



Arkansas Natural Resources Commission

Annual Groundwater Report 2018





ARKANSAS GROUNDWATER PROTECTION & MANAGEMENT REPORT for 2018

March 2019

STATE OF ARKANSAS

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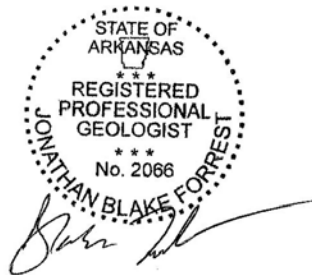


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ABSTRACT

The Arkansas Groundwater Protection and Management Report is produced annually by the Arkansas Natural Resources Commission (ANRC) pursuant to the Arkansas Groundwater 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 2018, including water-level monitoring and studies of water use trends in the state.

This report covers water-level data from the spring of 2017 to the spring of 2018. This monitoring period consisted of average precipitation as the statewide average for 2017 reached 49.57 inches, just 0.03 inches below the average for the State. As a result, short-term water-level comparisons for the state's aquifers showed more increases largely due to the decrease in need of aquifer withdrawal for irrigation. 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 not sustainable. Based on 2015 water use data, only approximately 44.2 percent of the current alluvial aquifer withdrawal of 7,636.08 million gallons per day, and approximately 55 percent of the 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 groundwater system will continue to be observed. As the competition for groundwater 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 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.

This report is built on a strong cooperative program with other appropriate state, federal, and local water resources agencies. A monitoring schedule has been established to obtain data from the alluvial aquifer and the Sparta/Memphis aquifer on an annual basis. Each spring approximately 400 wells are monitored in the alluvial aquifer resulting in the largest number of water-level measurements for any one aquifer in the state, and approximately 200-300 wells are monitored each year for water levels in the Sparta/Memphis aquifer. The number of wells monitored will vary from year to year depending on the resources available, well accessibility, and other factors. The drawdown that results from seasonal pumping is taken into consideration by the NRCS and ANRC taking measurements of the alluvial aquifer in both the spring and fall. Spring measurements are taken before the irrigation season begins and once again in the fall after the pumping season has ended.

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. In 2017, the statewide annual average precipitation was 49.57 inches, just 0.03 inches below the average for the state. Above average monthly rainfall was measured for 6 out of 12 months in 2018, with April, May, and August being the wettest months of the year, receiving 8.70, 6.60, and 6.28 inches of rain, respectively. In fact, above average rainfall was received during every month beginning in March through August, and then again in December; the other months experienced below average rainfall. Although it was an average year for rainfall in Arkansas in 2017, the above average precipitation throughout the summer months, particularly July and August, lowered the demand for groundwater during the irrigation season for much of the alluvial plain. January 2018 received below average rainfall, while February 2018 was the wettest February on record in Arkansas.

The monitoring period which covers the calendar year of 2018 for static water level change in the alluvial aquifer was completed in the spring time, particularly March and April, with some measurements being collected as early as February and some as late as May. The data for 2017 to 2018 indicates a decline in 94 of 276 wells, with an aquifer-wide average change of +1.25 feet in water levels during this time.

There are areas of the state experiencing groundwater withdrawals of such magnitude that demand on the aquifer exceeds the sustainable yield, resulting in consistently falling groundwater levels, and the development of cones of depression. These areas occur in both the alluvial and Sparta/Memphis Sand 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.

In regards to quality, the USGS 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.

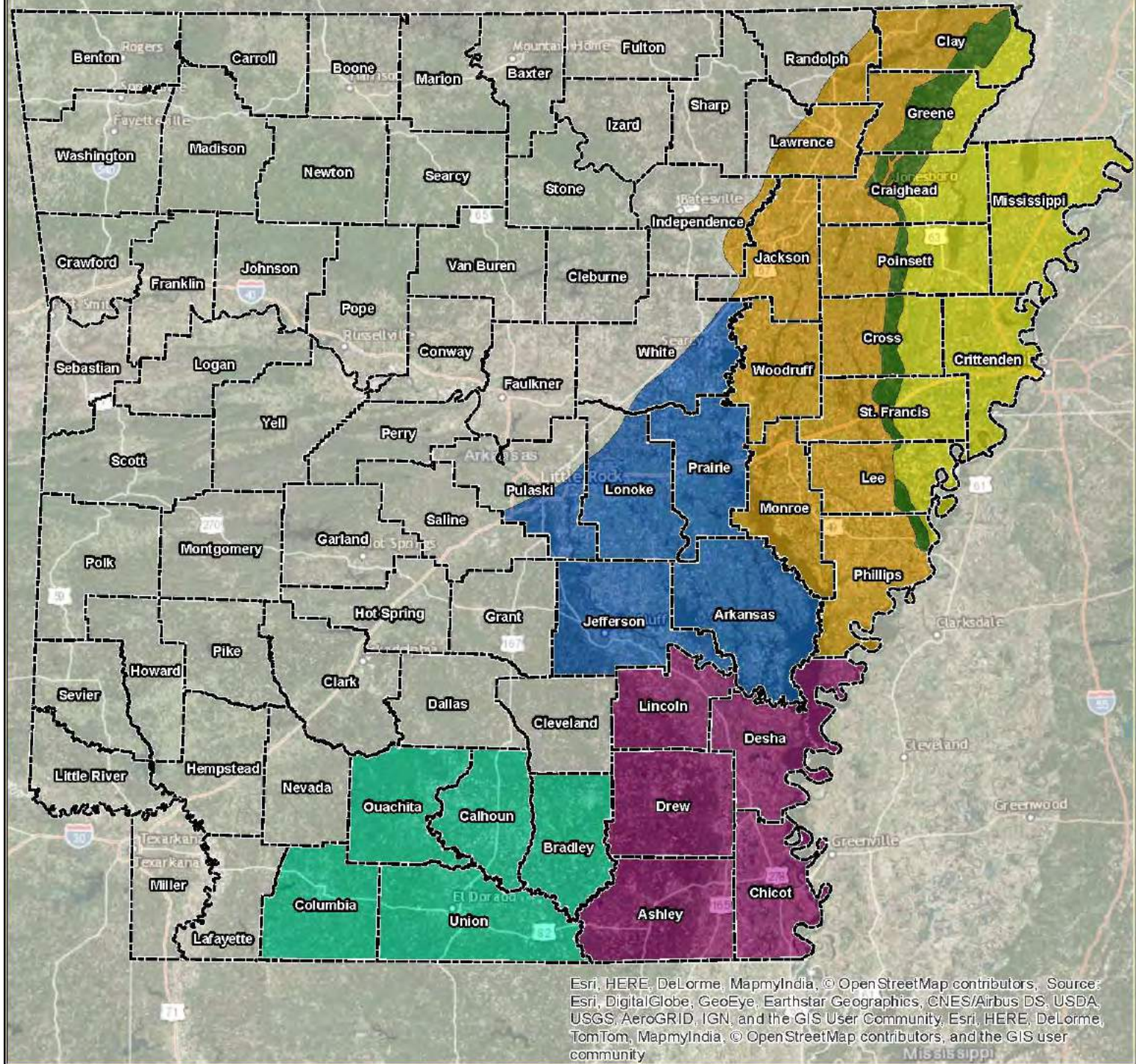
Water quality data collected by the USGS shows wells with an increased specific conductance ($\geq 1,000$ microsiemens/cm) in the alluvial aquifer in Arkansas, Cross, Desha, Greene, Lincoln, Prairie and Chicot counties. (Schrader, T.P., 2010) An increase in the level of specific conductance indicates 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 1990, 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 we 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 installation of water conservation practices. Figure 1 presents the Groundwater Study Areas while Figure 2 presents the Critical Groundwater Areas as designated.

