

iver Basin

Sabine R



2013

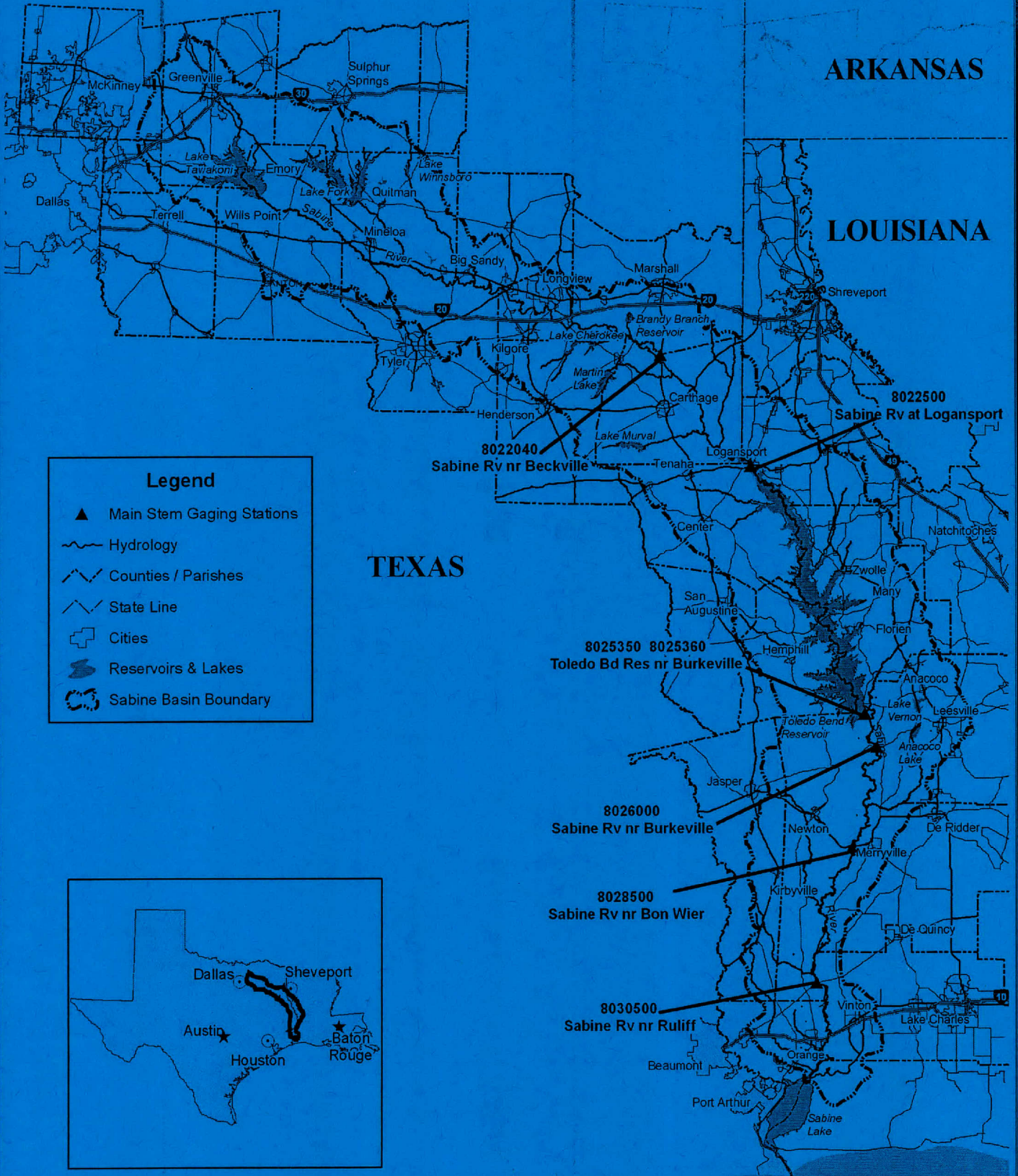
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ANNUAL REPORT

**SABINE RIVER COMPACT
ADMINISTRATION
LOUISIANA AND TEXAS**

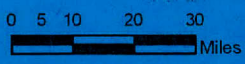
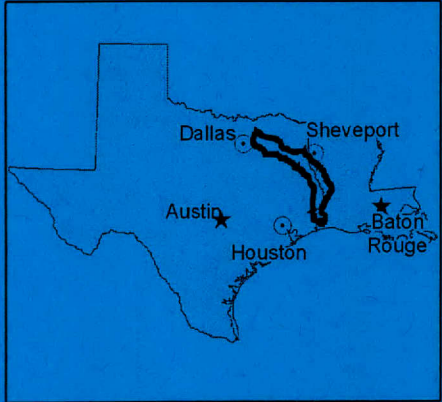
Sabine River Basin

Sabine River



Legend

- ▲ Main Stem Gaging Stations
- ~ Hydrology
- ▭ Counties / Parishes
- State Line
- ⊕ Cities
- ☾ Reservoirs & Lakes
- ⊕ Sabine Basin Boundary



GULF OF MEXICO



Road Coverage from TIGER Files
 Hydrology from various sources
 Cities & Counties from LA-GIS, TNRIS, TIGER
 Projection: UTM Zone 15, Datum: NAD 83
 Map Produced by CRA-Tx for the Sabine River Compact
 May 2000

FIFTY-NINETH ANNUAL REPORT

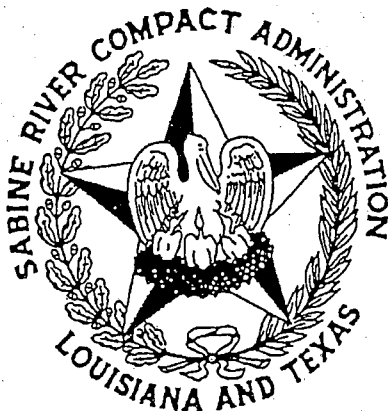
SABINE RIVER COMPACT ADMINISTRATION

FOR THE YEAR 2013

To the President of the United States

and

The Governors of Louisiana and Texas



The Administration

Vernon B. Sauer

Federal Representative and Chairman

George D. Brandon, DVM and Bobby E. Williams
for Louisiana

Gary E. Gagnon, Michael H. Lewis, and Jerry Gipson
for Texas

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Annual Report of
SABINE RIVER COMPACT ADMINISTRATION
2013

Report Year: October 1, 2012 through September 30, 2013

**TO: The President of the United States
Governors of the States of Louisiana and Texas**

Pursuant to Article VII of the Sabine River Compact, the Administration created by the terms of this Compact makes the following report for the year ending September 30, 2013.

1. Members of the Administration

Members of the Administration appointed in accordance with provisions of the Sabine River Compact as amended by Public Law 102-575, October 30, 1992 are:

United States Representative:	Vernon B. Sauer
Louisiana Representatives:	George D. Brandon and Bobby E. Williams
Texas Representatives:	Jerry Gipson
	Michael "Mike" H. Lewis (from 9/20/13)
	Gary E. Gagnon (thru 9/20/13)

2. Officers of the Administration

Chairman:	Vernon B. Sauer, Hartwell, GA 30643
Vice Chairman:	George D. Brandon, Leesville, LA 71446
Treasurer:	Gary E. Gagnon, Mauriceville, TX (thru 9/20/13)
Secretary:	Kellie Ferguson, 15091 TX Hwy., Many, LA 71449

3. Standing Committees

Budget Committee:

USGS LA Representative – Ben McGee, Chairman, Ruston, LA
USGS TX Representative – Mike Turco, Conroe, TX
Sabine River Authority Representative-James W. "Jim" Pratt
Many, LA
TX Commission on Environmental Quality Representative –
Grant Gibson, Austin, TX

Engineering Committee:

James W. Pratt, Chairman, Many, LA
Jack Tatum, Vice Chairman, Orange, TX (thru 10/19/12)
George Arcement, Baton Rouge, LA
Jane Atwood, Austin, TX (thru 10/19/12)
Jim Brown, Orange, TX (from 10/19/12)
Danny "Butch" Choate, Orange, TX
Jerry Clark, Orange, TX
Bob Corby, Fort Worth, TX
David Daigle, Lake Charles, LA
Jeff East, Conroe, TX
Kellie Ferguson, Many, LA
Max Forbes, Baton Rouge, LA
Jim Graves, Orange, TX
Bill Hughes, Orange, TX
Heather Hunziker, Austin, TX (from 10/19/12)
Bob Joseph, Austin, TX
Ben McGee, Ruston, LA
David Montagne, Orange, TX
Jason Placke, Baton Rouge, LA (from 10/19/12)
Barton Rumsey, Many, LA
Deborah Stagner, Orange, TX
Mike Turco, Conroe, TX
Suzy Valentine, Austin, TX
Travis Williams, Orange, TX
Chief, State Programs Section; USEPA, Dallas, TX
Meteorologist in Charge, NWS, Lake Charles, LA

Engineering Sub-Committees:

Diversion: Jim Brown (from 10/19/12)
Bill Hughes
Barton Rumsey
Jack Tatum (thru 10/19/12)

Gaging: George Arcement
Jim Brown (from 10/19/12)
Jeff East
Bill Hughes
Ben McGee
Jack Tatum (thru 10/19/12)
Mike Turco

Water Quality: Jim Brown (from 10/19/12)
Max Forbes
Jack Tatum (thru 10/19/12)

Legal: Jim I. Graves, Chairman, Orange, TX
 Jane Atwood, Austin, TX (thru 10/19/12)
 Heather Hunziker, Austin, TX (from 10/19/12)
 Jason Placke, Baton Rouge, LA (from 10/19/12)

The Chairman, Representative of the United States, is ex-officio member of all standing committees.

4. Meetings

Meetings were held during the report year as follows:
 October 19, 2012– Doubletree Hotel, New Orleans, LA
 June 7, 2013 – Courtyard Marriott, Bossier City, LA

5. Fiscal

(a) In accordance with Article VII:K of the Compact, the expenses incident to the administration of the Compact are paid equally by the States of Louisiana and Texas. A summary of receipts and disbursements for fiscal year ending August 31, 2013 is included in Appendix A.

(b) On June 7, 2013, the Administration approved a budget for the 2013-2014 fiscal year in accordance with provisions of the By-Laws of the Administration (Article VII:3) as follows:

Stream Gaging Program	\$48,980.00
Quality of Water Program	16,980.00
Administrative Expenses	
Secretary's Office	4,400.00
Treasurer's Office	1,800.00
Auditing Fee	2,500.00
Treasurer's Bond	50.00
Meeting Expenses	<u>950.00</u>
Total Budget	\$75,660.00

Note: The total cost of the stream gaging and quality of water programs are to be funded as follows: \$32,980 with USGS funds; and \$32,980 with SRCA funds, one-half from each state. The total cost of the administrative expenses, \$9,700, is funded by SRCA, one-half from each State. Additionally, \$21,800 from Louisiana and Texas National Stream Information Program (NSIP) funds are contributed to the stream gaging program.

(c) Pursuant to provisions of the Compact (Article VII:K) and of the By-Laws of the Administration (Article VII:4), the receipts and disbursements of the Administration have been audited for the period September 1, 2012 through August 31, 2013. The report of this audit is attached as Appendix A.

6. General Activities

The Administration continued its cooperative program with State and Federal agencies to collect stream flow and quality of water data, and to report diversions as provided by Article VII: Paragraph G of the Compact.

For the fiscal year ending August 31, 2013, the Administration and the Water Resources Division, U.S. Geological Survey provided funds for the cost of operating the basic-records part of the program, consisting of the full support for nine continuous-record discharge stations; one reservoir stage and contents station; one stage station; and water quality analyses for two sites. Details and Water Year records for these stations is contained in Appendix B. The discharge station on the Sabine River near Beckville is used for the determination of Stateline flow as defined by Article VII: Paragraph G of the Compact. Funds for the operation of this station are provided by the Texas Commission on Environmental Quality and the U.S. Geological Survey. This Article also requires findings as to the diversions made in the Stateline reach. Tabulated below is a summary of the diversions for the reporting year, October 1, 2012 - September 30, 2013.

DIVERSIONS IN ACRE-FEET

Purpose	State	Sabine River Below Toledo Bend Dam	Tributaries Below Toledo Bend Dam	Toledo Bend Reservoir	Tributaries flowing into Toledo Bend Reser. Below State Line
Irrigation	Louisiana	1,391.24	0	0	0
	Texas	1,285.48	0	0	0
Industrial	Louisiana	58,561.70	0	26,112.33	23.36
	Texas	48,985.47	0	3,614.28	0
Mining	Louisiana	0	0	0	0
	Texas	0	0	369.91	0
Municipal	Louisiana	0	0	3,740.40	0
	Texas	85.10	0	943.78	72.89
Total	Louisiana	59,952.94	0	29,852.73	23.36
	Texas	50,356.05	0	4,927.97	72.89
Total Diversion For Louisiana					89,829.03
Total Diversion For Texas					55,356.91

Grand Total

The reported industrial diversion of brackish cooling water circulated through an industrial plant in Orange County from Adams Bayou and returned to the River was zero. The municipal diversion for Louisiana from the Reservoir includes 306.18 acre feet used by Logansport as riparian water, royalty free. The Louisiana industrial diversion from Bayou San Miguel is riparian water as approved by the SRCA, royalty free.

The gaging stations designated by the Administration are listed in Section 9 and data relative to these stations, as well as other stations partially funded by the Administration, is in Appendix B.

7. Hydrologic Conditions

The Toledo Bend Project Alert System provides real time data to include rainfall, Reservoir elevation, and River stages to be used as information in Reservoir operations.

Included as Appendix "F" is an overview map of the area showing the approximate location of the stations with an attached sheet showing the various Station ID Numbers, the Station names, and a more exact location for each. This Appendix includes a tabulation of the total monthly rainfall for each station for the water year 12-13 and the departure from the long term average for the 10 year period of WY 97-98 through WY 06-07 which was included in Appendix "F" of the 2008 Annual Report. For fast references, graphs showing the total monthly rainfall for WY 12-13 are also included.

A narrative summary of this information is utilized herein in reporting the hydrologic conditions experienced during the reporting water year and for comparing these conditions with the previous water year thereby giving the reader a general idea of the most recent and previous hydrologic conditions of the area.

For the 16 stations, 71% of the monthly rainfall totals were below the long term average compared to 53% for WY 11-12 with 29% of the monthly rainfall totals being above the long term average compared to 47% for WY 11-12. 94% of the annual rainfall totals were below the long term average compared to 62% for WY 11-12. Compared to the WY 97-98 through WY 06-07 average, the WY 12-13 totals were 73% of the average and WY 11-12 totals were 100.8% of the average. The WY 12-13 totals were 72% of the WY 11-12 totals. For comparison purposes, a plotting of the Reservoir elevations for the last five CY, 2009 through 2013, is included as the last sheet of Appendix F.

For the WY, there were no monthly totals exceeding 10 inches; the maximum being 8.43 inches at Logansport in January.

Noteworthy monthly totals on the low side were 42 of the 192 monthly totals (22%) being less than 1 inch with 14 (33%) of these 42 being less than one-half inch. The northeastern portion of the basin had the fewest monthly totals below 1 inch. The lowest monthly minimum rainfall total was 0.04 inch reported at Huxley in August.

Runoff for the basin was 44% of the average (WY 1961-2013) as measured at the Ruliff gaging station. Tributary gaging stations near Newton, TX and Rosepine, LA had annual runoffs of 48% of the average and 54% of the average, respectively, of total annual runoff. The peak discharge for various stations was 3,740 cubic feet per second (CFS) on February 13 at Beckville; 14,900 CFS on January 17 at Burkeville; 3,500 CFS on April 13 at Bayou Anacoco near Rosepine, LA; 16,800 CFS on January 18 at Bon Wier; 1,560 CFS on May 11 at Big Cow Creek near Newton, TX; and 15,000 CFS at Ruliff on May 14.

The lawsuit filed against Sabine River Authority, State of Louisiana (SRALA) by downstream residents alleging damages from the March, 2001 spillway releases is still ongoing as is the lawsuit filed against SRALA by downstream residents alleging damages from the October-November, 2009 spillway releases.

The spillway gates at Toledo Bend Dam were not opened during the year to pass flood water in accordance with the "Guide for Spillway Gate Operation, Revised June 27, 2001".

According to Toledo Bend Project Joint Operation records the maximum elevation of the reservoir for WY 2012-2013 was a wind caused 170.80 on April 24, 2013 at 0700 hours with a realistic maximum of 170.70 on June 7, 2013 at 0700 hours. The minimum elevation for the WY was 167.15 at 0700 hours on September 20, 2013.

Releases from the Reservoir for the water year totaled 1,222,960 acre feet. A monthly summary of contents and key elevations of the Reservoir as reflected by U.S. Geological Survey records is shown in Appendix B.

The lowest daily mean flow at Beckville was 23 CFS on August 24 and the lowest seven-day minimum mean was 32 CFS on August 19. The TCEQ required minimum releases were made from Lake Tawakoni and Lake Fork and the daily mean for the discharge at Beckville was not below 21.556 CFS (the flow required to produce 36 CFS at the Stateline) for any single day during the water year.

Records for the official gaging stations, as well as other stations partially funded by the Administration, are summarized in Appendix B.

8: Hydrologic Stations

Quantity and quality-of-water data are collected at many sites in and immediately adjacent to the basin by State and Federal agencies. The information aids in the development and utilization of the water resources of the Basin. The type of data collected is not the same for all agencies and it is impractical to publish the data in this report. However, to assist a user, the sites, the type of data collected, and the address of the collecting agency are shown below. The agency will furnish the information on request.

At gaging stations, a continuous gage-height record and daily discharge are available; at reservoir stations, records of elevation and contents are available; and, at rainfall stations, daily and hourly precipitation data are available. At quality-of-water stations, chemical, biological, and physical characteristics of water are determined at different intervals and for different constituents.

I. Gaging stations operated by the U.S. Geological Survey, 3535 S. Sherwood Forest Blvd., Suite 120, Baton Rouge, Louisiana 70816.

1. Bayou Castor near Funston, LA
2. Bayou Grand Cane near Stanley, LA
3. Bayou San Patricio near Benson, LA

4. Bayou Toro near Toro, LA
5. Bayou Anacoco near Rosepine, LA

II. Gaging stations operated by the U.S. Geological Survey, 8027 Exchange Drive, Austin, Texas 78754. All active stations are DCP equipped.

1. Cowleech Fork Sabine River at Greenville, TX
2. South Fork Sabine River near Quinlan, TX
3. Sabine River near Wills Point, TX
4. Sabine River near Mineola, TX
5. Burke Creek near Yantis, TX (1979-89)
6. Lake Fork Creek near Quitman, TX
7. Big Sandy Creek near Big Sandy, TX
8. Sabine River near Gladewater, TX
9. Sabine River near Beckville, TX
10. Martin Creek near Tatum, TX (1974-96)
11. Murvaul Bayou near Gary, TX (1958-83)
12. Sabine River at Toledo Bend near Burkeville, TX
13. Sabine River near Burkeville, TX
14. Sabine River near Bon Wier, TX
15. Big Cow Creek near Newton, TX
16. Cypress Creek near Buna, TX (1952-83)
17. Sabine River near Ruliff, TX
18. Cow Bayou near Mauriceville, TX (1952-86)

III. Gage-height station operated by the U.S. Geological Survey, 3535 S. Sherwood Forest Blvd., Suite 120, Baton Rouge, Louisiana 70816.

1. Bayou Toro near Toledo Bend near Toro, LA.

IV. Reservoir stations operated by the U.S. Geological Survey, 8027 Exchange Drive, Austin, Texas 78754. All active stations are DCP equipped.

1. Lake Tawakoni near Wills Point, TX
2. Lake Winnsboro near Winnsboro, TX (1962-86)
3. Lake Fork Reservoir near Quitman, TX
4. Lake Cherokee near Longview, TX (1951-83)
5. Martin Lake near Tatum, TX
6. Sabine River at Logansport, LA
7. Toledo Bend Reservoir near Burkeville, LA

V. Quality-of-water stations operated by the Louisiana Department of Environmental Quality (LDEQ), P.O. Box 82215, Baton Rouge, LA 70884-2215; the Sabine River Authority of Texas (SRA-TX), P. O. Box 579, Orange, TX 77630-0579; Stream Monitoring Unit, Texas Commission on Environmental Quality (TCEQ), P. O. Box

13087, Austin, TX 78711; the U.S. Geological Survey in Louisiana (USGS-LA); and the U.S. Geological Survey in Texas (USGS-TX), addresses shown above:

1. Lake Tawakoni headwaters, Cowleech Fork of Sabine River at U.S. 69 northwest of Lone Oak, TX, (SRA-TX)
2. Lake Tawakoni in upper lake, Cowleech Arm, near Wind Point Park, TX (SRA-TX)
3. Lake Tawakoni headwaters, Caddo Creek near Quinlan, TX at TX 34 (SRA-TX)
4. Lake Tawakoni in Caddo Inlet near Caddo Jake Reach (SRA-TX)
5. Lake Tawakoni at midlake at FM 35 near Quinlan, TX (SRA-TX)
6. South Fork of Sabine River at TX 34 (SRA-TX)
7. Lake Tawakoni in Kitsee Inlet near Quinlan, TX (SRA-TX)
8. Bull Creek at confluence with Oak Cove of Lake Tawakoni (SRA-TX)
9. Lake Tawakoni near Wills Point, TX (SRA-TX)
10. Sabine River near Wills Point, TX (SRA-TX)
11. Sabine River near Mineola, TX (USGS-TX, SRA-TX) (1968-72, 1973-96)
12. Lake Fork Creek at TX 19 near Emory, TX (SRA-TX)
13. Burke Creek at FM 514 near Yantis, TX (SRA-TX)
14. Lake Fork Reservoir at FM 515 near Alba, TX (SRA-TX)
15. Lake Fork Reservoir near Dallas Water Intake (SRA-TX)
16. Lake Fork Reservoir, Little Caney Arm at pipeline crossing (SRA-TX)
17. Caney Creek at FM 515 near Yantis, TX (SRA-TX)
18. Lake Fork Reservoir near Quitman, TX (SRA-TX, USGS-TX) (1961-86)
19. Lake Fork Creek just below spillway at TX 182 (SRA-TX)
20. Lake Fork Creek near Mineola, TX (SRA-TX)
21. Sabine River near Hawkins, TX (SRA-TX)
22. Big Sandy Creek near Holly Lake Ranch at FM 2896 (SRA-TX)
23. Big Sandy Creek north of Hawkins at FM 1795 (SRA-TX)
24. Big Sandy Creek near Big Sandy, TX (USGS-TX, SRA-TX) (1985-86)
25. Lake Cherokee near Longview, TX (USGS-TX) (1969-83)
26. Sabine River near Beckville, TX (USGS-TX) (1962-98)
27. Martin Lake near Tatum, TX (USGS-TX) (1939-45)
28. Sabine River near Deadwood, TX (SRA-TX)
29. Sabine River near Logansport, LA (LDEQ, TCEQ, USGS, SRA-TX) (1939-45)
30. Bayou Castor near Logansport, LA (USGS-LA)
31. Tenaha Creek south of Campti, TX (TCEQ)
32. Toledo Bend Reservoir, Tenaha arm near Center, TX (SRA-TX)
33. Toledo Bend Reservoir near Milam, TX (SRA-TX)
34. Toledo Bend Reservoir near Huxley Water Plant Intake (SRA-TX)
35. Toledo Bend Reservoir, Sunshine Bay near Milam, TX (SRA-TX)
36. Toledo Bend in Six Mile Boat Lane at US 87 Bridge (SRA-TX)
37. Toledo Bend Reservoir at Toledo Bend Dam, TX (SRA-TX)
38. Sabine River below spillway of Toledo Bend Reservoir, TX (SRA-TX)
39. Sabine River at Toledo Bend Dam near Burkeville, TX (USGS-TX) (1967-86)
40. Sabine River near Burkeville, TX (SRA-TX, USGS-TX) (1968-72)
41. Bayou Anacoco near Knight, LA (USGS-LA)

42. Sabine River near Bon Weir, TX (LDEQ, TCEQ, USGS-TX, SRA-TX) (1969-85)
43. Sabine River near Ruliff, TX (USGS-TX, SRA-TX) (1945, 1947-98)
44. Sabine River at IH-10 at Orange, TX (LDEQ, TCEQ)
45. Adams Bayou at FM 1006 near Orange, TX (TCEQ)
46. Adams Bayou at IH-10 at Orange, TX (TCEQ)
47. Sabine River at Channel Marker 3 below Cow Bayou, TX (TCEQ)
48. Cow Bayou at FM 1442 east of Bridge City, TX (TCEQ)

VI. Rainfall stations operated by the National Oceanic and Atmospheric Administration - National Weather Service. Request data from nearby Weather Service Office or from National Climatic Center, Asheville, N.C. 28801.

Bon Wier, TX	Greenville, TX	Logansport, LA	Orange, TX
Canton, TX	Harleton, TX	Longview, TX	Terrell, TX
Carthage, TX	Hawkins, TX	Many, LA	Tyler, TX
Center, TX	Hemphill, TX	Marshall, TX	Wills Point, TX
DeRidder, LA	Lake Charles, LA	McKinney, TX	Winnsboro, TX
Emory, TX	Leesville, LA	Mineola, TX	Wolfe City, TX
Gilmer, TX			

Daily forecasts are made by the National Weather Service at 9 sites on the Sabine River and at 3 reservoir sites; flood forecasts are made at 4 additional points. The information is available from newspapers in the area.

9. Official Gaging Stations

The Administration has designated official gaging stations needed to perform its duties as stated by Article VII:G of the Compact. These stations are continuous record gaging stations and are operated by the U.S. Geological Survey. The Administration, the Geological Survey, and other agencies finance the operating costs.

Continuous-record stations on the Sabine River:

- Sabine River near Beckville, TX
- Sabine River at Logansport, LA (gage height only)
- Toledo Bend Reservoir near Burkeville, TX (elevation at two sites and contents)
- Sabine River near Burkeville, TX
- Sabine River near Bon Wier, TX
- Sabine River near Ruliff, TX (DCP equipped)

Continuous-record stations on tributaries flowing into the Sabine River:

- Bayou Grand Cane near Stanley, LA
- Bayou San Patricio near Benson, LA
- Bayou Toro near Toro, LA
- Bayou Anacoco near Rosepine, LA
- Big Cow Creek near Newton, TX

**Water quality stations are maintained at the following locations:
Bayou Anacoco near Knight, LA
Sabine River near Bon Wier, TX**

Records for these stations are given in Appendix B.

Respectfully submitted,

SABINE RIVER COMPACT ADMINISTRATION

**Vernon B. Sauer, Chairman
Representative of the United States**

**George D. Brandon
Commissioner for Louisiana**

**Bobby E. Williams
Commissioner for Louisiana**

**Gary E. Gagnon
Commissioner for Texas**

**Jerry Gipson
Commissioner for Texas**

**Michael H. Lewis
Commissioner for Texas**

APPENDIX A - AUDIT REPORT

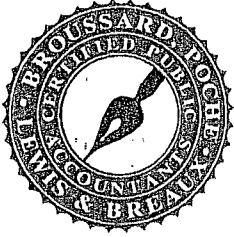
SABINE RIVER COMPACT ADMINISTRATION

FINANCIAL REPORT

AUGUST 31, 2013

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Donald W. Kelley, CPA 2005
George J. Trappey, III, CPA 2007
Terrel P. Dressel, CPA 2007
Herbert Lemoine II, CPA 2008
Mary T. Miller, CPA 2011

INDEPENDENT AUDITORS' REPORT

To the Board of Commissioners
Sabine River Compact Administration
States of Texas and Louisiana

We have audited the accompanying financial statements of the governmental activities of Sabine River Compact Administration, a component unit of the State of Texas and State of Louisiana, as of and for the years ended August 31, 2013 and 2012, and the related notes to financial statements, which collectively comprise the Administration's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities of the Sabine River Compact Administration, as of August 31, 2013 and 2012, and the respective changes in financial position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and budgetary comparison information on pages 3 through 4 and 9 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

A handwritten signature in cursive script, reading "Broussard Locke Lewis".

Lafayette, Louisiana
October 18, 2013

SABINE RIVER COMPACT ADMINISTRATION
MANAGEMENT'S DISCUSSION AND ANALYSIS

This section of the Sabine River Compact Administration (SRCA) annual financial report presents a discussion and analysis of SRCA's financial performance during the fiscal years that ended August 31, 2013, 2012 and 2011. Please read this section in conjunction with SRCA's financial statements, which follow this section.

FINANCIAL HIGHLIGHTS

SRCA's net position overall decreased from \$39,610 to \$38,889 or 1.8% from August 31, 2010 to August 31, 2011, increased from \$38,889 to \$40,174 or 3.3% from August 31, 2011 to August 31, 2012 and increased from \$40,174 to \$43,082 or 7.3% from August 31, 2012 to August 31, 2013.

SRCA's intergovernmental revenues for the years ended August 31, 2013, 2012 and 2011 were \$65,960, \$65,450 and \$66,950, respectively. General governmental expenses were \$63,074, \$64,200 and \$67,699 for the years ended August 31, 2013, 2012 and 2011, respectively.

OVERVIEW OF THE FINANCIAL STATEMENTS

The financial report consists of three parts: Management's Discussion and Analysis (this section), the basic financial statements, and the notes to financial statements.

The basic financial statements present information for SRCA as a whole, in a format designed to make the statements easier for the reader to understand. The statements in this section include the statements of net position and the statements of activities.

The statements of net position presents the assets and liabilities. The difference between total assets and total liabilities is net position and may provide a useful indicator of whether the financial position of SRCA is improving or deteriorating.

The statements of activities presents information showing how SRCA's assets changed as a result of current year operations. Regardless of when cash is affected, all changes in net position are reported when the underlying transactions occur. As a result, transactions are recorded that will not affect cash until future periods.

The financial statements provide information about SRCA's overall financial status. The financial statements also include notes that explain some of the information in the financial statements and provide more detailed data.

SRCA's financial statements are prepared on an accrual basis in conformity with accounting principles generally accepted in the United States of America (GAAP) as applied to government units. Under this basis of accounting, revenues are recognized in the period in which they are earned and expenses are recognized in the period in which they are incurred. All assets and liabilities associated with the operation of SRCA are included in the statements of net position.

FINANCIAL ANALYSIS

Net Position

SRCA's total net position increased by \$2,908 or 7.3% for the year ended August 31, 2013, increased by \$1,285 or 3.3% for the year ended August 31, 2012 and decreased by 721 or 1.8% for the year ended August 31, 2011.

Changes in Net Position

The change in net position for the years ended August 31, 2013, 2012 and 2011 was an increase of \$2,908, an increase of \$1,285 and a decrease of \$721, respectively.

SRCA'S GENERAL GOVERNMENT EXPENSES

	<u>2013</u>	<u>2012</u>	<u>2011</u>
General government expenses:			
Secretary	\$ 4,400	\$ 4,400	\$ 4,400
Treasurer	1,800	1,800	1,800
Water resource investigation	54,624	55,750	58,350
Audit fees	2,250	2,250	2,250
Other	-	-	899
Total	<u>\$ 63,074</u>	<u>\$ 64,200</u>	<u>\$ 67,699</u>

CURRENTLY KNOWN FACTS, DECISIONS, OR CONDITIONS

There are currently no known facts, decisions or conditions that are expected to have a significant effect on financial position or results of operations.

CONTACTING SRCA'S FINANCIAL MANAGEMENT

This financial report is designed to provide our legislatures, state officials, the Louisiana Legislative Auditor's Office, patrons and other interested parties with a general overview of SRCA's finances and to demonstrate SRCA's accountability for the money it receives. If you have any questions about this report or need additional financial information, contact Debra Stagner at 409-746-2192.

SABINE RIVER COMPACT ADMINISTRATION

STATEMENTS OF NET POSITION
August 31, 2013 and 2012

ASSETS	<u>2013</u>	<u>2012</u>
Cash	\$ 48,579	\$ 54,876
Total assets	<u>\$ 48,579</u>	<u>\$ 54,876</u>
LIABILITIES		
Accounts payable	\$ 5,497	\$ 14,702
Total liabilities	<u>\$ 5,497</u>	<u>\$ 14,702</u>
NET POSITION		
Unrestricted	\$ 43,082	\$ 40,174
Total net position	<u>\$ 43,082</u>	<u>\$ 40,174</u>
Total liabilities and net position	<u>\$ 48,579</u>	<u>\$ 54,876</u>

See Notes to Financial Statements.

SABINE RIVER COMPACT ADMINISTRATION

STATEMENTS OF ACTIVITIES
 Years Ended August 31, 2013 and 2012

	<u>2013</u>	<u>2012</u>
EXPENSES:		
Governmental activities -		
General government	\$ <u>63,074</u>	\$ <u>64,200</u>
Total governmental activities	\$ <u>63,074</u>	\$ <u>64,200</u>
GENERAL REVENUES:		
Intergovernmental	\$ 65,960	\$ 65,450
Interest	<u>22</u>	<u>35</u>
Total general revenues	\$ <u>65,982</u>	\$ <u>65,485</u>
Change in net position	\$ 2,908	\$ 1,285
Net position, beginning of the year	<u>40,174</u>	<u>38,889</u>
Net position, end of the year	<u>\$ 43,082</u>	<u>\$ 40,174</u>

See Notes to Financial Statements.

