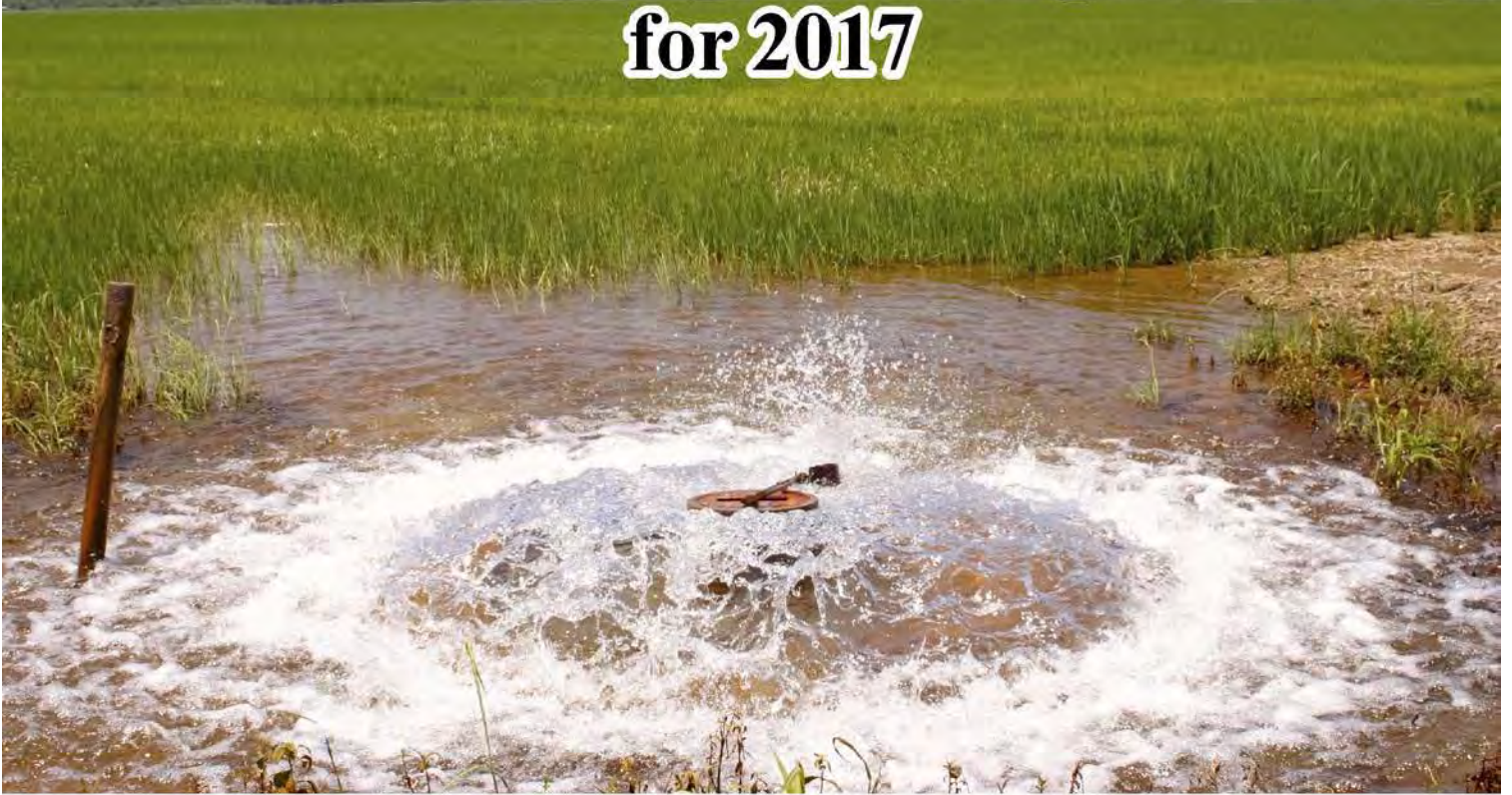


Arkansas Groundwater Protection and Management Report for 2017



**To manage and protect groundwater
resources in Arkansas for human,
environmental, and economic benefits.**



July 2018



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United States Department of Agriculture Natural Resources Conservation Service.

Report compiled and written by James L. Battreal, P.G.

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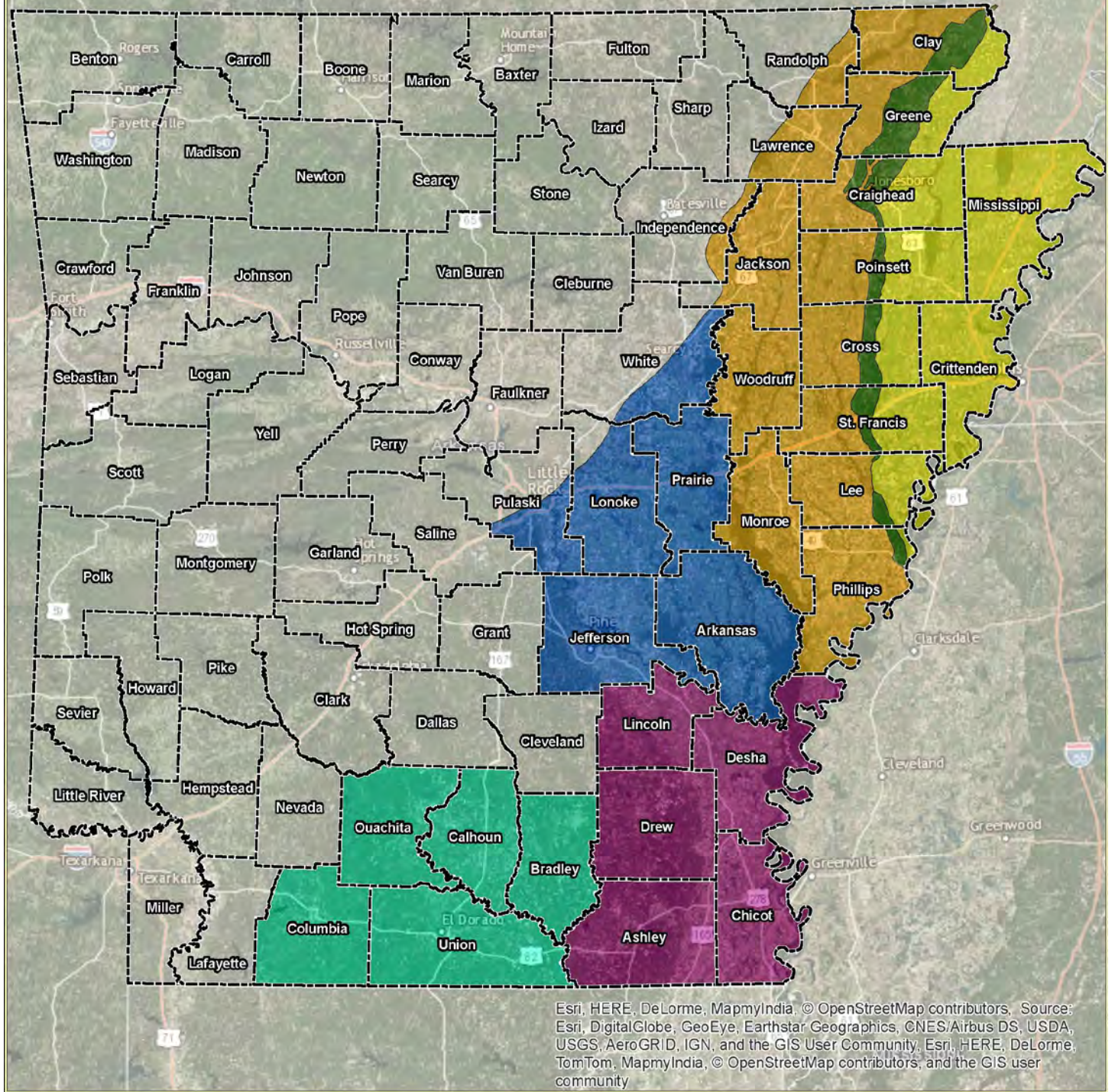
ABSTRACT

The Arkansas Groundwater Protection and Management Report is produced annually by the Arkansas Natural Resources Commission (ANRC) pursuant to the Arkansas Ground Water Protection and Management Act of 1991, Arkansas Code Annotated 15-22-906. This report provides a summary of groundwater protection and conservation programs administered by the ANRC during the year 2017, including water-level monitoring and studies of water use trends in the state. This report covers water-level data from the spring of 2016 to the spring of 2017. This monitoring period consisted of above average precipitation with an average of 50.44 inches of rainfall, and as a result, short-term water-level comparisons for the state's aquifers showed more increases due to the decrease in need of pumping the aquifer. The general trend in Arkansas's long-term water-level change is that the groundwater levels are declining in response to continued withdrawals at a rate which is far above sustainable. Based on 2014 water use data, only approximately 46.5 percent of the current alluvial aquifer withdrawal of 7,255 million gallons per day, and approximately 55% percent of the average Sparta/Memphis aquifer withdrawal of 160 million gallons per day is sustainable. At these pumping rates, water-level declines and the adverse impacts on the state's ground-water system will continue to be observed. As the competition for ground water becomes more intense, the challenge before Arkansas' water resources users, scientists, and conservationists, is to continue to work toward conservation, education, and the conjunctive use of groundwater and excess surface water in a manner that brings about the wise and sustainable use of our valuable water resources.

INTRODUCTION

This annual groundwater report is prepared to provide the State of Arkansas with a comprehensive water-quantity and water-quality document to be utilized, in accordance with the Arkansas Water Plan, as a guide for water resources conservation and protection programs. It includes data, analysis, and recommendations for the groundwater protection and management program, as well as data from the Arkansas Water Well Construction Commission.

Arkansas Ground Water Study Areas



Legend

- Boeuf - Tensas
- Cache
- Grand Prairie
- South Arkansas
- St. Francis
- Crowley's Ridge
- County Boundaries



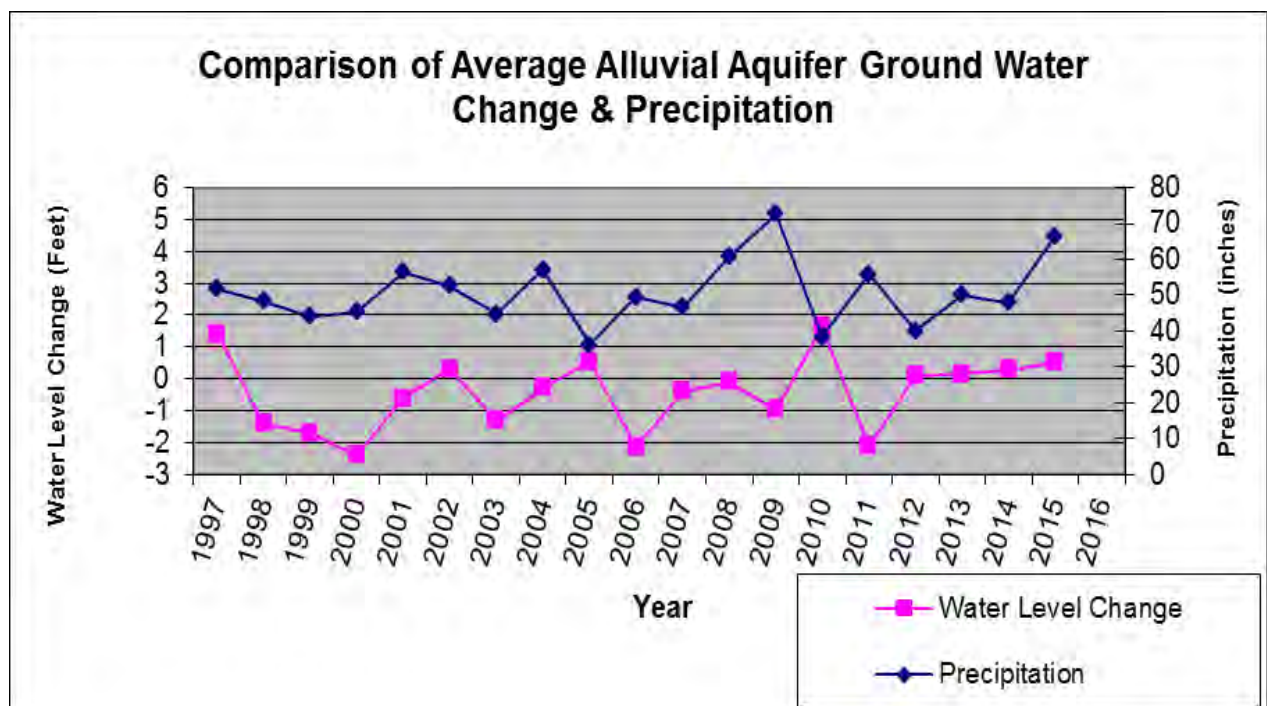
0 12.5 25 50 75 100 Miles



Fig. 1

This report is built on a strong cooperative program with other appropriate state, federal, and local water resources agencies. Each spring approximately 500 wells are monitored in the alluvial aquifer resulting in the largest number of water-level measurements for any one aquifer in the state. This number will vary from year to year depending on the resources available. There are approximately 200-300 wells that are monitored each year for water levels in the Sparta/Memphis aquifer. A monitoring schedule has been established to obtain data from the alluvial aquifer and the Sparta/Memphis aquifer on an annual basis. These measurements are taken each spring so as to be the least affected by seasonal pumping for irrigation. The drawdown that results from seasonal pumping is also determined by the NRCS and ANRC taking measurements of the alluvial aquifer in both the spring and fall. The USGS also maintains the Arkansas Masterwell Program that supplies long term groundwater quality monitoring in 25 wells from 14 aquifers. These Masterwells are located throughout 21 counties and each year 5 sites are sampled for a variety of water-quality constituents. Hydrogeologic data is collected statewide, however resources are focused on study areas where water-level declines and water-quality degradation have been observed historically.

The amount of rainfall is taken into account each monitoring period to observe the change of water levels during times of drought or excess rainfall. The monitoring period which covers the calendar year of 2017 for static water level change in the alluvial aquifer was completed in the spring. The data for 2016-2017 indicates a decline in 169 of 290 wells, with an aquifer-wide average change of +0.92 feet in water levels during this time.



There are areas of the state experiencing ground-water withdrawals of such magnitude that demand on the aquifer exceeds the sustainable yield, resulting in consistently falling ground-water levels and the development of cones of depression. These areas occur in both the alluvial and Sparta/Memphis aquifers. Water-level declines are consistently observed in areas where water use is highest, such as portions of the Grand Prairie Study Area, and in the Cache Study Area west of Crowley's Ridge.

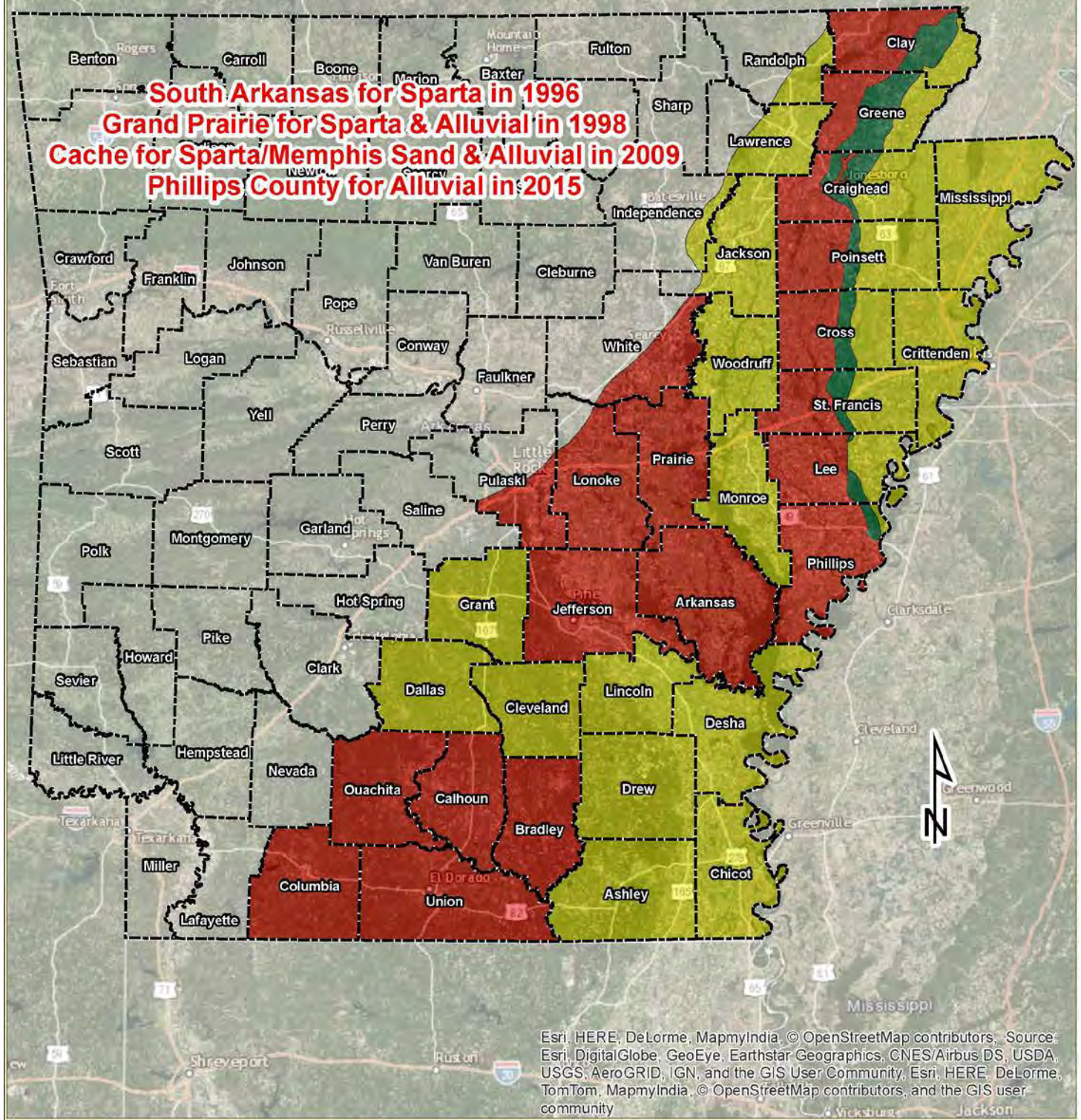
Water quality data collected by the USGS shows wells with an increased specific conductance ($\geq 1,000$ microsiemens/cm) in the alluvial aquifer in Arkansas, Cross, Desha, Greene, Lincoln, Prairie and Chicot counties. (Schrader, T.P., 2010) An increase in the level of specific conductance indicates an increased level of dissolved solids in the groundwater. In certain areas these dissolved solids are chlorides leading to the groundwater becoming unsuitable for particular irrigation purposes.

WATER POLICY

Water-resources policy in Arkansas was established in the Arkansas Water Plan of 1991, in which the ANRC advocates conservation, education, and the conjunctive use of ground and surface water, along with the development of excess surface water to meet future water use needs. It is hoped that protection of the State's groundwater resources can be achieved through these measures rather than management strategies that may require allocation of water. If conservation and the development of excess surface water are not successfully implemented in the impaired areas in the future, the State will have to consider regulatory alternatives to preserve the aquifers at a sustainable level. All water-use strategies must consider the wise use of our State's water resources while protecting the sustainable yield of the State's aquifers. Stream flow needs of the State's surface-water flow system must also be taken into account if our water resources are to be protected for future generations to utilize and enjoy. The ANRC advocates that the State move toward a sustainable yield pumping strategy through conservation, and utilizing Critical Groundwater Area designation wherever needed to focus resources. Designation as a Critical Groundwater Area brings about enhanced tax credits for conservation activities, educational programs, and sets the area as a priority for possible federal programs and funding. This is a non-regulatory designation. Regulation cannot be initiated without a new process involving legal proceedings, additional notice, and public hearings. Designation as a Critical Groundwater Area allows for programs that include tax incentives for the instillation of water conservation practices.

