
SABINE RIVER AUTHORITY OF TEXAS

TO: INTERESTED PARTIES
FROM: ENVIRONMENTAL SERVICES DIVISION
RE: DECEMBER 2024 MONTHLY WATER QUALITY REPORT

The Environmental Services Field Offices conducted water quality monitoring in the Sabine Basin from December 9th through the 12th. The results of field monitoring are presented in this report¹ and additional data can be found using the Texas Commission on Environmental Quality (TCEQ) [Clean Rivers Program Data Tool](#).

Sabine Basin Tidal (Including Tributaries)

Weather – Air temperatures in the tidal basin were cool with highs in the low 50s to low 70s. Low temperatures were in the mid 30s to low 60s. The tidal stations received 3.35 inches of rainfall in the seven days prior to the sampling event.

Tidal Conditions – Surface salinity values were greater than 1 ppt at five of the seven tidal stations. The highest salinity value of 10.6 ppt was recorded at station 10391 (SRT1) at a depth of 10.0 meters.

Lower Sabine Basin (Toledo Bend Reservoir and the Sabine River downstream to Tidal)

Weather – Air temperatures in the lower basin were cool with highs in the low 50s to mid 60s. Low temperatures were in the low 30s to low 50s. Toledo Bend received 3.97 inches of rainfall during the seven days prior to the sampling event.

Lake Level - The level of Toledo Bend was 168.38 feet msl with a release of 210 cfs on the day of sampling. Toledo Bend has a conservation pool level of 172 feet msl. Reservoir profiles indicate a mixed water column.

Upper Sabine Basin (Lake Tawakoni, Lake Fork Reservoir, and the Sabine River upstream of Toledo Bend)

Weather - Air temperatures in the upper basin were cool with highs in the low 50s to mid 60s. Low temperatures were in the upper 20s to mid 40s. Lake Fork and Lake Tawakoni received 1.31 and 1.44 inches of rainfall respectively during the seven days prior to the sampling event.

Lake Level - The level of Lake Tawakoni was 434.65 feet msl with a release of 6 cfs on the day of sampling. The level of Lake Fork was 400.64 feet msl with a release of 10 cfs on the day of sampling. Lake Tawakoni and Lake Fork have conservation pool levels of 437.5 feet msl and 403 feet msl, respectively. Reservoir profiles at Lake Fork and Lake Tawakoni indicated a mixed water column.

This report and additional links to data for these monitoring stations are available at the [Sabine River Authority of Texas website](#). If you have any questions or comments concerning this report, please contact:

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¹ Data in this report is considered preliminary until it is available in TCEQ's Surface Water Quality Monitoring Information System database.

SABINE RIVER AUTHORITY OF TEXAS
Monthly Water Quality Report

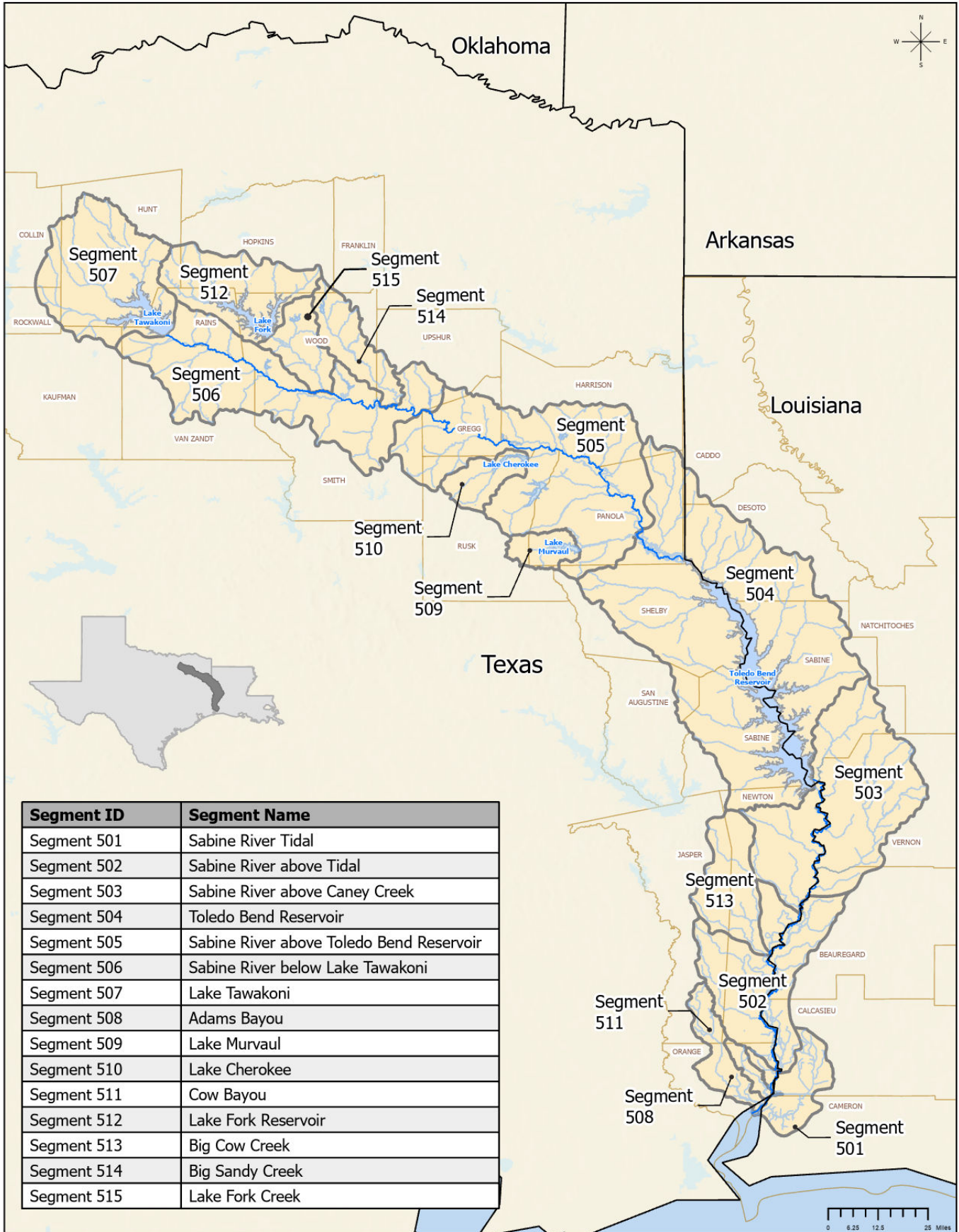
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Sabine Basin Map