SABINE RIVER COMPACT ADMINISTRATION
 BALANCE SHEETS – GOVERNMENTAL FUND
 August 31, 2013 and 2012

ASSETS	<u>2013</u>	<u>2012</u>
Cash	<u>\$ 48,579</u>	<u>\$ 54,876</u>
Total assets	<u><u>\$ 48,579</u></u>	<u><u>\$ 54,876</u></u>
LIABILITIES AND FUND BALANCE		
Accounts payable	<u>\$ 5,497</u>	<u>\$ 14,702</u>
Fund balance - unassigned	<u>\$ 43,082</u>	<u>\$ 40,174</u>
Total liabilities and fund balance	<u><u>\$ 48,579</u></u>	<u><u>\$ 54,876</u></u>

See Notes to Financial Statements.

SABINE RIVER COMPACT ADMINISTRATION
 STATEMENTS OF REVENUES, EXPENDITURES AND
 CHANGES IN FUND BALANCE – GOVERNMENTAL FUND
 Years Ended August 31, 2013 and 2012

	<u>2013</u>	<u>2012</u>
REVENUES:		
Intergovernmental	\$ 65,960	\$ 65,450
Interest	22	35
	<u>65,982</u>	<u>65,485</u>
Total revenues	\$ 65,982	\$ 65,485
EXPENDITURES:		
General government	\$ 63,074	\$ 64,200
Net change in fund balance	\$ 2,908	\$ 1,285
Fund balance, beginning of the year	<u>40,174</u>	<u>38,889</u>
Fund balance, end of the year	<u>\$ 43,082</u>	<u>\$ 40,174</u>

See Notes to Financial Statements.

SABINE RIVER COMPACT ADMINISTRATION
 BUDGETARY COMPARISON SCHEDULE
 GENERAL FUND
 For the Year Ended August 31, 2013
 With Comparative Actual Amounts for Year Ended August 31, 2012

	2013			2012 Actual
	Original and Final Budget	Actual	Variance with Final Budget Positive Negative	
REVENUES:				
Intergovernmental -				
State of Texas	\$ 32,980	\$ 32,980	\$ -	\$ 32,725
State of Louisiana	32,980	32,980	-	32,725
Interest	-	22	22	35
	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Total revenues	\$ 65,960	\$ 65,982	\$ 22	\$ 65,485
EXPENDITURES:				
General government -				
Maintenance - office of:				
Secretary	\$ 4,400	\$ 4,400	\$ -	\$ 4,400
Treasurer	1,800	1,800	-	1,800
Water resources				
investigation	56,260	54,624	1,636	55,750
Audit fees	2,500	2,250	250	2,250
Other	1,000	-	1,000	-
	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Total expenditures	\$ 65,960	\$ 63,074	\$ 2,886	\$ 64,200
Net change in fund balance	\$ -	\$ 2,908	\$ 2,908	\$ 1,285
Fund balance, beginning of the year	40,174	40,174	-	38,889
Fund balance, end of the year	<u>\$ 40,174</u>	<u>\$ 43,082</u>	<u>\$ 2,908</u>	<u>\$ 40,174</u>

See Notes to Financial Statements.

SABINE RIVER COMPACT ADMINISTRATION

NOTES TO FINANCIAL STATEMENTS

Note 1. Summary of Significant Accounting Policies

Basis of presentation:

The financial statements of the Sabine River Compact Administration have been prepared in accordance with generally accepted accounting principles in the United States of America ("GAAP") applicable to state and local governments. The Governmental Accounting Standards Board ("GASB") is the accepted standard-setting body for establishing governmental accounting and financial reporting principles. The significant accounting and reporting policies and practices used by the Administration are described below.

Reporting entity:

The Sabine River Compact Administration, a component unit of the State of Texas and State of Louisiana, is an entity formed by a compact entered into by the State of Texas and the State of Louisiana on January 26, 1953, under authority granted by an Act of the Congress of the United States approved November 1, 1951, (Public Law No. 252, 82nd Congress, First Session). The Act was amended on October 30, 1992 (Public Law No. 102-575 of the 102 Congress). The objective of the Compact is to provide equitable apportionment of the waters of the Sabine River and its tributaries between the two states. The operation is administered by an Inter-State Administrative Agency composed of two members appointed by the Governor of Texas and two members appointed by the Governor of Louisiana; and one member, as representative of the United States appointed by the President of the United States, which member shall be ex-officio chairman of the Administration without vote and shall not be a domiciliary of or resident in either state.

Measurement focus/basis of accounting:

Government-wide financial statements (GWFS) –

The statements of net position and the statements of activities display information about the reporting government as a whole. These statements include all the financial activities of the Administration.

The GWFS were prepared using the economic resources measurement focus and the accrual basis of accounting. Revenues, expenses, gains, losses, assets and liabilities resulting from exchange or exchange-like transactions are recognized when the exchange occurs (regardless of when cash is received or disbursed). Revenues, expenses, gains, losses, assets and liabilities resulting from nonexchange transactions are recognized in accordance with the requirements of GASB Statement No. 33, "Accounting and Financial Reporting for Nonexchange Transactions."

Fund financial statements -

Governmental funds are accounted for using a current financial resources measurement focus. With this measurement focus, only current assets and current liabilities are generally included on the balance sheets. The statements of revenues, expenditures and changes in fund balance report on the sources (i.e., revenues and other financing sources) and uses (i.e., expenditures and other financing uses) of current financial resources. This approach differs from the manner in which the governmental activities of the GWFS are prepared; however, there are no differences between the GWFS and the fund financial statements as of and for the year ended August 31, 2013.

Fund financial statements report detailed information about the Administration. The focus of governmental fund financial statements is on major funds rather than reporting funds by type. The Administration has only one fund, the General Fund, which by definition is always a major fund.

NOTES TO FINANCIAL STATEMENTS

Governmental funds use the modified accrual basis of accounting. Under the modified accrual basis of accounting, revenues are recognized when susceptible to accrual (i.e., when they become both measurable and available). Measurable means the amount of the transaction can be determined and available means collectible within the current period or soon enough thereafter to pay liabilities of the current period. Expenditures are recorded when the related fund liability is incurred.

The two major sources of revenues are intergovernmental and interest. Both of these are susceptible to accrual.

Budgets:

Budgets are adopted on a basis consistent with accounting principles generally accepted in the United States of America. An annual appropriated budget is adopted for the General Fund. The budget is prepared by the Sabine River Compact Administration management for formal approval by the Board of Commissioners. Any amendments to the original budget are approved by the Board of Commissioners. Budgeted amounts presented are as originally adopted and as amended. Because the Administration did not amend its budget during the fiscal year, the amounts presented as original and final are the same.

Cash:

Cash consists of amounts in interest bearing deposit accounts.

Equity classifications:

Government-wide financial statements -

Equity is classified as net position. The Administration's net position is classified as unrestricted.

Fund financial statements -

Governmental fund equity is classified as fund balance. The following classifications describe the relative strength of the spending constraints placed on the purposes for which resources can be used:

- Nonspendable fund balance - amounts that are not in a spendable form (such as inventory) or are required to be maintained intact;
- Restricted fund balance - amounts constrained to specific purposes by their providers (such as grantors, bondholders, and higher levels of government), through constitutional provisions, or by enabling legislation;
- Committed fund balance - amounts constrained to specific purposes by a government itself, using its highest level of decision-making authority; to be reported as committed, amounts cannot be used for any other purpose unless the government takes the same highest level action to remove or change the constraint;
- Assigned fund balance - amounts a government intends to use for a specific purpose; intent can be expressed by the governing body or by an official or body to which the governing body delegates the authority;
- Unassigned fund balance - amounts that are available for any purpose; positive amounts are reported only in the general fund.

NOTES TO FINANCIAL STATEMENTS

The Board of Commissioners establishes (and modifies or rescinds) fund balance commitments by passage of an ordinance or resolution. This is typically done through adoption and amendment of the budget. A fund balance commitment is further indicated in the budget document as a designation or commitment of the fund (such as for special incentives). Assigned fund balance is established by the Board of Commissioners through adoption or amendment of the budget as intended for 'specific purpose' (such as the purchase of fixed assets, construction, debt service, or for other purposes).

The Administration's fund balance is classified as unassigned.

Use of estimates:

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

Recent accounting pronouncements:

In June 2011, the Governmental Accounting Standards Board (GASB) issued Statement No. 63 "*Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position.*" This Statement is effective for financial statements for years beginning after December 15, 2011. This Statement provides guidance for reporting deferred outflows of resources, deferred inflows of resources and net position in a statement of financial position and related disclosures.

In March 2012, the Governmental Accounting Standards Board (GASB) issued Statement No. 65 "*Items Previously Reported as Assets and Liabilities.*" This Statement is effective for financial statements for years beginning after December 15, 2012. This Statement established accounting and financial reporting standards that reclassify as deferred outflows of resources or deferred inflows of resources certain items that were previously reported as assets and liabilities and recognizes, as outflows of resources and inflows of resources, certain items that were previously reported as assets or liabilities. This Statement also provides other financial reporting guidance related to the impact of the financial statement elements deferred outflows of resources and deferred inflows of resources, such as changes in the determination of the major fund calculations and limited the use of the term deferred in financial statement presentations.

The adoption of GASB Statement 63 had no effect in the current year and the adoption of GASB Statement 65 is expected to have changes on the formatting of the financial statements and classifications of certain items within the financial statements and the related disclosures next year.

Note 2. Deposits

The bank balance of deposits was \$59,131 and \$54,876 at August 31, 2013 and 2012, respectively, which was entirely covered by federal depository insurance. Accordingly, the Administration did not have any custodial credit risk at August 31, 2013 and 2012.



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George A. Lewis, CPA 1992
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Terrel P. Dressel, CPA 2007
Herbert Lemoine II, CPA 2008
Mary T. Miller, CPA 2011

**INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL
OVER FINANCIAL REPORTING AND ON COMPLIANCE AND
OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL
STATEMENTS PERFORMED IN ACCORDANCE WITH
GOVERNMENT AUDITING STANDARDS**

To the Board of Commissioners
Sabine River Compact Administration
State of Texas and Louisiana

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards issued by the Comptroller General of the United States, the financial statements of the governmental activities of Sabine River Compact Administration (the "Administration"), as of and for the year ended August 31, 2013, and the related notes to financial statements, which collectively comprise the Administration's basic financial statements, and have issued our report thereon dated October 18, 2013.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Administration's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Administration's internal control. Accordingly, we do not express an opinion on the effectiveness of the Administration's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

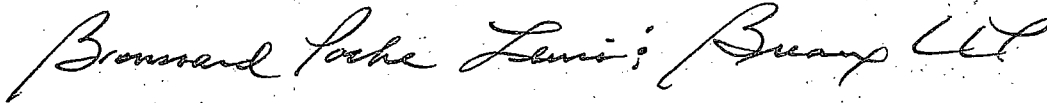
Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or, significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Administration's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under Government Auditing Standards.

Purpose of This Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose. However, this report is a matter of public record and its distribution is not limited.



Lafayette, Louisiana
October 18, 2013

SABINE RIVER COMPACT ADMINISTRATION

SCHEDULE OF FINDINGS AND RESPONSES

Year Ended August 31, 2013

We have audited the basic financial statements of Sabine River Compact Administration as of and for the year ended August 31, 2013, and have issued our report thereon dated October 18, 2013. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Our audit of the basic financial statements as of August 31, 2013 resulted in an unqualified opinion.

Section I - Summary of Auditors' Reports

A. Report on Internal Control and Compliance Material to the Financial Statements

Internal Control

Material weakness(es) identified Yes No

Control deficiencies identified that are not considered to be material weakness(es) Yes None reported

Compliance

Noncompliance material to financial statements Yes No

Section II - Financial Statement Findings

No matters were reported.

SABINE RIVER COMPACT ADMINISTRATION

SCHEDULE OF PRIOR FINDINGS
For the Year Ended August 31, 2013

Section I. Internal Control and Compliance Material to the Financial Statements

None reported.

Section II. Internal Control and Compliance Material to Federal Awards

Not applicable.

Section III. Management Letter

The prior year's report did not include a management letter.

APPENDIX B

GAGING STATION RECORDS

The data herein presented for discharge gaging stations consists of a description of the station; a summary of the average and extreme flow conditions for the period of record; daily discharges; current and historical monthly summaries; summary statistics for calendar year, water year, and historical periods; and a graph of current water year data. Only daily gage heights (in data and in graph form) are shown for Sabine River at Logansport since it is affected by the backwater in Toledo Bend Reservoir and only daily reservoir storage (in data and graph form) is shown for Toledo Bend Reservoir near Burkeville, Texas.

The gaging-station description shows the present location of the gage, the drainage flow area, the period of record, the type of gage, general remarks affecting flow, the average discharge, and the extremes. The location of the gaging station and the drainage area are obtained from the most accurate maps available. Under "Gage" is given the type of gage currently in use and the datum of this gage. Information pertaining to conditions affecting natural flow at the gaging station is given under "Remarks". Under "Average Discharge" is shown the mean flow for the years indicated. The maximum discharge and gage height, and minimum discharge for key periods are shown under "Extremes".

The data herein presented for water quality stations consists of a description of the station, a summary of certain daily values for the period of record, and water quality data for various sampling intervals. The water quality stations description shows the present location of the gage, the drainage flow area, the period of record, the period of daily record, general remarks affecting flow, extremes for the period of daily record, and extremes outside the period of daily record.

Information concerning revisions to past records; changes in the type, location, and datum of the gages; changes in regulation and diversion; and the methods for determining the extremes are contained in the report. Records for previous water years, for stations or tributary streams, and for quality-of-water data can also be found in the annual series of U.S. Geological Survey reports. These reports can be obtained from the District Chief in the State responsible for the records. Records for the main stem of the Sabine River and the tributary streams in Texas are available from the District Chief, U.S. Geological Survey, 8027 Exchange Drive, Austin, Texas 78754; records for the tributary streams in Louisiana are available from the District Chief, U.S. Geological Survey, 3535 S. Sherwood Forest Boulevard, Suite 120, Baton Rouge, Louisiana 70816.

Data included herein was furnished by the U.S. Geological Survey in accordance with a cooperative agreement with the Sabine River Compact Administration.

Water-Data Report 2013

08022040 Sabine River near Beckville, TX

Sabine Basin
Middle Sabine Subbasin

LOCATION.--Lat 32°19'38", long 94°21'12" referenced to North American Datum of 1927, Panola County, TX, Hydrologic Unit 12010002, on downstream side of highway embankment near right end of downstream bridge on U.S. Highway 59, 0.9 mi upstream from Eightmile Creek, 6.0 mi upstream from Farm Road 1794, 8.4 mi northeast of Beckville, 12.4 mi downstream from State Highway 43 and at mile 327.0.

DRAINAGE AREA.--3,589 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Oct. 1938 to current year. Prior to Oct. 1978, published as "near Tatum" (station 08022000).

PERIOD OF RECORD, Water-Quality.--

CHEMICAL DATA: Feb. 1952 to Mar. 1999.

BIOCHEMICAL DATA: Jan. 1968 to Mar. 1999.

PESTICIDE DATA: Mar. 1968 to June 1981.

RADIOCHEMICAL DATA: Jan. to June 1981.

PERIOD OF DAILY RECORD, Water-Quality.--

SPECIFIC CONDUCTANCE: Feb. 1952 to Sept. 1998.

WATER TEMPERATURE: Feb. 1952 to Sept. 1998.

GAGE.--Water-stage recorder. Datum of gage is 190.00 ft above NGVD of 1929. Prior to Oct. 1, 1978, at site 12.4 mi upstream at datum 14.18 ft higher. Prior to Sept. 21, 1945, nonrecording gage. Satellite telemeter at station.

REMARKS.--Records fair except those for estimated daily mean discharges, which are poor. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically. Since water year 1961, at least 10% of contributing drainage area has been regulated. There are several diversions above this station and below Lake Tawakoni for municipal, industrial and oil field operations. Low flows are sustained by wastewater effluents that are returned to the river above the station. Flow may also be slightly affected at times by discharge from floodwater retarding structures controlling runoff from 9.70 mi² in the Mill Creek drainage basin.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--22 years (water years 1939-1960) prior to regulation by Lake Tawakoni, 2,663 ft³/s (1,929,000 acre-ft/yr).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1884 reached a stage of about 2 ft lower than flood of Apr. 4, 1945. These dates and gage heights are based on information for Sabine River near Tatum (station 08022000) and Sabine River at Logansport, LA. (station 08022500).

EXTREMES FOR PERIOD PRIOR TO REGULATION.--WATER YEARS 1939-1960: Maximum discharge, 123,000 ft³/s, Apr. 4, 1945, from rating curve extended above 66,000 ft³/s on basis of partly estimated discharge measurement of 88,900 ft³/s, gage height, 33.80 ft, from graph based on gage readings; minimum observed, 2.4 ft³/s, Aug. 11, 1964.

08022040 Sabine River near Beckville, TX—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,480	154	116	672	610	575	1,210	294	316	71	56	39
2	997	158	124	927	579	499	1,480	275	289	60	50	38
3	596	133	125	830	540	420	1,380	270	226	53	43	123
4	551	115	114	630	479	378	1,830	246	199	61	53	192
5	526	98	125	503	433	363	1,700	226	153	50	42	98
6	407	97	111	436	400	358	1,540	202	130	36	35	74
7	309	106	103	377	394	333	1,380	199	150	33	44	56
8	245	97	112	322	521	330	1,190	178	208	45	41	50
9	197	107	113	e875	566	311	1,020	138	151	40	32	44
10	166	92	101	e1,900	1,110	332	917	161	147	38	27	43
11	151	102	125	1,950	3,140	723	1,110	223	143	44	33	43
12	117	125	137	1,790	3,330	826	1,160	249	137	41	36	42
13	108	271	145	1,940	3,630	641	884	256	119	40	48	50
14	94	231	129	2,410	3,400	577	775	223	140	30	52	51
15	623	184	111	2,370	2,470	547	686	204	146	27	48	46
16	857	177	128	2,160	1,980	508	598	178	150	42	44	42
17	732	164	157	e1,890	1,720	450	505	233	142	127	41	37
18	635	163	166	1,510	1,470	412	460	296	117	96	38	32
19	516	146	182	1,150	1,330	454	593	266	134	68	39	39
20	398	145	188	e935	1,200	380	815	303	186	97	41	67
21	305	136	164	e744	1,030	379	720	315	127	158	37	898
22	250	137	158	e633	959	356	670	409	109	130	30	1,820
23	203	124	159	e519	912	334	641	782	96	103	25	1,740
24	170	129	152	e473	827	340	597	736	84	107	23	1,830
25	162	114	179	e449	764	704	548	782	93	130	30	1,670
26	143	118	822	438	714	799	498	971	83	128	48	1,310
27	133	118	981	e416	730	683	440	962	96	99	44	910
28	168	130	684	e396	669	584	377	843	97	82	38	627
29	137	132	690	e384	---	489	345	674	76	81	34	481
30	137	127	697	424	---	435	324	524	68	75	38	552
31	141	---	644	603	---	542	---	399	---	67	42	---
Total	11,654	4,130	7,942	31,056	35,907	15,062	26,393	12,017	4,312	2,259	1,232	13,044
Mean	376	138	256	1,002	1,282	486	880	388	144	72.9	39.7	435
Max	1,480	271	981	2,410	3,630	826	1,830	971	316	158	56	1,830
Min	94	92	101	322	394	311	324	138	68	27	23	32
Ac-ft	23,120	8,190	15,750	61,600	71,220	29,880	52,350	23,840	8,550	4,480	2,440	25,870

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2013², BY WATER YEAR (WY)

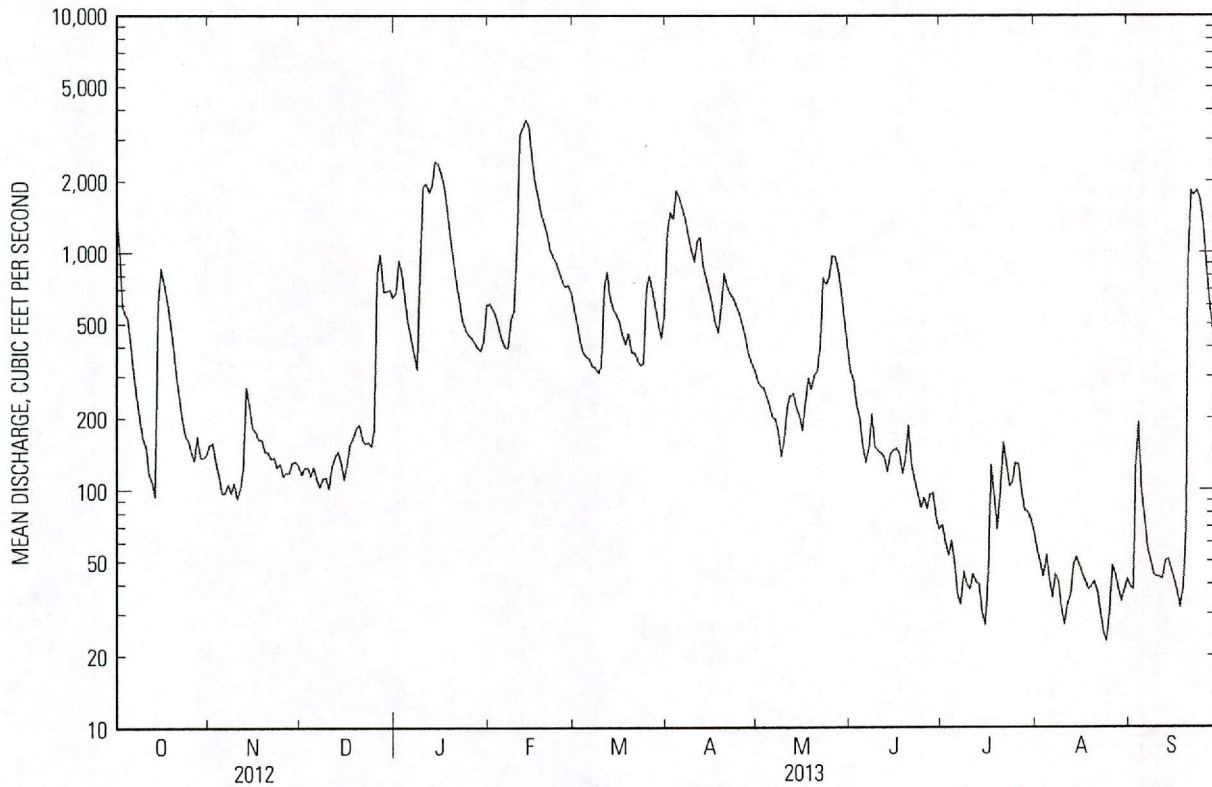
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	805	1,607	2,994	3,267	3,895	4,505	3,699	3,969	2,425	1,092	339	447
Max	10,870	10,380	12,270	10,970	11,930	21,620	11,330	21,010	11,580	12,080	2,232	3,434
(WY)	(2010)	(2010)	(2002)	(1992)	(1975)	(2001)	(1990)	(1966)	(1989)	(2007)	(2007)	(1974)
Min	42.5	82.1	104	239	322	317	355	250	60.4	30.2	22.4	25.1
(WY)	(1964)	(1964)	(2006)	(1964)	(1996)	(1996)	(1971)	(2011)	(2006)	(2011)	(2011)	(2006)

08022040 Sabine River near Beckville, TX—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1961 - 2013 ^z	
Annual total	330,055		165,008			
Annual mean	902		452		2,413	
Highest annual mean					5,103	2001
Lowest annual mean	*				265	2011
Highest daily mean	7,740	Mar 22	3,630	Feb 13	48,100	May 2, 1966
Lowest daily mean	23	Sep 10	23	Aug 24	2.4	Aug 11, 1964
Annual seven-day minimum	33	Sep 7	32	Aug 19	3.8	Aug 7, 1964
Maximum peak flow			3,740	Feb 13	49,400	May 2, 1966
Maximum peak stage			14.20	Feb 13	32.87	Mar 30, 1989
Annual runoff (ac-ft)	654,700		327,300		1,748,000	
10 percent exceeds	2,350		1,110		7,200	
50 percent exceeds	264		204		773	
90 percent exceeds	71		43		88	

^z Period of regulated streamflow.



Water-Data Report 2013

08022500 Sabine River at Logansport, LA

Sabine Basin
Toledo Bend Reservoir Subbasin

LOCATION.--Lat 31°58'20", long 94°00'22" referenced to North American Datum of 1927, Shelby County, TX, Hydrologic Unit 12010004, on left bank just upstream from bridge on U.S. Highway 84, 3.0 mi upstream from Bayou Castor, 111 mi upstream from Toledo Bend Dam and at mile 267.1.

DRAINAGE AREA.--4,842 mi² of which 3 mi² probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1903 to Apr. 1968 (daily mean discharge), Mar. 1968 to current year (daily gage height).

PERIOD OF RECORD, Water-Quality.--

CHEMICAL DATA: Apr. 1971 to July 1985.

BIOCHEMICAL DATA: Mar. 1973 to July 1985.

RADIOCHEMICAL DATA: Apr. 1979 to July 1981.

PESTICIDE DATA: Apr. 1971 to Oct. 1984.

SEDIMENT DATA: Oct. 1980 to July 1983.

PERIOD OF DAILY RECORD, Water-Quality.--

SPECIFIC CONDUCTANCE: 1939 to 1945.

WATER TEMPERATURE: 1939 to 1945.

REVISED RECORDS.--WSP 1312: 1903-06 (monthly and annual means). WSP 1732: 1929(M), 1933(M).

GAGE.--Water-stage recorder. Datum of gage is 147.72 ft above NGVD of 1929. July 1, 1903, to Sept. 30, 1956, nonrecording gages located in the vicinity of present gage. Oct. 1, 1956, to Jan. 16, 1964, water-stage recorder 4,600 ft upstream. Jan. 16, 1964, to Dec. 10, 1968, water-stage recorder 4,700 ft upstream. All gages to present datum except prior to Dec. 31, 1906 when datum was 2.00 ft lower. Satellite telemeter at station.

REMARKS.--Records good. Station discontinued as a daily streamflow station on Mar. 1, 1968, due to backwater from storage in Toledo Bend Reservoir. Since water year 1961, at least 10% of contributing drainage area has been regulated. Flow may also be slightly affected at times by discharge from one floodwater-retarding structure. This structure controls runoff from 9.70 mi² in the Mill Creek drainage basin. Numerous diversions above station for oil field operations, municipal and industrial uses. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--57 years (water years 1904-1960), 3,325 ft³/s (2,407,000 acre-ft/yr).

AVERAGE DISCHARGE FOR PERIOD OF RECORD.--7 years (water years 1961-1967), 2,252 ft³/s (1,632,000 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--

WATER YEARS, 1961-1967 (daily mean discharge): Maximum discharge, 46,800 ft³/s May 6, 1966, gage height, 38.46 ft; minimum, 25 ft³/s, Aug. 13, 1964. WATER YEARS, 1968 to current year (daily gage height): Maximum gage height, 34.78 ft, Apr. 16, 1991; minimum since initial filling of Toledo Bend Reservoir in June 1968, 16.85 ft, Nov. 9, 1987.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1884 reached a stage of 39.4 ft at present site and datum. Stage determined from high-water mark.

EXTREMES FOR PERIOD PRIOR TO REGULATION.--WATER YEARS, 1904-1960: Maximum discharge, 92,000 ft³/s Apr. 8, 1945, gage height, 44.07 ft, from floodmark; minimum, 16 ft³/s, Sept. 26-28, Oct. 3, 4, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum recorded gage height, 25.93 ft, Jan. 14; minimum gage height 19.18 ft, Dec. 20.

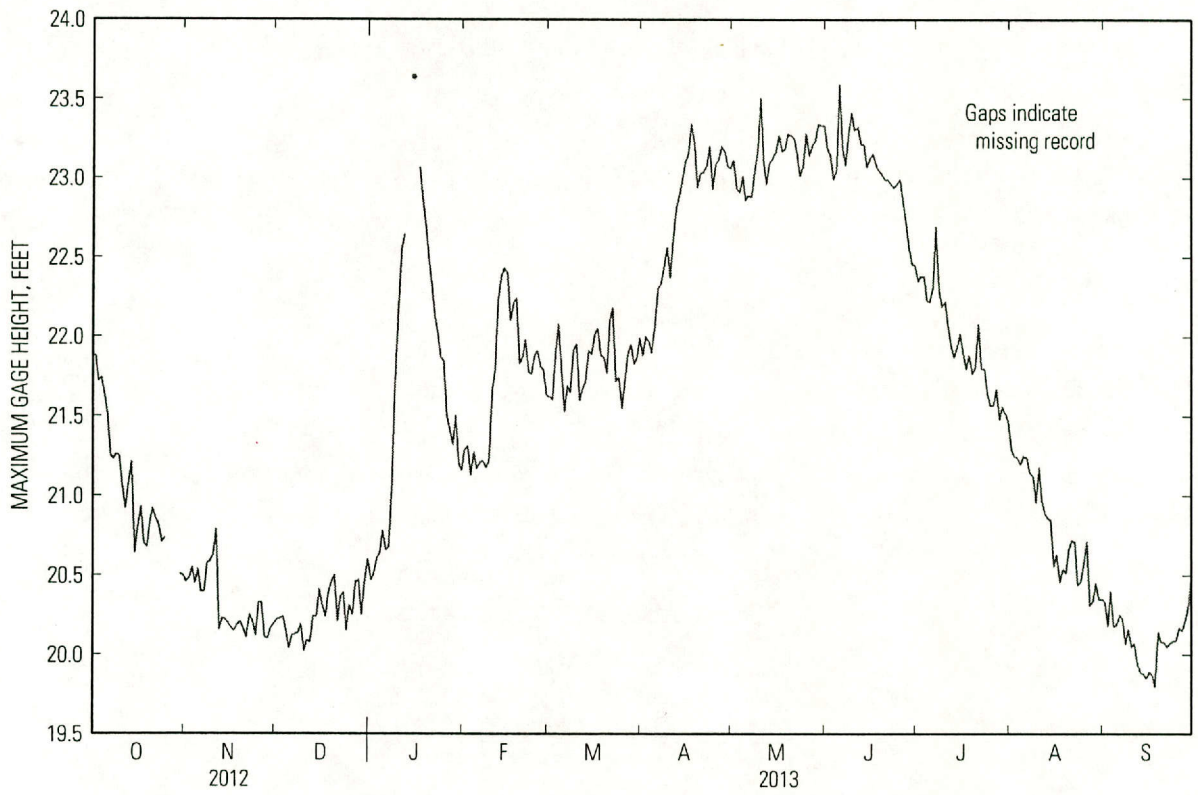
Water-Data Report 2013

08022500 Sabine River at Logansport, LA—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MAXIMUM VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	21.88	20.46	20.22	20.47	21.29	21.62	21.88	23.11	23.19	22.35	21.29	20.33
2	21.88	20.48	20.23	20.51	21.31	21.60	22.00	22.93	23.14	22.38	21.25	20.18
3	21.72	20.55	20.24	20.60	21.13	21.90	21.97	22.91	22.99	22.38	21.24	20.40
4	21.74	20.45	20.15	20.64	21.27	22.08	21.90	23.01	23.05	22.23	21.20	20.18
5	21.64	20.54	20.04	20.78	21.17	21.78	22.06	22.86	23.59	22.22	21.25	20.19
6	21.50	20.40	20.12	20.66	21.21	21.53	22.30	22.89	23.18	22.31	21.24	20.25
7	21.25	20.40	20.13	20.68	21.22	21.69	22.34	22.88	23.08	22.69	21.15	20.23
8	21.23	20.58	20.14	21.08	21.18	21.65	22.44	23.05	23.28	22.29	21.12	20.07
9	21.26	20.59	20.19	21.68	21.21	21.92	22.56	23.17	23.41	22.19	20.96	20.16
10	21.25	20.63	20.02	22.16	21.66	21.95	22.37	23.50	23.30	22.22	21.18	20.05
11	21.05	20.79	20.09	22.55	21.79	21.60	22.61	23.09	23.32	22.07	20.97	20.07
12	20.92	20.16	20.08	22.65	22.23	21.67	22.81	22.96	23.22	21.94	20.90	19.95
13	21.09	20.23	20.24	---	22.38	21.71	22.89	23.10	23.21	21.87	20.86	19.89
14	21.21	20.22	20.24	---	22.43	21.91	22.99	23.12	23.07	21.94	20.85	19.88
15	20.64	20.20	20.41	23.64	22.40	21.89	23.10	23.16	23.12	22.02	20.56	19.85
16	20.80	20.17	20.31	---	22.10	22.02	23.15	23.27	23.15	21.91	20.63	19.89
17	20.93	20.15	20.24	23.07	22.21	22.05	23.34	23.17	23.09	21.80	20.46	19.87
18	20.70	20.19	20.39	22.87	22.24	21.88	23.22	23.18	23.05	21.88	20.54	19.80
19	20.68	20.21	20.46	22.69	21.83	21.87	22.94	23.28	23.03	21.77	20.51	20.14
20	20.84	20.16	20.50	22.49	21.87	21.77	23.03	23.27	22.99	21.80	20.66	20.08
21	20.92	20.11	20.21	22.32	21.98	22.10	23.04	23.25	22.99	22.08	20.72	20.08
22	20.86	20.25	20.36	22.13	21.78	22.18	23.07	23.15	22.96	21.80	20.71	20.05
23	20.82	20.21	20.39	22.03	21.76	21.72	23.20	23.01	22.94	21.80	20.44	20.07
24	20.71	20.12	20.15	21.87	21.88	21.74	22.93	23.07	22.96	21.64	20.46	20.09
25	20.74	20.33	20.31	21.85	21.91	21.55	23.09	23.28	22.99	21.57	20.57	20.09
26	---	20.33	20.25	21.50	21.81	21.71	23.11	23.14	22.86	21.57	20.71	20.17
27	---	20.11	20.46	21.42	21.79	21.89	23.20	23.20	22.72	21.67	20.31	20.15
28	---	20.10	20.47	21.32	21.63	21.95	23.17	23.23	22.57	21.48	20.34	20.22
29	---	20.17	20.25	21.50	---	21.83	23.08	23.34	22.46	21.56	20.45	20.31
30	20.51	20.19	20.47	21.20	---	21.86	23.06	23.33	22.45	21.52	20.35	20.50
31	20.50	---	20.60	21.16	---	21.99	---	23.33	---	21.46	20.35	---
Max	---	20.79	20.60	---	22.43	22.18	23.34	23.50	23.59	22.69	21.29	20.50

08022500 Sabine River at Logansport, LA—Continued





Water-Data Report 2013

08023080 Bayou Grand Cane near Stanley, LA

Sabine Basin
Toledo Bend Reservoir Subbasin

LOCATION.--Lat 31°57'45.2", long 93°56'27.5" referenced to North American Datum of 1927, in SW ¼ SE ¼ sec.6, T.11 N., R.15 W., DeSoto Parish, LA, Hydrologic Unit 12010004, near center of span on downstream side of bridge on U.S. Highway 84, 2.8 mi upstream from Bayou Castor, 2.9 mi west of Stanley, and 3.2 mi east of Logansport.