Arkansas Groundwater Study Areas



Legend

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



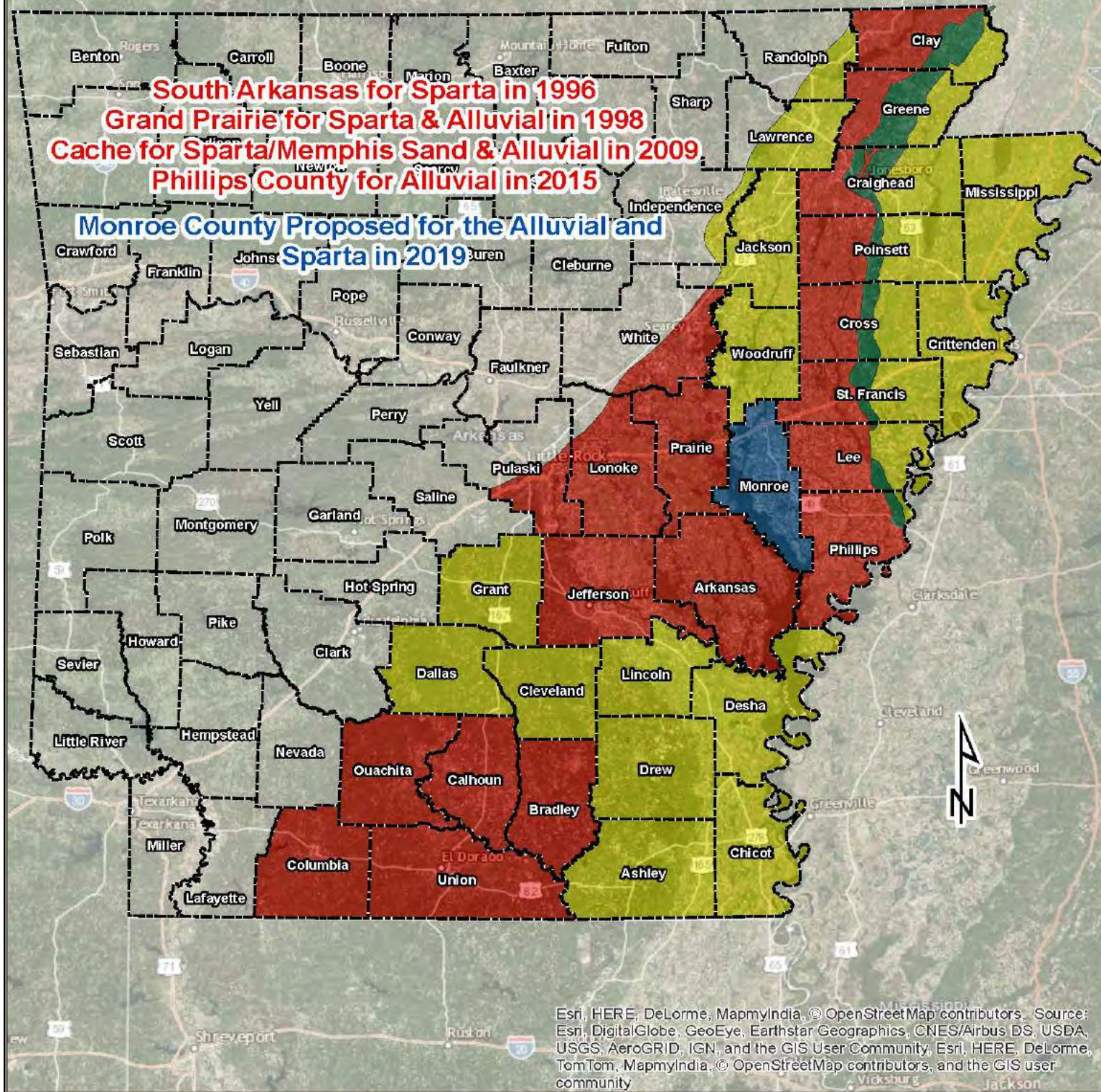
Figure 1



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

Monroe County Proposed for the Alluvial and Sparta in 2019



Legend

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

0 5 10 20 30 40 50
Miles



Figure 2

Hydrogeology and Statewide Water-Level Trends

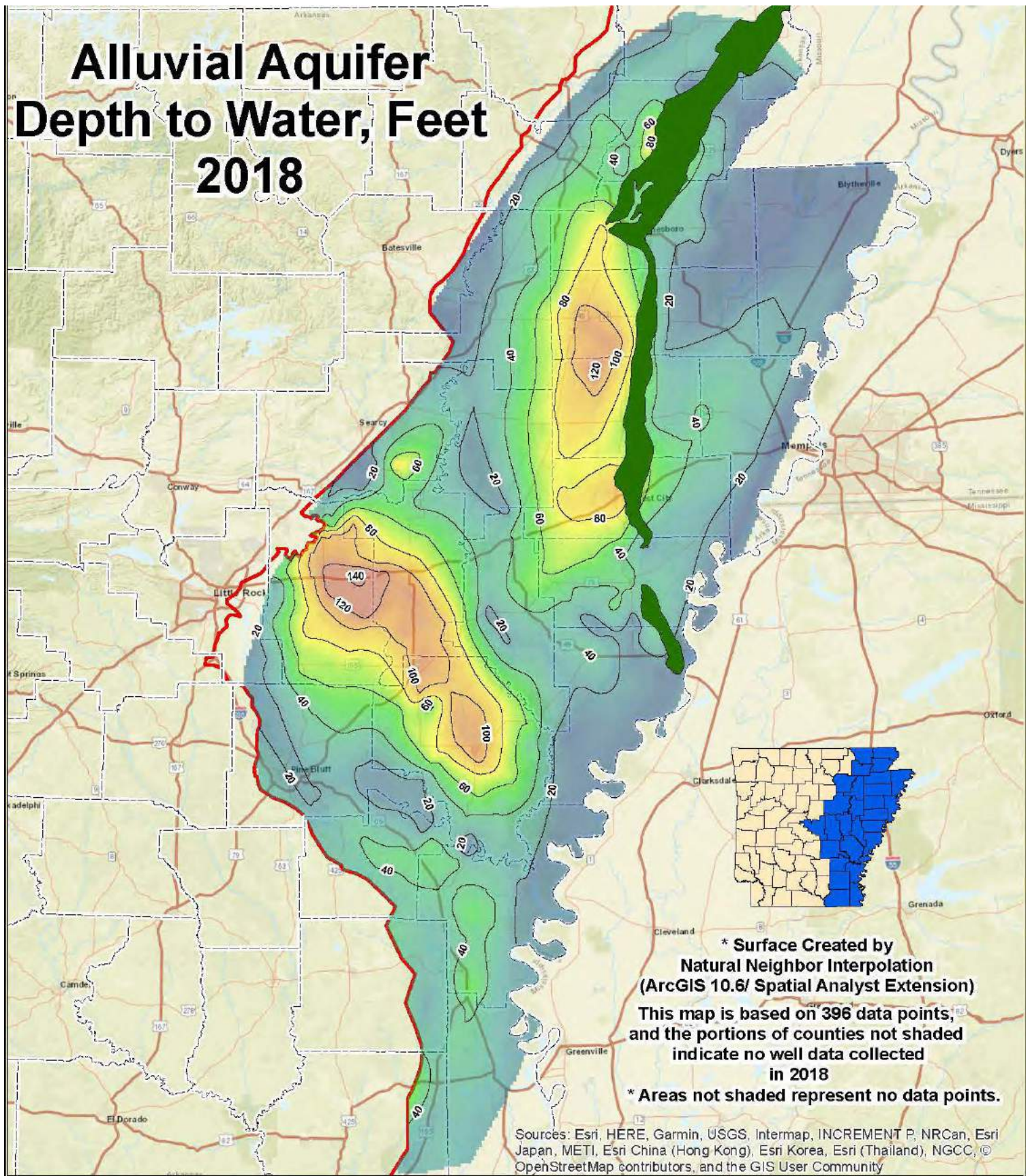
Alluvial Aquifer

The Mississippi River Valley alluvial aquifer, hereby referred to as the “alluvial aquifer”, is the uppermost aquifer in the Mississippi Embayment. The alluvial aquifer 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. For the purpose of this report, the term alluvial aquifer refers to the portion of the aquifer inside the state boundaries of Arkansas and the extent of the Mississippi River Alluvial Plain; generally 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 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, approximately 8,264.60 Mgal/d was reportedly pumped from the alluvial aquifer. The estimated sustainable yield for the alluvial aquifer is 3,374.33 Mgal/d, leaving an unmet demand of 4,890.27 Mgal/d, or 59%, of the 2015 usage. Groundwater furnishes 63% of the state’s total consumption of water, and 95% of the groundwater used comes from the alluvial aquifer. Agriculture accounts for 98% of the total water that is pumped from the alluvial aquifer. 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 groundwater flow, regional water level declines, reduction of aquifer storage, and decreases in well yields.

Static water level measurements were collected from 395 wells across the alluvial aquifer prior to the irrigation season in 2018. Figure 3 presents the potentiometric surface data as depth to water values. Figure 4 presents the saturated thickness of the alluvial aquifer as a percentage of the total aquifer thickness.

Alluvial Aquifer Depth to Water, Feet 2018



Legend

Alluvial	61 Ft. - 80 Ft.
Depth to Water, Ft.	81 Ft. - 100 Ft.
1 Ft. - 20 Ft.	101 Ft. - 120 Ft.
21 Ft. - 40 Ft.	121 Ft. - 140 Ft.
40 Ft. - 60 Ft.	141 Ft. - 160 Ft.

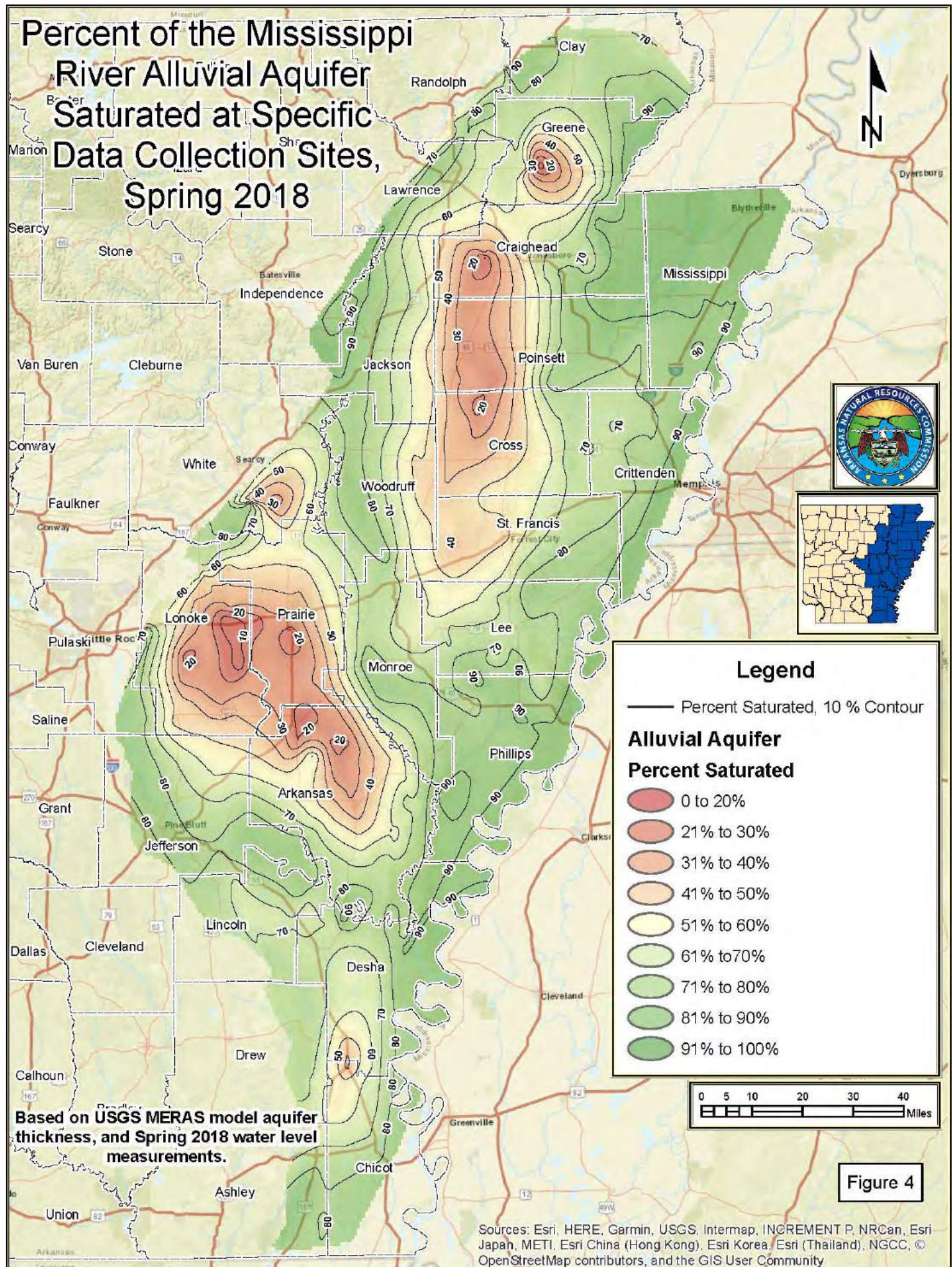
- 20 Foot Contour Line
- Extent of the Miss. River Alluvial Plain

