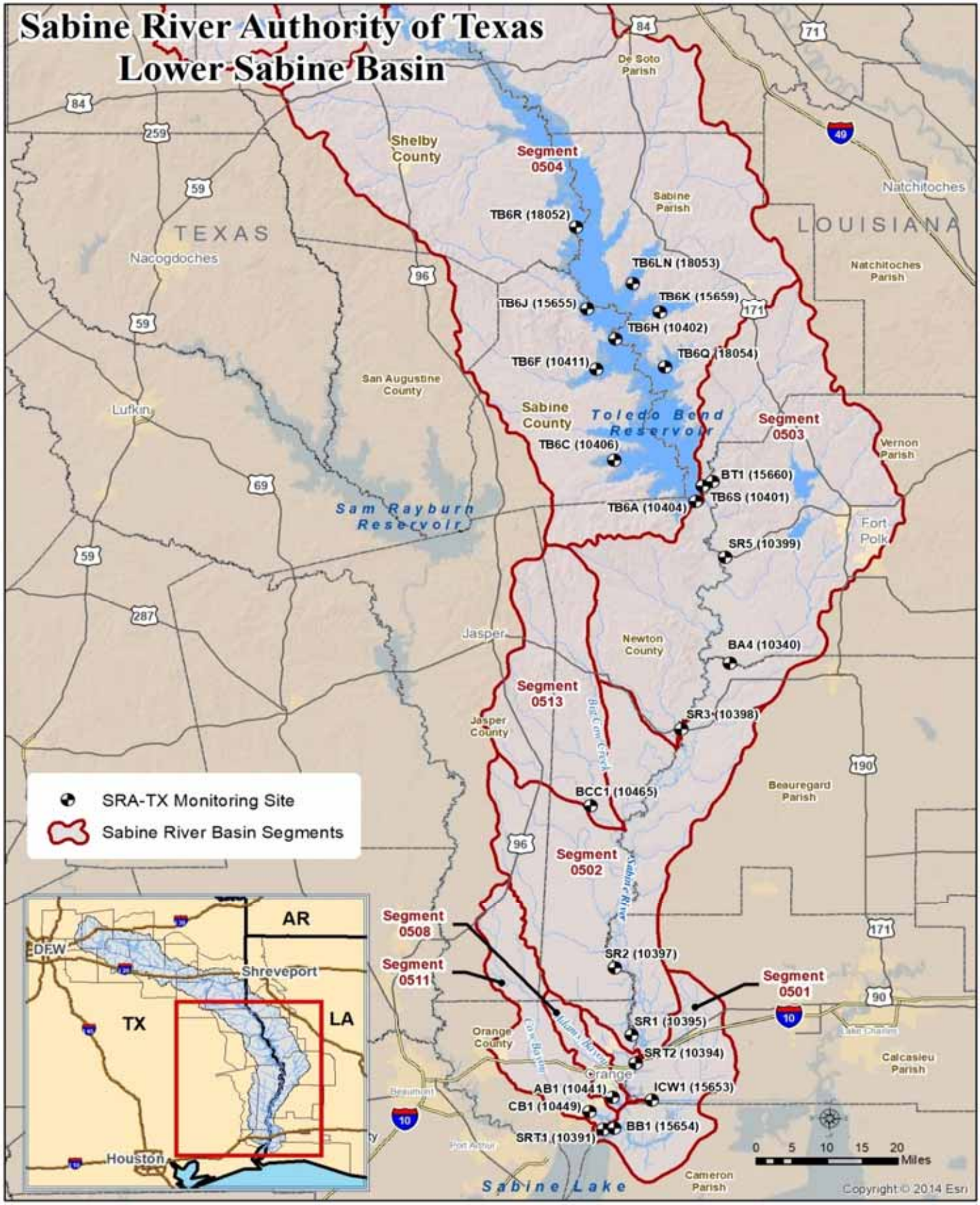
Sabine River Authority of Texas
Lower Sabine Basin
TEXAS
LOUISIANA
Nacogdoches
Lufkin
Shelby County
San Augustine County
Sabine County
Jasper
Jasper County
Newton County
De Soto Parish
Sabine Parish
Natchitoches
Natchitoches Parish
Vernon Parish
Fort Polk
Beauregard Parish
Orange County
Calcasieu Parish
Cameron Parish
Beaumont
Port Arthur
Orange
Lake Charles
Toledo Bend Reservoir
Sam Rayburn Reservoir
Sabine Lake
Segment 0504
Segment 0503
Segment 0513
Segment 0502
Segment 0508
Segment 0511
Segment 0501
TB6R (18052)
TB6LN (18053)
TB6K (15659)
TB6J (15655)
TB6H (10402)
TB6Q (18054)
TB6F (10411)
TB6C (10406)
BT1 (15660)
TB6S (10401)
TB6A (10404)
SR5 (10399)
BA4 (10340)
SR3 (10398)
BCC1 (10465)
SR2 (10397)
SR1 (10395)
SRT2 (10394)
ICW1 (15653)
AB1 (10441)
CB1 (10449)
BB1 (15654)
SRT1 (10391)
SRA-TX Monitoring Site
Sabine River Basin Segments
AR
LA
TX
DFW
Shreveport
Houston
0 5 10 15 20
Miles
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Table 3. Tidal Sabine River Segment water quality impairments and concerns from the 2018 Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d)