DRAINAGE AREA.--72.50 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--January 1980 to current year.

GAGE.--Water-stage recorder. Datum of gage is 172.40 ft above NGVD of 1929.

REMARKS.--Records good above 100 ft³/s, fair between 100 ft³/s and 50 ft³/s, and poor below. Satellite telemetry at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 1	0530	2,440	11.87
Jan 11	0800	909	10.48
Jan 14	0100	*4,520	*13.25
Apr 12	1100	1,260	10.81

08023080 Bayou Grand Cane near Stanley, LA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,850	1.7	9.4	83	14	11	166	11	3.3	1.0	0.26	0.00
2	570	1.8	8.9	166	5.4	6.8	177	8.7	6.5	0.95	0.23	0.00
3	65	2.9	8.8	67	3.2	5.1	50	8.2	7.2	0.89	0.21	0.00
4	26	4.8	8.6	20	2.6	4.1	38	7.3	11	0.85	0.18	0.00
5	13	5.2	9.2	5.0	2.2	3.9	32	6.4	7.4	0.84	0.16	0.00
6	8.3	5.5	9.6	2.9	2.0	2.9	24	6.0	16	0.82	0.13	0.00
7	6.3	6.0	10	2.8	2.3	2.5	16	4.9	182	0.80	0.11	0.00
8	5.0	5.7	11	29	1.8	2.3	12	4.3	182	0.79	0.09	0.00
9	4.4	5.6	11	318	1.0	2.2	10	4.3	35	0.74	0.08	0.00
10	e3.9	5.4	23	645	43	32	16	6.8	17	0.69	0.07	0.00
11	3.6	5.3	18	794	170	169	438	9.4	8.4	0.63	0.05	0.00
12	2.8	5.2	28	321	192	124	1,020	7.5	5.6	0.59	0.05	0.00
13	2.3	5.1	20	1,920	221	44	497	5.3	4.3	0.53	0.04	0.00
14	7.6	4.9	16	2,690	135	28	83	4.4	3.5	0.48	0.03	0.00
15	4.8	4.7	12	695	58	15	40	3.6	3.0	0.47	0.03	0.00
16	2.7	4.7	13	293	37	10	28	3.5	2.8	0.46	0.02	0.00
17	2.2	4.6	14	141	28	8.0	21	2.9	2.6	0.43	0.02	0.00
18	1.8	4.5	14	77	49	5.9	17	2.5	2.3	0.41	0.02	0.00
19	1.5	4.3	15	51	214	4.8	33	2.0	2.0	0.47	0.01	0.00
20	1.3	4.3	14	41	144	4.1	47	1.6	1.9	0.44	0.01	0.03
21	1.2	4.1	13	35	92	3.5	26	1.5	2.5	0.41	0.01	25
22	0.95	4.1	13	31	281	3.2	15	1.6	3.1	0.41	0.01	60
23	0.91	4.2	13	26	247	3.1	11	1.7	2.3	0.38	0.01	10
24	0.89	4.3	14	19	69	4.4	9.3	1.5	1.9	0.36	0.01	3.1
25	0.83	4.4	29	14	42	3.9	8.0	1.3	1.7	0.35	0.00	1.6
26	3.8	4.4	65	14	35	4.0	7.2	1.8	1.5	0.33	0.00	1.1
27	8.7	6.0	69	8.9	30	3.5	6.9	1.6	1.4	0.35	0.00	0.87
28	9.4	6.5	16	6.9	19	2.9	46	1.7	1.3	0.33	0.00	0.77
29	5.9	6.4	3.0	6.1	---	2.9	40	1.6	1.1	0.32	0.00	1.2
30	3.6	9.0	1.6	14	---	3.1	22	1.3	1.1	0.30	0.00	5.7
31	2.2	---	1.0	15	---	18	---	1.8	---	0.28	0.00	---
Total	2,620.88	145.6	511.1	8,551.6	2,140.5	538.1	2,956.4	128.0	521.7	17.10	1.84	109.37
Mean	84.5	4.85	16.5	276	76.4	17.4	98.5	4.13	17.4	0.55	0.06	3.65
Max	1,850	9.0	69	2,690	281	169	1,020	11	182	1.0	0.26	60
Min	0.83	1.7	1.0	2.8	1.0	2.2	6.9	1.3	1.1	0.28	0.00	0.00
Ac-ft	5,200	289	1,010	16,960	4,250	1,070	5,860	254	1,030	34	3.6	217
Cfsm	1.17	0.07	0.23	3.80	1.05	0.24	1.36	0.06	0.24	0.01	0.00	0.05
In.	1.34	0.07	0.26	4.39	1.10	0.28	1.52	0.07	0.27	0.01	0.00	0.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	32.5	33.1	111	146	190	137	95.0	69.9	61.7	15.8	5.73	5.04
Max	448	220	463	703	514	555	451	388	433	290	125	50.4
(WY)	(2010)	(1987)	(2002)	(1999)	(1987)	(2001)	(1991)	(1990)	(1989)	(1989)	(1997)	(2001)
Min	0.00	0.00	0.00	0.39	1.94	0.28	0.01	0.04	0.00	0.00	0.00	0.00
(WY)	(1991)	(1996)	(2011)	(1981)	(1996)	(2011)	(2011)	(2011)	(2011)	(1984)	(1985)	(1982)

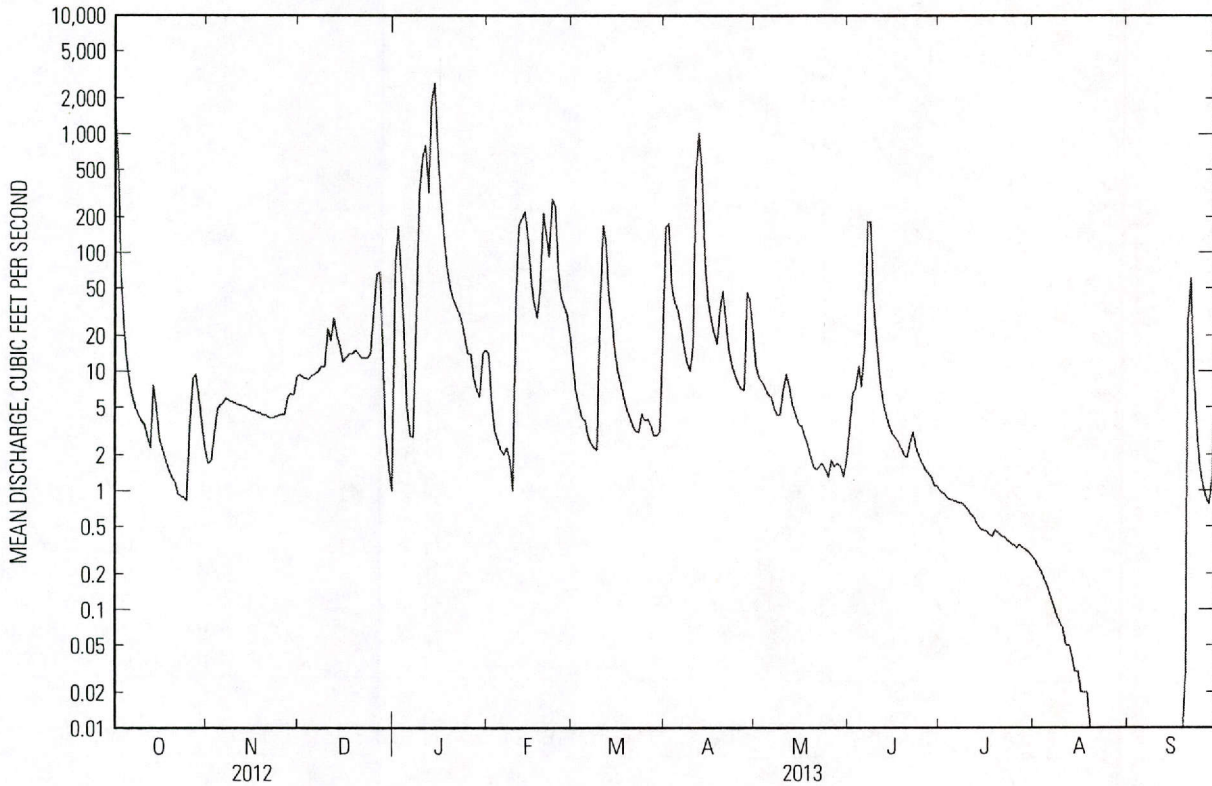
08023080 Bayou Grand Cane near Stanley, LA—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1981 - 2013	
Annual total	21,824.02		18,242.19			
Annual mean	59.6		50.0		74.7	
Highest annual mean					156	1989
Lowest annual mean					0.22	2011
Highest daily mean	2,100	Mar 21	2,690	Jan 14	6,230	May 18, 1989
Lowest daily mean	^a 0.00	Jan 5	^a 0.00		^b 0.00	
Annual seven-day minimum	^a 0.01	Jan 2	^a 0.00		^b 0.00	
Maximum peak flow			4,520	Jan 14	9,740	Jan 29, 1999
Maximum peak stage			13.25	Jan 14	15.48	Jan 29, 1999
Instantaneous low flow			^a 0.00		^b 0.00	
Annual runoff (ac-ft)	43,290		36,180		54,100	
Annual runoff (cfs)	0.822		0.689		1.03	
Annual runoff (inches)	11.20		9.36		13.99	
10 percent exceeds	70		66		144	
50 percent exceeds	3.6		4.4		3.8	
90 percent exceeds	0.03		0.03		0.00	

^a Many days.

^b At times most years.



08023080 Bayou Grand Cane near Stanley, LA—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	11.36	2.61	3.74	5.86	3.69	3.59	6.91	3.30	2.74	2.49	2.09	1.54
2	9.52	2.63	3.74	7.31	3.49	3.47	7.02	3.19	3.03	2.46	2.07	1.52
3	5.06	2.74	3.74	5.47	3.39	3.39	4.78	3.16	3.08	2.44	2.06	1.51
4	3.78	2.95	3.75	4.14	3.35	3.33	4.38	3.09	3.30	2.43	2.04	1.49
5	3.33	3.02	3.78	3.82	3.33	3.31	4.11	3.03	3.10	2.42	2.02	1.47
6	3.11	3.08	3.80	3.71	3.31	3.23	3.77	3.00	3.45	2.41	2.00	1.46
7	2.99	3.14	3.83	3.70	3.32	3.19	3.56	2.90	7.11	2.41	1.98	1.45
8	2.89	3.15	3.85	4.26	3.29	3.16	3.42	2.83	7.02	2.40	1.96	1.45
9	2.84	3.17	3.88	8.63	3.19	3.14	3.31	2.83	4.21	2.39	1.94	1.43
10	e2.78	3.18	4.09	10.01	4.41	4.09	3.46	3.06	3.60	2.36	1.91	1.42
11	2.76	3.20	4.01	10.33	7.01	6.99	9.20	3.22	3.28	2.33	1.89	1.40
12	2.71	3.22	4.18	8.46	7.29	6.28	10.53	3.11	3.11	2.31	1.88	1.39
13	2.67	3.24	4.05	11.15	7.62	4.56	9.28	2.93	3.00	2.28	1.86	1.38
14	3.00	3.25	4.01	12.06	6.50	3.94	5.55	2.84	2.93	2.25	1.84	1.37
15	2.86	3.25	3.94	10.20	5.01	3.65	4.42	2.76	2.87	2.24	1.83	1.35
16	2.70	3.28	3.97	8.42	4.32	3.51	3.92	2.75	2.84	2.24	1.81	1.34
17	2.67	3.29	4.00	6.80	3.95	3.43	3.68	2.71	2.80	2.22	1.79	1.33
18	2.63	3.31	4.00	5.57	4.51	3.32	3.57	2.68	2.77	2.20	1.77	1.32
19	2.59	3.32	4.03	4.84	7.53	3.25	4.11	2.65	2.72	2.24	1.75	1.30
20	2.57	3.33	4.02	4.48	6.58	3.20	4.66	2.60	2.71	2.23	1.74	1.50
21	2.55	3.35	4.00	4.25	5.64	3.13	3.86	2.59	2.79	2.21	1.72	3.81
22	2.52	3.36	4.00	4.04	8.17	3.09	3.48	2.61	2.88	2.21	1.71	4.95
23	2.51	3.39	4.02	3.88	7.76	3.07	3.30	2.62	2.76	2.19	1.69	3.32
24	2.51	3.42	4.04	3.77	5.28	3.17	3.22	2.59	2.70	2.17	1.68	2.86
25	2.50	3.44	4.44	3.70	4.52	3.12	3.14	2.56	2.66	2.16	1.66	2.64
26	2.73	3.45	5.46	3.70	4.23	3.12	3.09	2.62	2.63	2.14	1.64	2.52
27	3.12	3.55	5.56	3.60	4.00	3.05	3.06	2.61	2.58	2.16	1.63	2.43
28	3.16	3.60	4.06	3.55	3.75	2.98	4.58	2.62	2.55	2.15	1.61	2.40
29	2.96	3.61	3.71	3.52	---	2.96	4.43	2.61	2.52	2.13	1.60	2.52
30	2.76	3.71	3.60	3.69	---	2.97	3.72	2.58	2.50	2.12	1.58	3.10
31	2.66	---	3.53	3.71	---	3.59	---	2.62	---	2.10	1.56	---
Max	11.36	3.71	5.56	12.06	8.17	6.99	10.53	3.30	7.11	2.49	2.09	4.95
Min	2.50	2.61	3.53	3.52	3.19	2.96	3.06	2.56	2.50	2.10	1.56	1.30



Water-Data Report 2013

08023400 Bayou San Patricio near Benson, LA

Sabine Basin
Toledo Bend Reservoir Subbasin

LOCATION.--Lat 31°52'30", long 93°39'30" referenced to North American Datum of 1927, in sec.38, T.10 N., R.13 W., DeSoto Parish, LA, Hydrologic Unit 12010004, near right bank on downstream side of bridge on State Highway 512, 2.2 mi east of Benson, and 3.9 mi upstream from Bear Creek.

DRAINAGE AREA.--80.20 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Annual maximums, water years, 1954-68. Occasional low-flow measurements, water years 1954-63, October 1977 to current year.

REVISED RECORDS.--WDR LA-80-1: 1958(M).

GAGE.--Water-stage recorder. Datum of gage is 208.67 ft above NGVD of 1929. Oct. 29, 1953 to Sept. 30, 1968, crest-stage gage at same site and datum.

REMARKS.--Records good above 50 cfs and fair below, except for estimated record, which is poor. Satellite telemetry at station.

EXTREMES FOR CURRENT YEAR.—Maximum discharge, 2,100 ft³/s, Oct 1, stage falling, peak occurred Sep 30, 2012; peak discharges greater than base discharge of 1,500 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 10	1815	1,930	*16.21

08023400 Bayou San Patricio near Benson, LA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2,260	6.0	7.6	242	21	26	185	8.2	0.75	2.4	9.4	1.1
2	534	5.3	6.3	475	16	22	89	9.4	48	e2.2	8.1	1.3
3	92	4.1	6.3	245	15	19	64	8.3	200	e2.1	7.1	1.5
4	45	2.6	5.3	60	15	18	75	7.9	46	e2.0	6.3	1.4
5	32	0.88	3.6	41	14	16	52	7.1	17	e2.0	5.2	1.3
6	27	0.33	7.9	45	12	15	36	6.4	58	e2.0	e3.1	1.0
7	23	0.17	6.2	42	11	13	24	5.8	324	e2.2	e2.6	0.97
8	20	0.09	4.4	70	10	12	18	e5.1	165	e2.1	e2.4	1.4
9	19	0.14	3.6	555	10	12	14	e5.0	34	e2.4	e2.2	1.2
10	e17	0.11	50	1,490	47	40	11	19	18	e2.3	e2.0	1.4
11	15	0.92	102	1,040	252	205	214	59	12	e2.5	e1.8	1.4
12	15	12	32	368	269	91	457	35	8.5	2.4	e1.6	1.3
13	14	7.3	17	335	394	42	163	21	6.5	e2.2	e1.5	1.6
14	13	4.4	14	e1,010	179	27	58	14	5.5	e2.1	e1.4	1.4
15	13	2.7	13	625	72	21	38	9.9	4.9	e2.0	e1.3	1.4
16	17	1.3	13	321	48	17	28	7.4	4.2	e2.0	e2.4	1.4
17	14	0.61	17	159	35	18	22	e5.7	3.3	e1.9	e2.1	1.3
18	12	3.3	20	89	31	15	20	e5.8	3.3	e2.4	e1.7	1.4
19	12	4.2	11	65	153	13	69	7.3	4.7	4.6	e1.3	1.3
20	12	3.0	10	51	178	16	60	e5.0	6.4	3.5	e2.3	2.4
21	8.3	2.2	11	41	71	13	27	e4.2	7.2	2.6	2.8	111
22	4.3	1.4	11	34	97	9.0	17	5.9	3.7	4.5	e2.2	149
23	3.8	1.1	11	30	79	10	11	7.3	e1.8	4.6	e1.8	19
24	1.9	1.9	9.5	29	50	10	9.5	5.8	e2.3	4.9	e1.5	11
25	0.85	4.3	26	26	44	10	9.7	6.3	e2.1	3.7	e1.3	8.9
26	0.65	4.6	248	23	88	6.6	9.0	6.9	e2.0	2.4	e1.2	7.5
27	1.1	9.4	130	20	56	5.3	8.7	5.0	e2.2	148	e2.8	6.4
28	6.1	24	39	18	33	9.0	8.2	3.3	e2.3	284	e2.1	5.4
29	6.9	18	28	17	---	6.6	17	2.1	e2.6	35	e1.5	6.0
30	7.1	12	23	24	---	9.6	11	1.9	2.7	16	1.1	9.6
31	7.7	---	17	34	---	32	---	1.3	---	11	0.91	---
Total	3,254.70	138.35	903.7	7,624	2,300	779.1	1,825.1	302.3	998.95	564.0	85.01	361.27
Mean	105	4.61	29.2	246	82.1	25.1	60.8	9.75	33.3	18.2	2.74	12.0
Max	2,260	24	248	1,490	394	205	457	59	324	284	9.4	149
Min	0.65	0.09	3.6	17	10	5.3	8.2	1.3	0.75	1.9	0.91	0.97
Ac-ft	6,460	274	1,790	15,120	4,560	1,550	3,620	600	1,980	1,120	169	717
Cfsm	1.31	0.06	0.36	3.07	1.02	0.31	0.76	0.12	0.42	0.23	0.03	0.15
ln.	1.51	0.06	0.42	3.54	1.07	0.36	0.85	0.14	0.46	0.26	0.04	0.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	22.7	40.5	122	165	199	152	112	83.6	54.5	19.4	6.90	12.5
Max	250	305	498	971	592	595	544	530	574	288	65.8	91.2
(WY)	(2010)	(1987)	(2002)	(1999)	(1983)	(2001)	(1991)	(1983)	(1989)	(1989)	(1996)	(2012)
Min	0.00	0.00	0.00	0.18	1.42	0.55	0.20	0.11	0.00	0.00	0.00	0.00
(WY)	(1981)	(1981)	(1981)	(1981)	(2011)	(2011)	(2011)	(2001)	(1988)	(1978)	(1980)	(1980)

08023400 Bayou San Patricio near Benson, LA—Continued

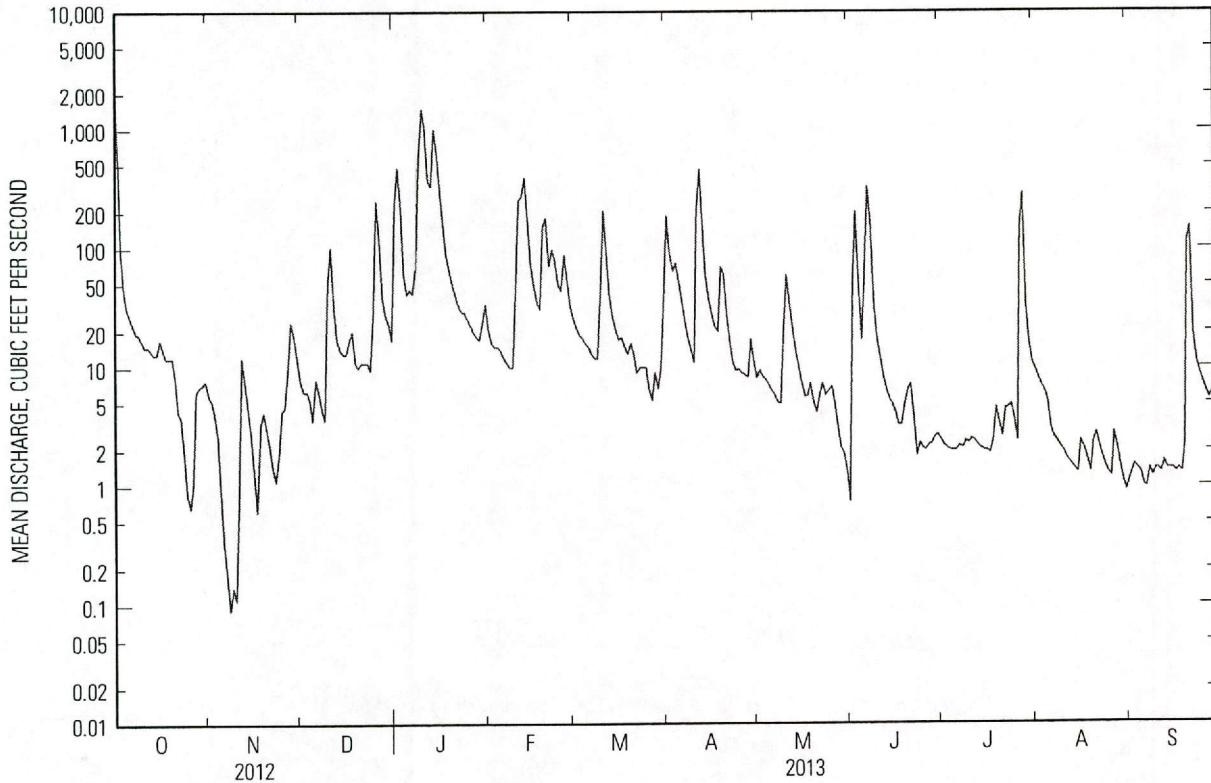
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1978 - 2013	
Annual total	32,230.37		19,136.48			
Annual mean	88.1		52.4		82.0	
Highest annual mean					190	1989
Lowest annual mean					0.87	2011
Highest daily mean	4,420	Mar 21	2,260	Oct 1	10,700	May 18, 1989
Lowest daily mean	b0.00		0.09 Nov 8		a0.00	
Annual seven-day minimum	b0.00		0.38 Nov 5		a0.00	
Maximum peak flow			1,930	Jan 10	21,300	Sep 20, 1958
Maximum peak stage			16.21	Jan 10	21.19	May 18, 1989
Instantaneous low flow			c0.07 Nov 10		a0.00	
Annual runoff (ac-ft)	63,930		37,960		59,400	
Annual runoff (cfsm)	1.10		0.654		1.02	
Annual runoff (inches)	14.95		8.88		13.89	
10 percent exceeds	154		94		156	
50 percent exceeds	9.2		9.5		6.3	
90 percent exceeds	0.00		1.4		0.00	

a At times most years.

b Many days.

c Also occurred Nov 11.



Water-Data Report 2013

08023400 Bayou San Patricio near Benson, LA—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	16.21	7.53	7.83	11.86	8.48	8.46	11.40	7.47	6.68	6.82	7.62	6.46
2	13.95	7.48	7.77	13.98	8.29	8.33	9.80	7.54	8.70	e6.77	7.52	6.53
3	9.82	7.39	7.77	12.01	8.26	8.22	9.27	7.47	11.60	e6.75	7.44	6.59
4	8.79	7.25	7.72	9.45	8.27	8.17	9.55	7.43	8.85	e6.74	7.36	6.57
5	8.49	7.02	7.60	9.03	8.21	8.07	8.99	7.37	8.01	e6.73	7.24	6.51
6	8.37	6.89	7.89	9.12	8.15	8.03	8.61	7.31	8.90	e6.73	e6.95	6.43
7	8.26	6.83	7.81	9.05	8.10	7.93	8.27	7.26	12.79	e6.78	e6.86	6.39
8	8.16	6.78	7.70	9.46	8.06	7.89	8.06	e7.19	10.87	e6.75	e6.82	6.55
9	8.12	6.81	7.64	14.27	8.06	7.88	7.91	e7.17	8.58	e6.82	e6.77	6.50
10	e8.06	6.79	8.92	15.91	9.00	8.66	7.74	7.84	8.09	e6.79	e6.72	6.57
11	7.98	6.89	10.32	15.48	12.36	11.65	11.14	9.15	7.80	e6.83	e6.67	6.57
12	7.96	7.84	8.79	13.14	12.48	9.86	13.70	8.52	7.55	6.82	e6.62	6.54
13	7.93	7.63	8.36	12.76	13.46	8.76	10.92	8.04	7.39	e6.77	e6.58	6.63
14	7.91	7.44	8.21	e15.46	11.41	8.39	9.11	7.71	7.28	e6.74	e6.55	6.57
15	7.91	7.31	8.20	14.67	9.68	8.21	8.64	7.51	7.21	e6.74	e6.52	6.55
16	8.06	7.14	8.19	12.94	9.11	8.08	8.36	7.35	7.12	e6.72	e6.82	6.54
17	7.95	7.03	8.34	11.30	8.81	8.10	8.17	e7.22	6.98	e6.71	e6.75	6.54
18	7.87	7.38	8.44	10.13	8.70	8.00	8.09	e7.23	6.98	e6.80	e6.64	6.55
19	7.86	7.48	8.11	9.56	10.97	7.93	9.37	7.34	7.17	7.17	e6.53	6.54
20	7.84	7.39	8.05	9.24	11.38	8.04	9.17	e7.16	7.35	7.03	e6.77	6.72
21	7.67	7.31	8.07	9.03	9.63	7.93	8.33	e7.09	7.44	6.85	6.89	9.77
22	7.41	7.22	8.10	8.85	10.18	7.72	7.97	7.23	7.02	7.15	e6.78	10.66
23	7.37	7.18	8.09	8.75	9.78	7.78	7.69	7.34	e6.66	7.17	e6.69	8.05
24	7.17	7.29	8.02	8.71	9.07	7.80	7.59	7.23	e6.79	7.21	e6.60	7.65
25	7.01	7.56	8.52	8.65	8.94	7.79	7.60	7.26	e6.76	7.05	e6.51	7.48
26	6.97	7.58	12.31	8.54	9.97	7.59	7.55	7.31	e6.71	6.82	e6.47	7.36
27	7.06	7.89	10.67	8.45	9.21	7.50	7.53	7.16	e6.78	9.82	e6.89	7.26
28	7.45	8.40	8.98	8.38	8.67	7.72	7.49	7.02	e6.80	12.15	e6.74	7.15
29	7.58	8.28	8.69	8.34	---	7.58	7.91	6.89	e6.86	8.58	e6.58	7.21
30	7.60	8.03	8.56	8.59	---	7.74	7.63	6.87	6.88	7.98	6.45	7.44
31	7.64	---	8.35	8.84	---	8.40	---	6.78	---	7.75	6.37	---
Max	16.21	8.40	12.31	15.91	13.46	11.65	13.70	9.15	12.79	12.15	7.62	10.66
Min	6.97	6.78	7.60	8.34	8.06	7.50	7.49	6.78	6.66	6.71	6.37	6.39



Water-Data Report 2013

08025350 Toledo Bend Reservoir near Burkeville, TX

Sabine Basin
Toledo Bend Reservoir Subbasin

LOCATION.--Lat 31°11'46", long 93°34'19" referenced to North American Datum of 1927, Sabine Parish, LA, Hydrologic Unit 12010004, prior to Sept. 20, 2007, in powerhouse at right end of Toledo Bend Dam on Sabine River, 15 mi northeast of Burkeville and at mile 156.5.

DRAINAGE AREA.--7,178 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Oct. 1966 to current year (reservoir contents).

PERIOD OF RECORD, Water-Quality.--

- CHEMICAL DATA: May 1968 to July 1976.
- BIOCHEMICAL DATA: May 1968 to July 1976.
- BIOLOGICAL DATA: Dec. 1975 to July 1976.
- PESTICIDE DATA: Dec. 1975 to July 1976.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Sabine River Authority). Prior to July 20, 1967, nonrecording gage at powerhouse 1.6 mi south of present site and at same datum. July 20, 1967, to June 30, 1973, recording gage at same site and datum. July 1, 1973, to Sept. 20, 2007, recording gage at powerhouse 1.6 mi south of present site and at same datum. Satellite telemeter at station.

COOPERATION.--Capacity table furnished by the Sabine River Authority.

REMARKS.--Records good. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically. The reservoir is formed by a rolled earthfill dam. Closure of embankment completed and deliberate impoundment began Oct. 3, 1966. The reservoir is operated for hydro-electric power generation and water conservation. Releases during high inflow periods are controlled by eleven 40 x 28-foot tainter gates. An 8.33 x 12-foot gated conduit through the dam is used for low-flow releases. Two additional 20-inch-diameter conduits, that bypass the larger conduit, may also be used for low-flow releases. Water for turbines is admitted through four 16.75 x 29-foot penstocks and controlled by vertically operated caterpillar-type gates. The dam is owned by the Sabine River Authority. The capacity table is based on U.S. Geological Survey topographic maps. There are many diversions above station for oil field operations and municipal supply. Conservation pool storage is 4,472,900 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam.....	185.0
Design flood.....	175.3
Top of gates.....	173.0
Top of power drawdown storage (top of conservation pool).....	172.0
Top of power head storage.....	162.2
Crest of spillway (controlled).....	145.0
Lowest gated outlet (invert).....	100.0

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 4,840,000 acre-ft, May 18, 1989, elevation, 173.95 ft; minimum since initial filling of reservoir, 2,692,000 acre-ft, Sept. 27, 2011, elevation, 160.47 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 4,273,000 acre-ft, April 24, elevation, 170.86 ft; minimum contents, 3,636,000 acre-ft, Sept. 19-20, elevation, 167.05 ft.

