TRIENNIAL SUMMARY REPORT, 2015

FOR WATER PLANNING AND ASSESSMENT DIVISION
OF THE
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

DEQ
LOUISIANA

FISCAL YEARS 2013 – 2015 (July 2012 through June 2015)

ASSET
AQUIFER SAMPLING AND ASSESSMENT PROGRAM

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ACKNOWLEDGEMENTS

The Water Planning and Assessment Division's (WPAD) Aquifer Sampling and Assessment (ASSET) Program owes its success to many people and agencies for their continual support through the years. Without this support, the ASSET Program could not exist.

The water well owners, who voluntarily participate in ASSET, are owed a debt of gratitude. Without access to private, corporate, and public property and wellheads, this program could not operate.

The Louisiana Department of Natural Resources (LDNR) Ground Water Resources Program makes the Water Well Registration data set available to LDEQ, and ultimately to the WPAD, which is used for multiple purposes in the execution of ASSET.

The United States Geological Survey (USGS) Water Resources Division frequently provides well schedule data that are used during the execution of ASSET. These data are made available to the Program through a USGS-LDOTD cooperative program. In addition, the USGS allows its observation wells to be sampled.

Gratitude is also owed to the staff at EPA Region 6, Water Quality Protection Division, Assistance Programs Branch and the Source Water Protection Branch, for their assistance and support for ASSET.

This Program is funded in part by the U.S. Environmental Protection Agency through the Clean Water Act.

BACKGROUND

The Aquifer Sampling and Assessment Program, or ASSET, is conducted as a Clean Water Act activity. ASSET was designed to determine and monitor the quality of groundwater in the major freshwater aquifers across Louisiana. The data derived from this process is provided to LDEQ to aid in groundwater protection through nonpoint source pollution prevention, source water protection and remediation strategies for the State. It is also available to the public through LDEQ's website, email, and through the mail upon request. Also, each well owner receives a copy of the laboratory analytical results from the sampling of their well.

For this reporting period, the ASSET Program monitored 187 wells in fourteen major freshwater aquifers throughout the state. Table 2 illustrates their stratigraphic occurrence while Table 3 lists these major aquifers. The number of wells assigned to each aquifer is based on its areal extent. Currently, the well density goal is approximately one well per 400 square miles. For example, an aquifer with an areal extent of 4,800 square miles would require a minimum of 12 wells to be assigned to it, 4,800/400 = 12. An effort is made to distribute sample locations (wells) evenly within the areal extent of each aquifer so that a representative sampling of the aquifer can be accomplished. Table 3 lists the areal extent of each aquifer in square miles, the number of wells currently assigned to it and the well density for each aquifer. Figures 1 - 3 more readily illustrate this by graphing the data found in Table 3. Also, the last row of Table 3 lists the total areal extent of all monitored aquifers, total number of wells sampled and the overall well density for the Program.

The sampling process was designed so that each well is monitored every three years. Following this design allows for all fourteen aquifers to be monitored within the three-year period. The process is then repeated once a three-year cycle has been completed. Typically, five or more wells, each producing from the same aquifer, are sampled each time sampling is performed. An effort is made to sample all assigned wells of the aquifer in question within a consecutive set of sampling events before moving to the next aquifer. Aquifers of small areal extent may have been completed in a single event, whereas larger aquifers may have required several events to complete. Table 4 lists the sample schedule by aquifer along with the month and number of wells sampled.

Each well is sampled for water quality parameters, inorganics (total metals), nutrients, volatile organic compounds, semi-volatile organic compounds, pesticides, and PCBs; and field parameters (temperature, pH, specific conductance, total dissolved solids, and salinity) are measured and recorded at each well. Table 8 lists these field and laboratory parameters along with their reporting units. For specific lists of analytes, methods, and detection limits, please refer to the aquifer summaries appended to this document.

SUMMARY OF FINDINGS

INTRODUCTION

This report summarizes ASSET sampling that occurred from July 2012 through June 2015. One hundred eighty-seven wells completed in fourteen different aquifers were monitored. Table 9 contains a listing of all the wells sampled, each well's owner, completed depth, use made of produced water, and the aquifers they produce from. In order to preserve privacy, "Private Owner" is listed for the well owner when a well is owned by a private citizen.

Table 5 lists the minimum, average and maximum sample results for the samples collected from each aquifer for field and conventional parameters. Table 6 lists the minimum, average and maximum sample results for the samples collected from each aquifer for inorganic parameters.

A brief summation of each aquifer's sample results and conclusions begins on the next page. Each summation includes the findings for hardness based on the scale below, and a statement on the general water quality of the aquifer based on the data derived from the wells sampled. The number of federal primary Maximum Contaminant Levels (MCLs), if any, and the number of secondary MCL's (SMCLs) that were exceeded are noted also.

For a detailed discussion of each aquifer's findings, see the aquifer summaries appended to this document. Each summary consists of a discussion of the aquifer's geology and hydrogeology, and an interpretation of the laboratory analyses. The lab analysis interpretation is accomplished by evaluating the general water quality and by comparing the historical data averages with the current data averages to detect changes in water quality over time. Initial water quality is evaluated by comparing individual parameters to their respective MCLs to assess the aquifer's use as a drinking water source, and is rated as good (no MCL exceedances), fair (no MCL exceedances in a drinking water well) or poor (one or more MCL exceedance in a drinking water well). Additionally a second water quality evaluation is made by taking into account whether or not Action Levels were exceeded, whether or not volatile organic compounds, semi-volatile organic compounds, pesticides or PCBs were detected, the number of SMCLs exceeded in relation to the number of wells sampled, and the average hardness value. This rating uses values of good, fair and poor.

It should be noted that all statements about hardness (as $CaCO_3$) in the aquifer sections and summary section are based on the following scale[1]:

Soft	< 50 milligrams per Liter (mg/L)
Moderately hard	50-150 mg/L
Hard	151-300 mg/L
Very hard	> 300 mg/L

A statewide summary of findings and summary statement can be found in the section following the Aquifer Summations section.

[1] Classification based on hardness scale from: Peavy, H. S. et al. *Environmental Engineering*. New York: McGraw-Hill, 1985.

AQUIFER SUMMATIONS

Sparta Aquifer

Fourteen wells ranging in depth from 153 feet to 773 feet, with an average depth of 523 feet were sampled for this aquifer. Laboratory and field data show that of these 14 wells sampled during this reporting period for the Sparta aquifer, no primary MCL was exceeded, while 24 secondary standards were exceeded. The data also show that the groundwater produced from this aquifer is soft, and is of good quality when considering short-term or long-term health risk guidelines. Water produced from this aquifer is of fair quality when considering taste, odor, or appearance guidelines.

Carrizo-Wilcox Aquifer

Eleven wells ranging in depth from 105 feet to 410 feet, with an average depth of 245 feet were sampled for this aquifer. Laboratory and field data show that no assigned well that was sampled during this reporting period for the Carrizo-Wilcox aquifer exceeded a primary MCL, with 21 exceedances of secondary standards. The data show that the groundwater produced from this aquifer is generally soft, and is of good quality when considering short-term or long-term health risk guidelines. Water produced from this aquifer is also of good quality when considering taste, odor, or appearance guidelines.

Red River Alluvial Aquifer

Five wells ranging in depth from 47 feet to 89 feet, with an average depth of 70 feet were sampled for this aquifer. Laboratory and field data show that no assigned well that was sampled during this reporting period for the Red River Alluvial aquifer exceeded a primary MCL, while 12 secondary standards were exceeded. The data also show that the groundwater produced from this aquifer is hard and is of poor quality when considering taste, odor, or appearance guidelines, but is of good quality when considering short-term or long-term health risk guidelines.

Evangeline Aquifer

Twelve wells ranging in depth from 170 feet to 1,715 feet, with an average depth of 635 feet were sampled for this aquifer. Laboratory and field data show that no assigned well that was sampled during this reporting period for the Evangeline aquifer exceeded a primary MCL, while there were 11 exceedances of secondary standards. The data show that the groundwater produced from this aquifer is generally soft, and is of good quality when considering short-term or long-term health risk guidelines. Water produced from this aquifer is also of good quality when considering taste, odor, or appearance guidelines.

Catahoula Aquifer

Five wells ranging in depth from 352 feet to 910 feet, with an average depth of 678 feet were sampled for this aquifer. Laboratory and field data show that no assigned well that was sampled during this reporting period for the Catahoula aquifer exceeded a primary MCL, and only one secondary standard was exceeded. The data show that the groundwater produced from this aquifer is soft, and is of good quality when considering short or long-term health risk guidelines. Also, the water produced from this aquifer is of good quality when considering taste, odor, or appearance guidelines.

North Louisiana Terrace Aquifer

Eleven wells ranging in depth from 49 feet to 158 feet, with an average depth of 106 feet were sampled for this aquifer. Laboratory and field data show that the groundwater produced from this aquifer is moderately hard and is of fair to good quality when considering taste, odor, or appearance guidelines, with 11 secondary standards exceeded. It is also of good quality when considering short-term or long-term health risk guidelines in that no well sampled for this time period exceeded a primary MCL.

Carnahan Bayou Aquifer

Ten wells ranging in depth from 66 feet to 2,036 feet, with an average depth of 801 feet were sampled for this aquifer. Laboratory and field data show that no assigned well that was sampled during this reporting period for the Carnahan Bayou aquifer exceeded a primary MCL, and only eight secondary standards were exceeded. The data show that the groundwater produced from this aquifer is moderately hard. Data also show that it is of good quality when considering short or long-term health risk guidelines, and is of good quality when considering taste, odor, or appearance guidelines.

Mississippi River Alluvial Aquifer

Twenty-two wells ranging in depth from 30 feet to 352 feet, with an average depth of 133 feet were sampled for this aquifer. Laboratory and field data show that the groundwater produced from the Mississippi River Alluvial aquifer is hard, and that the primary MCL for arsenic was exceeded in four of the 22 wells sampled.

Review of this data shows that this aquifer is of poor quality when considering taste, odor, or appearance guidelines, with 38 secondary standards being exceeded. It also shows that four wells exceeded the MCL for arsenic, making certain locations of this aquifer to be of poor quality when considering short-term or long-term health risk guidelines. It is important to note that there are certain localized areas of the Mississippi River Alluvial aquifer that exhibit good water quality characteristics, but it still exhibits the poorest overall water quality characteristics of any of the fourteen aquifers or aquifer systems sampled.

Cockfield Aquifer

Thirteen wells ranging in depth from 80 feet to 445 feet, with an average depth of 258 feet were sampled for this aquifer. Laboratory and field data show that the groundwater produced from this aquifer is of good quality when considering short or long-term health risk guidelines given that no primary MCL was exceeded. The data also show that this aquifer is hard and is of poor quality when considering taste, odor, or appearance guidelines, with 17 secondary standards exceeded in nine of the 13 wells sampled.

Chicot Aquifer

Twenty-one wells ranging in depth from 66 feet to 697 feet, with an average depth of 338 feet were sampled for this aquifer. Laboratory and field data show that one well exceeded the primary MCL for antimony, while no other primary MCL was exceeded in any other well. These findings show that the water produced from the Chicot aquifer is of fair quality when considering short-term or long-term health risk guidelines. The data also show that the water produced from the Chicot aquifer is hard and is of poor quality when considering taste, odor, or appearance guidelines, with 26 secondary exceedances.

Williamson Creek Aquifer

Seven wells ranging in depth from 190 feet to 1,657 feet, with an average depth of 628 feet were sampled for this aquifer. Laboratory and field data show that no assigned well that was sampled during this reporting period for the Williamson Creek aquifer exceeded a primary MCL and only three secondary standards were exceeded. Review of the data shows that the water produced from the Williamson Creek aquifer is soft, is of good quality when considering short-term or long-term health risk guidelines, and is also of good quality when considering taste, odor, or appearance guidelines.

Chicot Equivalent Aquifer System

Twenty-six wells ranging in depth from 90 feet to 775 feet, with an average depth of 336 feet were sampled for this aquifer. Laboratory and field data show that this aquifer is of fair quality when considering short-term or long-term health risk guidelines with one industrial use well exceeded the primary MCL for arsenic, while no other primary MCL was exceeded in any other well. These findings show that the water produced from this aquifer is moderately hard and is of fair quality when considering taste, odor, or appearance guidelines, with 28 secondary standards exceeded in 19 of the 26 wells.

Evangeline Equivalent Aquifer System

Fifteen wells ranging in depth from 185 feet to 1,900 feet, with an average depth of 900 feet were sampled for this aquifer. Laboratory and field data show that no assigned well that was sampled during this reporting period for the Evangeline Equivalent Aquifer System exceeded a primary MCL, whereas 10 secondary standards were exceeded. The data show that the water produced from the Evangeline Equivalent aquifer system is soft and of good quality when considering short-term or long-term health risk guidelines, and is also of good quality when considering taste, odor, or appearance guidelines.

Jasper Equivalent Aquifer System

Fifteen wells ranging in depth from 960 feet to 2,700 feet, with an average depth of 2,024 feet were sampled for this aquifer. Laboratory and field data show that no assigned well that was sampled during this reporting period for the Jasper Equivalent Aquifer System exceeded a primary MCL, while 14 secondary standards were exceeded. The data also show that the water produced from the Jasper Equivalent aquifer system is soft and of good quality when considering short-term or long-term health risk guidelines, and is of good quality when considering taste, odor, or appearance guidelines.

STATEWIDE SUMMARY OF FINDINGS

COMBINED AQUIFER DATA AND HISTORICAL COMPARISON

Table 7 shows the minimum and maximum sample results from the fourteen aquifers and aquifer systems that were sampled for field parameters, conventional parameters (water quality and nutrients), and inorganics (total metals), as well as an average of all these sample results. A comparison of the current average values of each parameter to the historical average values of the reporting periods since fiscal year 2000 shows that there was only minor change for many of the parameters measured.

Of the 20 parameters represented in Figures 10 through 39, seven exhibited an increase in average concentration, six exhibited a decrease in average concentration, and seven exhibited little or no change in average concentration from 2000 to 2015. The seven parameters showing an increase in average concentration are pH, salinity, specific conductance (field measures), ammonia, TKN, total phosphorus, and total dissolved solids. The six parameters showing decrease in average concentration are color, sulfate, total dissolved solids, copper, iron, and zinc. The seven parameters showing little or no change in average concentration are temperature (field measure), alkalinity, chloride, hardness, nitrate-nitrite, specific conductance, and barium.

Table 1 highlights the minimum, maximum, and average statewide values for pH, TDS, hardness, chloride, iron, and nitrite-nitrate found in Table 7. The only statewide average listed in Table 1 that did not meet federal drinking water standards is the average for iron, which is not a health-related primary standard, but an aesthetic, non-enforceable, secondary standard. Figures 4 – 9 are the graphed representations of the average values for these same parameters on an aquifer by aquifer basis for this reporting period, July 2012 – June 2015.

Figures 10 – 29 are the graphed representations of selected analytes resulting from the statewide average for each analyte for each three-year period from 2000 to 2015. Some are presented in logarithmic scale to more readily show the relationship between the graphed values and the various limits associated with the analyte.

FEDERAL PRIMARY MCL EXCEEDANCES

A review of the laboratory and field data from all the aquifers and aquifer systems sampled show that there were six primary MCL exceedances, four for arsenic in the Mississippi River Alluvial aquifer, one for arsenic in the Chicot Equivalent aquifer system, one for antimony in the Chicot aquifer. For further discussion of these exceedances, please refer to each aquifer's respective summary.

QUALITY RANKINGS

As stated previously, initial water quality is evaluated by comparing individual parameters to primary MCLs to assess the aquifer's use as a drinking water source, and is rated as good (no MCL exceedances), fair (no MCL exceedances in a drinking water well), or poor (one or more MCL exceedance in a drinking water well). Additionally, a second water quality evaluation is made by taking into account whether or not Action Levels were exceeded, whether or not volatile organic compounds, semi-volatile organic compounds, pesticides or PCBs were detected, the number of secondary standards exceeded in relation to the number of wells sampled, and the average hardness value. This rating uses values of good, fair and poor.

Using the above stated criteria against the data derived from the FY13 – FY15 sampling period it was determined, based on initial evaluation, that 11 of the 14 aquifers and aquifer systems monitored exhibit good water quality characteristics while two exhibited fair and one poor water quality characteristics. Secondary evaluation shows that seven are in the good range; three are in the fair range and four are considered poor.

Those aquifers and aquifer systems considered by the ASSET Program to have Good water quality characteristics in both categories are: Carrizo-Wilcox, Carnahan Bayou, Catahoula, Evangeline, Evangeline Equivalent, Jasper Equivalent, and Williamson Creek. The Sparta and North Louisiana Terrace aquifers are considered to have Good water quality in the initial category and Fair water quality in the second category. Aquifers considered having Good initial water quality with Poor secondary water quality characteristics are the Cockfield and Red River Alluvial aquifers. The Chicot and Chicot Equivalent aquifers are considered to have Fair initial water quality while the Chicot Equivalent is considered to have Fair secondary water quality characteristics and the Chicot is considered to have Poor secondary water quality characteristics. The Mississippi River Alluvial aquifer is considered to have Poor initial and secondary water quality characteristics by this Program.