Critical Groundwater Areas

South Arkansas for Sparta in 1996
Grand Prairie for Sparta & Alluvial in 1998
Cache for Sparta/Memphis Sand & Alluvial in 2009
Phillips County for Alluvial in 2015



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Legend

- Current Critical Areas
- Current Study Areas
- Crowley's Ridge
- County Boundaries

0 10 20 40 60 80 Miles



Fig. 2

Hydrogeology and Statewide Water-Level Trends

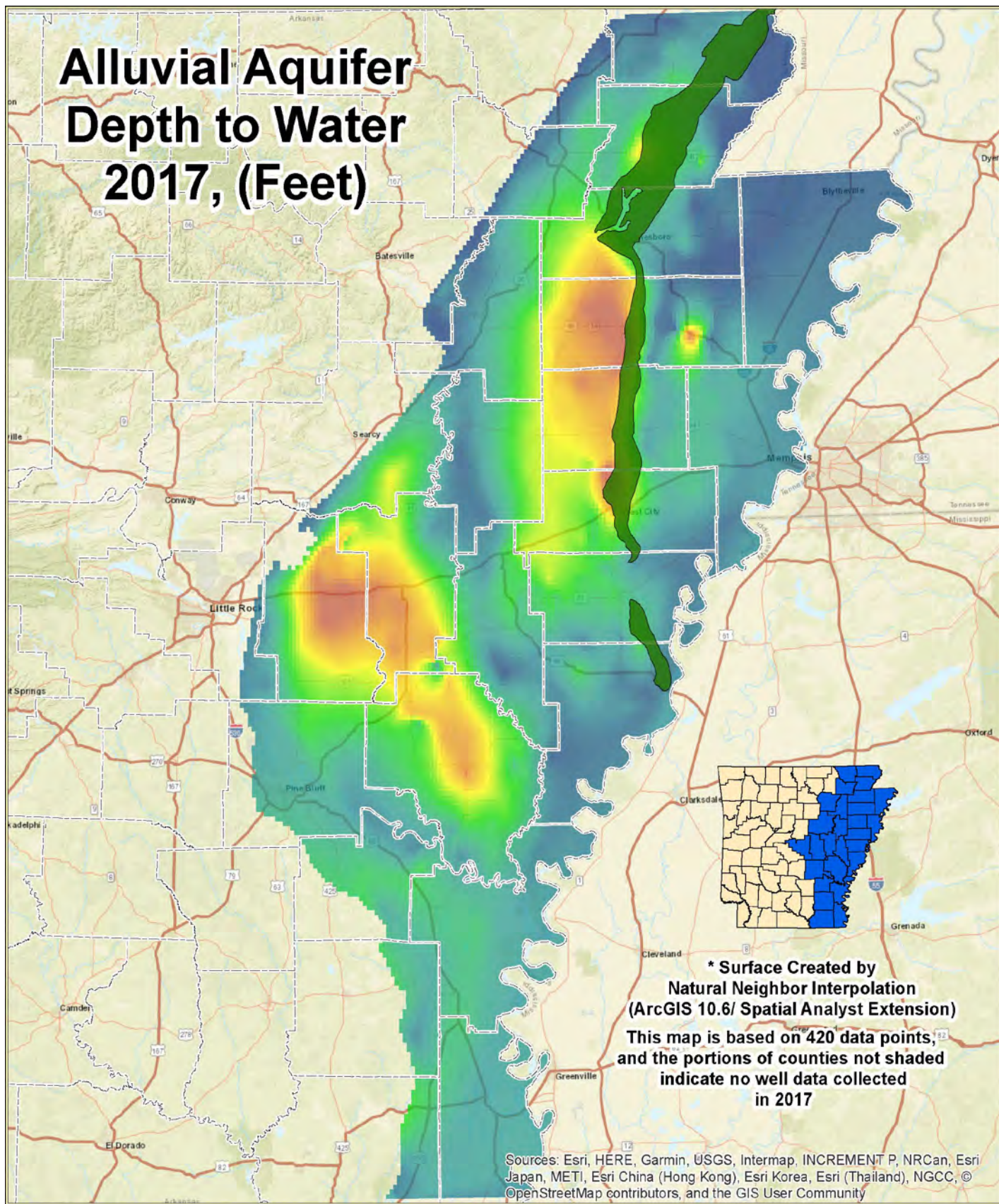
Alluvial Aquifer

The Mississippi River Valley alluvial aquifer extends north from Arkansas into Missouri, south into Louisiana, and under the Mississippi River into Tennessee and Mississippi. For the purpose of this report, the term alluvial aquifer refers to the portion of the aquifer inside the state boundaries of Arkansas. This area generally is bounded by the Fall-Line or contact with outcropping Tertiary formations to the west, the Mississippi River to the east, and the state lines to the north and south. The aquifer is the uppermost aquifer in the Mississippi Embayment and is composed of 50 to 150 feet of sand and gravel, grading from coarse gravel at the bottom to fine sand at the top. It generally is overlain by the Mississippi River Confining Unit, which is composed of 0 to 50 feet of fine-grained sand, silt, and clay. The alluvial aquifer is underlain by confining units composed of aquifers and confining units of the Mississippi Embayment, which are less permeable than the alluvial aquifer. The alluvial aquifer is connected hydraulically with several rivers and drainage areas. (Ackerman, 1996)

Due mostly to the use of groundwater for agriculture in the region, the aquifer has been pumped in ever-increasing amounts since records were kept from the early 1900's. In 2015 Arkansas had groundwater withdrawals estimated to be 8264.60 million gallons per day (Mgal/d). That is approximately a 552% increase from the amount used in 1965. (Holland, T.W. 2005)

In 2014 there was 7,255 Mgal/d pumped from the alluvial aquifer. The estimated sustainable yield for the alluvial aquifer is 3374.33 Mgal/d, leaving an unmet demand of 3,880.67 Mgal/d (53.5%). Ground water furnishes 63% of the state's total consumption of water, and 95% of the ground water used comes from the alluvial aquifer. Agriculture accounts for 98% of the total water that is pumped from the alluvial aquifer. Figure 3 is an illustration of the 2017 depth to water. Increased pumping from this aquifer has resulted in decreased outflow to rivers, increased inflow from rivers, increased inflow from the overlying confining unit, regional changes in ground-water flow, regional water level declines, reduction of aquifer storage, and decreases in well yields.

Alluvial Aquifer Depth to Water 2017, (Feet)



Legend

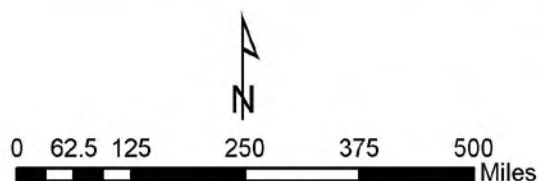
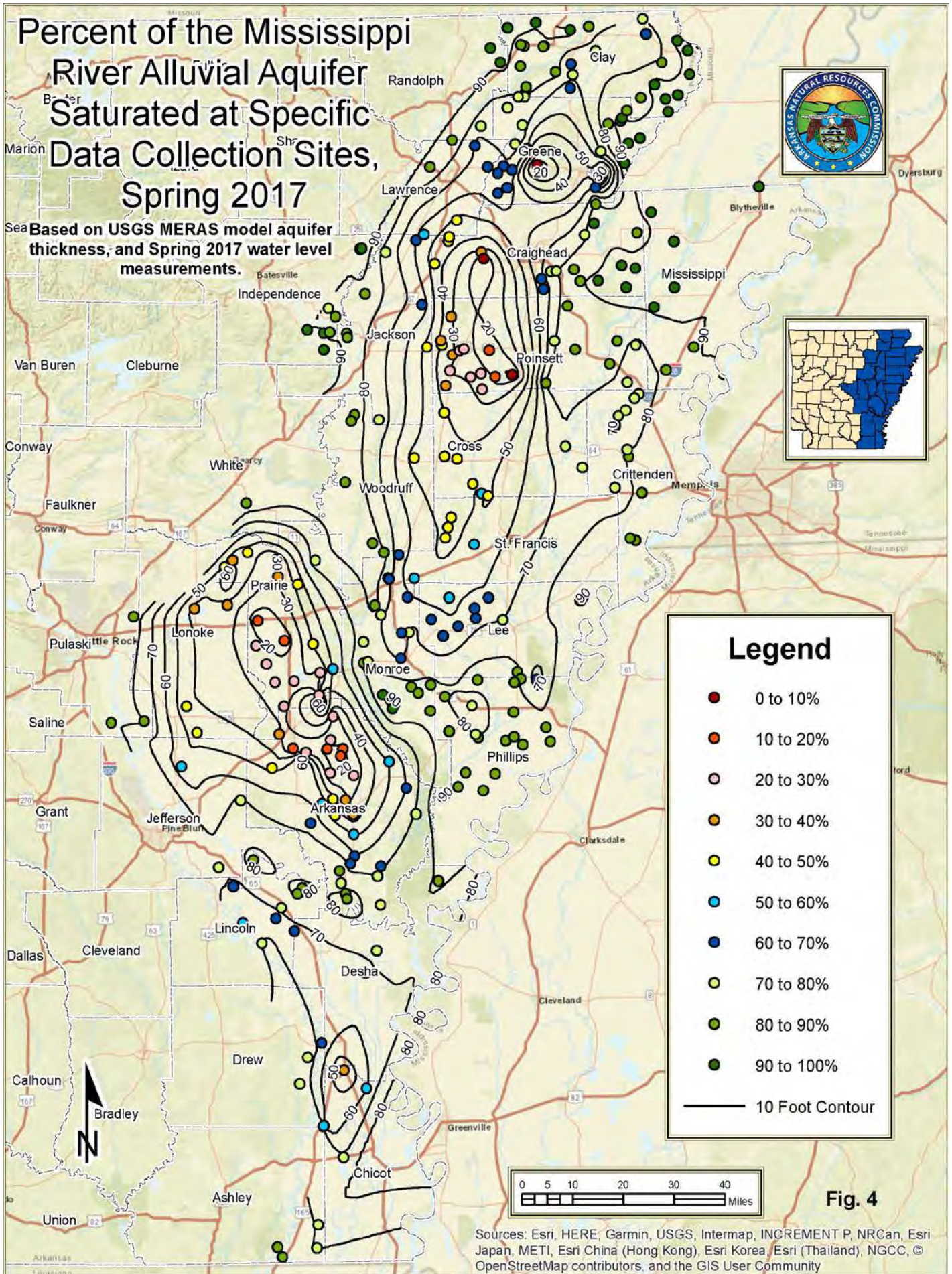


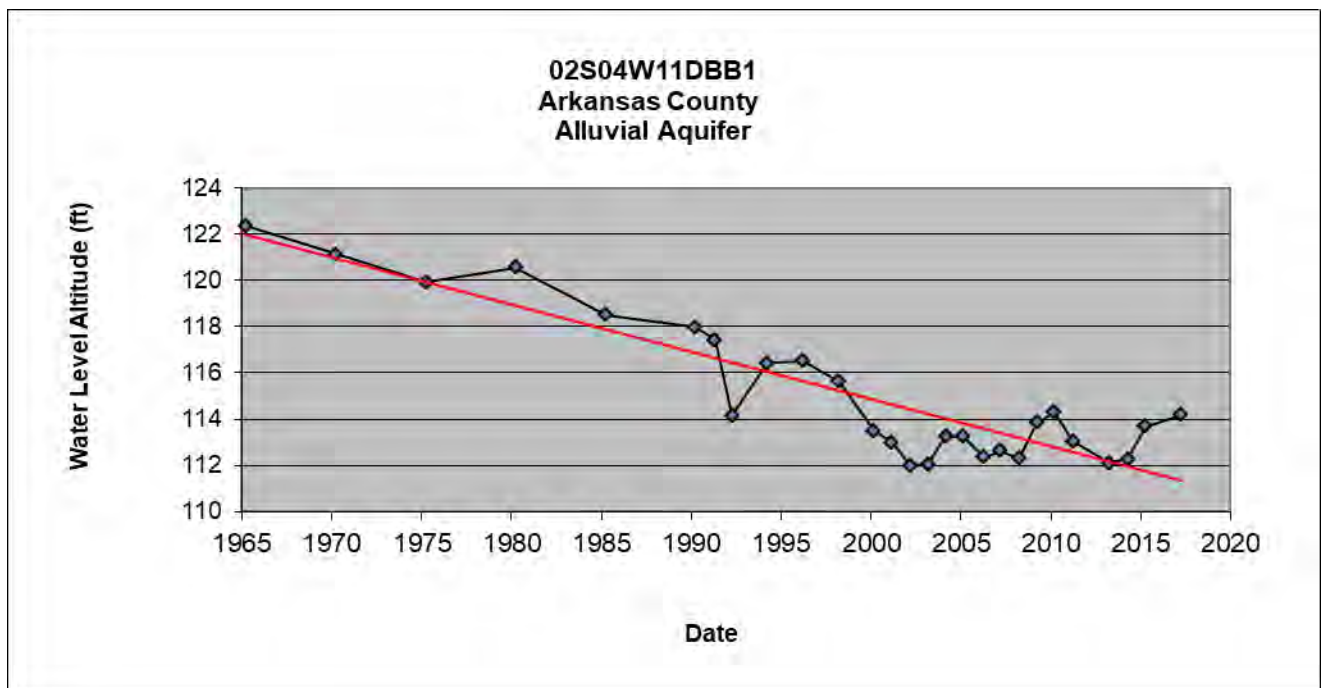
Fig. 3

Percent of the Mississippi River Alluvial Aquifer Saturated at Specific Data Collection Sites, Spring 2017

Based on USGS MERAS model aquifer thickness, and Spring 2017 water level measurements.



There were 290 alluvial aquifer wells monitored for water-level change in both 2016 and 2017, out of these 169 (58.3%) had a decline in the static water level. The overall aquifer water-level average change was +0.92 ft. The 2016 average precipitation for Arkansas was approximately 50.44 inches, which is above the statewide average of 49.19 inches. Of 313 alluvial aquifer wells monitored in both 2012 and 2017, 195 (62.3%) of these had declining static water levels. Over a 10-year period of time from 2007 to 2017, 182 of 285 wells (63.9%) monitored showed declines in the alluvial aquifer. The average change over the entire aquifer during the 2016-2017 monitoring period was +0.92 feet, the 5-year average change was +1.35 feet, and the 10-year average change was +2.41 feet respectively. There are still significant cones of depression in the alluvial aquifer, especially in the Grand Prairie and in the Cache Study Area west of Crowley's Ridge. (Fig. 3) The data in this year's report shows near stable water levels in all study areas for the one year averages, however declines due to over-use still exist and are apparent in the period of record. Appendix A is a table of specific water level monitoring data for the alluvial aquifer. The one year water-level change data reflects the higher than normal rainfall during the period of spring 2016. During such years, ground-water withdrawals are reduced, while recharge is typically greater.



Grand Prairie Study Area 2016-2017 Water Level Changes (Alluvial Aquifer)

Grand Prairie Study Area
1 year change:

Average Change: -0.34 feet
35 of 69 Wells Showed Declines

County	Avg. Change
Arkansas	+0.80
Jefferson	-1.32
Lonoke	-1.42
Prairie	-0.65
Pulaski	+2.31

0 5 10 20 30 Miles

Legend

- Wells with Increases or No Change
- Wells with Declines
- Grand Prairie Study Area

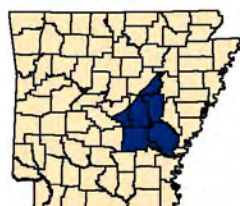


Fig. 5

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Grand Prairie Study Area 2012-2017 Water Level Changes (Alluvial Aquifer)

Grand Prairie Study Area
5 year change:

Average Change: -0.61 feet
49 of 87 Wells Showed Declines

County	Avg. Change
Arkansas	+1.18
Jefferson	-6.13
Lonoke	-1.55
Prairie	-1.10
White	+0.52

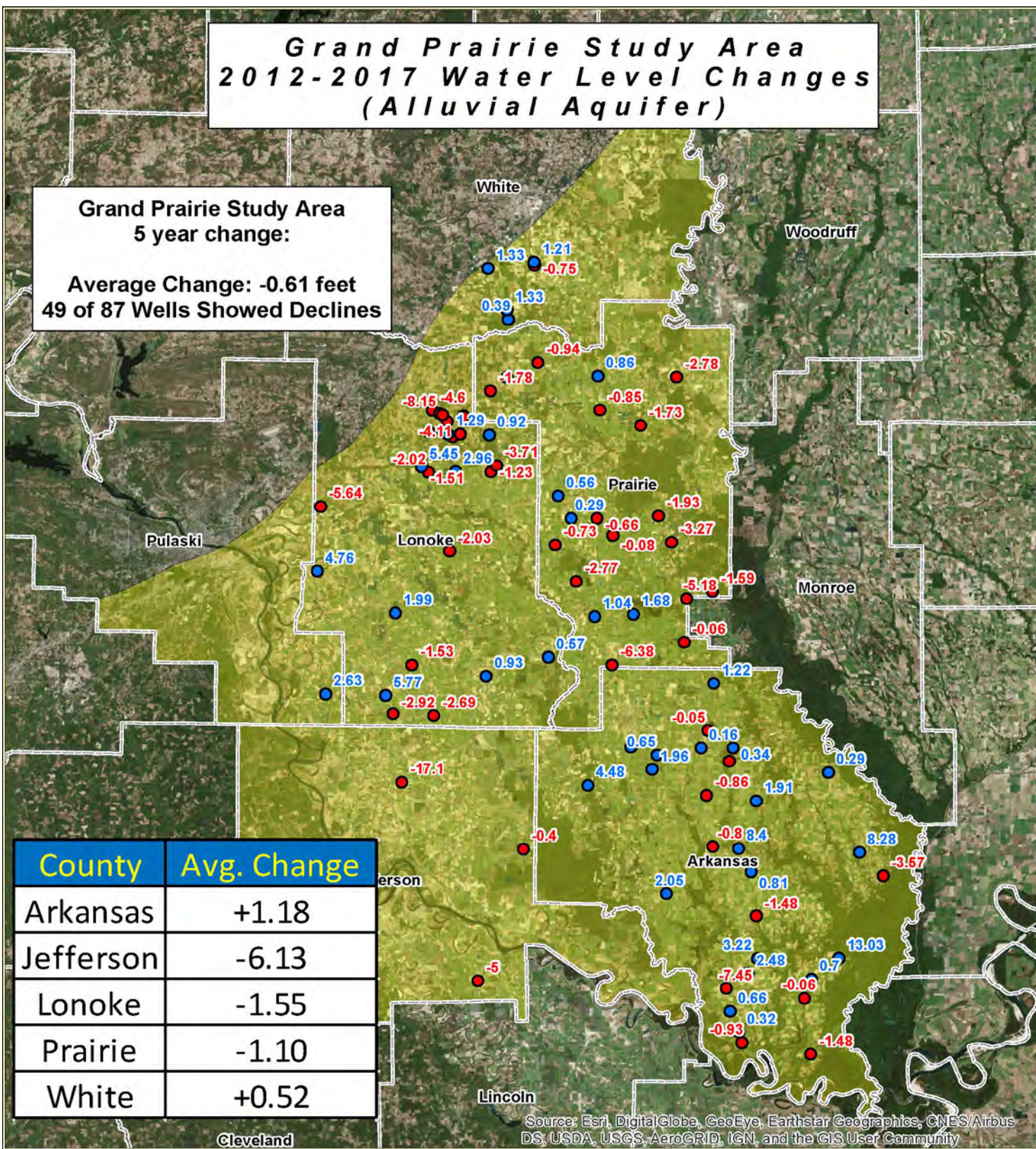
0 5 10 20 30 Miles

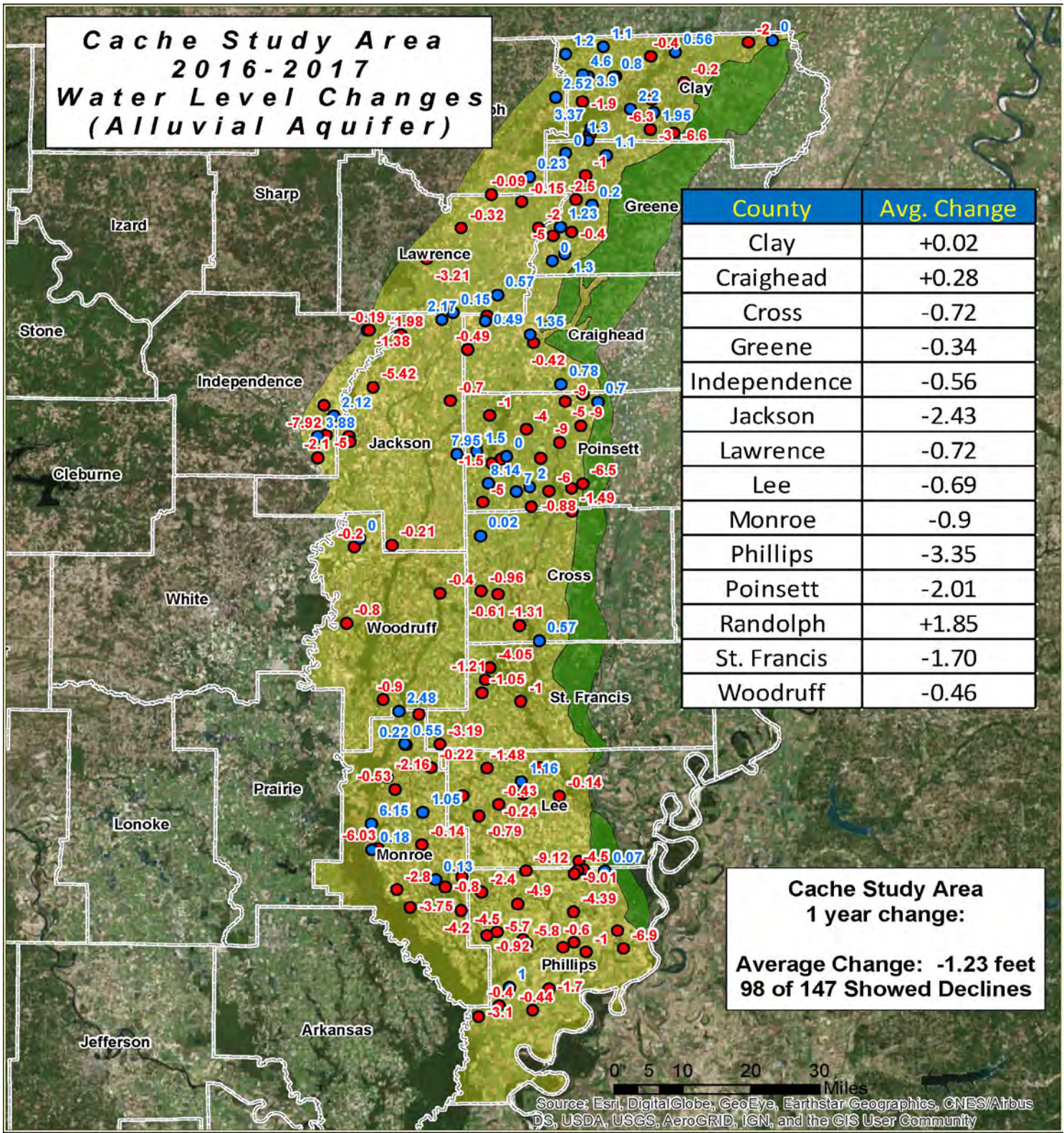
Legend

- Wells with Increases
- Wells with Declines
- Grand Prairie Study Area



Fig. 6



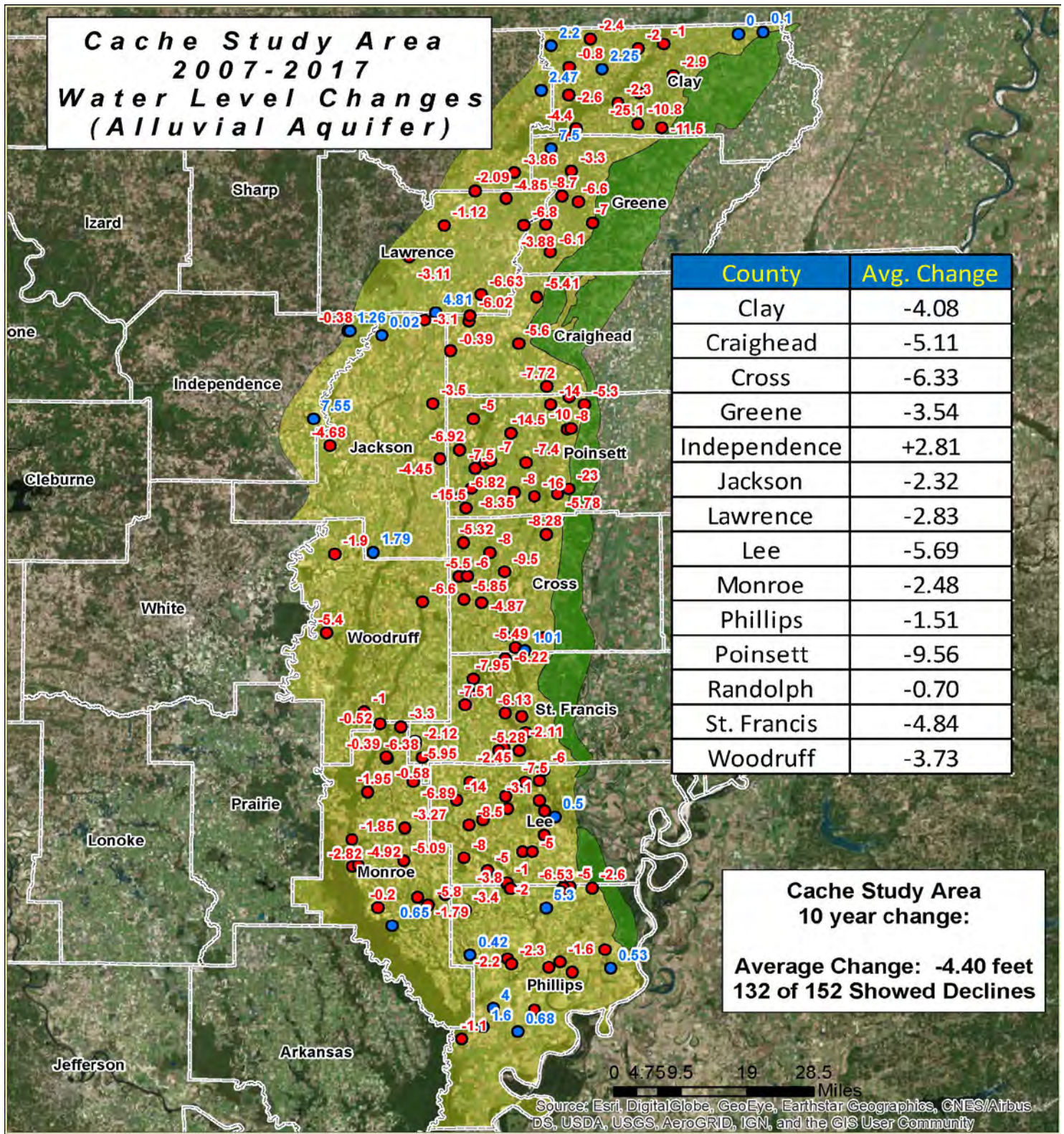


Legend

- Wells with Increases or No Change
- Wells with Declines
- Crowleys Ridge
- Cache Study Area