0 62.5 125 250 375 500 Miles



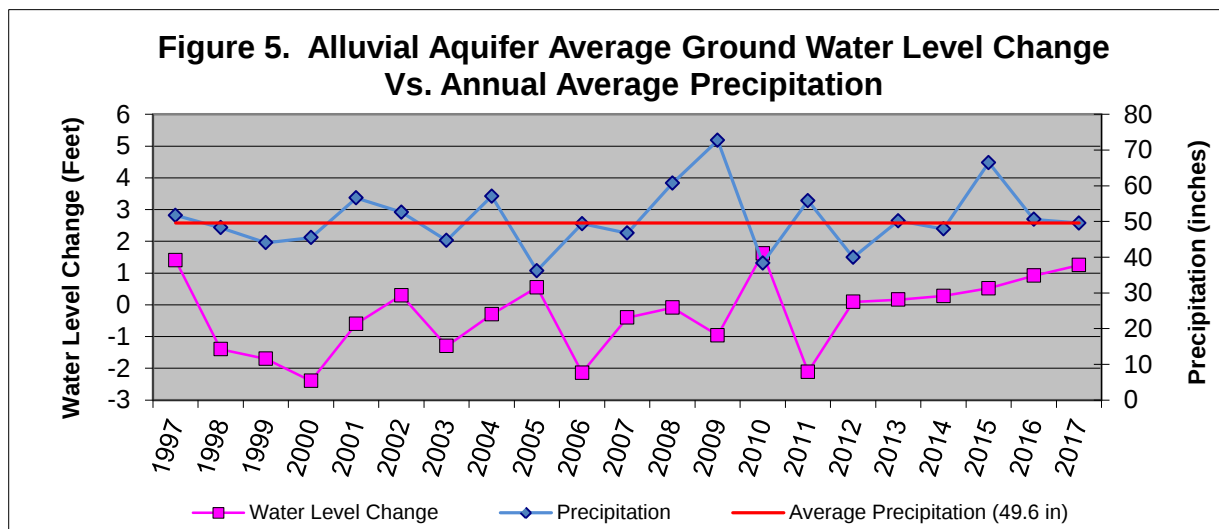
Figure 3

Percent of the Mississippi River Alluvial Aquifer Saturated at Specific Data Collection Sites, Spring 2018



Precipitation

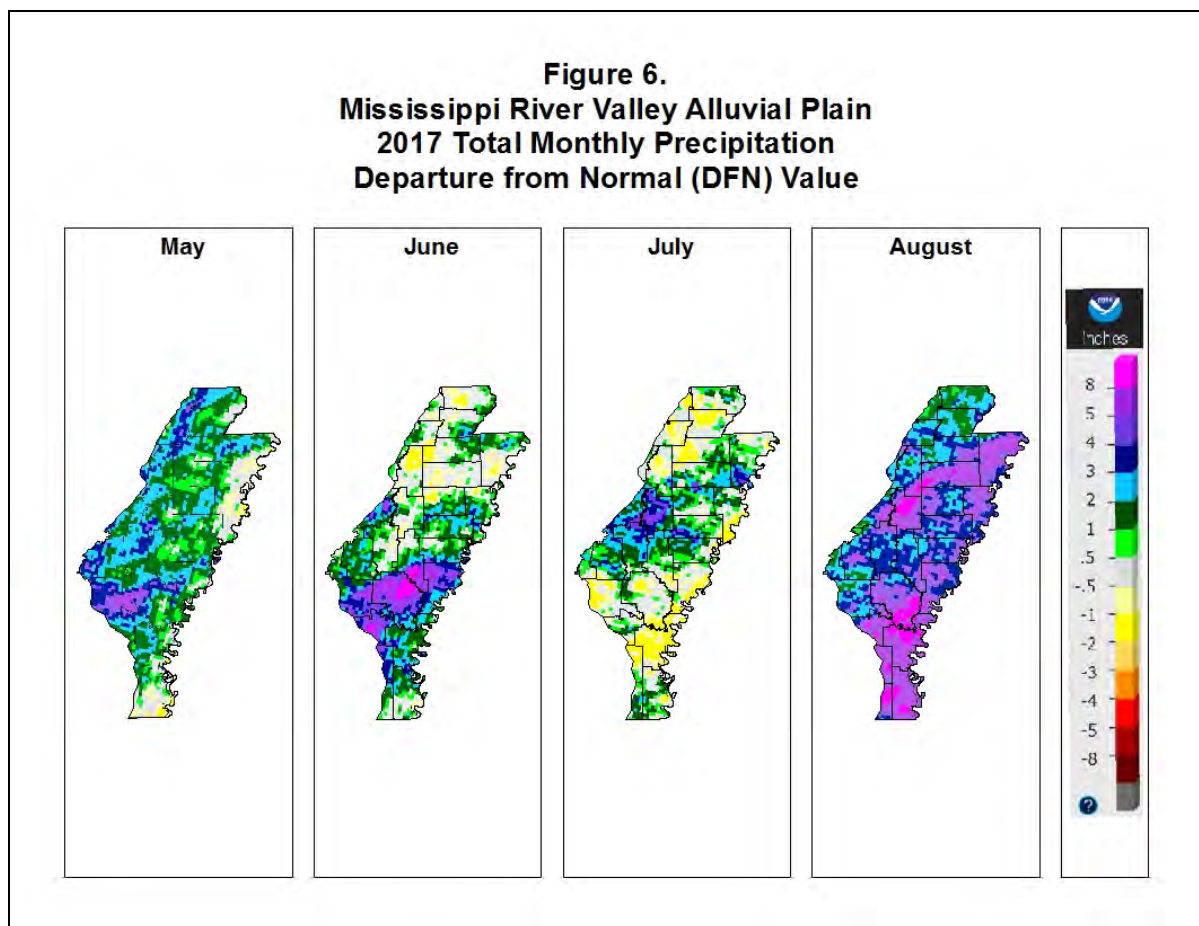
The amount of rainfall is taken into account each monitoring period to observe the change of water levels during times of drought or excess rainfall. Climate data was received from the National Weather Service, Little Rock field office by direct correspondence and through the 2017 and 2018 Climate Summary publications (NWS, 2018 and NWS, 2019). In 2017, the annual average precipitation was 49.57 inches, just 0.03 inches below the average for the State. Years of abundant precipitation benefit the alluvial aquifer by increasing the ability for the aquifer to recharge naturally, and by reducing the demand for groundwater, especially adequate amounts of rainfall throughout the growing season. Figure 5 compares the statewide annual average precipitation to the average change in water levels in the alluvial aquifer. Arkansas has consistently received average to above average rainfall since 2011, with the exception of 2012, and the average change across the alluvial aquifer has been trending upwards since 2012.



Above average monthly rainfall was measured for 6 out of 12 months in 2017, with April, May, and August being the wettest months of the year, receiving 8.70, 6.60, and 6.28 inches of rain, respectively. In fact, above average rainfall was received during every month beginning from March through August, and then again in December; all the other months experienced below average rainfall in 2017. Although it was an average year for rainfall in Arkansas in 2017, the above average precipitation throughout the summer months lowered the demand for groundwater during the irrigation season for much of the alluvial plain. In addition to the timely precipitation in 2017, February 2018 was the wettest

February on record for the state, providing a wet start to the monitoring season. This is reflected in the water level measurements and in the positive average change for the aquifer during the 2017 to 2018 monitoring season.

Figure 6 presents data from the National Weather Service illustrating the total monthly precipitation received as a departure-from-normal value across the Mississippi River Valley Alluvial Plain for the months of May, June, July, and August 2017.