Segment Number	Description	Impairment	Concern	Importance
0501_01	Sabine Basin Tidal from confluence with Sabine Lake to West Bluff in Orange Co.	Bacteria, PCBs in edible tissue	None	Recreation use, Fish Consumption
0501_02	Sabine River tidal from Adams Bayou to Little Cypress Bayou	Bacteria, PCBs in edible tissue	None	Recreation use, Fish Consumption
0501_03	Sabine River tidal from Little Cypress to Old River at West Bluff	PCBs in edible tissue	None	Fish Consumption
0501B_01	Little Cypress Bayou from the Sabine River upstream to 340m downstream of 16th street in Orange	Depressed Dissolved Oxygen, Bacteria, Toxicity in Water	None	Aquatic life use, Recreation use
0501B_02	Little Cypress Bayou from 340m downstream of 16th street to an unnamed stream 100m downstream of Little Cypress Dr.	Depressed Dissolved Oxygen, Bacteria, Toxicity in Water	None	Aquatic life use, Recreation use
0501B_03	Little Cypress Bayou from the confluence of an unnamed stream 100m downstream of Little Cypress Dr. upstream to the headwater near the intersection of S Teal Rd and Dunromin Rd north of Orange	Depressed Dissolved Oxygen, Bacteria, Toxicity in Water	None	Aquatic life use, Recreation use
0508_01	Adams Bayou Tidal** lower 3 miles of segment	Depressed Dissolved Oxygen, Bacteria	Depressed Dissolved Oxygen	Aquatic life use, Recreation use
0508_02	Adams Bayou Tidal** 2-mile reach near Western Avenue	Depressed Dissolved Oxygen, Bacteria	Depressed Dissolved Oxygen	Aquatic life use, Recreation use
0508_03	Adams Bayou Tidal** 1-mile reach near Green Avenue	Depressed Dissolved Oxygen, Bacteria	Depressed Dissolved Oxygen	Aquatic life use, Recreation use
0508_04	Adams Bayou Tidal**Upper 2 miles of segment	Depressed Dissolved Oxygen, Bacteria	Depressed Dissolved Oxygen, pH	Aquatic life use, Recreation use, General use
0508A_01	Adams Bayou** from 1.1 km upstream IH10 to Orange County Line Relief Ditch	Depressed Dissolved Oxygen	None	Aquatic life use
0508B_01	Gum Gully** from confluence of Adam Bayou to upstream perennial portion of the stream	Dissolved Oxygen, Bacteria	None	Aquatic life use, Recreation use
0508C_01	Hudson Gully** from confluence with Adams Bayou to headwaters near US 890 in Orange County	Dissolved Oxygen, Bacteria	Depressed Dissolved Oxygen,	Aquatic life use, Recreation use

* Unclassified Water Body