SUMMARY STATEMENT

The majority of the major freshwater aquifers of Louisiana that were sampled by the ASSET Program exhibited Good water quality characteristics when considering health based standards and Good water quality characteristics when considering non-health based standards. Half of the aquifers sampled exhibited Good water quality characteristics in both categories, while only the Mississippi River Alluvial aquifer exhibited Poor water quality characteristics in both categories.

Those aquifers with deeper average well depths typically exhibit the best water quality characteristics while those with shallower average well depths exhibit some of the poorest water quality characteristics. One notable exception to this is the North Louisiana Terrace aquifer that has an average well depth of just over 100 feet and exhibits similar water quality characteristics to those aquifers with much deeper average well depths.

Taking into account short-term and long-term health risk guidelines, along with the findings of the Aquifer Sampling and Assessment Program for the Fiscal Years 2000 to 2015, it is determined that the overall quality of the waters produced from Louisiana's principal freshwater aquifers is good, and that there is minimal change in the water quality characteristics of these aquifers.

TABLES AND FIGURES

Table 1 – Select Statewide Values

PARAMETER	MINIMUM	AVERAGE	MAXIMUM	DRINKING WATER LIMITS (PRIMARY OR SECONDARY)
pH (SU)	4.13	7.54	9.14	>6.5 - <8.5 Secondary
Chloride (mg/L))	1.89	56.0	629	250 Secondary
TDS (mg/L)	< 10	391	1,420	500 Secondary
Hardness (mg/L)	< 5	92	680	N/A
Iron (ug/L)	< 100	1,323	16,000	300 Secondary
Nitrite-Nitrate (mg/L)	< 0.01	0.17	6.30	10 Primary

Table 2 – Hydrogeologic Column of Aquifers

SYSTEM	SERIES	Stratigraphic Unit		Hydrogeologic Unit: Northern Louisiana – Aquifer or confining unit	Central and southwestern Louisiana – Aquifer system or confining unit	Central and southwestern Louisiana – Aquifer or confining unit: Lake Charles area	Central and southwestern Louisiana – Aquifer or confining unit: Rice growing area	Southeastern Louisiana – Aquifer system or confining unit	Southeastern Louisiana – Aquifer[1] or confining unit: Baton Rouge area	Southeastern Louisiana – Aquifer[1] or confining unit: St. Tammany, Tangipahoa, and Washington Parishes	Southeastern Louisiana – Aquifer[1] or confining unit: New Orleans area and lower Mississippi River parishes
Quaternary	Pleistocene	Red River alluvial deposits Miss. River alluvial deposits Northern La. Terrace deposits Unnamed Pleistocene deposits		Red River alluvial aquifer or surficial confining unit Mississippi River alluvial aquifer or surficial confining unit Upland terrace aquifer or surficial confining unit	Chicot aquifer system or surficial confining unit	"200-foot" sand	Upper sand unit	Chicot Equivalent aquifer system[2] or surficial confining unit	Mississippi River alluvial aquifer or surficial confining unit Shallow sand "400-foot" sand "600-foot" sand	Upland terrace aquifer Upper Ponchatoula aquifer	Gramercy aquifer[3] Norco aquifer[3] Gonzales-New Orleans Aquifer[3] "1,200-foot" sand[3]
						"500-foot" sand "700-foot" sand	Lower sand unit				
Tertiary	Pliocene -----?----- Miocene	Fleming Formation	Blounts Creek Member	Pliocene-Miocene aquifers are absent in this area	Evangeline aquifer or surficial confining unit			Evangeline equivalent aquifer system[2] or surficial confining unit	"800-foot" sand "1,000-foot" sand "1,200-foot" sand "1,500-foot" sand "1,700-foot" sand	Lower Ponchatoula Aquifer Big Branch aquifer Kentwood aquifer Abita aquifer Covington aquifer Slidell aquifer	
			Castor Creek Member		Castor Creek confining unit			Unnamed confining unit	"2,000-foot" sand "2,400-foot" sand "2,800-foot" sand	Tchefuncte aquifer Hammond aquifer Amite aquifer Ramsay aquifer Franklinton aquifer	
			Williamson Creek Member Dough Hills Member Carnahan Bayou Member		Jasper aquifer system or surficial confining unit	Williamson Creek aquifer Dough Hills confining unit Carnahan Bayou aquifer		Jasper equivalent aquifer system[2] or surficial confining unit			
	-----?-----		Lena Member		Lena confining unit			Unnamed confining unit			
	Oligocene	Catahoula Formation			Catahoula aquifer			Catahoula equivalent aquifer system[2] or surficial confining unit			
		Vicksburg Group, undifferentiated		Vicksburg-Jackson confining unit	No fresh water occurs in older aquifers						
	Eocene	Jackson Group, undifferentiated									
		Claiborne Group	Cockfield Formation	Cockfield aquifer or surficial confining unit							
			Cook Mountain Formation	Cook Mountain aquifer or confining unit							
			Sparta Sand	Sparta aquifer or surficial confining unit							
			Cane River Formation	Cane River aquifer or confining unit							
			Carrizo Sand	Carrizo-Wilcox aquifer or surficial confining unit							
	Paleocene	Wilcox Group, undifferentiated									
		Midway Group, undifferentiated		Midway confining unit							

[1]Clay units separating aquifers in southeastern Louisiana are discontinuous

[2]Four aquifer systems as a group are called the Southern Hills aquifer system.

[3]Four aquifers as a group are called the New Orleans aquifer system.

Source: DOTD/USGS Water Resources Special Report No. 9, 1995

Table 3 - Aquifers and Aquifer Systems Monitored

AQUIFER OR SYSTEM	WELL DEPTH RANGE (feet)	AVERAGE WELL DEPTH (feet)	NUMBER OF WELLS	AREAL EXTENT (sq.mi.)	WELL DENSITY (sq. mi./well)
Sparta Aquifer	153 – 773	523	14	6,923	494
Carrizo-Wilcox Aquifer	105 – 410	245	11	4,795	435
Red River Alluvial Aquifer	47 – 89	70	5	1,387	277
Evangeline Aquifer	170 – 1,715	635	12	4,547	378
Catahoula Aquifer	352 – 910	678	5	2,590	518
North Louisiana Terrace Aquifer	49 – 158	106	11	2,152	195
Carnahan Bayou Aquifer	66 – 2,036	801	10	3,640	364
Mississippi River Alluvial Aquifer	30 – 352	133	22	9,947	452
Cockfield Aquifer	80 – 445	258	13	5,161	397
Chicot Aquifer	66 – 697	338	21	9,949	473
Williamson Creek Aquifer	190 – 1,657	628	7	3,243	463
Chicot Equivalent Aquifer System	90 – 775	336	26	6,800	261
Evangeline Equivalent Aquifer System	185 – 1,900	900	15	6,252	416
Jasper Equivalent Aquifer System	960 – 2,700	2,024	15	6,051	403
STATEWIDE	**30ft – 2,700ft**	**539ft**	**187 wells**	**73,437sq.mi.**	**392 sq.mi./well**

Table 4 – Aquifers and Number of Wells Sampled by Month

AQUIFER/SYSTEM	MONTH(S) SAMPLED	NUMBER OF WELLS SAMPLED	TOTAL NUMBER OF WELLS SAMPLED PER AQUIFER
State Fiscal Year 2013 (July 2012 – June 2013)			
Sparta	August	9	14
	November	2	
	January	2	
	June	1	
Carrizo-Wilcox	September	3	11
	November	3	
	December	3	
	January	2	
Red River Alluvial	September	3	5
	December	1	
	January	1	
Evangeline	April	1	12
	May	9	
	August	1	
	September	1	
Catahoula	April	3	5
	May	2	
North Louisiana Terrace	April	11	11
State Fiscal Year 2014 (July 2013 – June 2014)			
Carnahan Bayou	July	1	10
	August	4	
	September	3	
	October	1	
	April	1	
Mississippi River Alluvial	July	8	22
	September	2	
	October	3	
	November	6	
	December	3	
Cockfield	February	7	13
	March	3	
	April	2	
	June	1	
Chicot	April	6	21
	May	6	
	June	9	

AQUIFER/SYSTEM	MONTH(S) SAMPLED	NUMBER OF WELLS SAMPLED	TOTAL NUMBER OF WELLS SAMPLED PER AQUIFER
State Fiscal Year 2015 (July 2014 – June 2015)			
Williamson Creek	July	7	7
Chicot Equivalent	July	1	26
	August	9	
	September	8	
	December	7	
	April	1	
Evangeline Equivalent	February	11	15
	March	1	
	May	3	
Jasper Equivalent	May	6	15
	June	9	