Fig. 7



Legend

- Wells with Increases or No Change
- Wells with Declines
- Crowley's Ridge
- Cache Study Area

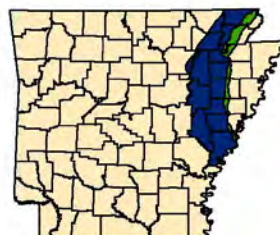
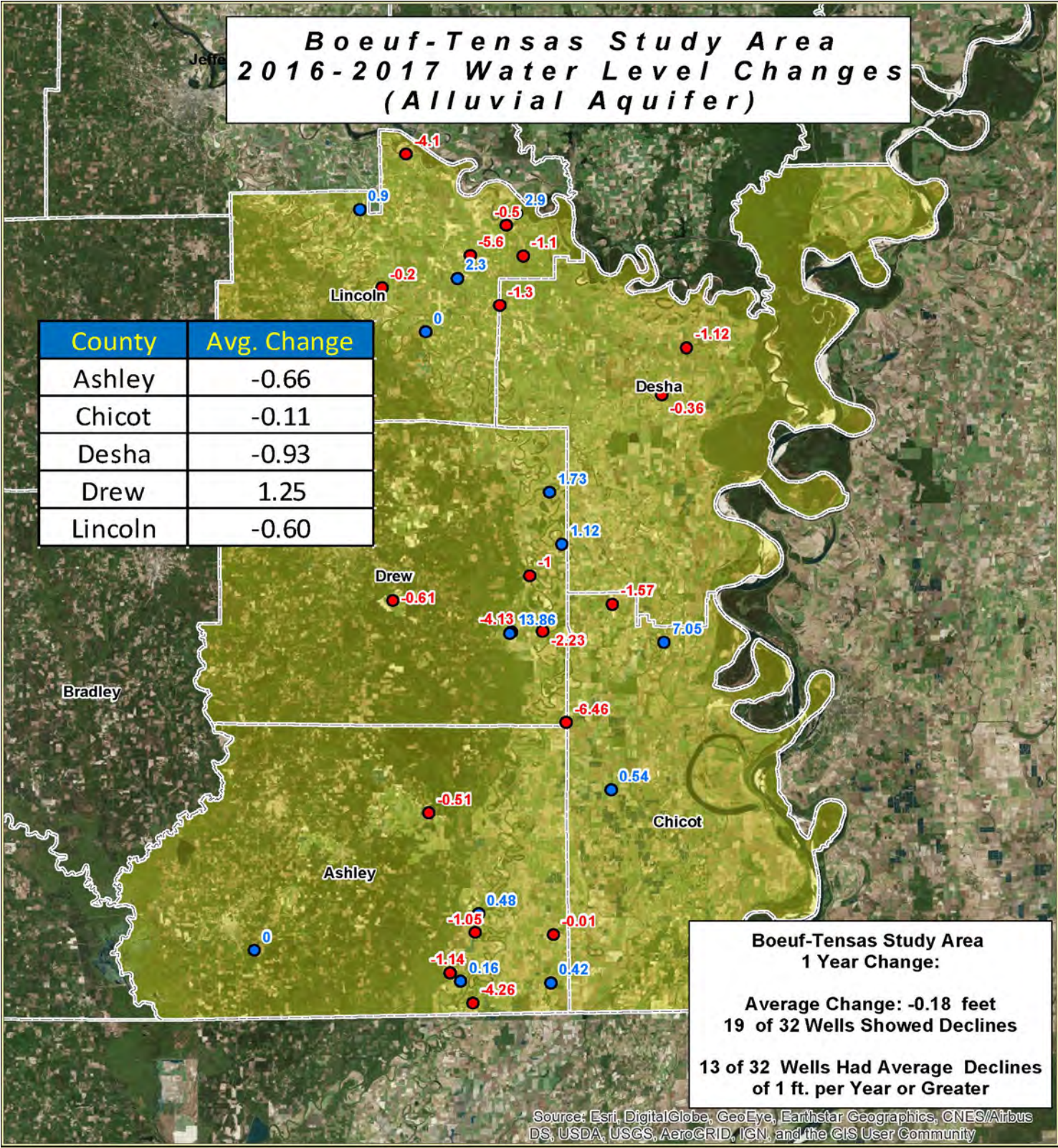


Fig. 8

Boeuf-Tensas Study Area 2016-2017 Water Level Changes (Alluvial Aquifer)

County	Avg. Change
Ashley	-0.66
Chicot	-0.11
Desha	-0.93
Drew	1.25
Lincoln	-0.60



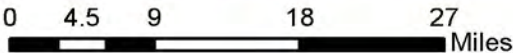
**Boeuf-Tensas Study Area
1 Year Change:**

**Average Change: -0.18 feet
19 of 32 Wells Showed Declines**

**13 of 32 Wells Had Average Declines
of 1 ft. per Year or Greater**

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend



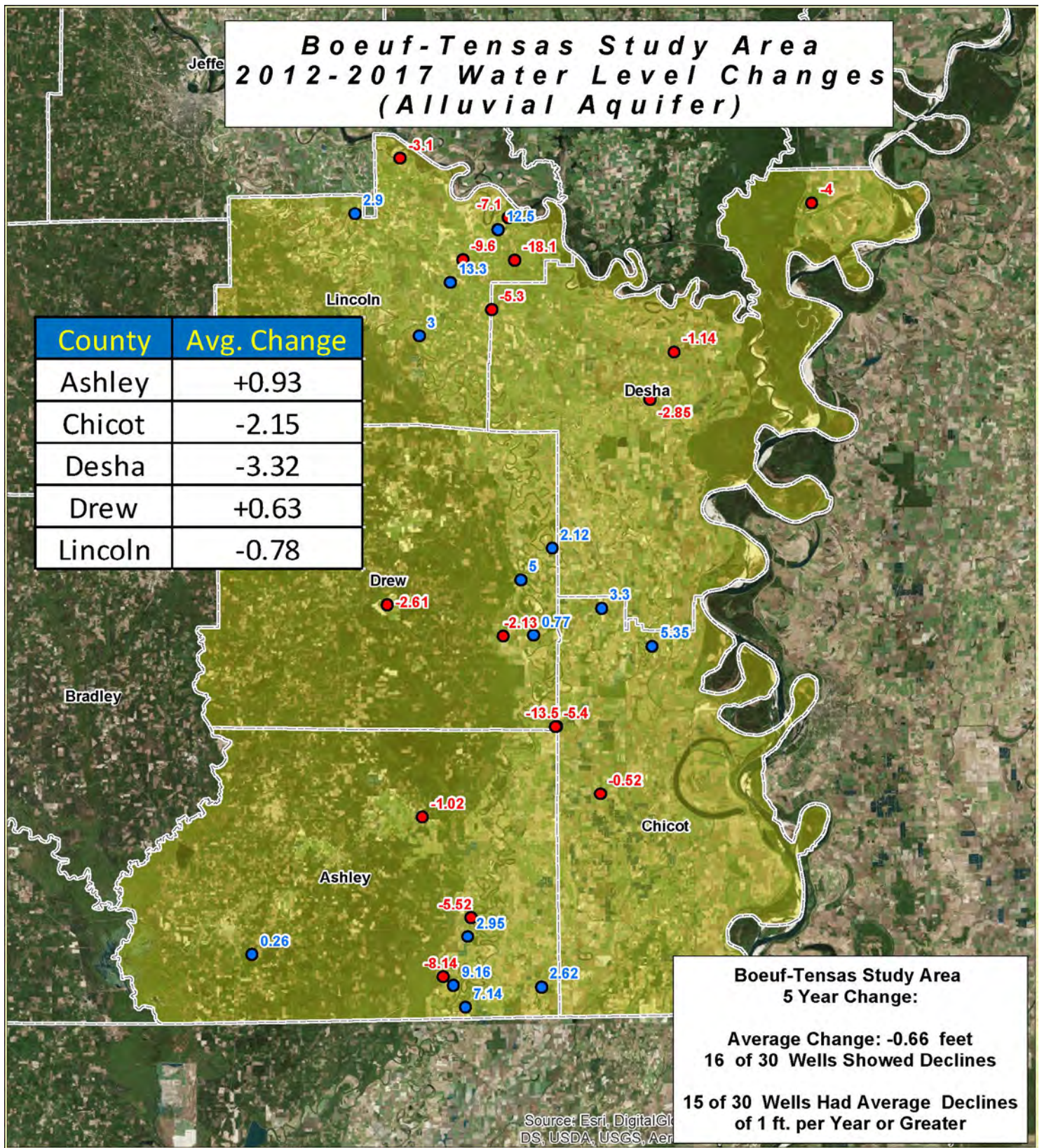
- Wells with Increases or No Change
- Wells with Declines
- Boeuf-Tensas Study Area



Fig. 9

Boeuf-Tensas Study Area 2012-2017 Water Level Changes (Alluvial Aquifer)

County	Avg. Change
Ashley	+0.93
Chicot	-2.15
Desha	-3.32
Drew	+0.63
Lincoln	-0.78



**Boeuf-Tensas Study Area
5 Year Change:**

**Average Change: -0.66 feet
16 of 30 Wells Showed Declines**

**15 of 30 Wells Had Average Declines
of 1 ft. per Year or Greater**

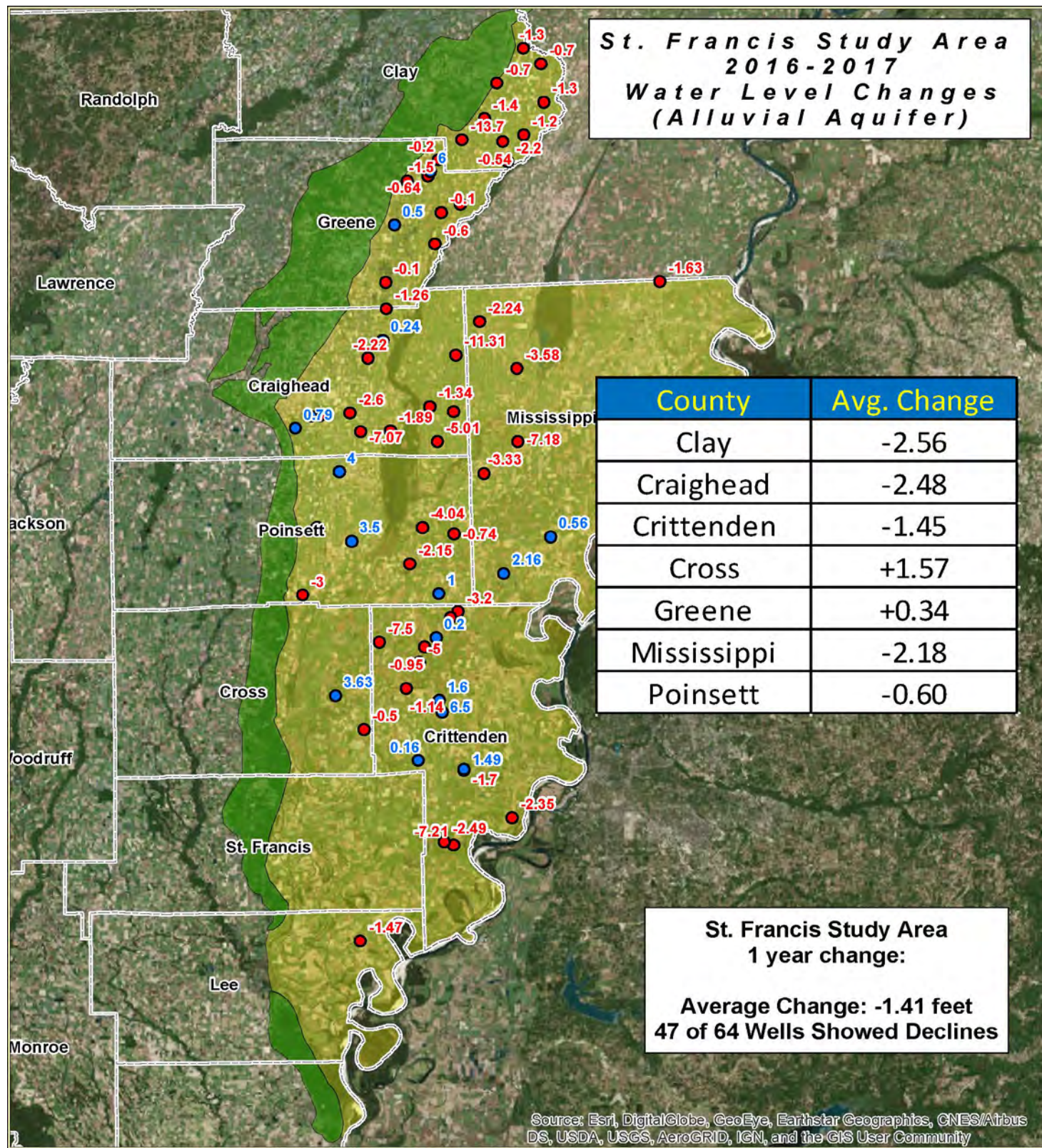
Legend

- Wells with Increases
- Wells with Declines
- Boeuf-Tensas Study Area

0 4.5 9 18 27 Miles



Fig. 10



Legend

- Wells with Increases
- Wells with Declines
- Crowleys Ridge
- St. Francis Study Area

0 4.5 9 18 27 Miles

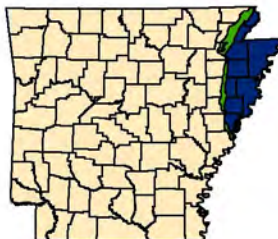
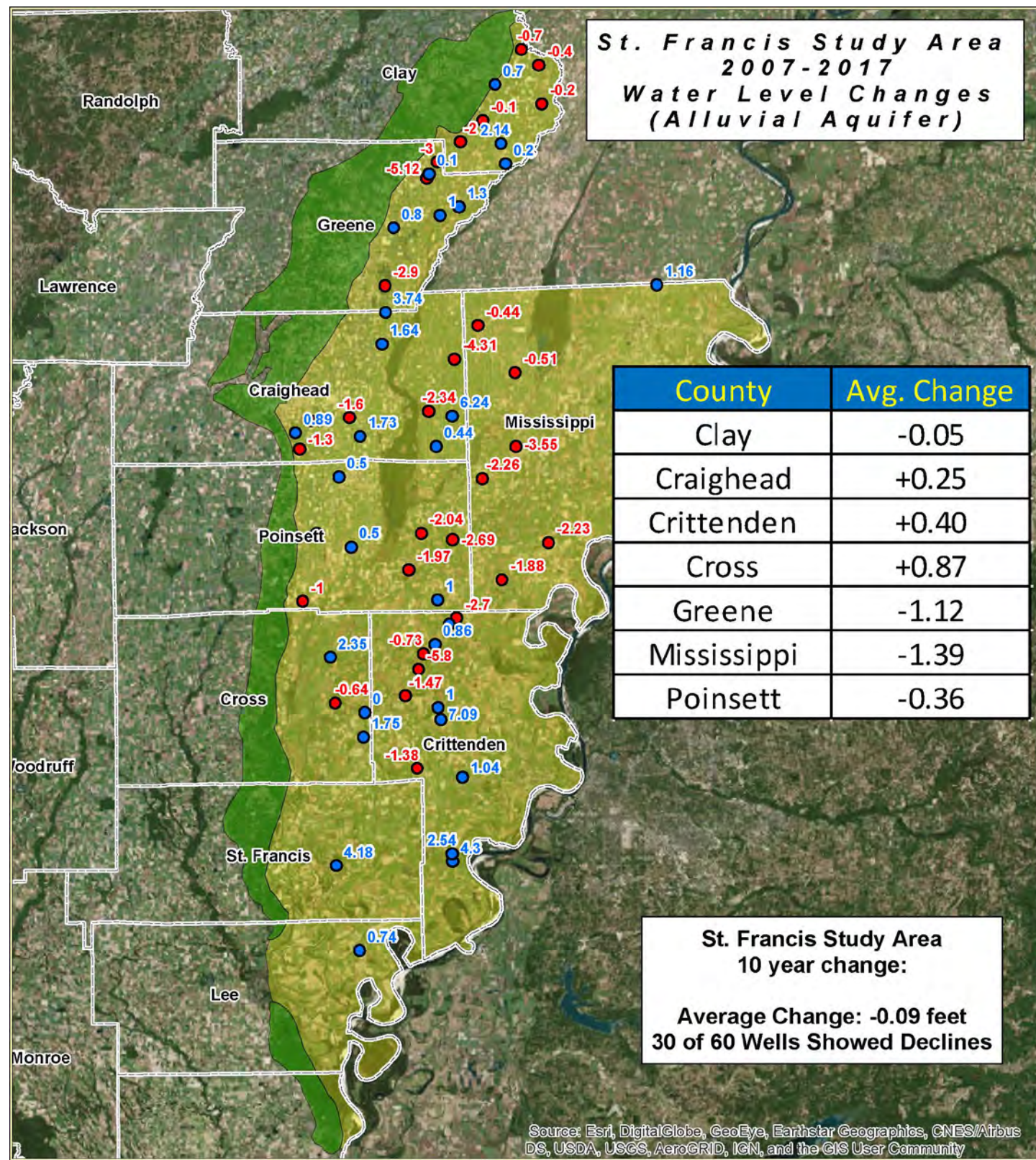


Fig. 11



Legend

- Wells with Increases or No Change
- Wells with Declines
- Crowley's Ridge
- St. Francis Study Area

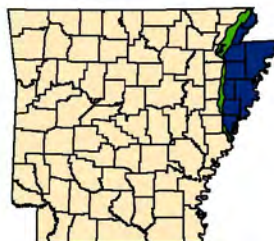


Fig. 12

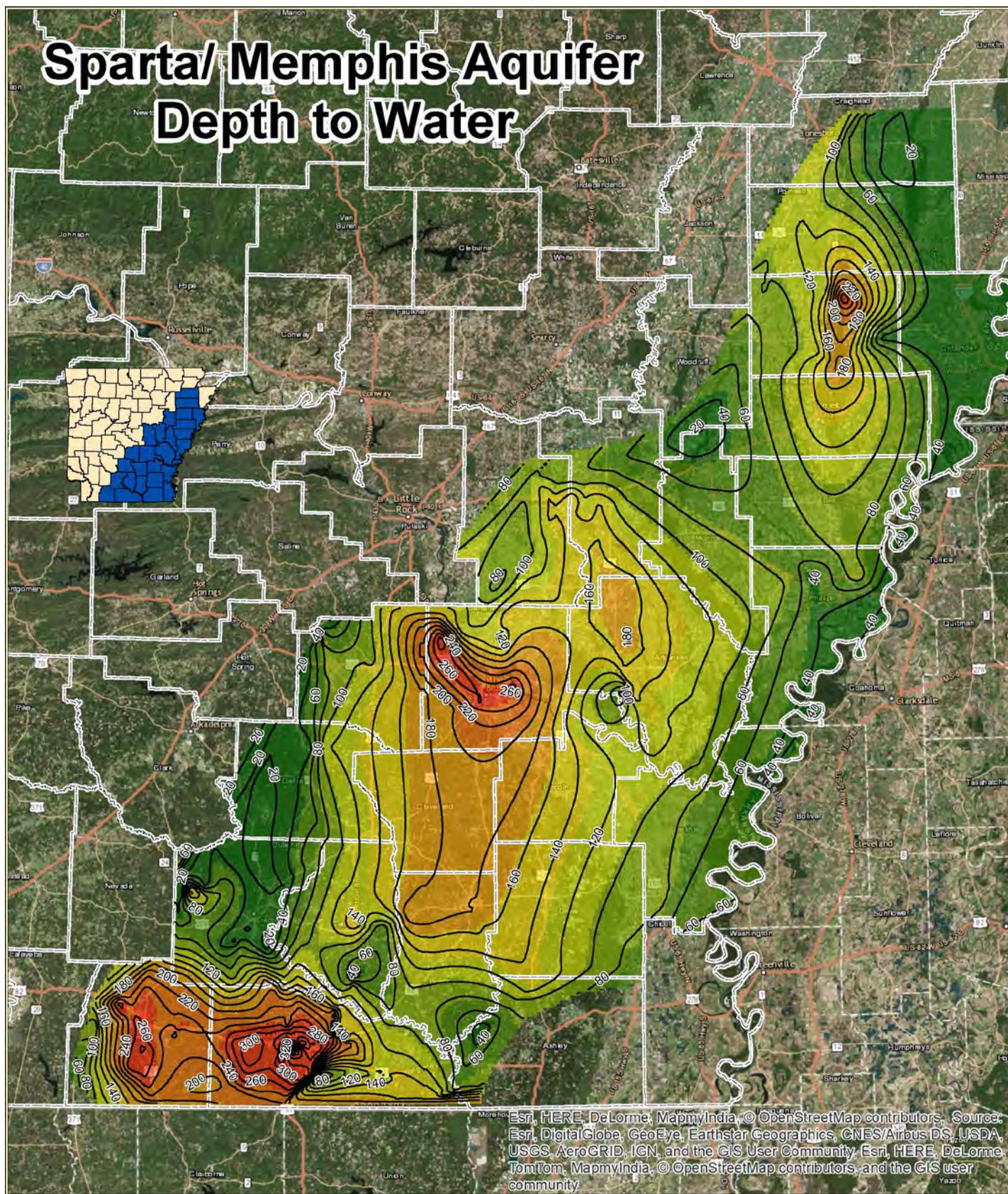
Sparta/Memphis Aquifer

The Sparta/Memphis aquifer of Tertiary Age is located in the south, southeast, and east regions of Arkansas, as well as portions of Texas, Louisiana, and Mississippi. The aquifer outcrops in Dallas, Hot Spring, Saline, Grant, Nevada, Columbia, and Ouachita counties throughout the state. The Sparta/Memphis Sand aquifer thickness averages approximately 600 feet, ranging from a thickness of approximately 200 to 300 feet thick in the outcrop area to about 900 feet thick in the southeastern part of the state. The majority of the area discussed in this report is a confined aquifer underlain by the Cane River Formation and overlain by the Cook Mountain Formation, both of which are effective confining units.