Water Level Trends

Water level data from the current year are compared with previous data on a well to well basis in one (1), five (5), and ten (10) year intervals to illustrate the water level change of the alluvial aquifer over time. For the one year change comparison, 276 of the 395 wells measured in 2018 had data for 2017. Of these 276 wells, 94 (34.06%) were found to have declining water levels when compared to 2017. For the five year interval, 219 wells were

identified as having data for both 2013 and 2018, of which 66 (30.14%) had declining static water levels. The ten year analysis identified 301 wells with water levels for the years 2008 and 2018; 174 of the 301 wells (57.81%) monitored showed declines in the alluvial aquifer.

The average change over the entire aquifer during the 2017-2018 monitoring period was +1.25 feet, the 5-year (2013-2018) average change was +1.89 feet, and the 10-year (2008-2018) average change was -0.63 feet. Figure 7 presents the water level change for wells monitored in both 2017 and 2018 and provides the per county average change, as well as the total average for the dataset. Figure 8 depicts the 10 year average water level change as 5 foot contours, illustrating the areas where the most significant change has occurred. The areas that have experienced the greatest decline from 2008 to 2018 are the Cache and Grand Prairie study areas. In the Grand Prairie, declines were greatest throughout north and east Lonoke County, in small areas in central and north Arkansas County, and in north-central Jefferson County. The greatest positive water level change for the 2008 to 2018 interval occurred in Arkansas County, where 5 to 15 feet of water level rise occurred across the southeast quadrant of the county. In the Cache area, the areas the greatest declines occurred in Poinsett, Cross, and St. Francis counties, with minor (≤ 5 feet) declines in Monroe and Greene counties.

Thanks in large part to a great effort by the USDA NRCS staff, fall water level measurements were collected for alluvial aquifer wells in 2018. A total of 219 wells were monitored for water levels from September to early November. These measurements were compared to those collected in the spring on a well to well basis. The total average change for all measurements was -3.57 feet. Excluding the wells with positive change, the average drawdown across the dataset was -4.83 feet. Only Ashley, Drew and Arkansas counties experienced an average positive change. A comparison of the spring and fall water level data is shown on Figure 9 below.

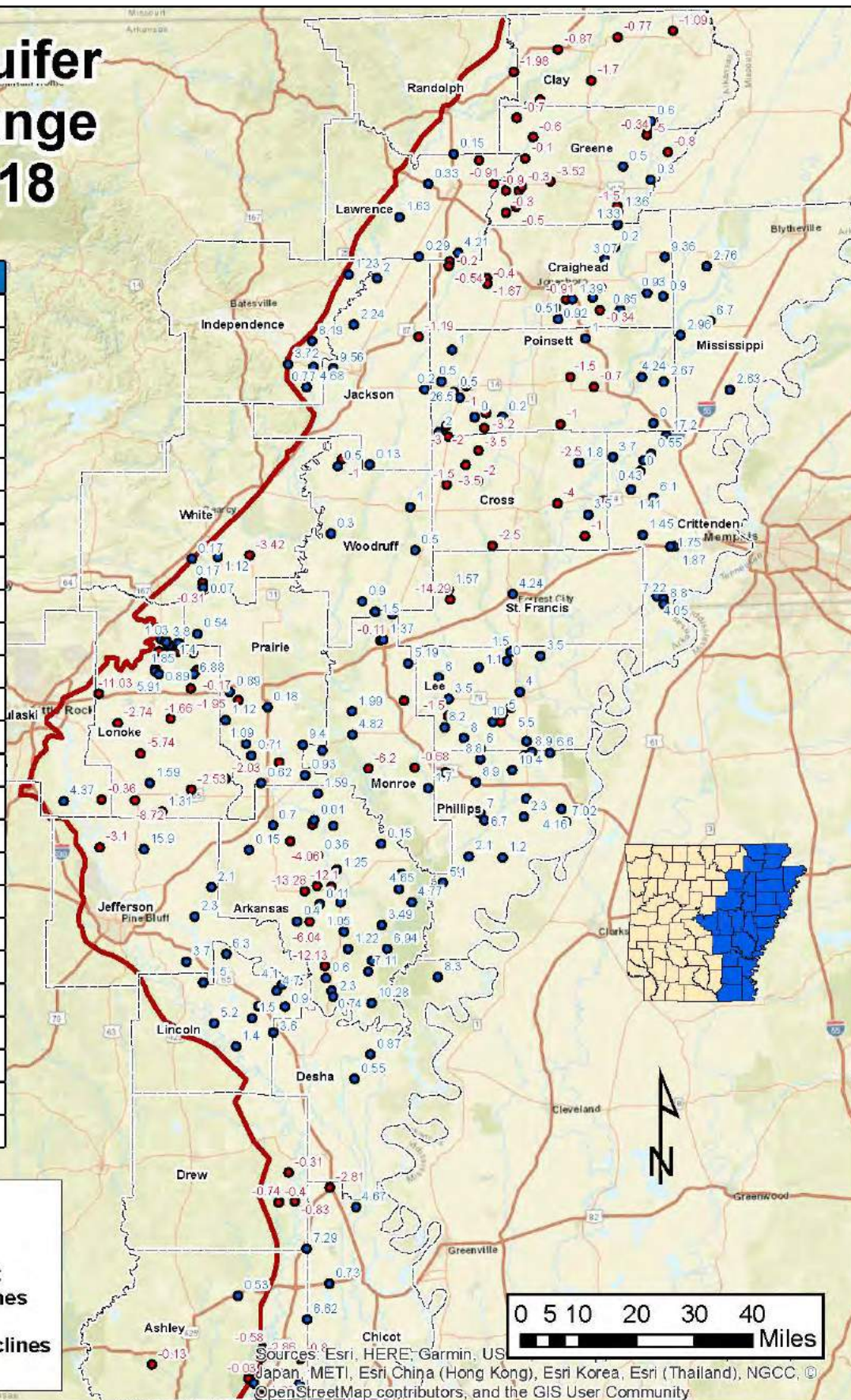
Alluvial Aquifer 1 Year Change 2017 - 2018

County	1 Year Change
Arkansas	+0.41
Ashley	-0.39
Chicot	+2.30
Clay	-1.10
Craighead	+0.85
Crittenden	+3.95
Cross	-1.73
Desha	+3.33
Drew	+1.00
Greene	-0.88
Independence	+2.60
Jackson	+3.02
Jefferson	+4.18
Lawrence	+0.80
Lee	+3.62
Lincoln	+3.02
Lonoke	-0.21
Mississippi	+3.76
Monroe	+0.20
Phillips	+5.60
Poinsett	+1.61
Prairie	-0.39
Pulaski	+2.01
St. Francis	-2.83
White	-0.37
Woodruff	+0.37

Alluvial Aquifer 1 Year Change:

Average Change: +1.25 feet
94 of 276 Wells Showed Declines

55 of 276 Wells Had Average Declines
of 1 ft. per Year or Greater



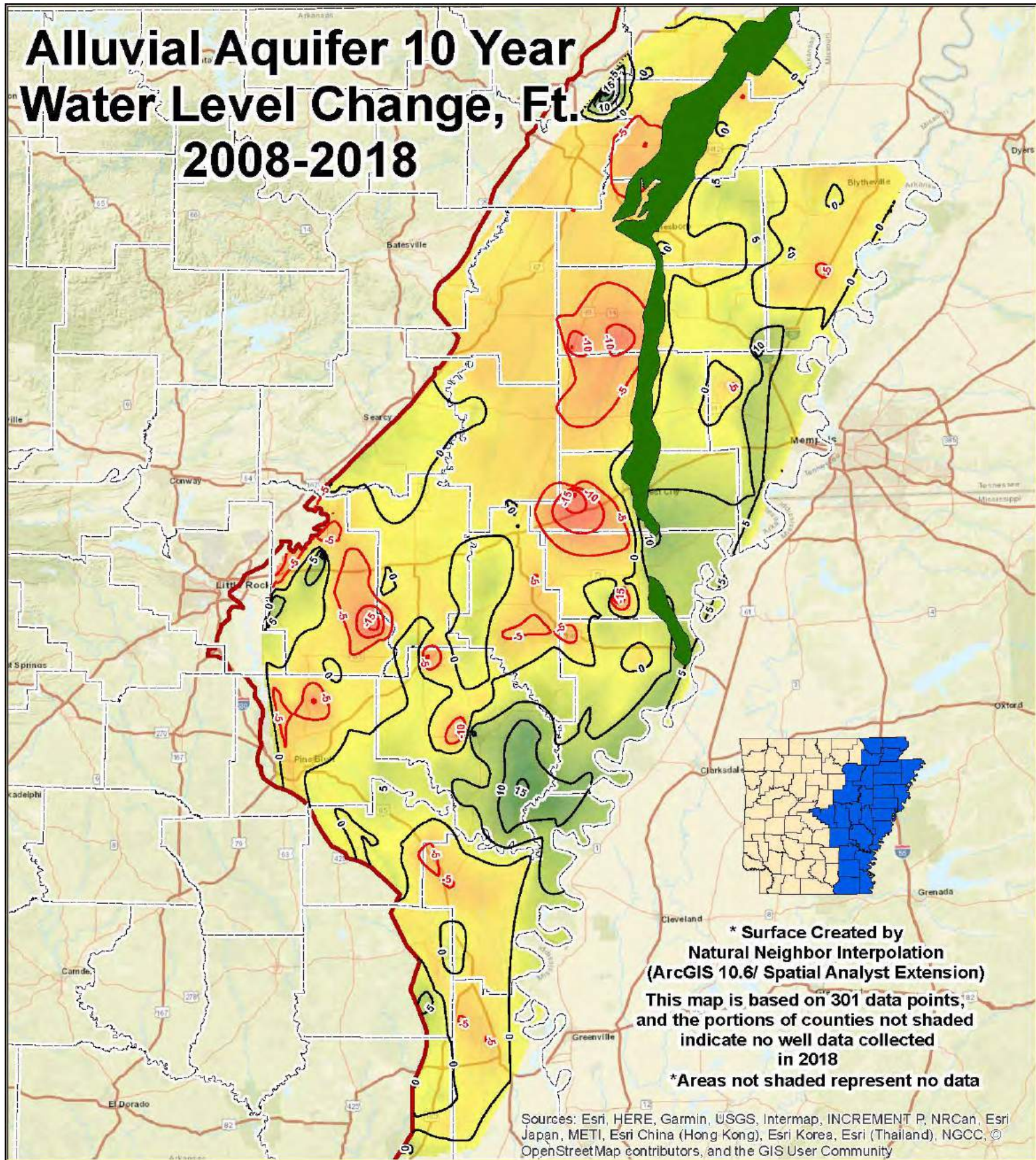
Legend

- Wells with Increases or No Change
- Wells with Declines
- Extent of the Miss. River Alluvial Plain
- County Boundaries