Figure 1 – Number of Wells Sampled by Aquifer

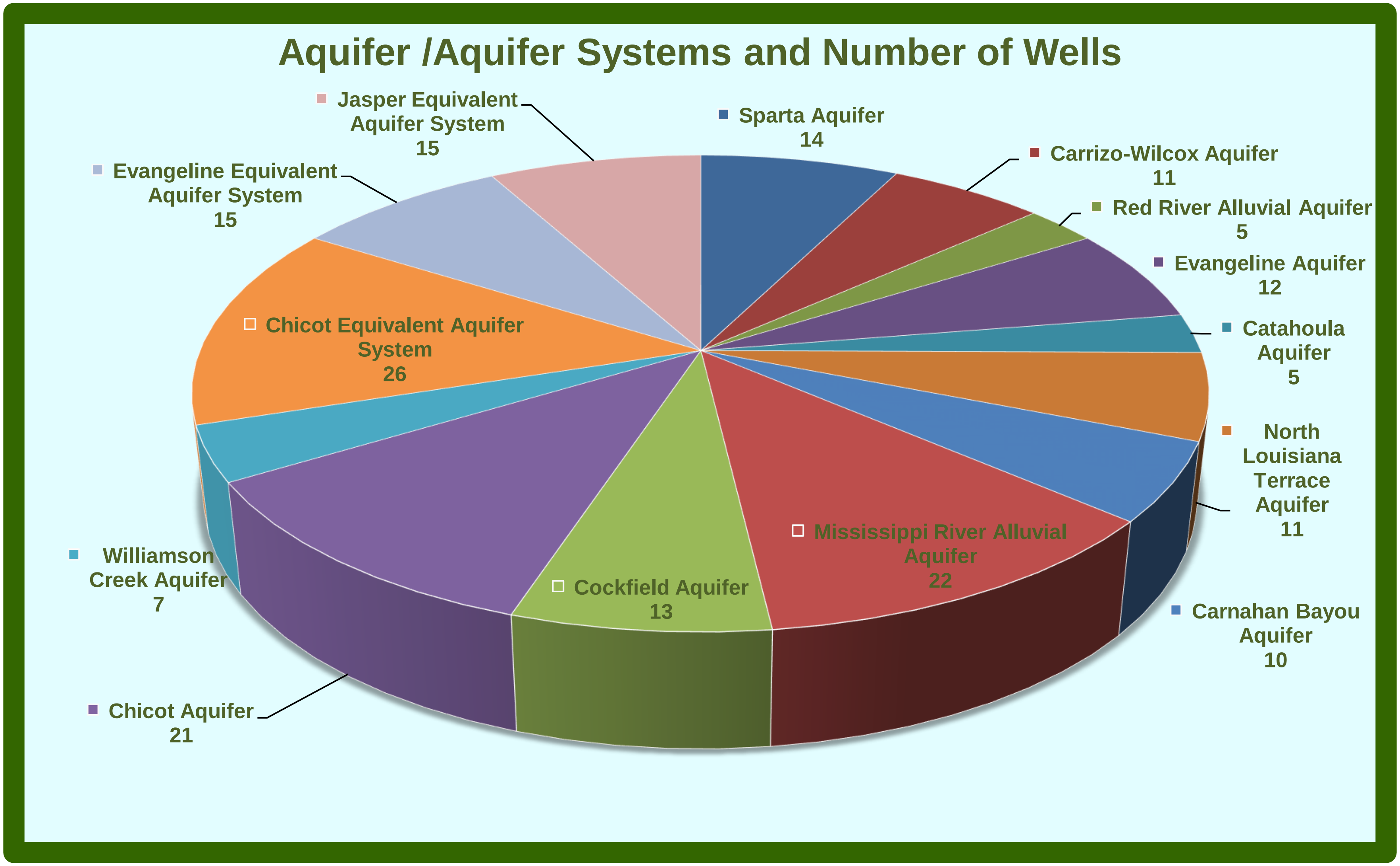


Figure 2 – Aquifer Areal Extent

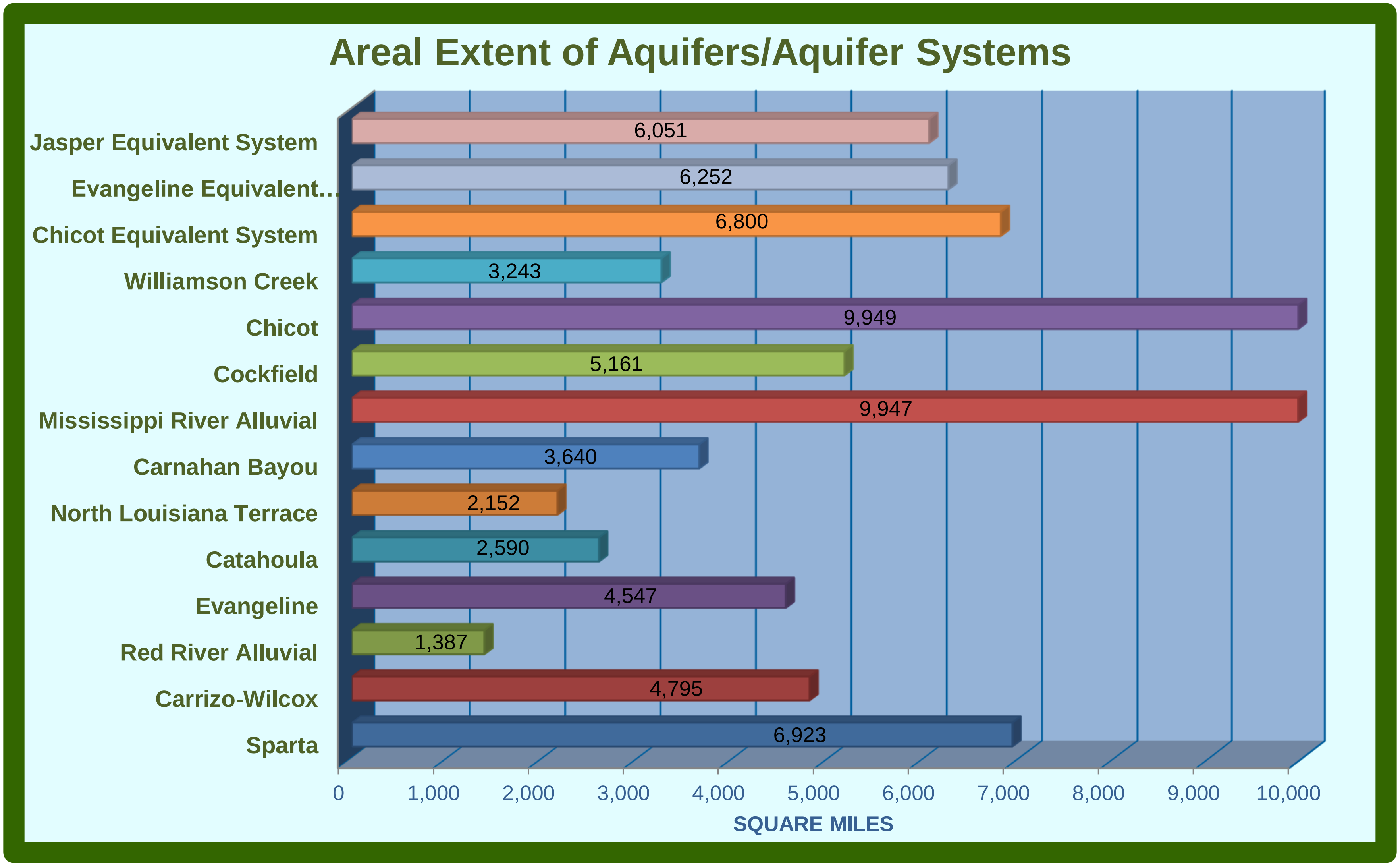


Figure 3 – Well Depth Statistics

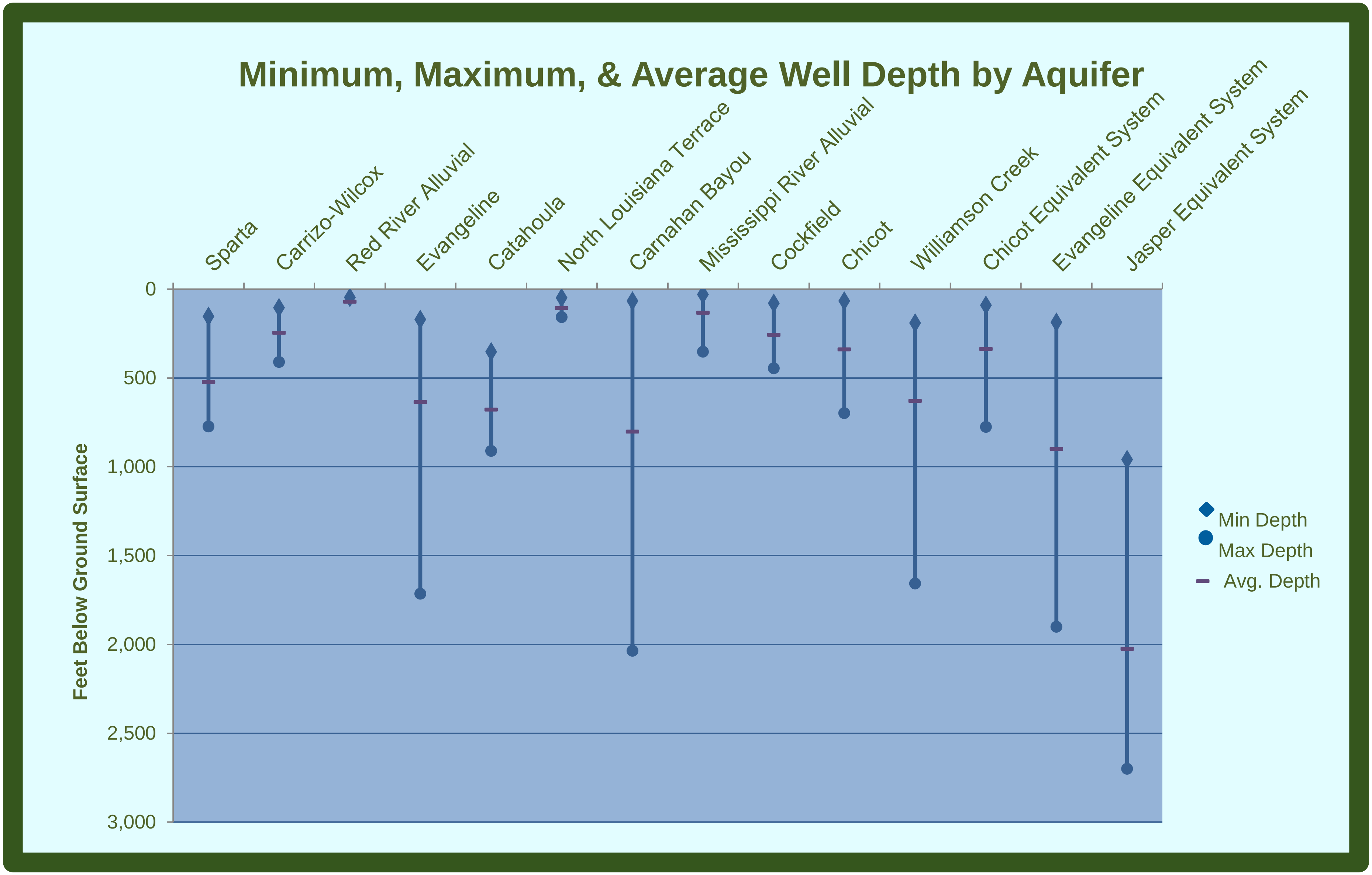


Table 5 – Field, Water Quality, & Nutrients Data Summary by Aquifer/Aquifer System

	FIELD PARAMETERS					LABORATORY PARAMETERS												
	pH SU	Sal. ppt	Sp. Cond. mmhos/cm	TDS g/L	Temp. Deg. C	Alk. mg/L	NH3 mg/L	Cl mg/L	Color PCU	Hard mg/L	Nitrite-Nitrate (as N) mg/L	TKN mg/L	Tot. P mg/L	Sp. Cond. umhos/cm	SO4 mg/L	TDS mg/L	TSS mg/L	Turb NTU
	LABORATORY DETECTION LIMITS →					1/5	0.05	0.25/ 12.5	1	5	0.01/0.1	0.1/0.3	0.05	10	0.25/12.5	4/10	4	0.3/1.5
SPARTA AQUIFER																		
Min	5.97	0.01	0.023	0.015	18.02	< DL	< DL	1.9	< DL	< DL	< DL	< DL	< DL	124	< DL	13	< DL	< DL
Avg	7.81	0.34	0.680	0.461	21.36	194	0.46	77.3	28	15	0.13	0.84	0.33	706	6.9	496	< DL	1.43
Max	8.99	1.01	1.990	1.293	26.02	560	1.48	395.0	100	100	1.66	1.05	0.82	1,920	20.6	1,250	11	7.18
CARRIZO-WILCOX AQUIFER																		
Min	5.78	0.22	0.447	0.290	15.38	20	0.22	19.2	8	< DL	< DL	0.35	< DL	471	< DL	57	< DL	< DL
Avg	8.25	0.48	0.965	0.630	18.92	322	1.14	91.7	27	12	0.05	1.49	0.29	959	40.9	596	30.9	2.19
Max	9.09	0.78	1.542	1.000	21.94	604	3.12	199.0	70	66	0.28	3.33	0.86	1,510	273.0	1,140	306.0	6.05
RED RIVER ALLUVIAL AQUIFER																		
Min	7.08	0.35	0.707	0.460	16.78	358	0.05	17.2	8.0	154	< DL	0.48	0.21	725	< DL	467	5	5.6
Avg	7.42	0.55	1.100	0.715	18.38	414	0.88	74.6	22	225	0.02	1.61	0.52	1,045	55.0	663	17	57.4
Max	8.18	1.17	1.804	0.965	19.75	497	2.33	227.0	34	328	0.06	2.46	0.89	1,750	184.0	1,140	31	126.0
EVANGELINE AQUIFER																		
Min	6.77	0.02	0.036	0.020	18.73	6	< DL	3.1	< DL	< DL	< DL	< DL	< DL	34	< DL	40	< DL	< DL
Avg	8.03	0.20	0.402	0.260	21.38	150	< DL	30.8	8	< DL	0.01	< DL	0.21	423	5.5	334	< DL	0.21
Max	9.11	0.70	1.385	0.900	25.32	428	< DL	215.0	43	< DL	0.04	< DL	0.46	1,470	49.8	1,420	< DL	0.46
CATAHOULA AQUIFER																		
Min	7.09	0.10	0.204	0.133	19.15	96	0.23	3.3	4.7	< DL	< DL	0.36	0.09	209	0.3	232	< DL	< DL
Avg	7.73	0.14	0.294	0.191	22.16	113	0.28	14.6	6.7	< DL	< DL	0.68	0.40	295	7.5	374	4	0.52
Max	8.44	0.18	0.372	0.242	25.02	140	0.36	34.9	12.4	< DL	< DL	0.98	1.04	374	16.2	567	11	1.15
NORTH LOUISIANA TERRACE AQUIFER																		
Min	5.60	0.02	0.045	0.029	16.75	8	< DL	4.0	< DL	< DL	< DL	0.25	< DL	Stats not generated.	< DL	73	< DL	< DL
Avg	6.63	0.12	0.250	0.162	17.84	61	0.08	27.0	2.5	71	0.67	0.42	0.15		14.4	250	< DL	1.3
Max	7.63	0.39	0.777	0.505	18.98	256	0.52	123.0	9.0	280	2.54	0.73	1.02		128.0	620	< DL	12.1
CARNAHAN BAYOU AQUIFER																		
Min	6.71	0.04	0.084	0.055	19.71	28	< DL	6.6	< DL	< DL	< DL	0.16	< DL	89	0.6	120	< DL	< DL
Avg	7.82	0.21	0.425	0.277	25.46	139	0.51	37.9	2.5	56	< DL	0.68	0.34	434	11.1	390	< DL	1.4
Max	8.79	0.77	1.561	1.015	33.80	316	1.00	324.0	11.0	160	0.02	2.26	1.16	1,610	33.1	1,220	< DL	8.2

Table 5 (Cont'd) – Field, Water Quality, & Nutrients Data Summary by Aquifer/Aquifer System

	FIELD PARAMETERS					LABORATORY PARAMETERS												
	pH SU	Sal. ppt	Sp. Cond. mmhos/cm	TDS g/L	Temp. Deg. C	Alk. mg/L	NH3 mg/L	Cl mg/L	Color PCU	Hard mg/L	Nitrite-Nitrate (as N) mg/L	TKN mg/L	Tot. P mg/L	Sp. Cond. umhos/ cm	SO4 mg/L	TDS mg/L	TSS mg/L	Turb NTU
	LABORATORY DETECTION LIMITS →					1/5	0.05	0.25/ 12.5	1	5	0.01/0.1	0.1/0.3	0.05	10	0.25/12.5	4/10	4	0.1/1.5
MISSISSIPPI RIVER ALLUVIAL AQUIFER																		
Min	6.75	0.10	0.202	0.132	14.98	< DL	< DL	11.2	< DL	30	< DL	0.28	< DL	218	< DL	144	< DL	< DL
Avg	7.22	0.40	0.816	0.530	18.76	312	0.98	63.0	16.3	286	0.29	1.41	0.66	818	20.3	577	13	48.4
Max	7.66	0.74	1.463	0.951	22.28	550	3.34	270.0	119.0	560	5.30	5.16	2.38	1,480	277.0	1,180	38	160.0
COCKFIELD AQUIFER																		
Min	6.15	0.08	0.180	0.117	10.53	70	< DL	2.6	< DL	< DL	< DL	< DL	< DL	181	< DL	192	< DL	< 0.2
Avg	7.54	0.38	0.770	0.498	18.59	283	0.55	58.9	17	211	0.06	0.43	0.34	741	23.9	481	< DL	3.7
Max	8.84	0.67	1.329	0.864	21.72	456	0.86	245.0	53	520	0.16	0.65	1.90	1,340	137.0	868	5	17.8
CHICOT AQUIFER																		
Min	5.18	0.01	0.023	0.015	20.33	< DL	< DL	3.2	< DL	< DL	< DL	< DL	< DL	28	< DL	< DL	< DL	< DL
Avg	7.12	0.29	0.585	0.381	22.34	182	0.37	75.6	6	123	0.02	0.53	0.24	607	2.3	387	< DL	5.4
Max	7.80	0.85	1.677	1.090	24.63	416	2.10	375.0	64	292	0.15	2.08	0.47	1,720	22.9	984	10	25.5
WILLIAMSON CREEK																		
Min	5.90	0.07	0.144	0.094	21.54	44	< DL	5.5	< DL	12	0.12	< DL	< DL	139	< DL	180	< DL	< DL
Avg	7.40	0.21	0.435	0.282	24.35	120	0.28	45.7	5	40	0.31	0.48	0.18	482	7.6	266	< DL	0.4
Max	8.38	0.29	0.591	0.384	31.47	204	0.51	94.0	8	136	0.48	1.35	0.52	592	34.3	372	< DL	2.1
CHICOT EQUIVALENT AQUIFER SYSTEM																		
Min	4.13	0.01	0.030	0.020	20.47	2	< DL	2.1	< DL	6	< DL	< DL	< DL	9	< DL	< DL	< DL	0.1
Avg	7.18	0.27	0.600	0.391	22.24	146	0.42	91.3	13	79	0.14	0.64	0.20	550	2.6	347	< DL	2.1
Max	8.67	0.96	2.400	1.540	24.10	440	2.00	629.0	100	680	1.90	2.70	0.57	2,280	17.1	1,220	12	37.7
EVANGELINE EQUIVALENT AQUIFER SYSTEM																		
Min	5.42	0.03	0.059	0.038	18.51	16	< DL	2.5	< DL	< DL	< DL	< DL	< DL	54	< DL	25	< DL	0.2
Avg	7.62	0.12	0.256	0.166	22.22	150	0.23	5.9	5	12	0.14	0.62	0.23	217	6.8	172	< DL	0.8
Max	9.14	0.33	0.673	0.438	26.37	376	0.60	16.6	40	48	0.95	1.50	0.72	502	12.1	425	6	6.0
JASPER EQUIVALENT AQUIFER SYSTEM																		
Min	7.22	0.09	0.199	0.129	23.79	98	0.24	2.4	< DL	< DL	< DL	0.30	0.12	169	7.1	135	< DL	0.3
Avg	8.49	0.19	0.393	0.255	28.54	201	0.46	20.4	8	10	< DL	0.63	0.33	377	9.4	215	< DL	0.5
Max	9.08	0.61	1.254	0.815	37.25	585	1.50	255.0	30	24	0.09	1.20	0.64	1,220	11.7	635	4	1.1

Table 6 – Inorganic (Total Metals) Data Summary by Aquifer/Aquifer System

ANALYTE	Antimony ug/L	Arsenic ug/L	Barium ug/L	Beryllium ug/L	Cadmium ug/L	Chromium ug/L	Copper ug/L	Iron ug/L	Lead ug/L	Mercury ug/L	Nickel ug/L	Selenium ug/L	Silver ug/L	Thallium ug/L	Zinc ug/L
Laboratory Detection Limits	1/25	1/25	1/25	0.5/10	0.5/10	1/20	2/10	50/500	1/5	0.0002	1/15	1/25	0.5/5	0.5/10	5/30
SPARTA AQUIFER															
Min	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL
Avg	< DL	< DL	55	< DL	< DL	< DL	< DL	989	< DL	< DL	< DL	< DL	< DL	< DL	144
Max	< DL	< DL	222	< DL	< DL	< DL	13.4	4,690	1.25	< DL	9.1	< DL	< DL	< DL	1,250
CARRIZO-WILCOX AQUIFER															
Min	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL
Avg	< DL	< DL	57	< DL	< DL	< DL	3.1	216	< DL	< DL	< DL	< DL	< DL	< DL	7
Max	< DL	< DL	181	< DL	< DL	5.26	11.1	956	3.22	< DL	6.15	< DL	< DL	< DL	36
RED RIVER ALLUVIAL AQUIFER															
Min	< DL	< DL	183	< DL	< DL	< DL	< DL	1,650	< DL	< DL	< DL	< DL	< DL	< DL	< DL
Avg	< DL	< DL	400	< DL	< DL	< DL	< DL	5,896	< DL	< DL	< DL	< DL	< DL	< DL	< DL
Max	< DL	< DL	557	< DL	< DL	< DL	2.4	12,600	< DL	< DL	< DL	< DL	< DL	< DL	< DL
EVANGELINE AQUIFER															
Min	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL
Avg	< DL	< DL	94	< DL	< DL	< DL	3.4	144	< DL	< DL	< DL	< DL	< DL	< DL	< DL
Max	< DL	< DL	428	< DL	< DL	< DL	14.8	565	< DL	< DL	< DL	< DL	< DL	< DL	11.1
CATAHOULA AQUIFER															
Min	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL
Avg	< DL	< DL	6	< DL	< DL	< DL	3.8	< DL	< DL	< DL	< DL	< DL	< DL	< DL	10.7
Max	< DL	< DL	20	< DL	< DL	< DL	6.1	284	1.6	< DL	< DL	< DL	< DL	< DL	30.2
NORTH LOUISIANA TERRACE AQUIFER															
Min	< DL	< DL	21	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL
Avg	< DL	< DL	113	< DL	< DL	< DL	4.6	377	1.4	< DL	< DL	< DL	< DL	< DL	6.8
Max	< DL	< DL	473	< DL	< DL	8.2	23.3	1,660	4.7	< DL	< DL	< DL	< DL	< DL	26.1
CARNAHAN BAYOU AQUIFER															
Min	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL
Avg	< DL	< DL	89	< DL	< DL	< DL	4.5	709	< DL	< DL	< DL	< DL	< DL	< DL	9.0
Max	< DL	< DL	328	< DL	< DL	< DL	12.4	3,050	3.8	< DL	< DL	< DL	< DL	< DL	61.3

Table 6 (Cont'd) – Inorganic (Total Metals) Data Summary by Aquifer/Aquifer System

ANALYTE	Antimony ug/L	Arsenic ug/L	Barium ug/L	Beryllium ug/L	Cadmium ug/L	Chromium ug/L	Copper ug/L	Iron ug/L	Lead ug/L	Mercury ug/L	Nickel ug/L	Selenium ug/L	Silver ug/L	Thallium ug/L	Zinc ug/L
Laboratory Detection Limits	1/25	1/25	1/25	0.5/10	0.5/10	1/20	2/10	50/500	1/5	0.0002	1/15	1/25	0.5/5	0.5/10	5/30
MISSISSIPPI RIVER ALLUVIAL AQUIFER															
Min	< DL	< DL	36	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL
Avg	< DL	5.7	457	< DL	< DL	< DL	2.2	6,143	< DL	<DL	< DL	< DL	< DL	< DL	40.0
Max	< DL	32.8	1,210	< DL	< DL	< DL	118.3	16,000	6.9	0.0005	< DL	< DL	< DL	< DL	220.0
COCKFIELD AQUIFER															
Min	< DL	< DL	4	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL
Avg	< DL	1.1	145	< DL	< DL	10.6	10.9	951	1.0	< DL	8.1	< DL	< DL	< DL	141.7
Max	< DL	5.3	350	< DL	< DL	83.6	50.1	3,780	5.7	< DL	62.7	1.39	< DL	< DL	727.0
CHICOT AQUIFER															
Min	< DL	< DL	28	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL
Avg	< DL	< DL	364	< DL	< DL	< DL	3.1	1,115	< DL	< DL	< DL	< DL	< DL	< DL	41.3
Max	9.53	< DL	928	< DL	< DL	< DL	16.8	3,330	2.9	< DL	4.0	< DL	< DL	< DL	476.0
WILLIAMSON CREEK AQUIFER															
Min	< DL	< DL	38	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL
Avg	< DL	< DL	98	< DL	< DL	< DL	< DL	226	< DL	< DL	< DL	< DL	< DL	< DL	212.3
Max	< DL	< DL	350	< DL	< DL	< DL	2.5	496	1.9	< DL	3.04	< DL	< DL	< DL	945.0
CHICOT EQUIVALENT AQUIFER SYSTEM															
Min	< DL	< DL	10	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL
Avg	< DL	< DL	146	< DL	< DL	< DL	25.5	478	< DL	< DL	0.79	< DL	< DL	< DL	30.9
Max	< DL	10.4	502	< DL	< DL	2.0	631.0	8,680	3.4	< DL	7.80	3.5	0.9	0.9	376.0
EVANGELINE EQUIVALENT AQUIFER SYSTEM															
Min	< DL	< DL	1.9	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL
Avg	< DL	< DL	40.3	< DL	< DL	< DL	10.8	261	1.0	< DL	1.40	< DL	< DL	< DL	21.0
Max	< DL	< DL	81.9	< DL	< DL	1.1	108.0	1,720	3.4	< DL	9.80	< DL	< DL	< DL	72.3
JASPER EQUIVALENT AQUIFER SYSTEM															
Min	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL	< DL
Avg	< DL	< DL	17	< DL	< DL	< DL	< DL	63	< DL	< DL	< DL	< DL	< DL	< DL	< DL
Max	< DL	< DL	76	< DL	< DL	< DL	14.6	456	1.4	< DL	< DL	< DL	< DL	< DL	9.3