Current Fixed Monitoring Stations

Segment	Station TCEQ ID (SRA-TX ID)	Location
501	10391 (SRT1)	SABINE RIVER AT CHANNEL CAN 3
501	15654 (BB1)	BLACK BAYOU IN CAMERON PARISH
511	10449 (CB1)	COW BAYOU AT ROUND BUNCH ROAD
508	10441 (AB2)	ADAMS BAYOU AT FM 1006
501	15653 (ICW1)	INTERCOASTAL WATERWAY AT PERRY RIDGE
501	10394 (SRT2)	SABINE RIVER AT IH 10
501	10395 (SR1)	SABINE RIVER 12.00 KM UPSTREAM OF IH 10
502	10397 (SR2)	SABINE RIVER AT SH 12 NORTH OF DEWEYVILLE TX.
513	10465 (BCC1)	BIG COW CREEK AT FM 1416 SOUTH OF BON WIER
503	10398 (SR3)	SABINE RIVER AT US 190 EAST OF BON WIER TX.
503	10340 (BA4)	ANACOCO BAYOU AT LOUISIANA HWY 111 CROSSING SOUTHWEST OF KNIGHT LA.
503	10399 (SR5)	SABINE RIVER AT SH 63 EAST OF BURKEVILLE TX.
503	10401 (TB6S)	SABINE RIVER BELOW TOLEDO BEND RESERVOIR AT RIGHT ABUTMENT OF SPILLWAY FOR DAM
503	15660 (BT1)	BAYOU TORO AT LA SH 392 IN SABINE PARISH SW OF HORNBECK LA.
504	10404 (TB6A)	TOLEDO BEND RESERVOIR MAIN LAKE ABOVE THE DAM AT THE OLD RIVER CHANNEL
504	10406 (TB6C)	TOLEDO BEND RESERVOIR IN SIX MILE BOAT LANE 0.8KM EAST OF SH 87
504	18054 (TB6Q)	TOLEDO BEND RESERVOIR IN NEGREET BAYOU
504	10411 (TB6F)	TOLEDO BEND RESERVOIR IN SUNSHINE BAY NEAR FM 3121 BRIDGE
504	10402 (TB6H)	TOLEDO BEND RESERVOIR AT SH 21 NORTHEAST OF MILAM
504	15659 (TB6K)	TOLEDO BEND RESERVOIR IN LANANA BAYOU AT LOUISIANA SH 191 IN SABINE PARISH LOUISIANA WEST OF MANY
504	15655 (TB6J)	TOLEDO BEND RESERVOIR PATROON BAYOU BRANCH AT FM 276
504	18053 (TB6LN)	TOLEDO BEND RESERVOIR SAN MIGUEL ARM BOAT LANE
504	18052 (TB6R)	TOLEDO BEND RESERVOIR AT RAGTOWN
505	10415 (SR10)	SABINE RIVER AT FM 2517
505	13628 (SR11)	SABINE RIVER AT US 59
505	10427 (SR16)	SABINE RIVER AT SH 42
505	10423 (SR14)	SABINE RIVER AT SH 149 SOUTH OF LONGVIEW TX
506	10428 (SR17)	SABINE RIVER AT US 271
506	10429 (SR19)	SABINE RIVER AT SH 14 S. OF HAWKINS
506	10430 (SR21)	SABINE RIVER AT US 69
514	10468 (BS1)	BIG SANDY CREEK AT SH 155
515	10469 (LF20)	LAKE FORK CREEK AT US 80
512	10458 (LF2)	LAKE FORK RESERVOIR NEAR DAM IN CREEK CHANNEL
512	10462 (LF4)	LAKE FORK RESERVOIR MID-COVE IN LAKE FORK CREEK ARM AT FM 515
512	10461 (LF3)	LAKE FORK RESERVOIR MID-ARM IN CANEY CREEK ARM AT FM 515
507	10434 (LT23A)	LAKE TAWAKONI IN THE MAIN LAKE NEAR THE DAM
507	21173 (LT23DN)	LAKE TAWAKONI IN WACO BAY EQUIDISTANT FROM FINGER AND SPRING POINTS 1.17KM BEARING 18.61 DEGREES FROM IRON BRIDGE PUMPING STATION
507	10437 (LT23B)	LAKE TAWAKONI AT SH 276

Segment 0501 – Sabine River Tidal

Description: The designated segment includes the Sabine River from the confluence with Sabine Lake in Orange County to Morgans Bluff in Orange County. Although some areas are quite rural, this part of the Sabine Basin has two cities with populations greater than 5,000 and a variety of industries.

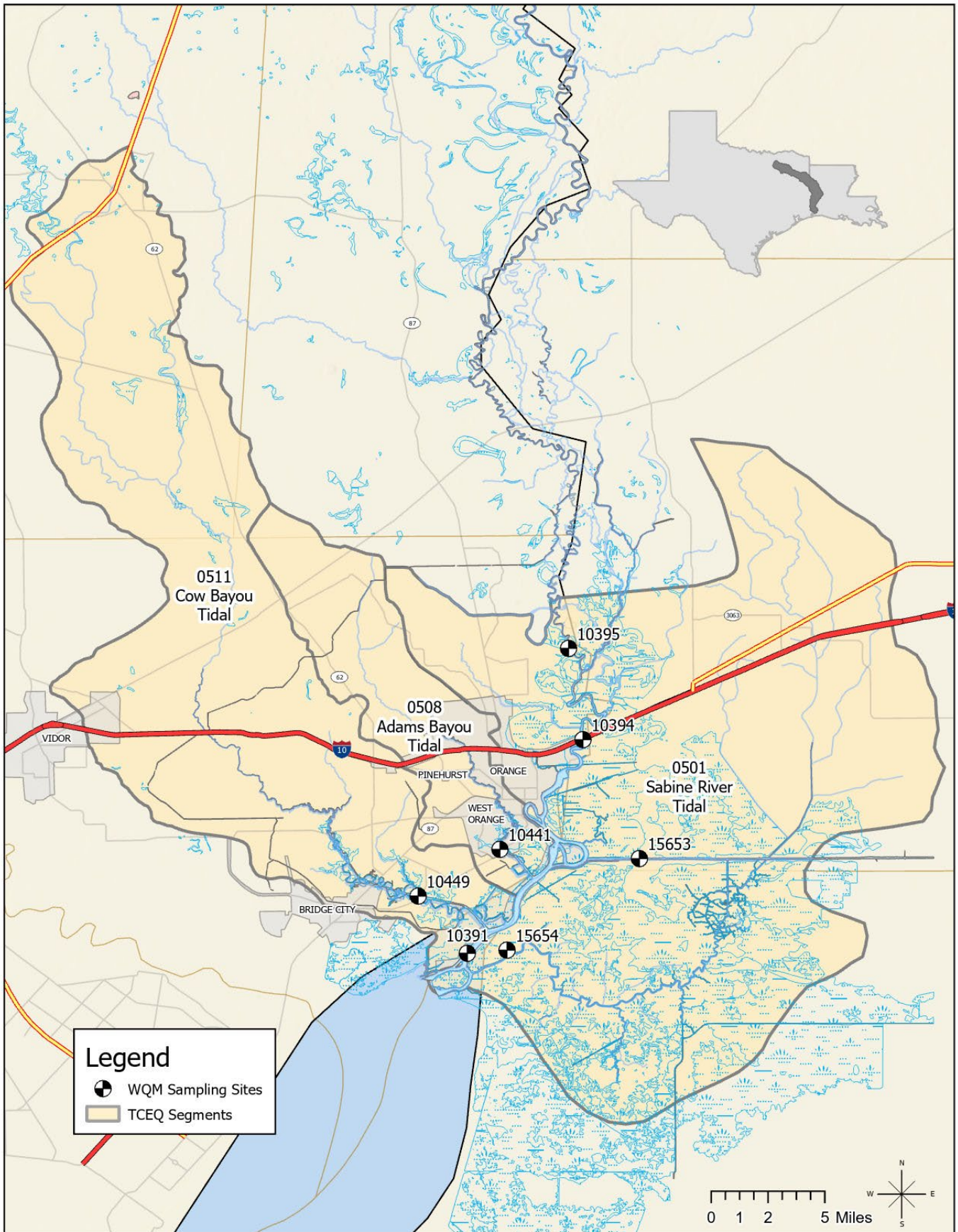
Segment 0508 – Adams Bayou Tidal The segment reaches from the confluence with the Sabine River in Orange County to a point 1.1 kilometers (0.7 miles) upstream of IH-10 in Orange County.

Segment 0511 – Cow Bayou Tidal The segment reaches from the confluence with the Sabine River in Orange County to a point 4.8 kilometers (3.0 miles) upstream of IH-10 in Orange County.