The Sparta aquifer in south Arkansas consists of two units, separated by the confining unit located between them: the upper Greensand aquifer and the lower El Dorado aquifer. The Sparta is composed mainly of sand with considerable amounts of silt, clay, shale, and lignite, which are found in lenses throughout the unit. Lithologically, it varies considerably both vertically and laterally. Glauconite, a green hydrous potassium iron silicate mineral, is sometimes found in sand lenses in the upper levels of the aquifer, hence the name "Greensand".

The Memphis Sand aquifer in eastern Arkansas is part of a thick sand section in the middle and lower portions of the Claiborne Group. It includes the Sparta Sand, the predominantly sandy facies of the Cane River, and the Carrizo Sand. The Memphis aquifer is the major source of quality drinking water in the area.

Groundwater levels were collected from 177 water wells in the Sparta/Memphis aquifer throughout the south and east portions of Arkansas in 2016 and 2017. Seventy-four of the wells monitored (41.8%) showed declines in the static water level. The average change over the entire aquifer during the 2016-2017 monitoring period was +2.91 feet. During the monitoring period from 2012 to 2017 one-hundred and fifty-three wells were monitored for water-level change, with 47 of these wells (30.7%) showing a decline in static water levels. During the 10-year monitoring period, 193 wells were monitored with 61 (31.6%) of these wells showing declines. Appendix B is a table of specific water-level monitoring data for the Sparta/Memphis aquifer. The USGS Conjunctive Use Optimization Model estimates that only 55% percent of the withdrawal average of 160 Mgal/d is sustainable for the Sparta/Memphis aquifer. (Czarnecki, Clark, and Stanton, 2003)



* Contour lines are at 20 foot intervals

Legend

Depth to Water

Feet

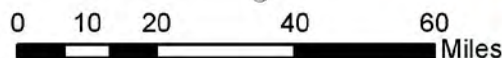


Fig. 13

Data beginning in 1965 has been plotted as hydrographs for selected wells throughout the study area. Trend line analysis indicates that the general trend for most wells included in this study is that of a lowered potentiometric surface. This decline in potentiometric surface in the aquifer can be attributed to a statewide increase in water use from 139 million gallons per day (Mgal/d) in 1970 to 159.45 Mgal/d in 2014. The estimated sustainable yield for the aquifer is 87 Mgal/d leaving an unmet demand of 72.45 Mgal/d. The most recent significant increase in water use from the Sparta/Memphis aquifer has been for agricultural supply in the Grand Prairie and Cache Study Areas.

The exception to this rule is the data from the South Arkansas Study Area, where local education, conservation, and the use of excess surface water from the Ouachita River has led to significantly fewer declines as well as some rebound in water levels in some areas. The potentiometric surface in five wells has actually risen over 90 feet respectively, over a 16-year period from 2000 to 2016. Union County alone has seen an average change in water level of +31.69 feet from 2007 to 2017. The surrounding counties in the South Arkansas Study Area have also all seen an average rise in water levels during this time with Calhoun County having an average change of +11.02, Columbia +6.91, Bradley +8.64 and Ouachita +4.92 feet respectively. (Fig.15)

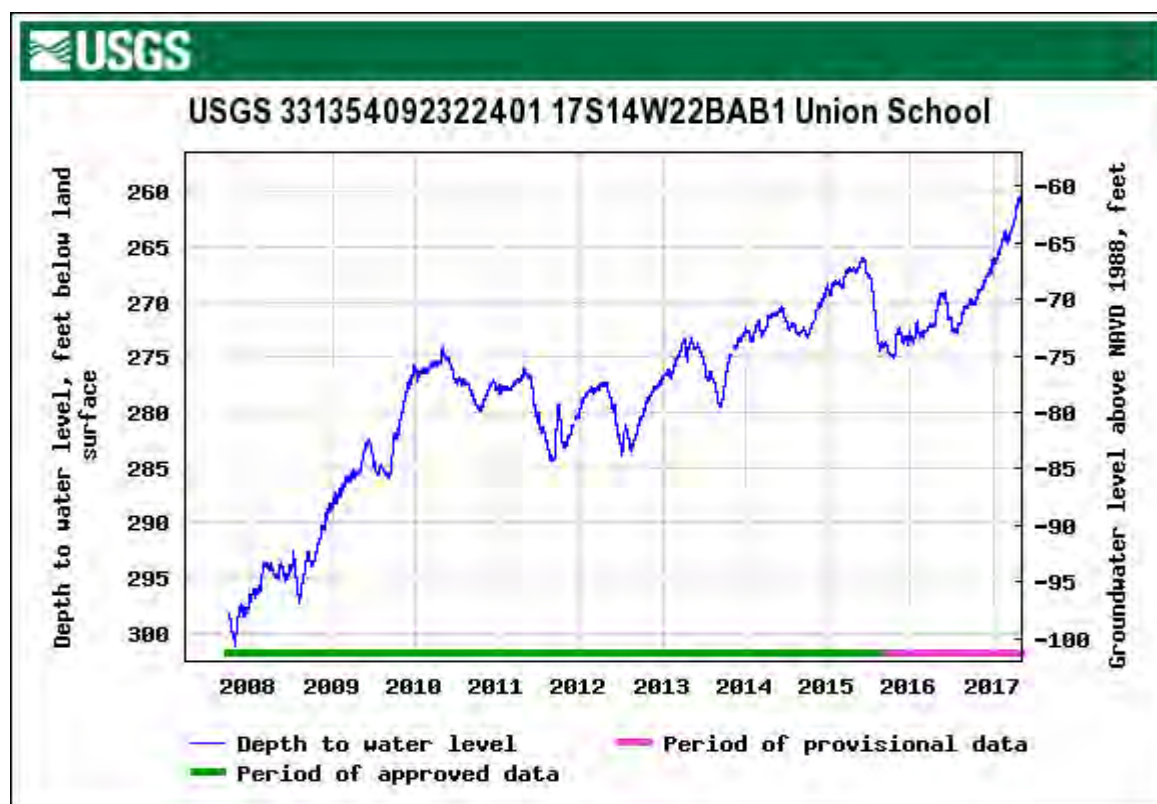
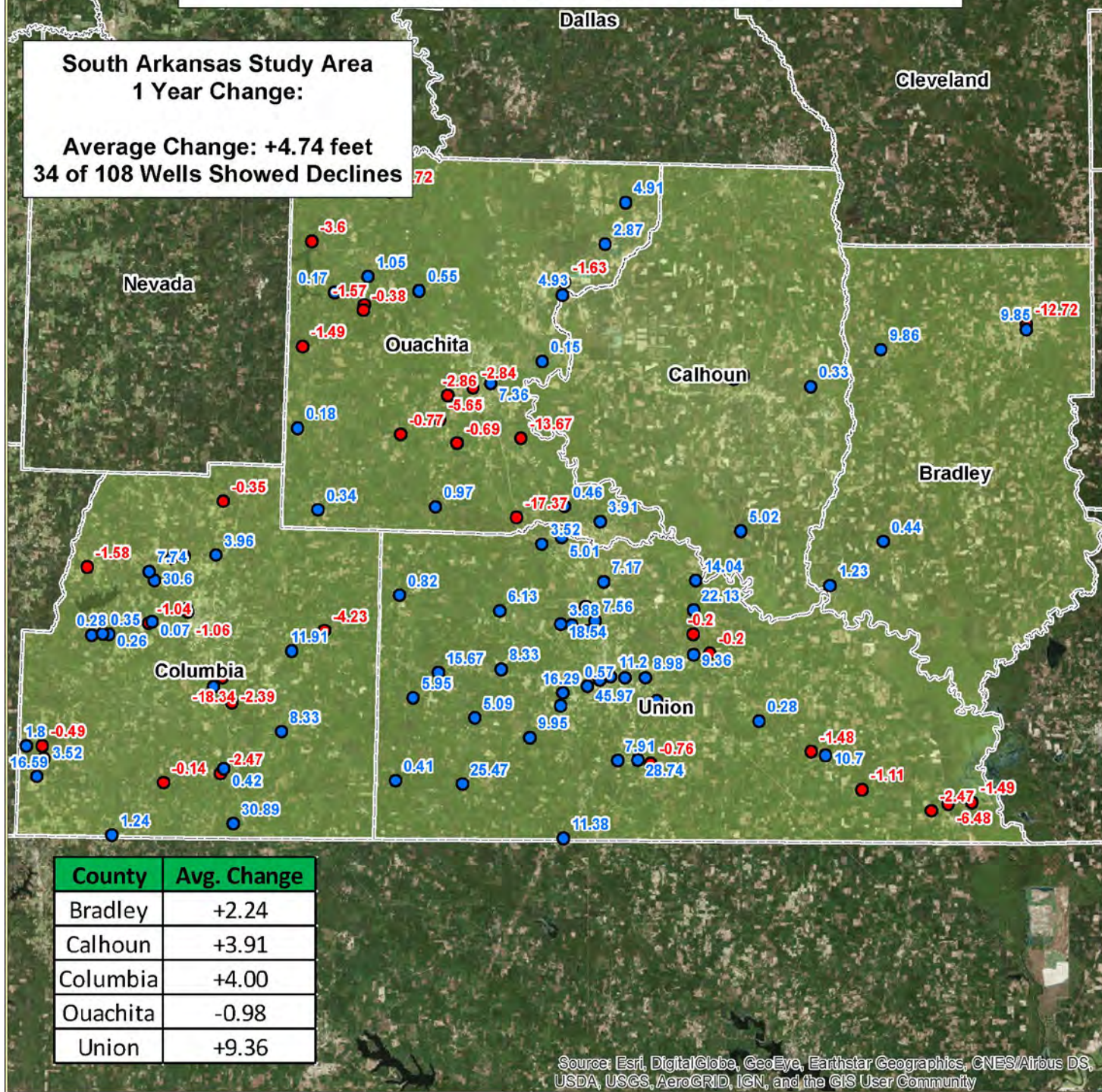


Table 3

South Arkansas Study Area 2016-2017 Water Level Changes (Sparta Aquifer)

South Arkansas Study Area
1 Year Change:

Average Change: +4.74 feet
34 of 108 Wells Showed Declines



Legend

- Wells with Increases
- Wells with Declines
- + South Arkansas Study Area

0 4.5 9 18 27 Miles

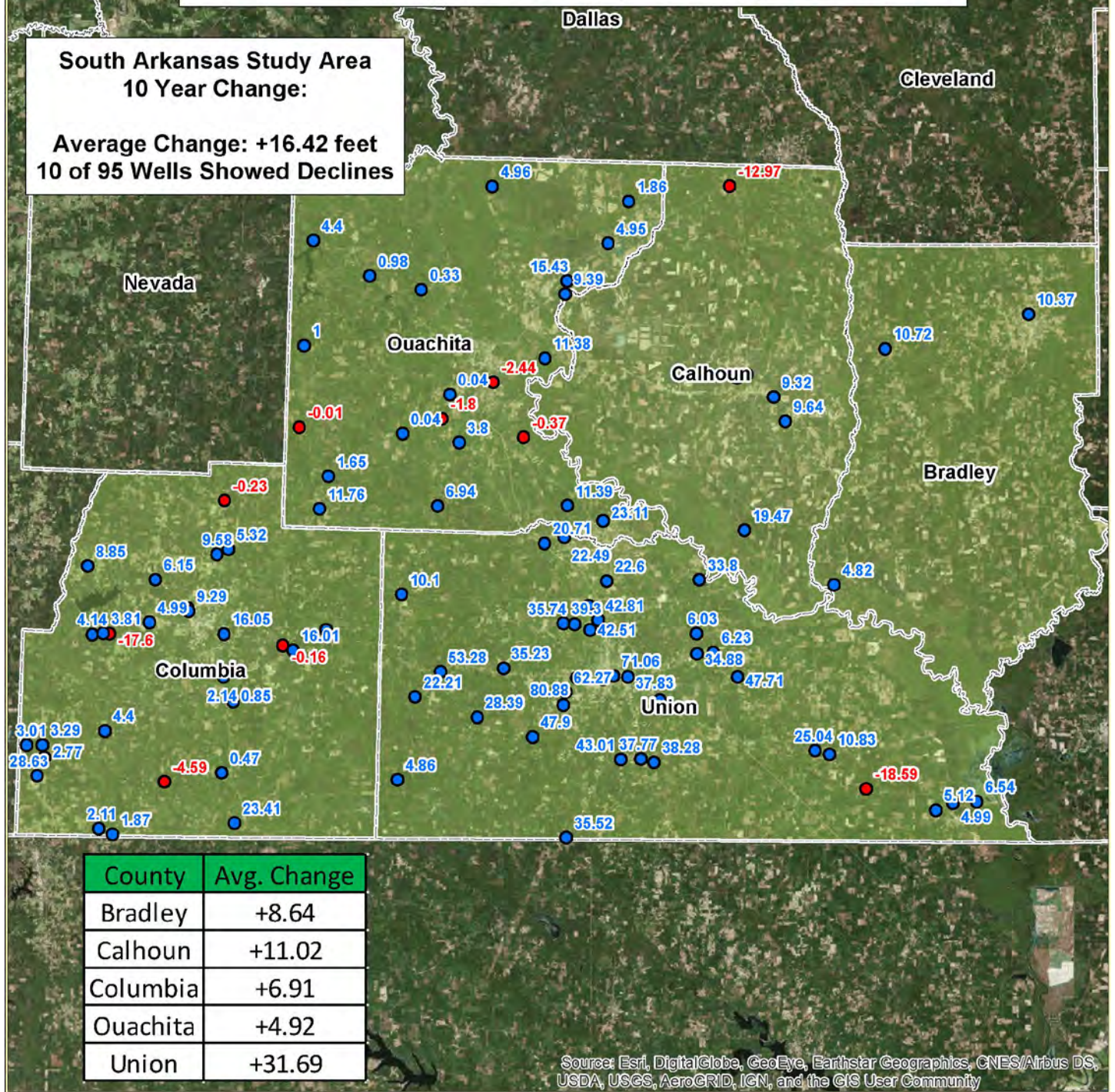


Fig. 14

South Arkansas Study Area 2007-2017 Water Level Changes (Sparta Aquifer)

South Arkansas Study Area
10 Year Change:

Average Change: +16.42 feet
10 of 95 Wells Showed Declines



Legend

0 4.5 9 18 27 Miles

- Wells with Increases
- Wells with Declines
- South Arkansas Study Area



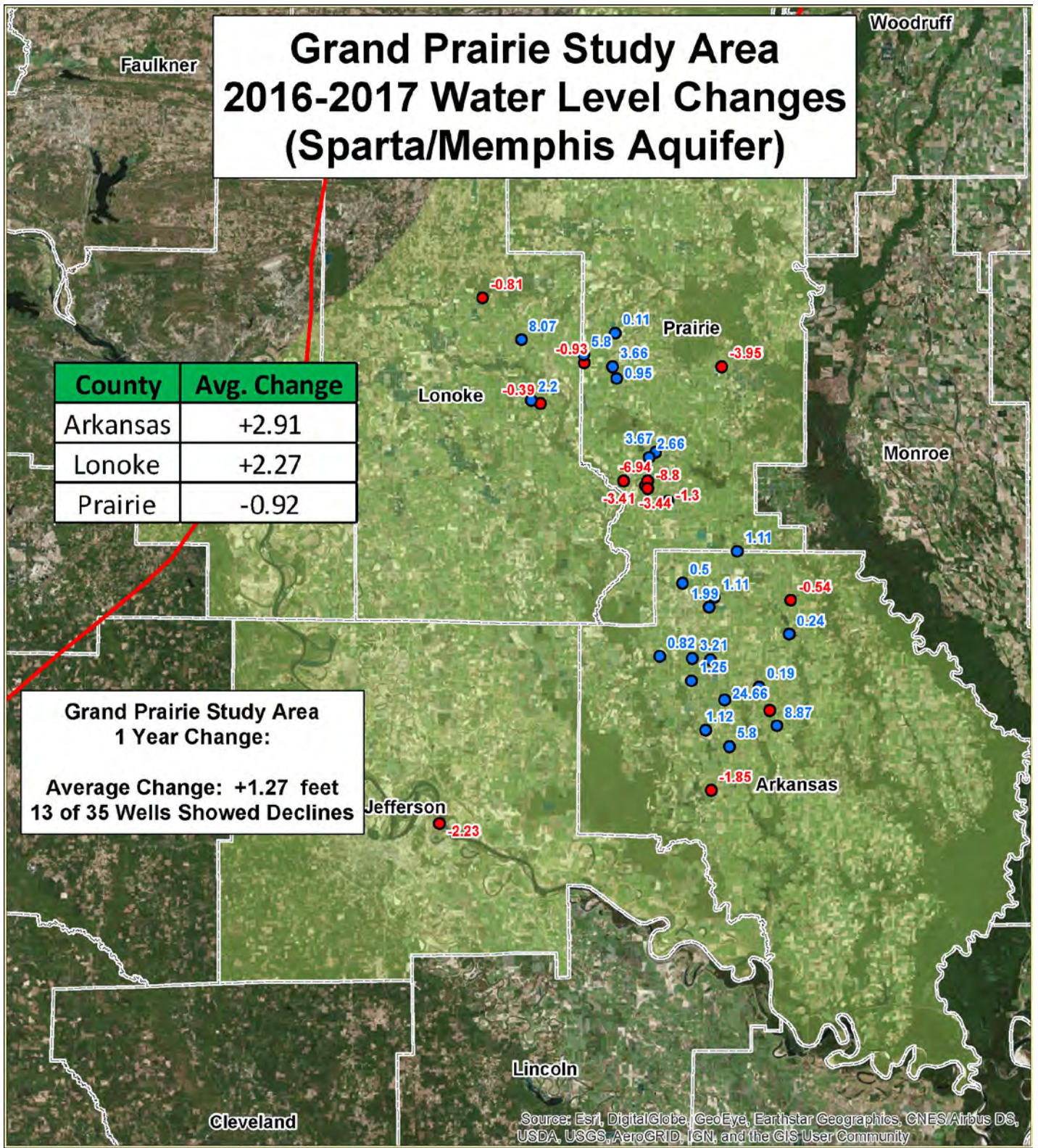
Fig. 15

Grand Prairie Study Area 2016-2017 Water Level Changes (Sparta/Memphis Aquifer)

County	Avg. Change
Arkansas	+2.91
Lonoke	+2.27
Prairie	-0.92

**Grand Prairie Study Area
1 Year Change:**

**Average Change: +1.27 feet
13 of 35 Wells Showed Declines**



Legend

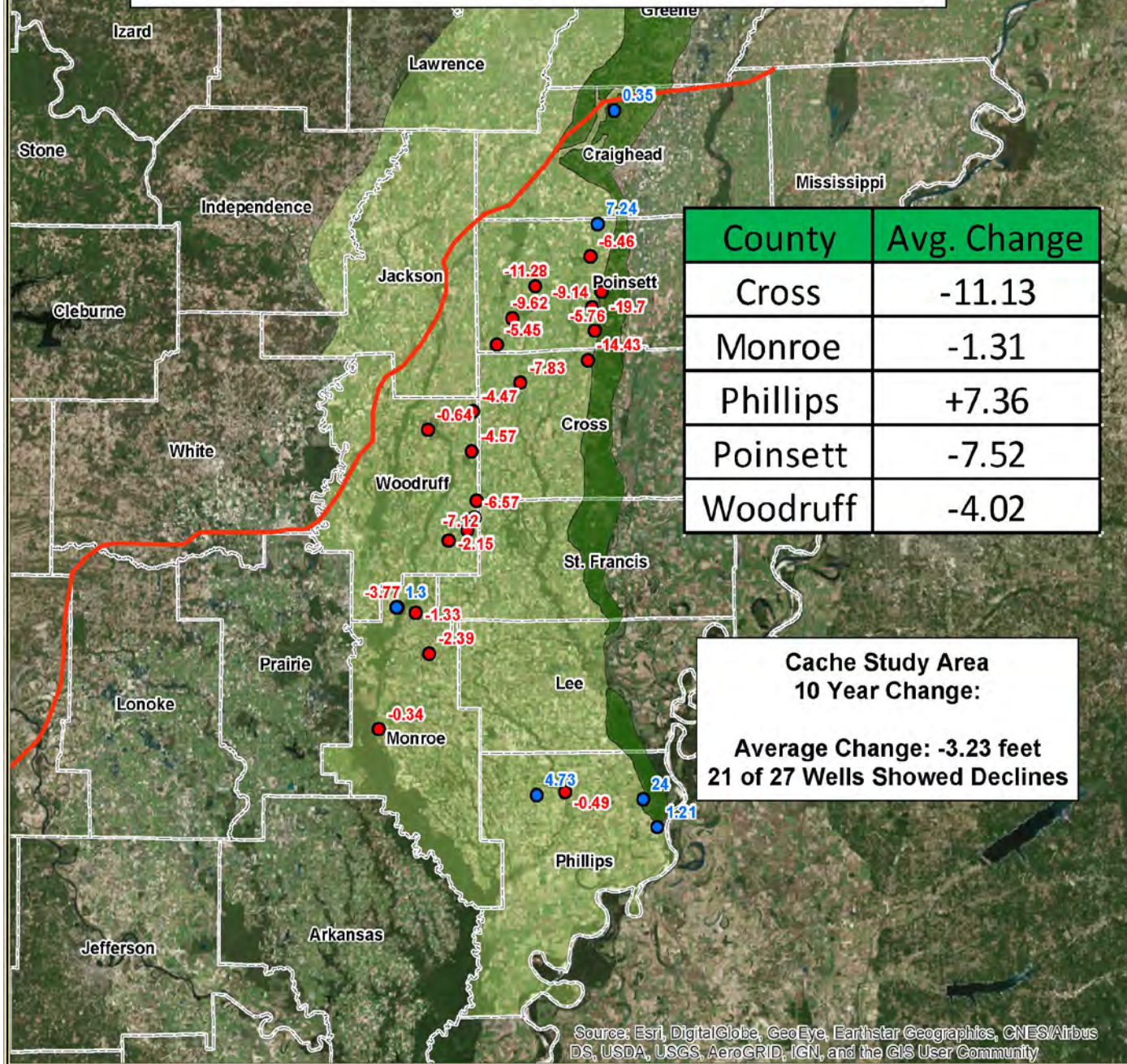
- Wells with Increases
- Wells with Declines
- Sparta Boundary
- + Grand Prairie Study Area