Table 7 – Data Summary of All Aquifers/Aquifer Systems

WATER QUALITY PARAMETERS	FIELD PARAMETERS					LABORATORY PARAMETERS												
	pH SU	**Sal. ppt**	**Sp. Cond. mmhos/cm**	**TDS g/L**	**Temp. Deg. C**	**Alk. mg/L**	**NH3 mg/L**	**Cl mg/L**	**Color PCU**	**Hard mg/L**	**Nitrite-Nitrate (as N) mg/L**	**TKN mg/L**	**Tot. P mg/L**	**Sp. Cond. umhos/cm**	**SO4 mg/L**	**TDS mg/L**	**TSS mg/L**	**Turb NTU**
	LABORATORY DETECTION LIMITS* →					1/5	0.05	0.25/ 12.5	1	5	0.01/ 0.1	0.1/ 0.3	0.05	10	0.25/12.5	4/10	4	0.3/ 1.5
COMBINED AQUIFER AND AQUIFER SYSTEM DATA																		
Min	4.13	0.01	0.023	0.015	10.53	< DL	< DL	1.9	< DL	< DL	< DL	< DL	< DL	9	< DL	< DL	< DL	< DL
Avg	7.54	0.33	0.667	0.435	22.15	207	0.53	55.6	12.1	92	0.17	0.81	0.36	620	13.7	391	5	9
Max	9.14	1.17	2.400	1.540	37.25	604	3.34	629.0	119.0	680	5.30	5.16	2.38	2,280	277.0	1,420	306	160

DETECTION LIMITS* →	INORGANIC (TOTAL METALS) PARAMETERS														
	Antimony ug/L	**Arsenic ug/L**	**Barium ug/L**	**Beryllium ug/L**	**Cadmium ug/L**	**Chromium ug/L**	**Copper ug/L**	**Iron ug/L**	**Lead ug/L**	**Mercury ug/L**	**Nickel ug/L**	**Selenium ug/L**	**Silver ug/L**	**Thallium ug/L**	**Zinc ug/L**
	1/25	1/25	1/25	0.5/10	0.5/10	1/20	2/10	50/500	1/5	0.0002	1/15	1/15	0.5/25	0.5/10	5/30
COMBINED AQUIFER AND AQUIFER SYSTEM DATA															
Min	<DL	<DL	<DL	<DL	<DL	<DL	<DL	< DL	<DL	<DL	<DL	<DL	<DL	<DL	<DL
Avg	<DL	<DL	181	<DL	<DL	1.2	7.7	1,323	<DL	<DL	3.0	<DL	<DL	<DL	49
Max	9.53	32.8	1,210	<DL	<DL	83.6	631.0	16,000	6.9	0.0005	62.7	1.39	0.9	0.9	1,250

Detection limits vary due to different labs performing analyses over the three year period.