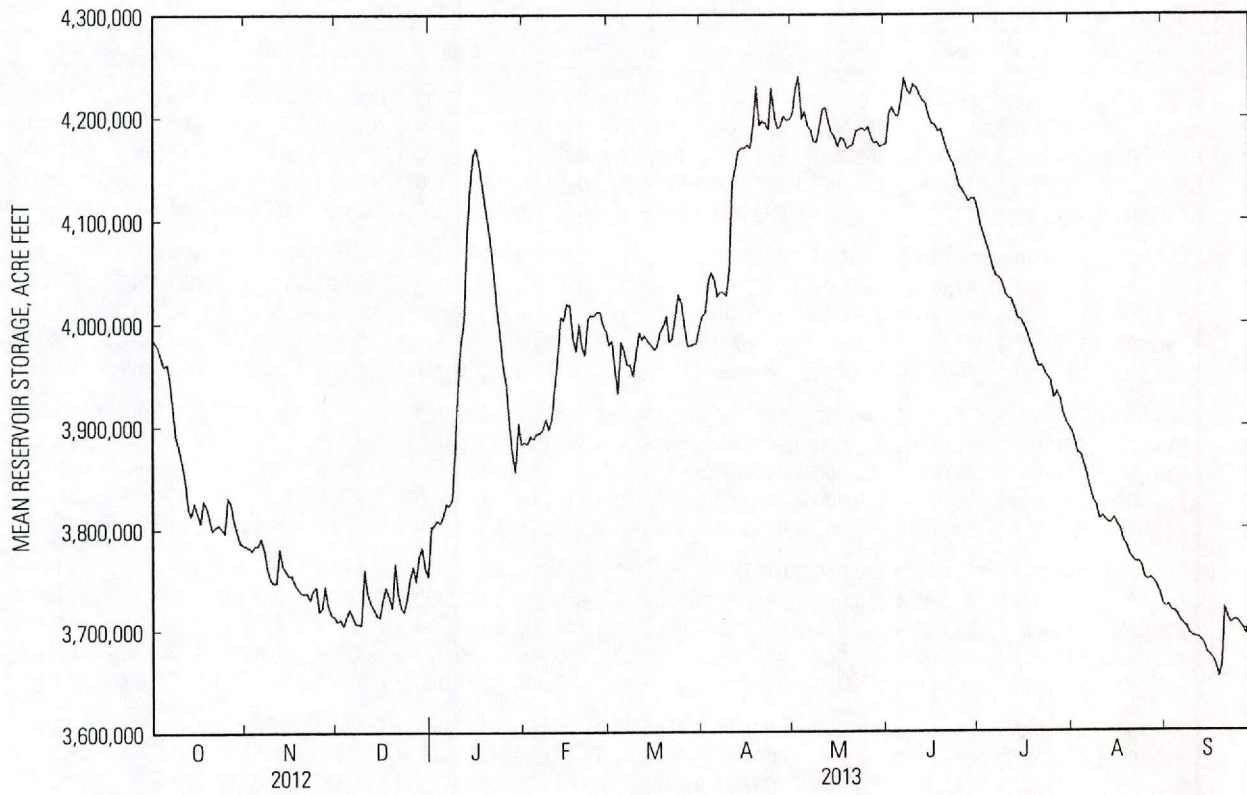
08025350 Toledo Bend Reservoir near Burkeville, TX—Continued

RESERVOIR STORAGE, ACRE FEET
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	3,986,000	3,784,000	3,709,000	3,802,000	3,885,000	3,979,000	4,007,000	4,203,000	4,174,000	4,110,000	3,894,000	3,722,000
2	3,981,000	3,782,000	3,711,000	3,804,000	3,883,000	3,983,000	4,010,000	4,227,000	4,204,000	4,095,000	3,885,000	3,724,000
3	3,979,000	3,779,000	3,705,000	3,808,000	3,891,000	3,955,000	4,042,000	4,239,000	4,209,000	4,085,000	3,874,000	3,719,000
4	3,969,000	3,784,000	3,713,000	3,806,000	3,888,000	3,932,000	4,049,000	4,198,000	4,202,000	4,076,000	3,872,000	3,718,000
5	3,959,000	3,784,000	3,721,000	3,813,000	3,893,000	3,982,000	4,042,000	4,205,000	4,201,000	4,067,000	3,862,000	3,715,000
6	3,961,000	3,791,000	3,714,000	3,825,000	3,894,000	3,974,000	4,026,000	4,191,000	4,216,000	4,054,000	3,851,000	3,708,000
7	3,946,000	3,779,000	3,707,000	3,823,000	3,897,000	3,960,000	4,030,000	4,188,000	4,238,000	4,047,000	3,839,000	3,705,000
8	3,921,000	3,761,000	3,707,000	3,829,000	3,907,000	3,960,000	4,030,000	4,177,000	4,226,000	4,044,000	3,828,000	3,703,000
9	3,890,000	3,751,000	3,706,000	3,874,000	3,897,000	3,949,000	4,027,000	4,175,000	4,222,000	4,040,000	3,823,000	3,696,000
10	3,880,000	3,747,000	3,760,000	3,938,000	3,907,000	3,970,000	4,051,000	4,189,000	4,232,000	4,030,000	3,809,000	3,694,000
11	3,864,000	3,747,000	3,737,000	3,980,000	3,937,000	3,991,000	4,135,000	4,207,000	4,229,000	4,025,000	3,812,000	3,693,000
12	3,849,000	3,781,000	3,727,000	4,003,000	3,965,000	3,984,000	4,150,000	4,209,000	4,222,000	4,023,000	3,808,000	3,692,000
13	3,820,000	3,764,000	3,722,000	4,083,000	4,006,000	3,988,000	4,167,000	4,194,000	4,216,000	4,016,000	3,806,000	3,690,000
14	3,813,000	3,759,000	3,715,000	4,129,000	4,003,000	3,982,000	4,170,000	4,185,000	4,213,000	4,005,000	3,805,000	3,686,000
15	3,826,000	3,754,000	3,713,000	4,163,000	4,019,000	3,979,000	4,170,000	4,180,000	4,201,000	4,004,000	3,810,000	3,677,000
16	3,816,000	3,754,000	3,729,000	4,170,000	4,018,000	3,974,000	4,173,000	4,171,000	4,194,000	3,999,000	3,804,000	3,674,000
17	3,807,000	3,747,000	3,742,000	4,156,000	3,985,000	3,978,000	4,170,000	4,180,000	4,193,000	3,992,000	3,800,000	3,671,000
18	3,828,000	3,741,000	3,733,000	4,137,000	3,973,000	3,992,000	4,194,000	4,178,000	4,186,000	3,983,000	3,789,000	3,665,000
19	3,822,000	3,738,000	3,722,000	4,114,000	3,999,000	3,997,000	4,230,000	4,170,000	4,188,000	3,976,000	3,783,000	3,653,000
20	3,809,000	3,737,000	3,766,000	4,095,000	3,977,000	4,007,000	4,192,000	4,171,000	4,177,000	3,966,000	3,775,000	3,665,000
21	3,799,000	3,737,000	3,736,000	4,072,000	3,969,000	3,982,000	4,196,000	4,173,000	4,168,000	3,958,000	3,770,000	3,721,000
22	3,802,000	3,730,000	3,723,000	4,046,000	4,005,000	3,985,000	4,194,000	4,186,000	4,160,000	3,959,000	3,767,000	3,712,000
23	3,805,000	3,739,000	3,718,000	4,014,000	4,008,000	4,007,000	4,188,000	4,188,000	4,155,000	3,953,000	3,767,000	3,706,000
24	3,801,000	3,743,000	3,731,000	3,987,000	4,008,000	4,028,000	4,228,000	4,189,000	4,144,000	3,948,000	3,764,000	3,709,000
25	3,796,000	3,719,000	3,750,000	3,959,000	4,011,000	4,019,000	4,201,000	4,187,000	4,133,000	3,944,000	3,752,000	3,709,000
26	3,831,000	3,722,000	3,763,000	3,941,000	4,011,000	3,998,000	4,189,000	4,190,000	4,129,000	3,927,000	3,749,000	3,705,000
27	3,826,000	3,743,000	3,748,000	3,904,000	3,999,000	3,978,000	4,191,000	4,181,000	4,124,000	3,933,000	3,751,000	3,701,000
28	3,809,000	3,725,000	3,774,000	3,873,000	3,993,000	3,979,000	4,201,000	4,175,000	4,118,000	3,927,000	3,748,000	3,695,000
29	3,798,000	3,716,000	3,782,000	3,856,000	---	3,980,000	4,197,000	4,176,000	4,121,000	3,913,000	3,743,000	3,706,000
30	3,788,000	3,714,000	3,761,000	3,903,000	---	3,981,000	4,198,000	4,171,000	4,121,000	3,905,000	3,736,000	3,720,000
31	3,785,000	---	3,753,000	3,883,000	---	3,995,000	---	4,173,000	---	3,899,000	3,726,000	---
Mean	3,857,000	3,752,000	3,732,000	3,961,000	3,958,000	3,982,000	4,135,000	4,188,000	4,184,000	3,997,000	3,800,000	3,698,000
Max	3,986,000	3,791,000	3,782,000	4,170,000	4,019,000	4,028,000	4,230,000	4,239,000	4,238,000	4,110,000	3,894,000	3,724,000
Min	3,785,000	3,714,000	3,705,000	3,802,000	3,883,000	3,932,000	4,007,000	4,170,000	4,118,000	3,899,000	3,726,000	3,653,000

	Calendar Year 2012	Water Year 2013
Mean	3,813,000	3,937,000
Max	4,348,000	4,239,000
Min	2,790,000	3,653,000

08025350 Toledo Bend Reservoir near Burkeville, TX—Continued





Water-Data Report 2013

08025360 Sabine River at Toledo Bend Reservoir near Burkeville, TX

Sabine Basin
Lower Sabine Subbasin

LOCATION.--Lat 31°10'25", long 93°33'57" referenced to North American Datum of 1927, Newton County, TX, Hydrologic Unit 12010005, in powerhouse at right end of Toledo Bend Dam, 10 mi upstream from Sabine River near Burkeville gage and at mile 156.5.

DRAINAGE AREA.--7,178 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Oct. 1971 to current year.

PERIOD OF RECORD, Water-Quality.--

CHEMICAL DATA: Oct. 1968 to Aug. 1986.

BIOCHEMICAL DATA: Oct. 1968 to Aug. 1986.

PESTICIDE DATA: Aug. 1970 to Feb. 1972.

RADIOCHEMICAL DATA: Jan. 1981 to May 1981.

REVISED RECORDS.--WRD TX-07: 1984, 1992, 1993, 2000, 2001, and 2002.

GAGE.--Water-stage recorders. Datum of gage is NGVD of 1929 (levels by Sabine River Authority). Satellite telemeter at station.

REMARKS.--Records fair. Daily discharges are a combination of releases from various outlets at the dam. Discharges for releases through the turbines are computed using scroll case differential relations and operation logs. Tainter gate releases, low-flow sluiceway releases, bypass gate releases, and turbine leakages are based on discharge measurements and operation logs. Since installation of gage in Oct. 1971, at least 10% of contributing drainage area has been regulated. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically.

08025360 Sabine River at Toledo Bend Reservoir near Burkeville, TX—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	4,540	199	214	757	224	3,240	232	236	238	1,590	3,230	257
2	7,440	951	922	221	226	228	232	237	238	2,530	3,390	758
3	7,490	201	207	222	221	227	233	238	774	3,180	247	260
4	7,620	898	1,420	218	226	229	238	239	243	243	249	813
5	7,670	197	217	221	224	231	235	238	804	3,240	3,240	251
6	7,570	861	926	220	224	226	232	237	241	242	3,280	810
7	7,660	196	217	221	230	229	234	239	1,080	245	3,390	253
8	7,750	944	942	220	225	230	236	237	243	3,220	3,230	808
9	7,670	197	216	219	223	229	233	235	244	3,200	3,250	251
10	7,640	948	935	220	224	229	234	239	244	3,200	250	736
11	7,540	200	219	222	230	231	237	239	3,030	3,190	251	250
12	7,600	937	800	218	224	229	230	236	3,140	3,210	826	741
13	7,510	176	217	223	3,220	227	235	238	3,120	248	250	251
14	4,110	882	967	4,280	6,850	228	233	243	3,130	247	824	761
15	174	176	215	7,100	6,800	230	236	239	239	3,210	253	251
16	174	919	918	11,900	6,770	227	233	242	242	3,160	1,520	725
17	174	174	220	14,400	6,810	234	236	241	3,080	3,250	252	251
18	174	944	946	14,400	6,810	230	235	241	3,140	3,270	251	761
19	968	175	217	14,500	6,770	229	238	236	3,120	3,230	834	251
20	207	867	2,030	14,500	6,790	230	235	240	3,120	246	251	751
21	791	207	218	14,500	2,940	231	235	240	3,140	244	837	252
22	202	882	945	14,500	228	231	235	239	242	3,030	252	252
23	850	207	218	14,600	228	235	236	239	243	3,230	1,380	252
24	202	932	927	14,700	227	234	237	238	3,140	3,240	251	252
25	948	207	219	14,700	4,000	233	238	241	3,140	3,220	251	252
26	208	936	892	14,700	6,890	230	237	240	3,140	3,200	833	776
27	939	494	218	14,800	6,930	231	237	242	3,150	251	253	252
28	192	927	767	13,500	6,930	230	232	240	3,140	245	830	766
29	952	215	221	225	---	233	236	240	245	3,230	255	253
30	196	897	791	227	---	234	235	241	242	3,240	1,400	711
31	948	---	215	225	---	234	---	979	---	3,230	254	---
Total	108,109	16,946	18,596	201,159	81,894	10,149	7,045	8,149	49,532	70,511	36,064	14,208
Mean	3,487	565	600	6,489	2,925	327	235	263	1,651	2,275	1,163	474
Max	7,750	951	2,030	14,800	6,930	3,240	238	979	3,150	3,270	3,390	813
Min	174	174	207	218	221	226	230	235	238	242	247	250
Ac-ft	214,400	33,610	36,890	399,000	162,400	20,130	13,970	16,160	98,250	139,900	71,530	28,180

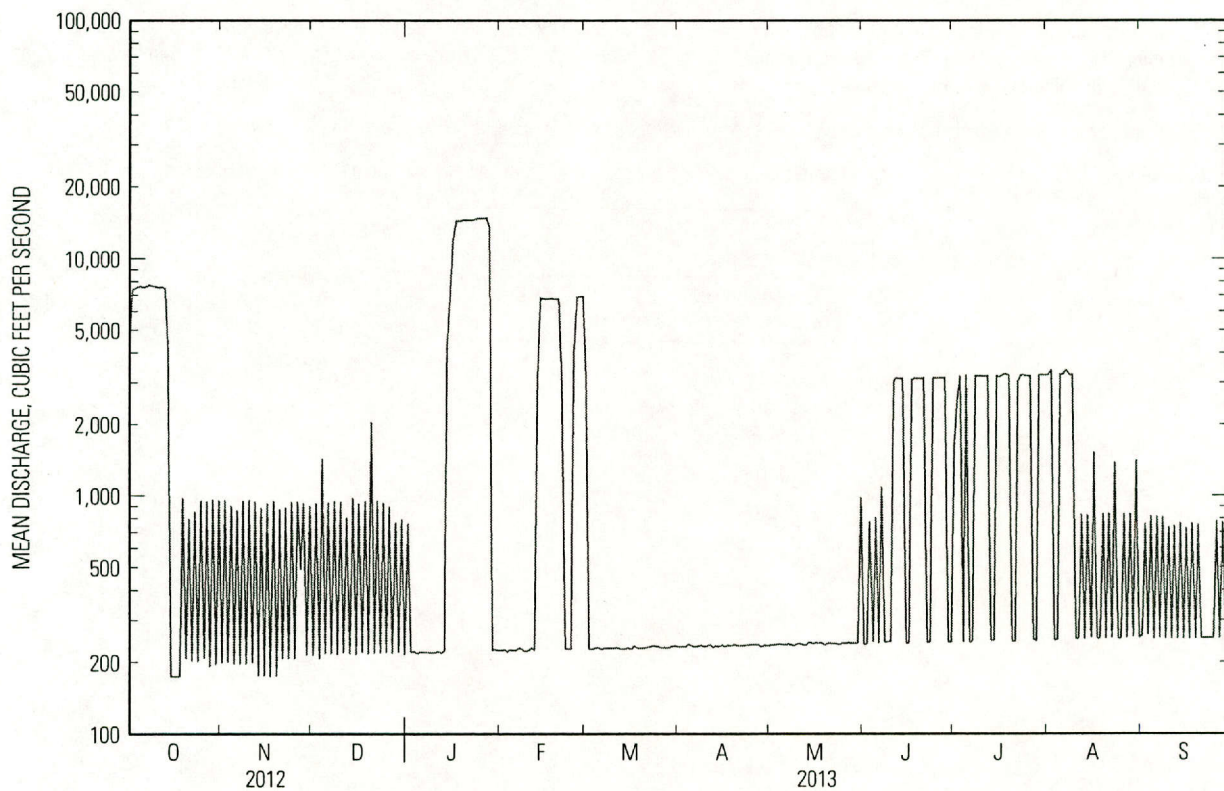
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,355	2,533	5,031	8,162	8,769	10,040	7,302	6,374	4,876	4,486	3,591	3,082
Max	7,567	23,410	17,720	27,680	23,850	44,240	20,340	22,170	24,960	18,790	6,924	11,780
(WY)	(2010)	(2010)	(1975)	(1974)	(1999)	(2001)	(2008)	(1991)	(1989)	(1989)	(2007)	(2001)
Min	59.0	50.7	74.5	90.0	243	231	197	263	508	493	470	424
(WY)	(1976)	(1976)	(1976)	(1978)	(2009)	(1972)	(2007)	(2013)	(1996)	(1996)	(1996)	(1983)

08025360 Sabine River at Toledo Bend Reservoir near Burkeville, TX—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1972 - 2013	
Annual total	677,368		622,362			
Annual mean	1,851		1,705		5,454	
Highest annual mean					10,370	1995
Lowest annual mean					517	1996
Highest daily mean	14,900	Mar 23	14,800	Jan 27	117,000	Jan 31, 1999
Lowest daily mean	174	Oct 15	174	Oct 15	30	Oct 1, 1972
Annual seven-day minimum	214	Jan 16	220	Jan 4	34	Nov 21, 1975
Annual runoff (ac-ft)	1,344,000		1,234,000		3,951,000	
10 percent exceeds	4,320		5,430		14,700	
50 percent exceeds	261		249		3,130	
90 percent exceeds	215		218		174	





Water-Data Report 2013

08025500 Bayou Toro near Toro, LA

Sabine Basin
Lower Sabine Subbasin

LOCATION.--Lat 31°18'25", long 93°30'56" referenced to North American Datum of 1927, in SW ¼ sec.20, T.4 N., R.11 W., Sabine Parish, LA, Hydrologic Unit 12010005, near right bank on downstream side of bridge on state highway 473, 0.2 mi upstream from Hamby Creek, 2.5 mi northeast of Toro, and 7.8 mi west of Hornbeck.

DRAINAGE AREA.--148.00 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1955 to September 1986, October 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 138.00 ft above NGVD of 1929 (levels by Louisiana Department of Transportation and Development). Nonrecording gage at same site and datum read once daily from Dec. 2, 1985 to May 15, 1986 and twice daily May 16, 1986 to Sept. 30, 1986. Prior to Dec. 2, 1985 at site 500 ft downstream at same datum.

REMARKS.--Records good above 10 cfs and fair below, except for periods of estimated record, which are poor. Satellite telemetry at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 10	1100	2,720	14.26
Apr 11	1500	*2,940	*14.60

08025500 Bayou Toro near Toro, LA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	677	5.7	11	312	87	90	139	35	11	3.0	4.1	0.14
2	186	5.6	12	482	62	77	148	33	15	2.2	2.6	0.13
3	58	5.0	11	187	53	68	187	32	18	1.8	1.5	0.15
4	32	4.5	11	103	49	63	295	33	18	1.7	0.97	0.26
5	22	4.4	13	76	48	60	150	30	14	1.6	0.72	0.28
6	16	4.2	86	196	50	58	90	26	22	1.2	0.56	0.22
7	13	4.0	37	185	51	52	63	23	406	1.3	0.47	0.26
8	12	3.7	23	190	51	48	49	22	177	2.0	0.40	0.39
9	10	3.7	16	1,160	51	49	41	21	60	3.3	0.34	0.26
10	10	4.2	36	2,500	370	50	36	27	33	4.2	0.37	0.15
11	9.3	5.1	164	2,050	1,100	68	2,100	36	30	3.7	0.30	0.12
12	9.0	7.5	59	1,310	1,170	78	2,240	41	27	1.6	0.25	0.15
13	8.2	8.2	33	893	1,540	60	1,670	29	20	1.1	0.22	0.16
14	8.2	8.5	24	1,080	851	49	297	23	16	0.93	0.23	0.17
15	7.2	10	19	782	287	43	180	21	13	1.00	0.33	0.21
16	6.0	9.8	58	441	195	41	134	18	12	0.94	0.43	0.14
17	5.9	8.9	544	276	151	40	105	16	10	0.87	0.44	0.13
18	7.1	9.2	201	197	129	39	89	16	9.2	1.1	0.41	0.12
19	6.4	9.6	74	156	151	38	190	15	9.0	1.1	0.50	0.11
20	5.7	9.6	44	132	132	37	186	15	9.4	2.2	0.35	0.38
21	5.4	9.9	32	115	117	37	106	14	9.2	7.1	0.27	13
22	5.3	10	28	102	274	38	75	14	10	11	0.24	34
23	5.8	10	24	90	232	37	61	16	11	11	0.22	22
24	4.6	10	20	80	159	36	71	17	9.4	10	0.20	11
25	4.0	10	273	74	125	34	102	15	8.8	8.2	0.28	7.4
26	4.5	10	865	70	182	31	77	18	7.8	17	0.26	3.9
27	4.8	11	303	66	176	29	57	27	7.2	16	0.20	1.7
28	4.5	12	130	61	117	28	48	20	5.8	9.9	0.17	0.98
29	5.3	13	192	58	---	28	43	14	4.9	7.3	0.16	1.1
30	7.2	12	131	71	---	30	39	12	4.1	4.7	0.15	1.7
31	6.4	---	75	110	---	40	---	11	---	5.9	0.14	---
Total	1,166.8	239.3	3,549	13,605	7,960	1,476	9,068	690	1,007.8	144.94	17.78	100.71
Mean	37.6	7.98	114	439	284	47.6	302	22.3	33.6	4.68	0.57	3.36
Max	677	13	865	2,500	1,540	90	2,240	41	406	17	4.1	34
Min	4.0	3.7	11	58	48	28	36	11	4.1	0.87	0.14	0.11
Ac-ft	2,310	475	7,040	26,990	15,790	2,930	17,990	1,370	2,000	287	35	200
Cism	0.25	0.05	0.77	2.97	1.92	0.32	2.04	0.15	0.23	0.03	0.00	0.02
In.	0.29	0.06	0.89	3.42	2.00	0.37	2.28	0.17	0.25	0.04	0.00	0.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2013, BY WATER YEAR (WY)

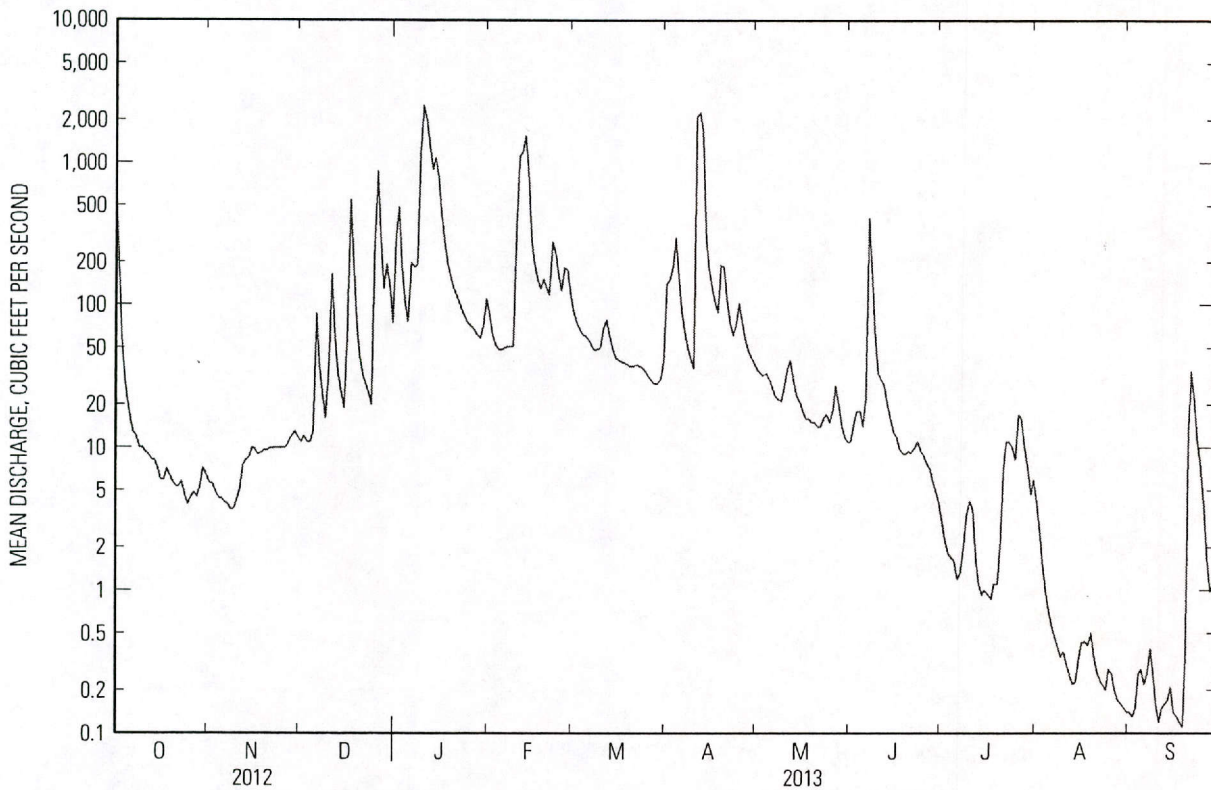
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	74.8	111	203	295	324	266	230	169	94.5	53.0	23.3	44.8
Max	1,233	663	1,166	1,228	1,117	874	1,354	1,223	1,202	886	198	928
(WY)	(2007)	(2002)	(1983)	(1999)	(1975)	(2012)	(1968)	(1975)	(1989)	(1989)	(1958)	(1961)
Min	0.37	5.12	7.96	11.5	10.5	13.5	5.48	4.07	2.26	0.73	0.15	0.76
(WY)	(2012)	(1982)	(1982)	(2000)	(2000)	(2011)	(2011)	(2011)	(2011)	(2011)	(2011)	(1956)

08025500 Bayou Toro near Toro, LA—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1956 - 2013	
Annual total	66,133.9		39,025.33			
Annual mean	181		107		156	
Highest annual mean					409	1975
Lowest annual mean					17.8	2011
Highest daily mean	7,950	Mar 21	2,500	Jan 10	21,600	Apr 9, 1968
Lowest daily mean	1.2	Sep 12	0.11	Sep 19	^a 0.00	Aug 22, 2011
Annual seven-day minimum	1.4	Sep 8	0.15	Aug 28	0.00	Aug 22, 2011
Maximum peak flow			2,940	Apr 11	31,200	Apr 9, 1968
Maximum peak stage			14.60	Apr 11	25.73	Apr 9, 1968
Instantaneous low flow			0.08	Sep 3	^a 0.00	Aug 22, 2011
Annual runoff (ac-ft)	131,200		77,410		113,400	
Annual runoff (cfsm)	1.22		0.722		1.06	
Annual runoff (inches)	16.62		9.81		14.37	
10 percent exceeds	420		190		292	
50 percent exceeds	18		17		31	
90 percent exceeds	2.6		0.36		5.1	

^a Several days.



08025500 Bayou Toro near Toro, LA—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	8.05	2.52	2.78	5.83	4.06	4.07	4.57	3.36	2.72	2.43	2.46	2.22
2	5.08	2.51	2.80	6.99	3.72	3.89	4.71	3.31	2.87	2.40	2.42	2.21
3	3.76	2.49	2.78	5.05	3.59	3.77	5.04	3.30	2.98	2.38	2.37	2.22
4	3.32	2.47	2.78	4.25	3.52	3.70	6.01	3.30	2.96	2.38	2.34	2.25
5	3.10	2.46	2.82	3.92	3.49	3.65	4.83	3.24	2.84	2.37	2.32	2.26
6	2.95	2.45	4.04	5.13	3.54	3.61	4.19	3.15	3.01	2.35	2.30	2.24
7	2.86	2.44	3.30	5.05	3.55	3.51	3.82	3.10	6.64	2.36	2.29	2.25
8	2.80	2.43	3.02	4.96	3.56	3.45	3.59	3.06	5.04	2.39	2.28	2.28
9	2.74	2.43	2.87	9.80	3.55	3.46	3.46	3.04	3.77	2.44	2.27	2.25
10	2.72	2.45	3.23	13.71	5.67	3.47	3.36	3.19	3.30	2.46	2.27	2.22
11	2.68	2.49	4.85	12.60	9.69	3.76	12.05	3.37	3.23	2.45	2.26	2.21
12	2.66	2.60	3.67	10.27	9.83	3.91	13.01	3.46	3.16	2.38	2.25	2.22
13	2.63	2.63	3.22	8.88	11.15	3.65	11.35	3.24	2.99	2.35	2.24	2.22
14	2.63	2.64	3.02	9.61	8.58	3.47	5.99	3.10	2.87	2.33	2.25	2.23
15	2.59	2.72	2.93	8.44	5.83	3.36	5.12	3.03	2.79	2.34	2.27	2.24
16	2.53	2.70	3.42	6.78	5.14	3.32	4.69	2.97	2.72	2.33	2.28	2.22
17	2.53	2.66	7.34	5.76	4.74	3.30	4.37	2.91	2.67	2.33	2.28	2.21
18	2.58	2.67	5.13	5.16	4.53	3.29	4.17	2.89	2.63	2.34	2.28	2.21
19	2.55	2.69	3.88	4.80	4.75	3.27	5.20	2.88	2.62	2.34	2.29	2.21
20	2.52	2.69	3.43	4.57	4.56	3.25	5.16	2.89	2.64	2.40	2.27	2.25
21	2.51	2.71	3.21	4.38	4.40	3.25	4.38	2.83	2.63	2.56	2.26	2.73
22	2.50	2.72	3.12	4.23	5.83	3.27	3.99	2.84	2.67	2.72	2.25	3.32
23	2.52	2.74	3.02	4.10	5.50	3.25	3.79	2.89	2.71	2.72	2.24	3.05
24	2.47	2.73	2.94	3.97	4.84	3.23	3.93	2.92	2.64	2.67	2.24	2.72
25	2.44	2.73	5.13	3.90	4.49	3.19	4.34	2.88	2.61	2.59	2.26	2.56
26	2.46	2.73	8.79	3.84	5.05	3.13	4.03	2.96	2.57	2.90	2.25	2.45
27	2.48	2.77	5.85	3.78	5.00	3.09	3.73	3.19	2.55	2.87	2.24	2.38
28	2.46	2.80	4.55	3.70	4.40	3.06	3.58	3.02	2.50	2.66	2.23	2.34
29	2.50	2.84	5.11	3.65	---	3.05	3.51	2.85	2.48	2.55	2.23	2.34
30	2.59	2.80	4.54	3.85	---	3.10	3.44	2.77	2.46	2.47	2.22	2.38
31	2.55	---	3.90	4.33	---	3.29	---	2.73	---	2.50	2.22	---
Max	8.05	2.84	8.79	13.71	11.15	4.07	13.01	3.46	6.64	2.90	2.46	3.32
Min	2.44	2.43	2.78	3.65	3.49	3.05	3.36	2.73	2.46	2.33	2.22	2.21

Water-Data Report 2013

08026000 Sabine River near Burkeville, TX

Sabine Basin
Lower Sabine Subbasin

LOCATION.--Lat 31°03'50", long 93°31'10", referenced to North American Datum of 1927, Newton County, TX, Hydrologic Unit 12010005, near left edge of low-water channel on downstream side of bridge on State Highway 63, about 200 ft downstream from Pearl Creek, 10 mi northeast of Burkeville, 16 mi downstream from Bayou Toro and at mile 139.7.

DRAINAGE AREA.--7,482 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Sept. 1955 to current year. Published as "below Toledo Bend near Burkeville" for period 1955-75.

PERIOD OF RECORD, Water-Quality.--

CHEMICAL DATA: May 1968 to Aug. 1986.

BIOCHEMICAL DATA: May 1968 to Aug. 1986.

PESTICIDE DATA: Oct. 1970 to Aug. 1986.

RADIOCHEMICAL DATA: Jan. 1981 to May 1981.

REVISED RECORDS.--WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 60.59 ft above NGVD of 1929. Prior to Aug. 23, 1958, nonrecording gage at current site. Prior to Jan. 1, 1989, at present site at datum 10.00 ft higher. Satellite telemeter at station.

REMARKS.--Records good except those for estimated daily discharge, which are fair. Since water year 1961, at least 10% of contributing drainage area has been regulated. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--5 years (water years 1956-1960) 5,180 ft³/s (3,749,000 acre-ft/yr).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1860: Flood in May 1884 reached a stage of 45.9 ft, current datum, from information by local resident. Flood of Apr. 15, 1945, reached a stage of 45.8 ft, current datum. Flood of May 23, 1953, reached a stage of 45.3 ft, current datum, from floodmarks.

EXTREMES FOR PERIOD PRIOR TO REGULATION.--WATER YEARS 1956-1960: Maximum discharge, 52,900 ft³/s, May 15, 1957, gage height, 32.43 ft; minimum, 60 ft³/s, Sept. 26-30, 1956.