** Included in OCTMDL Project

Table 3. cont. Tidal Sabine Basin Segment water quality impairments and concerns from the 2018 Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d)

Segment Number	Description	Impairment	Concern	Importance
0511_01	Cow Bayou Tidal** lower 5 miles	Bacteria	None	Recreation use
0511_02	Cow Bayou Tidal** 6-mile reach near FM 105	Depressed Dissolved Oxygen	None	Aquatic life use
0511_03	Cow Bayou Tidal** 5 miles reach near FM 1442 (north crossing)	Depressed Dissolved Oxygen, Bacteria	pH	Aquatic life use, Recreation use General use
0511_04	Cow Bayou Tidal** upper 4 miles	Depressed, Dissolved Oxygen, Bacteria, pH	Depressed Dissolved Oxygen	Aquatic life use, Recreation use, General use
0511A_02	Cow Bayou Above Tidal** upper 5.3 miles above tidal reach	Depressed Dissolved Oxygen	Depressed Dissolved Oxygen	Aquatic life use
0511B_01	Coon Bayou** from confluence with Cow Bayou up to extent of Tidal Limit in Orange County	Depressed Dissolved Oxygen, Bacteria	Depressed Dissolved Oxygen	Aquatic life use, Recreation use
0511C_01	Cole Creek** from confluence with Cow Bayou west of Orange to the upstream perennial portion of the stream south of Mauriceville in Orange County	Depressed Dissolved Oxygen	Depressed Dissolved Oxygen	Aquatic life use
0511E_01	Terry Gully** from the confluence with Cow Bayou to the headwaters northeast of Vidor in Orange County	Bacteria	Depressed Dissolved Oxygen	Recreation use

* Unclassified Water Body

** Included in Orange County Total Maximum Daily Load Project

Port of Orange Shipyard

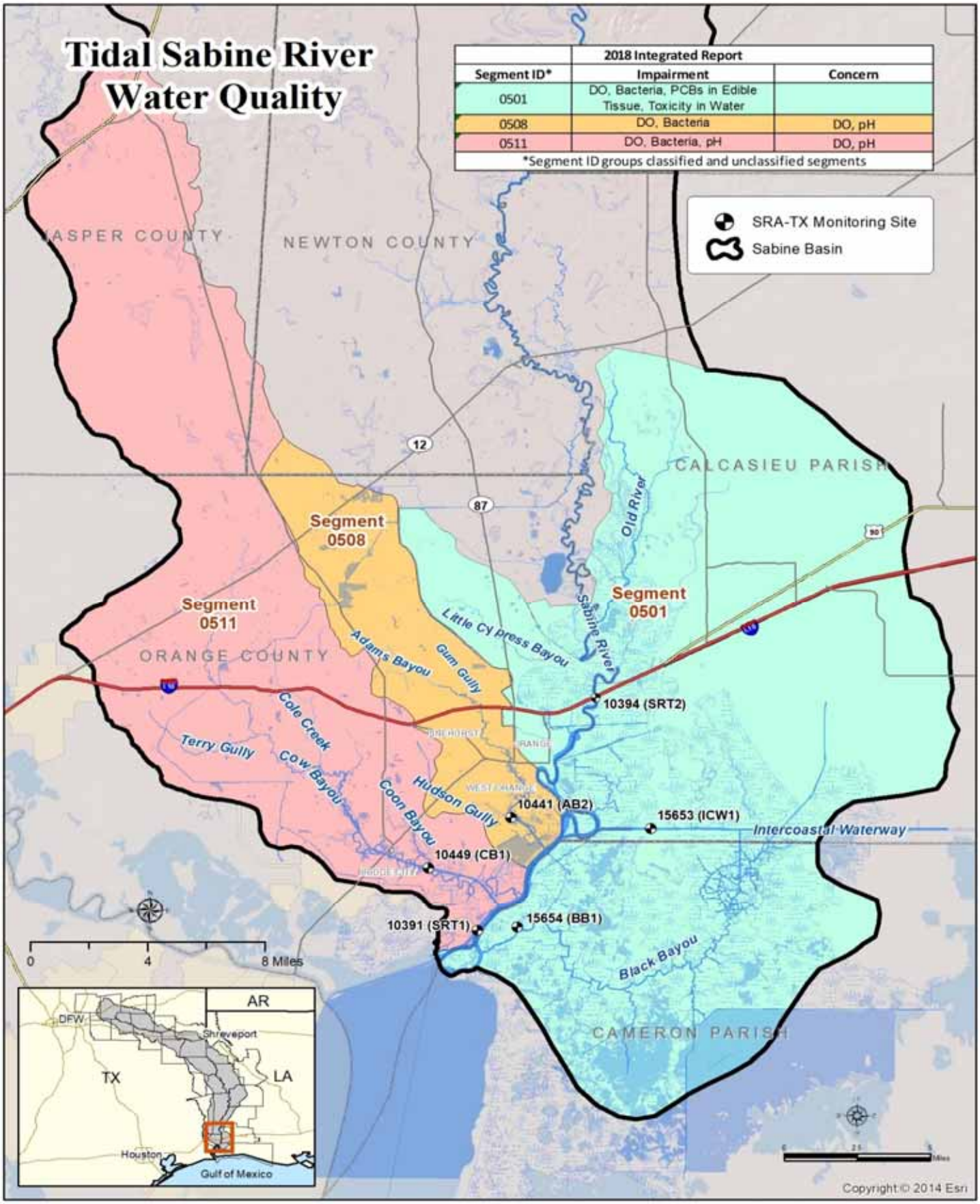
Tidal Sabine River
Water Quality
2018 Integrated Report
Segment ID* | Impairment | Concern
0501 | DO, Bacteria, PCBs in Edible Tissue, Toxicity in Water |
0508 | DO, Bacteria | DO, pH
0511 | DO, Bacteria, pH | DO, pH
*Segment ID groups classified and unclassified segments
SRA-TX Monitoring Site
Sabine Basin
JASPER COUNTY
NEWTON COUNTY
CALCASIEU PARISH
ORANGE COUNTY
CAMERON PARISH
Segment 0508
Segment 0511
Segment 0501
Old River
Sabine River
Little Cypress Bayou
Adams Bayou
Gum Gully
Cole Creek
Terry Gully
Cow Bayou
Coon Bayou
Hudson Gully
Black Bayou
Intercoastal Waterway
10394 (SRT2)
10441 (AB2)
15653 (ICW1)
10449 (CB1)
10391 (SRT1)
15654 (BB1)
12
87
90
0
4
8 Miles
AR
TX
LA
DFW
Shreveport
Houston
Gulf of Mexico
Copyright © 2014 Esri