Figure 7

Alluvial Aquifer 10 Year Water Level Change, Ft. 2008-2018



Legend

Alluvial Aquifer

10 Year Change, Ft.

- 16 Ft. to 20 Ft.
- 11 Ft. to 15 Ft.
- 6 Ft. to 10 Ft.
- 0 to 5 Ft.
- 0 to -5 Ft.
- 6 Ft. to -10 Ft.
- 11 Ft. to -15 Ft.
- 16 Ft. to -20 Ft.

- 5 ft. Contour Lines
- Declines of 5 ft. or Greater
- Extent of the Miss. River Alluvial Plain

0 62.5 125 250 375 500 Miles



Figure 8

2018 Spring/Fall Water Level Change Ft. in the Alluvial Aquifer

**Alluvial Aquifer
2018 Spring/Fall Change:**

**Average Change: -3.57 feet
181 of 219 Wells Showed Declines**

**157 of 219 Wells Had Average Declines
of 1 ft. per Year or Greater**

County	Avg. Change, Ft.	# Wells
Arkansas	+1.41	7
Ashley	+0.32	8
Chicot	-0.56	5
Craighead	-2.44	15
Crittenden	-5.34	8
Cross	-1.44	13
Desha	-4.78	10
Drew	+0.32	6
Greene	-3.95	11
Independence	-8.48	4
Jackson	-4.86	5
Jefferson	-1.24	5
Lawrence	-3.44	5
Lee	-4.85	15
Lincoln	-2.54	9
Lonoke	-1.61	18
Mississippi	-8.57	13
Monroe	-3.54	10
Phillips	-9.05	13
Poinsett	-2.53	23
Prairie	-0.96	5
Randolph	-9.15	7
Woodruff	-1.87	4

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Legend

- Wells with Increases or No Change
- Wells with Declines
- County Boundaries



0 5 10 20 30 40
Miles



Figure 9

Selected hydrographs from the Cache and Grand Prairie cones of depression that illustrate the nature of decline in these areas are shown below as Figure 10 and Figure 11.

Figure 10. Cache Critical Groundwater Area Hydrographs

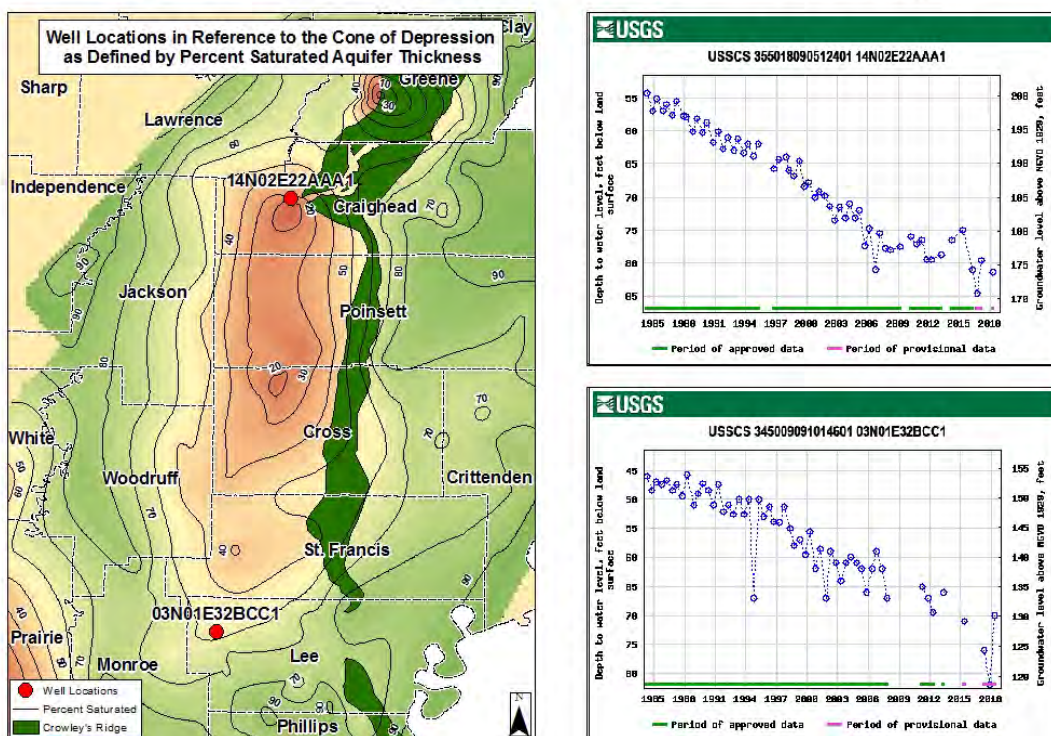
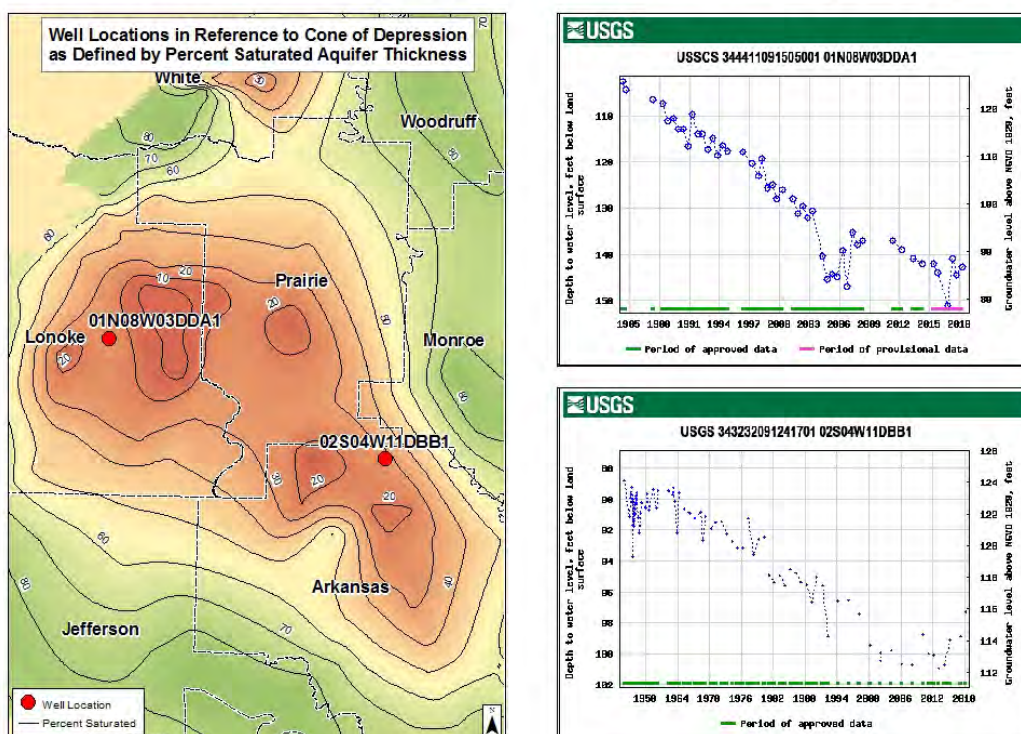


Figure 11. Grand Prairie Critical Groundwater Area Hydrographs



For the five study areas, the 2018 data shows near-stable to increasing water levels in all study areas for the one year and five year intervals with declines due to over-use in the 10-year averages, with the exception of the St. Francis study area which demonstrates increases for one, five, and ten year change periods. The following figures depict the 2018 alluvial aquifer water level change data and well locations for the four study areas over the one, five, and ten year change intervals. See Figures 12 through 23.