08026000 Sabine River near Burkeville, TX—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2,760	760	790	1,110	525	5,850	403	379	770	946	3,460	262
2	7,490	510	549	1,440	492	992	473	358	338	2,170	3,510	445
3	7,520	750	785	878	456	535	629	338	495	3,180	2,100	543
4	7,440	502	710	562	436	486	736	341	678	2,030	341	453
5	7,440	754	1,230	488	428	465	719	335	502	1,830	1,730	553
6	7,390	488	595	545	425	455	545	332	698	2,030	3,400	454
7	7,310	765	866	603	429	445	473	331	841	367	3,440	575
8	7,440	498	616	659	417	435	420	321	1,280	1,770	3,500	459
9	7,450	748	835	1,650	412	421	393	326	601	3,440	3,460	536
10	7,480	288	611	4,660	659	436	380	721	484	3,470	2,010	426
11	7,480	985	834	3,670	2,020	442	2,810	537	1,770	3,490	348	537
12	7,500	575	640	2,710	2,340	450	4,160	405	3,390	3,460	516	445
13	7,460	764	815	1,870	3,960	446	2,880	372	3,500	2,020	606	537
14	6,350	500	599	3,940	8,340	431	1,790	345	3,500	353	492	445
15	999	753	813	8,550	7,810	413	840	332	2,090	1,730	580	546
16	315	485	641	10,600	7,430	401	643	317	426	3,400	851	424
17	275	737	973	14,700	7,320	398	551	317	1,750	3,490	951	555
18	272	500	1,100	14,900	7,380	399	499	310	3,420	3,540	267	452
19	480	751	984	14,800	8,010	393	560	300	3,500	3,530	476	559
20	766	686	841	14,800	7,590	386	646	296	3,540	2,060	575	491
21	513	594	1,750	14,800	5,770	376	576	296	3,570	374	479	642
22	769	525	589	14,700	1,510	385	484	318	2,110	1,640	569	257
23	519	766	804	14,800	1,050	385	437	311	414	3,340	771	244
24	769	557	565	14,800	831	361	574	316	1,780	3,430	842	250
25	517	790	934	14,800	e3,500	355	660	312	3,460	3,480	256	238
26	750	574	1,230	14,800	e7,670	356	525	307	3,500	3,440	471	415
27	494	865	1,540	14,800	e7,610	361	463	307	3,500	2,000	566	623
28	740	779	914	14,800	7,400	362	427	309	3,490	374	470	420
29	496	805	959	4,880	---	359	402	306	2,030	1,730	557	646
30	760	553	730	741	---	360	387	293	379	3,400	774	484
31	511	---	872	542	---	374	---	608	---	3,470	857	---
Total	108,455	19,607	26,714	227,598	102,220	18,713	25,485	10,996	57,806	74,984	39,225	13,916
Mean	3,499	654	862	7,342	3,651	604	850	355	1,927	2,419	1,265	464
Max	7,520	985	1,750	14,900	8,340	5,850	4,160	721	3,570	3,540	3,510	646
Min	272	288	549	488	412	355	380	293	338	353	256	238
Ac-ft	215,100	38,890	52,990	451,400	202,800	37,120	50,550	21,810	114,700	148,700	77,800	27,600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2013², BY WATER YEAR (WY)

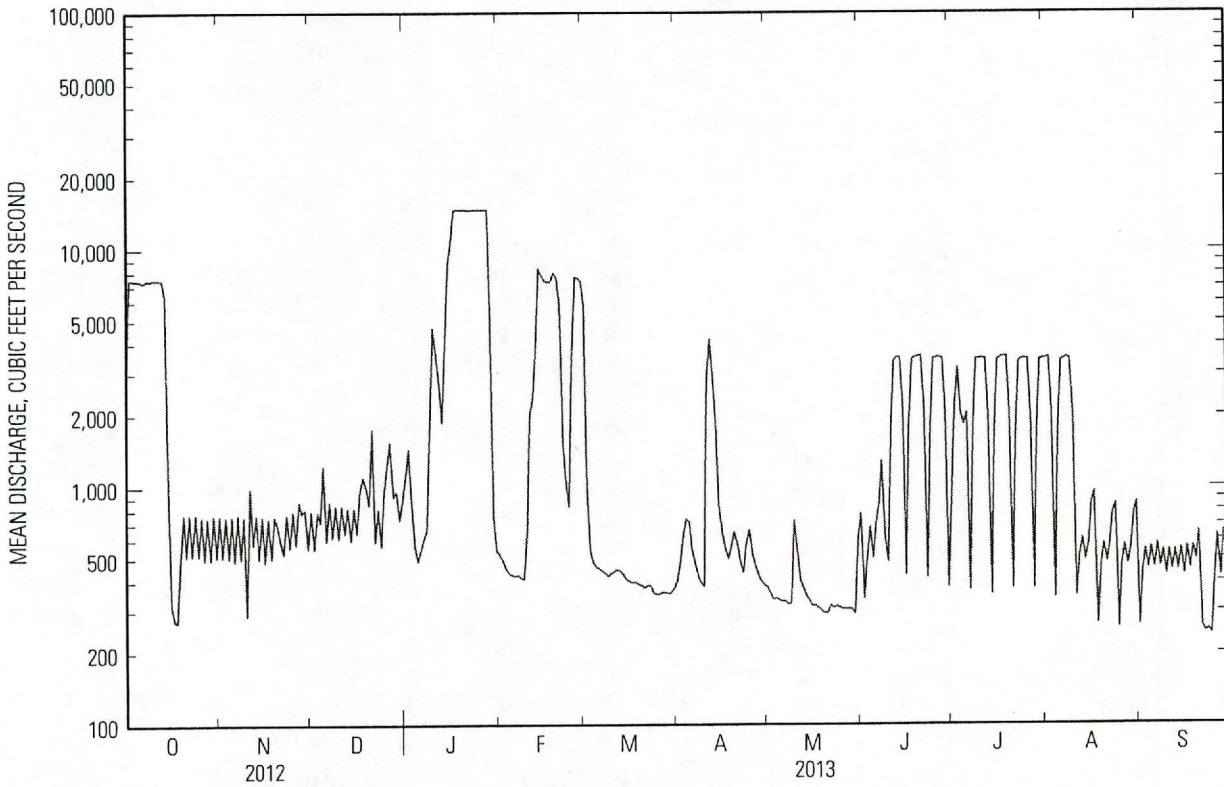
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,341	2,437	5,351	7,801	8,569	9,808	7,608	6,992	4,842	4,064	3,056	2,830
Max	7,346	26,870	17,990	28,510	27,320	45,040	26,530	32,070	25,310	23,750	6,662	11,660
(WY)	(2010)	(2010)	(1962)	(1974)	(1999)	(2001)	(1969)	(1966)	(1989)	(1989)	(1976)	(2001)
Min	82.5	86.2	247	429	266	485	231	355	400	166	91.7	77.6
(WY)	(1968)	(1968)	(1968)	(2008)	(1968)	(1968)	(1971)	(2013)	(1970)	(1964)	(1967)	(1967)

08026000 Sabine River near Burkeville, TX—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1961 - 2013 ^Z	
Annual total	825,526		725,719			
Annual mean	2,256		1,988		5,378	
Highest annual mean					11,190	1995
Lowest annual mean					548	1967
Highest daily mean	23,400	Mar 23	14,900	Jan 18	117,000	Feb 1, 1999
Lowest daily mean	239	Jan 2	238	Sep 25	38	Sep 14, 1967
Annual seven-day minimum	304	Jul 23	307	May 18	41	Sep 9, 1967
Maximum peak flow			14,900	Jan 17	124,000	Feb 1, 1999
Maximum peak stage			25.22	Jan 28	48.05	Feb 1, 1999
Annual runoff (ac-ft)	1,637,000		1,439,000		3,896,000	
10 percent exceeds	5,470		6,730		15,200	
50 percent exceeds	704		642		2,470	
90 percent exceeds	373		343		297	

^Z Period of regulated streamflow.





Water-Data Report 2013

08028000 Bayou Anacoco near Rosepine, LA

Sabine Basin
Lower Sabine Subbasin

LOCATION.--Lat 30°57'10", long 93°21'10" referenced to North American Datum of 1927, in sec.25, T.1 S., R.10 W., Vernon Parish, LA, Hydrologic Unit 12010005, near center of span on downstream side of bridge on parish road from Rosepine to Evans, just downstream from Pocosin Creek, and 4.8 mi northwest of Rosepine.

DRAINAGE AREA.--365.00 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 2122: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 118.09 ft above NGVD of 1929. Prior to Nov. 11, 1954, nonrecording gage at same site and datum.

REMARKS.--Records good above 10 ft³/s and fair below. Some effect from storage in Anacoco Lake (usable capacity, 41,300 acre-ft) except January 1956 to September 1958 and Vernon Lake (usable capacity, 58,000 acre-ft) since May 1963. Effected by occasional regulation July to September in most years caused by temporary lowering of the reservoirs upstream.

08028000 Bayou Anacoco near Rosepine, LA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	80	3.7	8.4	680	284	485	86	180	58	17	9.7	4.1
2	53	4.3	7.7	1,370	210	394	104	152	59	16	12	3.3
3	35	4.3	7.4	630	165	321	232	133	79	16	9.9	6.6
4	29	4.5	9.0	156	141	265	482	113	81	16	8.8	29
5	25	8.5	18	116	128	224	375	95	72	16	8.0	19
6	15	8.6	19	398	123	207	281	83	66	15	6.8	13
7	10	8.1	16	341	142	177	218	72	88	14	6.1	7.8
8	8.0	5.1	17	187	134	155	180	66	182	14	5.5	6.4
9	6.8	4.1	29	856	123	140	160	61	204	14	5.0	6.9
10	6.2	3.5	43	2,950	362	132	132	2,210	194	13	6.2	5.1
11	5.8	5.0	45	2,750	1,950	150	1,310	1,940	174	12	14	4.2
12	5.7	15	34	1,770	2,450	144	3,030	1,070	147	12	15	3.9
13	5.3	25	20	703	2,850	134	3,370	577	119	10	14	3.6
14	5.2	18	14	1,070	2,490	121	3,050	351	102	9.5	11	3.3
15	5.9	11	13	1,520	1,610	108	1,570	236	93	9.9	9.8	2.7
16	5.7	8.6	39	1,590	1,100	102	968	177	80	9.8	19	2.5
17	5.2	7.4	230	1,320	791	98	690	136	63	9.8	15	2.5
18	5.4	7.3	132	1,000	604	96	506	111	62	11	8.9	2.4
19	4.7	6.9	59	751	1,210	98	450	96	66	21	7.1	2.4
20	4.7	6.7	42	580	1,650	96	375	81	52	17	5.8	11
21	4.6	6.7	35	458	1,100	91	305	72	45	19	5.1	86
22	4.3	6.1	29	366	1,610	83	248	68	40	16	5.5	106
23	4.6	6.1	21	293	1,840	80	201	75	38	13	5.8	52
24	4.1	6.4	19	248	1,210	82	383	79	34	11	5.2	63
25	4.8	7.0	50	217	852	77	521	71	31	10	4.7	178
26	4.3	7.2	487	194	736	70	418	63	30	8.9	5.8	80
27	4.0	7.4	283	175	704	65	346	66	26	8.8	7.7	43
28	4.1	7.0	126	157	594	60	289	71	24	11	6.6	29
29	4.0	6.9	463	145	---	58	246	68	21	27	6.8	24
30	3.7	8.4	256	303	---	57	207	65	19	16	6.3	51
31	3.6	---	84	414	---	61	---	60	---	10	5.2	---
Total	367.7	234.8	2,655.5	23,708	27,163	4,431	20,733	8,698	2,349	423.7	262.3	851.7
Mean	11.9	7.83	85.7	765	970	143	691	281	78.3	13.7	8.46	28.4
Max	80	25	487	2,950	2,850	485	3,370	2,210	204	27	19	178
Min	3.6	3.5	7.4	116	123	57	86	60	19	8.8	4.7	2.4
Ac-ft	729	466	5,270	47,020	53,880	8,790	41,120	17,250	4,660	840	520	1,690
Cfsm	0.03	0.02	0.23	2.10	2.66	0.39	1.89	0.77	0.21	0.04	0.02	0.08
In.	0.04	0.02	0.27	2.42	2.77	0.45	2.11	0.89	0.24	0.04	0.03	0.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	192	384	667	739	914	736	678	556	273	218	137	154
Max	2,199	2,573	6,006	2,741	4,220	3,173	2,402	6,181	2,628	2,665	2,286	1,698
(WY)	(2007)	(2003)	(1983)	(1990)	(1966)	(2012)	(1952)	(1953)	(1989)	(1989)	(1955)	(1958)
Min	4.24	7.83	18.3	25.8	24.6	92.7	19.3	8.27	8.38	6.75	2.86	9.18
(WY)	(2012)	(2013)	(2011)	(2000)	(2000)	(2000)	(2011)	(2011)	(2011)	(2011)	(2011)	(1993)

08028000 Bayou Anacoco near Rosepine, LA—Continued

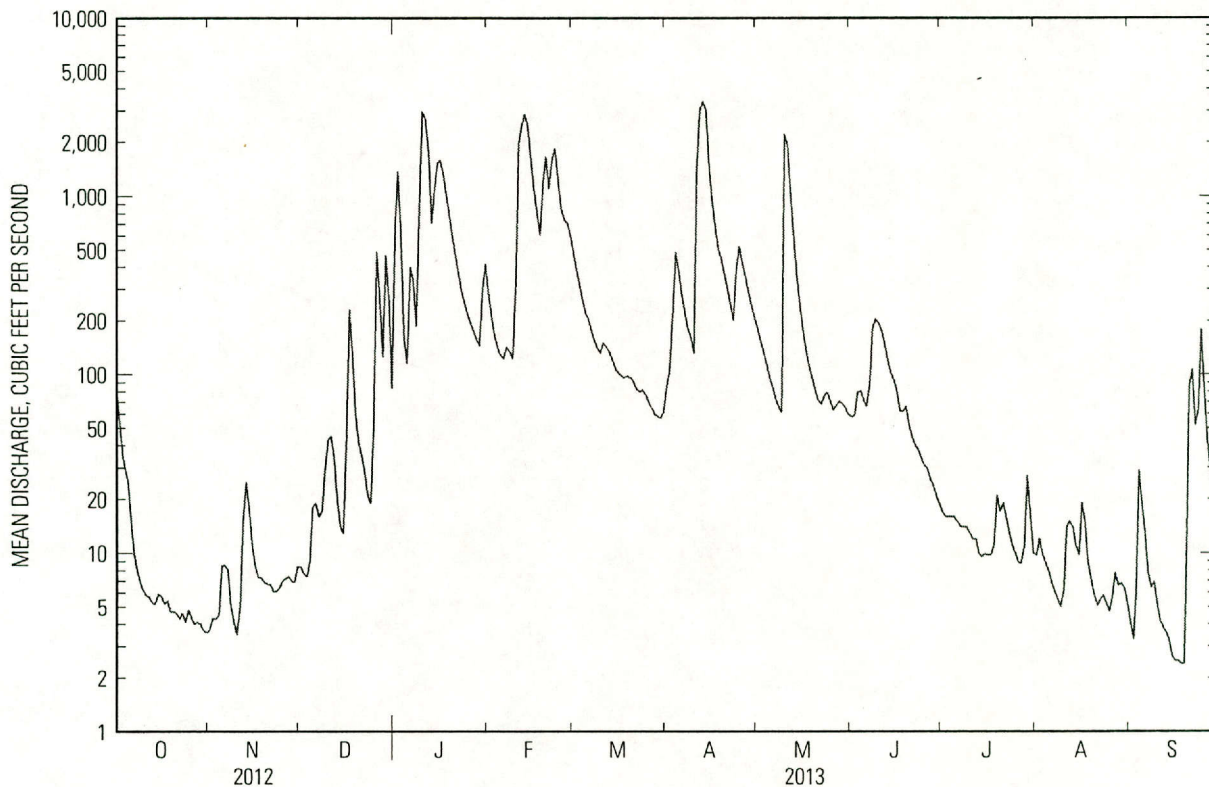
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1952 - 2013	
Annual total	199,325.2		91,877.7			
Annual mean	545		252		469	
Highest annual mean					1,265	1983
Lowest annual mean					27.0	2011
Highest daily mean	25,900	Mar 22	3,370	Apr 13	49,900	Apr 30, 1953
Lowest daily mean	3.5	Nov 10	^b 2.4	Sep 18	0.56	Sep 2, 2011
Annual seven-day minimum	3.9	Oct 26	2.8	Sep 13	1.1	Aug 17, 2011
Maximum peak flow			3,500	Apr 13	64,300	May 19, 1953
Maximum peak stage			16.41	Apr 13	28.38	May 19, 1953
Instantaneous low flow			^c 2.1	Sep 15	^a 0.37	Aug 23, 2011
Annual runoff (ac-ft)	395,400		182,200		339,500	
Annual runoff (cfs)	1.49		0.690		1.28	
Annual runoff (inches)	20.31		9.36		17.44	
10 percent exceeds	1,040		703		1,070	
50 percent exceeds	72		58		137	
90 percent exceeds	6.0		5.2		18	

^a Also occurred Sep. 2, 2011.

^b Also occurred Sep. 19.

^c Also occurred Sep. 16-20.



08028000 Bayou Anacoco near Rosepine, LA—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	3.58	2.76	2.82	6.67	5.06	6.06	3.56	4.36	3.31	2.86	2.80	2.72
2	3.28	2.78	2.81	9.75	4.59	5.59	3.72	4.17	3.32	2.85	2.82	2.70
3	3.06	2.78	2.81	6.78	4.28	5.18	4.60	4.02	3.54	2.86	2.80	2.76
4	3.01	2.78	2.82	4.20	4.10	4.84	6.04	3.87	3.56	2.86	2.79	2.96
5	2.98	2.84	2.90	3.89	4.01	4.59	5.48	3.69	3.48	2.86	2.78	2.89
6	2.90	2.84	2.91	5.66	3.96	4.48	4.94	3.58	3.40	2.85	2.77	2.83
7	2.86	2.83	2.88	5.37	4.11	4.29	4.55	3.47	3.63	2.84	2.76	2.78
8	2.83	2.79	2.90	4.43	4.05	4.13	4.30	3.41	4.40	2.84	2.75	2.77
9	2.82	2.77	2.99	7.71	3.96	4.03	4.17	3.34	4.55	2.84	2.74	2.78
10	2.81	2.76	3.14	14.74	5.20	3.97	3.97	12.35	4.49	2.83	2.76	2.75
11	2.80	2.78	3.17	14.11	11.69	4.10	8.96	11.65	4.35	2.83	2.84	2.73
12	2.80	2.89	3.04	11.11	13.20	4.06	14.96	8.65	4.15	2.82	2.85	2.73
13	2.80	2.95	2.92	7.14	14.40	3.98	16.01	6.58	3.93	2.81	2.84	2.72
14	2.79	2.90	2.87	8.66	13.31	3.88	15.02	5.44	3.76	2.80	2.81	2.71
15	2.80	2.85	2.86	10.29	10.58	3.77	10.40	4.76	3.68	2.80	2.80	2.71
16	2.80	2.82	3.13	10.53	8.79	3.71	8.21	4.36	3.56	2.80	2.88	2.70
17	2.79	2.81	4.68	9.58	7.55	3.67	7.04	4.06	3.36	2.80	2.85	2.70
18	2.80	2.81	4.01	8.40	6.72	3.66	6.18	3.86	3.35	2.82	2.79	2.70
19	2.78	2.80	3.32	7.38	9.15	3.67	5.90	3.71	3.39	2.90	2.77	2.70
20	2.78	2.80	3.11	6.61	10.73	3.65	5.50	3.57	3.23	2.86	2.75	2.81
21	2.78	2.80	3.03	6.01	8.77	3.61	5.11	3.48	3.15	2.88	2.74	3.61
22	2.78	2.79	2.98	5.52	10.54	3.53	4.77	3.43	3.08	2.86	2.75	3.80
23	2.78	2.79	2.91	5.11	11.30	3.51	4.48	3.51	3.05	2.83	2.75	3.23
24	2.77	2.79	2.91	4.84	9.14	3.53	5.49	3.55	3.01	2.81	2.74	3.32
25	2.79	2.80	3.21	4.64	7.73	3.48	6.27	3.46	2.98	2.81	2.73	4.37
26	2.78	2.80	6.12	4.48	7.23	3.41	5.76	3.36	2.97	2.79	2.75	3.54
27	2.77	2.81	4.99	4.35	7.10	3.34	5.37	3.40	2.94	2.79	2.78	3.12
28	2.77	2.80	3.96	4.22	6.60	3.29	5.05	3.46	2.92	2.82	2.77	2.97
29	2.77	2.80	6.02	4.14	---	3.27	4.78	3.43	2.90	2.94	2.77	2.94
30	2.76	2.82	4.84	5.12	---	3.25	4.54	3.38	2.88	2.86	2.76	3.22
31	2.76	---	3.59	5.78	---	3.30	---	3.33	---	2.81	2.74	---
Max	3.58	2.95	6.12	14.74	14.40	6.06	16.01	12.35	4.55	2.94	2.88	4.37
Min	2.76	2.76	2.81	3.89	3.96	3.25	3.56	3.33	2.88	2.79	2.73	2.70



Water-Data Report 2013

08028200 Bayou Anacoco near Knight, LA

Sabine Basin
Lower Sabine Subbasin

LOCATION.--Lat 30°52'14", long 93°30'38" referenced to North American Datum of 1927, Beauregard Parish, LA, Hydrologic Unit 12010005, near right bank of low-water channel at downstream side of bridge on State Highway 111, 4.9 mi southwest of Knight, and 5.2 mi upstream from mouth.

DRAINAGE AREA.--425.00 mi².

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1969 to September 1972.

WATER TEMPERATURE: December 1969 to September 1971.

COLOR: December 1969 to July 1972.

REMARKS.--Some effect from storage in Anacoco Lake (usable capacity, 41,300 acre-ft) except January 1956 to September 1958 and Lake Vernon (usable capacity, 58,000 acre-ft) since May 1963. Water used by paper mill at De Ridder is pumped from wells and discharged later as waste into bayou above station. This discharge is not continuous but is stored in a reservoir and is released whenever flow of bayou is sufficient to dilute effluent from mill.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 910 micromhos Oct. 31, 1970; minimum daily, 40 micromhos Jan. 1, 1970, Jan. 7, 1972.

WATER TEMPERATURE: Maximum daily, 33.0°C June 15, 1970; minimum daily, 7.0°C Jan. 9, 10, 1970.

COLOR: Maximum daily, 600 units Mar. 16, 1971; minimum daily, 5 units June 20, 27-30, 1970.

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**

Part 1 of 4

[CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Date	Sample start time	Color, water, filtered, platinum cobalt units (00080)	Dissolved oxygen, water, unfiltered, mg/L (00300)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)	Temperature, water, °C (00010)	Turbidity, water, unfiltered, broad band light source (400-680 nm), detectors at multiple angles including 90 +/- 30 degrees, ratiometric correction, NTRU (63676)	Biochemical oxygen demand, water, unfiltered, 5 days at 20°C, mg/L (00310)	Dissolved solids dried at 180°C, water, filtered, mg/L (70300)
11-20-2012	1215	200	9.0	7.0	808	15.6	E 11	2.3	577
01-22-2013	1445	88	9.9	6.3	203	14.0	25	2.7	156
03-07-2013	1245	75	9.4	6.1	80	15.3	E 18	--	80
05-13-2013	1250	100	--	6.9	230	23.0	36	--	184
07-15-2013	1300	175	6.9	7.5	632	29.0	E 11	--	437
09-17-2013	1215	250	6.7	7.9	1,070	28.5	38	1.4	728

08028200 Bayou Anacoco near Knight, LA—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 2 of 4

[CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Date	Sample start time	Calcium, water, filtered, mg/L (00915)	Magnesium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)	Sodium, water, filtered, mg/L (00930)	Alkalinity, water, filtered, fixed endpoint titration, laboratory, mg/L as CaCO ₃ (29801)	Alkalinity, water, filtered, inflection-point, incremental titration method, field, mg/L as CaCO ₃ (39086)	Bicarbonate, water, filtered, inflection-point, incremental titration method, field, mg/L (00453)	Carbonate, water, filtered, inflection-point, incremental titration method, field, mg/L (00452)
11-20-2012	1215	18.6	2.47	8.60	161	116	111	134	0.2
01-22-2013	1445	6.93	1.15	2.83	30.7	30.2	34.0	41.4	--
03-07-2013	1245	5.40	1.03	1.38	7.52	18.6	15.2	18.5	--
05-13-2013	1250	7.60	1.13	3.21	42.0	32.0	35.0	42.6	--
07-15-2013	1300	15.3	2.02	6.21	108	102	95.6	116	.5
09-17-2013	1215	23.0	2.38	10.1	201	167	150	180	1.3

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 3 of 4

[CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Date	Sample start time	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Silica, water, filtered, mg/L as SiO ₂ (00955)	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, unfiltered, mg/L as N (00625)	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Nitrite, water, filtered, mg/L as N (00613)	Phosphorus, water, filtered, mg/L as P (00666)
11-20-2012	1215	20.1	0.11	19.0	245	0.66	0.043	0.757	0.014	0.20
01-22-2013	1445	6.75	.06	11.4	48.8	.72	.073	.241	.008	.04
03-07-2013	1245	5.82	<.04	13.4	8.22	.47	.021	.143	.003	.03
05-13-2013	1250	5.78	.07	6.89	66.9	1.0	.142	.086	.010	.06
07-15-2013	1300	16.1	.13	18.5	166	.60	.013	.489	.005	.15
09-17-2013	1215	20.5	.23	19.4	303	.68	.013	.296	.003	.30

08028200 Bayou Anacoco near Knight, LA—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 4 of 4

[CaCO₃, calcium carbonate; MPN/100 mL, most probable number per 100 milliliters; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; SiO₂, silicon dioxide; mg/L, milligrams per liter; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; --, no data; <, less than; E, estimated]

Date	Sample start time	Phosphorus, water, unfiltered, mg/L as P (00665)	Esche-richia coli, Defined Substrate Technology, water, MPN/100 mL (50468)	Total coliform, Defined Substrate Technology, water, MPN/100 mL (50569)	Iron, water, filtered, µg/L (01046)	Manga-nese, water, filtered, µg/L (01056)
11-20-2012	1215	0.22	110	4,400	394	246
01-22-2013	1445	.09	48	2,100	300	160
03-07-2013	1245	.05	--	--	274	123
05-13-2013	1250	.12	--	--	460	71.5
07-15-2013	1300	.20	14	8,200	477	214
09-17-2013	1215	.35	24	16,000	335	137

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 1 of 15

[mg/L, milligrams per liter; µg/L, micrograms per liter; <, less than; E, estimated; M, presence verified but not quantified]

Date	Sample start time	1,4-Dichlorobenzene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49442)	2,4,6-Trichlorophenol, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49415)	2,4-Dichlorophenol, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49417)	2-Methyl-4,6-dinitrophenol, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49419)	4-Chloro-3-methylphenol, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49422)	Azobenzene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49443)	Carbazole, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49449)	Hexachlorobenzene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49343)	p-Cresol, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49451)
		11-20-2012	1215	< 50	< 50	< 50	< 120	< 50	< 50	< 50

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 2 of 15

[mg/L, milligrams per liter; µg/L, micrograms per liter; <, less than; E, estimated; M, presence verified but not quantified]

Date	Sample start time	Pentachloroanisole, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49460)	Pentachloronitrobenzene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49446)	1,4-Dichlorobenzene, water, unfiltered, recoverable, µg/L (34571)	2,4,6-Trichlorophenol, water, unfiltered, recoverable, µg/L (34621)	2,4-Dichlorophenol, water, unfiltered, recoverable, µg/L (34601)	2,4-Dimethylphenol, water, unfiltered, recoverable, µg/L (34606)	2-Methyl-4,6-dinitrophenol, water, unfiltered, recoverable, µg/L (34657)	4-Chloro-3-methylphenol, water, filtered, recoverable, µg/L (34452)	4-Nitrophenol, water, unfiltered, recoverable, µg/L (34646)
11-20-2012	1215	< 50	< 50	< .22	< .34	< .36	< .8	< 2	< .54	< .52

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 3 of 15

[mg/L, milligrams per liter; µg/L, micrograms per liter; <, less than; E, estimated; M, presence verified but not quantified]

Date	Sample start time	Hexachlorobenzene, water, unfiltered, recoverable, µg/L (39700)	Pentachlorophenol, water, unfiltered, recoverable, µg/L (39032)	1,2,4-Trichlorobenzene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49438)	1,2-Dichlorobenzene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49439)	1,2-Dimethylnaphthalene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49403)	1,3-Dichlorobenzene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49441)	1,6-Dimethylnaphthalene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49404)	1-Methyl-9H-fluorene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49398)	1-Methylphenanthrene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49410)
11-20-2012	1215	< .30	< .6	< 50	< 50	< 50	< 50	< 50	< 50	< 50

08028200 Bayou Anacoco near Knight, LA—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 4 of 15

[mg/L, milligrams per liter; µg/L, micrograms per liter; <, less than; E, estimated; M, presence verified but not quantified]

Date	Sample start time	1-	2,2'-	2,3,6-	2,4,6-	2,4-	2,6-	2,6-	2-	2-
		Methylpyrene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49388)	Biquinoline, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49391)	Trimethylnaphthalene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49405)	Trimethylphenol, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49416)	Dinitrotoluene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49395)	Dimethylnaphthalene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49406)	Dinitrotoluene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49396)	Chloronaphthalene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49407)	Chlorophenol, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49467)
11-20-2012	1215	< 50	E 20	< 50	< 50	< 50	< 50	< 50	< 50	< 50

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 5 of 15

[mg/L, milligrams per liter; µg/L, micrograms per liter; <, less than; E, estimated; M, presence verified but not quantified]

Date	Sample start time	2-	2-	2-	3,5-	3-	4-	4-	4H-	9,10-
		Ethyl-naphthalene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49948)	Methylanthracene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49435)	Nitrophenol, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49420)	Dimethylphenol, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49421)	Nitrophenol, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49423)	Bromophenyl phenyl ether, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49454)	Chlorophenyl phenyl ether, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49455)	Cyclopenta[def]phenanthrene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49411)	Anthraquinone, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49437)
11-20-2012	1215	< 50	< 50	< 50	E 4	< 50	< 50	< 50	< 50	E 5

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 6 of 15

[mg/L, milligrams per liter; µg/L, micrograms per liter; <, less than; E, estimated; M, presence verified but not quantified]

Date	Sample start time	9H-Fluorene, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49399)	Acenaphthene, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49429)	Acenaphthylene, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49428)	Acridine, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49430)	Anthracene, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49434)	Benzo[a]anthracene, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49436)	Benzo[a]pyrene, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49389)	Benzo[b]fluoranthene, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49458)	Benzo[c]cinoline, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49468)
		11-20-2012	1215	< 50	< 50	< 50	E 5	< 50	< 50	< 50

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 7 of 15

[mg/L, milligrams per liter; µg/L, micrograms per liter; <, less than; E, estimated; M, presence verified but not quantified]

Date	Sample start time	Benzo[ghi]perylene, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49408)	Benzo[k]fluoranthene, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49397)	Benzyl n-butyl phthalate, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49427)	Bis(2-chloroethoxy)methane, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49401)	Bis(2-chloroethyl) ether, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49456)	Bis(2-chloroisopropyl) ether, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49457)	Bis(2-ethylhexyl) phthalate, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49426)	C8-Alkylphenol, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49424)	Chrysene, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49450)
		11-20-2012	1215	< 50	< 50	< 130	< 50	< 50	< 50	< 80

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 8 of 15

[mg/L, milligrams per liter; µg/L, micrograms per liter; <, less than; E, estimated; M, presence verified but not quantified]

Date	Sample start time	Dibenzo[a,h]anthracene, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49461)	Dibenzothione, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49452)	Diethyl phthalate, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49383)	Dimethyl phthalate, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49384)	Di-n-butyl phthalate, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49381)	Di-n-octyl phthalate, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49382)	Fluoranthene, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49466)	Hexachlorobutadiene, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49448)	Hexachlorocyclopentadiene, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49489)
11-20-2012	1215	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 75

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 9 of 15

[mg/L, milligrams per liter; µg/L, micrograms per liter; <, less than; E, estimated; M, presence verified but not quantified]

Date	Sample start time	Hexachloroethane, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49453)	Indeno[1,2,3-cd]pyrene, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49390)	Isophorone, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49400)	Isoquinoline, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49394)	Naphthalene, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49402)	Nitrobenzene, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49444)	N-Nitrosodipropylamine, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49431)	N-Nitrosodiphenylamine, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49433)	Phenanthrene, bed sediment smaller than 2 millimeter s, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49409)
11-20-2012	1215	< 50	< 50	< 50	E 6	< 50	< 50	< 140	< 50	< 50

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 10 of 15

[mg/L, milligrams per liter; µg/L, micrograms per liter; <, less than; E, estimated; M, presence verified but not quantified]

Date	Sample start time	Phenanthridine, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49393)	Phenol, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49413)	Pyrene, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49387)	Quinoline, bed sediment smaller than 2 millimeters, wet sieved (native water), field, recoverable, dry weight, micrograms per kilogram (49392)	1,2,4-Trichlorobenzene, water, unfiltered, recoverable, µg/L (34551)	1,2-Dichlorobenzene, water, unfiltered, recoverable, µg/L (34536)	1,2-Diphenylhydrazine, water, unfiltered, recoverable, µg/L (82626)	1,3-Dichlorobenzene, water, unfiltered, recoverable, µg/L (34566)	2,4-Dinitrophenol, water, unfiltered, recoverable, µg/L (34616)
11-20-2012	1215	< 50	M	< 50	< 50	< .26	< .2	< .30	< .22	< 2

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 11 of 15

[mg/L, milligrams per liter; µg/L, micrograms per liter; <, less than; E, estimated; M, presence verified but not quantified]

Date	Sample start time	2,4-Dinitrotoluene, water, unfiltered, recoverable, µg/L (34611)	2,6-Dinitrotoluene, water, unfiltered, recoverable, µg/L (34626)	2-Chloronaphthalene, water, unfiltered, recoverable, µg/L (34581)	2-Chlorophenol, water, unfiltered, recoverable, µg/L (34586)	2-Nitrophenol, water, unfiltered, recoverable, µg/L (34591)	3,3'-Dichlorobenzidine, water, unfiltered, recoverable, µg/L (34631)	4-Bromophenyl ether, water, unfiltered, recoverable, µg/L (34636)	4-Chlorophenyl ether, water, unfiltered, recoverable, µg/L (34641)	9H-Fluorene, water, unfiltered, recoverable, µg/L (34381)
11-20-2012	1215	< .56	< .4	< .24	< .26	< .4	< .42	< .24	< .34	< .34

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 12 of 15

[mg/L, milligrams per liter; µg/L, micrograms per liter; <, less than; E, estimated; M, presence verified but not quantified]

Date	Sample start time	Acenaphthene, water, unfiltered, recoverable, µg/L (34205)	Acenaphthylene, water, unfiltered, recoverable, µg/L (34200)	Anthracene, water, unfiltered, recoverable, µg/L (34220)	Benzo[a]anthracene, water, unfiltered, recoverable, µg/L (34526)	Benzo[a]pyrene, water, unfiltered, recoverable, µg/L (34247)	Benzo[a]fluoranthene, water, unfiltered, recoverable, µg/L (34230)	Benzo[ghi]perylene, water, unfiltered, recoverable, µg/L (34521)	Benzo[k]fluoranthene, water, unfiltered, recoverable, µg/L (34242)	Benzyln-butyl phthalate, water, unfiltered, recoverable, µg/L (34292)
11-20-2012	1215	< .28	< .30	0.02	< .26	< .32	< .30	< .38	< .30	< 1.8

08028200 Bayou Anacoco near Knight, LA—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 13 of 15

[mg/L, milligrams per liter; µg/L, micrograms per liter; <, less than; E, estimated; M, presence verified but not quantified]

Date	Sample start time	Bis(2-chloro-ethoxy)-methane, water, unfiltered, recoverable, µg/L (34278)	Bis(2-chloro-ethyl) ether, water, unfiltered, recoverable, µg/L (34273)	Bis(2-chloro-isopropyl) ether, water, unfiltered, recoverable, µg/L (34283)	Bis(2-ethylhexyl) phthalate, water, unfiltered, recoverable, µg/L (39100)	Chrysene, water, unfiltered, recoverable, µg/L (34320)	Dibenzo-[a,h]-anthracene, water, unfiltered, recoverable, µg/L (34556)	Diethyl phthalate, water, unfiltered, recoverable, µg/L (34336)	Dimethyl phthalate, water, unfiltered, recoverable, µg/L (34341)	Di-n-butyl phthalate, water, unfiltered, recoverable, µg/L (39110)
11-20-2012	1215	<.24	<.30	<.14	<7.2	<.32	<.42	<.62	<.36	<2.80

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 14 of 15

[mg/L, milligrams per liter; µg/L, micrograms per liter; <, less than; E, estimated; M, presence verified but not quantified]

Date	Sample start time	Di-n-octyl phthalate, water, unfiltered, recoverable, µg/L (34596)	Fluoranthene, water, unfiltered, recoverable, µg/L (34376)	Hexachlorobutadiene, water, unfiltered, recoverable, µg/L (39702)	Hexachlorocyclopentadiene, water, unfiltered, recoverable, µg/L (34386)	Hexachloroethane, water, unfiltered, recoverable, µg/L (34396)	Indeno-[1,2,3-cd]-pyrene, water, unfiltered, recoverable, µg/L (34403)	Iso-phorone, water, unfiltered, recoverable, µg/L (34408)	Naphthalene, water, unfiltered, recoverable, µg/L (34696)	Nitrobenzene, water, unfiltered, recoverable, µg/L (34447)
11-20-2012	1215	<.6	<.30	<.24	<.50	<.24	<.38	<.26	<.22	<0.26

WATER-QUALITY DATA
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

Part 15 of 15

[mg/L, milligrams per liter; µg/L, micrograms per liter; <, less than; E, estimated; M, presence verified but not quantified]

Date	Sample start time	N-Nitrosodimethylamine, water, unfiltered, recoverable, µg/L (34438)	N-Nitrosodipropylamine, water, unfiltered, recoverable, µg/L (34428)	N-Nitrosodiphenylamine, water, unfiltered, recoverable, µg/L (34433)	Organic carbon, water, unfiltered, recoverable, mg/L (00680)	Phenanthrene, water, unfiltered, recoverable, µg/L (34461)	Phenol, water, unfiltered, recoverable, µg/L (34694)	Pyrene, water, unfiltered, recoverable, µg/L (34469)
11-20-2012	1215	<.32	<.4	<.48	23.0	<.32	<.28	<.36



Water-Data Report 2013

08028500 Sabine River near Bon Wier, TX

Sabine Basin
Lower Sabine Subbasin

LOCATION.--Lat 30°44'49", long 93°36'30" referenced to North American Datum of 1927, Newton County, TX, Hydrologic Unit 12010005, near left bank on downstream side of bridge on U.S. Highway 190, 0.7 mi upstream from Quicksand Creek, 0.8 mi upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 2.0 mi east of Bon Wier, 2.4 mi upstream from Caney Creek and at mile 97.7.