Table 4. Lower Sabine Basin Segment water quality impairments and concerns from the 2018 Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d)

Segment Number	Description	Impairment	Concern	Importance
0502_01	Sabine River from the confluence of Old River at West Bluff upstream to Indian Bayou	None	Depressed Dissolved Oxygen	Aquatic life use
0502A_01	Nichols Creek* rom the confluence of the Sabine River to the headwater at FM 1013 northwest of Kirbyville	Depressed Dissolved Oxygen, Bacteria	None	Aquatic life use, Recreation use
0502B_02	Caney Creek* from the Davidson Street crossing in Newton upstream to Martin Branch	Bacteria	None	Recreation use
0502E_01	Cypress Creek* from the confluence of the Sabine River to the headwater 500 m south of FM east of Kirbyville	Depressed Dissolved Oxygen	Impaired habitat and macrobenthic community	Aquatic life use
0513_01	Big Cow Creek from the confluence with Sabine River southeast of Kirbyville upstream to White Oak Creek west of Kirbyville	Bacteria	Lead in Water	Recreation use, Aquatic life use

* Unclassified Water Body

Lower Sabine River Segment 0502

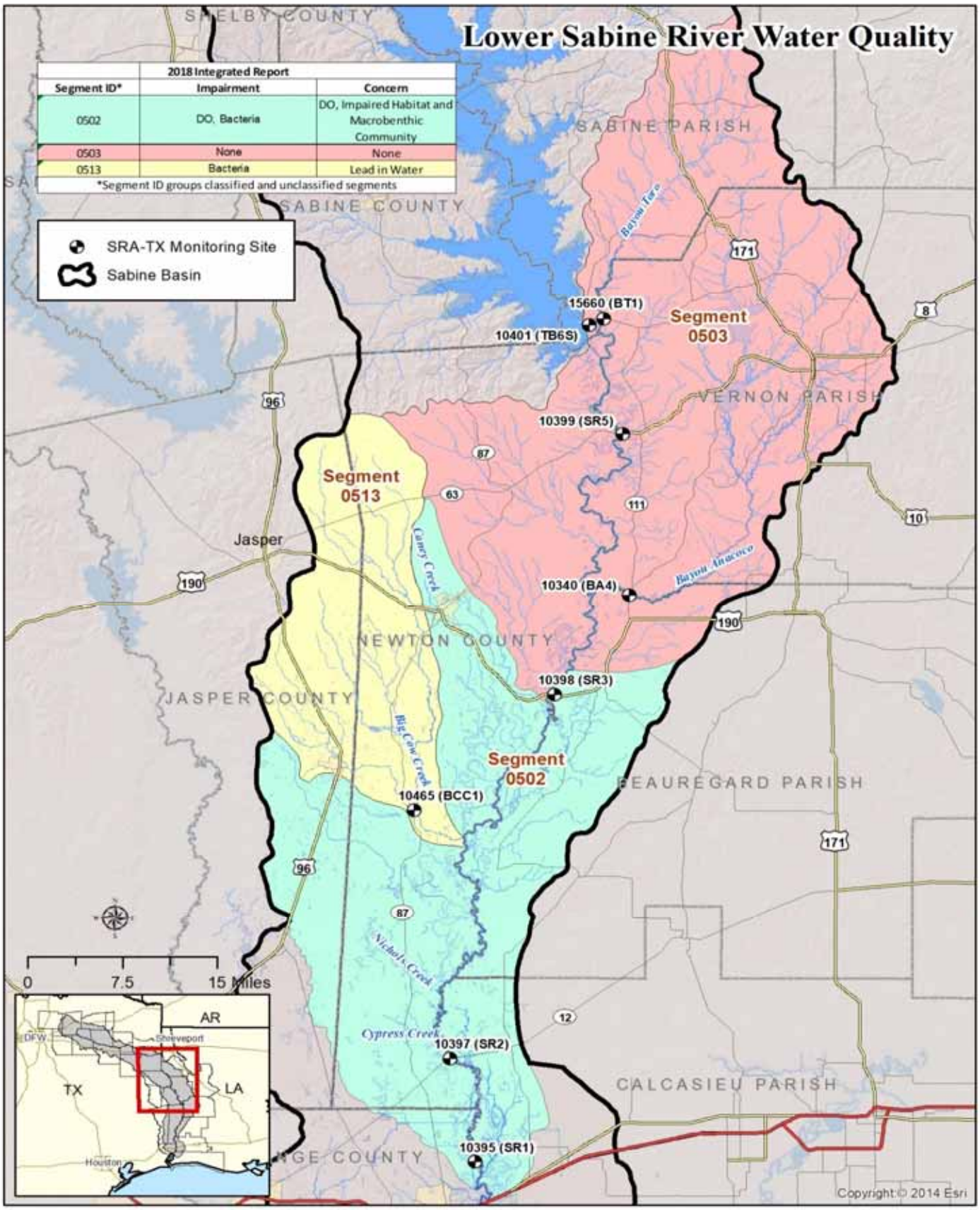
Lower Sabine River Water Quality
2018 Integrated Report
Segment ID* | Impairment | Concern
0502 | DO, Bacteria | DO, Impaired Habitat and Macrobenthic Community
0503 | None | None
0513 | Bacteria | Lead in Water
*Segment ID groups classified and unclassified segments
SRA-TX Monitoring Site
Sabine Basin
SHELBY COUNTY
SABINE PARISH
SABINE COUNTY
VERNON PARISH
NEWTON COUNTY
JASPER COUNTY
BEAUREGARD PARISH
CALCASIEU PARISH
Segment 0503
Segment 0513
Segment 0502
15660 (BT1)
10401 (TB6S)
10399 (SR5)
10340 (BA4)
10398 (SR3)
10465 (BCC1)
10397 (SR2)
10395 (SR1)
Jasper
Bayou Toro
Caney Creek
Bayou Anacoco
Big Cow Creek
Nichols Creek
Cypress Creek
96
171
8
87
63
111
10
190
12
0
7.5
15 Miles
AR
TX
LA
DFW
Shreveport
Houston
Copyright © 2014 Esri