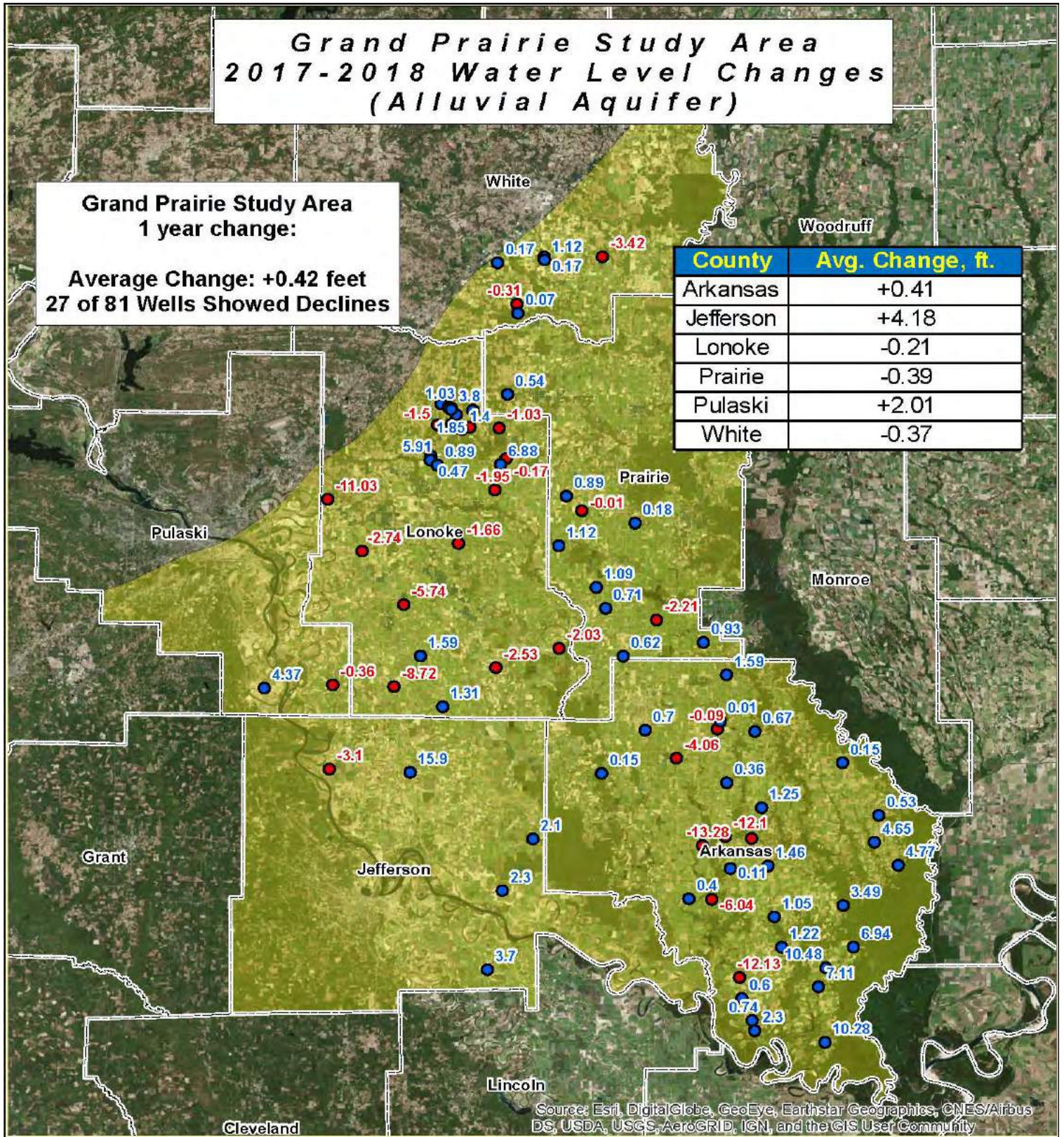
Appendix A presents the 2018 water level data along with the 2008, 2013, and 2017 water level data for wells measured in 2018, and the water level change calculations for the Mississippi River Valley alluvial aquifer.

Grand Prairie Study Area 2017-2018 Water Level Changes (Alluvial Aquifer)

**Grand Prairie Study Area
1 year change:**

**Average Change: +0.42 feet
27 of 81 Wells Showed Declines**

County	Avg. Change, ft.
Arkansas	+0.41
Jefferson	+4.18
Lonoke	-0.21
Prairie	-0.39
Pulaski	+2.01
White	-0.37



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

Legend

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



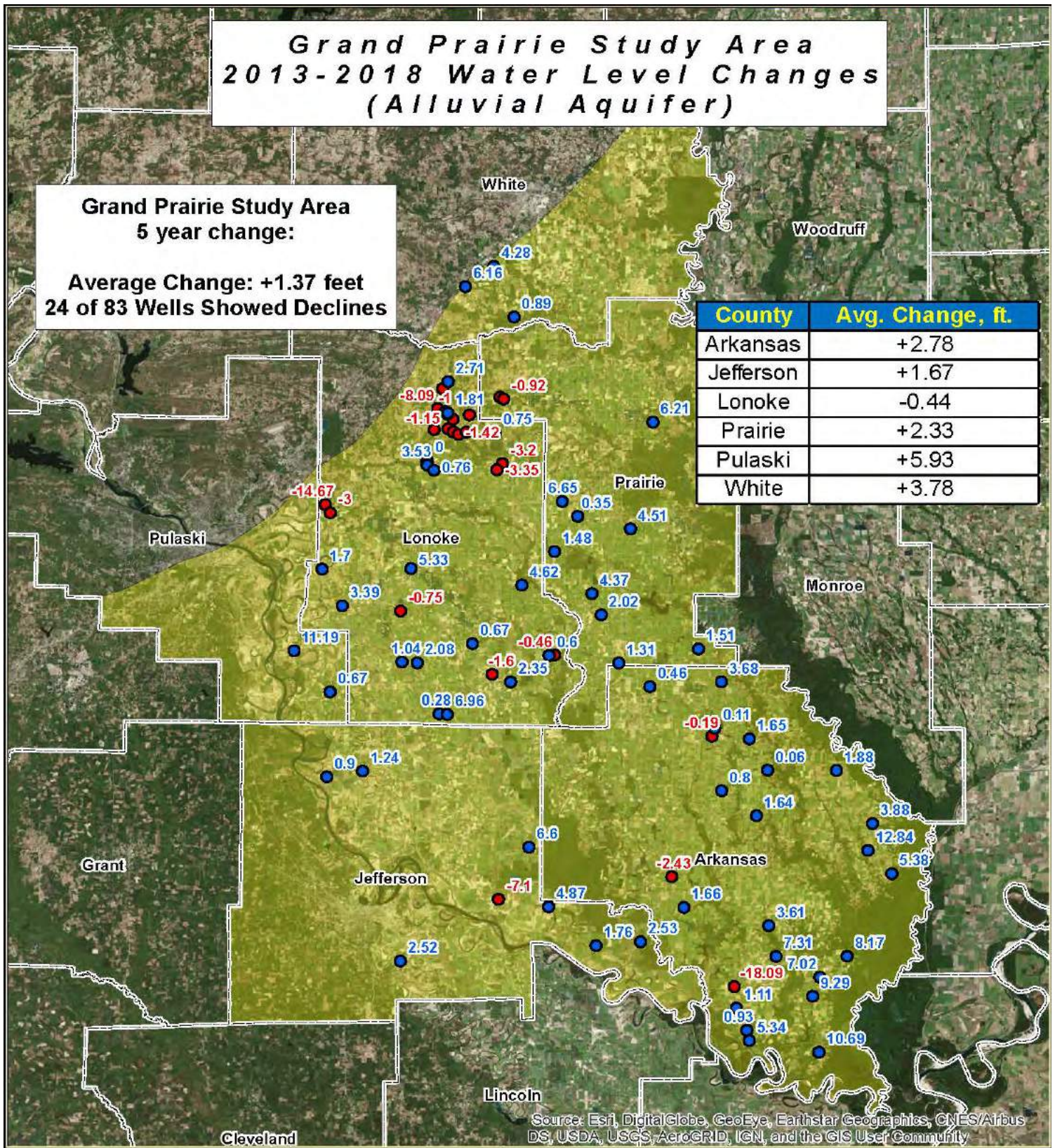
Figure 12

Grand Prairie Study Area 2013-2018 Water Level Changes (Alluvial Aquifer)

Grand Prairie Study Area
5 year change:

Average Change: +1.37 feet
24 of 83 Wells Showed Declines

County	Avg. Change, ft.
Arkansas	+2.78
Jefferson	+1.67
Lonoke	-0.44
Prairie	+2.33
Pulaski	+5.93
White	+3.78