DRAINAGE AREA.--8,229 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Oct. 1923 to current year. Monthly discharge only for some periods, published in WSP 1312. Gage-height records collected in this vicinity since 1913 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 1342: 1953. WSP 1442: 1924, 1926-27(M), 1929(M), 1939. WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 33.42 ft above NGVD of 1929. Prior to July 8, 1931, nonrecording gage at site 0.8 mi downstream at datum 13.00 ft higher. July 8, 1931, to Oct. 15, 1958, nonrecording gage at present site at datum 13.00 ft higher. Oct. 16, 1958, to Sept. 30, 1975, water-stage recorder at present site at datum 13.00 ft higher. Oct. 1, 1975, to Dec. 31, 1988, at present site at datum 10.00 ft higher. Satellite telemeter at station.

REMARKS.--Records good. Since water year 1961, at least 10% of contributing drainage area has been regulated. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--37 years (water years 1924-1960) 7,155 ft³/s (5,184,000 acre-ft/yr).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1833, 43.5 ft Apr. 23 or 24, 1913, from information by Gulf, Colorado, and Santa Fe Railway Co. and local residents. Flood in May 1884 reached a stage of 39 ft. Floods occurring about 1844 and 1860 were higher than flood in May 1884, from information by local residents. All flood data referenced to current datum.

EXTREMES FOR PERIOD PRIOR TO REGULATION.--WATER YEARS, 1924-1960: Maximum discharge, 115,000 ft³/s, May 19, 1953, gage height, 38.70 ft, current datum; minimum, 160 ft³/s, Sept. 29, 1956.

08028500 Sabine River near Bon Wier, TX—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	994	567	601	1,770	1,620	8,500	772	1,000	866	845	3,360	1,040
2	3,650	813	834	3,560	1,410	5,510	837	962	1,230	1,020	3,370	520
3	7,390	563	598	3,240	1,270	2,060	1,070	898	857	2,180	3,420	505
4	7,570	811	835	1,900	1,170	1,400	1,680	849	866	3,050	2,120	741
5	7,550	579	755	1,230	1,100	1,270	1,660	810	1,100	2,070	765	545
6	7,570	818	1,130	1,340	1,070	1,170	1,470	765	893	1,950	1,660	769
7	7,460	549	680	1,520	1,090	1,100	1,220	736	1,190	2,020	3,190	567
8	7,490	814	921	1,350	1,120	1,040	1,060	710	1,250	801	3,320	800
9	7,550	551	697	1,800	1,060	1,000	960	704	1,660	1,710	3,370	586
10	7,570	797	970	8,330	1,090	983	900	5,870	1,250	3,240	3,400	752
11	7,570	495	799	12,100	3,250	990	2,620	9,470	1,110	3,360	2,100	519
12	7,590	870	993	8,100	5,990	1,010	9,180	5,070	2,090	3,400	779	737
13	7,570	643	757	5,470	7,380	985	8,310	2,770	3,490	3,380	672	530
14	7,590	836	921	3,820	9,440	965	6,740	1,890	3,620	2,100	873	742
15	5,460	564	682	7,830	11,400	942	5,050	1,480	3,610	808	666	524
16	1,670	810	961	11,000	10,000	928	2,960	1,240	2,310	1,710	847	747
17	778	540	991	14,400	9,180	910	2,070	1,100	1,010	3,260	880	517
18	606	779	1,370	16,700	8,820	888	1,710	1,010	1,870	3,420	1,150	741
19	523	535	1,380	16,600	10,000	858	1,520	929	3,430	3,540	567	537
20	544	789	1,230	16,400	10,900	847	1,510	873	3,550	3,530	565	877
21	848	617	1,140	16,200	10,100	833	1,430	823	3,580	2,180	794	860
22	606	739	1,530	16,100	6,980	821	1,290	834	3,600	848	597	1,050
23	846	556	791	16,000	4,240	819	1,150	828	2,300	1,680	786	731
24	595	813	932	16,000	3,480	798	1,240	807	954	3,190	767	614
25	840	600	733	16,000	2,630	778	2,160	809	1,840	3,360	1,030	642
26	584	836	1,240	16,000	4,900	750	1,810	805	3,340	3,400	535	648
27	819	621	1,810	16,000	8,650	731	1,440	768	3,440	3,430	560	692
28	562	881	1,970	16,000	8,760	720	1,270	749	3,450	2,130	783	900
29	807	781	1,700	13,700	---	711	1,140	749	3,450	817	576	643
30	561	867	1,720	5,000	---	708	1,060	738	2,140	1,700	761	1,030
31	813	---	1,310	1,980	---	723	---	721	---	3,230	752	---
Total	112,576	21,034	32,981	287,440	148,100	41,748	67,289	47,767	65,346	73,359	45,015	21,106
Mean	3,631	701	1,064	9,272	5,289	1,347	2,243	1,541	2,178	2,366	1,452	704
Max	7,590	881	1,970	16,700	11,400	8,500	9,180	9,470	3,620	3,540	3,420	1,050
Min	523	495	598	1,230	1,060	708	772	704	857	801	535	505
Ac-ft	223,300	41,720	65,420	570,100	293,800	82,810	133,500	94,750	129,600	145,500	89,290	41,860

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2013 ², BY WATER YEAR (WY)

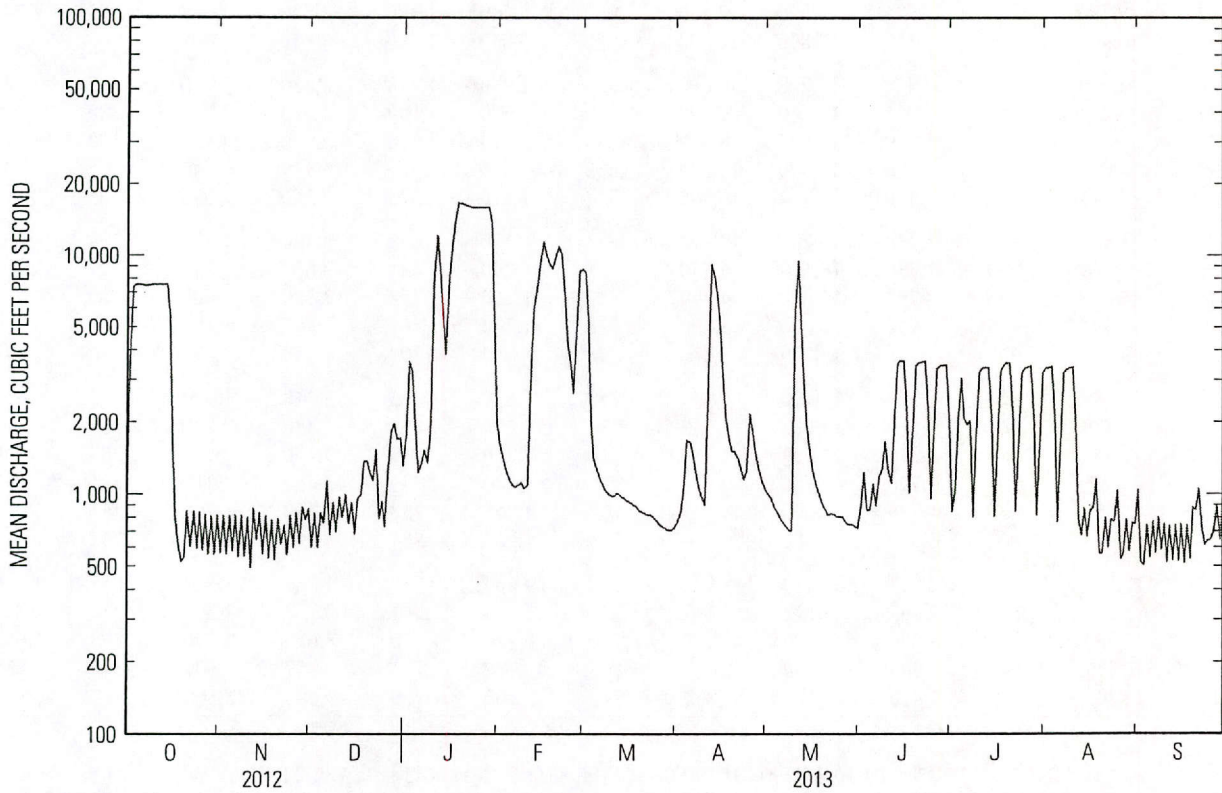
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,949	3,324	6,735	9,410	10,550	11,430	9,140	8,035	5,707	4,847	3,567	3,380
Max	8,948	29,220	21,420	30,930	31,390	46,850	27,370	31,210	26,340	31,490	7,921	12,310
(WY)	(2002)	(2010)	(1983)	(1974)	(1999)	(2001)	(1969)	(1966)	(1989)	(1989)	(2007)	(2001)
Min	188	217	820	988	746	1,159	634	876	663	530	211	206
(WY)	(1968)	(1968)	(2008)	(2008)	(1968)	(2011)	(1971)	(2011)	(1970)	(1964)	(1967)	(1967)

08028500 Sabine River near Bon Wier, TX—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1961 - 2013 ^z	
Annual total	1,277,909		963,761			
Annual mean	3,492		2,640		6,488	
Highest annual mean					12,670	1975
Lowest annual mean					928	2011
Highest daily mean	48,900	Mar 23	16,700	Jan 18	98,000	Jul 4, 1989
Lowest daily mean	468	Jun 29	495	Nov 11	134	Nov 9, 1966
Annual seven-day minimum	528	Jun 24	617	Sep 11	142	Nov 3, 1966
Maximum peak flow			16,800	Jan 18	98,200	Jul 4, 1989
Maximum peak stage			25.47	Jan 18	37.90	Jul 4, 1989
Annual runoff (ac-ft)	2,535,000		1,912,000		4,700,000	
10 percent exceeds	7,570		7,570		16,800	
50 percent exceeds	1,240		1,070		3,360	
90 percent exceeds	638		606		711	

^z Period of regulated streamflow.



08028500 Sabine River near Bon Wier, TX—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL DATA: Oct. 1969 to current year.

BIOCHEMICAL DATA: Oct. 1969 to May 1973.

SEDIMENT DATA: Apr. 1957 to Sept. 1962.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Nov. 1969 to June 1983.

WATER TEMPERATURE: Nov. 1969 to June 1983.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 407 microsiemens/cm, Aug. 31, 1978; minimum daily, 33 microsiemens/cm, Dec. 14, 2001.

WATER TEMPERATURE: Maximum daily, 33.0°C, July 17, 1978, and July 14, 26, 1980; minimum daily, 4.0°C, Feb. 2, 1980.

WATER-QUALITY DATA

WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013

[mg/L, milligrams per liter; °C, degrees Celsius; µS/cm, microsiemens per centimeter; E, estimated]

Date	Sample start time	Medium name	Sample type	Specific	Tempera-	Chloride,	Sulfate,
				conductance, water, unfiltered, laboratory, µS/cm at 25°C (90095)			
10-06-2012	1018	Surface water	Regular	184	24.0	19.3	24.2
10-23-2012	1630	Surface water	Regular	248	21.0	16.0	48.4
11-24-2012	1610	Surface water	Regular	197	--	17.9	29.4
12-02-2012	1558	Surface water	Regular	201	--	17.6	30.4
12-08-2012	1231	Surface water	Regular	216	--	18.8	32.5
12-15-2012	1458	Surface water	Regular	275	16.0	16.7	59.4
12-22-2012	1631	Surface water	Regular	E 76	14.0	3.51	15.1
12-29-2012	1046	Surface water	Regular	272	10.0	14.8	65.3
01-07-2013	1737	Surface water	Regular	218	11.0	9.13	55.1
01-12-2013	1414	Surface water	Regular	237	16.0	16.6	49.0
01-19-2013	1508	Surface water	Regular	166	10.0	17.6	20.9
01-26-2013	1525	Surface water	Regular	177	14.0	18.6	22.5
02-02-2013	1725	Surface water	Regular	175	15.0	11.6	33.4
02-13-2013	1740	Surface water	Regular	E 85	15.0	4.93	15.3
02-26-2013	1242	Surface water	Regular	113	--	8.53	18.4



Water-Data Report 2013

08029500 Big Cow Creek near Newton, TX

Sabine Basin
Lower Sabine Subbasin

LOCATION.--Lat 30°49'08", long 93°47'08" referenced to North American Datum of 1983, Newton County, TX, Hydrologic Unit 12010005, on right bank near center of span on downstream side of bridge on State Highway 87, 2.6 mi southwest of Newton, 5.0 mi downstream from Melhones Creek, and 8.0 mi upstream from White Oak Creek.

DRAINAGE AREA.--128 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Apr. 1952 to current year.

PERIOD OF RECORD, Water-Quality.--

CHEMICAL DATA: July 1975 to Jan. 1979.

SEDIMENT DATA: Dec. 1976 to Jan. 1979.

GAGE.--Water-stage recorder. Datum of gage is 134.69 ft above NGVD of 1929. Prior to Dec. 19, 1957, nonrecording gage at same site and datum. Satellite telemeter at station.

REMARKS.--Records good. No known regulation or diversions. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1907, 27.5 ft in Apr. 1922, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 12	0900	1,550	15.08
May 11	0115	*1,560	*15.10

08029500 Big Cow Creek near Newton, TX—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

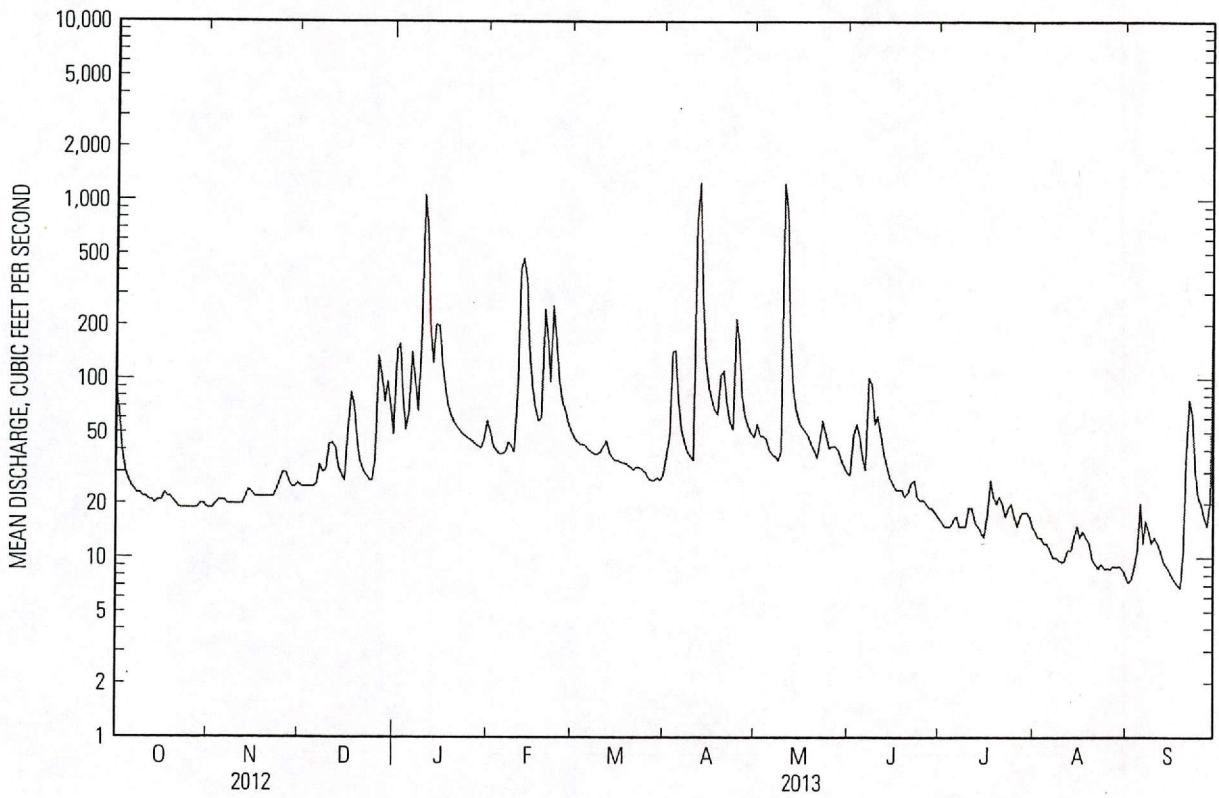
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	92	19	25	144	51	47	38	56	29	16	14	7.3
2	65	19	25	156	42	45	47	48	48	15	13	7.5
3	39	20	25	79	40	43	142	48	56	15	13	8.7
4	30	21	25	52	38	43	144	46	47	15	12	11
5	27	21	25	63	38	42	75	41	36	16	12	20
6	25	21	26	141	39	40	52	38	31	17	11	12
7	24	20	33	99	44	39	44	37	101	15	10	16
8	23	20	30	66	42	38	39	35	94	15	10	14
9	23	20	31	149	39	38	37	39	56	15	9.7	12
10	22	20	43	1,060	85	39	35	1,230	62	19	9.4	13
11	22	20	44	692	408	42	764	871	48	19	9.7	12
12	21	20	41	185	468	45	1,240	176	38	16	11	11
13	21	22	32	122	360	39	306	92	32	15	11	9.7
14	20	24	29	202	146	36	124	69	28	14	13	9.1
15	21	23	27	198	89	35	91	58	26	13	15	8.5
16	21	22	50	121	68	35	76	54	24	17	13	8.0
17	23	22	84	88	58	34	67	51	24	27	14	7.5
18	22	22	71	71	60	34	63	48	24	22	13	7.1
19	22	22	46	62	244	33	104	43	22	20	12	6.8
20	21	22	35	57	169	32	111	40	23	22	10	11
21	20	22	31	54	96	31	73	36	26	20	9.3	38
22	19	22	29	51	256	32	58	46	27	17	8.7	76
23	19	24	27	49	167	32	52	58	22	19	9.2	63
24	19	27	27	47	96	31	216	48	21	20	8.7	30
25	19	30	35	46	74	30	157	41	21	17	8.8	22
26	19	30	134	45	66	28	82	42	20	15	8.7	20
27	19	27	105	43	57	27	62	42	19	17	9.0	17
28	19	25	74	42	51	27	55	40	19	18	8.9	15
29	20	25	96	41	---	28	50	35	18	18	9.0	21
30	20	26	71	46	---	27	47	32	17	17	8.7	518
31	19	---	49	58	---	29	---	30	---	15	8.0	---
Total	796	678	1,425	4,329	3,391	1,101	4,451	3,570	1,059	536	332.8	1,032.2
Mean	25.7	22.6	46.0	140	121	35.5	148	115	35.3	17.3	10.7	34.4
Max	92	30	134	1,060	468	47	1,240	1,230	101	27	15	518
Min	19	19	25	41	38	27	35	30	17	13	8.0	6.8
Ac-ft	1,580	1,340	2,830	8,590	6,730	2,180	8,830	7,080	2,100	1,060	660	2,050

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	95.2	120	170	182	217	173	160	139	106	69.4	52.2	70.5
Max	1,513	551	489	645	743	500	533	817	414	426	221	491
(WY)	(2007)	(2003)	(1983)	(1974)	(1984)	(2012)	(1953)	(1953)	(1993)	(1989)	(1973)	(1998)
Min	6.18	17.7	39.3	42.2	54.2	35.5	24.7	15.7	10.2	7.57	4.18	11.1
(WY)	(2012)	(2012)	(1982)	(1982)	(2011)	(2013)	(2011)	(2011)	(2011)	(2011)	(2011)	(2011)

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1952 - 2013	
Annual total	49,636		22,701.0			
Annual mean	136		62.2		129	
Highest annual mean					279	2007
Lowest annual mean					26.7	2011
Highest daily mean	5,340	Mar 21	1,240	Apr 12	23,200	Oct 17, 2006
Lowest daily mean	14	Sep 12	6.8	Sep 19	1.4	Aug 23, 2011
Annual seven-day minimum	15	Sep 8	8.1	Sep 13	2.4	Aug 17, 2011
Maximum peak flow			1,560	May 11	41,500	Oct 17, 2006
Maximum peak stage			15.10	May 11	21.09	Oct 17, 2006
Annual runoff (ac-ft)	98,450		45,030		93,570	
10 percent exceeds	231		100		223	
50 percent exceeds	32		30		62	
90 percent exceeds	18		12		27	





Water-Data Report 2013

08030500 Sabine River near Ruliff, TX

Sabine Basin
Lower Sabine Subbasin

LOCATION.--Lat 30°18'13", long 93°44'37" referenced to North American Datum of 1927, Newton County, TX, Hydrologic Unit 12010005, on downstream side of bridge on State Highway 12, 2.4 mi north of Ruliff, 4.2 mi upstream from the Kansas City Southern Railway Co. bridge, 4.5 mi downstream from Cypress Creek and at mile 40.2.

DRAINAGE AREA.--9,329 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Oct. 1924 to current year.

PERIOD OF RECORD, Water-Quality.--

CHEMICAL DATA: Sept. 1945 to Sept. 1946, Oct. 1947 to Feb. 1999.

BIOCHEMICAL DATA: Oct. 1967 to Feb. 1999.

BIOLOGICAL DATA: Oct. 1974 to Aug. 1995.

PESTICIDE DATA: Feb. 1968 to May 1982.

RADIOCHEMICAL DATA: Oct. 1969 to Feb. 1999.

SEDIMENT DATA: Oct. 1974 to Aug. 1995.

PERIOD OF DAILY RECORD, Water-Quality.--

SPECIFIC CONDUCTANCE: Sept. 1945 to Sept. 1946, Oct. 1947 to Apr. 1999.

WATER TEMPERATURE: Oct. 1947 to Apr. 1999.

COLOR: Nov. 1969 to Dec. 1975.

REVISED RECORDS.--WSP 1282: 1941(M), 1942. WSP 1442: 1925-29, 1937-39, 1943. WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5.92 ft below NGVD of 1929. Prior to Mar. 1, 1941, nonrecording gage at Kansas City Southern Railway Co. bridge, 4.2 mi downstream and at datum 7.98 ft higher than current datum. Mar. 1, 1941, to Dec. 8, 1948, nonrecording gage at present site and at datum 10.00 ft higher than current datum. Dec. 9, 1948, to Dec. 31, 1989, recording gage at present site and at datum 10.00 ft higher than current datum. Telephone telemeter at station. Satellite telemeter at station.

REMARKS.--Records good. Since water year 1961, at least 10% of contributing drainage area has been regulated. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--36 years (water years 1925-1960) 8,780 ft³/s (6,359,000 acre-ft/yr).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1835, 32.2 ft in May or June 1884 (adjusted to present site and datum on basis of slope of flood of June 8, 9, 1950); flood of Apr. 26-29, 1913, reached a stage of 29.5 ft, present site and datum, from information by local resident.

EXTREMES FOR PERIOD PRIOR TO REGULATION.--WATER YEARS, 1925-1960: Maximum discharge, 121,000 ft³/s, May 22, 1953, gage height, 29.98 ft, current datum; minimum, 270 ft³/s, several days in Sept. and Oct. 1956.

08030500 Sabine River near Ruliff, TX—Continued

**DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,010	771	883	2,350	12,000	8,410	891	1,500	855	3,390	2,560	830
2	1,070	774	802	3,160	7,890	9,200	910	1,380	835	1,910	3,470	1,040
3	1,850	775	783	4,190	4,150	9,170	1,030	1,280	1,100	1,080	3,730	967
4	4,910	766	786	4,920	2,670	6,980	1,240	1,200	1,110	1,490	3,830	723
5	6,850	779	813	4,100	2,110	3,910	1,760	1,130	999	2,500	3,500	768
6	7,900	768	795	2,960	1,860	2,450	2,240	1,050	1,110	2,880	1,940	795
7	8,540	771	976	2,360	1,860	1,900	2,100	988	1,130	1,960	1,220	800
8	8,860	757	931	2,480	1,930	1,670	1,770	935	1,160	2,350	2,530	827
9	8,970	747	879	2,710	1,960	1,540	1,490	894	1,270	1,620	3,430	823
10	9,090	753	895	5,700	1,920	1,450	1,310	1,900	1,650	1,130	3,770	835
11	9,170	748	954	9,800	1,860	1,390	1,550	7,260	1,610	2,430	3,930	816
12	9,290	753	949	12,200	2,960	1,340	3,880	11,900	1,410	3,340	3,550	792
13	9,360	715	1,020	13,600	5,640	1,330	8,220	14,400	1,520	3,630	1,980	763
14	9,420	779	962	14,100	7,840	1,310	11,100	14,600	2,860	3,720	1,090	775
15	9,460	791	954	13,300	9,340	1,270	12,500	12,300	3,760	3,370	1,060	772
16	9,230	758	914	11,700	10,300	1,230	12,200	8,460	4,150	1,910	988	779
17	6,530	739	998	11,200	10,900	1,210	10,100	4,780	3,900	1,240	998	757
18	2,860	740	1,050	11,600	11,200	1,190	6,700	2,880	2,390	2,530	958	767
19	1,360	714	1,370	12,200	11,100	1,160	4,080	2,010	1,540	3,570	1,240	744
20	947	719	1,510	12,800	10,900	1,120	2,870	1,600	2,860	3,860	1,090	864
21	781	712	1,520	13,400	11,000	1,080	2,420	1,370	3,760	4,010	808	1,060
22	860	726	1,220	13,900	11,400	1,050	2,240	1,260	4,020	3,600	898	1,140
23	874	755	1,490	14,200	11,500	1,040	1,960	1,160	4,070	2,050	898	1,190
24	875	728	1,250	14,300	10,600	1,020	1,750	1,110	3,690	1,310	890	1,140
25	850	732	1,040	14,300	8,710	996	1,670	1,080	2,140	2,510	868	960
26	848	750	958	14,200	6,270	965	2,470	1,050	1,370	3,410	1,090	862
27	815	784	1,060	14,200	5,340	937	3,180	1,040	2,620	3,710	1,010	826
28	806	780	1,560	14,200	6,900	912	2,650	995	3,490	3,840	768	822
29	785	797	2,350	14,100	---	894	2,020	948	3,720	3,490	839	926
30	776	836	2,150	14,200	---	879	1,690	908	3,780	1,970	840	973
31	771	---	2,170	13,800	---	876	---	881	---	1,280	837	---
Total	135,718	22,717	35,992	312,230	192,110	69,879	109,991	104,249	69,879	81,090	56,610	26,136
Mean	4,378	757	1,161	10,070	6,861	2,254	3,666	3,363	2,329	2,616	1,826	871
Max	9,460	836	2,350	14,300	12,000	9,200	12,500	14,600	4,150	4,010	3,930	1,190
Min	771	712	783	2,350	1,860	876	891	881	835	1,080	768	723
Ac-ft	269,200	45,060	71,390	619,300	381,100	138,600	218,200	206,800	138,600	160,800	112,300	51,840

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2013², BY WATER YEAR (WY)

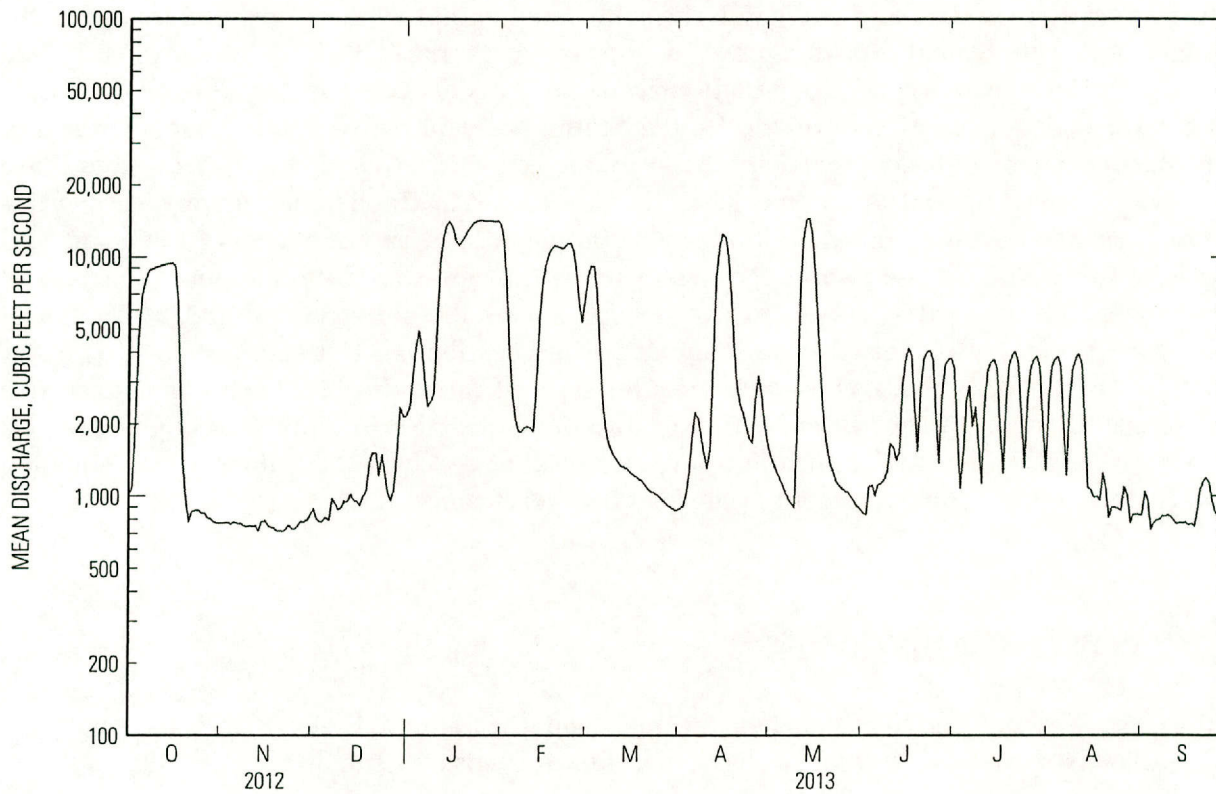
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2,858	4,087	8,084	11,200	12,280	12,860	10,640	9,077	6,891	5,685	4,118	4,063
Max	15,310	24,990	22,070	35,570	33,170	48,230	33,240	32,980	26,240	42,320	10,130	12,530
(WY)	(2007)	(2010)	(1983)	(1961)	(1999)	(2001)	(1969)	(1966)	(1989)	(1989)	(2007)	(1998)
Min	292	327	987	1,237	1,344	1,287	946	892	845	805	382	333
(WY)	(1968)	(1968)	(2011)	(2000)	(2000)	(2011)	(2011)	(2011)	(2011)	(1967)	(1967)	(1967)

08030500 Sabine River near Ruliff, TX—Continued

SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1961 - 2013 ^Z	
Annual total	1,656,397		1,216,601			
Annual mean	4,526		3,333		7,632	
Highest annual mean					14,210	1975
Lowest annual mean					1,057	2011
Highest daily mean	51,500	Mar 25	14,600	May 14	108,000	Jul 6, 1989
Lowest daily mean	712	Nov 21	712	Nov 21	278	Oct 28, 1967
Annual seven-day minimum	727	Nov 19	727	Nov 19	282	Oct 9, 1967
Maximum peak flow			15,000	May 14	109,000	Jul 6, 1989
Maximum peak stage			24.20	Jan 25	29.15	Jul 6, 1989
Annual runoff (ac-ft)	3,285,000		2,413,000		5,529,000	
10 percent exceeds	11,600		10,400		18,000	
50 percent exceeds	1,910		1,490		4,430	
90 percent exceeds	786		779		1,060	

^Z Period of regulated streamflow.