Segment 0501 Water Quality

Date and Time	Station	Depth	Temp	pH	DO	% Sat	Cond	TDS	Salinity	Secchi	Turbidity	Enterococcus
		<i>meters</i>	<i>°C</i>	<i>SU</i>	<i>mg/L</i>		<i>µS/cm</i>	<i>mg/L</i>	<i>ppt</i>	<i>meters</i>	<i>NTU</i>	<i>mpn/100mL</i>
12/12/24 09:22	10391 (SRT1)	0.3	13.6	7.4	8.6	84	8,030	5,130	4.5	0.27	27.7	63
		2.5	13.6	7.5	8.6	84	9,110	5,700	5.0			
		5.0	13.9	7.7	8.5	84	10,500	6,570	5.7			
		7.5	14.3	7.7	8.3	86	17,500	11,200	10.3			
		10.0	14.3	7.5	2.3	20	17,900	11,500	10.6			
12/12/24 09:05	15654 (BB1)	0.3	12.1	7.8	9.5	92	14,800	9,500	8.6	0.47	14.7	<10
		1.5	12.1	7.8	9.5	92	14,800	9,500	8.6			
		3.0	12.1	7.8	9.5	92	14,800	9,500	8.6			
Segment 0511												
12/12/24 08:46	10449 (CB1)	0.3	13.7	7.3	8.8	86	8,390	5,370	4.7	0.44	12.8	20
		2.0	13.7	7.3	8.8	86	8,400	5,380	4.7			
		4.0	13.7	7.3	8.8	85	8,520	5,400	4.7			
Segment 0508												
12/12/24 09:45	10441 (AB2)	0.3	13.3	7.3	7.0	68	5,910	3,790	3.3	0.33	24.7	84
		1.5	13.7	7.3	6.9	67	6,480	4,150	3.6			
		3.0	14.9	7.2	5.4	54	9,040	5,800	5.1			
12/12/24 10:03	15653 (ICW1)	0.3	12.6	7.6	8.9	87	15,200	9,700	8.8	0.28	26.3	41
		2.0	12.5	7.6	8.9	87	15,200	9,800	8.9			
		4.0	12.5	7.6	8.9	87	15,300	9,800	8.9			
		6.0	12.6	7.5	8.9	87	15,400	9,800	9.0			
12/12/24 10:40	10394 (SRT2)	0.3	13.6	7.0	8.7	82	137	88	0.1	0.17	61.3	73
		2.0	13.3	7.1	8.6	81	143	92	0.1			
		4.0	13.3	7.1	8.6	81	172	112	0.1			
		6.0	13.3	7.2	8.6	81	207	131	0.1			
		8.0	13.3	7.3	8.6	81	224	142	0.1			
12/12/24 11:10	10395 (SR1)	0.3	12.8	7.0	8.9	83	88	56	<0.1	0.14	72.1	63

Segments 0501, 0508 & 0511



Segment 0502 - Sabine River Above Tidal

Description: The designated segment includes the Sabine River from Morgans Bluff in Orange County to the confluence with Caney Creek in Newton County. The largest tributary is Big Cow Creek (Segment 0513). This is largely a rural area with no major industries or cities.

Segment 0513 – Big Cow Creek The segment reaches from the confluence with the Sabine River in Newton County to a point 4.6 kilometers (2.9 miles) upstream of CR 255 in Newton County.

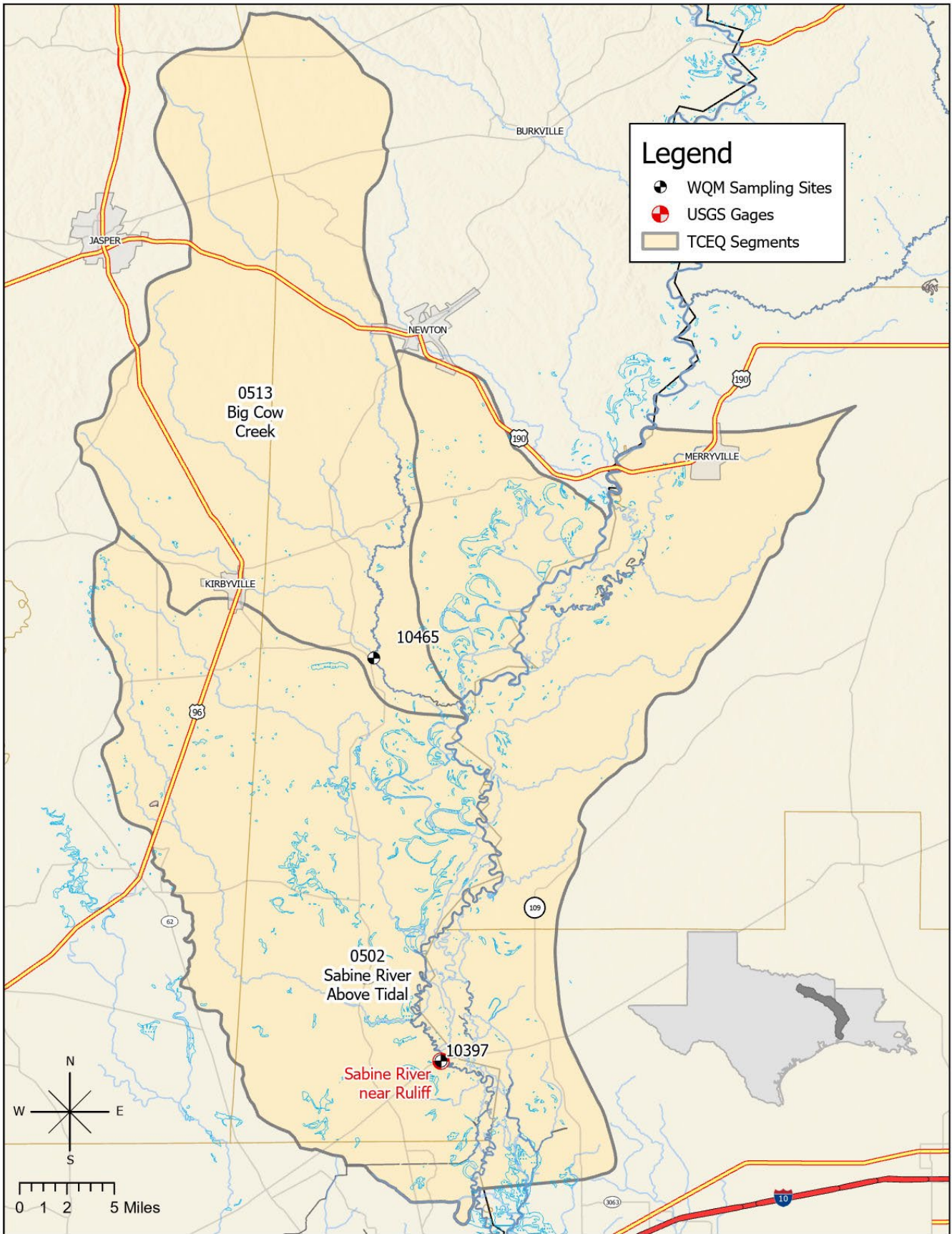
Segment 0502 USGS Recorded Flows

Date and Time	Station	USGS Station #	Location	Flow (cfs)
12/11/24 08:16	10397 (SR2)	08030500	Sabine River near Ruliff, TX	4,090

Segments 0502 and 0513 Water Quality

Date and Time	Station	Depth meters	Temp °C	pH SU	DO mg/L	% Sat	Cond µS/cm	TDS mg/L	Secchi meters	Turbidity NTU	<i>E.coli</i> mpn/100mL
12/11/24 08:16	10397 (SR2)	0.3	13.2	6.9	8.9	83	78	50	0.12	81.0	411
Segment 0513											
12/11/24 09:22	10465 (BCC1)	0.3	12.1	7.0	9.9	91	42	27	0.40	17.5	172

Segments 0502 & 0513



Segment 0503 - Sabine River Above Caney Creek

Description: The designated segment includes the Sabine River from a point immediately upstream of the confluence with Caney Creek in Newton County up to Toledo Bend Dam in Newton County. This is largely a rural area, including one major city with a population greater than 5,000 and few industries. Two major tributaries that flow from Louisiana include Bayou Anacoco and Bayou Toro.