Figure 4 – Average pH Values

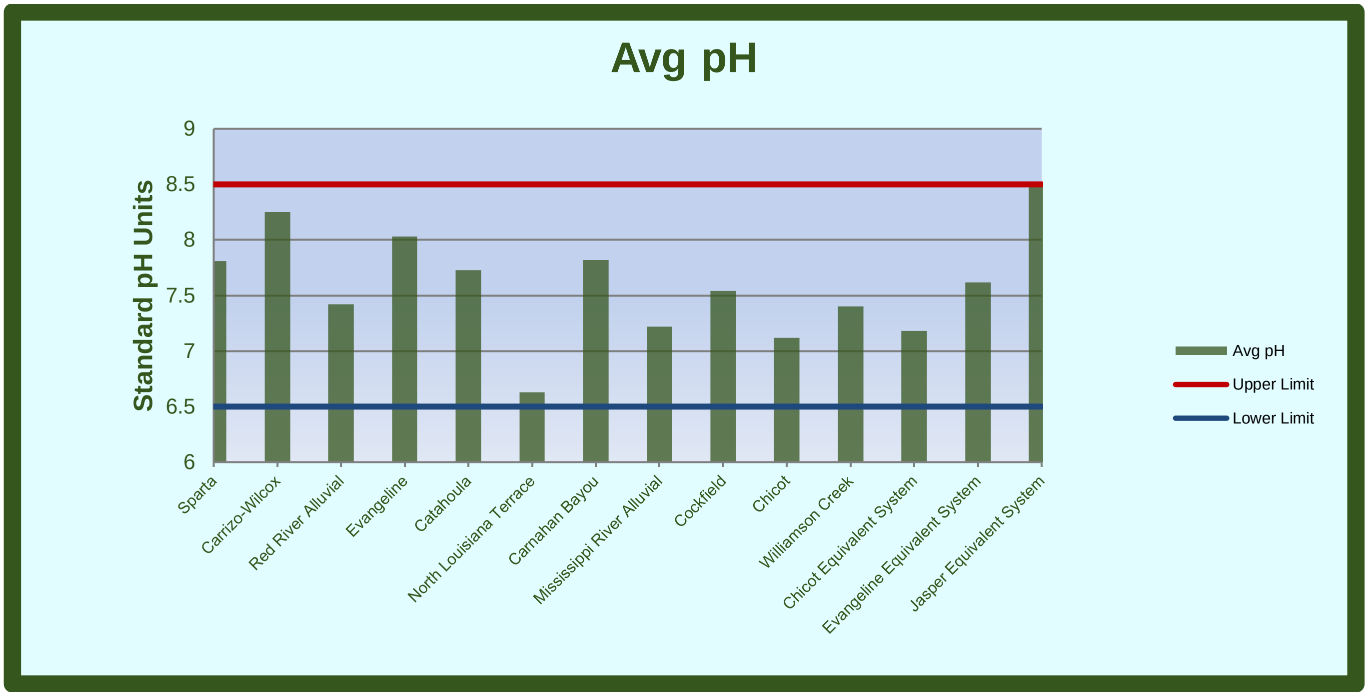


Figure 5 – Average Chloride Values

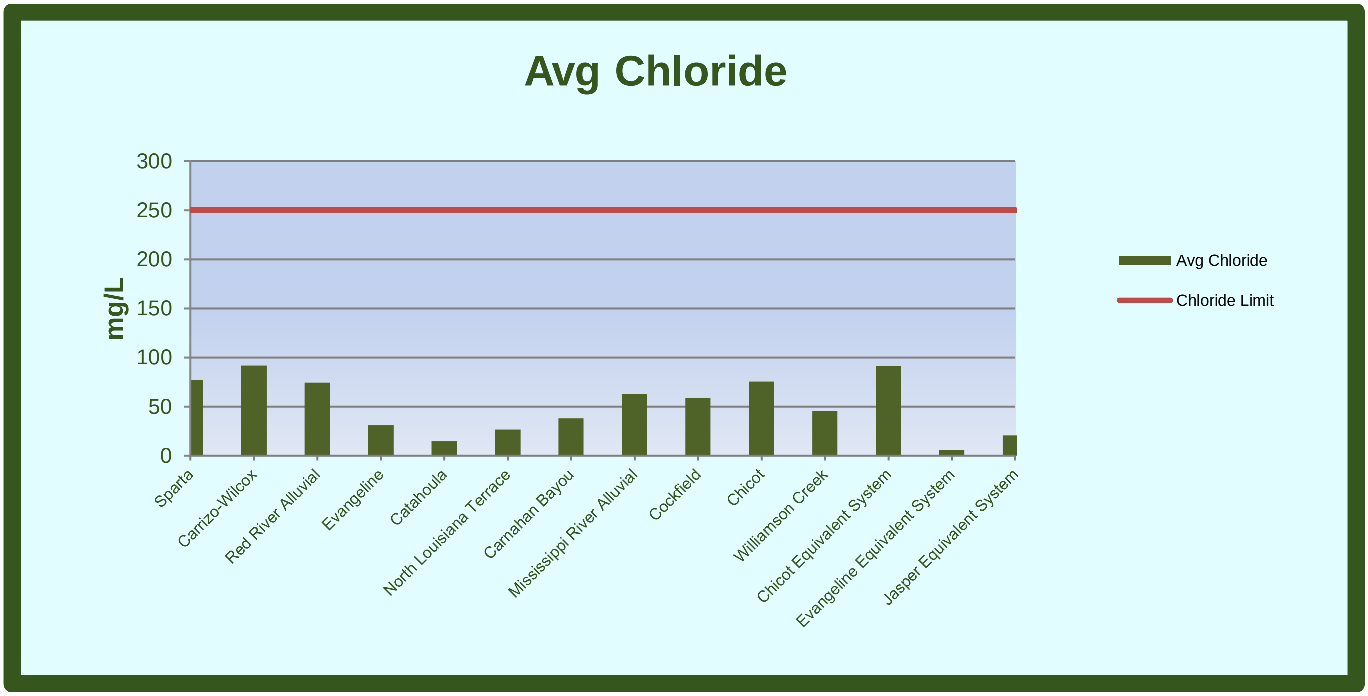


Figure 6 – Average TDS Values

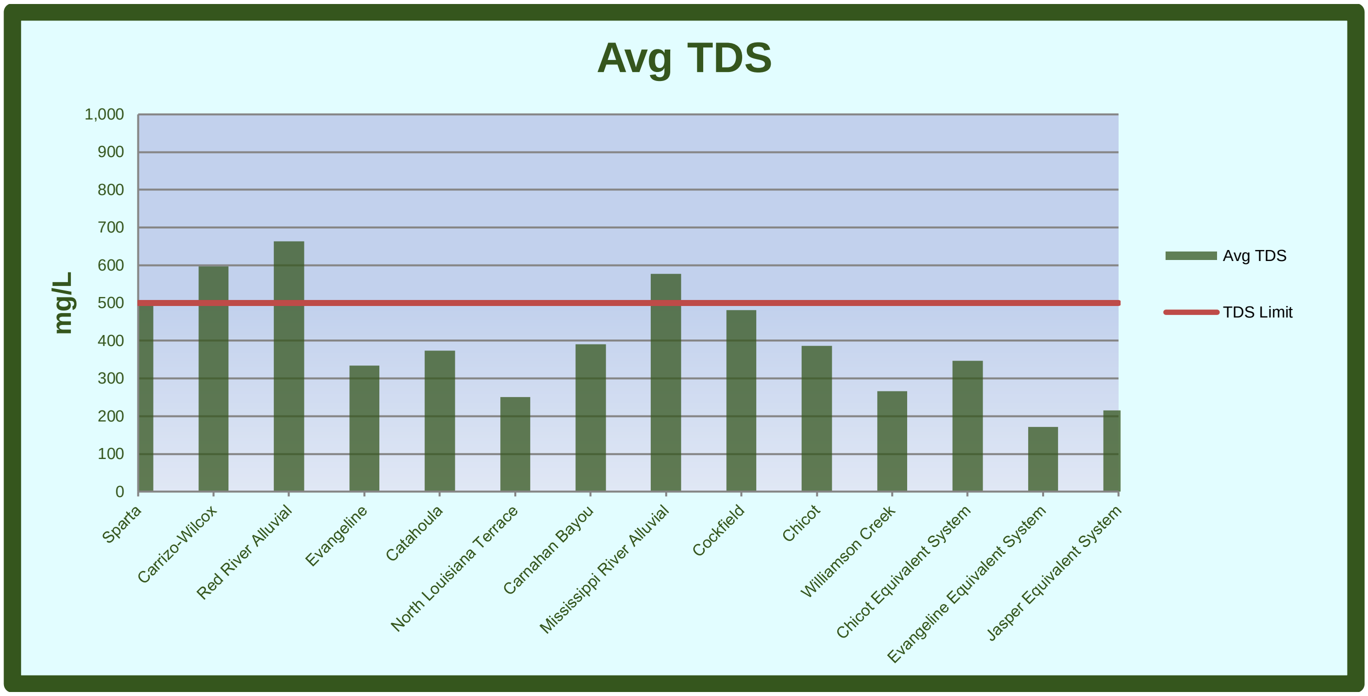


Figure 7 – Average Hardness Values

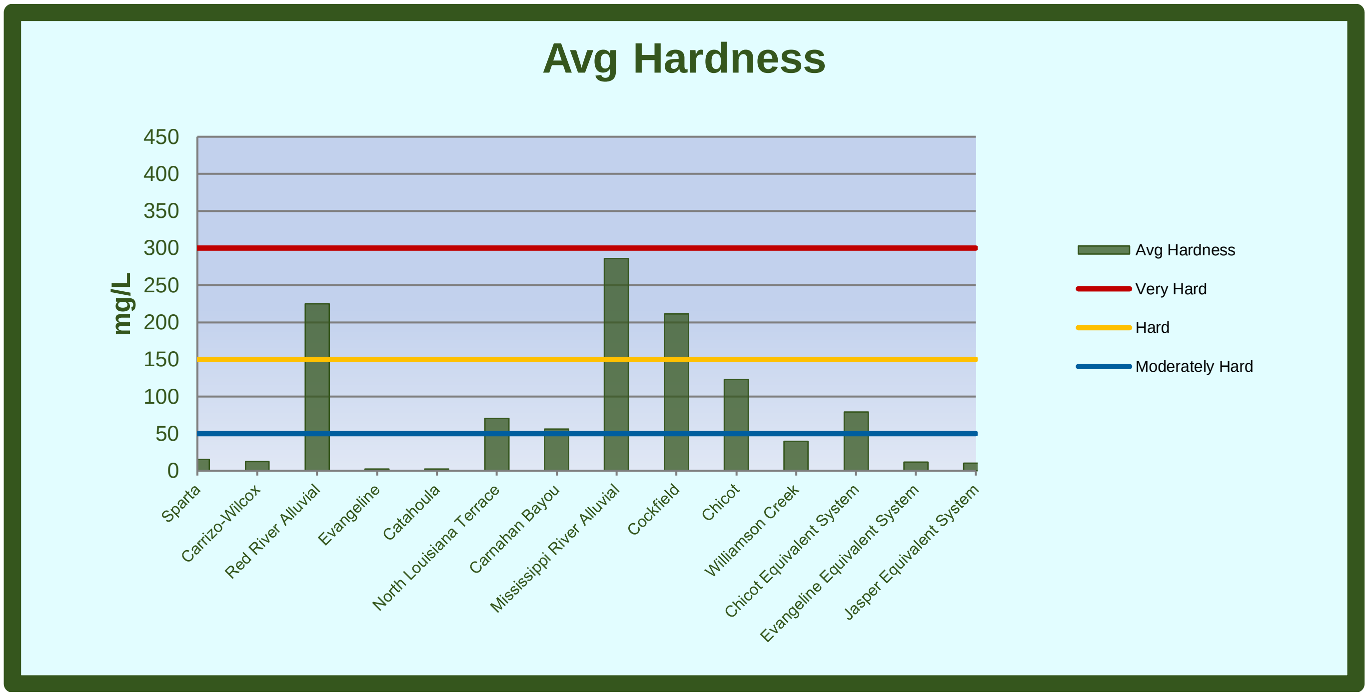


Figure 8 – Average Iron Values

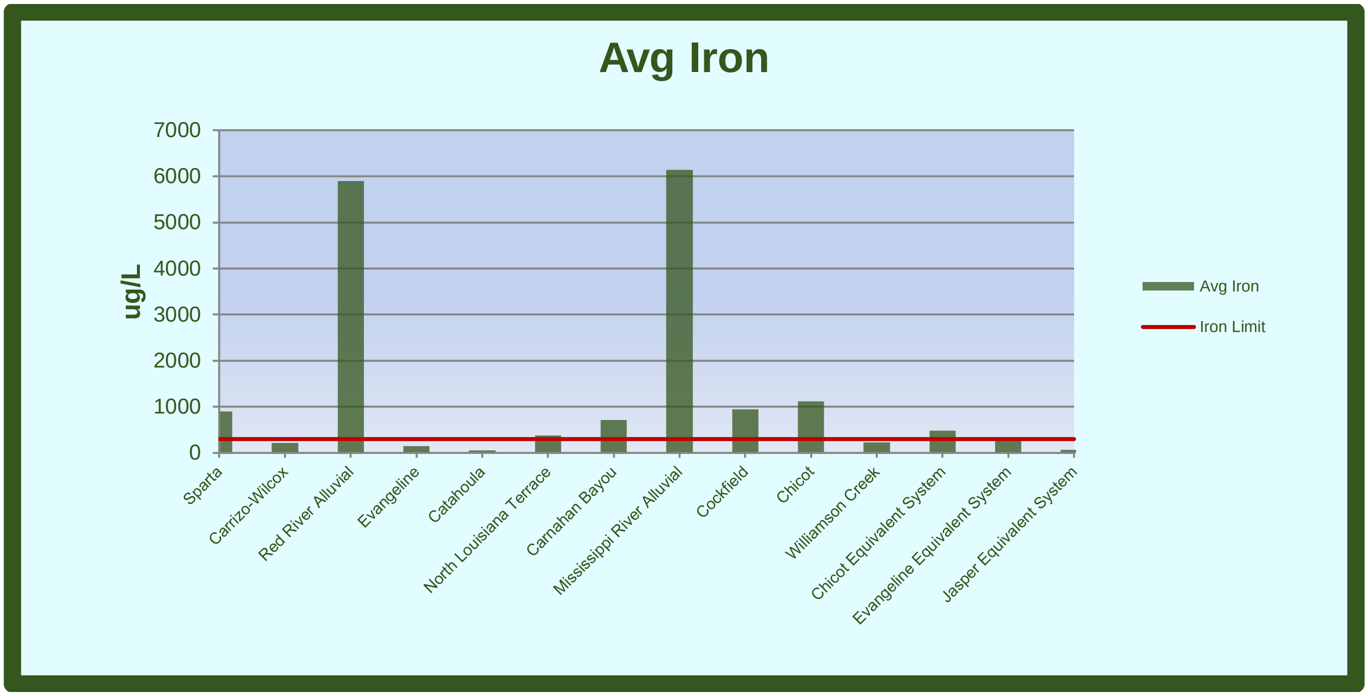
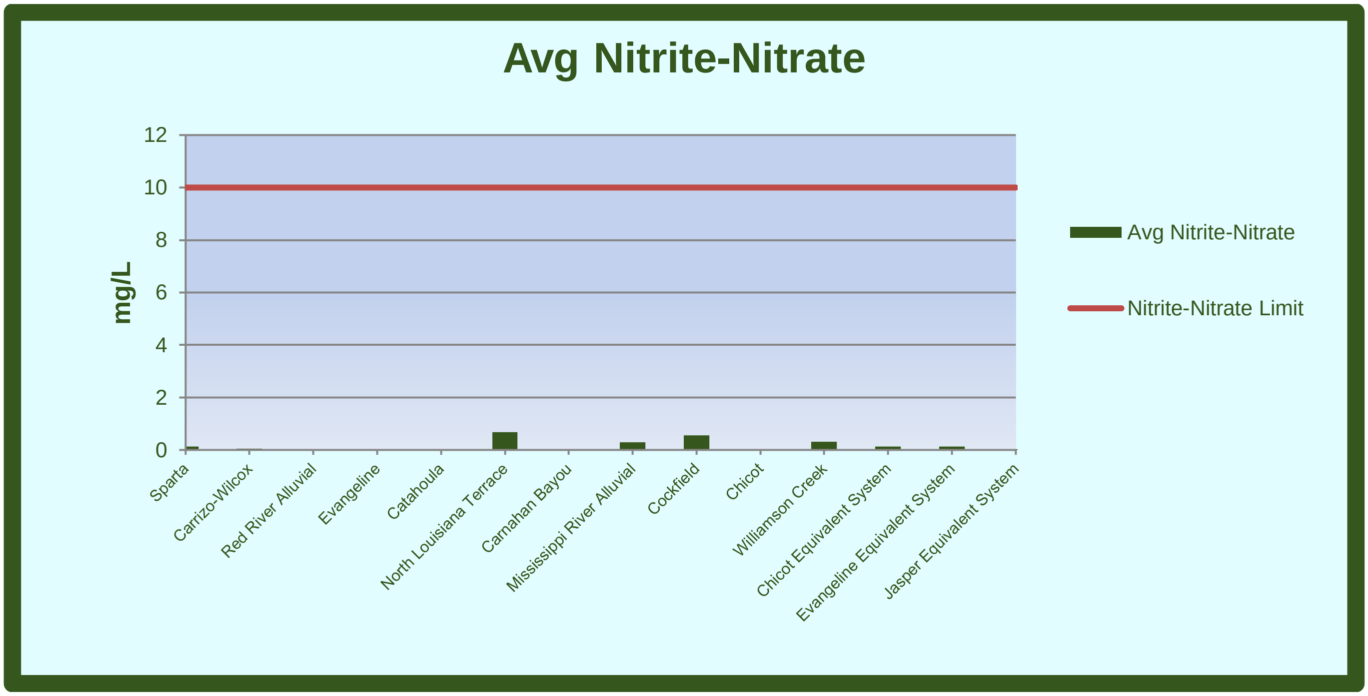


Figure 9 – Average Nitrite-Nitrate Values



FIFTEEN YEAR TREND OF SELECT PARAMETER AVERAGES (2000 – 2015)

FIELD PARAMETERS

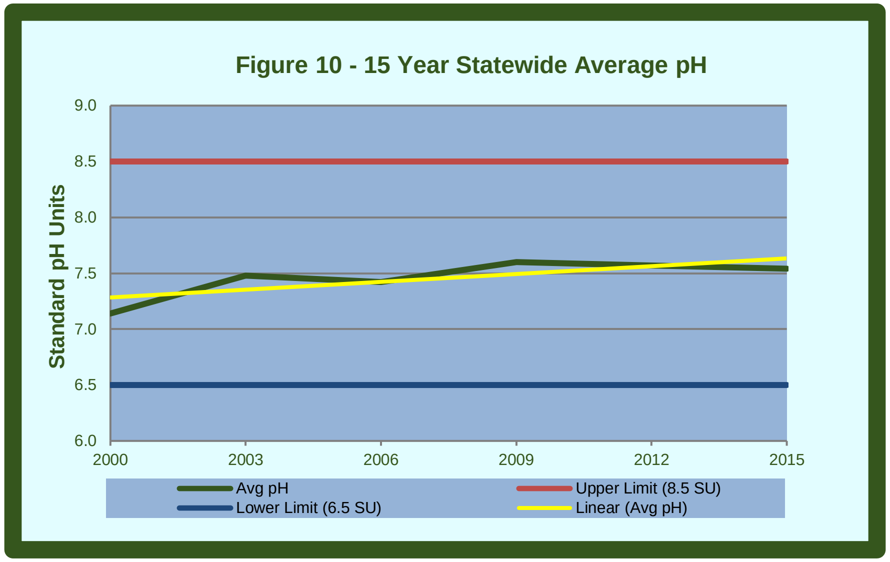


Figure 10 - 15 Year Statewide Average pH

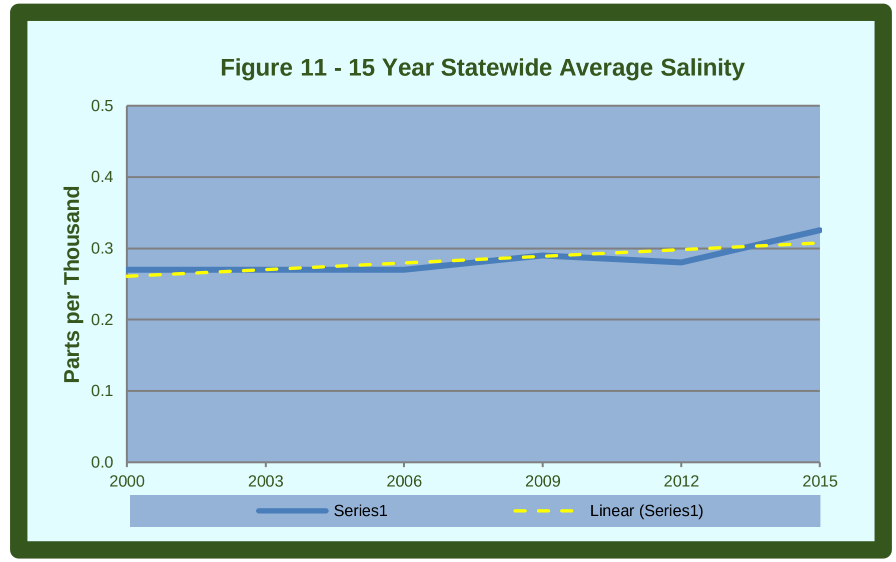


Figure 11 - 15 Year Statewide Average Salinity

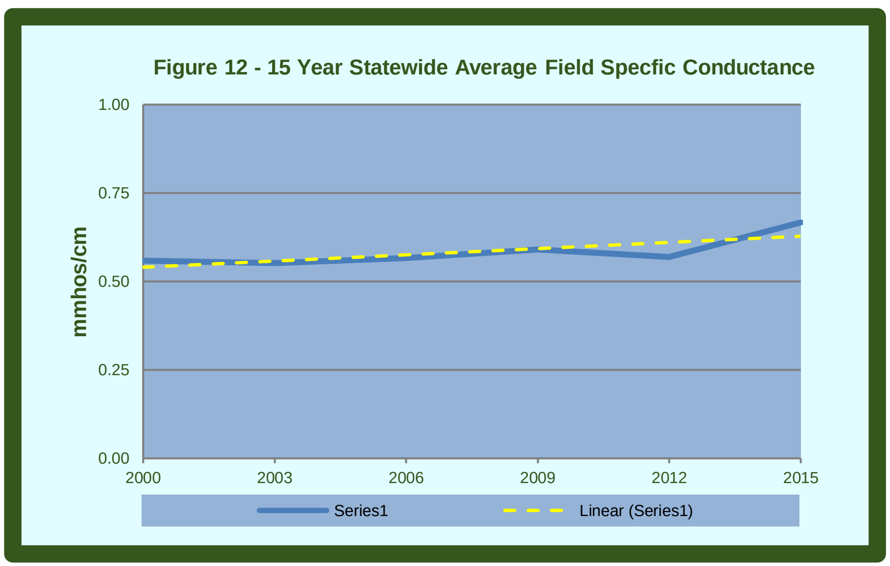


Figure 12 - 15 Year Statewide Average Field Specfic Conductance

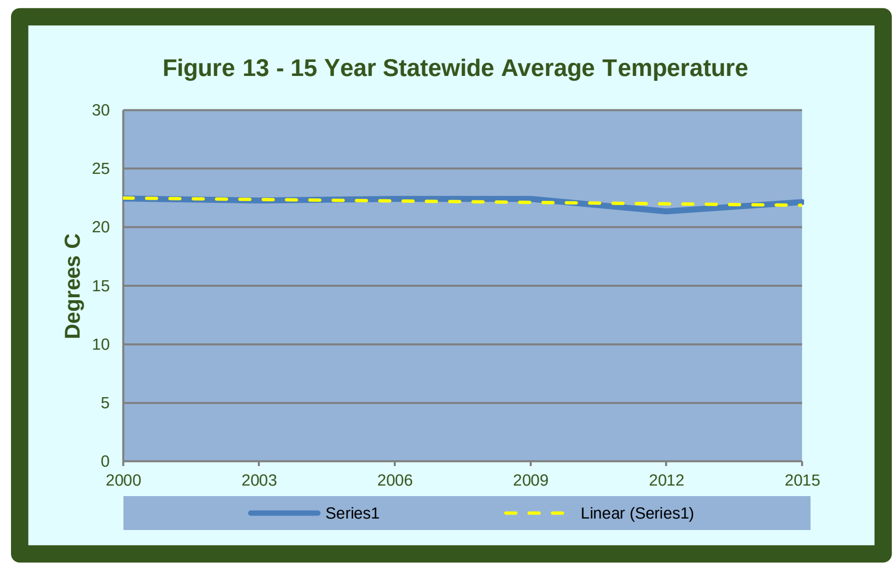
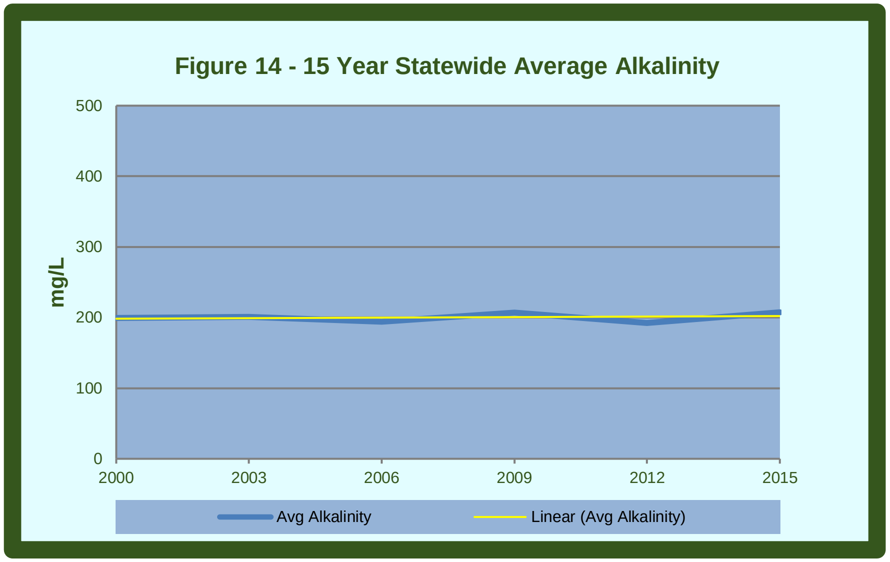
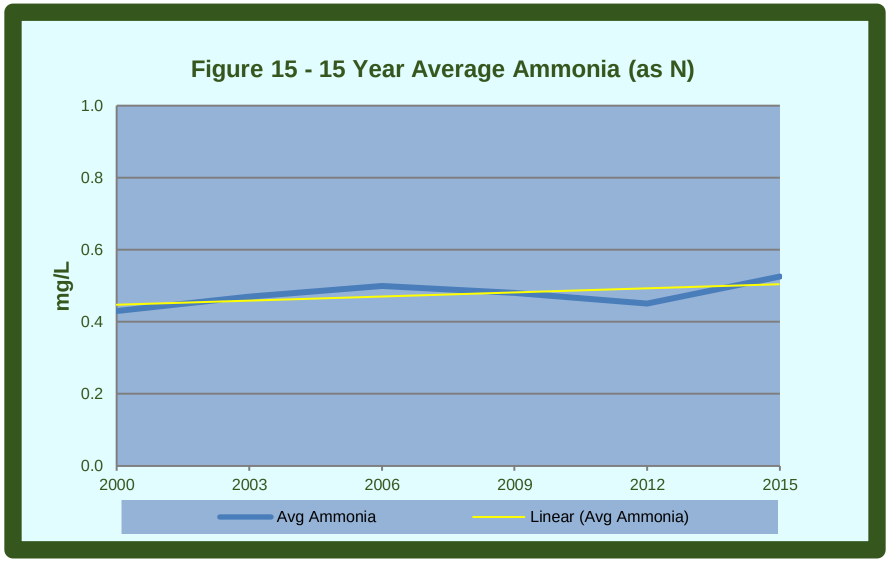
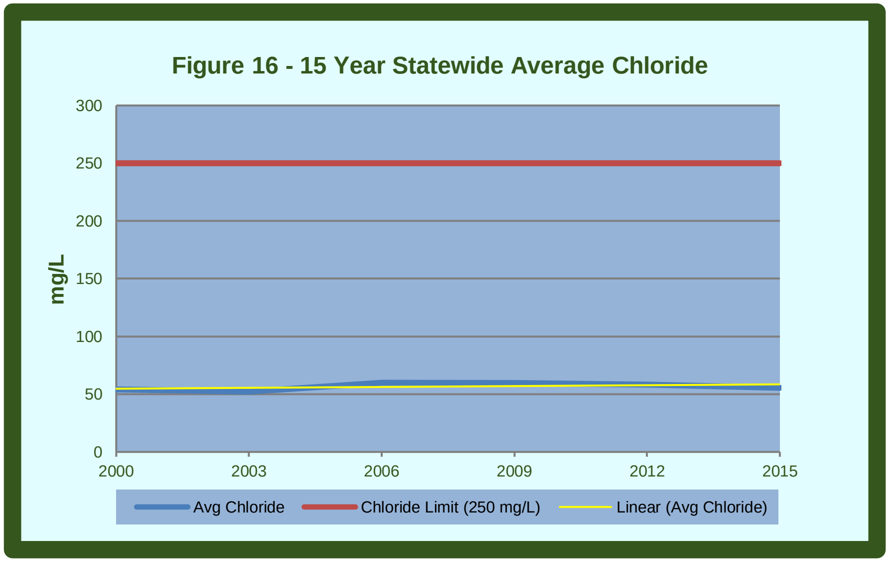