0 4 8 16 24 Miles



Fig. 16

Cache Study Area 2007-2017 Water Level Changes (Sparta/Memphis Aquifer)



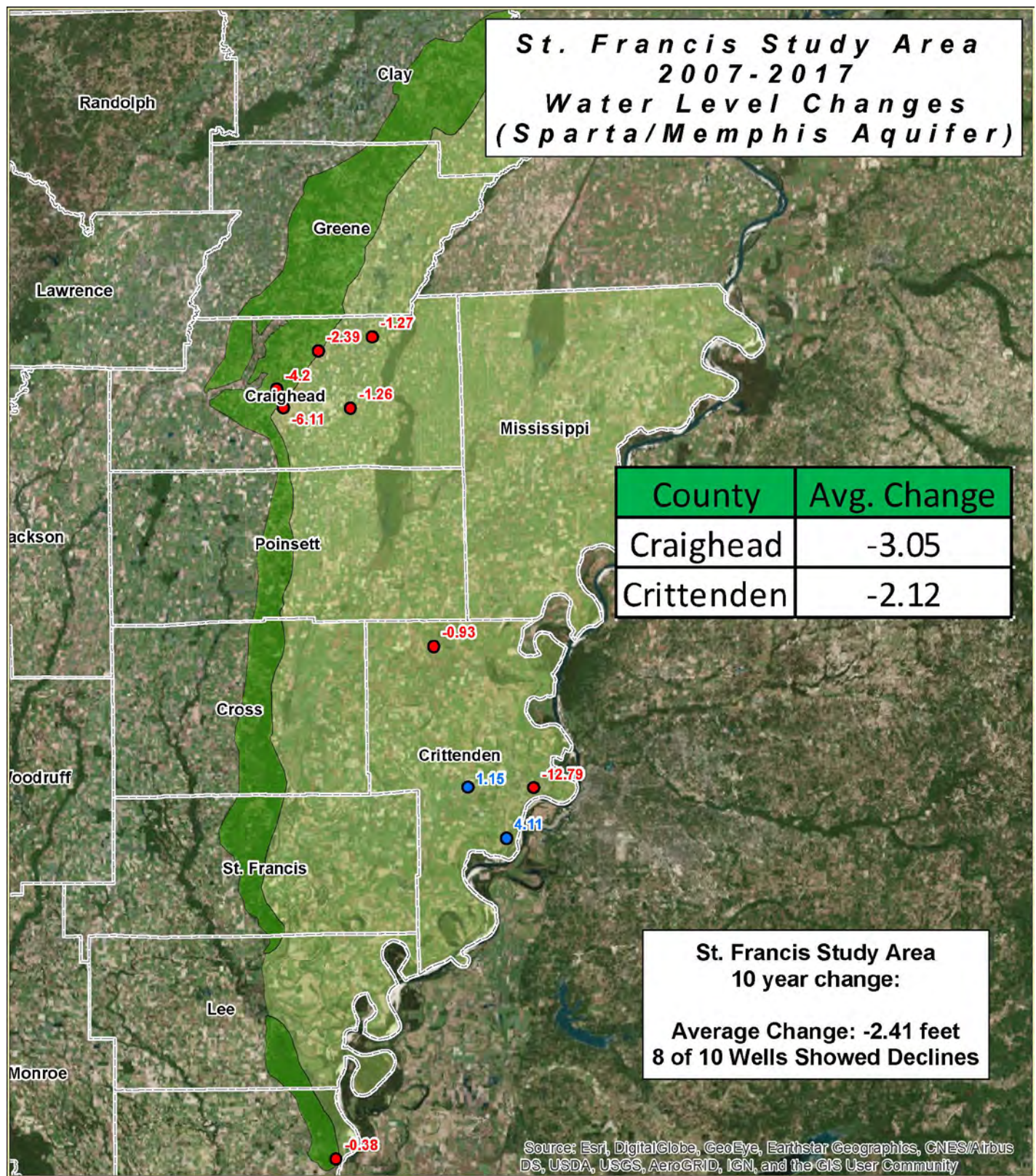
Legend

- Wells with Increases
- Wells with Declines
- Sparta Boundary
- Crowleys Ridge
- Cache Study Area

0 5 10 20 30 Miles



Fig. 17



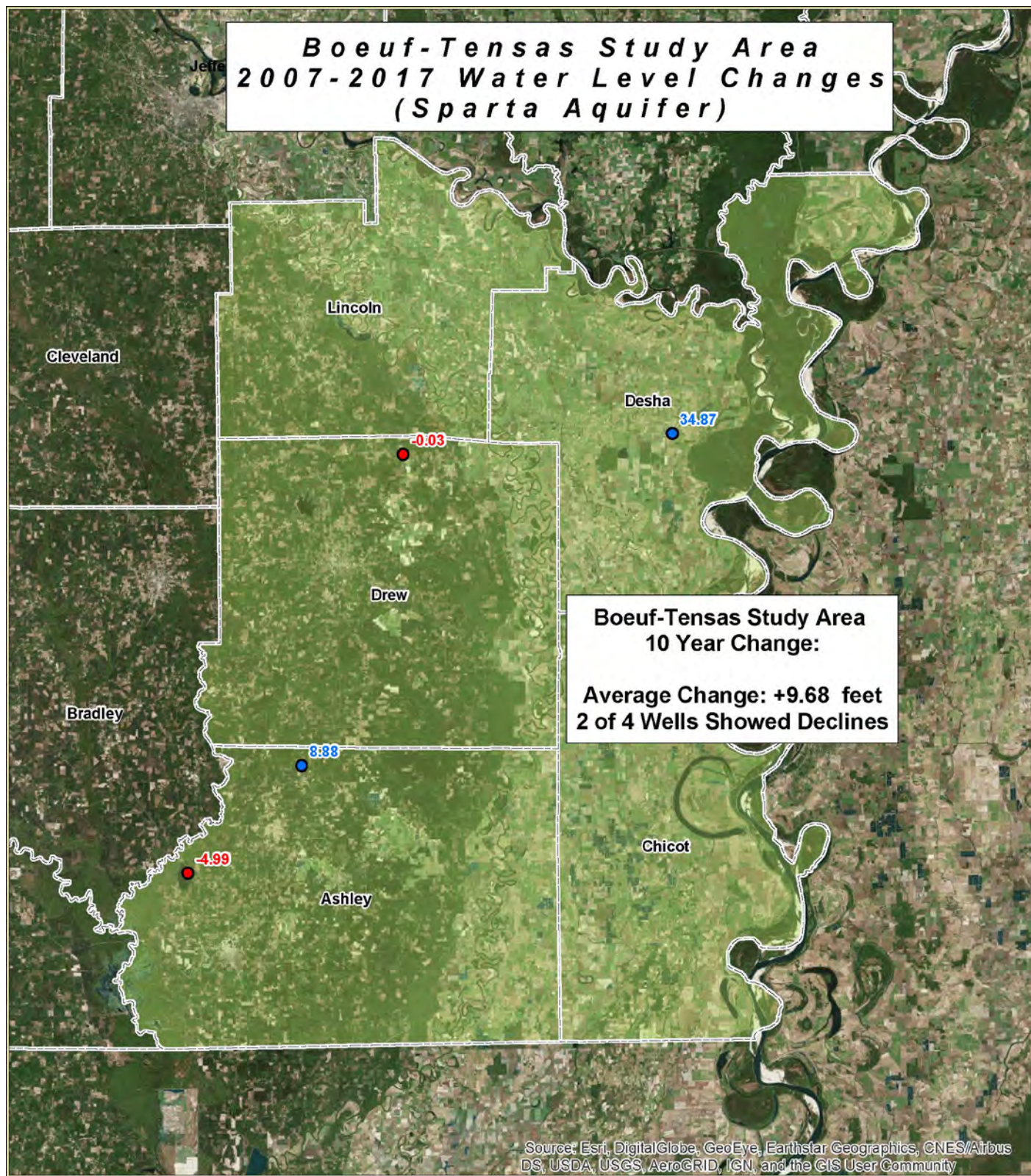
Legend

- Wells with Increases
- Wells with Declines
- ✖ Crowley's Ridge
- + St. Francis Study Area

0 4.5 9 18 27 Miles



Fig. 18



Legend

- Wells with Increases
- Well with Declines
- Boeuf-Tensas Study Area

0 4.5 9 18 27 Miles



Fig. 19

GROUND WATER USE

REGISTERED WELLS

In accordance with Act 1051 of 1985, all wells in Arkansas that have the capacity to produce fifty thousand (50,000) gallons per day must be registered with the ANRC. Domestic wells are exempt. The quantity used must be reported by March 1st of the following year. USGS reports show there are approximately 50,000 registered wells reported in the State, of which over 97% are agricultural wells, most of which are irrigation wells located primarily in eastern Arkansas. The remaining approximate 3% reported wells are used predominately for commercial, industrial, and public water supply purposes.

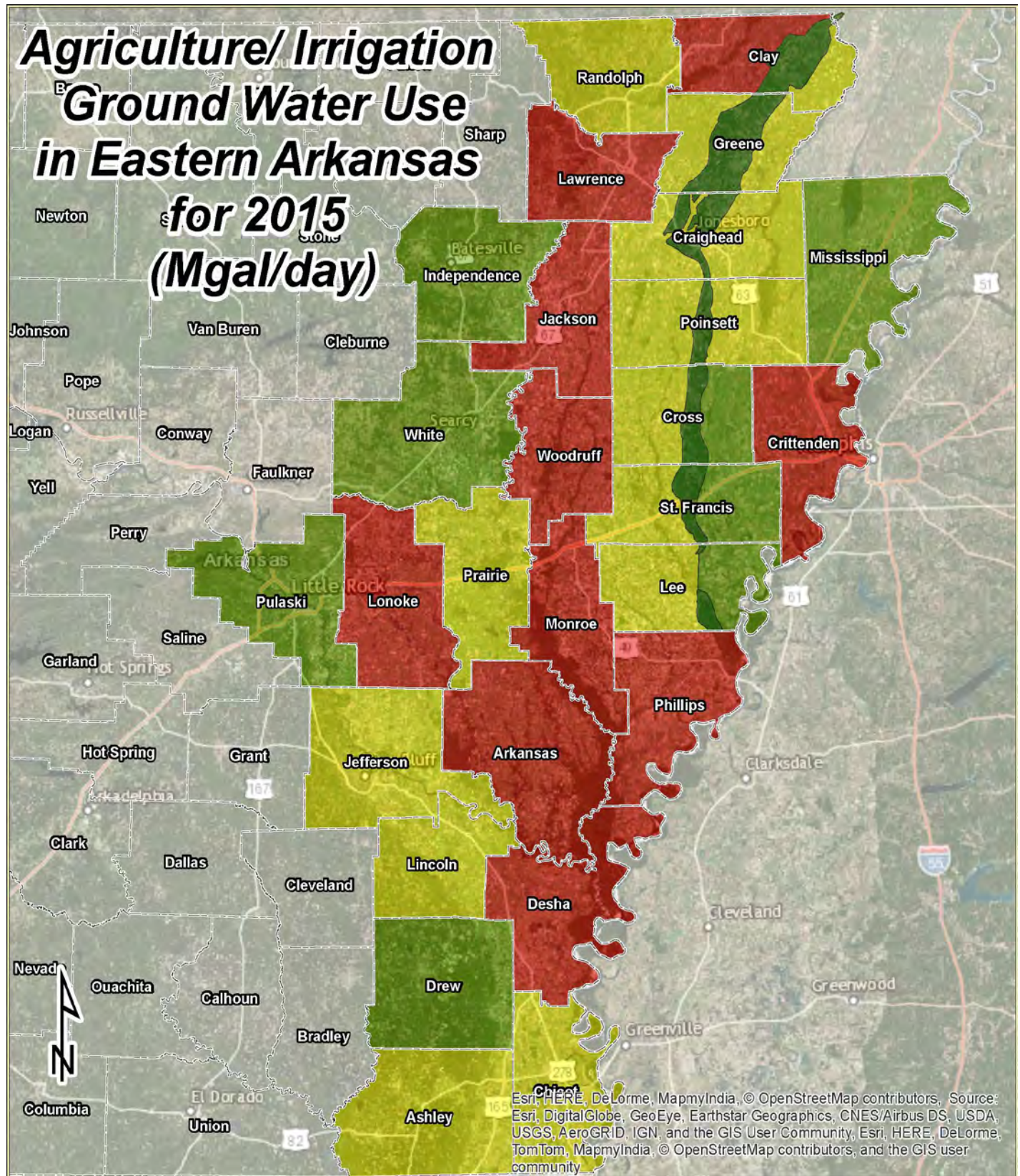
REPORTED WATER USE

In 2015 an estimated 8254.60 million gallons per day (Mgal/d) of water were reported to be withdrawn from all the State's aquifers. The greatest reported volume was pumped from the alluvial aquifer and used primarily for irrigation. There was 7,255 Mgal/d reported pumped from the alluvial aquifer in 2014, 98% of which was used for irrigation of crops. Historically counties that report the largest groundwater withdrawals from the alluvial aquifer are; Poinsett, Cross, Jackson, Arkansas, and Clay. The reported total estimated groundwater use from the alluvial aquifer during 2015 was approximately 7,000 Mgal/d. Due to updates in reporting use by the registered users, this number is still being revised.

The Sparta/Memphis aquifer is the second largest aquifer in terms of withdrawals. The reported groundwater use from the Sparta/Memphis aquifer continues to average around 160 Mgal/d, mostly used for municipal and industrial purposes. Jefferson County was the largest user of Sparta/Memphis water of all the counties, with an average withdrawal rate of 42.29 Mgal/d, followed by Arkansas County with a rate of 26.90 Mgal/d in 2012.

It is important to note that mainly due to increases in the Sparta/Memphis aquifer for irrigation in the area, Arkansas County is now the second largest user of this aquifer's resources, with an average withdrawal of approximately 26 Mgal/d. Jefferson County is the largest user of Sparta/Memphis ground-water, with an average withdrawal of 42 Mgal/d.

Agriculture/ Irrigation Ground Water Use in Eastern Arkansas for 2015 (Mgal/day)



Legend 0 15 30 60 90 120 Miles

- Greater than 10 - 100 Mgal/day
- Greater than 100 - 300 Mgal/day
- Greater than 300 - 873 Mgal/day
- No Data Available
- ✂ Crowley's Ridge

*Data Obtained from United States Geological Survey

The water use values shown in the counties divided by Crowley's Ridge represent the separation of water use based on location East or West of the ridge.



Fig. 20

SUMMARY

The Ground Water Protection and Management Report for 2017 is a summary of the activities and significant findings of the Arkansas Natural Resources Commission (ANRC). This report is prepared annually in response to legislative mandates that direct the ANRC to study the State's groundwater resources.

The purposes of the programs outlined in this report are to monitor the condition of the State's groundwater resources and to evaluate trends in water-level and water-quality fluctuations. The ANRC, the NRCS, and the USGS monitor over 1,000 water wells each year for water levels and prescribed water quality parameters. This monitoring is accomplished through a cooperative agreement with the ANRC and the USGS.

Spring water-level measurements from 2016 to 2017 provided short term data indicating an overall average increase in water levels. The overall change in the alluvial aquifer for spring 2016 to spring 2017 was +0.52 feet with 58.6 percent of measured wells showing a water-level decline.

In the Sparta/Memphis aquifer 41.8% of the wells measures from 2016 to 2017 showed declines, with the aquifer average change being +2.91 feet. The water levels in the Cache Study area had an average change of -3.23 feet in the Sparta/Memphis Aquifer from 2007 to 2017. The areas of heightened concern due to water-level decline continue to be in the Grand Prairie, South Arkansas, and Cache Study Areas. Fluctuations may be observed in ground-water levels over a short time period, however long term records illustrate the seriousness of the declines in groundwater levels as illustrated by the long term change maps.

Arkansas is withdrawing ground water from the alluvial and Sparta/Memphis aquifers in eastern and southern Arkansas at a rate which is far above sustainable. With this in mind, the ANRC should continue to promote conservation, education, and the conjunctive use of ground and surface-water at rates that are sustainable for current and future water use needs.

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Appendix A

Alluvial Aquifer Water Level Monitoring Data

Alluvial Aquifer

Depth to Water 2007-2012-2016-2017

County	Station ID	Latitude	Longitude	Date	2017 DTW	Aquifer Thick.	Sat. ft.	% Sat.	2016 DTW	2012 DTW	2007 DTW	16-17 Change	12-17 Change	07-17 Change
Arkansas	02S04W11DBB1	34.54246944	-91.404225	3/30/2017	98.86	130.64	31.78	24.32		100.08	104.65		1.22	5.79
Arkansas	02S05W31BBB1	34.4935306	-91.593394	3/29/2017	77.28	113.14	35.86	31.70	7.28	20.69	37.00			
Arkansas	03S03W05CCD1	342737.02	912131.83	3/30/2017	99.44	122.47	23.03	18.81	100.11	99.78	99.30	0.67	0.34	(0.14)
Arkansas	03S03W18CCC1	342553	912251	2/1/2017	101.55	117.13	15.58	13.30	101.24	101.04	99.71	(0.31)	(0.51)	(1.84)
Arkansas	03S04W02BBB1	342831	912454	3/30/2017	93.40	121.40	28.00	23.06	93.52	93.35	92.80	0.12	(0.05)	(0.60)
Arkansas	03S02W27ABB1	34.41331111	-91.21416944	4/4/2017	62.47	126.50	64.03	50.62		62.76	66.00		0.29	3.53
Arkansas	03S04W03DCA16	342753.04	912515.37	9/19/2017	101.39	120.82	19.43	16.08	101.78	101.55	100.92	0.39	0.16	(0.47)
Arkansas	03S05W03CCC1	342752.15	913227.43	4/5/2017	103.35	127.76	24.41	19.11	103.10	103.88	105.10	(0.25)	0.53	1.75
Arkansas	03S05W13CBA2	342630	913007	2/1/2017	106.14	136.70	30.56	22.35	105.28	106.79		(0.86)	0.65	
Arkansas	03S05W24DAA1	342525.17	912921.98	3/30/2017	45.81	127.07	81.26	63.95	47.66	47.77	37.50	1.85	1.96	(8.31)
Arkansas	03S06W35ADD1	342411.4	913651.67	3/29/2017	55.45	105.76	50.31	47.57	55.00	59.93	57.00	(0.45)	4.48	1.55
Arkansas	04S01W31DCB1	34.29818056	-91.16370556	4/4/2017	41.76				50.04	50.04	54.60		8.28	12.84
Arkansas	04S03W17ADD1	342101.87	912058.11	4/5/2017	109.86	145.10	35.24	24.29	110.40	111.77	108.30	0.54	1.91	(1.56)
Arkansas	04S03W32BCB/B1	34.30636944	-91.36685	4/5/2017	110.45	158.30	47.85	30.23	119.92	118.85		9.47	8.40	
Arkansas	04S04W02ABB1	342313.2	912423.69	4/5/2017	110.92	140.58	29.66	21.10	111.40	110.06	109.50	0.48	(0.86)	(1.42)
Arkansas	04S04W35ABC1	34.30982108	-91.41040032	4/24/2017	92.00	166.70	74.70	44.81	92.00	91.20		0.00	(0.80)	
Arkansas	04S01W19AAD1	34.33658611	-91.1553722	4/4/2017	61.10	154.40	93.30	60.43						
Arkansas	05S03W09CBA1	341624	912046	2/1/2017	113.90	168.00	54.10	32.20	115.74	114.71	113.19	1.84	0.81	(0.71)
Arkansas	05S03W16ABB1	34.26621093	-91.34039836	4/4/2017	115.40	172.50	57.10	33.10	115.70		115.50	0.30		0.10
Arkansas	05S04W04BAA1`	34.29732081	-91.44845648	4/5/2017	75.44	163.80	88.36	53.94						
Arkansas	05S01W16BAB1	34.26433056	-91.12485833	4/4/2017	49.47	170.46	120.99	70.98		45.90			(3.57)	
Arkansas	05S04W14AAD1	34.26371032	-91.40317736	4/5/2017	90.30	162.60	72.30	44.46	94.02		93.50	3.72		3.20
Arkansas	05S04W32BBA1	341315.97	912821.81	3/29/2017	54.57	168.31	113.74	67.58	55.24	56.62	58.30	0.67	2.05	3.73
Arkansas	05S04W34BAC1	34.21926589	-91.43428882	3/29/2017	65.83									
Arkansas	06S02W03AB1	34.20760146	-91.21706176	4/5/2017	68.29									
Arkansas	06S03W10BBA1	341135.97	911953.82	3/29/2017	80.84	164.03	83.19	50.72	81.80	79.36	83.00	0.96	(1.48)	2.16
Arkansas	06S03W27AAA1	340857.58	911912.78	3/29/2017	65.06	165.11	100.05	60.60	65.51	68.28	68.00	0.45	3.22	2.94
Arkansas	06S03W32DDO/A1	34.1277778	-91.354167	2/1/2017	54.34	160.48	106.14	66.14	56.99	56.82	56.14	2.65	2.48	1.80
Arkansas	06S02W23DCD1	34.14795	-91.2018	4/5/2017	61.17					74.20	64.50		13.03	3.33
Arkansas	07S02W04BBB1	34.1186528	-91.247747	4/5/2017	48.56	158.83	110.27	69.43	58.41	49.26	46.50	9.85	0.70	(2.06)
Arkansas	07S02W17BBA1	34.09162222	-91.26072778	4/5/2017	48.95	164.30	115.35	70.21	43.40	48.89	54.30	(5.55)	(0.06)	5.35
Arkansas	07S04W01DD1	34.10701389	-91.390875	3/29/2017	29.36	163.40	134.04	82.03		21.91			(7.45)	
Arkansas	07S03W18CD1	340435.28	912316.09	3/29/2017	40.68	137.84	97.16	70.49	42.43	41.34	43.10	1.75	0.66	2.42
Arkansas	07S03W32BBC1	340240	912216	3/29/2017	23.90	152.99	129.09	84.38	23.61	24.22	26.00	(0.29)	0.32	2.10
Arkansas	08S02W08ACA1	34.01139722	-91.25154722	4/5/2017	42.14	146.20	104.06	71.18	34.75	40.66	43.45	(7.39)	(1.48)	1.31
Arkansas	08S03W72299	340147.45	912202.5	3/29/2017	21.46	161.02	139.56	86.67	20.76	20.53	22.50	(0.70)	(0.93)	1.04