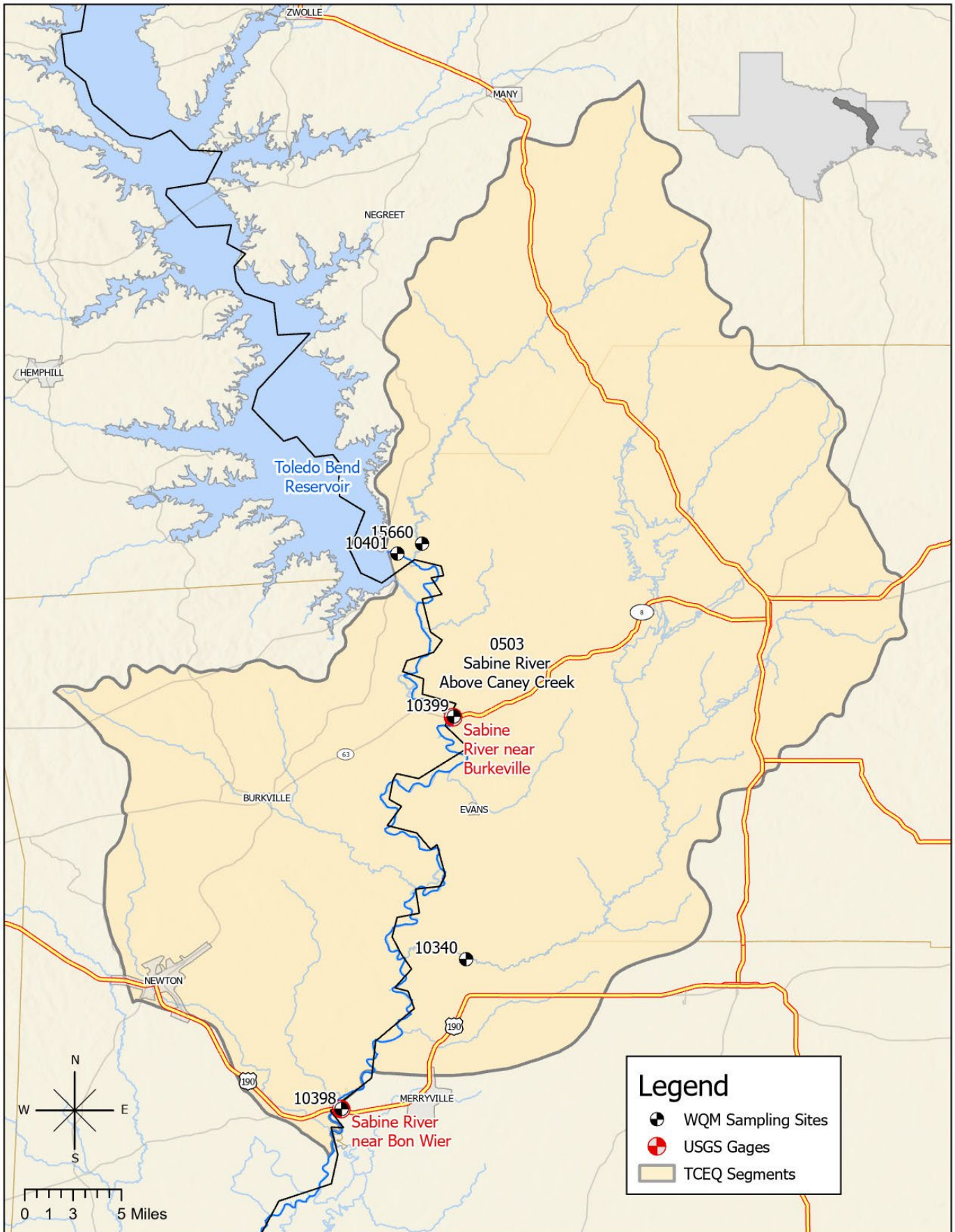
Segment 0503 USGS Recorded Flows

Date and Time	Station	USGS Station #	Location	Flow (cfs)
12/11/24 11:26	10398(SR3)	08028500	Sabine River near Bon Wier, TX	2,020
12/11/24 10:21	10399(SR5)	08026000	Sabine River near Burkeville, TX	467

Segment 0503 Water Quality

Date and Time	Station	Depth meters	Temp °C	pH SU	DO mg/L	% Sat	Cond µS/cm	TDS mg/L	Secchi meters	Turbidity NTU	<i>E.coli</i> mpn/100mL
12/11/24 11:26	10398 (SR3)	0.3	13.5	7.3	9.3	88	91	58	0.14	56.5	206
12/11/24 11:03	10340 (BA4)	0.3	13.8	7.3	9.2	88	130	83	0.16	45.8	345
12/11/24 10:21	10399 (SR5)	0.3	13.6	7.3	9.2	87	89	57	0.20	37.4	201
12/9/24 12:33	10401 (TB6S)	0.3	17.6	7.9	9.5	100	122	78	>1.2	3.02	5
12/9/24 12:12	15660 (BT1)	0.3	12.7	7.0	10.0	95	66	42	0.19	49.5	1,414