Table 5. Toledo Bend Reservoir water quality impairments and concerns from the 2018 Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d)

Segment Number	Description	Impairment	Concern	Importance
0504	Toledo Bend (Texas Waters) from the dam up to Cypress Bend Golf Resort (LA) west to Alpine Marina (TX) includes 9 assessment units	Mercury in edible tissue	None	Fish consumption use
0504E_01	Clear Lake* an oxbow lake 12 miles northwest of Logansport, LA.	Mercury in edible tissue	None	Fish consumption use

* Unclassified Water Body

Toledo Bend Reservoir Near Indian Mounds Recreation Area

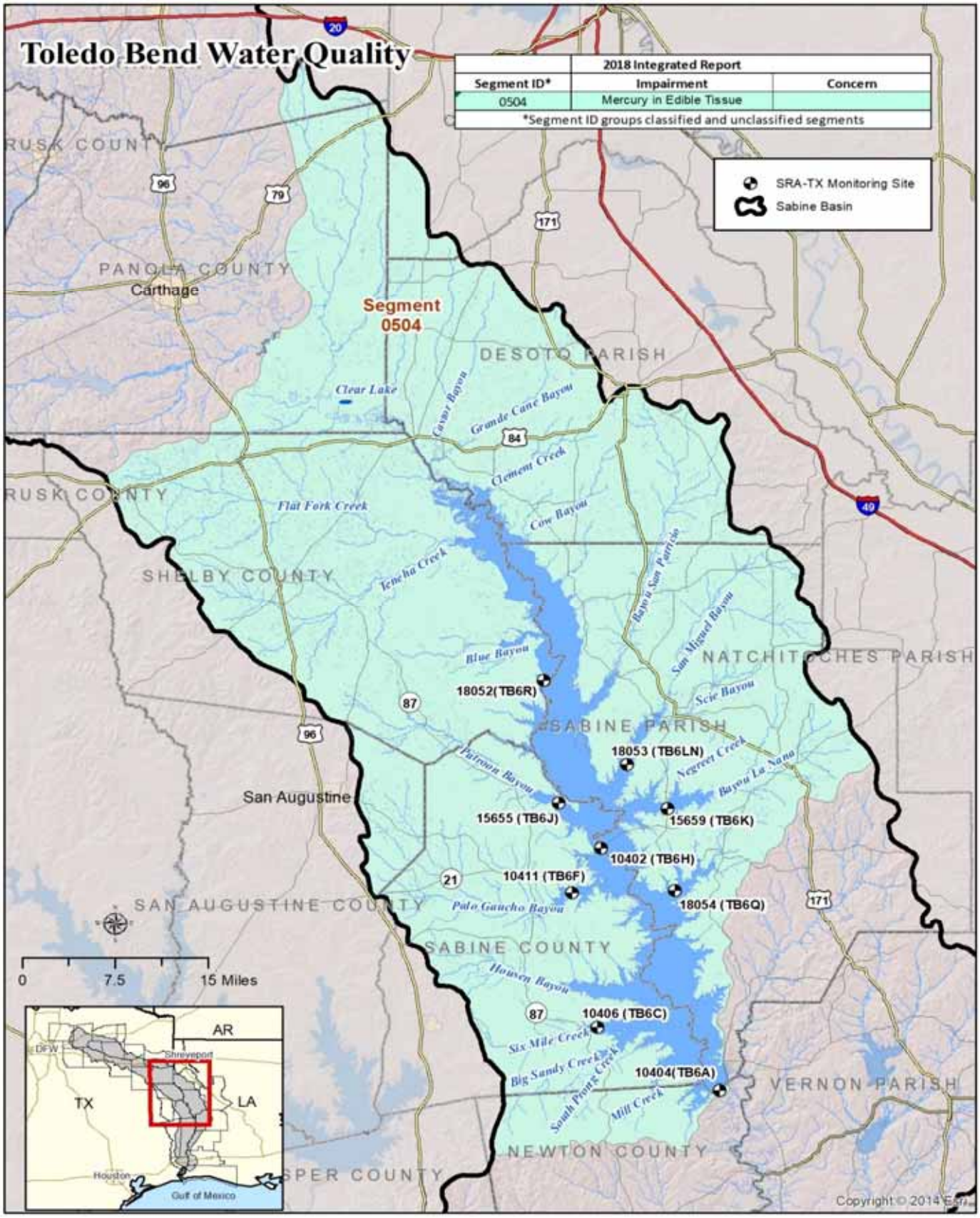
Toledo Bend Water Quality
2018 Integrated Report
Segment ID*
Impairment
Concern
0504
Mercury in Edible Tissue
*Segment ID groups classified and unclassified segments
SRA-TX Monitoring Site
Sabine Basin
RUSK COUNTY
PANOLA COUNTY
Carthage
Segment 0504
DESOTO PARISH
Clear Lake
Cavar Bayou
Grande Cane Bayou
Clement Creek
Flat Fork Creek
Cow Bayou
SHELBY COUNTY
Tenaha Creek
Bayou San Patricio
San Miguel Bayou
NATCHITOCHES PARISH
Blue Bayou
18052(TB6R)
Scie Bayou
SABINE PARISH
18053 (TB6LN)
Negreet Creek
Patroon Bayou
Bayou La Nana
San Augustine
15655 (TB6J)
15659 (TB6K)
10402 (TB6H)
10411 (TB6F)
18054 (TB6Q)
SAN AUGUSTINE COUNTY
Palo Gaucho Bayou
SABINE COUNTY
Houwen Bayou
10406 (TB6C)
Six Mile Creek
Big Sandy Creek
South Prong Creek
10404(TB6A)
Mill Creek
VERNON PARISH
NEWTON COUNTY
JASPER COUNTY
0
7.5
15 Miles
AR
LA
TX
DFW
Shreveport
Houston
Gulf of Mexico
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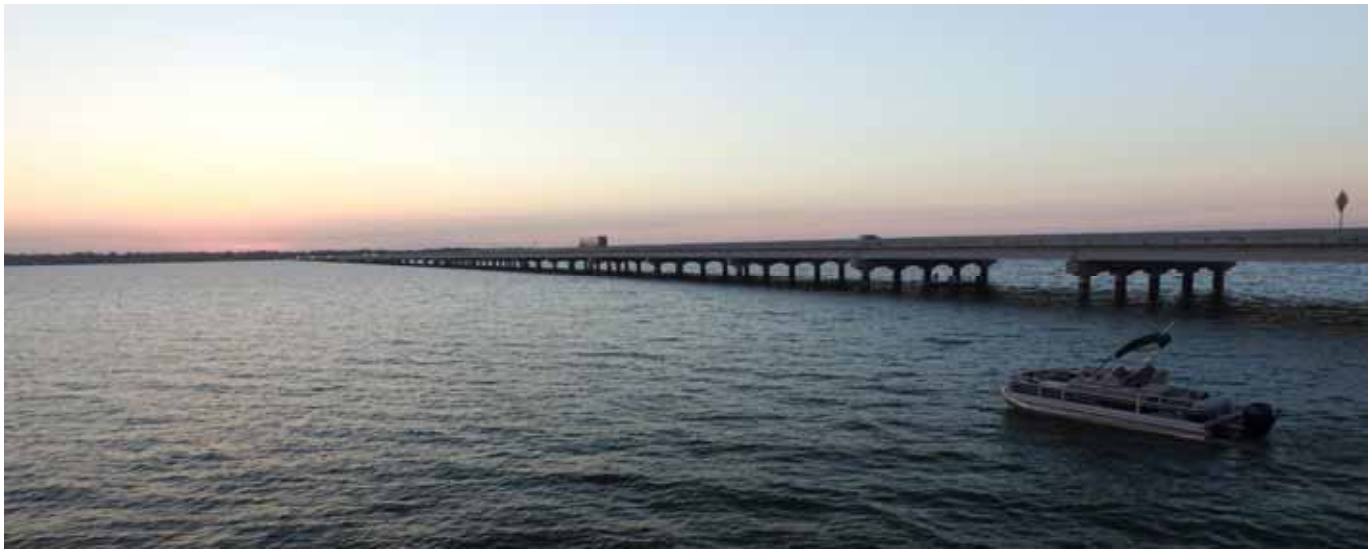
Table 6. Upper Basin Monitoring by Segment

Segment Number	Segment Name	Monitoring Entity	Number of Sites
0505	Sabine River Above Toledo Bend Reservoir	SRA-TX	4
		TCEQ	2
0506	Sabine River Below Lake Tawakoni	SRA-TX	4
		TCEQ	4
0507	Lake Tawakoni	SRA-TX	3
		TCEQ	1
0509	Murvaul Lake	TCEQ	1
0510	Lake Cherokee	City of Longview	2
0512	Lake Fork Reservoir	SRA-TX	3
		TCEQ	3
0514	Big Sandy Creek	SRA-TX	1
		TCEQ	1
0515	Lake Fork Creek	SRA-TX	1
		TCEQ	1