Depth to Water 2007-2012-2016-2017

Page 2

Alluvial Aquifer

Depth to Water 2007-2012-2016-2017

County	Station ID	Latitude	Longitude	Date	2017 DTW	Aquifer Thick.	Sat. ft.	% Sat.	2016 DTW	2012 DTW	2007 DTW	16-17 Change	12-17 Change	07-17 Change
Clay	19N03E24AAA1	361654.99	904157.11	5/24/2017	19.60	131.22	111.62	85.06	22.97	20.75		3.37	1.15	
Clay	19N04E19AAA1	361654.4	904049.99	5/24/2017	30.26	139.50	109.24	78.31	31.38	31.27		1.12	1.01	
Clay	19N07E258CB1	361519	901700	4/25/2017	19.00	113.01	94.01	83.19	5.30	16.60	17.00	(13.70)	(2.40)	(2.00)
Clay	19N08E08DCA1	361729	901402	4/25/2017	4.90	88.42	83.52	94.46	3.50	4.90	4.80	(1.40)	0.00	(0.10)
Clay	19N09E19CDC1	361539	900908	4/25/2017	6.90	132.13	125.23	94.78	5.70	6.90		(1.20)	0.00	
Clay	20N04E03ADA1	362425	903725	4/24/2017	15.20	128.66	113.46	88.19	16.00	13.90		0.80	(1.30)	
Clay	20N05E22CAD1	362118	903132	4/24/2017	37.90	122.82	84.92	69.14	31.60	29.00	27.10	(6.30)	(8.90)	(10.80)
Clay	20N05E34DBA1	361939.31	903117.17	6/13/2017	32.05	121.53	89.48	73.63	34.00	31.69		1.95	(0.36)	
Clay	20N06E09BBA1	362327	902620	4/24/2017	22.90	103.34	80.44	77.84	22.70	22.20	20.00	(0.20)	(0.70)	(2.90)
Clay	20N08E22BDC1	362111	901220	4/25/2017	7.30	37.06	29.76	80.30	6.60	8.10	8.00	(0.70)	0.80	0.70
Clay	20N09E09ABC1	362306	900642	4/25/2017	6.60	87.08	80.48	92.42	5.90	5.40	6.20	(0.70)	(1.20)	(0.40)
Clay	21N03E36CDD1	362450	904214	4/24/2017	18.80	138.22	119.42	86.40	23.40	10.50	18.00	4.60	(8.30)	(0.80)
Clay	21N04E09DBC1	362828	903853	4/24/2017	11.90	128.87	116.97	90.77	13.00	12.00	9.50	1.10	0.10	(2.40)
Clay	21N08E03CDB1	362848	901217	4/25/2017	17.90				17.90	20.40	18.00	0.00	2.50	0.10

Alluvial Aquifer

Depth to Water 2007-2012-2016-2017

[illegible]

Alluvial Aquifer

[illegible]

Alluvial Aquifer

Depth to Water 2007-2012-2016-2017

[illegible]

Alluvial Aquifer

[illegible]

Alluvial Aquifer

County	Station ID	Latitude	Longitude	Date	2017 DTW	Aquifer Thick.	Sat. ft.	% Sat.	2016 DTW	2012 DTW	2007 DTW	16-17 Change	12-17 Change	07-17 Change
Lee	O3N02E29DAD1	34.83711667	-90.90827222	3/28/2017	49.18	155.00	105.82	68.27	50.34	46.51	45.10	1.16	(2.67)	(4.08)
	O3N05E14DDA1	34.5148.08	903203.25	3/28/2017	13.56	147.53	133.97	90.81	12.09	11.57	14.30	(1.47)	(1.99)	0.74
	O3N03E05CDD1	34.89092776	-90.81039049	4/28/2017	58.00					40.00	52.00		(18.00)	(6.00)
	O3N04E07CBB1	34.8792614	-90.72010976	4/28/2017	22.00					27.00	33.00		5.00	11.00
	O3N03E18DAB1	34.86842829	-90.82205755	4/24/2017	36.50						29.00			(7.50)
	O1N01E09CCC1	34.70426451	-91.01511862	4/17/2017	43.50					36.00	35.50		(7.50)	(8.00)
	O1N01E04AAB1	34.73287537	-91.0042856	4/17/2017	43.50					37.50			(6.00)	
	O1N02E11BAB1	34.71537575	-90.86900034	4/24/2017	39.00					37.00	33.00		(2.00)	(6.00)
Lee	O1N03E35BBA1	343923	904549	3/28/2017	21.20	138.93	117.73	84.74	18.12	15.91	14.05	(3.08)	(5.29)	(7.15)
	O1N02E12ABB1	34.715098	-90.84455825	4/24/2017	40.00						35.00			(5.00)
	O1N03E27ADD1	34.66454325	-90.76816722	4/17/2017	23.20					29.00	15.00		5.80	(8.20)
	O1N01E24CBD1	34.67593166	-90.95817239	4/17/2017	26.00					21.00	21.00		(5.00)	(5.00)
	O1N02E33CCCB1	34.64759876	-90.90928203	4/17/2017	16.00					15.50	14.00		(0.50)	(2.00)
	O1N02E33CBB1	34.64954318	-90.90955983	4/17/2017	18.00					30.50	17.00		12.50	(1.00)
	O2N01E23BAA2	344631.74	905820.4	3/21/2017	58.72	156.48	97.76	62.47	58.29	53.60	51.10	(0.43)	(5.12)	(7.62)
Lincoln	O7S06W03CCA2	34.14121007	-91.68735067	3/21/2017	19.10	114.30	95.20	83.29	15.00	16.00	22.00	(4.10)	(3.10)	2.90
	O7S07W36CBD	34.069822	-91.75818611	3/16/2017	39.10	116.20	77.10	66.35	40.00	42.00	38.00	0.90	2.90	(1.10)
	O8S04W06ABD1	34.06148891	-91.52123503	3/16/2017	19.10	101.50	82.40	81.18	22.00	12.00	15.00	2.90	(7.10)	(4.10)
	O8S04W29ABC1	34.00593389	-91.51234584	3/21/2017	50.10				49.00	32.00	40.00	(1.10)	(18.10)	(10.10)
	O8S05W12AAD1	34.04621128	913214	3/16/2017	19.50	109.90	90.40	82.26	19.00	32.00		(0.50)	12.50	
	O8S05W21DCD1	34.00760057	-91.5926259	3/21/2017	35.60	129.70	94.10	72.55	30.00	26.00	36.00	(5.60)	(9.60)	0.40
	O8S05W32DCC1	33.97787891	-91.6123487	3/16/2017	48.70	137.30	88.60	64.53	51.00	62.00	45.00	2.30	13.30	(3.70)
	O9S05E19CCC1	33.90788036	-91.66151675	3/21/2017	37.00	131.40	94.40	71.84	37.00	40.00		0.00	3.00	
	O9S06W04BDD	33.96649027	-91.72651858	3/16/2017	49.20	122.90	73.70	59.97	49.00		36.00	(0.20)		(13.20)
	O10S05W05BCB1	33.874444	-91.6425	2/8/2017	30.71						27.60			(3.11)
Lonoke	O1S06W32BBB1	34.58370603	-91.68235396	4/13/2017	79.43									
	O1S07W19DB1	34.6025	-91.7961111	1/31/2017	91.97									
	O1N08W03DDA1	34.73648044	-91.84735917	4/14/2017	141.03									
	O1N09W07DAA1	34.72703549	-92.00819695	4/14/2017	44.77									
	O1S09W02DDD1	34.6492592	-91.93986137	4/13/2017	81.01									
Lonoke	O1S10W15CDA1	34.7100916	-92.07069889	4/14/2017	19.24									

Alluvial Aquifer

County	Station ID	Latitude	Longitude	Date	2017 DTW	Aquifer Thick.	Sat. ft.	% Sat.	2016 DTW	2012 DTW	2007 DTW	16-17 Change	12-17 Change	07-17 Change
Lonoke	01S10W11CAB1	34.6447222	-92.06027778	1/31/2017	30.02									
Lonoke	02N07W07DAA1	34.81259072	-91.78541377	4/10/2017	138.87						132.00			(6.87)
Lonoke	02S07W05DC1	34.5573169	-91.78763405	4/13/2017	74.07					75.00			0.93	
Lonoke	02S08W06BAA1	343430	915447	1/31/2017	70.08	119.82	49.74	41.51	70.16	68.55		0.08	(1.53)	
Lonoke	02N08W23CAB1	34.78314638	-91.85513762	4/10/2017	136.11									
Lonoke	02S08W28DC1	343007	915237	2/1/2017	65.62	121.86	56.24	46.15	65.06	62.93		(0.56)	(2.69)	
Lonoke	02S09W26DC1	34.50537272	-91.9454765	4/13/2017	54.92					52.00			(2.92)	
Lonoke	02S09W22AAA1	34.53148335	-91.95763921	4/13/2017	57.23					63.00			5.77	
Lonoke	02N10W15ACC1	34.80203466	-92.06458826	4/14/2017	33.64					28.00			(5.64)	
Lonoke	03N07W08BDB1	34.90183389	-91.77773	3/17/2017	98.77				101.56	99.69		2.79	0.92	
Lonoke	03N07W29CDD1	34.8492569	-91.77569165	4/10/2017	111.23					110.00			(1.23)	
Lonoke	03N07W29ADA1	34.857925	-91.76622222	3/8/2017	97.93	152.70	54.77	35.87	97.32	94.22	96.00	(0.61)	(3.71)	(1.93)
Lonoke	03N08W03BAA1	34.92181667	-91.8482	3/8/2017	104.85				103.63	101.10		(1.22)	(3.75)	
Lonoke	03N08W03CCC1	34.90829444	-91.85644444	3/8/2017	110.91				109.80	107.52		(1.11)	(3.39)	
Lonoke	03N08W08ABA1	34.90749444	-91.87996389	3/14/2017	100.64				101.56	98.81		0.92	(1.83)	
Lonoke	03N08W10ACB1	34.90406944	-91.84798333	3/14/2017	94.04				95.63	95.33		1.59	1.29	
Lonoke	03N08W10ADD1	34.90029444	-91.83966111	3/8/2017	102.10				99.60	97.14		(2.50)	(4.96)	
Lonoke	03N08W11ACA1	34.90353333	-91.82618333	2/16/2017	107.28				107.31	104.72		0.03	(2.56)	
Lonoke	03N08W26DC1	34.85008997	-91.83541561	4/7/2017	111.04						108.20			(2.84)
Lonoke	03N08W29BBB1	34.86308333	-91.89244722	3/8/2017	115.09				115.22	113.58		0.13	(1.51)	
Lonoke	03N08W29BCC1	34.85694722	-91.89261111	3/14/2017	118.71				119.03	124.16		0.32	5.45	
Lonoke	03N08W32ABB1	34.849475	-91.88111667	9/18/2017	122.80	189.20	66.40	35.10	122.17	120.78	119.85	(0.63)	(2.02)	(2.95)
Lonoke	04N08W19BBB1	34.9648333	-91.9088333	9/19/2017	18.95									
Lonoke	04N08W28CCC1	34.93738056	-91.87369722	3/15/2017	67.18				63.40	62.58		(3.78)	(4.60)	
Lonoke	04N08W33ABD1	34.93294444	-91.86147222	3/14/2017	94.54				92.40	90.43		(2.14)	(4.11)	
Lonoke	04N08W33ACD	34.92969444	-91.86136111	3/14/2017	113.73				110.76			(2.97)		
Lonoke	04N08W33ADB1	34.93127778	-91.85694444	3/14/2017	114.46				103.75	106.31		(10.71)	(8.15)	
Lonoke	04N08W33ADD	34.92952778	-91.82067222	3/14/2017	110.03				105.05	103.06		(4.98)	(6.97)	
Lonoke	04N08W36DBB1	34.927925	-91.82067222	3/14/2017	99.41				97.76	95.06		(1.65)	(4.35)	
Mississippi	10N08E22ABA2	352850.89	901312.16	4/26/2017	26.08	150.74	124.66	82.70	28.24	26.42	24.20	2.16	0.34	(1.88)
Mississippi	11N09E34BBB1	353217.73	900715.17	4/25/2017	20.23	190.78	170.55	89.40	20.79	16.99	18.00	0.56	(3.24)	(2.23)
Mississippi	12N08E088CB1	354047.06	901559.25	4/26/2017	10.86	134.35	123.49	91.92	7.53	9.64	8.60	(3.33)	(1.22)	(2.26)
Mississippi	13N09E30CCD1	354247.81	901028.63	4/26/2017	13.75	148.24	134.49	90.72	6.57	12.83	10.20	(7.18)	(0.92)	(3.55)
Mississippi	14N08E12DAB1	35.85115833	-90.18109444	4/26/2017	6.91	166.10	159.19	95.84	3.33	6.12	6.40	(3.58)	(0.79)	(0.51)
Mississippi	15N08E08DBC2	35.93471111	-90.25729444	4/26/2017	10.94	179.10	168.16	93.89	8.70	11.24	10.50	(2.24)	0.30	(0.44)
Mississippi	16N11E23ADA1	35.99645556	-89.87534167	4/26/2017	11.84	155.40	143.56	92.38	10.21	13.57	13.00	(1.63)	1.73	1.16

Depth to Water 2007-2012-2016-2017

County	Station ID	Latitude	Longitude	Date	2017 DTW	Aquifer Thick.	Sat. ft.	% Sat.	2016 DTW	2012 DTW	2007 DTW	16-17 Change	12-17 Change	07-17 Change
								90.98				5	4	6
								82.70		Total Wells:		7	7	7
								95.84		Average Change:		(2.18)	(0.54)	(1.39)
Monroe	01N01W15DBC1	34.69416667	-91.095	2/15/2017	55.14									
Monroe	01N03W20BBA	34.5939694	-91.354925	3/21/2017	78.20	153.40	75.20	49.02	80.00	69.00			(2.46)	
Monroe	01N03W23BAC1	344124	911743	3/27/2017	17.82	119.93	102.11	85.14	18.00	9.50	15.00	0.18	(8.32)	(2.82)
Monroe	01N03W24BBB1	34.69311389	-91.28071944	4/25/2017	33.82	137.10	103.28	75.33	27.79	26.08	28.90	(6.03)	(7.74)	(4.92)
Monroe	01S01W180CD1	343617.76	910849.2	4/25/2017	25.28	148.85	123.57	83.02	25.41	23.96	23.90	0.13	(1.32)	(1.38)
Monroe	01S02W20BBB1	343612.7	911456.1	3/22/2017	11.80	138.87	127.07	91.50	9.00	9.68	11.60	(2.80)	(2.12)	(0.20)
Monroe	02N01W19ADD1	344624	910814	3/21/2017	40.20	148.91	108.71	73.00						
Monroe	02N01W19BBA1	344645.21	910912.46	4/25/2017	56.57	147.01	90.44	61.52	57.62	56.34	53.30	1.05	(0.23)	(3.27)
Monroe	02S01W01BCD1	343305	910408	3/22/2017	22.20	145.90	123.70	84.78	18.00	17.00		(4.20)	(5.20)	
Monroe	02S02W11DAC1	343208.97	911100.58	4/25/2017	8.85	122.75	113.90	92.79	5.10	6.80	9.50	(3.75)	(2.05)	0.65
Monroe	01N04W33BBB2	343959.52	912648.52	4/25/2017	110.12	154.16	44.04	28.57	103.44	104.94	104.20	(6.68)	(5.18)	(5.92)
Monroe	01S01W13CDD1	343610.94	910340.54	4/25/2017	24.04	146.19	122.15	83.56	23.81	21.33	22.25	(0.23)	(2.71)	(1.79)
Monroe	01S01W16DB	343615	910632	3/22/2017	24.80	145.37	120.57	82.94	24.00	19.00	19.00	(0.80)	(5.80)	(5.80)
Monroe	01S04W01BAB1	343905.86	912316.73	4/25/2017	76.32	154.67	78.35	50.66	74.64	74.73	77.70	(1.68)	(1.59)	1.38
Monroe	02N03W35BCA1	344455	911745	3/27/2017	31.85	133.60	101.75	76.16	38.00	27.00	30.00	6.15	(4.85)	(1.85)
Monroe	03N01W20ABA1	345201.18	910722.83	4/25/2017	54.99	144.94	89.95	62.06	54.77	50.06	48.10	(0.22)	(4.93)	(6.89)
Monroe	03N02W31ADC1	344958.28	911447.2	4/25/2017	40.72	137.28	96.56	70.34	40.19	38.27		(0.53)	(2.45)	
Monroe	03N03W36AAA1	345026.65	911547.12	4/25/2017	21.85	124.43	102.58	82.44	19.69	18.98	19.90	(2.16)	(2.87)	(1.95)
Monroe	04N02W01BCC1	345929	911004	3/21/2017	42.30	118.45	76.15	64.29	40.00	39.50	39.00	(2.30)	(2.80)	(3.30)
Monroe	04N02W05BBB1	345957	911311	3/21/2017	15.52	95.94	80.42	83.82	18.00	15.00	15.00	2.48	(0.52)	(0.52)
Monroe	04N02W27CDD3	345540.22	911149.73	5/8/2017	46.83	151.28	104.45	69.04	47.05	45.61	46.25	0.22	(1.22)	(0.58)
Monroe	04N02W28DDD3	34.92640278	-91.2057444	5/8/2017	33.99	142.10	108.11	76.08	34.54	32.87	33.60	0.55	(1.12)	(0.39)
Monroe	01N02W12CBC1	344242.3	911031.9	4/25/2017	45.27	147.31	102.04	69.27	45.13	42.76	40.18	(0.14)	(2.51)	(5.09)
Phillips	01S01E20DDb	34.591488	-91.016229	3/8/2017	30.40	154.59	124.19	80.33	28.00	27.00	27.00	(2.40)	(3.40)	(3.40)
Phillips	01S03E02ADD	34.6373214	-90.753167	3/8/2017	23.50	129.80	106.30	81.89	19.00	19.00	18.50	(4.50)	(4.50)	(5.00)
Phillips	01S03E02CB1	34.63583333	-90.767778	3/20/2017	23.43				18.20		16.90	(5.23)		(6.53)
Phillips	01S03E20BDD1	34.59259969	-90.81289062	3/28/2017	28.70						34.00			5.30
Phillips	01S03E10ABb	34.6281549	-90.776223	3/8/2017	28.01	140.80	112.79	80.11	19.00	22.00	20.50	(9.01)	(6.01)	(7.51)
Phillips	01S02E32BCC	34.5639886	-90.924004	3/8/2017	52.90	180.13	127.23	70.63	48.00	50.80		(4.90)	(2.10)	
Phillips	01S02E09CBB1	343718.73	905434.06	3/8/2017	18.90	142.79	123.89	86.76	9.78	14.00	15.10	(9.12)	(4.90)	(3.80)
Phillips	01S04E05DCD1	34.63398865	-90.69760938	3/8/2017	52.60	146.90	94.30	64.19	52.67	48.50	50.00	0.07	(4.10)	(2.60)
Phillips	02S04E27AAC1	342931.57	904001.09	3/20/2017	10.86	85.78	74.92	87.34	8.13	8.50	10.20	(2.73)	(2.36)	(0.66)

Alluvial Aquifer

County	Station ID	Latitude	Longitude	Date	2017 DTW	Aquifer Thick.	Sat. ft.	% Sat.	2016 DTW	2012 DTW	2007 DTW	16-17 Change	12-17 Change	07-17 Change
Phillips	03S03E02DD1	34.45240556	-90.75074167	3/20/2017	23.92	120.60	96.68	80.17	22.92	19.00	21.70	(1.00)	(4.92)	(2.22)
Phillips	03S03E04DAA1	342734.52	904709.93	3/20/2017	22.39	120.17	97.78	81.37	21.06	19.53	20.25	(1.33)	(2.86)	(2.14)
Phillips	03S04E02CAA1	342732	903918	3/20/2017	16.02	121.81	105.79	86.85	9.12	11.50	16.55	(6.90)	(4.52)	0.53
Phillips	02S01E23CA1	34.50113889	-90.97848333	3/21/2017	24.00				19.50			(4.50)		
Phillips	02S01E28CCB1	342916.37	910058.18	3/21/2017	18.38	143.50	125.12	87.19	17.46	17.37	18.80	(0.92)	(1.01)	0.42
Phillips	02S03E15ACD1	343109.96	904621.48	4/4/2017	16.12	150.65	134.53	89.30	11.73	13.22		(4.39)	(2.90)	
Phillips	02S02E29DD	34.4837119	-90.912337	3/9/2017	30.70	150.65	119.95	79.62	25.00	27.00	28.50	(5.70)	(3.70)	(2.20)
Phillips	02S02E33ACC	34.4734343	-90.903447	3/9/2017	28.80	151.42	122.62	80.98	23.00	25.00	26.50	(5.80)	(3.80)	(2.30)
Phillips	02S03E34BCD	34.4745459	-90.7815	3/9/2017	21.60	122.44	100.84	82.36	21.00	19.00	20.00	(0.60)	(2.60)	(1.60)
Phillips	04S01E01AAD	34.3773243	-90.950113	3/21/2017	15.00	121.49	106.49	87.65	16.00	14.00	19.00	1.00	(1.00)	4.00
Phillips	04S01E23CCA	34.3253611	-90.891283	3/20/2017	14.02	117.24	103.22	88.04	13.58	13.11	14.70	(0.44)	(0.91)	0.68
Phillips	04S01E29CDC	34.3123245	-91.030114	3/21/2017	10.10	113.11	103.01	91.07	7.00	8.50	9.00	(3.10)	(1.60)	(1.10)
Phillips	04S01E14CDD	34.3373246	-90.977057	3/21/2017	13.40	117.42	104.02	88.59	13.00	13.00	15.00	(0.40)	(0.40)	1.60
Phillips	04S02E01DBB	34.372325	-90.848166	3/21/2017	16.70	118.73	102.03	85.93	15.00		15.00	(1.70)		(1.70)
Poinsett	10N01E02AAA	35.5348033	-90.488452	4/14/2017	135.00									
Poinsett	10N01E14CC1	352909.77	905813.38	3/16/2017	101.85	143.14	41.29	28.84	109.99	98.84	93.50	8.14	(3.01)	(8.35)
Poinsett	10N01E33ACB	35.4628604	-90.992064	4/14/2017	95.00	143.32	48.32	33.72	90.00	99.00	79.50	(5.00)	4.00	(15.50)
Poinsett	10N01E16CCB1	35.48940833	-91.00148611	3/14/2017	82.02						75.20			(6.82)
Poinsett	10N01E32CBB	35.49924.96	-91.014842	4/14/2017	79.00	145.00	66.00	45.52	80.00	82.00	76.00	1.00	3.00	(3.00)
Poinsett	10N02E15CAA	35.4945264	-90.869283	4/14/2017	113.00	146.91	33.91	23.08	115.00	112.00	105.00	2.00	(1.00)	(8.00)
Poinsett	10N02E20BAB	35.48500822	-90.905117	4/14/2017	105.00	148.19	43.19	29.14	112.00	111.00		7.00	6.00	
Poinsett	10N02E34BB1	352725.8	905231.3	4/4/2017	108.24	149.59	41.35	27.64	108.09	104.57		(0.15)	(3.67)	
Poinsett	10N03E13BCB	35.49952.5	-90.731222	4/14/2017	153.00				146.50	144.00	130.00	(6.50)	(9.00)	(23.00)
Poinsett	10N03E14DAB1	352947.21	904404.93	3/15/2017	124.78	133.24	8.46	6.35	123.90	121.34	119.00	(0.88)	(3.44)	(5.78)
Poinsett	10N03E19BCB	35.4848004	-90.818726	4/14/2017	116.00	143.26	27.26	19.03	110.00	110.00	100.00	(6.00)	(6.00)	(16.00)
Poinsett	10N03E35CDD1	352656.17	904435.97	3/15/2017	131.11				129.62	127.54		(1.49)	(3.57)	
Poinsett	10N04E35BBA	35.4625829	-90.642054	4/13/2017	19.00	112.48	93.48	83.11	16.00	15.00	18.00	(3.00)	(4.00)	(1.00)
Poinsett	10N06E11AAA1	35.51258212	-90.41704643	3/15/2017	15.27	97.90	82.63	84.40	13.12		13.30	(2.15)		(1.97)
Poinsett	10N07E28CBB	35.4592501	-90.357878	4/13/2017	29.00	110.59	81.59	73.78	30.00	30.00	30.00	1.00	1.00	1.00
Poinsett	11N04E13DDA	35.5806359	-90.60872	4/13/2017	14.00	67.97	53.97	79.40	15.00	15.50	16.00	1.00	1.50	2.00
Poinsett	11N01E17DDC1	35.5770247	-91.004287	4/14/2017	85.50	142.52	57.02	40.01	87.00	88.00		1.50	2.50	
Poinsett	11N01E26AA1	353340.33	905653.32	3/14/2017	105.41	140.02	34.61	24.72	104.27	100.92	94.40	(1.14)	(4.49)	(11.01)
Poinsett	11N01E34AAA	35.5489697	-90.966508	4/14/2017	96.50	142.48	45.98	32.27	95.00	94.00	89.00	(1.50)	(2.50)	(7.50)
Poinsett	11N02E26AAB1	353350.31	905034.19	3/14/2017	121.80	140.25	18.45	13.15	118.97	125.01	114.40	(2.83)	3.21	(7.40)
Poinsett	11N02E30BBB	35.5645249	-90.927896	4/14/2017	110.00	144.81	34.81	24.04	110.00	108.00	103.00	0.00	(2.00)	(7.00)
Poinsett	11N03E17AAB	35.5931354	-90.787336	4/14/2017	147.00				138.00	129.00		(9.00)	(18.00)	