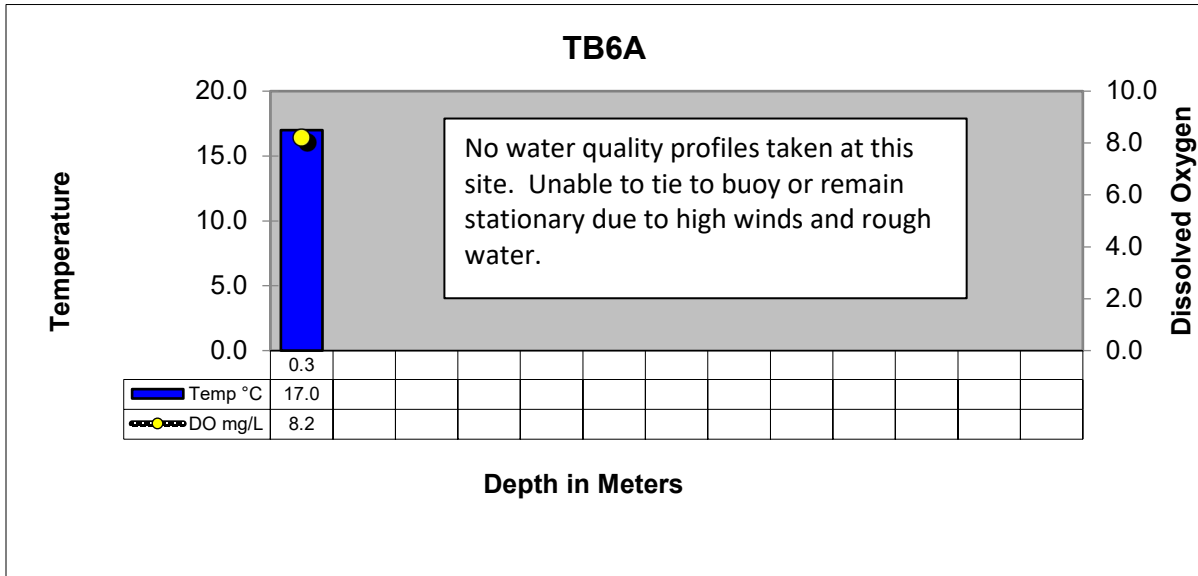
Segment 0503



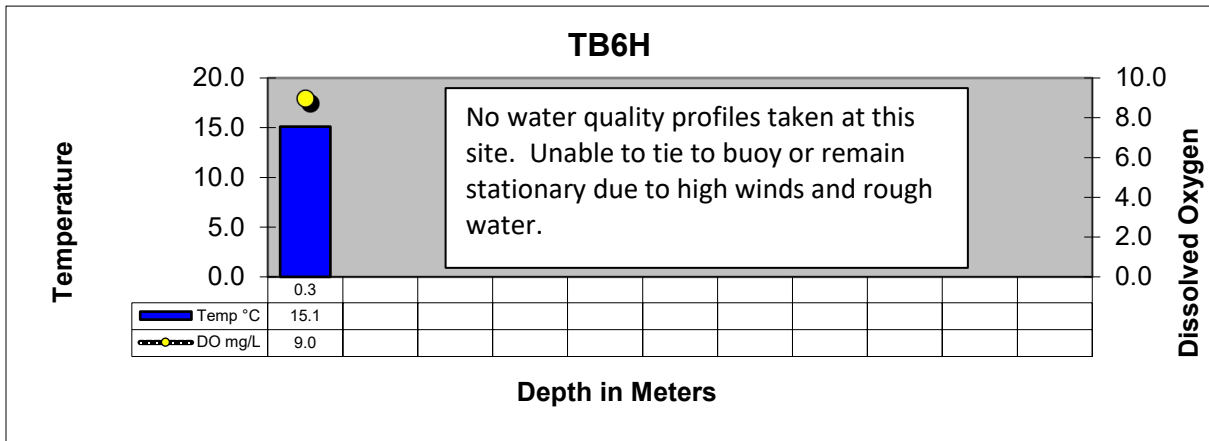
Segment 0504 Water Quality Continued

Date and Time	Station	Depth meters	Temp °C	pH SU	DO mg/L	% Sat	Cond µS/cm	TDS mg/L	Secchi meters	Turbidity NTU	<i>E.coli</i> mpn/100mL
12/10/24 12:23	18053 (TB6LN)	0.3	14.4	7.7	9.9	98	127	82	0.84	5.01	3
		1.0	14.4	7.7	9.9	98	128	81			
		2.0	14.4	7.6	9.8	97	127	82			
		3.0	14.4	7.6	9.8	96	127	82			
		4.0	14.3	7.6	9.7	95	127	81			
		5.0	14.2	7.6	9.2	90	127	81			
12/10/24 09:30	18052 (TB6R)	0.3	13.7	7.6	9.6	93	152	97	>0.60	5.00	<1
		1.0	13.6	7.6	9.6	93	151	97			
		2.0	13.7	7.6	9.7	94	151	97			
		3.0	13.6	7.5	9.6	93	151	97			
		4.0	13.6	7.5	9.5	92	152	97			
		5.0	13.6	7.5	9.3	90	152	97			
		6.0	13.6	7.4	9.1	88	152	97			
		7.0	13.4	7.4	8.9	86	152	97			
		8.0	13.2	7.4	8.7	83	154	98			
		9.0	13.1	7.4	8.6	82	155	99			
		10.0	13.1	7.4	8.6	82	155	99			
		11.0	13.1	7.3	7.7	74	155	99			
		12.0	13.3	7.3	4.2	38	155	99			

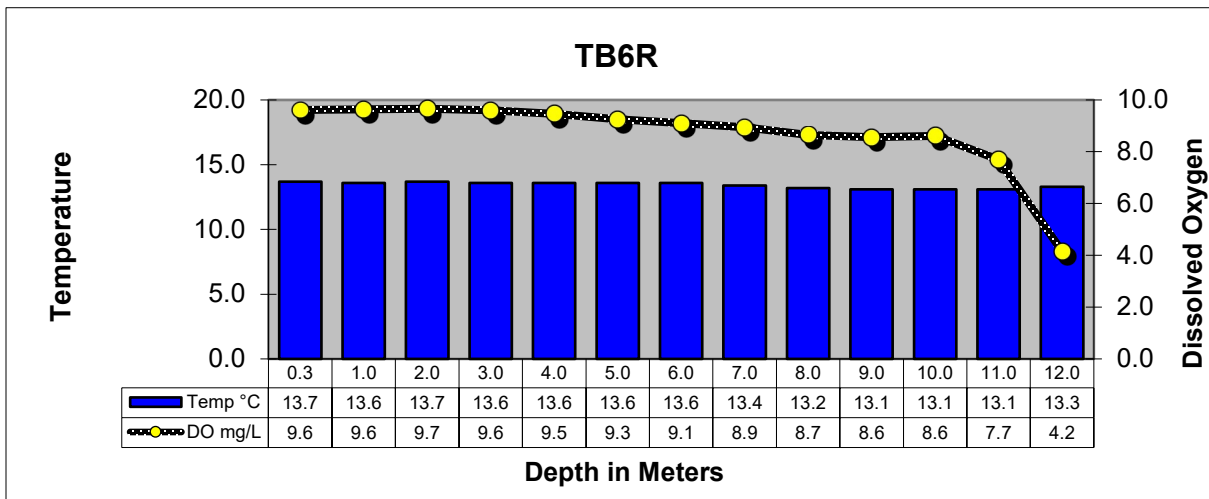
Toledo Bend Reservoir Profiles



TOLEDO BEND RESERVOIR MAIN LAKE ABOVE THE DAM AT THE OLD RIVER CHANNEL



TOLEDO BEND RESERVOIR AT SH 21 NORTHEAST OF MILAM



TOLEDO BEND RESERVOIR AT RAGTOWN

Segment 0504



Segment 0505 - Sabine River Above Toledo Bend Reservoir

Description: The designated segment includes the Sabine River from a point immediately upstream of the confluence of Murvaul Creek in Panola County to a point 100 meters (110 yards) downstream of US 271 in Gregg County. Segment 0505 is used extensively for water supply and contains the highest concentration of population in the Sabine Basin with six cities having populations greater than 5,000. Segment 0505 includes a large section of the East Texas Oilfield as well as numerous industries.

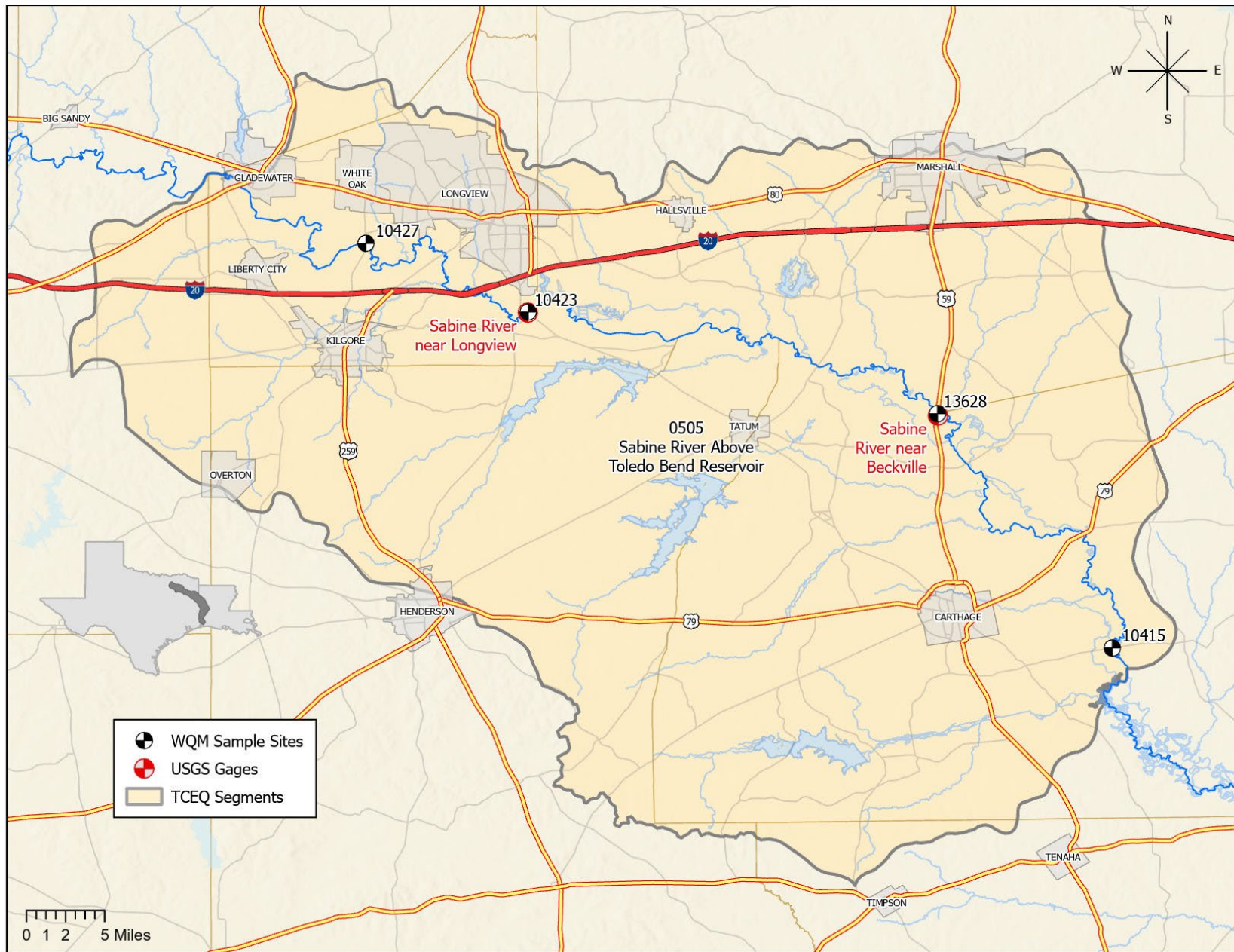
Segment 0505 USGS Recorded Flows

Date and Time	Station	USGS Station #	Location	Flow (cfs)
12/11/2024 08:34	13628(SR11)	08022040	Sabine River near Beckville, TX	561
12/11/2024 07:51	10423(SR14)	08020990	Sabine River near Longview, TX	344