Sunrise Over Lake Tawakoni Reservoir

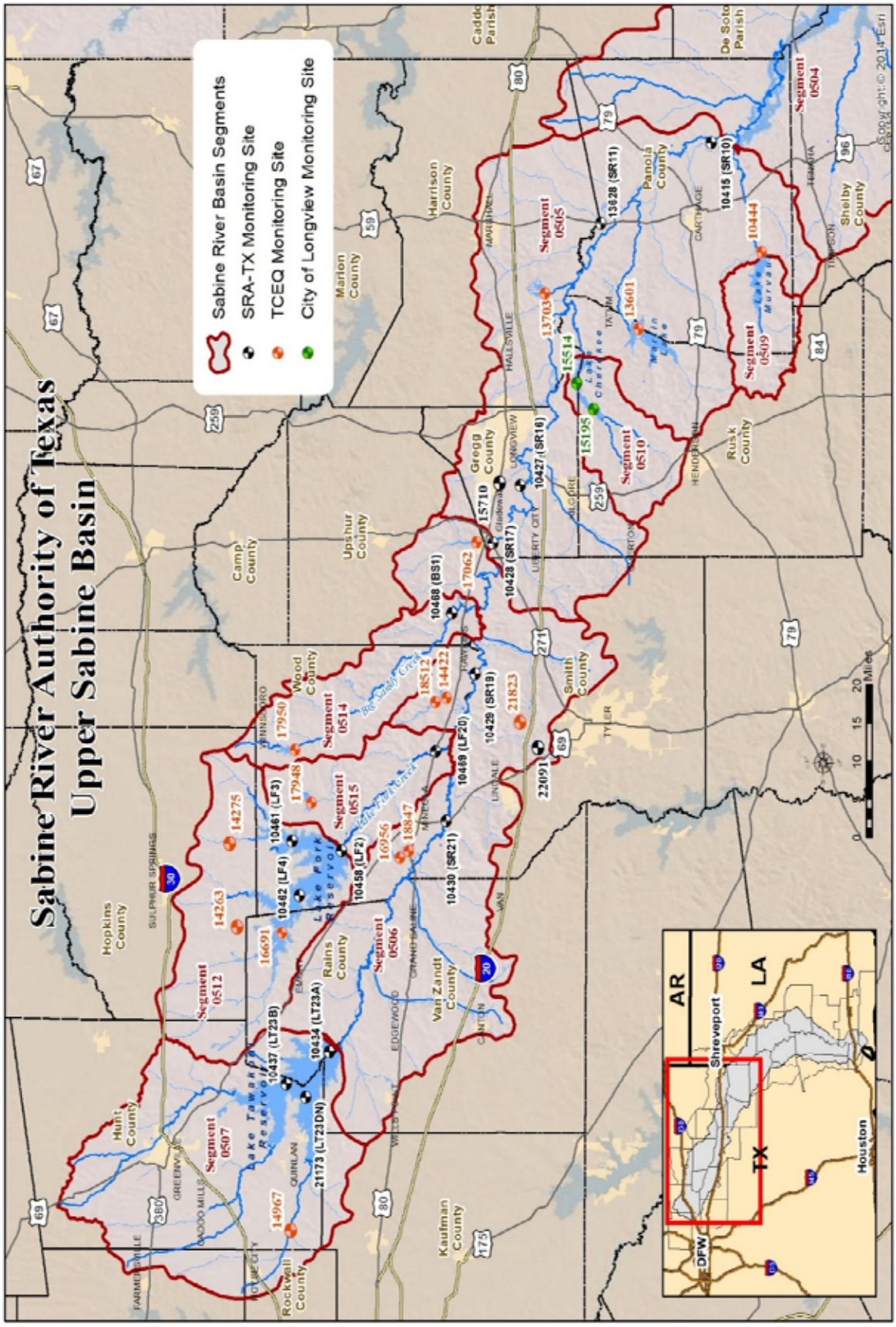

Sabine River Authority of Texas
Upper Sabine Basin
Sabine River Basin Segments
SRA-TX Monitoring Site
TCEQ Monitoring Site
City of Longview Monitoring Site
Segment 0504
Segment 0505
Segment 0506
Segment 0507
Segment 0509
Segment 0510
Segment 0512
Segment 0514
Segment 0515
Lake Tawakoni
Lake Fork Reservoir
Lake Cherokee
Lake Murvaul
Harrison County
Marion County
Panola County
Shelby County
De Soto Parish
Gregg County
Rusk County
Upshur County
Camp County
Wood County
Smith County
Hopkins County
Rains County
Van Zandt County
Hunt County
Rockwall County
Kaufman County
AR
LA
TX
Shreveport
Houston
DFW
Miles

Table 7. Upper Sabine Basin Segment water quality impairments and concerns from the 2018 Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d)

Segment Number	Description	Impairment	Concern	Importance
0505_04	Sabine River Above Toledo Bend Reservoir from the confluence of Hatley Creek 7.7 km north of Tatum upstream to the confluence of Grace Creek near IH 20 west of Longview	Bacteria	None	Recreation use
0505B_01	Grace Creek* from the Sabine River to unnamed Tributary from Longview WWTP South of Loop 281	Bacteria	None	Recreation use
0505B_02	Grace Creek* from unnamed tributary from Longview WWTP south of Loop 281 to headwaters at FM 1844	Bacteria	None	Recreation use
0505D_01	Rabbit Creek* from the confluence of the Sabine River upstream to the confluence of Bighead Creek	None	Bacteria	Recreation use
0505G_01	Wards Creek* intermittent stream with perennial pools from confluence of Sewell Creek upstream to an unnamed second order tributary	Depressed Dissolved Oxygen	Impaired habitat	Aquatic life use
0505O_01	Hills Lake* an oxbow lake 13 miles east of Carthage	Mercury in edible tissue	None	Fish consumption
0506A_01	Harris Creek* from the confluence of the Sabine River 5.7 km north of Winona upstream to the headwaters near SH64 east of Tyler	Depressed Dissolved Oxygen	Bacteria	Aquatic life use Recreation use
0506C_01	Wiggins Creek* a perennial stream from confluence with Harris Creek upstream to dam impounding an unnamed reservoir 3.8 km upstream of FM 2015 northeast of Tyler	None	Depressed Dissolved Oxygen, Ammonia	Aquatic life use Recreation use
0510_01	Lake Cherokee from dam in Gregg/Rusk county to a line at East Texas Regional Airport runway	Sulfate	None	General Use
0510_02	Lake Cherokee from line at East Texas Regional Airport runway to normal pool elevation of 280 feet	pH, Sulfate	Depressed Dissolved Oxygen	General Use Aquatic life use
0514_01	Big Sandy Creek from confluence with Sabine River in Upshur County upstream to Lake Winnsboro Dam (Wood County Dam No.4)	Bacteria	None	Recreation use
0514_02	Big Sandy Creek from the Lake Winnsboro Dam (Wood County Dam No.4) to 2.6 km (1.6 mi) Upstream SH11 in Hopkins County	Bacteria, pH	Depressed Dissolved Oxygen, Chlorophyll-a	Recreation use, General Use, Nutrient criteria