Alluvial Aquifer

County	Station ID	Latitude	Longitude	Date	2017 DTW	Aquifer Thick.	Sat. ft.	% Sat.	2016 DTW	2012 DTW	2007 DTW	16-17 Change	12-17 Change	07-17 Change
						Avg. % Saturated:		38.28	Wells in Decline:			11	14	9
						Min Saturated:		12.63	Total Wells:			16	19	13
						Max Saturated:		86.39	Average Change:			(0.65)	(1.10)	(0.46)
Pulaski	02N10W05BCC1	34.82775	-92.09271111	4/20/2017	18.93	131.30	112.37	85.58	19.05		23.80	0.12		4.87
Pulaski	02S10W14DC1	34.53464167	-92.059375	4/20/2017	21.17	109.20	88.03	80.61	24.99	23.80	22.30	3.82	2.63	1.13
Pulaski	02S11W23BCB1	34.53091667	-92.173375	4/20/2017	18.80	106.70	87.90	82.38	21.80		23.00	3.00		4.20
						Avg. % Saturated:		82.86	Wells in Decline:			0	0	0
						Min Saturated:		80.61	Total Wells:			3	1	3
						Max Saturated:		85.58	Average Change:			2.31	2.63	3.40
Randolph	18N02E22DCC1	361045.76	905104.7	5/30/2017	41.96	150.40	108.44	72.10	42.19	40.53	38.10	0.23	(1.43)	(3.86)
Randolph	20N02E01ADD1	362424.21	904811.39	5/31/2017	6.85	138.39	131.54	95.05	9.65	10.85		2.80	4.00	
Randolph	20N03E28BA1	362113.53	904537.97	5/31/2017	8.23	137.24	129.01	94.00	10.75	10.64	10.70	2.52	2.41	2.47
						Avg. % Saturated:		87.05	Wells in Decline:			0	1	1
						Min Saturated:		72.10	Total Wells:			3	3	2
						Max Saturated:		95.05	Average Change:			1.85	1.66	(0.70)
St. Francis	04N01W28CDD1	345535.26	910633.55	4/25/2017	78.48	158.46	79.98	50.47	75.29	73.83	72.10	(3.19)	(4.65)	(6.38)
St. Francis	04N01E27CB1	34.9273165	-90.99289655	4/4/2017	75.97									
St. Francis	04W01W17CBC1	34.9597222	-91.1336111	2/16/2017	65.77					61.91	59.82		(3.86)	(5.95)
St. Francis	04N01E20DA1	34.94176037	-90.91094938	4/4/2017	75.43						70.00			(5.43)
St. Francis	04N01W20BB1	34.9543774	-91.13317837	4/4/2017	62.12						60.00			(2.12)
St. Francis	04N01W25DBD1	34.93037182	-91.05095378	4/4/2017	77.41									
St. Francis	04N02E11AD1	34.97425945	-90.85483639	3/14/2017	48.18						45.00			(3.18)
St. Francis	04N02E27AAA1	34.93453814	-90.87233697	4/4/2017	51.45						49.00			(2.45)
St. Francis	04N02E29BB1	34.93564942	-90.92206086	4/4/2017	63.28						58.00			(5.28)
St. Francis	05N01E15BCB1	350302.57	905942.41	5/8/2017	73.87	142.07	68.20	48.00	72.66	70.12	66.40	(1.21)	(3.75)	(7.47)
St. Francis	05N01E27BBA1	350135.73	905928.78	5/8/2017	76.31	144.55	68.24	47.21	75.26	72.10	68.80	(1.05)	(4.21)	(7.51)
St. Francis	05N01E06CDA1	35.07703562	-91.03845363	3/22/2017	77.20									
St. Francis	05N02E26CD1	35.00898102	-90.86372562	3/14/2017	53.11						51.00			(2.11)
St. Francis	05N02E26AAB1	35.02286963	-90.8594763	3/14/2017	55.86									
St. Francis	05N02E20ADC1	350156.9	905437.16	5/8/2017	61.83	131.91	70.08	53.13	60.83	58.55	55.70	(1.00)	(3.28)	(6.13)
St. Francis	05N03E20AAA2	35.03730833	-90.80023056	5/8/2017	106.14					91.88			(14.26)	
St. Francis	05N03E32BB1	35.01675842	-90.81427952	4/4/2017	77.22									
St. Francis	05N05E33BCC1	35.00120375	-90.58510509	4/5/2017	25.82						30.00			4.18
St. Francis	05N06E05BBB1	35.08564686	-90.48954688	4/5/2017	40.87									
St. Francis	06N01E33ACA1	35.099813	-90.99539688	3/22/2017	75.93									

Depth to Water 2007-2012-2016-2017

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Appendix B

Sparta/Memphis Aquifer Water Level Monitoring Data

Depth to Water 2007-2012-2016-2017

County	Station	Latitude	Longitude	LSA	Date Measured	2017 DTW	2016 DTW	2012 DTW	2007 DTW	16-17 WL Change	12-17 WL Change	07-17 WL Change
Arkansas	02S04W06CDB1	343311.54	912849.29	212.00	3/16/2017	159.34	160.45	160.00	159.24	1.11	0.66	(0.10)
Arkansas	02S04W33BBB1	34.48948333	91.45074444	205.00	3/16/2017	158.05		177.80	168.78		19.75	10.73
Arkansas	02S04W23DAA1	343044.22	912354.53	208.00	3/16/2017	145.49	144.95	163.50	144.91	(0.54)	18.01	(0.58)
Arkansas	02S05W16CBC1	343143	913318	216.00	3/14/2017	173.58	174.08	174.28	172.95	0.50	0.70	(0.63)
Arkansas	02S05W34BDA1	342924.58	913148.02	216.00	3/16/2017	177.95	179.94	185.27	180.13	1.99	7.32	2.18
Arkansas	02S05W35AAB1	342929.98	913035.31	216.00	3/14/2017	173.45	174.56		174.89	1.11		1.44
Arkansas	03S04W02CCB1	342747.58	912458.04	202.00	3/16/2017	152.34	152.58	154.94	153.40	0.24	2.60	1.06
Arkansas	03S05W13BDC1	342631.15	913004.57	210.00	3/16/2017	167.69	168.83	177.10	183.01	1.14	9.41	15.32
Arkansas	03S05W15CBB1	342633.21	913229.33	206.00	3/15/2017	170.67	173.88	172.59	179.22	3.21	1.92	8.55
Arkansas	03S05W18CAB1	342633	913523	196.00	3/16/2017	162.26	163.08			0.82		
Arkansas	03S05W02AAB1	34.47838611	91.50936389	210.00	3/14/2017	171.6			173.32			1.72
Arkansas	04S04W11BCC1	342156.96	912501.52	198.00	3/16/2017	150.29	150.12	155.74	155.10	(0.17)	5.45	4.81
Arkansas	04S04W22DAA1	342006.89	912515.15	195.00	3/15/2017	152.51	161.38	162.22	159.48	8.87	9.71	6.97
Arkansas	04S05W01BAA1	342322.23	912956.46	196.00	3/15/2017	162.7	187.36		156.85	24.66		(5.85)
Arkansas	04S05W15AAA1	342132.16	913133.29	201.00	3/15/2017	163.88	165.00	168.20	167.55	1.12	4.32	3.67
Arkansas	04S05W36DCC1	341752.00	913003.63	196.00	3/15/2017	159.99	158.14	168.87	166.15	(1.85)	8.88	6.16
Arkansas	04S05W31DDA1	34.30534722	91.58001667	185.00	3/15/2017	34.73			33.80			(0.93)
Arkansas	03S05W28DAB1	342447	913238	204.00	3/15/2017	165.8	167.05		172.86	1.25		7.06
Arkansas	04S04W19CBB1	342005	912926	195.00	3/15/2017	157.03	162.83	169.20	163.58	5.80	12.17	6.55
Arkansas	03S04W33BAA1	342416	912845		3/16/2017	154.07	154.26	181.44		0.19	27.37	
Ashley	15S07W32CDD1	332117.77	915101.06	190.00	4/18/2017	139.37	138.10	139.09	148.25	(1.27)	(0.28)	8.88
Ashley	17S09W15ACC1	331333.66	920116.44	100.00	4/18/2017	22.58	24.05	22.95	17.59	1.47	0.37	(4.99)
Bradley	12S09W31CCB1	333711.24	920444.21	231.00	6/19/2017	184.35	189.10	194.65	194.72	4.75	10.30	10.37
Bradley	13S09W06ACB3	333647	920407	208.00	4/18/2017	160.65	147.93	161.20		(12.72)	0.55	
Bradley	13S11W17BCD1	333453.65	921607.25	250.00	6/19/2017	191.5	201.36		202.22	9.86		10.72
Bradley	16S12W21CAA1	3331839	922052	100.00	6/20/2017	74.2	75.43	79.40	79.02	1.23	5.20	4.82
Bradley	15S11W31DDD1	332142	921621	131.00	6/6/2017	98.24	98.68	101.55		0.44	3.31	
Bradley	13S09W06DBD1	333625	920407	227.00	6/20/2017	175.58	185.43			9.85		

Sparta Aquifer
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County	Station	Latitude	Longitude	LSA	Date Measured	2017 DTW	2016 DTW	2012 DTW	2007 DTW	16-17 WL Change	12-17 WL Change	07-17 WL Change
Calhoun	13S13W32CDA1	333226.81	922741.66	208.00	3/9/2017	164.25	163.86	168.60	194.83	(0.39)	4.35	30.58
Calhoun	14S13W05BBD1	333206.66	922801.55	189.00	4/10/2017	146.7	147.26		156.80	0.56		10.10
Calhoun	14S13W03CAB1	33.52925556	92.43095278	202.00	4/10/2017	158.27			167.59			9.32
Calhoun	14S13W12CCB1	333040.05	922403.54	205.00	3/15/2047	161.96	176.00	172.34	171.60	14.04	10.38	9.64
Calhoun	11S14W12CAC3	334630	922927	307.00	3/9/2017	150.97		136.50	138.00		(14.47)	(12.97)
Calhoun	13S12W31DAA1	333233	922224	200.00	3/14/2017	57	57.33	56.20		0.33	(0.80)	
Calhoun	15S13W32BCA1	332230	922821	96.00	3/10/2017	108	113.02	115.90	127.47	5.02	7.90	19.47
									Declines/Wells:	1/5	2/5	1/6
									Average Change:	3.91	1.47	11.02
Cleveland	11S11W16AAB1	33.76194722	92.23985278	303.00	5/11/2017	201.8			204.31			2.51
Cleveland	10S09W35ACD1	33.799425	91.99920278	219.00	5/11/2017	151.59						
Cleveland	10S09W23CDC1	33.82165	92.00569444	220.00	5/11/2017	163.79			164.12			0.33
Cleveland	09S11W11CDB1	33.93962778	92.21403333	233.00	5/11/2017	157			162.62			5.62
Cleveland	09S11W01DCA1	33.9580611	92.19275833	225.00	5/10/2017	168.99			206.97			37.98
Cleveland	09S11W01DDA2	33.957925	92.18893611	271.00	5/11/2017	199.22						
Cleveland	09S09W04BBD1	33.97224722	92.04359722	308.00	5/11/2017	215.47			223.20			7.73
									Declines/Wells:			0/5
									Average Change:			10.83
Columbia	15S20W20CCB1	332453.37	931215.01	371.00	3/15/2017	216.57	216.22	216.76	216.34	(0.35)	0.19	(0.23)
Columbia	16S21W14CBB1	332049	931516	281.00	3/23/2017	197.03	221.18	192.12		24.15	(4.91)	
Columbia	16S21W20DAD1	331955.06	931736.47	348.00	4/4/2017	245.65	276.25	251.62	251.80	30.60	5.97	6.15
Columbia	16S22W22CCD1	331947.61	932224.89	347.00	4/20/2017	133.94	132.36	132.65	142.79	(1.58)	(1.29)	8.85
Columbia	17S19W15ABD1	331537	930328	325.00	4/20/2017	257.4	253.17	268.40	275.73	(4.23)	11.00	18.33
Columbia	17S19W30ABB1	331406.12	930650.14	248.00	4/20/2017	200.06	211.97	213.40	216.07	11.91	13.34	16.01
Columbia	17S21W01BBC1	331743.07	931423.65	305.00	3/23/2017	250.39	249.64	250.30	284.15	(0.75)	(0.09)	33.76
Columbia	17S21W11DCC2	331608.55	931448.61	304.00	4/4/2017	266.82	265.76	271.96	276.11	(1.06)	5.14	9.29
Columbia	17S22W23BBB1	331519	932136	340.00	4/26/2017	145.7	145.96	148.97	128.10	0.26	3.27	(17.60)
Columbia	18S20W06DDC1	331142	931248	300.00	3/22/2017	286.07	286.60	278.70		0.53	(7.37)	
Columbia	18S20W08CBC1	331114.79	931227.04	275.00	5/10/2017	279.7	261.36	266.75	281.84	(18.34)	(12.95)	2.14
Columbia	18S20W10CAA1	331054.37	931015.76	307.00	5/10/2017	270.35	267.96	262.77	271.20	(2.39)	(7.58)	0.85
Columbia	19S20W09CBD1	330555.38	931128.72	331.00	3/22/2017	262.75	260.28		263.22	(2.47)		0.47
Columbia	19S20W34BDD1	330239.09	931030.67	278.00	3/22/2017	177.59	208.48	206.00	201.00	30.89	28.41	23.41
Columbia	19S21W16DBB1	330517.2	931724.2	283.00	3/21/2017	171.28	171.14	173.91	166.69	(0.14)	2.63	(4.59)
Columbia	19S23W10ABD1	330643.92	932833.33	242.00	3/22/2017	42.56	44.36	43.99	45.57	1.80	1.43	3.01
Columbia	19S23W11CDA2	330609.39	932744.02	248.00	3/21/2017	50.3	53.82	33.60	53.07	3.52	(16.70)	2.77
Columbia	19S23W11DDB1	330604.93	932722.12	246.00	3/21/2017	50.53	50.04	52.38	53.82	(0.49)	1.85	3.29
Columbia	19S23W14BAB2	330555.24	932752.38	242.00	1/4/2017	23.95	40.54	44.45	52.58	16.59	20.50	28.63
Columbia	20S22W03DCC1	330138.44	932236.27	216.00	3/21/2017	50.74		105.75	52.85		55.01	2.11

Sparta Aquifer

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County	Station	Latitude	Longitude	LSA	Date Measured	2017 DTW	2016 DTW	2012 DTW	2007 DTW	16-17 WL Change	12-17 WL Change	07-17 WL Change
Columbia	20S22W11ACD1	330109.20	932133.20	269.00	3/21/2017	106.17	107.41	107.65	108.04	1.24	1.48	1.87
Columbia	17S21W08DCA1	331613	931758	300.00	5/10/2017	205.38	205.45			0.07		
Columbia	17S21W17BAB1	331607	931818	291.00	5/10/2017	196.02	194.98	203.85	201.01	(1.04)	7.83	4.99
Columbia	17S22W21ABD1	331516	932303	294.00	5/10/2017	79.3	79.58	103.42	83.44	0.28	24.12	4.14
Columbia	19S20W08DAB1	330558	931156	328.00	3/6/2017	256.86	257.28	272.39		0.42	15.53	
Columbia	16S20W18ACD1	332052	931237	338.00	4/20/2017	254.24	258.20	261.37	263.82	3.96	7.13	9.58
Columbia	16S20W08DCC1	33 3539111	93 19481667	397.00	3/30/2017	314.01		317.39	319.33		3.38	5.32
Columbia	16S21W15CBC1	332041	931622	286.00	4/12/2017	204.23	210.31			6.08		
Columbia	16S21W20CDC1	331943	931815	350.00	4/20/2017	256.29	264.03			7.74		
Columbia	17S22W22ABB1	331521	932209	319.00	5/10/2017	131.56	131.91	135.59	135.37	0.35	4.03	3.81
Columbia	17S20W17CDA1	33 25548889	93 20019167	325.10	4/13/2017	297.91			313.96			16.05
Columbia	17S20W13BCD1	33 25900278	93 1353	339.00	4/13/2017	304.48						
Columbia	17S19W19BCA1	33 24243611	93 1179333	301.00	4/13/2017	269.13			268.97			(0.16)
Columbia	18S22W27DDD1	330834	932158	312.00	3/21/2017	130.08	138.41	134.02	134.48	8.33	3.94	4.40
									Declines/Wells:	11/29	7/27	4/27
									Average Change:	4.00	6.12	6.91
Craighead	14N04E22CBD1	354928.92	903920.99	256.00	4/19/2017	61.58	61.35		57.38	(0.23)		(4.20)
Craighead	14N04E28DBD1	35 81026111	90 66479722	254.00	4/19/2017	68.59			62.48			(6.11)
Craighead	14N05E34ADD1	35 7968444	90 57053611	232.00	4/18/2017	18.75						
Craighead	14N05E36CBC1	354750.84	903100.18	230.00	3/29/2017	13.66	12.51		12.40	(1.15)		(1.26)
Craighead	15N05E29DBB1	355359.83	903432.73	258.00	4/19/2017	26.28	25.37		23.89	(0.91)		(2.39)
Craighead	15N06E18ACA1	355544.42	902858.20	243.00	3/29/2017	18.53	20.62		17.26	2.09		(1.27)
Craighead	15N03E13ABA1	35 93748611	90 7184611	329.00	3/29/2017	-1.8						
Craighead	13N05E22BAD1	354449	903243	227.00	5/9/2017	14.27	13.00			(1.27)		
Craighead	15N04E20ADB1	355508	904045	438.00	4/19/2017	118.17	119.75		118.52	1.58		0.35
									Declines/Wells:	4/6		5/6
									Average Change:	0.02		(2.48)
Crittenden	06N07E01DAD2	350958.04	901738.42	209.00	4/11/2017	25.13	23.26		26.28	(1.87)		1.15
Crittenden	06N09E08DCC1	35 14714444	90 15605	215.00	4/28/2017	21.18			8.39			(12.79)
Crittenden	09N07E21BBB1	352341	902131	216.00	4/4/2017	25.8	24.19	25.61	24.87	(1.61)	(0.19)	(0.93)
Crittenden	05N08E11CCA2	350344	901300	211.00	4/27/2017	23.8	21.76		27.91	(2.04)		4.11
									Declines/Wells:	3/3	1/1	2/4
									Average Change:	(1.84)	(0.19)	(2.12)
Cross	08N02E18BDB1	351908	905538	228.00	3/27/2017	94.2	91.56	94.20		(2.64)	0.00	
Cross	09N03E22AAB2	352403.82	904518.39	277.00	4/14/2017	142.41	134.80	130.73	127.98	(7.61)	(11.68)	(14.43)
Cross	09N01E25AAD1	352250	905553	227.00	3/27/2017	97.31	95.64	93.47	89.48	(1.67)	(3.84)	(7.83)
									Declines/Wells:	3/3	2/3	2/2
									Average Change:	(3.97)	(5.17)	(11.13)