APPENDIX C

SABINE RIVER COMPACT

The State of Texas and the State of Louisiana, parties signatory to this Compact (hereinafter referred to as "Texas" and "Louisiana," respectively, or individually as a "State," or collectively as the "States"), having resolved to conclude a compact with respect to the waters of the Sabine River, and having appointed representatives as follows:

FOR TEXAS: Henry L. Woodworth, Interstate Compact Commissioner for Texas; and John W. Simmons, President of the Sabine River Authority of Texas;

FOR LOUISIANA: Roy T. Sessums, Director of the Department of Public Works of the State of Louisiana;

and consent to negotiate and enter into the said Compact having been granted by Act of the Congress of the United States approved November 1, 1951 (Public Law No. 252; 82d Congress, First Session), and pursuant thereto the President having designated Louis W. Prentiss as the representative of the United States, the said representatives for Texas and Louisiana, after negotiations participated in by the representative of the United States, have for such Compact agreed upon Articles as hereinafter set forth. The major purposes of this Compact are to provide for an equitable apportionment between the States of Louisiana and Texas of the waters of the Sabine River and its tributaries, thereby removing the causes of present and future controversy between the States over the conservation and utilization of said waters; to encourage the development, conservation and utilization of the water resources of the Sabine River and its tributaries; and to establish a basis for cooperative planning and action by the States for the construction, operation and maintenance of projects for water conservation and utilization purposes on that reach of the Sabine River touching both States, and for apportionment of the benefits therefrom.

ARTICLE I

AS USED IN THIS COMPACT:

- (A.) The Word "Stateline" means the point on the Sabine River where its waters in downstream flow first touch the States of both Louisiana and Texas.
- (B.) The term "waters of the Sabine River" means the waters either originating in the natural drainage basin of the Sabine River, or appearing as streamflow in said River and its tributaries, from its headwater source down to the mouth of the River where it enters into Sabine Lake.
- (C.) The term "Stateline flow" means the flow of waters of the Sabine River as determined by the Logansport gauge located on the U.S. Highway 84, approximately four (4) river

miles downstream from the Stateline. This flow, or the flow as determined by such substitute gauging station as may be established by the Administration, as hereinafter defined, pursuant to the provisions of Article VII of this Compact, shall be deemed the actual Stateline flow.

- (D.) The term "Stateline reach" means that portion of the Sabine River lying between the Stateline and Sabine Lake.
- (E.) The term "the Administration" means the Sabine River Compact Administration established under Article VII.
- (F.) The term "Domestic use" means the use of water by an individual, or by a family unit or household for drinking, cooking, laundering, sanitation, and other personal comforts and necessities; and for the irrigation of an area not to exceed one acre, obtained directly from the Sabine River or its tributaries by an individual or family unit not supplied by a water company, water district, or municipality.
- (G.) The term "stock water use" means the use of water for any and all livestock and poultry.
- (H.) The term "consumptive use" means use of water resulting in its permanent removal from the stream.
- (I.) The terms "'domestic' and 'stock water' reservoir" mean any reservoir for either or both of such uses having a storage capacity of fifty (50) acre feet or less.
- (J.) "Stored water" means water stored in reservoirs (exclusive of domestic or stock water reservoirs) or water withdrawn or released from reservoirs for specific uses and the identifiable return flow from such uses.
- (K.) The term "free water" means all waters other than "stored waters" in the Stateline reach including, but not limited to that appearing as natural stream flow, and not withdrawn or released from a reservoir for specific uses. Waters released from reservoirs for the purpose of maintaining stream flows as provided in Article V, shall be "free water." All reservoir spills or releases of stored waters made in anticipation of spills, shall be free water.
- (L.) Where the name of the State or the term "State" is used in this Compact, it shall be construed to include any person or entity of any nature whatsoever of the States of Louisiana or Texas using, claiming, or in any manner asserting any right to the use of the waters of the Sabine River under the authority of that State.
- (M.) Wherever any State or Federal official or agency is referred to in this Compact, such reference shall apply equally to the comparable official or agency succeeding to their duties and functions.

ARTICLE II

Subject to the provisions of Article X, nothing in this Compact shall be construed as applying to, or interfering with, the right or power of either signatory State to regulate within its boundaries the appropriation, use and control of water, not inconsistent with its obligations under this Compact.

ARTICLE III

Subject to the provisions of Article X, all rights to any of the waters of the Sabine River which have been obtained in accordance with the laws of the States are hereby recognized and affirmed; provided, however, that withdrawals, from time to time, for the satisfaction of such rights, shall be subject to the availability of supply in accordance with the apportionment of water provided under the terms of this Compact.

ARTICLE IV

Texas shall have free and unrestricted use of all waters of the Sabine River and its tributaries above the Stateline subject, however, to the provisions of Articles V and X.

ARTICLE V

Texas and Louisiana hereby agree upon the following apportionment of the waters of the Sabine River:

- (A.) All free water in the Stateline reach shall be divided equally between the two States, this division to be made without reference to the origin.
- (B.) The necessity of maintaining a minimum flow at the Stateline for the benefit of water users below the Stateline in both States is recognized, and to this end, it is hereby agreed that:
 - (1) Reservoirs and permits above the Stateline existing as of January 1, 1953, shall not be liable for maintenance of the flow at the Stateline.
 - (2) After January 1, 1953, neither State shall permit or authorize any additional uses which would have the effect of reducing the flow at the Stateline to less than 36 cubic feet per second.
 - (3) Reservoirs on which construction is commenced after January 1, 1953, above the Stateline shall be liable for their share of water necessary to provide a minimum flow at the Stateline of 36 cubic feet per second; provided that no reservoir shall be liable for a greater percentage of this minimum flow than the percentage of the drainage area above the Stateline contributing to that reservoir, exclusive of the watershed of any reservoir on which construction was started prior to January 1, 1953. Water released from Texas' reservoirs to establish the minimum flow of 36 cubic feet per second shall be classed as free water at the Stateline and divided equally between the two States.

- (C.) The right of each State to construct impoundment reservoirs and other works of improvement on the Sabine River or its tributaries located wholly within its boundaries is hereby recognized.
- (D.) In the event that either State constructs reservoir storage on the tributaries below Stateline after January 1, 1953, there shall be deducted from that State's share of the flow in the Sabine River all reductions in flow resulting from the operation of the tributary storage and conversely such State shall be entitled to the increased flow resulting from the regulation provided by such storage.
- (E.) Each State shall have the right to use the main channel of the Sabine River to convey water stored on the Sabine River or its tributaries located wholly within its boundaries, downstream to a desired point of removal without loss of ownership of such stored waters. In the event that such water is released by a State through the natural channel of a tributary and the channel of the Sabine River to a downstream point of removal, a reduction shall be made in the amount of water which can be withdrawn at the point of removal equal to the transmission losses.
- (F.) Each State shall have the right to withdraw its share of the water from the channel of the Sabine River in the Stateline reach in accordance with Article VII. Neither State shall withdraw at any point more than its share of the flow at that point except that pursuant to findings and determination of the Administration as provided under Article VII of this Compact, either State may withdraw more or less of its share of the water at any point providing that its aggregate withdrawal shall not exceed its total share. Withdrawals made pursuant to this paragraph shall not prejudice or impair the existing rights of users of Sabine River waters.
- (G.) Waters stored in reservoirs constructed by the States in the Stateline reach shall be shared by each State in proportion to its contribution to the cost of storage. Neither State shall have the right to construct a dam on the Stateline reach without the consent of the other State.
- (H.) Each State may vary the rate and manner of withdrawal of its share of such jointly stored waters on the Stateline reach, subject to meeting the obligations for amortization of the cost of the joint storage. In any event, neither State shall withdraw more than its pro-rata share in any one year (a year meaning a water year, October 1 to September 30) except by authority of the Administration. All jointly stored water remaining at the end of a water year shall be reapportioned between the States in the same proportion as their contribution to the cost of storage.
- (I.) Except for jointly stored water, as provided in (H.) above, each State must use its apportionment of the natural stream flows as they occur, and there shall be no allowance of accumulation of credits or debits for or against either State. The failure of either State to use the stream flow or any part thereof, the use of which is apportioned to it under the terms of this Compact, shall not constitute a relinquishment of the right to such use in the future; conversely, the failure of either State to use the water at the time it is available does not give it the right to the flow in excess of its share of the flow at any other time.

(J.) From the apportionment of waters of the Sabine River as defined in this Article, there shall be excluded from such apportionment all waters consumed in either State for domestic and stock water uses. Domestic and stock water reservoirs shall be so excluded.

(K.) Each State may use its share of the water apportioned to it in any manner that may be deemed beneficial by that State.

ARTICLE VI

(A.) The States, through their respective appropriate agencies or subdivisions, may construct jointly, or cooperate with any agency or instrumentality of the United States, in the construction of works on the Stateline reach for the development, conservation, and utilization for all beneficial purposes of the waters of the Sabine River.

(B.) All monetary revenues growing out of any joint State ownership, title, and interest in works constructed under Section (A.) above and accruing to the States in respect thereof, shall be divided between the States in proportion to their respective contributions to the cost of construction; provided, however, that each State shall retain undivided all its revenues from recreational facilities within its boundaries incidental to the use of the waters of the Sabine River, and from its severally State-owned recreational facilities constructed appurtenant thereto.

(C.) All operation and maintenance costs chargeable against any joint State ownership, title, and interest in works constructed under Section (A.) above, shall be assessed in proportion to the contribution of each State to the original cost of construction.

ARTICLE VII

(A.) There is hereby created an inter-State administrative agency to be designated as the "Sabine River Compact Administration" herein referred to as the "Administration."

(B.) The Administration shall consist of two members from each State and of one member as representative of the United States, chosen by the President of the United States who is hereby requested to appoint such a representative. The United States Member shall be ex-officio chairman of the Administration without vote and shall not be a domiciliary of or reside in either State. The appointed members for Texas and Louisiana shall be designated within thirty days after effective date of this compact.

(C.) The Texas members shall be appointed by the Governor for a term of six years; provided, however, that one of the original Texas members shall be appointed for a term to establish a half-term interval between the expiration dates of the terms of such members, and thereafter one such member shall be appointed each three years for the regular term. The Louisiana members shall be residents of the Sabine Watershed and shall be appointed by the Governor for a term of four years, which shall run concurrent with the term of the Governor. Each State member shall hold office

subject to the laws of his State or until his successor has been duly appointed and qualified. (As amended by Public Law 87-418, March 16, 1962, and by Public Law 102-575, October 30, 1992).

- (D.) Interim vacancy, for whatever cause, in the office of any member of the Administration shall be filled for the unexpired term in the same manner as hereinabove provided for regular appointment.
- (E.) Within sixty days after the effective date of this Compact, the Administration shall meet and organize. A quorum for any meeting shall consist of three voting members of the Administration. Each State member shall have one vote, and every decision, authorization, determination, order, or other action, shall require the concurring votes of at least three members.
- (F.) The Administration shall have power to:
 - (1) Adopt, amend, and revoke by-laws, rules, and regulations, and prescribe procedures for administration of and consistent with the provisions of this Compact;
 - (2) Fix and determine from time to time the location of the Administration's principal office;
 - (3) Employ such engineering, legal, clerical, and other personnel without regard to the civil service laws of either State, as the Administration may determine necessary or proper to supplement State-furnished assistance as hereinafter provided, for the performance of its functions under this Compact; provided that such employees shall be paid by and be responsible to the Administration and shall not be considered to be employees of either State.
 - (4) Procure such equipment, supplies, and technical assistance as the Administration may determine to be necessary or proper to supplement State-furnished assistance as hereinafter provided, for the performance of its functions under this Compact;
 - (5) Adopt a seal which shall be judicially recognized.
- (G.) In cooperation with the chief official administering water rights in each State and with appropriate Federal agencies, the Administration shall have and perform powers and duties as follows:
 - (1) To collect, analyze, correlate, compile and report on data as to water supplies, stream flows, storage, diversions, salvage and use of the waters of the Sabine River and its tributaries, and as to all factual data necessary or proper for the administration of this Compact;
 - (2) To designate as official stations for the administration of this Compact such existing water gauging stations (and to operate, maintain, repair and abandon

the same), and to locate, establish, construct, operate, maintain, repair and abandon additional such stations as the Administration may from time to time find and determine necessary or appropriate;

- (3) To make findings as to the deliveries of water at Stateline, as hereinabove provided, from the stream-flow records of the Stateline gauge which shall be operated and maintained by the Administration or in cooperation with the appropriate Federal Agency, for determination of the actual Stateline flow, unless the Administration shall find and determine that, because of changed physical conditions, or for any other reason, reliable records are not obtainable thereat; in which case, such existing Stateline station may, with the approval of the Administration, be abandoned, and, with such approval, a substitute Stateline station established in lieu thereof;
- (4) To make findings as to the quantities of reservoir storage, (including joint storage) and releases therefrom; diversions, transmission losses and as to incident stream-flow changes; and as to the share of such quantities chargeable against or allocable to the respective States;
- (5) To record and approve all points of diversion at which water is to be removed from the Sabine River or its tributaries below the Stateline; provided that, in any case, the State agency charged with the administration of the water laws for the State in which such point of diversion is located shall first have approved such point for removal or diversion; provided further that any such point of removal or diversion once jointly approved by the appropriate State agency and the Administration shall not thereafter be changed without the joint amendatory approval of such State agency and the Administration;
- (6) To require water users at their expense to install and maintain measuring devices of approved type in any ditch, pumping station, or other water diversion works on the Sabine River or its tributaries below the Stateline, as the Administration may determine necessary or proper for the purposes of this Compact; provided that the chief official of each State charged with the administration of water rights therein shall supervise the execution and enforcement of the Administration's requirements for such measuring devices;
- (7) To investigate any violation of this Compact and to report findings and recommendations thereon to the chief official of the affected State charged with the administration of water rights, or to the Governor of such State as the Administration may deem proper;
- (8) To acquire, hold, occupy and utilize such personal and real property as may be necessary or proper for the performance of its duties and functions under this Compact;
- (9) To perform all functions required of the Administration by this Compact, and to do all things necessary, proper, or convenient in the performance of its duties hereunder.

- (H.) Each State shall provide such available facilities, supplies, equipment, technical information, and other assistance, as the Administration may require to carry out its duties and functions, and the execution and enforcement of the Administration's orders shall be the responsibility of the agents and officials of the respective States charged with the administration of water rights therein. State officials shall furnish pertinent factual and technical data to the Administration upon its request.
- (I.) Findings of fact made by the Administration shall not be conclusive in any court or before any agency or tribunal, but shall constitute prima facie evidence of such facts.
- (J.) In the case of a tie vote on any of the Administration's determinations, orders or other actions subject to arbitration, then arbitration shall be a condition precedent to any right of legal action. Either side of a tie vote may, upon request, submit the question to arbitration. If there shall be arbitration, there shall be three arbitrators: one named in writing by each side, and the third chosen by the two arbitrators so elected. If the arbitrators fail to select a third within ten days, then he shall be chosen by the Representative of the United States.
- (K.) The salaries, if any, and the personal expenses of each member of the Administration shall be paid by the Government which he represents. All other expenses incident to the Administration of this Compact, and which are not paid by the United States, shall be borne equally by the States. Ninety days prior to the Regular Session of the Legislature of either State, the Administration shall adopt and transmit to the Governor of such State for his approval its budget covering anticipated expenses for the forthcoming biennium, and the amount thereof payable by such State. Upon approval by its Governor, each State shall appropriate and pay the amount due by it to the Administration. The Administration shall keep accurate accounts of all receipts and disbursements, and shall include a statement thereof, together with a certificate of audit by a certified public accountant, in its annual report. Each State shall have the right to make an examination and audit of the accounts of the Administration at any time.
- (L.) The Administration shall, whenever requested, provide access to its records by the Governor of either State, or by the chief official of either State charged therein with the administration of water rights. The Administration shall annually on or before January 15 of each year make and transmit to the Governors of the signatory States, and to the President of the United States a report of the Administration's activities and deliberations for the preceding year.

ARTICLE VIII

- (A.) This Compact shall become effective when ratified by the Legislature and approved by the Governors of both States, and when approved by the Congress of the United States.
- (B.) The provisions of this Compact shall remain in full force and effect until modified, altered, or amended in the same manner as hereinabove required for ratification thereof. The right so to modify, alter, or amend this Compact is expressly reserved. This Compact may be terminated at any time by mutual consent of the signatory States. In the event this Compact is terminated as herein provided, all rights then vested hereunder shall continue unimpaired.
- (C.) Should a court of competent jurisdiction hold any part of this Compact to be contrary to the constitution of any signatory State or of the United States of America, all other severable provisions of this Compact shall continue in full force and effect.

ARTICLE IX

This Compact is made and entered into for the sole purpose of effecting an equitable apportionment and providing beneficial uses of the waters of the Sabine River, its tributaries, and its watershed, without regard to the boundary between Louisiana and Texas, and nothing herein contained shall be construed as an admission on the part of either State or any agency, commission, department or subdivision thereof, respecting the location of said boundary; and neither this Compact nor any data compiled for the preparation or administration thereof shall be offered, admitted, or considered in evidence in any dispute, controversy, or litigation bearing upon the matter of the location of said boundary.

The term "Stateline," as defined in this Compact, shall not be construed to define the actual boundary between the State of Texas and the State of Louisiana.

ARTICLE X

Nothing in this Compact shall be construed as affecting in any manner any present or future rights or powers of the United States, its agencies or instrumentalities in, to, and over the waters of the Sabine River Basin.

IN WITNESS WHEREOF, the Representatives have executed this Compact in three counterparts hereof, each of which shall be and constitute an original; one of which shall be forwarded to the Administrator, General Services Administration of the United States of America, and one of which shall be forwarded to the Governor of each State.

DONE IN THE City of Logansport, in the State of Louisiana, this 26th day of January, 1953.

HENRY L. WOODWORTH, Representative for the State of Texas

JOHN W. SIMMONS, Representative for the State of Texas

ROY T. SESSUMS, Representative for the State of Louisiana

APPROVED: LOUIS W. PRENTISS, Representative of the United States

APPENDIX D

BY-LAWS of Sabine River Compact Administration

ARTICLE I THE ADMINISTRATION

1. The Administration shall be that administration referred to in Article VII of the Sabine River Compact.
2. The credentials of each Member shall be filed with the Secretary of the Administration.
3. Each Member shall advise the office of the Administration in writing the address to which all official notices and other communications of the Administration shall be sent and shall further promptly advise the office of the Administration in writing of any change in such address.

ARTICLE II OFFICERS

1. The officers of the Administration shall be: Chairman, Vice-Chairman, Secretary, and Treasurer.
2. The Representative of the United States shall be the Chairman of the Administration. The Chairman shall preside at meetings of the Administration. The Chairman's duties shall be such as are usually imposed upon such officers, and such as may be assigned by these By-Laws, or by the Administration from time to time; provided, however, that the Representative of the United States shall not have the right to vote.
- 2A. The Vice-Chairman shall be a member of the Administration and shall be elected by the Administration. The Vice-Chairman, once elected, shall serve a term expiring with their appointment or until such time as replaced by the Administration. The Vice-Chairman shall preside at any meeting in the absence of the Chairman and shall perform all duties of the Chairman. In the case of a vacancy in the office of Vice-Chairman, the Administration shall proceed as expeditiously as possible to elect a new Vice-Chairman.
3. The Secretary may be a Member of the Administration. The Secretary shall be elected by the Administration. The Secretary shall serve for such term and receive such salary and perform such duties as the Administration may direct. In the case of vacancy in the office of Secretary, the Administration shall proceed as expeditiously as possible to elect a new Secretary.

4. The Treasurer may be a Member of the Administration. The Treasurer shall receive, hold and disburse all funds of the Administration; and the Treasurer shall furnish a bond for the faithful performance of the Treasurer's duties in such amount as the Administration may direct. The cost of such bond shall be paid by the Administration. The Treasurer shall keep an accurate account of all funds of the Administration in a well bound book.

ARTICLE III PRINCIPAL OFFICE

1. There shall be a principal office of the Administration located in the office of the Secretary of the Administration and such other offices as may be designated by the Administration from time to time as necessary.
2. The principal office shall be open for business on such hours and on such days as the Administration may from time to time direct.
3. All permanent books and records of the Administration shall be kept in the principal office of the Administration in a fireproof vault.

ARTICLE IV MEETINGS

1. The annual meeting of the Administration shall be held during the month of November of each year.
2. A schedule of regular meetings shall be adopted by the Administration from time to time together with the place where such meetings shall be held.
3. Special Meetings of the Administration may be called by the Chairman at any time. Upon written request of any two Members of the Administration, setting forth the matters to be considered at such Special Meetings, it shall be the duty of the Chairman to call a Special Meeting and designate the place of such Special Meeting. In the case of a vacancy in the office of Chairman or inability of the Chairman to act, the Vice-Chairman may call special meetings at the written request of any two Members of the Administration and designate the place of such Special Meetings.
4. Notice of all Meetings of the Administration shall be sent by the Secretary, or in the case of a vacancy in the Office of the Secretary to act, by the Chairman, to all Members of the Administration and, for informational purposes, to the Secretary of State of the States of Louisiana and Texas, by ordinary mail at least ten days in advance of each such meeting, and such notice shall state the purpose thereof. Any other matter deemed pertinent by the Administration may be considered at any such Meeting.
5. All meetings of the Administration shall be held at such place as shall be agreed upon by the Members of the Administration.

6. Minutes of the Administration shall be preserved in a suitable manner. Minutes, until approved, shall not be official, and shall be furnished only to Members of the Administration, its employees, and committees.
7. A quorum for any meeting shall consist of three voting Members of the Administration. Each State Member shall have one vote, and every decision, authorization, determination, order, or other action, shall require the concurring votes of at least three members.
8. At each regular meeting or annual meeting of the Administration, the order of business, unless agreed otherwise, shall be as follows:

Call to Order
Reading of Unapproved Minutes
Approval of Unapproved Minutes
Report of Chairman
Report of Secretary
Report of Treasurer
Report of Committees
Unfinished Business
New Business
Adjournment

9. All meetings of the Administration except Executive Sessions shall be open to the public. Executive Sessions shall be open only to Members of the Administration and such advisors as may be designated by each Member and employees as permitted by the Administration; provided, however, that the Administration may call witnesses before it when in such Sessions.
10. Any meeting of the Administration may be recessed from time to time and from the place set for the meeting to another place.

ARTICLE V COMMITTEES

1. There shall be the following standing committees:

Budget Committee
Engineering Committee
Legal Committee
2. The standing committees shall have the following duties:
 - a. The Budget Committee shall prepare the annual budget and shall advise the Administration on all fiscal matters that may be referred to it.

- b. The Engineering Committee shall advise the Administration on all engineering matters that may be referred to it, and shall compile all pertinent engineering data and records.
 - c. The Legal Committee shall advise the Administration on all legal matters that may be referred to it.
3. Members of the Committees may or may not be Members of the Administration. The number of Members of each committee shall be determined from time to time by the Administration. The two Members of the Administration from each State shall designate the member or members on each Committee representing their State.
4. The Chairman shall be ex-officio member of all Committees.
5. The Chairman of each Committee shall be elected by the members of the Committee from its membership.
6. The Administration may from time to time create special committees, composed of such members and others, and assigned such tasks as the Administration may determine.
7. Formal committee reports shall be made in writing and filed with the Administration.

ARTICLE VI RULES AND REGULATIONS

1. The Administration shall adopt rules and regulations consistent with the Sabine River Compact, and, in addition thereto, shall prescribe procedures for approval of all points of diversion of water from the Sabine River and for such other matters as may properly come before the Administration.
2. Rules and regulations of the Administration may be compiled, and copies may be prepared for distribution to the public under such terms and conditions as the Administration may prescribe.

ARTICLE VII FISCAL

1. All funds of the Administration shall be received by the Treasurer and deposited by him to the credit of the Administration in a depository or depositories designated by the Administration.
2. Disbursements of funds in the hands of the Treasurer shall be made by check, signed by him, upon voucher approved by the Members of the Administration.

3. On or before the 30th of June of each year, the Administration shall adopt and transmit a budget pursuant to the Sabine River Compact covering anticipated expenses for the forthcoming fiscal year, and the amount thereof payable by each State.
4. All receipts and disbursements of the Administration shall be audited annually by a qualified independent certified public accountant to be selected by the Administration.
5. The Administration shall include a statement of receipts and disbursements, together with a certificate of an audit report by a certified public accountant in its annual report.
6. An up-to-date inventory of all the property of the Administration shall be kept at the principal office of the Administration.
7. The fiscal year of the Administration shall begin September 1 of each year, and end August 31 of the next succeeding year.

ARTICLE VIII ANNUAL REPORT

1. The Administration shall make and transmit to the Governors of the States signatory to the Sabine River Compact and to the President of the United States a report of the Administration's activities and deliberations for the preceding year, which shall be made on or before January 15 of each year.
2. The annual report shall include, among other things, the following:
 - a. The estimated budget
 - b. Report of annual audit
 - c. All hydrologic data which the Administration deems pertinent
 - d. Statements as to cooperative studies of water supplies made during the preceding year
 - e. All findings of fact made by the Administration during the preceding year
 - f. Such other pertinent matters as the Administration may require

ARTICLE IX SEAL

1. The Administration shall have a seal which shall be a circular seal with the words "Sabine River Compact Administration" imprinted around the border.
2. The seal of the Administration shall be kept at the principal office of the Administration.

3. The seal shall be affixed to all contracts or other official instruments in writing, and no such instrument or contract in writing shall be binding upon the Administration without such seal affixed thereto.

ARTICLE X MISCELLANEOUS

1. All contracts or other instruments in writing to be signed for and on behalf of the Administration, except matters relating to the receipt or disbursement of funds, shall be signed by those officers as designated by the Administration from time to time.
2. The Administration shall designate as official stations such existing water-gauging stations, and establish such additional water-gauging stations as may from time to time be necessary or appropriate for the Administration of the Sabine River Compact, provided such designation shall include a gauging station located at stateline, as defined in said Compact. Provided, further, such stateline station may, with the approval of the Administration, be abandoned; and with such approval, a substitute stateline station established in lieu thereof.

ARTICLE XI AMENDMENTS TO BY-LAWS

Amendments to the By-Laws may be made at any meeting of the Administration, provided notice of the proposed amendment shall have been given in the notice of the meeting.

APPENDIX E

RULES AND REGULATIONS

The following rules and regulations, adopted December 13, 1955, and amended June 14, 1985, shall have binding force, subject to the provisions of the Sabine River Compact. They shall be constructed and enforced by the Sabine River Compact Administration in the manner best calculated to fairly and impartially accomplish the purposes for which the Compact was adopted:

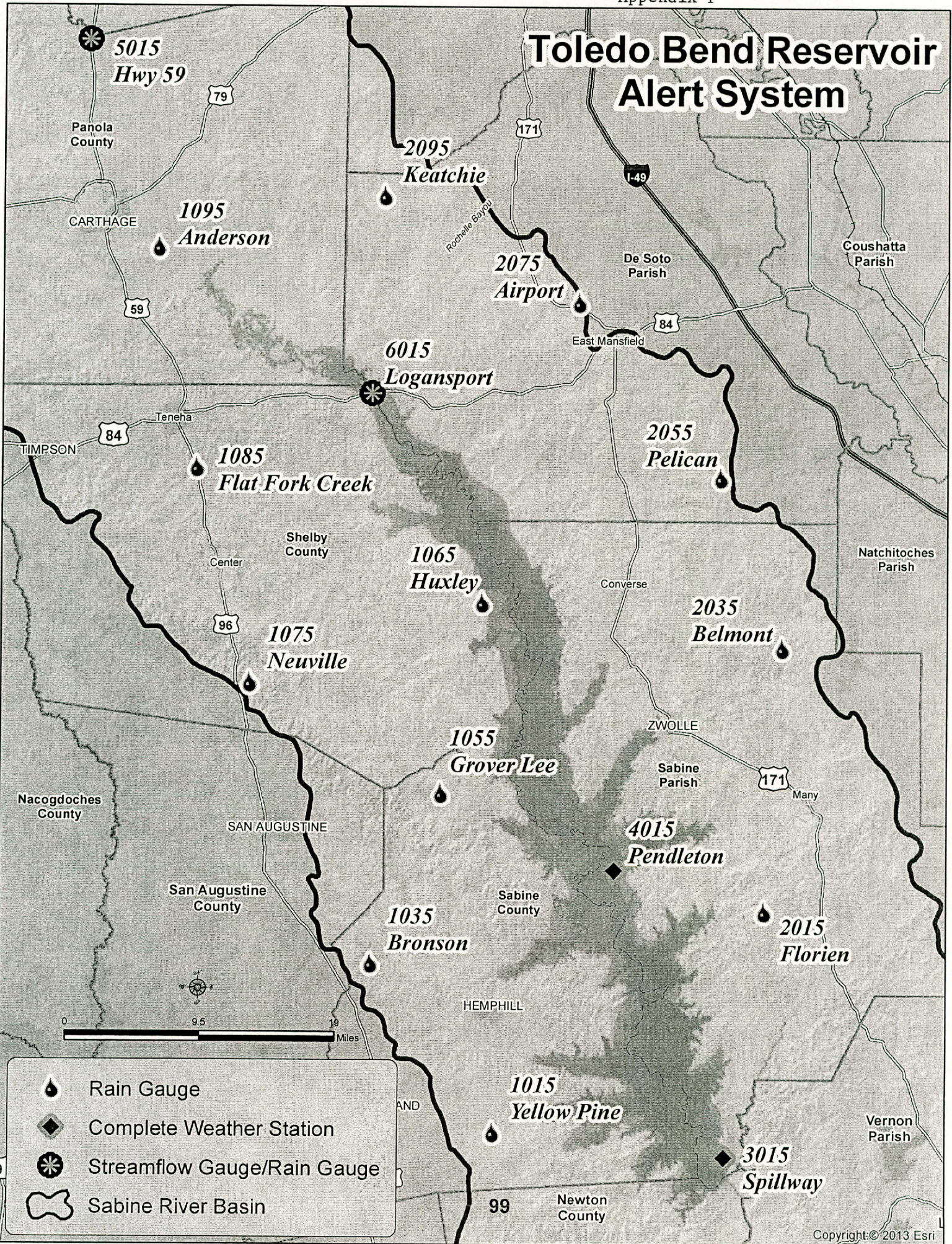
1. Each State will provide annual surface water-use data for the stateline reach of the Sabine River Basin by April 15 of the following year. In addition, each State will provide daily or weekly surface water-use data for specific areas in the Stateline reach, when requested by the Administration in response to an official complaint that water-use by one State is preventing the other State from diverting or using its share of the joint water supply.
2. By December 31, 1985 each signatory State shall have submitted to the Administration documentation of each existing water use from the Sabine River and tributaries within the area subject to Compact administration. The documentation for each water-use project shall include the purpose of use, the location of the diversion point, the rate and method of diversion, the maximum quantity of water to be derived annually, the measuring device approved and/or in use, any other pertinent features or special conditions of the project and, where available, a description of the legal bases for the water use authorization. This documentation shall also be provided to the other State.
3. The Administration, through the procedures described herein, shall approve points of diversion and diversion measuring devices, and advise each State when the Administration considers new water uses in each State to have significant potential to cause a Compact violation based upon historic flow conditions.
 - a. All water-use projects in Texas or Louisiana initiated after the effective date of these rules or not timely submitted pursuant to Rule No. 2 above and subject to Compact Administration, shall be submitted by the appropriate State to the Administration for review. The information submitted shall include a description of the legal basis for the water use, the purpose of use, the location of the diversion point, the rate and method of diversion, the maximum quantity of water to be diverted annually, the measuring device approved and/or in use, and any other pertinent features or special conditions of the project.
 - b. The water-use projects first shall be reviewed by the Secretary of the Administration. The Secretary will determine if all required information has been submitted by the State in which the project is located and will provide all such information to the other State for comments. Comments by the other State shall be submitted to the Secretary, with a copy to the

- State which submitted the project. The Secretary shall submit complete water-use project data and any State comments to the Engineering Committee members.
- c. The Engineering Committee will review the water-use projects and report its findings directly to the Compact Administration if the project is undisputed, or to a joint session of the Engineering and Legal Committees if a portion of the project is questioned. If the Engineering Committee concludes that a project may have a significant potential for causing a Compact violation, it shall specify the flow conditions under which a potential violation could occur. The Engineering and Legal Committees will jointly report to the Compact Administration on any projects reviewed by them.
 - d. The Administration will vote on whether to approve diversion points and measuring devices, and on whether to inform the States that the Administration considers a water-use project to create a significant potential for causing a Compact violation. The findings of the Commission shall be provided to each State.
4. All points of diversion, if not in violation of the Sabine River Compact, shall be approved by the Administration. Disapproval shall not be used in an attempt to interfere with the right of either State to regulate within its boundaries the appropriation, use, and control of water not inconsistent with its obligation under the Compact.
 5. The Administration shall deem a water-use project to create a significant potential for causing a Compact violation only if such project would exceed the amount estimated by the Administration as available for each State to use, considering the location of the diversion point, the flows of water available, and existing water uses. In furtherance of this advisory function, the Engineering Committee shall collect available flow and basin model data to estimate a range of flows available for use by each State in various reaches of the stateline based upon historical flow figures. A finding by the Administration regarding the potential of a water-use project to create a Compact violation shall in no way be deemed to interfere with the rights of Texas and Louisiana to apportion water within their respective states. However, the State in which such water-use project is located may be required by the Administration to monitor and report on a more frequent basis the diversions and flows in the affected reach of the streams in order to provide a higher degree of assurance of compliance with the terms of the Compact.
 6. In accordance with ARTICLE VII (G) (6) of the Sabine River Compact, it shall be the policy of the Sabine River Compact Administration to require measuring equipment for all diverters subject to the terms of the Compact. Such measuring equipment shall be properly equipped with meters and devices of standard types to accurately measure the quantity of water diverted within generally accepted industry standards for accuracy, or as established by

the American Water Works Association. The measuring equipment so installed shall be properly maintained and shall be calibrated on a frequency as required for such equipment by the Administration. Metering devices shall be installed and maintained at the user's expense. The chief official of each state charged with the administration of water rights therein shall supervise the execution and enforcement of the Administration's standards for and requirements to install such metering devices.