Legend

0 5 10 20 30 Miles

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



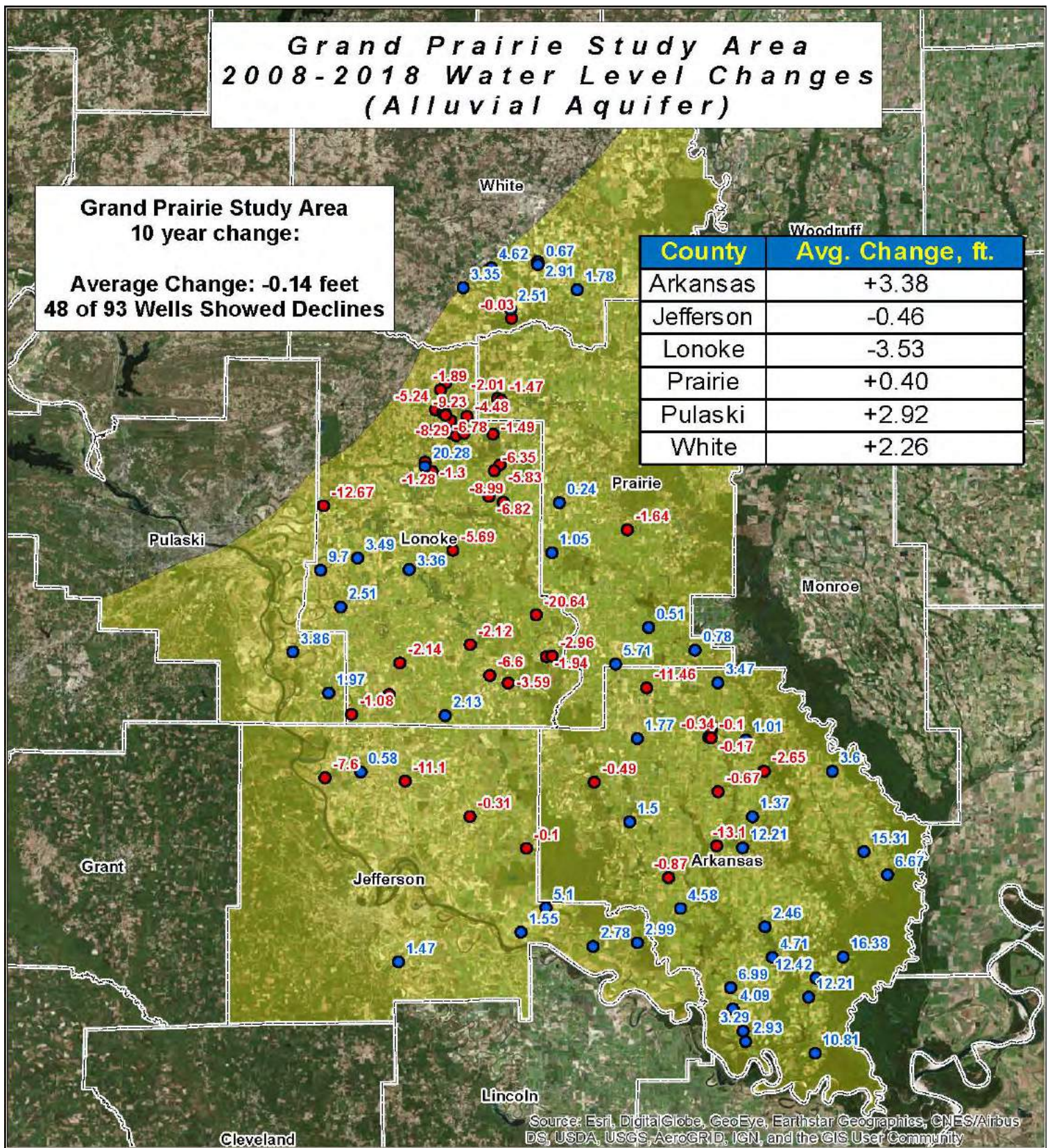
Figure 13

Grand Prairie Study Area 2008-2018 Water Level Changes (Alluvial Aquifer)

Grand Prairie Study Area
10 year change:

Average Change: -0.14 feet
48 of 93 Wells Showed Declines

County	Avg. Change, ft.
Arkansas	+3.38
Jefferson	-0.46
Lonoke	-3.53
Prairie	+0.40
Pulaski	+2.92
White	+2.26