Sparta Aquifer
Depth to Water 2007-2012-2016-2017

County	Station	Latitude	Longitude	LSA	Date Measured	2017 DTW	2016 DTW	2012 DTW	2007 DTW	16-17 WL Change	12-17 WL Change	07-17 WL Change
Dallas	08S15W34BDC1	33.98298611	92.62503056	240.00	6/6/2017	26.53			26.67			0.14
Dallas	09S14W01BDC1	33.96489722	92.48855	190.00	5/10/2017	87.87			82.92			(4.95)
Dallas	09S13W35CCD1	33.88591111	92.40372222	200.00	5/10/2017	71.3			71.62			0.32
Dallas	07S15W33DAC1	340402	923752	475.00	2/9/2017	27.04	22.60	23.47		(4.44)	(3.57)	
Dallas	10S145W11DBB1	335201	923632	291.00	2/9/2017	56.62	55.53	57.97		(1.09)	1.35	
Dallas	10S13W34ACA2	33.80818333	92.41600278	272.00	5/10/2017	146.1			151.38			5.28
Dallas	10S15W18BCC1	33.855425	92.68891111	328.00	4/3/2017	75.39			79.05			3.66
									Declines/Wells:	2/2	1/2	1/5
									Average Change:	(2.77)	(1.11)	0.89
Desha		334439	911645	148.00	3/8/2017	35						
Desha	10S02W26CCC2	334724	911624	152.00	3/8/2017	41.1			75.97			34.87
Desha		335044	911513	148.00	3/8/2017	32.21						
Desha		33.92646	91.37875	153.00	3/8/2017	35.55						
Desha		33.94505	91.47342	163.00	3/8/2017	43.55						
Desha		33.91012	91.16340	151.00	3/8/2017	25.55						
Desha		33.87749	91.17893	146.00	3/8/2017	28.35						
Desha		333504	912241	142.00	3/2/2017	58.11						
Desha		334448	912413	139.00	3/8/2017	40.35						
Drew	11S06W11DBC1	33.76850833	91.68954722	203.00	3/31/2017	150.62			150.59			(0.03)
Grant	03S13W12AAA1	342845.65	922106.24	362.00	5/12/2017	129.05	130.07		132.41	1.02		3.36
Grant	04S15W02DAC1	342405	923456	327.00	2/10/2017	85.45	84.50			(0.95)		
									Declines/Wells:	1/2		
									Average Change:	0.03		
Jefferson	05S08W30ADB1	341453	915441	197.00	1/3/2017	272.96	270.73	282.62	298.66	(2.23)	9.66	25.70
Lafayette	20S23W05ADB1	33.03981944	93.51002222	231.00	4/4/2017	36.56			40.96			4.40
Lafayette	19S23W29BDB1	33.06442778	93.51760278	239.00	4/20/2017	27.02			43.16			16.14
Lafayette	17S23W19ACC1	33.2554444	93.52433611	291.00	4/3/2017	52.11			53.95			1.84
Lafayette	17S24W23BBD1	33.25713056	93.56744167	261.00	4/3/2017	32.54			35.42			2.88
Lafayette	16S24W26AAC1	33.33061111	93.55082222	267.00	4/3/2017	58.77			57.61			(1.16)
Lafayette	16S23W12CAD1	33.36174167	93.43573889	319.00	4/3/2017	55.64			77.88			22.24
									Declines/Wells:			1/6
									Average Change:			7.72

Depth to Water 2007-2012-2016-2017

County	Station	Latitude	Longitude	LSA	Date Measured	2017 DTW	2016 DTW	2012 DTW	2007 DTW	16-17 WL Change	12-17 WL Change	07-17 WL Change
Lonoke	01N07W03BCC1	344425.34	914503.28	223.00	3/13/2017	138.98	138.59	133.00	131.22	(0.39)	(5.98)	(7.76)
Lonoke	02N07W06ACD1	344939.05	914737.03	241.00	3/21/2017	131.35	139.42	125.35	125.85	8.07	(6.00)	(5.50)
Lonoke	02N07W32DDD1	344448	914618	226.00	3/13/2017	145.44	147.64	142.01		2.20	(3.43)	
Lonoke	03N08W22DAD2	345205	915024	235.00	3/14/2017	102.31	101.50	99.98	98.86	(0.81)	(2.33)	(3.45)
Lonoke	02N07W24DAC1	34.78061944	91.70260278	231.00	3/21/2017	154.26		157.50	149.65		3.24	(4.61)
									Declines/Wells:	2/4	4/5	4/4
									Average Change:	2.27	(2.90)	(5.33)
Miller	19S27W10BBA1	33.12207612	93.89573563	320.00	4/4/2017	4.81			1.48	(4.81)		(3.33)
Monroe	01N01W15DBC2	34.69416667	91.095	185.00	4/25/2017	64.52		63.36			(1.16)	
Monroe	01N03W14CCB1	34.69553611	91.3031111	173.00	5/2/2017	76.3		72.21	75.96		(4.09)	(0.34)
Monroe	03N02W26DAB1	34.84505833	91.173775	195.00	5/2/2017	51.41		53.70	49.02		2.29	(2.39)
Monroe	04N02W28DDD4	34.92636111	91.20575833	191.00	5/2/2017	34.01		31.46	32.68		(2.55)	(1.33)
Monroe	04N02W30BAD1	34.938	91.251	181.00	5/4/2017	18.84		12.60	15.07		(6.24)	(3.77)
Monroe	04N02W30BAC1	34.9381	91.2542	176.00	5/4/2017	10.5		10.90	11.80		0.40	1.30
									Declines/Wells:		4/6	4/5
									Average Change:		(1.89)	(1.31)
Quachita	11S15W27ABD1	334440.87	923725.58	222.00	3/1/2017	67.48	72.39	70.60	69.34	4.91	3.12	1.86
Quachita	12S15W09BBA1	334223.32	923922.44	213.00	3/1/2017	47.95	50.82	48.38	52.90	2.87	0.43	4.95
Quachita	12S16W25BDC1	333929.4	924210.82	140.00	4/18/2017	23.03	27.96	48.70	32.42	4.93	25.67	9.39
Quachita	12S16W26ABD1	333945.55	924304.12	137.00	6/8/2017	19.2	17.57	23.90	34.63	(1.63)	4.70	15.43
Quachita	12S18W19CDC1	334018	925948	235.00	5/29/2017	29.65	30.70	32.76	30.63	1.05	3.11	0.98
Quachita	12S18W25CAB1	333937.19	925441.87	189.00	5/29/2017	78.23	78.78	79.15	78.56	0.55	0.92	0.33
Quachita	12S19W09BAB1	334251.46	930351.94	290.00	2/23/2017	12.3	8.70	12.84	16.70	(3.60)	0.54	4.40
Quachita	12S19W35BDD1	333901.13	930145.97	350.00	5/29/2017	155.78	155.95	156.97	160.25	0.17	1.19	4.47
Quachita	13S16W28ADD1	333416.22	924450.63	106.00	6/7/2017	21.9	22.05	33.87	33.28	0.15	11.97	11.38
Quachita	13S19W28BCD1	333433.86	930417.81	230.00	6/12/2017	37.21	35.72	38.15	38.21	(1.49)	0.94	1.00
Quachita	14S16W32BDB1	332815.62	924639.52	239.00	3/1/2017	26.13	12.46	28.50	25.76	(13.67)	2.37	(0.37)
Quachita	14S17W05CAD1	333238.01	925254.64	159.00	3/6/2017	37.2	34.34	39.05	37.24	(2.86)	1.85	0.04
Quachita	14S17W19DDB1	333002.20	925345.44	259.00	3/2/2017	15.57	9.92	12.15	13.77	(5.65)	(3.42)	(1.80)
Quachita	14S17W32CAD1	332803.41	925251.18	220.00	3/9/2017	75.26	74.57	79.20	79.06	(0.69)	3.94	3.80
Quachita	14S19W29ABB1	332941.45	930513.43	280.00	3/3/2017	88.17	88.35	89.51	88.16	0.18	1.34	(0.01)
Quachita	15S15W32DBB2	332233.72	924027.13	121.00	6/8/2017	146.31	150.22	156.70	169.42	3.91	10.39	23.11
Quachita	15S18W36ADD1	332310.75	925436.06	160.00	6/8/2017	87.46	88.43	90.72	94.40	0.97	3.26	6.94
Quachita	15S19W21CDD2	332438.02	930431.9	269.00	3/6/2017	187.06	187.40	188.47	198.82	0.34	1.41	11.76
Quachita	13S18W06BBA1	333819	930006	281.00	3/3/2017	114.96	113.39	115.34		(1.57)	0.38	

Sparta Aquifer

Depth to Water 2007-2012-2016-2017

County	Station	Latitude	Longitude	LSA	Date Measured	2017 DTW	2016 DTW	2012 DTW	2007 DTW	16-17 WL Change	12-17 WL Change	07-17 WL Change
Ouachita	14S17W03CBA1	333234	925055	140.00	2/9/2017	15.16	12.32	17.84		(2.84)	2.68	
Ouachita	15S16W23DAC1	332415	924313	170.00	6/8/2017	114.76	115.22	126.49	126.15	0.46	11.73	11.39
Ouachita	13S18W31BDD1	333340	925958	231.00	7/18/2017		68.11	69.66	71.18			
Ouachita	11S18W20AAA1	334614	925759	301.00	6/12/2017	43.58	42.86			(0.72)		
Ouachita	13S18W06CBB1	333758	930012	235.00	5/29/2017	114.32	113.94			(0.38)		
Ouachita	14S17W02ABB1	333252	924926	115.00	3/1/2017	19.24	26.60	21.24	16.80	7.36	2.00	(2.44)
Ouachita	14S18W27BDC1	332918	925703	309.00	3/2/2017	43.26	42.49	44.01	43.30	(0.77)	0.75	0.04
Ouachita	15S16W30DBD1	332330	924717	137.00	6/8/2017	200.65	183.28			(17.37)		
Ouachita	15S19W10DCC1	33.43843889	93.05510278	210.00	4/18/2017	68.21			69.86			1.65
Ouachita	12S16W25BDA1	33.65805556	92.70305556	138.00	6/8/2017	23.74						
Ouachita	11S17W14CAC1	33.775375	92.8242944	146.00	5/29/2017	17.36		21.20	22.32		3.84	4.96
									Declines/Wells:	13/26	1/24	4/23
									Average Change:	(0.98)	3.96	4.92
Phillips	01S02E32DDC1	343324.32	905455.41	211.00	4/27/2017	79.44	76.98	78.45	84.17	(2.46)	(0.99)	4.73
Phillips	02S02E01ADC1	343323.48	905056.27	176.00	4/27/2017	35.66	34.68	28.88	35.17	(0.98)	(6.78)	(0.49)
Phillips	02S04E02DBA1	343242.87	903906.98	250.00	4/28/2017	101.75	93.39	104.17		(8.36)	2.42	
Phillips	02S05E29CCC1	342850.81	903635.44	180.00	4/27/2017	22.35	18.43	25.10	23.56	(3.92)	2.75	1.21
Phillips	02S05E16BCB1	343110	903525	188.00	4/27/2017	35.49	29.13		35.11	(6.36)		(0.38)
Phillips	02S04E02DAA1	34.5451889	90.64565	255.00	4/28/2017	108.52			132.52			24.00
									Declines/Wells:	5/5	2/4	2/5
									Average Change:	(4.42)	(0.65)	5.81
Poinsett	10N01E12BDC1	353026.35	905629.57	234.00	3/28/2017	110	108.87	106.90	100.38	(1.13)	(3.10)	(9.62)
Poinsett	11N02E16CCC1	353448.21	905321.22	240.00	3/28/2017	119.97	118.63	116.57	108.69	(1.34)	(3.40)	(11.28)
Poinsett	11N02E11BDC1	353606	905107	244.00	4/4/2017	121.53	120.58			(0.95)		
Poinsett	10N01E34BAA1	35.4566667	90.9794444	231.00	5/29/2017	98.4		98.19			(0.21)	
Poinsett	un-84 truxo	32.94638889	92.4047222	212.00	3/6/2017	252.03						
Poinsett	10N01E33ABA1	35.45691667	90.99001389	221.00	3/27/2017	84.95		84.00	79.50	(0.95)	(0.95)	(5.45)
Poinsett	10N03E23CAC1	35.48045278	90.74230278	258.00	5/28/2017	118.88			113.12			(5.76)
Poinsett	10N03E02BCD1	35.52758056	90.74627778	256.00	5/28/2017	120.82			111.68			(9.14)
Poinsett	11N03E25BDD	35.55781667	90.72305	273.00	4/13/2017	141.15			121.45			(19.70)
Poinsett	12N03E35BCC1	35.62910556	90.74880556	244.00	3/28/2017	106.99			100.53			(6.46)
Poinsett	12N03E12BBB1	35.6937333	90.72780278	248.00	3/29/2017	105.04		116.57	112.28		11.53	7.24
									Declines/Wells:	3/3	4/5	7/8
									Average Change:	(1.14)	0.77	(7.52)

Sparta Aquifer

Depth to Water 2007-2012-2016-2017

County	Station	Latitude	Longitude	LSA	Date Measured	2017 DTW	2016 DTW	2012 DTW	2007 DTW	16-17 WL Change	12-17 WL Change	07-17 WL Change
Prairie	01N05W19CDC1	344113.1	913505.27	212.00	3/14/2017	151.05	154.72	157.27	145.15	3.67	6.22	(5.90)
Prairie	01N06W34CBB1	343943.01	913846.17	226.00	3/14/2017	163.51	160.10	164.81	169.70	(3.41)	1.30	6.19
Prairie	01S05W06BCB1	343903.98	913531.63	220.00	3/14/2017	159.74	162.40	161.25	177.20	2.66	1.51	17.46
Prairie	01S05W20ABB1	343639.91	913351.89	220.00	3/14/2017	159.38	158.08	147.10	154.65	(1.30)	(12.28)	(4.73)
Prairie	01S06W11DBD1	343748.99	913654.24	226.00	3/14/2017	172.96	169.52	172.57	177.82	(3.44)	(0.39)	4.86
Prairie	02N06W19AAB1	344718.24	914049.95	236.00	3/17/2017	157.05	156.12	154.41	150.58	(0.93)	(2.64)	(6.47)
Prairie	02N06W20BCB1	344706.57	914032.97	238.00	3/21/2017	153.96	159.76	150.77	147.18	5.80	(3.19)	(6.78)
Prairie	02N06W21DAD1	344644.15	913829.47	232.00	3/21/2017	124.72	125.67	126.00	132.92	0.95	1.28	8.20
Prairie	02N06W22BDD1	344653.66	913800.68	233.00	3/21/2017	122.22	125.88	121.94	127.90	3.66	(0.28)	5.68
Prairie	02N06W24CAA2	344651	913551	231.00	3/21/2017	119.38		119.24	117.90		(0.14)	(1.48)
Prairie	01S06W01BDD2	343859	913613	226.00	3/17/2017	169.45	162.51	164.50		(6.94)	(4.95)	
Prairie	02N06W04DBB1	344928	913852	234.00	3/21/2017	107.63	107.74		106.45	0.11		(1.18)
Prairie	01S06W12BAB2	343826	913613	228.00	1/31/2017	174.49	165.69	177.52	167.13	(8.80)	3.03	(7.36)
Prairie	02N05W24BCA4	344659	912937	225.00	1/31/2017	105.67	101.72	103.23	101.90	(3.95)	(2.44)	(3.77)
Prairie	02N05W21CBB2	34.78027778	91.55	227.00	1/31/2017	111.93		110.76			(1.17)	
Prairie	01N06W02ABB1	34.745111	91.6169333	221.00	3/21/2017	121.95		119.84	128.34		(2.11)	6.39
Prairie	02N04W19ACB1	34.78030833	91.4671	211.00	5/2/2017	55.42			66.13			10.71
Union	16S14W15CAB1	331944.03	923218.09	94.00	5/23/2017	115.9	129.94	141.65	149.70	14.04	25.75	33.80
Union	16S16W02ABC1	332205	924330	114.00	4/5/2017	140.04	145.05	152.32	162.53	5.01	12.28	22.49
Union	17S13W31BAC1	331200.17	922915.7	217.00	5/9/2017	261.33		272.93	309.04		11.60	47.71
Union	17S14W10DCC1	331456.79	923203.26	182.00	5/9/2017	90	89.80	93.60	96.03	(0.20)	3.60	6.03
Union	17S14W15ABA1	331451.3	923159.8	169.00	5/9/2017	90.07	89.87	87.30	96.30	(0.20)	(2.77)	6.23
Union	17S15W06BAA1	331645.6	924133.99	170.00	5/17/2017	206.74	210.62		242.48	3.88		35.74
Union	17S15W08CDD1	331504.77	924027.41	174.92	5/17/2017	246.84	254.40	271.00	289.65	7.56	24.16	42.81
Union	17S15W18DBB1	331438.96	924129.21	182.93	4/5/2017	258.82	272.30	288.26	301.33	13.48	29.44	42.51
Union	17S15W28DBA1	331246.08	923909.78	230.00	3/29/2017	305.67	316.09	329.84	345.83	10.42	24.17	40.16
Union	17S15W31DDA1	331143.75	924104.87	261.00	4/5/2017	343.08	359.34	374.02	383.42	16.26	30.94	40.34
Union	17S16W01BAA1	331649.04	924232.96	157.00	5/17/2017	232.43	250.97		271.73	18.54		39.30
Union	17S17W25DBA2	331256	924837	250.00	4/4/2017	301.19	309.52	324.56	336.42	8.33	23.37	35.23
Union	17S17W30DCD1	331257.41	925355.54	276.00	5/23/2017	270.25	285.92	307.85	323.53	15.67	37.60	53.28
Union	18S12W33CBC1	330650.66	922119.92	110.00	3/6/2017	114.52	113.04	110.36	139.56	(1.48)	(4.16)	25.04
Union	18S15W03DAB1	331103.78	923802.12	241.00	4/5/2017	308.22	319.06	329.02	346.05	10.84	20.80	37.83
Union	18S15W33ADA1	330659.32	923858.48	253.00	3/3/2017	316.86	324.77	353.49	359.87	7.91	36.63	43.01
Union	18S15W35DAC1	330635	923707	200.00	3/29/2017	246.01	274.75		283.78	28.74		37.77
Union	18S16W11DAC1	331011.23	924316.37	273.00	5/16/2017	331.87	362.00	375.07	412.75	30.13	43.20	80.88
Union	18S16W12ACB1	331028.75	924231.85	305.00	5/16/2017	370.77	387.06	387.28	433.04	16.29	16.51	62.27

Declines/Wells : 7/13
Average Change: (0.92)

Sparta Aquifer

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County	Station	Latitude	Longitude	LSA	Date Measured	2017 DTW	2016 DTW	2012 DTW	2007 DTW	16-17 WL Change	12-17 WL Change	07-17 WL Change
Union	18S17W22BDD1	330855.91	925056.48	283.00	3/5/2017	312.3	317.39	326.20	340.69	5.09	13.90	28.39
Union	19S10W16CBC1	330329	920903	82.00	5/8/2017	81.79	80.30	85.90	88.33	(1.49)	4.11	6.54
Union	19S11W25AAA1	330217.84	921113.03	133.00	5/8/2017	146.21	139.73	144.60	151.20	(6.48)	(1.61)	4.99
Union	19S12W13AAA1	330411.26	921716.78	191.00	5/8/2017	160.96	159.85		142.37	(1.11)		(18.59)
Union	19S15W01CCA1	330534.81	923645.01	190.00	5/23/2017	32.3	31.54	62.20	70.58	(0.76)	29.90	38.28
Union	19S18W14ADA1	330451.70	925607.90	243.00	5/16/2017	187.21	187.62	190.18	192.07	0.41	2.97	4.86
Union	16S17W36DCC1	331700	924842	174.00	5/23/2017	209.63	215.76			6.13		
Union	19S11W23ACA1	330255	921229	142.00	5/8/2017	147.32	144.85	152.02	152.44	(2.47)	4.70	5.12
Union	17S14W22BAB1	331354	923224	200.00	4/5/2017	262.73	272.09	278.56	297.61	9.36	15.83	34.88
Union	18S12W33BBB1	330651	922120	112.00	5/8/2017	128.73	139.43	141.70	139.56	10.70	12.97	10.83
Union	16S14W34CBC1	331701	923223	150.00	5/24/2017	236.6	258.73			22.13		
Union	16S15W20DAA1	331900	923956	189.00	5/18/2017	232.1	239.27	249.35	254.70	7.17	17.25	22.60
Union	16S15W31ACC1	331717	924128	168.00	5/17/2017	228.67	241.74		265.72	13.07		37.05
Union	16S16W03CBC1	332138	924507	202.00	5/23/2017	201.79	205.31	211.81	222.50	3.52	10.02	20.71
Union	16S18W34ABC2	331805	925709	250.00	5/18/2017	199.43	200.25	201.55	209.53	0.82	2.12	10.10
Union	17S15W28DCC1	331223	923922	274.00	5/18/2017	351.82	397.79		422.88	45.97		71.06
Union	17S15W31DCA3	331143	924119	268.00	5/9/2017	102.01	102.58			0.57		
Union	17S15W33ABB1	331223	923924	267.70	5/18/2017	343.29	354.49			11.20		
Union	17S15W36BAB1	331217	923628	245.00	5/24/2017	314.9	323.88			8.98		
Union	18S13W16ADD1	330915	922653	205.00	5/9/2017	167.98	168.26			0.28		
Union	18S14W06CCD1	331040	923531	233.00	5/24/2017	285.32	296.92		342.80	11.60		57.48
Union	18S16W28BBB1	330809	924611	225.00	5/16/2017	271.3	281.25	291.10	319.20	9.95	19.80	47.90
Union	18S18W11ACD2	331057	925559	239.00	5/23/2017	245.07	251.02	261.50	267.28	5.95	16.43	22.21
Union	19S16W35DDC1	330107	924323	173.00	5/23/2017	199.63	211.01	221.40	235.15	11.38	21.77	35.52
Union	19S17W16BAA1	330455	925152	238.00	5/16/2017	227.58	253.05			25.47		
									Declines/Wells:	8/43	3/30	1/37
									Average Change:	9.36	16.78	31.69
Woodruff	05N01W11ABA1	350425.81	910407.19	210.00	5/2/2017	62.62	64.10	62.47	60.00	1.48	(0.15)	(2.62)
Woodruff	05N01W17DBB1	350310.68	910727.11	208.00	5/2/2017	49.51	49.20	47.05	47.36	(0.31)	(2.46)	(2.15)
Woodruff	06N01W13ABA1	350851	910255	212.00	3/23/2017	75.58	74.70		68.46	(0.88)		(7.12)
Woodruff	06N01W13ADC1	350827.39	910246.74	212.00	3/23/2017	74.95	75.21	70.00	68.38	0.26	(4.95)	(6.57)
Woodruff	08N01W12CDA1	351932	910310	225.00	3/23/2017	79.33	78.31	77.50	74.86	(1.02)	(1.83)	(4.47)
Woodruff	07N01W12BCB1	351445	910328	222.00	3/23/2017	72.51	70.89	69.87	67.94	(1.62)	(2.64)	(4.57)
Woodruff	08N02W26ADC1	35.29048889	91.16781667	212.00	3/27/2017	34.47			33.83			(0.64)
									Declines/Wells:	4/6	5/5	7/7
									Average Change:	(0.35)	(2.41)	(4.02)
									Total Declines/Wells:	74/177	47/153	61/193
									Total Percent Declined	41.8	30.7	31.6
									Total Avg Change:	2.91	5.61	8.76