7. The Administration may order a public hearing on any matter pending before it when it feels the public interest will be best served thereby.
8. All hearings shall be public, and the Administration shall hear any interested party and give due consideration to any pleadings, statements, or other offerings made by him. The Administration may waive formal rules of evidence.
9. Hearings by the Administration on any matter shall be conducted at such times and places as may be ordered by the Administration.
10. The Administration shall prepare and issue a notice of hearing after a resolution or order is entered in the minutes, setting the matter to be heard by public hearing. The notice of hearing shall be delivered or mailed to all interested parties at least fifteen days in advance of such hearing.
11. In the event anyone should desire to protest or oppose any matter pending before the Administration, a protest or opposition shall be filed with the Administration at least five days before the date on which the subject has been set for hearing.
12. Investigations of violations of the Compact shall be made by any member to the Administration or by any committee or employee therefore as directed by the Administration.

Toledo Bend Reservoir Alert System



LOCATION OF TOLEDO BEND TRANSMITTING WEATHER STATIONS

ID#	NAME	LATITUDE	LONGITUDE
1015	YELLOW PINE	31° 13' 11.8"	93° 50' 49.6"
1035	BRONSON	31° 23' 29"	93° 59' 52"
1055	GROVER LEE	31° 33' 55"	93° 54' 57"
1065	HUXLEY	31° 45' 37.2"	93° 52' 06.7"
1075	NEUVILLE	31° 40' 33"	94° 08' 50"
1085	FLAT FORK CREEK	31° 53' 38.2"	94° 12' 55.4"
1095	ANDERSON	32° 07' 00"	94° 15' 59"
2015	FLORIEN	31° 26' 53"	93° 31' 35"
2035	BELMONT	31° 43' 00"	93° 30' 26"
2055	PELICAN	31° 53' 23"	93° 35' 00"
2075	AIRPORT	32° 04' 00"	93° 45' 22"
2095	KEATCHIE	32° 10' 22"	93° 59' 40"
3015	SPILLWAY	31° 11' 47.3"	93° 34' 18.6"
4015	PENDLETON	31° 29' 20"	93° 42' 24"
5015	HWY. 59	32° 19' 38"	94° 21' 16"
6015	LOGANSPORT	31° 58' 20"	94° 00' 22"

Station #4015, Site 11, has been relocated to approximate latitude of 31°29'20" and longitude 93°42'24" and renamed Pendleton. It is no longer a Weather station and is now only a Rain gage. This new location is north of LA Hwy. 6 immediately across the roadway from the SRALA Administrative Office located on the south side of LA Hwy. 6 at the east end of the Pendleton Bridge.

WATER YEAR 12-13

AVG IS THE LONG TERM AVERAGE BASED ON THE TEN YEAR PERIOD OF WY 97-98 THROUGH WY 06-07 FROM THE 2008 ANNUAL REPORT

MONTH	BELMONT (ID# 2035)			PELICAN (ID# 2055)			AIRPORT (ID# 2075)			KEATCHIE (ID# 2095)		
	RAIN	AVG	DIFF	RAIN	AVG	DIFF	RAIN	AVG	DIFF	RAIN	AVG	DIFF
OCT 12	0.51	4.186	-3.676	1.02	3.969	-2.949	1.57	4.220	-2.650	1.46	4.172	-2.712
NOV	1.06	5.698	-4.638	1.50	5.559	-4.059	1.30	4.732	-3.432	1.46	4.831	-3.371
DEC	4.17	6.441	-2.271	4.65	5.730	-1.080	3.98	4.941	-0.961	5.39	5.086	0.304
JAN	6.65	5.737	0.913	6.30	5.110	1.190	5.28	4.960	0.320	4.88	5.413	-0.533
FEB	2.28	5.199	-2.919	3.78	5.074	-1.294	2.80	4.807	-2.007	2.56	4.524	-1.964
MAR	1.70	4.094	-2.394	2.32	4.388	-2.068	2.64	4.121	-1.481	2.09	4.026	-1.936
APR	4.25	3.417	0.833	3.50	2.999	0.501	3.66	3.619	0.041	3.27	3.174	0.096
MAY	3.39	2.948	0.442	2.64	2.917	-0.277	1.14	2.593	-1.453	1.50	3.386	-1.886
JUN	2.24	4.851	-2.611	3.07	3.917	-0.847	4.57	4.980	-0.410	2.10	4.099	-1.999
JUL	5.98	3.554	2.426	5.28	3.594	1.686	1.06	2.330	-1.270	0.28	3.275	-2.995
AUG	0.51	3.454	-2.944	0.16	2.409	-2.249	0.84	2.161	-1.321	0.71	1.753	-1.043
SEP 13	5.83	3.547	2.283	5.71	3.896	1.814	6.46	3.419	3.041	2.72	4.343	-1.623
TOTAL	38.57	53.126	-14.556	39.93	49.562	-9.632	35.30	46.883	-11.583	28.42	48.082	-19.662
CHECK			-14.556			-9.632			-11.583			-19.662

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MONTH	SPILLWAY (ID# 3015)			PENDLETON (ID# 4015)			HIGHWAY 59 (ID# 5015)			LOGANSPORT (ID# 6015)		
	RAIN	AVG	DIFF	RAIN	AVG	DIFF	RAIN	AVG	DIFF	RAIN	AVG	DIFF
OCT 12	0.71	4.268	-3.558	0.39	3.172	-2.782	1.10	3.591	-2.491	2.05	3.423	-1.373
NOV	0.79	5.062	-4.272	0.98	3.397	-2.417	0.98	4.367	-3.387	0.83	4.371	-3.541
DEC	3.54	4.922	-1.382	3.35	3.122	0.228	4.06	4.580	-0.520	3.86	5.377	-1.517
JAN	4.96	3.643	1.317	6.38	3.575	2.805	3.23	4.288	-1.058	8.43	5.137	3.293
FEB	1.32	3.457	-2.137	4.29	2.186	2.104	3.01	4.004	-0.994	3.35	5.105	-1.755
MAR	6.01	3.973	2.037	2.09	2.579	-0.489	1.38	4.449	-3.069	2.68	4.183	-1.503
APR	4.72	2.836	1.884	5.91	2.481	3.429	1.02	2.740	-1.720	2.87	3.342	-0.472
MAY	3.46	2.314	1.146	1.26	2.086	-0.826	3.04	3.103	-0.063	3.70	2.764	0.936
JUN	2.48	4.426	-1.946	4.96	2.351	2.609	2.01	4.649	-2.639	2.15	5.102	-2.952
JUL	0.98	3.327	-2.347	2.13	1.144	0.986	0.20	3.011	-2.811	0.41	3.064	-2.654
AUG	0.51	1.938	-1.428	0.28	0.847	-0.567	0.91	1.822	-0.912	0.84	1.456	-0.616
SEP 13	6.09	3.113	2.977	4.21	1.622	2.588	5.02	3.519	1.501	4.98	3.577	1.403
TOTAL	35.57	43.279	-7.709	36.23	28.562	7.668	25.96	44.123	-18.163	36.15	46.901	-10.751
CHECK			-7.709			7.668			-18.163			-10.751

WATER YEAR 12-13

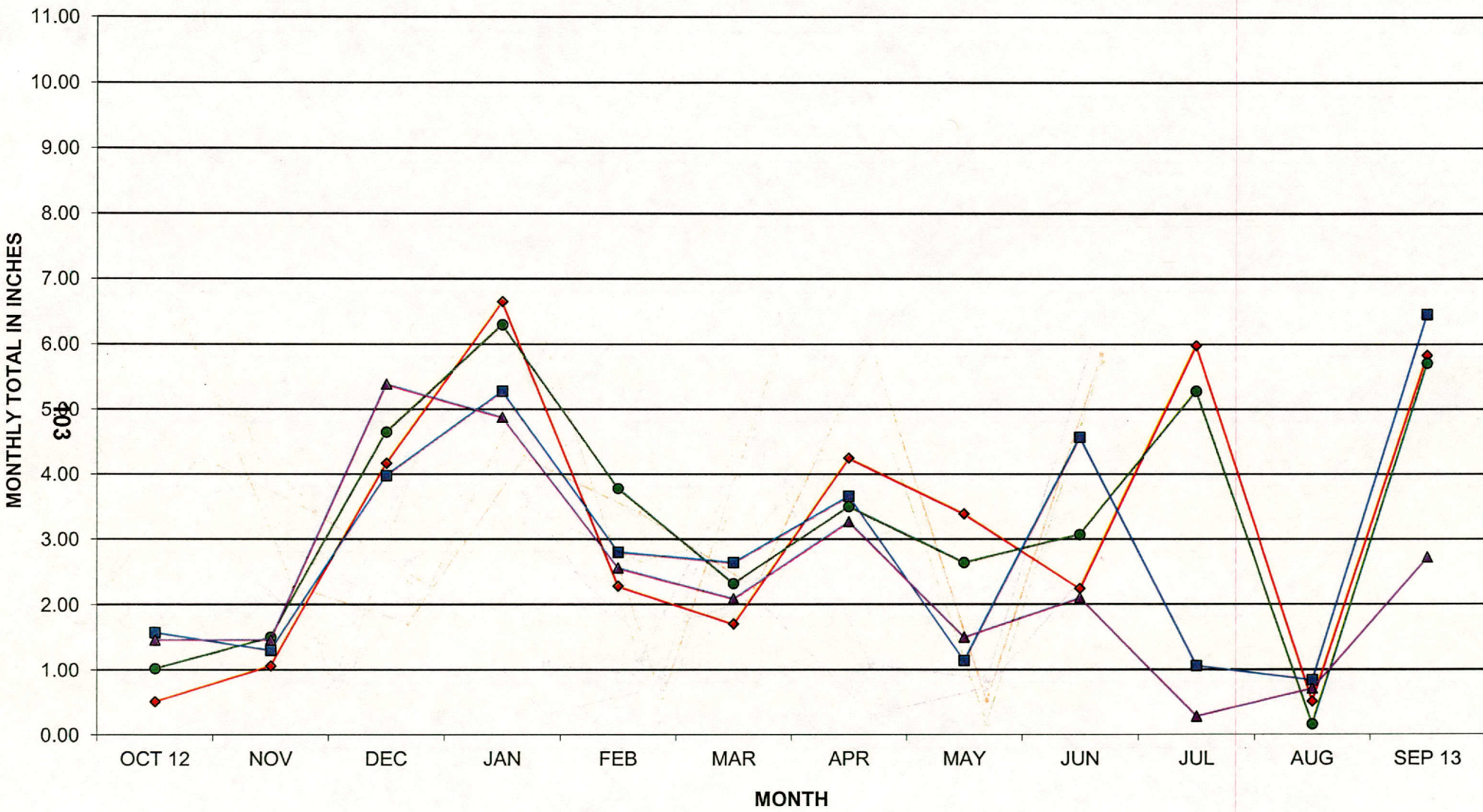
AVG IS THE LONG TERM AVERAGE BASED ON THE TEN YEAR PERIOD OF WY 97-98 THROUGH WY 06-07 FROM THE 2008 ANNUAL REPORT

MONTH	YELLOW PINE (ID# 1015)			BRONSON (ID# 1035)			GROVER LEE (ID# 1055)			HUXLEY (ID# 1065)		
	RAIN	AVG	DIFF	RAIN	AVG	DIFF	RAIN	AVG	DIFF	RAIN	AVG	DIFF
OCT 12	0.35	4.432	-4.082	0.43	4.224	-3.794	0.35	4.342	-3.992	1.30	3.276	-1.976
NOV	0.87	5.216	-4.346	0.91	5.851	-4.941	0.79	5.231	-4.441	1.34	5.697	-4.357
DEC	3.90	4.639	-0.739	8.07	5.090	2.980	4.72	5.208	-0.488	4.96	4.973	-0.013
JAN	4.13	4.499	-0.369	4.65	4.570	0.080	5.32	4.614	0.706	6.85	5.161	1.689
FEB	3.03	3.231	-0.201	4.96	3.752	1.208	2.95	4.316	-1.366	2.28	4.583	-2.303
MAR	0.98	3.910	-2.930	1.77	4.649	-2.879	2.01	4.214	-2.204	1.73	3.973	-2.243
APR	4.02	2.711	1.309	4.21	3.271	0.939	3.58	2.701	0.879	1.50	2.445	-0.945
MAY	3.03	3.043	-0.013	1.54	3.220	-1.680	2.09	2.406	-0.316	3.31	1.910	1.400
JUN	1.58	4.968	-3.388	2.36	5.131	-2.771	2.76	3.969	-1.209	3.03	3.448	-0.418
JUL	1.93	2.603	-0.673	2.17	3.685	-1.515	1.22	2.859	-1.639	3.98	3.004	0.976
AUG	0.35	2.880	-2.530	0.79	2.167	-1.377	0.63	2.657	-2.027	0.04	2.030	-1.990
SEP 13	4.96	3.890	1.070	6.22	4.342	1.878	4.21	3.532	0.678	6.14	2.656	3.484
TOTAL	29.13	46.022	-16.892	38.08	49.952	-11.872	30.63	46.049	-15.419	36.46	43.156	-6.696
CHECK			-16.892			-11.872			-15.419			-6.696

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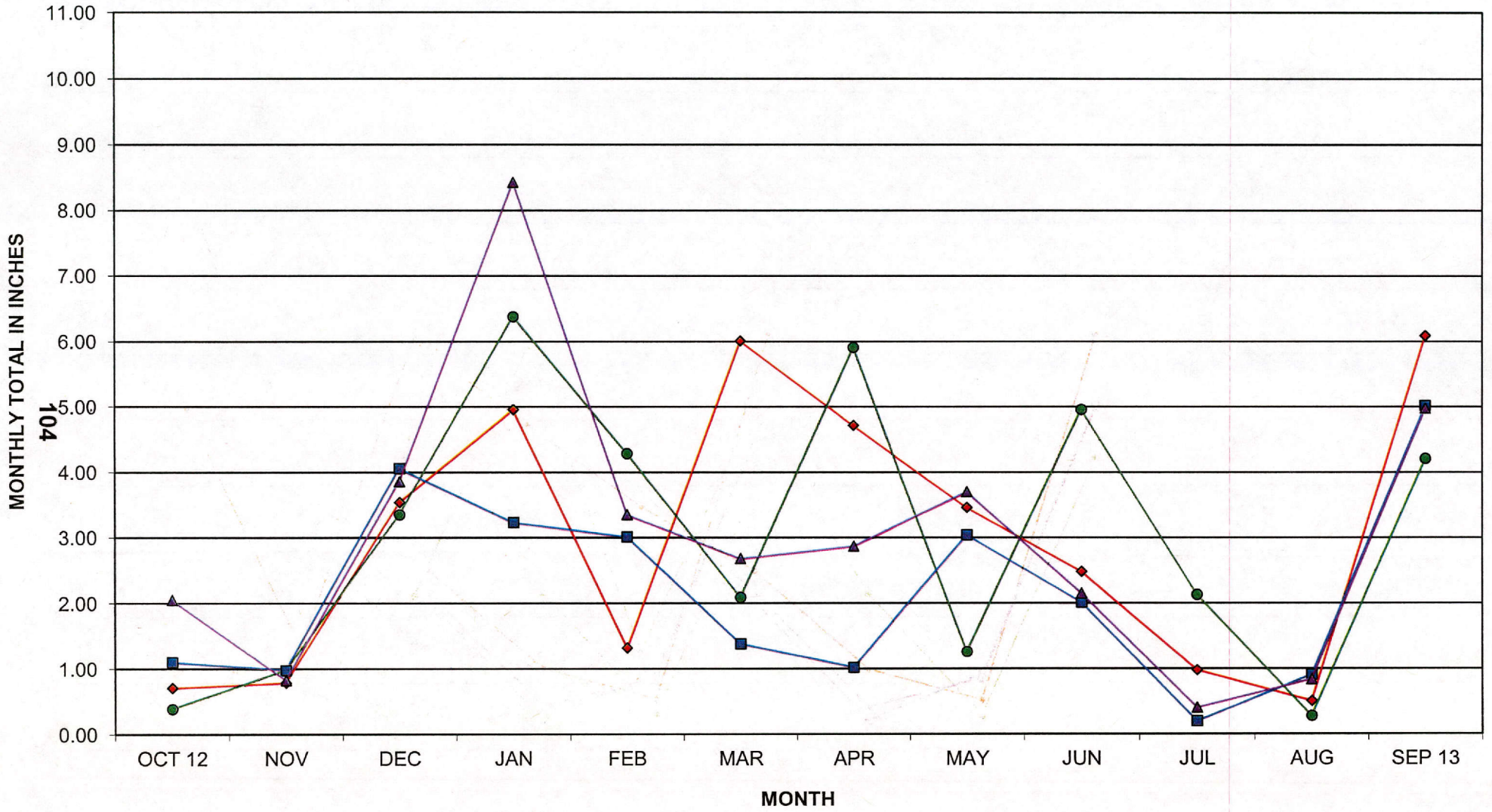
MONTH	NEUVILLE (ID# 1075)			FLAT FORK CREEK (ID# 1085)			ANDERSON (ID# 1095)			FLORIEN (ID# 2015)		
	RAIN	AVG	DIFF	RAIN	AVG	DIFF	RAIN	AVG	DIFF	RAIN	AVG	DIFF
OCT 12	0.87	3.910	-3.040	0.98	3.643	-2.663	1.56	4.306	-2.746	0.43	4.416	-3.986
NOV	1.42	5.467	-4.047	0.87	5.206	-4.336	2.05	4.897	-2.847	0.39	5.841	-5.451
DEC	4.92	5.151	-0.231	3.90	5.247	-1.347	5.16	4.423	0.737	4.49	5.888	-1.398
JAN	4.88	4.593	0.287	6.06	5.004	1.056	4.88	4.752	0.128	4.25	4.595	-0.345
FEB	1.54	4.724	-3.184	2.99	4.854	-1.864	1.81	4.308	-2.498	2.09	3.965	-1.875
MAR	2.56	3.796	-1.236	2.99	3.771	-0.781	2.24	4.158	-1.918	1.97	4.098	-2.128
APR	2.91	2.896	0.014	2.72	3.033	-0.313	1.57	2.996	-1.426	5.08	3.268	1.812
MAY	2.44	2.917	-0.477	2.87	3.394	-0.524	1.73	3.450	-1.720	1.22	2.237	-1.017
JUN	3.62	4.729	-1.109	2.00	4.389	-2.389	2.72	4.293	-1.573	3.94	3.295	0.645
JUL	0.67	3.104	-2.434	0.83	3.464	-2.634	0.94	2.922	-1.982	1.34	2.838	-1.498
AUG	0.71	2.492	-1.782	0.53	2.114	-1.584	0.83	1.672	-0.842	0.24	1.901	-1.661
SEP 13	3.90	2.811	1.089	5.14	3.122	2.018	4.86	3.311	1.549	3.70	2.827	0.873
TOTAL	30.44	46.590	-16.150	31.88	47.241	-15.361	30.35	45.488	-15.138	29.14	45.169	-16.029
CHECK			-16.150			-15.361			-15.138			-16.029

WATER YEAR 12-13



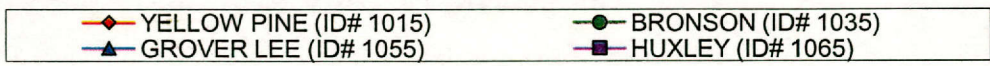
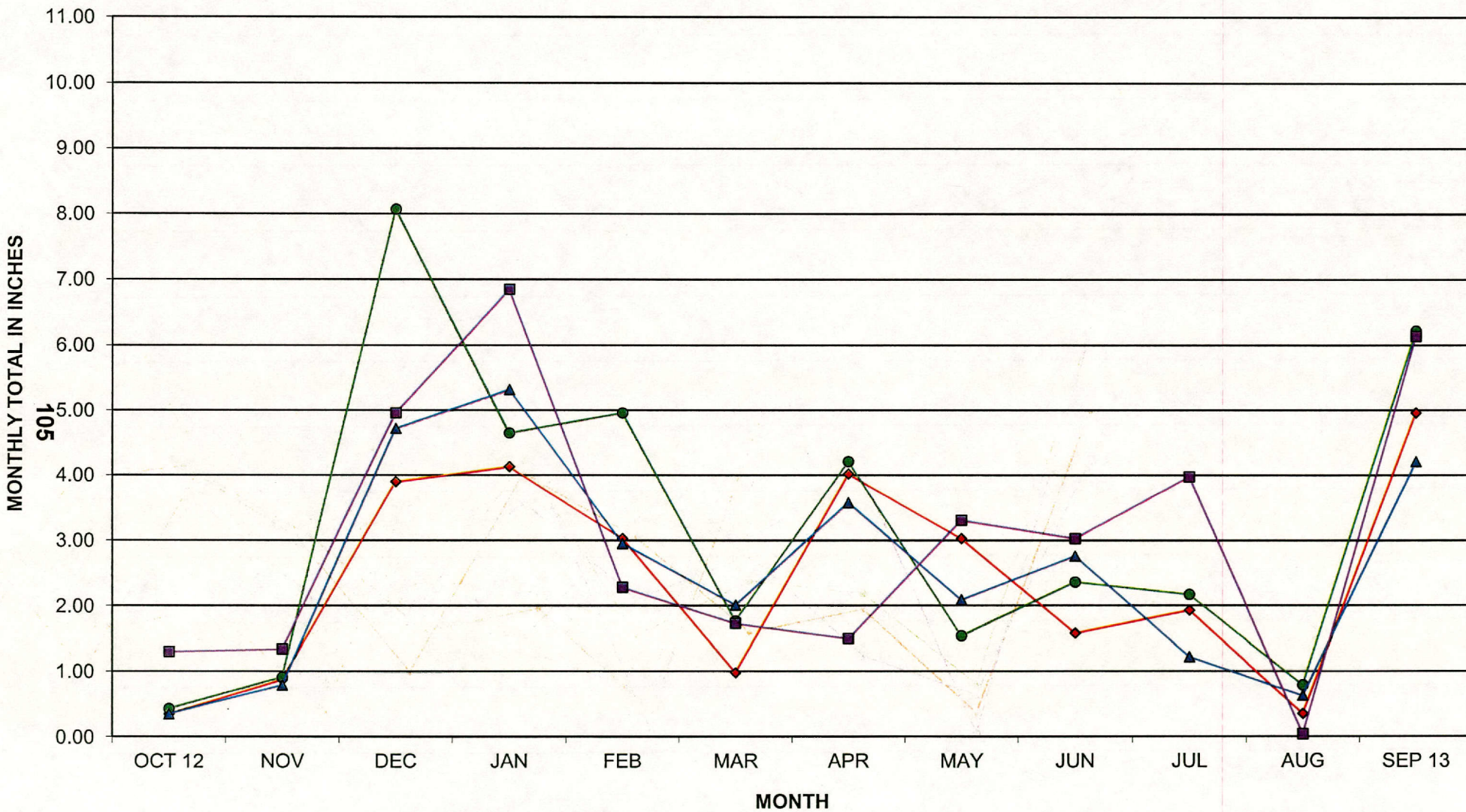
◆ BELMONT (ID# 2035) ● PELICAN (ID# 2055)
■ AIRPORT (ID# 2075) ▲ KEATCHIE (ID# 2095)

WATER YEAR 12-13

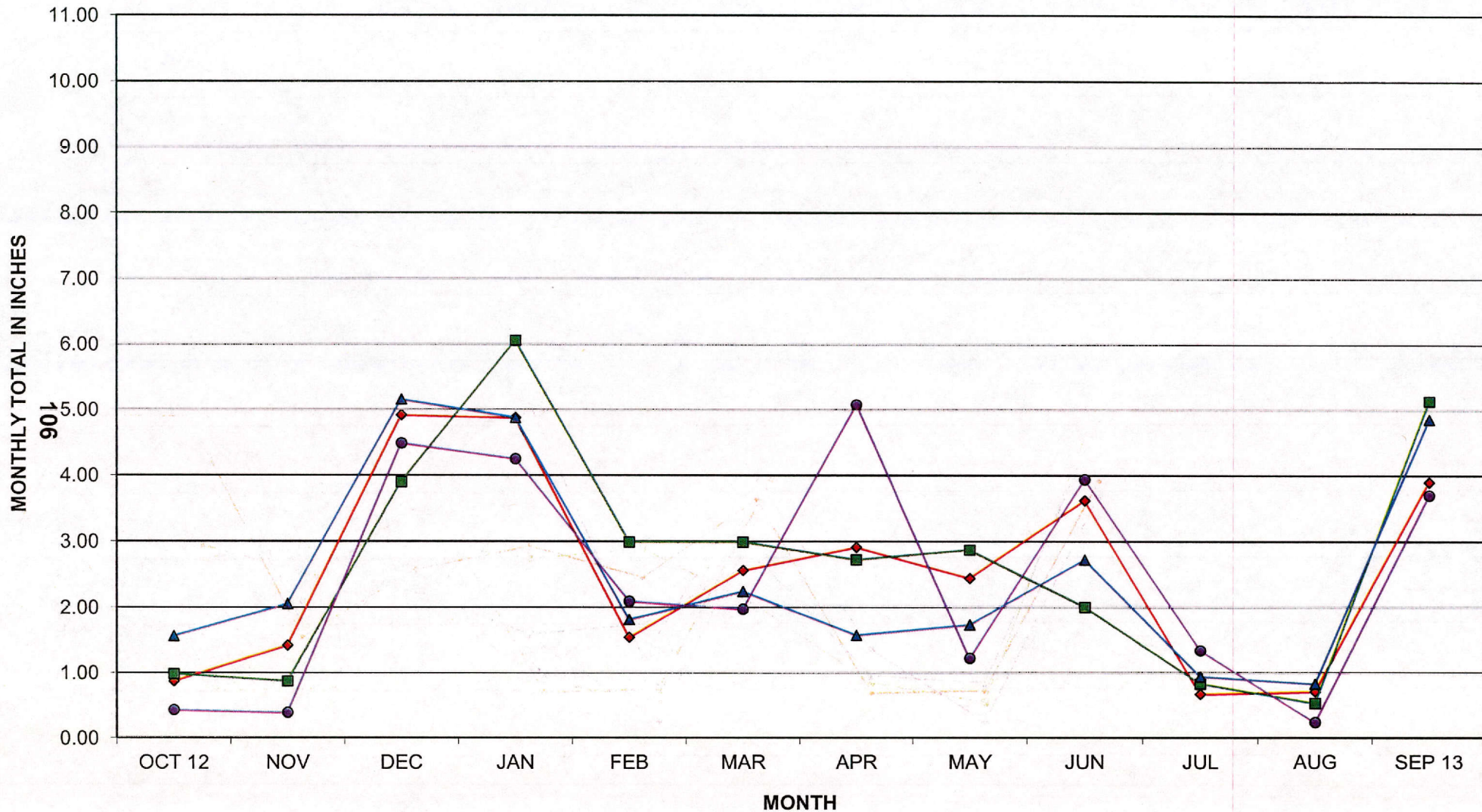


—◆— SPILLWAY (ID# 3015) —●— PENDLETON (ID# 4015)
—■— HIGHWAY 59 (ID# 5015) —▲— LOGANSPORT (ID# 6015)

WATER YEAR 12-13

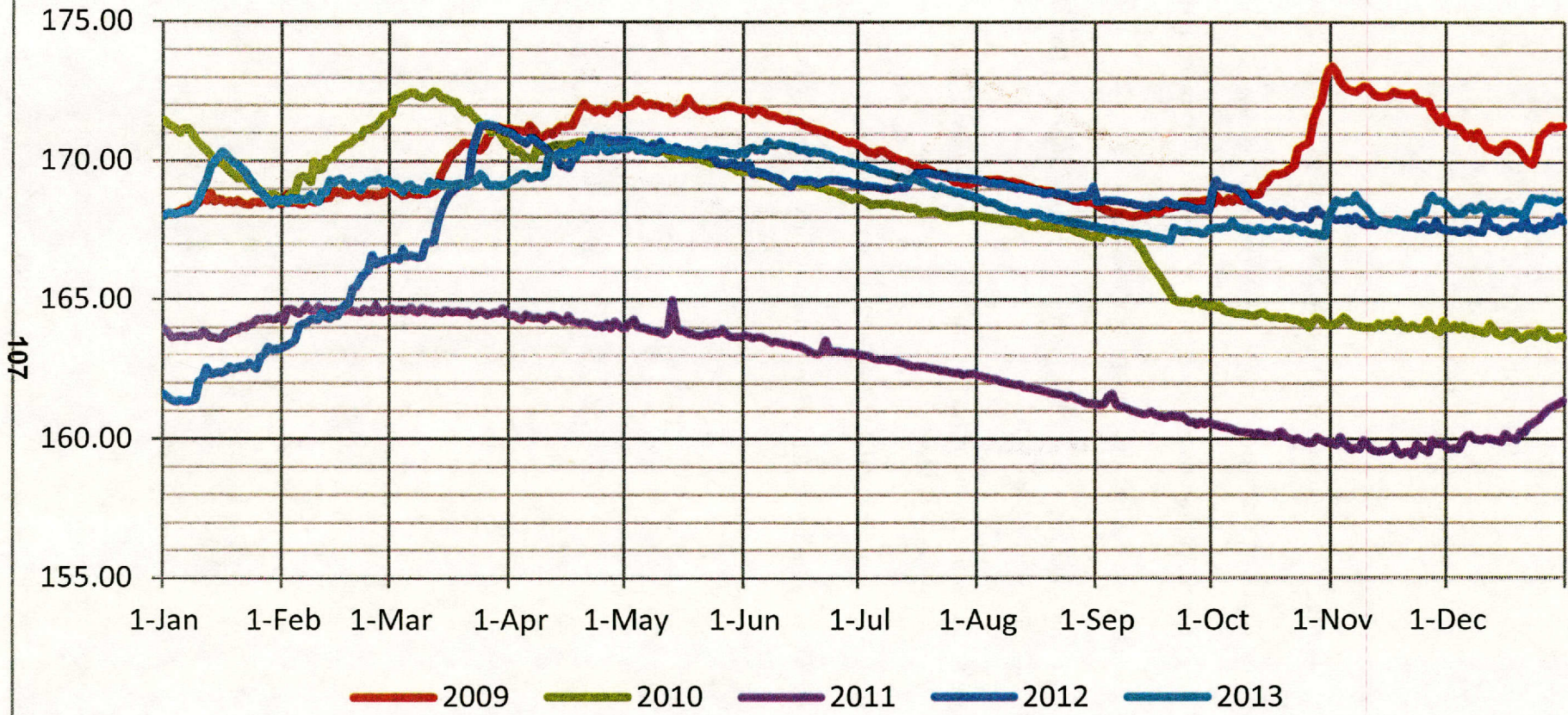


WATER YEAR 12-13



NEUVILLE (ID# 1075) FLAT FORK CREEK (ID# 1085)
ANDERSON (ID# 1095) FLORIEN (ID# 2015)

RESERVOIR ELEVATIONS CY 2009 THRU 2013



APPENDIX G
WEB SITE ADDRESSES
of
PARTICIPATORY AGENCIES

1. U.S. Geological Survey (USGS) – <http://water.usgs.gov>
2. Sabine River Authority of Texas – <http://www.sra.dst.tx.us>
3. Sabine River Authority, State of Louisiana – <http://www.srala-toledo.com>
4. National Weather Service – <http://www.srh.noaa.gov>
5. Louisiana Department of Transportation & Development (LADOTD) –
<http://www.dotd.state.la.us>
6. Louisiana Department of Environmental Quality (LDEQ) –
<http://www.deq.state.la.us>
7. Texas Attorney General's Office – <http://www.oag.state.tx.us>
8. Texas Commission on Environmental Quality – <http://www.tceq.state.tx.us>