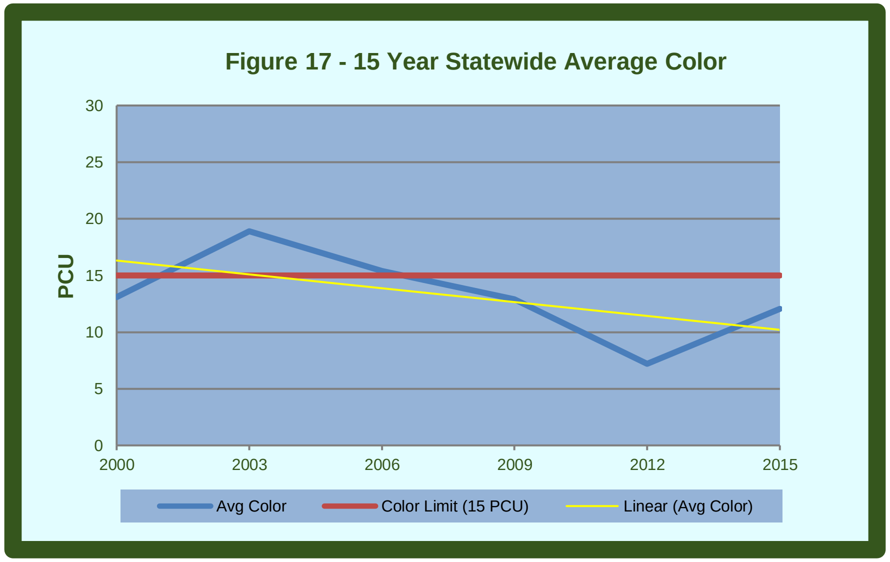
Figure 13 - 15 Year Statewide Average Temperature

CONVENTIONAL PARAMETERS

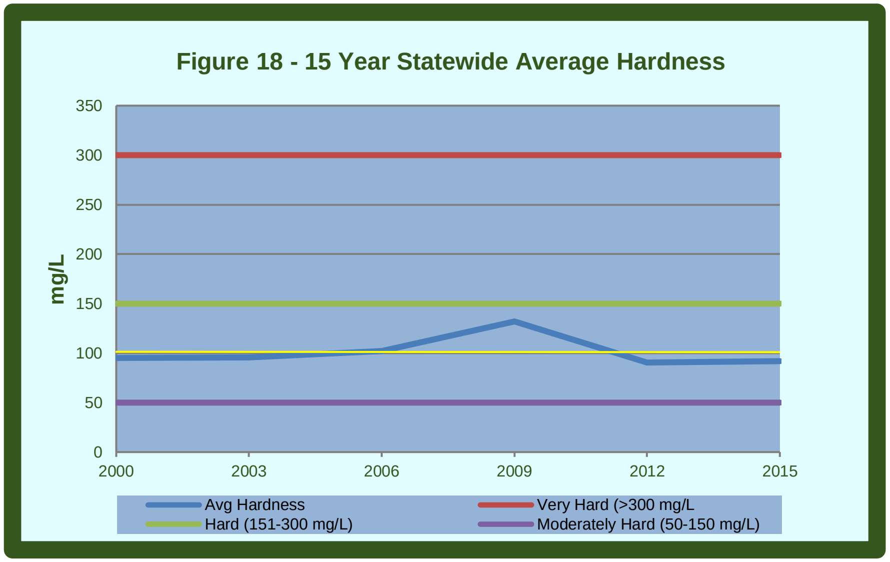


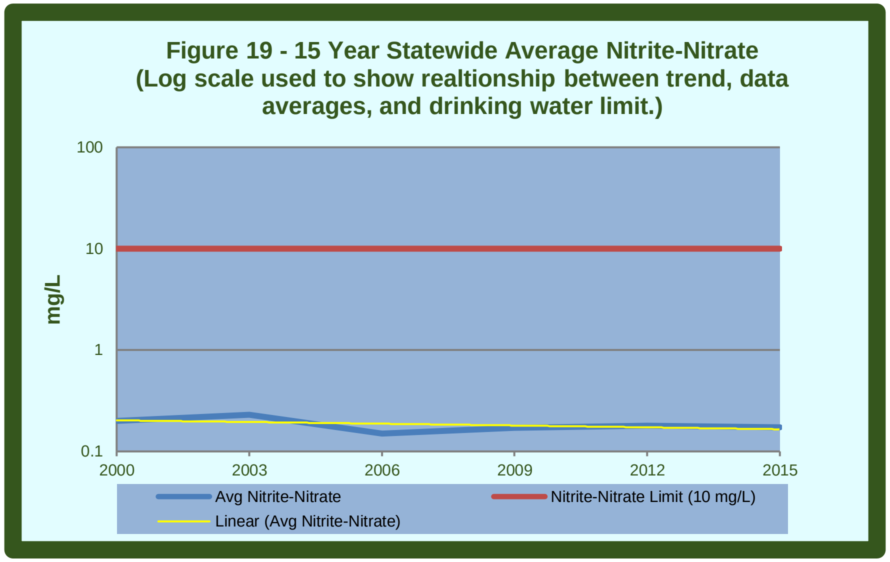


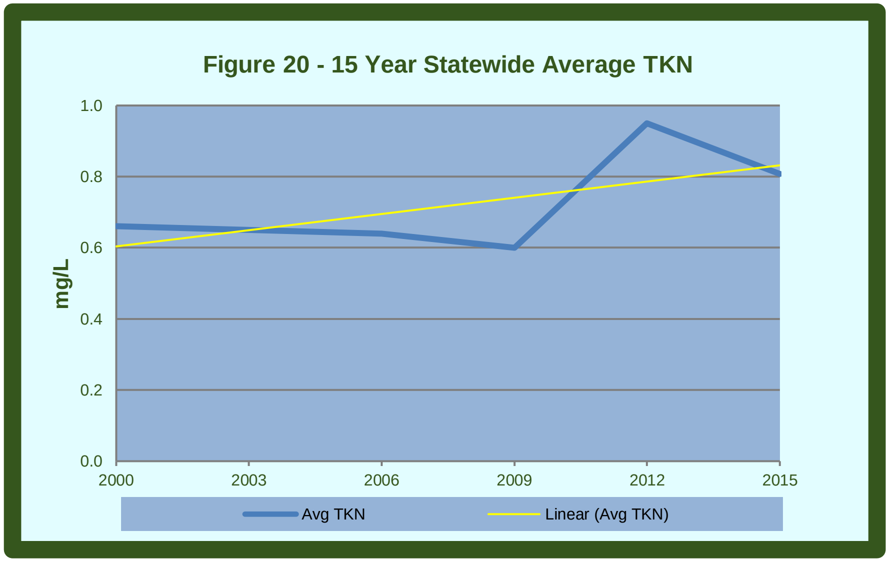


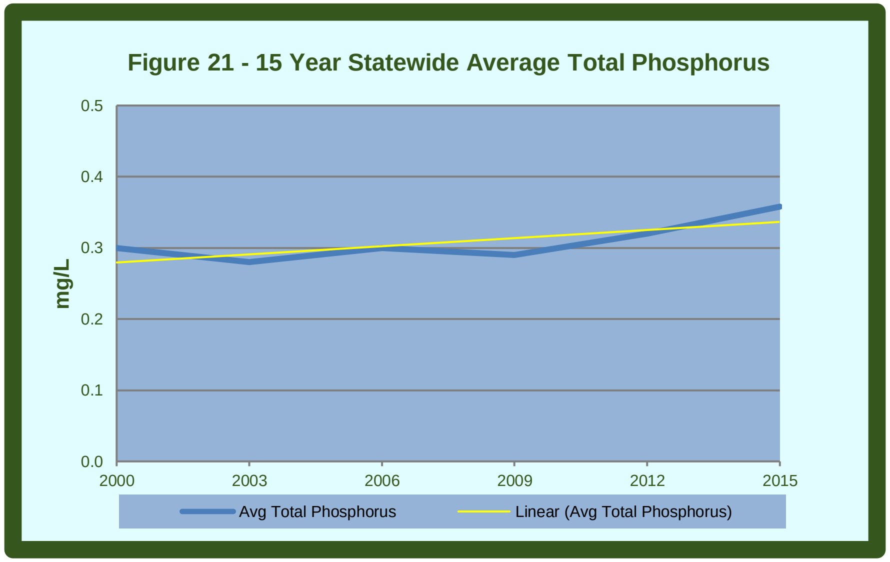


CONVENTIONAL PARAMETERS – CONTINUED









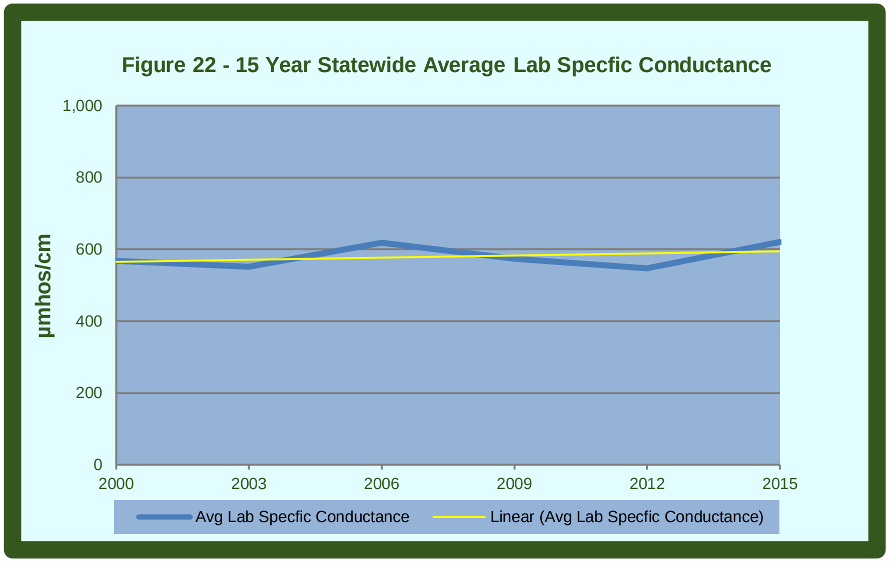


Figure 22 - 15 Year Statewide Average Lab Specfic Conductance
µmhos/cm
1,000
800
600
400
200
0
2000
2003
2006
2009
2012
2015
Avg Lab Specfic Conductance
Linear (Avg Lab Specfic Conductance)

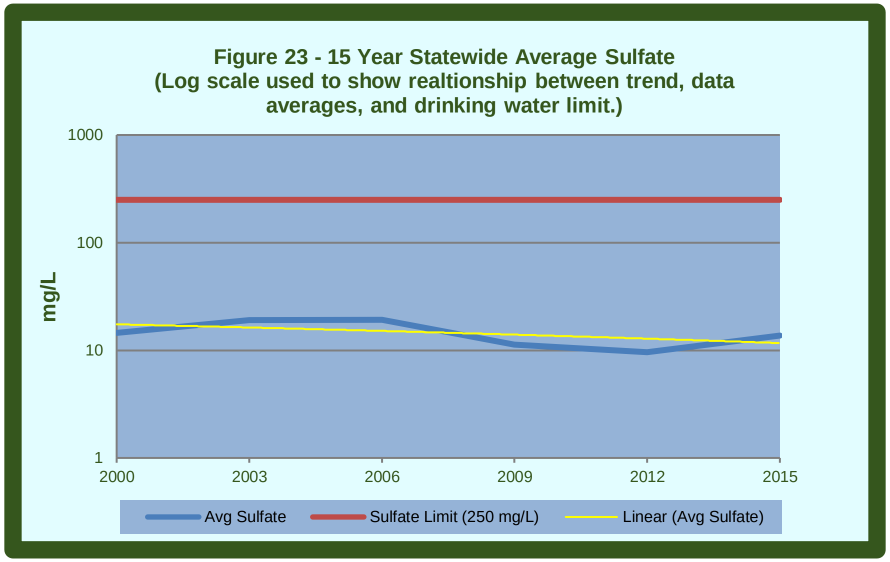


Figure 23 - 15 Year Statewide Average Sulfate
(Log scale used to show realtionship between trend, data averages, and drinking water limit.)
mg/L
1000
100
10
1
2000
2003
2006
2009
2012
2015
Avg Sulfate
Sulfate Limit (250 mg/L)
Linear (Avg Sulfate)

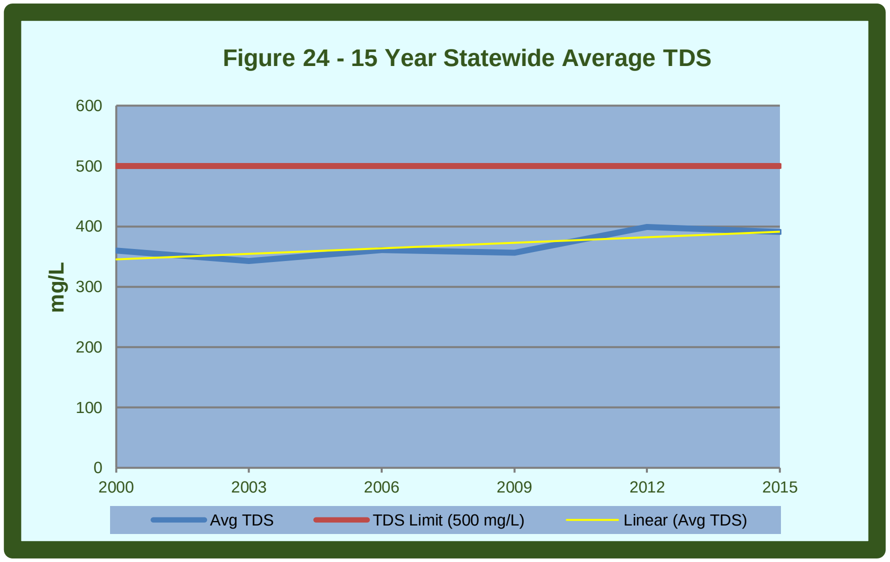


Figure 24 - 15 Year Statewide Average TDS
mg/L
600
500
400
300
200
100
0
2000
2003
2006
2009
2012
2015
Avg TDS
TDS Limit (500 mg/L)
Linear (Avg TDS)

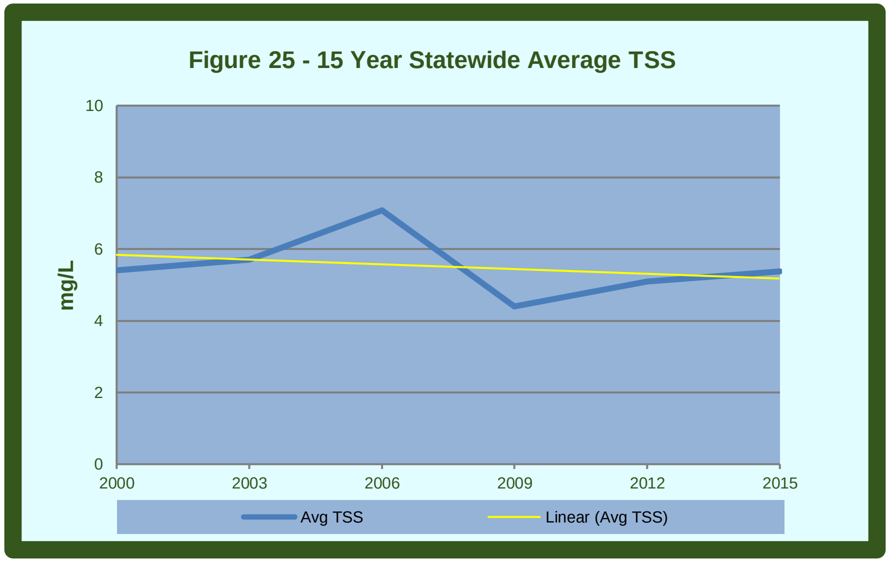
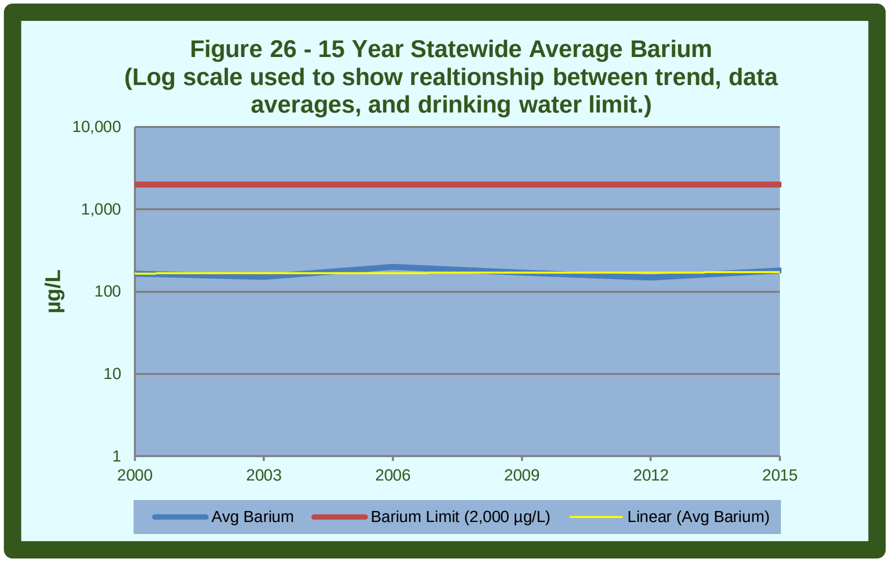
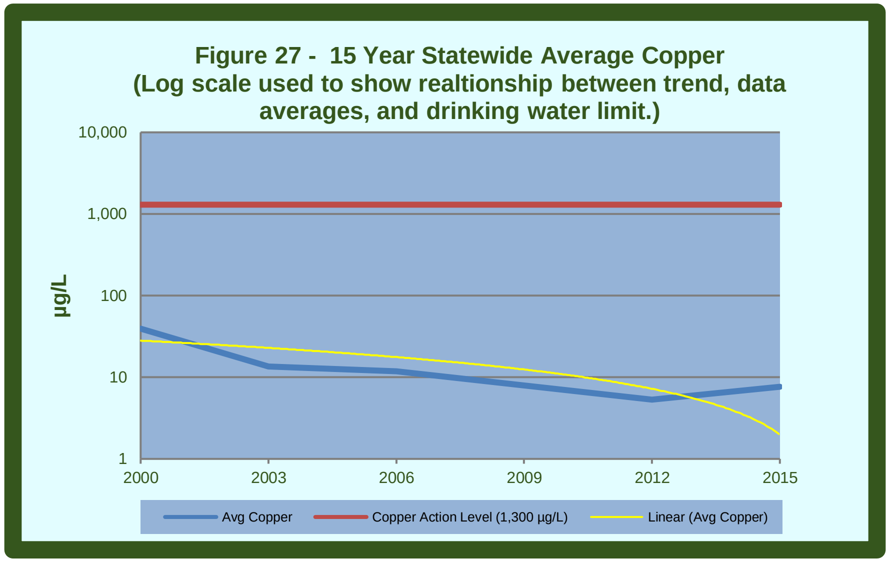
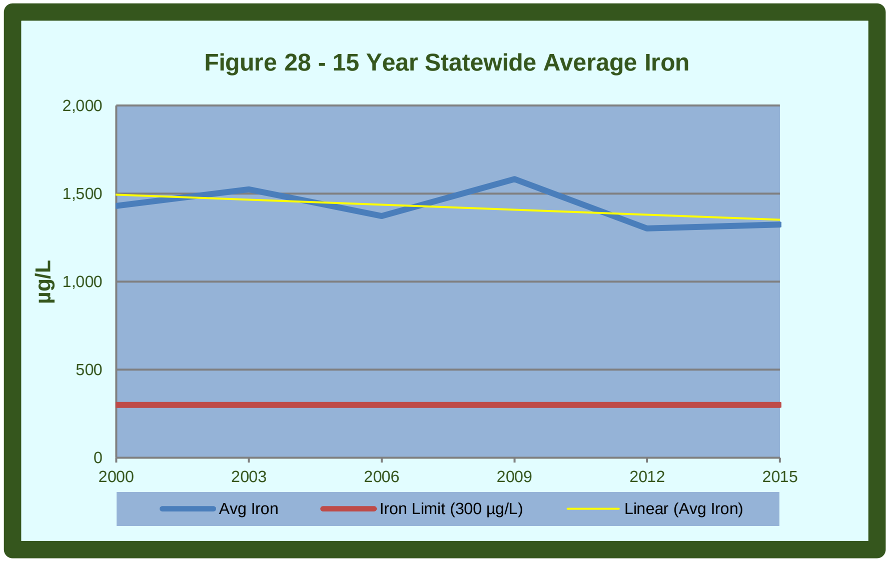