* Unclassified Water Body

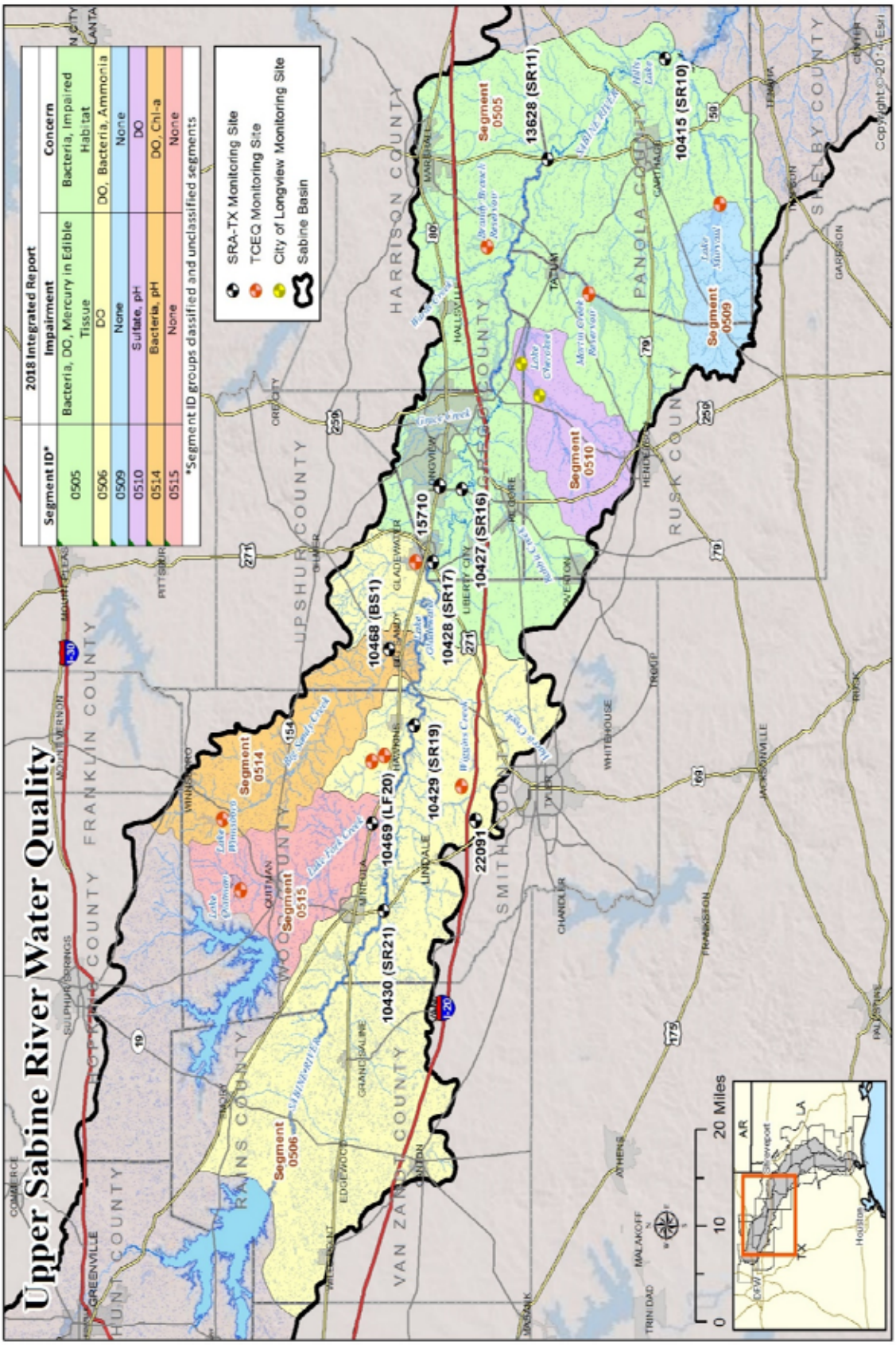
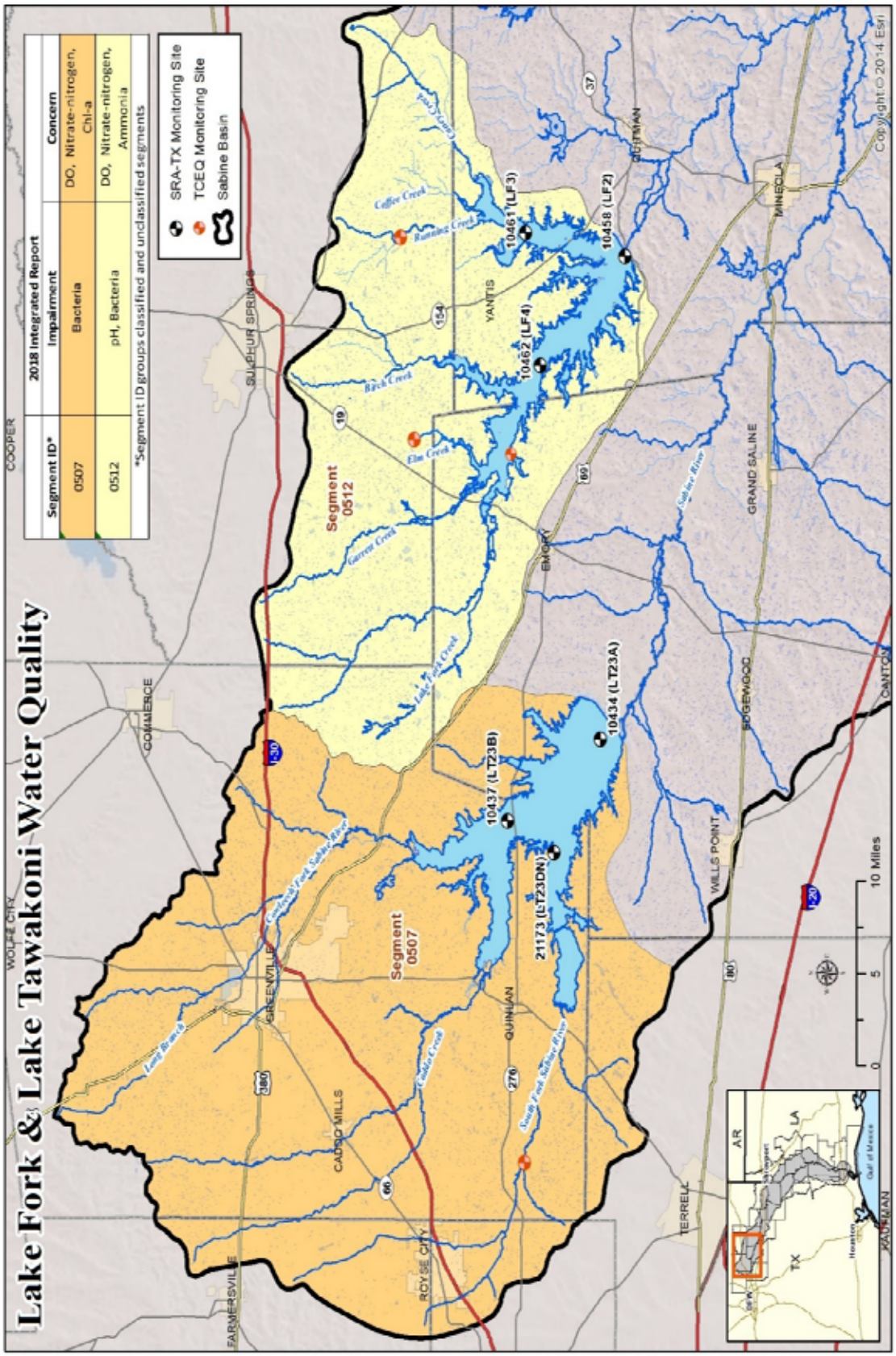