Segment 0505 Water Quality

Date and Time	Station	Depth meters	Temp °C	pH SU	DO mg/L	% Sat	Cond µS/cm	TDS mg/L	Secchi meters	Turbidity NTU	<i>E. coli</i> mpn/100mL
12/11/2024 09:03	10415(SR10)	0.3	10.7	7.3	9.9	90	263	168	0.24	37.1	34
12/11/2024 08:34	13628(SR11)	0.3	10.3	7.3	10.1	91	234	150	0.27	32.2	82
12/11/2024 07:51	10423(SR14)	0.3	9.7	7.3	10.4	93	249	159	0.29	32.2	99
12/11/2024 07:27	10427(SR16)	0.3	9.8	7.1	11.2	91	184	118	0.28	29.7	54

Segment 0505



Segment 0506 - Sabine River Below Lake Tawakoni

Description: The designated segment includes the Sabine River from a point 100 meters (110 yards) downstream of US 271 in Gregg County to Iron Bridge Dam in Rains County. This is largely a rural area with no cities having a population greater than 5,000. Oilfield activities, rural housing developments, and agriculture are in the watershed. The major tributaries include:

Segment 0514 - Big Sandy Creek The segment reaches from the confluence with the Sabine River in Upshur County to a point 2.6 kilometers (1.6 miles) upstream of SH 11 in Hopkins County.

Segment 0515 - Lake Fork Creek The segment reaches from the confluence with the Sabine River in Wood County to Lake Fork Dam in Wood County.

Segment 0512 - Lake Fork Reservoir The segment reaches from Lake Fork Dam in Wood County up to the normal pool elevation of 403 feet msl.

Segment 0506 USGS- Recorded Flows

Date and Time	Station	USGS Station #	Location	Flow (cfs)
12/11/24 06:54	10428(SR17)	08020000	Sabine River near Gladewater, TX	272
12/10/24 13:29	10429(SR19)	08019200	Sabine River near Hawkins, TX	135
12/10/24 12:50	10430(SR21)	08018500	Sabine River near Mineola, TX	32
Segment 0514				
12/10/24 13:53	10468(BS1)	08019500	Big Sandy Creek near Big Sandy, TX	50

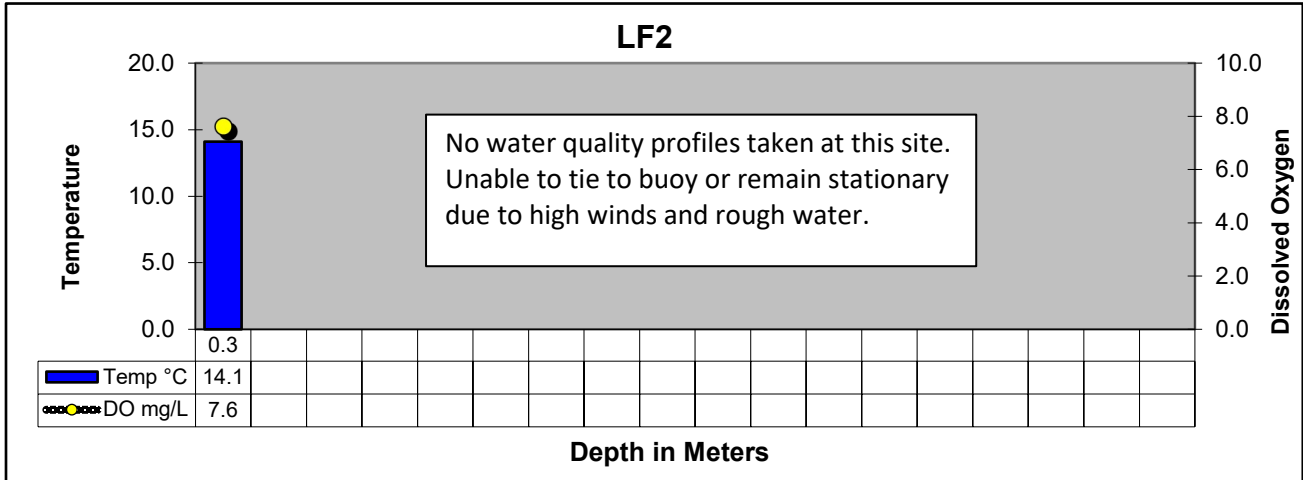
Segment 0506 Water Quality

Date and Time	Station	Depth meters	Temp °C	pH SU	DO mg/L	% Sat	Cond µS/cm	TDS mg/L	Secchi meters	Turbidity NTU	<i>E. coli</i> mpn/100mL
12/11/24 06:54	10428(SR17)	0.3	9.4	7.1	10.5	93	203	130	0.30	28.5	73
12/10/24 13:29	10429(SR19)	0.3	11.3	7.4	10.5	96	216	138	0.23	32.9	50
12/10/24 12:50	10430(SR21)	0.3	10.4	7.2	10.0	90	1,707	1,090	0.17	43.1	172
Segment 0514											
12/10/24 13:53	10468(BS1)	0.3	11.9	7.3	10.1	93	116	74	0.70	9.37	86
Segment 0515											
12/10/24 13:06	10469(LF20)	0.3	10.8	7.0	10.4	95	176	113	0.28	28.3	120