Figure 25 - 15 Year Statewide Average TSS
mg/L
10
8
6
4
2
0
2000
2003
2006
2009
2012
2015
Avg TSS
Linear (Avg TSS)

INORGANIC (TOTAL METALS) PARAMETERS







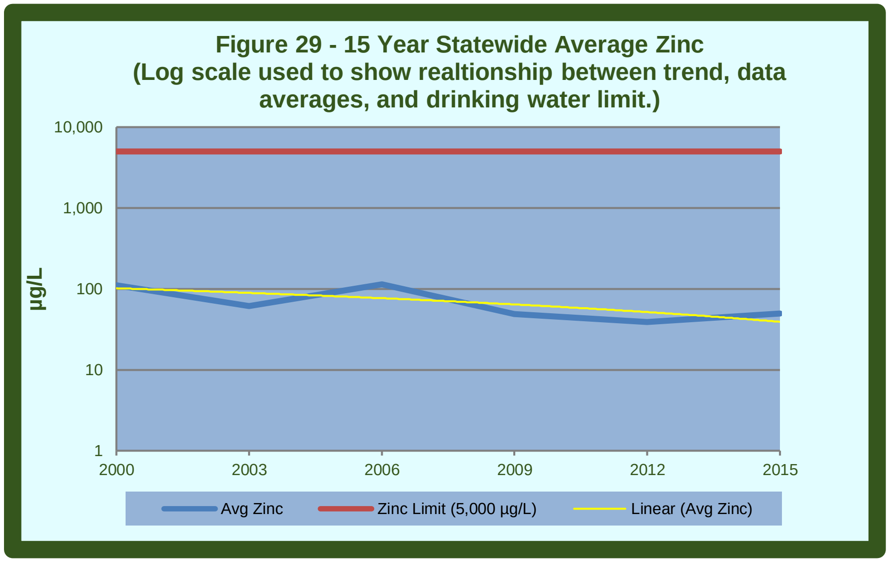


Table 8 – Parameter List

PARAMETER GROUP	LIST OF ANALYTES	REPORTING UNITS
FIELD	pH	S.U.
	Temperature	Degrees C.
	Specific Conductivity	mmhos/cm
	Total Dissolved Solids	g/L
	Salinity	ppt
WATER QUALITY	Alkalinity	mg/L
	Chloride	mg/L
	Color	PCU
	Specific Conductivity	umhos/cm
	Sulfate	mg/L
	Total Dissolved Solids	mg/L
	Total Suspended Solids	mg/L
	Turbidity	NTU
INORGANIC (TOTAL METALS)	Antimony	ug/L
	Arsenic	ug/L
	Barium	ug/L
	Beryllium	ug/L
	Cadmium	ug/L
	Chromium	ug/L
	Copper	ug/L
	Iron	ug/L
	Lead	ug/L
	Mercury	ug/L
	Nickel	ug/L
	Selenium	ug/L
	Silver	ug/L
	Thallium	ug/L
	Zinc	ug/L
NUTRIENTS	NH_3 – as N	mg/L
	Hardness – as $CaCO_3$	mg/L
	NO_2-NO_3 – as N	mg/L
	TKN	mg/L
	Total Phosphorus	mg/L
VOLATILE ORGANIC COMPOUNDS	Dichlorofluoromethane	ug/L
	Chlormethane	ug/L
	Vinyl chloride	ug/L
	Bromomethane	ug/L
	Chloroethane	ug/L

PARAMETER GROUP	LIST OF ANALYTES	REPORTING UNITS
VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	ug/L
	1,1-Dichloroethene	ug/L
	Methylene chloride	ug/L
	trans-1,2-Dichloroethene	ug/L
	Methyl-t-butyl ether	ug/L
	1,1-Dichloroethane	ug/L
	2,2 Dichloropropane	ug/L
	cis-1,2 Dichloroethene	ug/L
	Bromochloromethane	ug/L
	Chloroform	ug/L
	1,1,1-Trichloroethane	ug/L
	1,1 Dichloropropene	ug/L
	Carbon tetrachloride	ug/L
	Benzene	ug/L
	1,2-Dichloroethane	ug/L
	Trichloroethene	ug/L
	1,2-Dichloropropane	ug/L
	Bromodichloromethane	ug/L
	Dibromomethane	ug/L
	cis-1,3-Dichloropropene	ug/L
	Toluene	ug/L
	trans-1,3-Dichloropropene	ug/L
	1,1,2-Trichloroethane	ug/L
	1,3—Dichloropropane	ug/L
	Tetrachloroethene	ug/L
	1,2-Dibromoethane	ug/L
	Dibromochloromethane	ug/L
	Chlorobenzene	ug/L
	Ethylbenzene	ug/L
	1,1,1,2-Tetrachloroethane	ug/L
	p&m Xylene	ug/L
	o-Xylene	ug/L
	Styrene	ug/L
	Bromoform	ug/L
	Isopropylbenzene	ug/L
	1,1,2,2-Tetrachloromethane	ug/L
	1,2,3-Trichloropropane	ug/L
	Bromobenzene	ug/L
	n-Propylbenzene	ug/L
	2-Chlorotoluene	ug/L
	4-Chlorotoluene	ug/L

PARAMETER GROUP	LIST OF ANALYTES	REPORTING UNITS
VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	ug/L
	tert-Butylbenzene	ug/L
	1,2,4-Trimethylbenzene	ug/L
	sec-Butylbenzene	ug/L
	p-Isopropyltoluene	ug/L
	1,3-Dichlorobenzene	ug/L
	1,4-Dichlorobenzene	ug/L
	n-Butylbenzene	ug/L
	1,2-Dibromo-3-chloroproane	ug/L
	Naphthalene	ug/L
	1,2,4-Trichlorobenzene	ug/L
	Hexachlorobutadiene	ug/L
	1,2-Dichorobenzene	ug/L
	1,2,3-Trichlorobenzene	ug/L
SEMI-VOLATILE ORGANIC COMPOUNDS	Ethyl methanesulfonate	ug/L
	Phenol	ug/L
	Aniline	ug/L
	Bis(2-chloroethyl)ether	ug/L
	2-Chlorophenol	ug/L
	1,3-Dichlorobenzene	ug/L
	1,4-Dichlorobenzene	ug/L
	Benzyl alcohol	ug/L
	1,2-Dichlorobenzene	ug/L
	2-Methylphenol	ug/L
	Bis(2-chloroisopropyl)ether	ug/L
	4-Methylphenol	ug/L
	N-Nitroso-di-n-propylamine	ug/L
	Hexachloroethane	ug/L
	Acetophenone	ug/L
	Nitrobenzene	ug/L
	4-Nitrophenol	ug/L
	2,4-Dinitrophenol	ug/L
	Acenaphthene	ug/L
	N-Nitrosopiperidine	ug/L
	Isophorone	ug/L
	2,4-Dimethylphenol	ug/L
	2-Nitrophenol	ug/L
	Benzoic acid	ug/L
	Bis(2-chloroethoxy)methane	ug/L
	2,4-Dichlorophenol	ug/L
	a,a-Dimethylphenethylamine	ug/L

PARAMETER GROUP	LIST OF ANALYTES	REPORTING UNITS
SEMI-VOLATILE ORGANIC COMPOUNDS	1,2,4-trichlorobenzene	ug/L
	Benzidine	ug/L
	Pyrene	ug/L
	p-Dimethylaminoazobenzene	ug/L
	Butylbenzylphthalate	ug/L
	Bis(2-ethylhexyl)phthalate	ug/L
	3,3'-Dichlorobenzidine	ug/L
	Benzo(a)anthracene	ug/L
	Chrysene	ug/L
	Di-n-octylphthalate	ug/L
	7,12-Dimetnylbenz(a)anthracine	ug/L
	Benzo(b)fluoranthene	ug/L
	Benzo(k)fluoranthene	ug/L
	Benzo(a)pyrene	ug/L
	3-Methylcholanthrene	ug/L
	Dibenz(a,j)acridine	ug/L
	Indeno(1,2,3-cd)pyrene	ug/L
	Dibenz(a,h)anthracene	ug/L
	Benzo(g,h,i)perylene	ug/L
	Napthalene	ug/L
	4-Chloroaniline	ug/L
	2,6-Dichlorophenol	ug/L
	Hexachlorobutadiene	ug/L
	N-Nitrose-di-n-butylamine	ug/L
	4-Chloro-3-methylphenol	ug/L
	2-Methylnapthalene	ug/L
	Hexachlorocyclopentadiene	ug/L
	1,2,4,5-Tetrachlorobenzene	ug/L
	2,4,6-Trichlorophenol	ug/L
	2,4,5-Trichlorophenol	ug/L
	2-Chloronapthalene	ug/L
	1-Chloronapthalene	ug/L
	2-Nitroaniline	ug/L
	Dimethylphthalate	ug/L
	2,6-Dinitrotoluene	ug/L
	Acenaphthylene	ug/L
	3-Nitroaniline	ug/L
	2,4-Dinitrotoluene	ug/L
	Pentachlorobenzene	ug/L
	Dibenzofuran	ug/L
	1-Naphthylamine	ug/L

PARAMETER GROUP	LIST OF ANALYTES	REPORTING UNITS
SEMI-VOLATILE ORGANIC COMPOUNDS	Diethylphthalate	ug/L
	2,3,4,6-Tetrachlorophenol	ug/L
	2-Naphthylamine	ug/L
	4-Chlorophenyl phenyl ether	ug/L
	4-Nitroaniline	ug/L
	Fluorene	ug/L
	4,6-Dinitro-2-methylphenol	ug/L
	4-Aminobiphenyl	ug/L
	1,2-Diphenylhydrazine	ug/L
	Phenacetin	ug/L
	4-Bromophenyl phenyl ether	ug/L
	Hexachlorobenzene	ug/L
	Pronamide	ug/L
	N-Nitrosodiphenylamine / Diphenylamine	ug/L
	Pentachlorophenol	ug/L
	Pentachloronitrobenzene	ug/L
	Phenathrene	ug/L
	Anthracene	ug/L
	Di-n-butylphthalate	ug/L
	Fluoranthene	ug/L
PESTICIDES	Alpha BHC	ug/L
	Beta BHC	ug/L
	Gamma BHC	ug/L
	Delta BHC	ug/L
	Heptachlor	ug/L
	Aldrin	ug/L
	Heptachlor epoxide	ug/L
	Chlordane	ug/L
	Endosulfan I	ug/L
	4,4'-DDE	ug/L
	Dieldrin	ug/L
	4,4'DDD	ug/L
	Endrin	ug/L
	Toxaphene	ug/L
	Endosulfan II	ug/L
	Endrin Aldehyde	ug/L
	4,4'DDT	ug/L
	Endosulfan Sulfate	ug/L
	Methoxychlor	ug/L
	Endrin Ketone	ug/L
	PCB 1221/ PCB 1232	ug/L

PARAMETER GROUP	LIST OF ANALYTES	REPORTING UNITS
PCBs	PCB 1016/ PCB 1242	ug/L
PCBs	PCB 1254	ug/L
	PCB 1248	ug/L
	PCB 1260	ug/L

Table 9 – Wells Sampled

WELL NUMBER	OWNER	DEPTH (FEET)	WELL USE	AQUIFER/SYSTEM
BI-192	LUCKY WATER SYSTEM	153	Public Supply	Sparta Aquifer
BI-212	STONE CONTAINER CORP.	490	Industrial	Sparta Aquifer
CA-105	VIXEN WATER SYSTEM	525	Public Supply	Sparta Aquifer
CL-203	TOWN OF HOMER	460	Public Supply	Sparta Aquifer
L-31	CITY OF RUSTON	636	Public Supply	Sparta Aquifer
L-32	CITY OF RUSTON	652	Public Supply	Sparta Aquifer
MO-253	VILLAGE OF COLLINSTON	773	Public Supply	Sparta Aquifer
OU-506	ANGUS CHEMICAL	506	Industrial	Sparta Aquifer
OU-635	GRAPHIC PACKAGING INT'L INC.	726	Industrial	Sparta Aquifer
SA-570	BOISE – FLORIEN	545	Public Supply	Sparta Aquifer
UN-205	D'ARBONNE WATER SYSTEM	725	Public Supply	Sparta Aquifer
W-237	TOWN OF WINNFIELD	430	Public Supply	Sparta Aquifer
WB-241	TOWN OF SPRINGHILL	408	Public Supply	Sparta Aquifer
WB-269	CITY OF MINDEN	280	Public Supply	Sparta Aquifer
BI-236	ALBERTA WATER SYSTEM	410	Public Supply	Carrizo-Wilcox Aquifer
BO-7274Z	PRIVATE OWNER	290	Domestic	Carrizo-Wilcox Aquifer
CD-453	CITY OF VIVIAN	228	Public Supply	Carrizo-Wilcox Aquifer
CD-630	PRIVATE OWNER	240	Irrigation	Carrizo-Wilcox Aquifer
CD-639	SI PRECAST	200	Industrial	Carrizo-Wilcox Aquifer
CD-642	LOUISIANA LIFT	210	Industrial	Carrizo-Wilcox Aquifer
DS-363	CITY OF MANSFIELD	280	Public Supply	Carrizo-Wilcox Aquifer
DS-5297Z	PRIVATE OWNER	170	Domestic	Carrizo-Wilcox Aquifer
DS-5996Z	PRIVATE OWNER	360	Domestic	Carrizo-Wilcox Aquifer
RR-5070Z	PRIVATE OWNER	105	Domestic	Carrizo-Wilcox Aquifer
SA-522	PRIVATE OWNER	200	Irrigation	Carrizo-Wilcox Aquifer
CD-859	EAST RIDGE COUNTRY CLUB	58	Irrigation	Red River Alluvial Aquifer
CD-11849Z	PRIVATE OWNER	47	Domestic	Red River Alluvial Aquifer
NA-5404Z	PRIVATE OWNER	76	Domestic	Red River Alluvial Aquifer