Upper Sabine River Water Quality
2018 Integrated Report
Segment ID*
Impairment
Concern
0505
Bacteria, DO, Mercury in Edible Tissue
Bacteria, Impaired Habitat
0506
DO
DO, Bacteria, Ammonia
0509
None
None
0510
Sulfate, pH
DO
0514
Bacteria, pH
DO, Chl-a
0515
None
None
*Segment ID groups classified and unclassified segments
SRA-TX Monitoring Site
TCEQ Monitoring Site
City of Longview Monitoring Site
Sabine Basin
Segment 0505
Segment 0506
Segment 0509
Segment 0510
Segment 0514
Segment 0515
13628 (SR11)
10415 (SR10)
15710
10468 (BS1)
10428 (SR17)
10427 (SR16)
10429 (SR19)
10469 (LF20)
10430 (SR21)
22091
HUNT COUNTY
FRANKLIN COUNTY
RAINS COUNTY
WOOD COUNTY
UPSHUR COUNTY
VAN ZANDT COUNTY
SMITH COUNTY
HARRISON COUNTY
PANOLA COUNTY
RUSK COUNTY
SHELBY COUNTY
0
10
20 Miles

Table 8. Lake Tawakoni and Lake Fork Reservoirs water quality impairments and concerns from the 2018 Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d)

Segment Number	Description	Impairment	Concern	Importance
0507A_01	Cowleech Fork* from confluence of Lake Tawakoni upstream to the confluence of Long Branch east of Greenville*	None	Depressed Dissolved Oxygen, Nitrate	Aquatic life use, General use
0507A_02	Cowleech Fork* from the confluence of Long Branch east of Greenville upstream to the headwater northwest of Celeste*	None	Chlorophyll-a	General use
0507B_01	Long Branch* from the confluence with Cowleech Fork Sabine River east of Greenville upstream to headwater northeast of Greenville	None	Nitrate	General use
0507G_01	South Fork of Sabine River* from the confluence of Lake Tawakoni upstream to the confluence of Parker and Sabine Creeks	Bacteria	None	Recreation use
0507H_01	Caddo Creek* from the confluence of Lake Tawakoni at Caddo Inlet upstream to the confluence of east Caddo and west Caddo Creeks	None	Depressed Dissolved Oxygen	Aquatic life use
0512_05	Upper Lake Fork Creek arm from the FM 2946 crossing up to normal pool elevation of 403 feet	pH	None	General Use
0512A_01	Running Creek* from the confluence of Lake Fork at the Hopkins /Wood County line upstream to the headwater 400 m south of SH 11 southeast of Sulphur Springs	Bacteria	Depressed Dissolved Oxygen, Nitrate, Ammonia	Recreation use
0512B_01	Elm Creek* from the confluence of Lake Fork 375 m downstream of FM514 upstream to the headwaters at Hopkins CR 1110 southwest of Sulphur Springs	Bacteria	Depressed Dissolved Oxygen, Ammonia	Recreation use, General use

* Unclassified Water Body

Sunset Over Lake Fork Reservoir


Lake Fork & Lake Tawakoni Water Quality
2018 Integrated Report
Segment ID* | Impairment | Concern
0507 | Bacteria | DO, Nitrate-nitrogen, Chl-a
0512 | pH, Bacteria | DO, Nitrate-nitrogen, Ammonia
*Segment ID groups classified and unclassified segments
SRA-TX Monitoring Site
TCEQ Monitoring Site
Sabine Basin
Segment 0512
Segment 0507
10461 (LF3)
10458 (LF2)
10462 (LF4)
10434 (LT23A)
10437 (LT23B)
21173 (LT23DN)
COOPER
SULPHUR SPRINGS
COMMERCE
WOLFE CITY
GREENVILLE
CADDO MILLS
QUINLAN
ROYSE CITY
FARMERSVILLE
YANTIS
EMORY
WILLS POINT
TERRELL
GRAND SALINE
MINEOLA
EDGEWOOD
CANTON
0 5 10 Miles
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Summary

The majority of water quality continues to meet TSWQS and screening criteria. The most frequently exceeded TSWQS parameter within the basin was bacteria, *Enterococcus* or *E. coli.* During periods of significant rainfall and increased stream turbidity, elevated levels of bacteria continued to be detected. Depressed dissolved oxygen was the most frequently observed parameter of concern.

Three Sabine Basin water bodies were added to the 2018 Texas Integrated Report 303(d) list. Lake Cherokee (Segment 0510) was listed for sulfate; Big Cow Creek (Segment 0513_01) was listed for bacteria; and Big Sandy Creek (Segment 0514_02) was added for pH. There were no water bodies removed from the 2018 Texas Integrated Report 303(d) list.

Caney Creek Arm of Lake Fork Reservoir