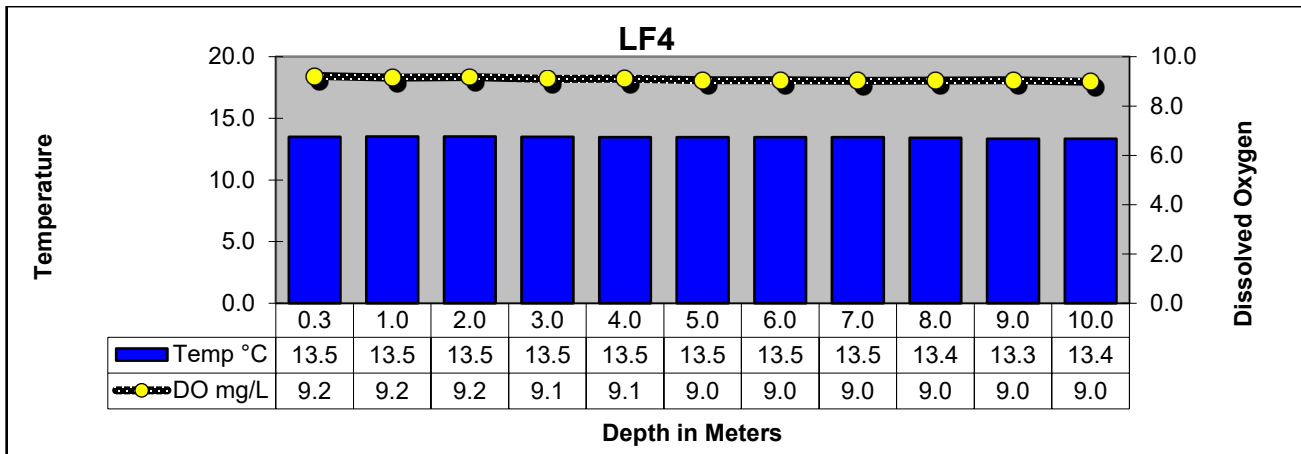
Segment 0506 Water Quality Continued

Date and Time	Station	Depth meters	Temp °C	pH SU	DO mg/L	% Sat	Cond µS/cm	TDS mg/L	Secchi meters	Turbidity NTU	<i>E. coli</i> mpn/100mL	
Segment 0512												
12/10/24 11:30	10458(LF2)	0.3	14.1	7.2	7.6	76	168	107	0.50	4.17	3	
		No water quality profiles taken at this site. Unable to tie to buoy or remain stationary due to high winds and rough water.										
12/10/24 10:25	10462(LF4)	0.3	13.5	7.8	9.2	89	168	107	0.61	5.05	<1	
		1.0	13.5	7.7	9.2	89	168	107				
		2.0	13.5	7.7	9.2	89	168	108				
		3.0	13.5	7.6	9.1	88	168	108				
		4.0	13.5	7.6	9.1	88	168	107				
		5.0	13.5	7.6	9.0	87	168	107				
		6.0	13.5	7.6	9.0	88	168	108				
		7.0	13.5	7.6	9.0	87	169	107				
		8.0	13.4	7.6	9.0	88	168	107				
		9.0	13.3	7.6	9.0	87	167	107				
		10.0	13.4	7.5	9.0	87	168	107				
12/10/24 10:45	10461(LF3)	0.3	12.7	7.4	9.8	92	166	106	0.56	5.22	<1	
		1.0	12.8	7.6	9.3	89	166	106				
		2.0	12.8	7.6	9.3	89	166	106				
		3.0	12.8	7.6	9.3	89	166	106				
		4.0	12.8	7.6	9.3	89	167	107				
		5.0	12.8	7.6	9.3	89	167	107				
		6.0	12.8	7.6	9.3	89	167	106				
		7.0	12.8	7.6	9.3	88	167	106				
		8.0	12.7	7.5	9.0	84	167	106				
		9.0	12.7	7.4	8.4	80	167	107				

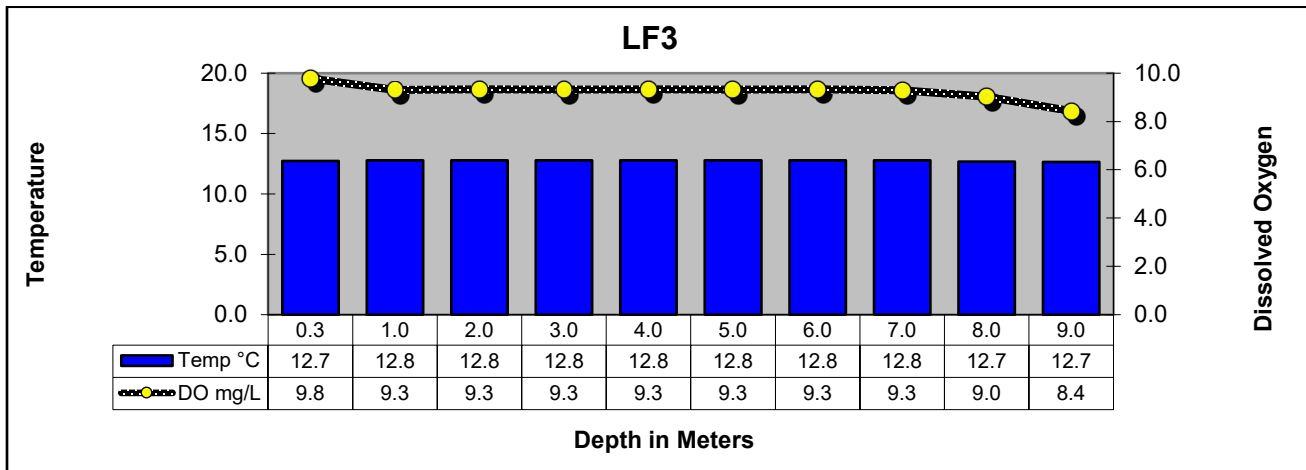
Lake Fork Reservoir Profiles



LAKE FORK RESERVOIR NEAR DAM IN CREEK CHANNEL

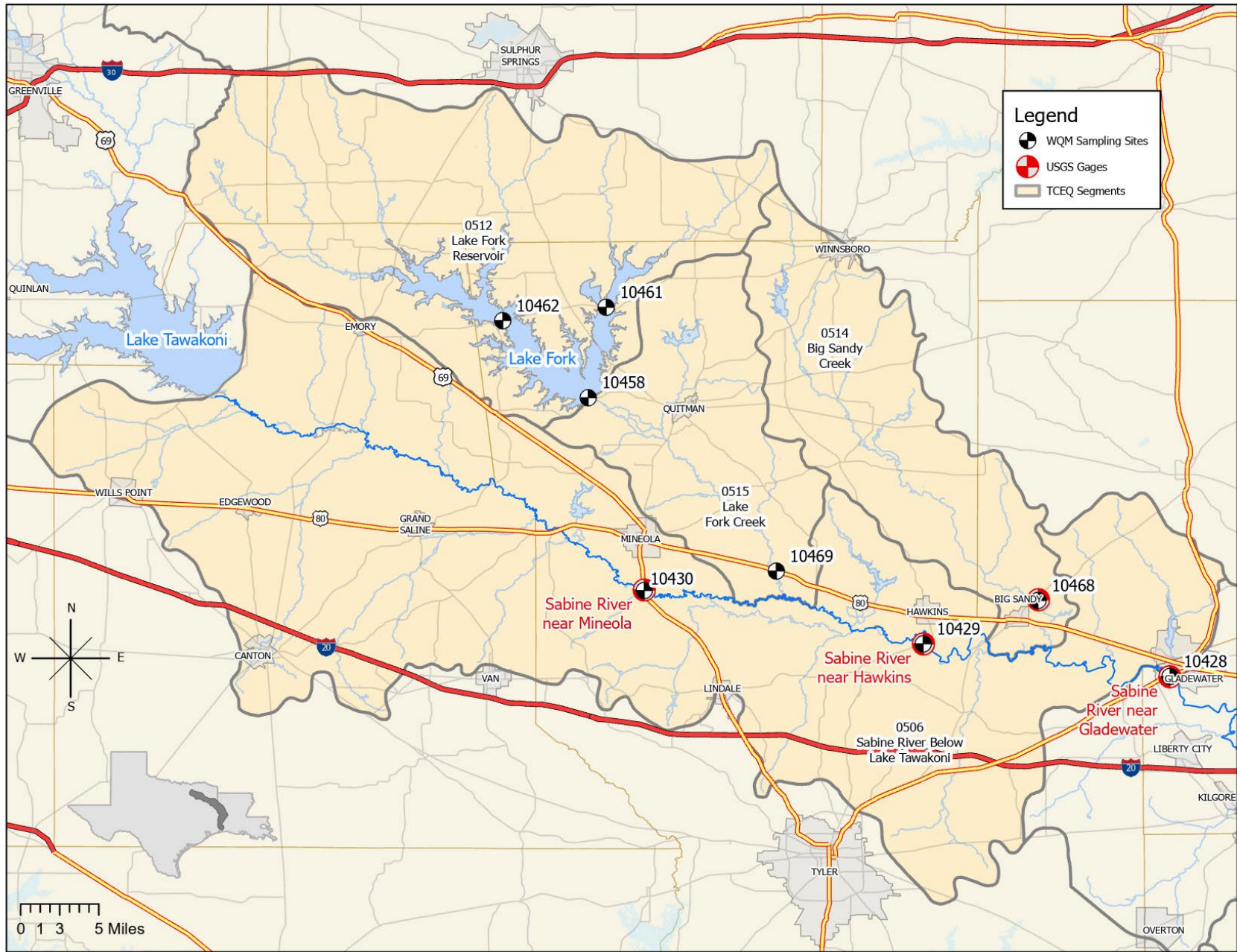


LAKE FORK RESERVOIR MID-COVE IN LAKE FORK CREEK ARM AT FM515



LAKE FORK RESERVOIR MID-ARM IN CANEY CREEK ARM AT FM515

Segments 0506, 0512, 0514 & 0515



Segment 0507 - Lake Tawakoni

Description: The designated segment includes the impounded Sabine River from Iron Bridge Dam in Rains County up to the normal pool elevation of 437.5 feet msl. Although much of this segment is rural, it contains two cities with populations greater than 5,000 and one of the four largest cities in the Sabine Basin.