WELL NUMBER	OWNER	DEPTH (FEET)	WELL USE	AQUIFER/SYSTEM
NA-SWANSON	PRIVATE OWNER	80	Irrigation	Red River Alluvial Aquifer
RR-345	Bundrick Farms	89	Irrigation	Red River Alluvial Aquifer
AL-120	CITY OF OAKDALE	910	Public Supply	Evangeline Aquifer
AL-363	WEST ALLEN PARISH WATER DIST.	1,715	Public Supply	Evangeline Aquifer
AL-373	TOWN OF OBERLIN	747	Public Supply	Evangeline Aquifer
AL-391	FAIRVIEW WATER SYSTEM	800	Public Supply	Evangeline Aquifer
AV-441	TOWN OF EVERGREEN	319	Public Supply	Evangeline Aquifer
BE-410	BOISE CASCADE	474	Industrial	Evangeline Aquifer
BE-512	SINGER WATER DISTRICT	918	Public Supply	Evangeline Aquifer
CU-1362	LA WATER CO	635	Public Supply	Evangeline Aquifer
EV-858	SAVOY SWORDS WATER SYSTEM	472	Public Supply	Evangeline Aquifer
R-1350	PRIVATE OWNER	180	Irrigation	Evangeline Aquifer
V-5065Z	PRIVATE OWNER	170	Domestic	Evangeline Aquifer
V-668	LDWF/FORT POLK WMA HQ	280	Other	Evangeline Aquifer
CT-118	CITY OF JONESVILLE	762	Public Supply	Catahoula Aquifer
LS-278	ROGERS WATER SYSTEM	352	Public Supply	Catahoula Aquifer
R-1113	POLLOCK AREA WATER SYSTEM	852	Public Supply	Catahoula Aquifer
R-1311	LENA WATER SYSTEM, INC.	514	Public Supply	Catahoula Aquifer
V-434	TOWN OF ANACOCO	910	Public Supply	Catahoula Aquifer
BI-208	PRIVATE OWNER	100	Domestic	North Louisiana Terrace Aquifer
BO-434	RED CHUTE UTILITIES	94	Public Supply	North Louisiana Terrace Aquifer
BO-578	VILLAGE WATER SYSTEM	85	Public Supply	North Louisiana Terrace Aquifer
BO-7896Z	PRIVATE OWNER	96	Domestic	North Louisiana Terrace Aquifer
G-342	VANGAURD SYNFUELS, LLC	49	Industrial	North Louisiana Terrace Aquifer
G-432	CENTRAL GRANT WATER SYSTEM	158	Public Supply	North Louisiana Terrace Aquifer
LS-264	CITY OF JENA	105	Public Supply	North Louisiana Terrace Aquifer
MO-124	TEXAS GAS	133	Public Supply	North Louisiana Terrace Aquifer
MO-364	PEOPLES WATER SERVICE	154	Public Supply	North Louisiana Terrace Aquifer
OU-5524Z	PRIVATE OWNER	95	Domestic	North Louisiana Terrace Aquifer
RR-254	EAST CROSS WATER SYSTEM	93	Public Supply	North Louisiana Terrace Aquifer
BE-405	BOISE CASCADE	1,016	Industrial	Carnahan Bayou Aquifer
CO-47	CITY OF VIDALIA	310	Public Supply	Carnahan Bayou Aquifer
G-5178Z	PRIVATE OWNER	165	Domestic	Carnahan Bayou Aquifer
R-1001	GARDENER WATER SYSTEM	1,080	Public Supply	Carnahan Bayou Aquifer
R-1172	CLECO-RODEMACHER	298	Power Generation	Carnahan Bayou Aquifer
R-1210	CITY OF ALEXANDRIA	2,036	Public Supply	Carnahan Bayou Aquifer
V-496	U.S. ARMY/FORT POLK	1,415	Public Supply	Carnahan Bayou Aquifer
V-566	ALCO-HUTTON VFD	143	Public Supply	Carnahan Bayou Aquifer
V-656	EAST CENTRAL VERNON WATER SYS.	1,477	Public Supply	Carnahan Bayou Aquifer

WELL NUMBER	OWNER	DEPTH (FEET)	WELL USE	AQUIFER/SYSTEM
V-8102Z	PRIVATE OWNER	66	Domestic	Carnahan Bayou Aquifer
AV-126	HAMBURG MILLS	155	Domestic	Mississippi River Alluvial Aquifer
AV-462	LA DELTA PLANTATION	110	Irrigation	Mississippi River Alluvial Aquifer
AV-5135Z	PRIVATE OWNER	110	Domestic	Mississippi River Alluvial Aquifer
CO-YAKEY	PRIVATE OWNER	150	Domestic	Mississippi River Alluvial Aquifer
CT-489	LA DELTA PLANTATION	144	Irrigation	Mississippi River Alluvial Aquifer
CT-DENNIS	PRIVATE OWNER	30	Domestic	Mississippi River Alluvial Aquifer
EB-885	LSU	352	Irrigation	Mississippi River Alluvial Aquifer
EC-370	HOLLYBROOK LAND	119	Irrigation	Mississippi River Alluvial Aquifer
FR-1358	MACON RIDGE RESEARCH STATION	60	Irrigation	Mississippi River Alluvial Aquifer
IB-363	SYNGENTA CROP PROTECTION, INC.	225	Industrial	Mississippi River Alluvial Aquifer
IB-COM	PRIVATE OWNER	185	Domestic	Mississippi River Alluvial Aquifer
MA-206	TALLULAH WATER SERVICE	130	Public Supply	Mississippi River Alluvial Aquifer
MO-871	PRIVATE OWNER	80	Irrigation	Mississippi River Alluvial Aquifer
PC-5515Z	PRIVATE OWNER	156	Domestic	Mississippi River Alluvial Aquifer
RI-469	LIDDIEVILLE WATER SYSTEM	90	Public Supply	Mississippi River Alluvial Aquifer
RI-RAYVIL	RAYVILLE WATER DEPARTMENT	230	Public Supply	Mississippi River Alluvial Aquifer
RI-730	START WATER SYSTEM	101	Public Supply	Mississippi River Alluvial Aquifer
SMN-33	LDOTD/LAFAYTTE DISTRICT	125	Public Supply	Mississippi River Alluvial Aquifer
TS-61	TOWN OF ST. JOSEPH	140	Public Supply	Mississippi River Alluvial Aquifer
TS-FORTENB	PRIVATE OWNER	Unknown	Domestic	Mississippi River Alluvial Aquifer
WC-527	PRIVATE OWNER	85	Irrigation	Mississippi River Alluvial Aquifer
WC-91	NEW CARROLL WTR. ASSN.	115	Public Supply	Mississippi River Alluvial Aquifer
CA-35	CITY OF COLUMBIA	298	Public Supply	Cockfield Aquifer
EC-233	TOWN OF LAKE PROVIDENCE	371	Public Supply	Cockfield Aquifer
MO-479	BAYOU BONNE IDEE WATER SYS.	258	Public Supply	Cockfield Aquifer
NA-5449Z	PRIVATE OWNER	170	Domestic	Cockfield Aquifer
OU-FRITH	PRIVATE OWNER	80	Domestic	Cockfield Aquifer
RI-127	DELHI WATER WORKS	416	Public Supply	Cockfield Aquifer
RI-450	RIVER ROAD WATERWORKS	283	Public Supply	Cockfield Aquifer
SA-BYRD	PRIVATE OWNER	150	Domestic	Cockfield Aquifer
UN-5332Z	PRIVATE OWNER	160	Irrigation	Cockfield Aquifer
W-192	RED HILL WATER SYSTEM	210	Public Supply	Cockfield Aquifer
W-198	ATLANTA WATER SYSTEM	445	Public Supply	Cockfield Aquifer
WC-187	NEW CARROLL WTR. ASSN.	110	Public Supply	Cockfield Aquifer
WC-487	TOWN OF OAK GROVE	396	Public Supply	Cockfield Aquifer
AC-539	CITY OF RAYNE	251	Public Supply	Chicot Aquifer
AC-8316Z	PRIVATE OWNER	165	Domestic	Chicot Aquifer
BE-378	TRANSCONTINENTAL GAS PIPELINE	172	Industrial	Chicot Aquifer

WELL NUMBER	OWNER	DEPTH (FEET)	WELL USE	AQUIFER/SYSTEM
BE-412	BOISE CASCADE	202	Industrial	Chicot Aquifer
BE-488	SINGER WATER DISTRICT	262	Public Supply	Chicot Aquifer
CN-92	USGS	443	Observation	Chicot Aquifer
CU-10192Z	PPG INDUSTRIES	230	Recovery	Chicot Aquifer
CU-1125	LDOTD	570	Public Supply	Chicot Aquifer
CU-1366	CITY OF LAKE CHARLES	685	Public Supply	Chicot Aquifer
CU-1471	PPG INDUSTRIES	525	Industrial	Chicot Aquifer
CU-862	CITGO PETROLEUM CORPORATION	560	Industrial	Chicot Aquifer
EV-673	CITY OF MAMOU	247	Public Supply	Chicot Aquifer
I-7312Z	BREAUX ELECTRIC	180	Public Supply	Chicot Aquifer
JD-862	CITY OF WELSH	697	Public Supply	Chicot Aquifer
LF-572	CITY OF LAFAYETTE	570	Public Supply	Chicot Aquifer
R-6947Z	HOLLOWAY NURSERY	110	Domestic	Chicot Aquifer
SMN-109	USGS	375	Observation	Chicot Aquifer
V-535	MARLOW FIRE STATION	66	Public Supply	Chicot Aquifer
VE-151	PRIVATE OWNER	250	Irrigation	Chicot Aquifer
VE-862	TOWN OF GUEYDAN	249	Public Supply	Chicot Aquifer
VE-882	CITY OF KAPLAN	279	Public Supply	Chicot Aquifer
BE-407	BOISE CASCADE	1,657	Industrial	Williamson Creek Aquifer
CO-163	U. S. ARMY CORPS OF ENG.	513	Public Supply	Williamson Creek Aquifer
R-932	CITY OF ALEXANDRIA	466	Public Supply	Williamson Creek Aquifer
R-1362	INTERNATIONAL PAPER CO.	402	Industrial	Williamson Creek Aquifer
V-420	U.S. ARMY/FORT POLK	920	Public Supply	Williamson Creek Aquifer
V-5858Z	PRIVATE OWNER	248	Domestic	Williamson Creek Aquifer
V-8681Z	PRIVATE OWNER	190	Domestic	Williamson Creek Aquifer
AN-266	CITY OF GONZALES	548	Public Supply	Chicot Equivalent Aquifer System
AN-321	RUBICON, INC.	523	Industrial	Chicot Equivalent Aquifer System
AN-316	WESTLAKE VINYLS	478	Industrial	Chicot Equivalent Aquifer System
AN-337	BASF CORP.	459	Public Supply	Chicot Equivalent Aquifer System
AN-500	UNIROYAL CHEMICAL CO.	480	Industrial	Chicot Equivalent Aquifer System
AN-6297Z	OXY CHEMICAL	294	Monitor	Chicot Equivalent Aquifer System
AN-9183Z	PRIVATE OWNER	630	Domestic	Chicot Equivalent Aquifer System
EB-1231	GEORGIA PACIFIC CORP.	280	Industrial	Chicot Equivalent Aquifer System
EB-34	EXXONMOBIL USA	453	Industrial	Chicot Equivalent Aquifer System
EB-8599Z	PRIVATE OWNER	180	Domestic	Chicot Equivalent Aquifer System
EB-991B	BATON ROUGE WATER WORKS	565	Public Supply	Chicot Equivalent Aquifer System
EF-5329Z	PRIVATE OWNER	97	Domestic	Chicot Equivalent Aquifer System
JF-224	ENTERGY	775	Industrial	Chicot Equivalent Aquifer System
LI-5477Z	PRIVATE OWNER	106	Domestic	Chicot Equivalent Aquifer System

WELL NUMBER	OWNER	DEPTH (FEET)	WELL USE	AQUIFER/SYSTEM
LI-7945Z	FRENCH SETTLEMENT WATER SYS	455	Public Supply	Chicot Equivalent Aquifer System
SC-179	UNION CARBIDE	460	Industrial	Chicot Equivalent Aquifer System
SH-5333Z	PRIVATE OWNER	230	Domestic	Chicot Equivalent Aquifer System
SH-77	TRANSCO	170	Public Supply	Chicot Equivalent Aquifer System
SJ-226	GRAMERCY ALUMINA, LLC	248	Industrial	Chicot Equivalent Aquifer System
SJB-173	E.I. DUPONT	425	Industrial	Chicot Equivalent Aquifer System
ST-11516Z	PRIVATE OWNER	340	Domestic	Chicot Equivalent Aquifer System
ST-5245Z	PRIVATE OWNER	90	Domestic	Chicot Equivalent Aquifer System
TA-520	PRIVATE OWNER	135	Irrigation	Chicot Equivalent Aquifer System
TA-7627Z	GLOBAL WILDLIFE CENTER	120	Domestic	Chicot Equivalent Aquifer System
WA-5295Z	PRIVATE OWNER	100	Domestic	Chicot Equivalent Aquifer System
WA-5311Z	PRIVATE OWNER	90	Domestic	Chicot Equivalent Aquifer System
AV-680	AVOYELLES WATER COMMISSION	553	Public Supply	Evangeline Equivalent Aquifer System
EB-1003	BATON ROUGE WATER WORKS	1,430	Public Supply	Evangeline Equivalent Aquifer System
EF-MILEY	PRIVATE OWNER	185	Domestic	Evangeline Equivalent Aquifer System
LI-299	WARD 2 WATER DISTRICT	1,417	Public Supply	Evangeline Equivalent Aquifer System
PC-325	ALMA PLANTATION LTD	1,252	Industrial	Evangeline Equivalent Aquifer System
SL-679	VALERO ENERGY CORPORATION	1,152	Industrial	Evangeline Equivalent Aquifer System
ST-532	SE LOUISIANA STATE HOSPITAL	1,520	Public Supply	Evangeline Equivalent Aquifer System
ST-6711Z	PRIVATE OWNER	860	Domestic	Evangeline Equivalent Aquifer System
TA-284	CITY OF PONCHATOULA	608	Public Supply	Evangeline Equivalent Aquifer System
TA-286	TOWN OF KENTWOOD	640	Public Supply	Evangeline Equivalent Aquifer System
TA-10046Z	HIGHWAY 51 MHP	590	Public Supply	Evangeline Equivalent Aquifer System
WA-241	PRIVATE OWNER	400	Irrigation	Evangeline Equivalent Aquifer System
WA-5210Z	PRIVATE OWNER	752	Domestic	Evangeline Equivalent Aquifer System
WBR-181	PORT OF GREATER BATON ROUGE	1,900	Industrial	Evangeline Equivalent Aquifer System
WF-DELEE	PRIVATE OWNER	240	Domestic	Evangeline Equivalent Aquifer System
EB-630	BATON ROUGE WATER COMPANY	2,253	Public Supply	Jasper Equivalent Aquifer System
EB-770	CITY OF ZACHARY	2,080	Public Supply	Jasper Equivalent Aquifer System
EF-272	LA. WAR VETS HOME	1,325	Public Supply	Jasper Equivalent Aquifer System
LI-185	CITY OF DENHAM SPRINGS	2,610	Public Supply	Jasper Equivalent Aquifer System
LI-229	WARD 2 WATER DISTRICT	1,826	Public Supply	Jasper Equivalent Aquifer System
LI-257	VILLAGE OF ALBANY	1,842	Public Supply	Jasper Equivalent Aquifer System
PC-275	PRIVATE OWNER	1,912	Domestic	Jasper Equivalent Aquifer System
SH-104	CAL MAINE FOODS	1,652	Industrial	Jasper Equivalent Aquifer System
ST-995	PRIVATE OWNER	2,290	Irrigation	Jasper Equivalent Aquifer System
ST-1135	LAKESHORE ESTATES	2,605	Public Supply	Jasper Equivalent Aquifer System
ST-FOLSOM	VILLAGE OF FOLSOM	2,265	Public Supply	Jasper Equivalent Aquifer System
TA-560	TOWN OF ROSELAND	2,032	Public Supply	Jasper Equivalent Aquifer System

WELL NUMBER	OWNER	DEPTH (FEET)	WELL USE	AQUIFER/SYSTEM
TA-826	CITY OF PONCHATOULA	2,015	Public Supply	Jasper Equivalent Aquifer System
WA-248	TOWN OF FRANKLINTON	2,700	Public Supply	Jasper Equivalent Aquifer System
WF-264	W. FELICIANA PARISH UTILITIES	960	Public Supply	Jasper Equivalent Aquifer System

REFERENCES

Hydrogeologic column of aquifers

DOTD/USGS *Water Resources Special Report No. 9, 1995.*

Hardness scale

Peavy, H.S. et al. *Environmental Engineering, 1985.*

Geology and hydrogeology sections

Boniol, D. et al. *Recharge Potential of Louisiana Aquifers, A Supplement to the State Aquifer Recharge Map and Atlas Plates, 1989.* Louisiana Geological Survey.

Boydstun, J. et al. *State of Louisiana Water Quality Management Plan, Water Quality Inventory Section 305 (b), 1996.* Louisiana Department of Environmental Quality.

Smoot, C.W. *Louisiana Hydrologic Atlas Map No. 2: Areal Extent of Freshwater In Major Aquifers of Louisiana, 1986.* United States Geological Survey.

Smoot, C.W. *Louisiana Hydrologic Atlas Map No. 4: Geohydrologic Sections of Louisiana, 1989.* United States Geological Survey.

Buono, A. *The Southern Hills Regional Aquifer System of Southeastern Louisiana and Southwestern Mississippi, 1983.* United States Geological Survey.