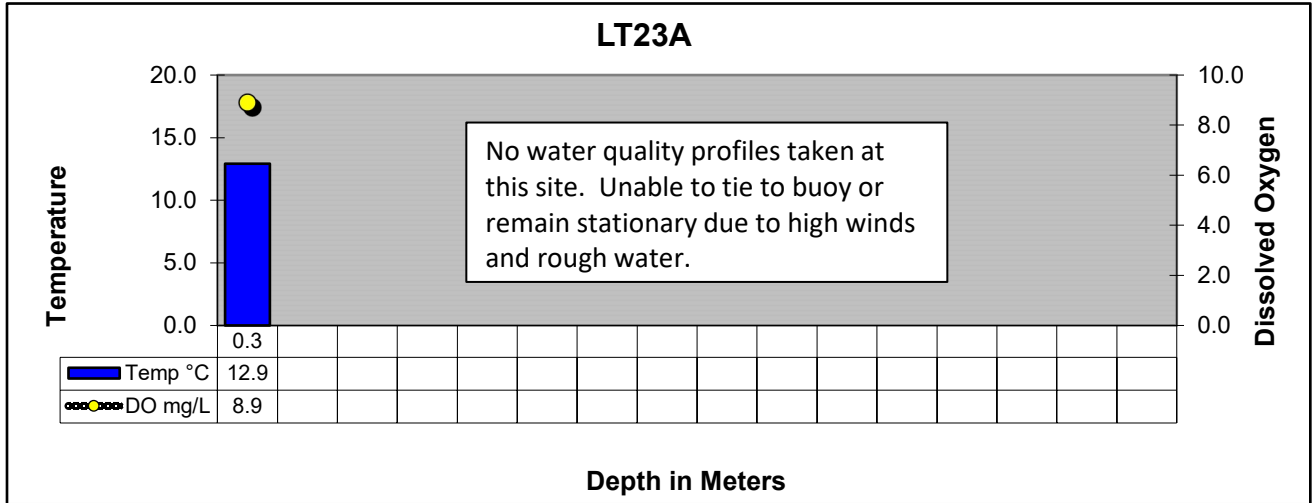
Segment 0507 Water Quality

Date and Time	Station	Depth meters	Temp °C	pH	DO mg/L	% Sat	Cond µS/cm	TDS mg/L	Secchi meters	Turbidity NTU	<i>E.coli</i> mpn/100mL
Segment 0507											
12/10/24 08:44	10434(LT23A)	0.3	12.9	7.6	8.9	86	213	136	0.85	7.98	<1
12/10/2024 08:01	21173(LT23DN)	0.3	12.8	7.9	9.7	91	213	136	0.81	7.17	<1
		1.0	12.8	7.9	9.4	90	213	136			
12/10/24 09:38	10437(LT23B)	0.3	12.5	8.2	9.9	93	214	137	0.45	11.0	1
		1.0	12.5	8.2	9.7	92	213	137			
		2.0	12.5	8.2	9.7	92	214	137			
		3.0	12.5	8.2	9.7	92	214	136			
		4.0	12.5	8.2	9.8	93	213	137			
		5.0	12.5	8.2	9.8	92	213	137			
		6.0	12.5	8.2	9.8	92	214	136			
		7.0	12.5	8.2	9.8	93	213	136			
		8.0	12.5	8.1	9.6	91	214	137			

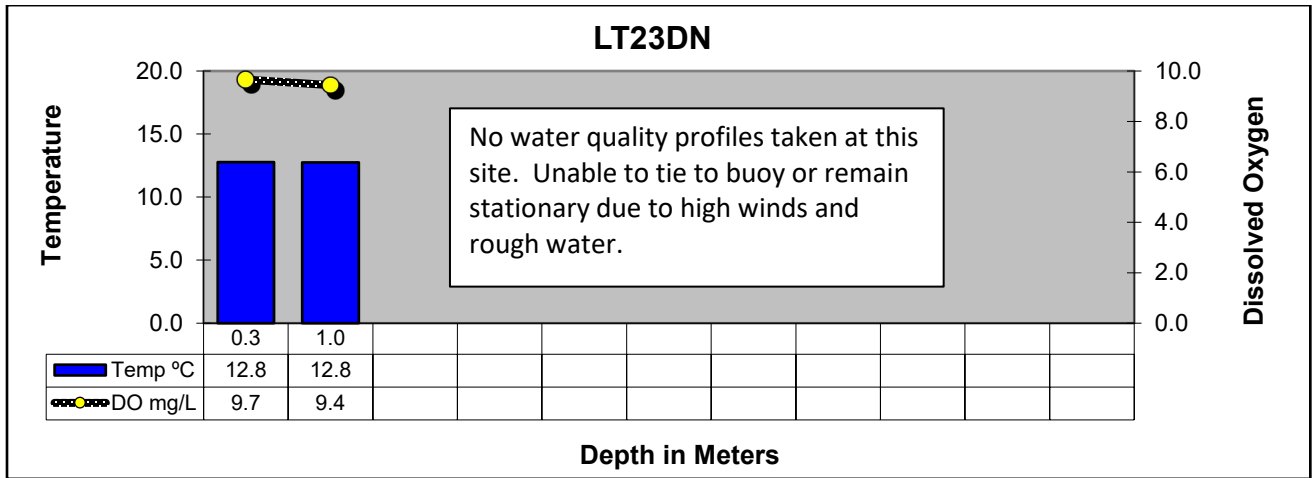
No water quality profiles taken at this site. Unable to tie to buoy or remain stationary due to high winds and rough water.

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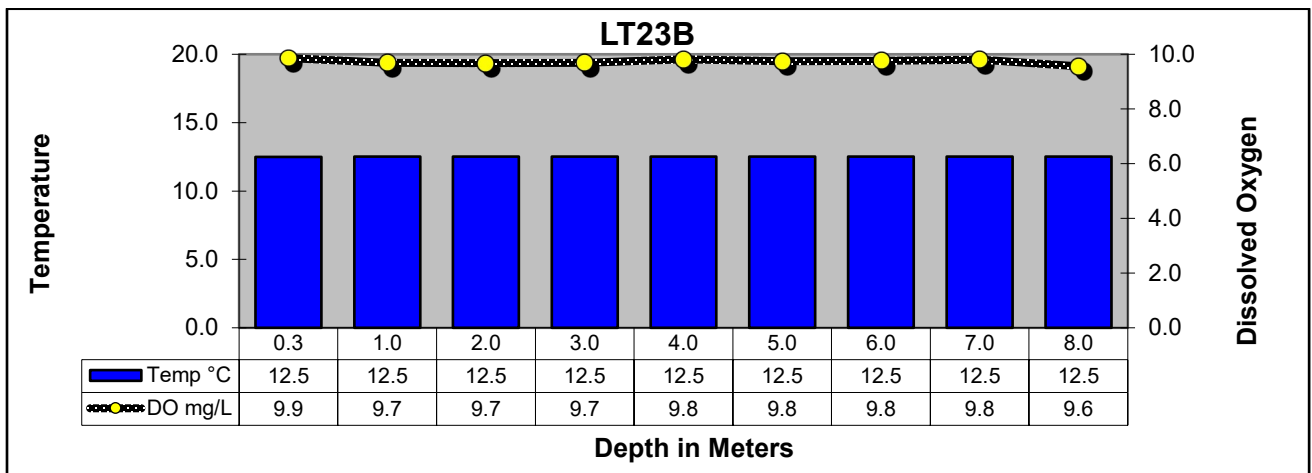
Lake Tawakoni Reservoir Profiles



LAKE TAWAKONI IN THE MAIN LAKE NEAR THE DAM



LAKE TAWAKONI IN WACO BAY EQUIDISTANT FROM FINGER AND SPRING POINTS



LAKE TAWAKONI AT SH276

Segment 0507