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

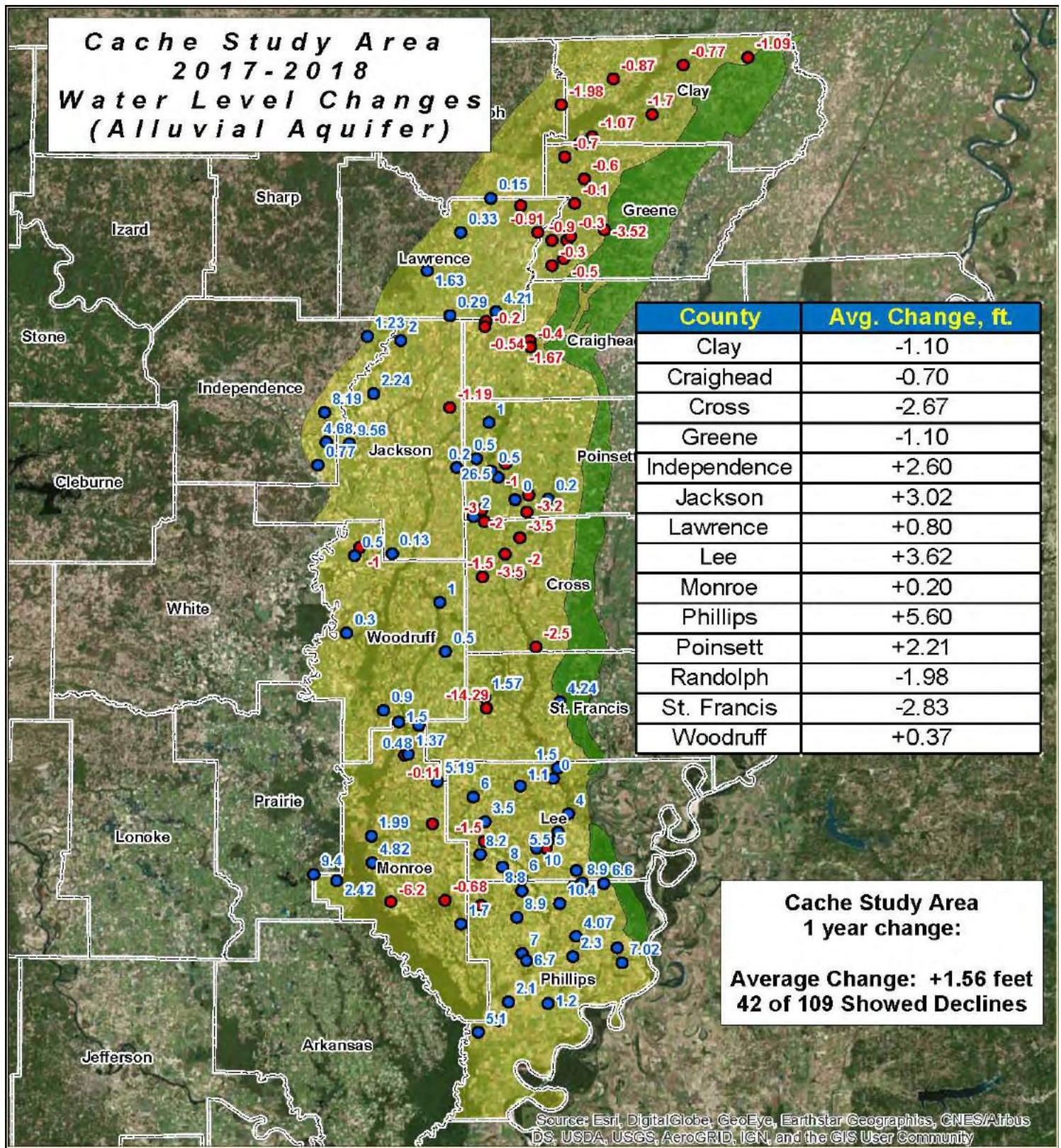
Legend

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

0 5 10 20 30 Miles



Figure 14



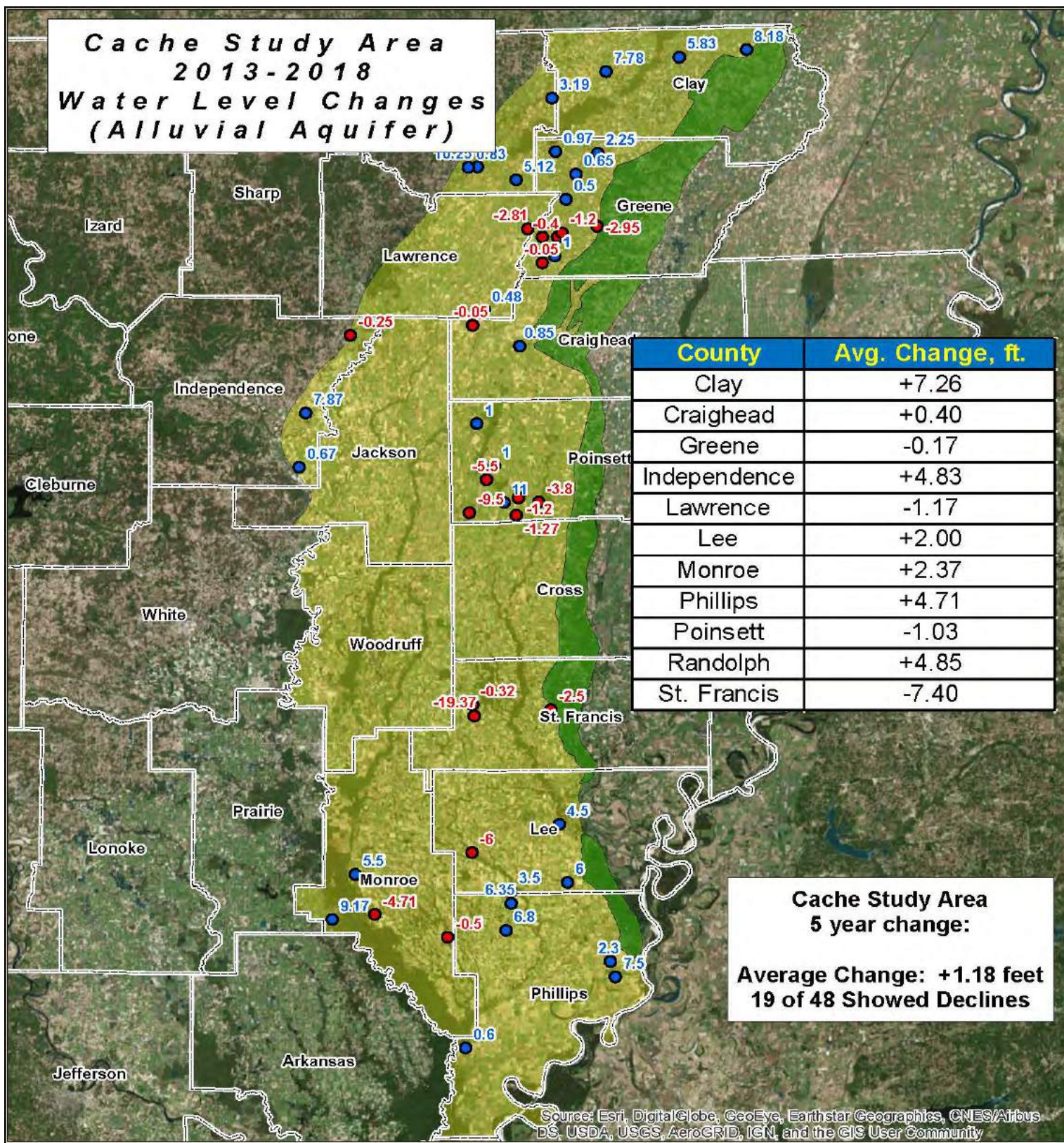
Legend

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

0 3 6 12 18 24 30
Miles



Figure 15



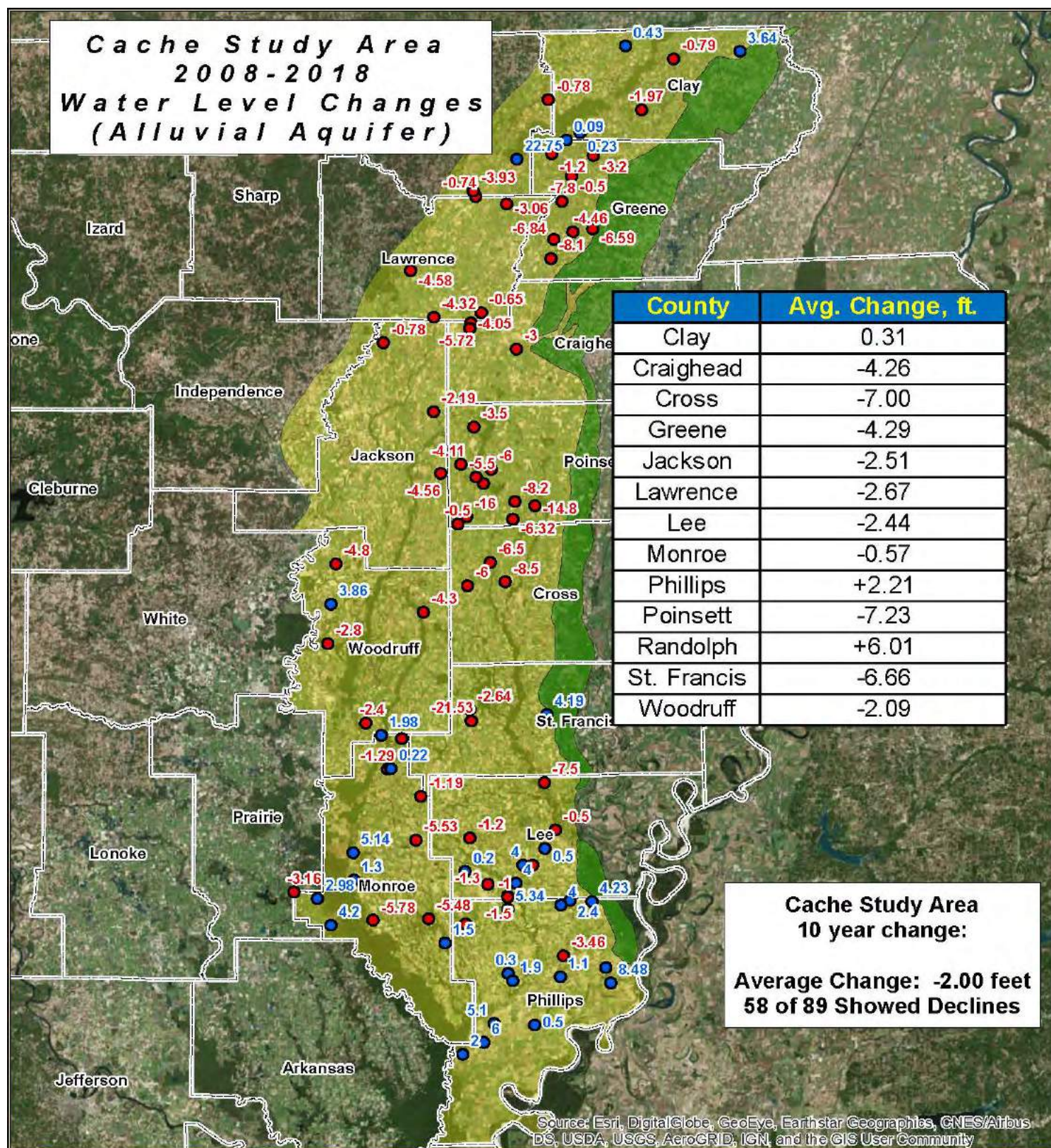
Legend

- Wells with Increases
- Wells with Declines
- Crowley's Ridge
- Cache Study Area

0 2.5 5 10 15 20 25 Miles



Figure 16



Legend

- Wells with Increases
- Wells with Declines
- Crowley's Ridge
- Cache Study Area

0 2.5 5 10 15 20 25 Miles



Figure 17

Boeuf-Tensas Study Area 2017-2018 Water Level Changes (Alluvial Aquifer)

County	Avg. Change, ft.
Ashley	-0.39
Chicot	+2.30
Desha	+3.33
Drew	+1.00
Lincoln	+3.02

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

Average Change: +1.65 feet
11 of 31 Wells Showed Declines

**3 of 31 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

0 2.5 5 10 15 20 25 Miles

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



Figure 18

Boeuf-Tensas Study Area 2008-2018 Water Level Changes (Alluvial Aquifer)

County	Avg. Change, ft.
Ashley	+0.29
Chicot	-1.96
Desha	-1.80
Drew	+0.35
Lincoln	+0.85

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

**Average Change: -0.52 feet
38 of 62 Wells Showed Declines**

**28 of 62 Wells Had Average Declines
of 1 ft. per Year or Greater**

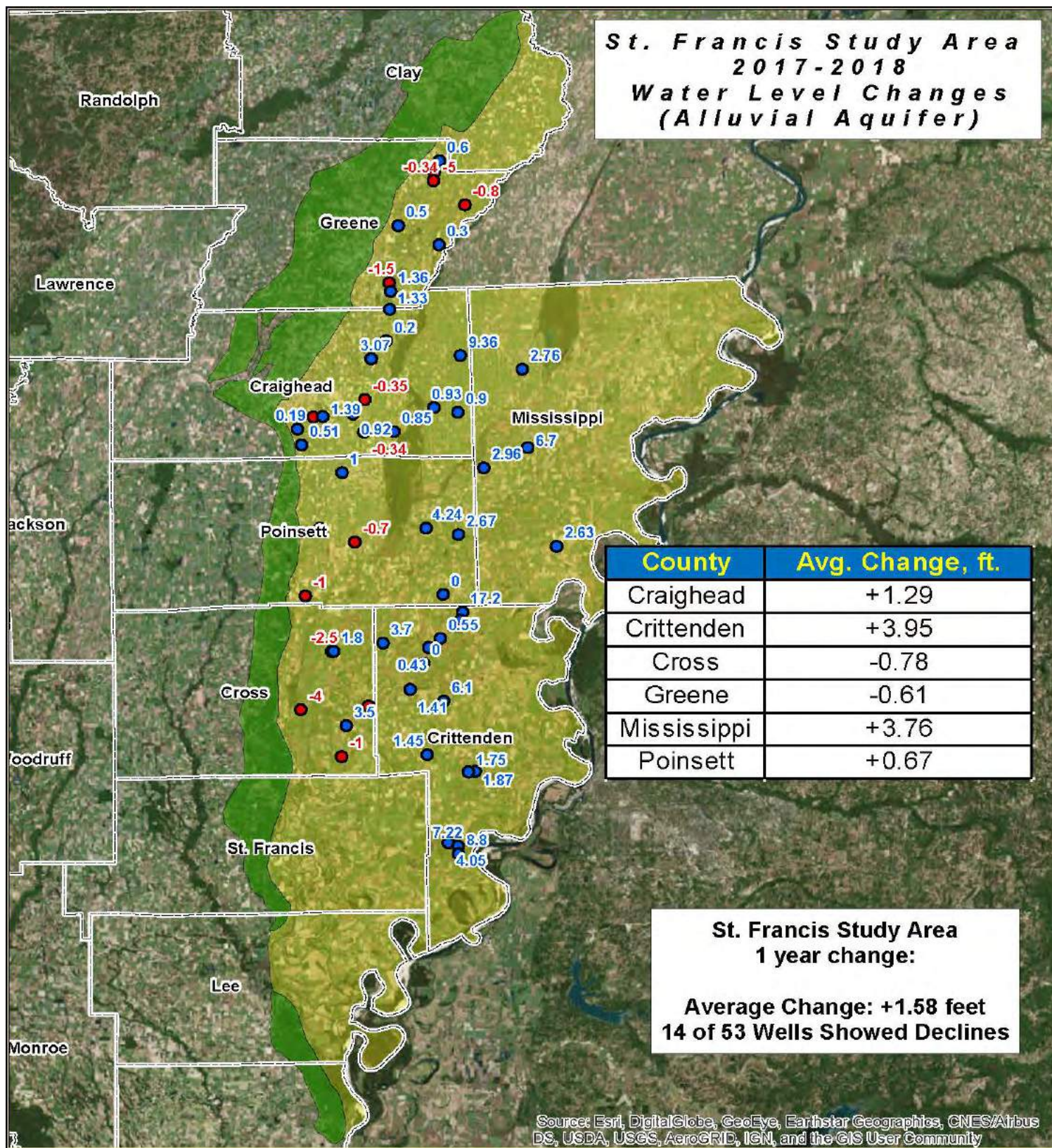
Legend

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

0 2.5 5 10 15 20 25 Miles



Figure 20

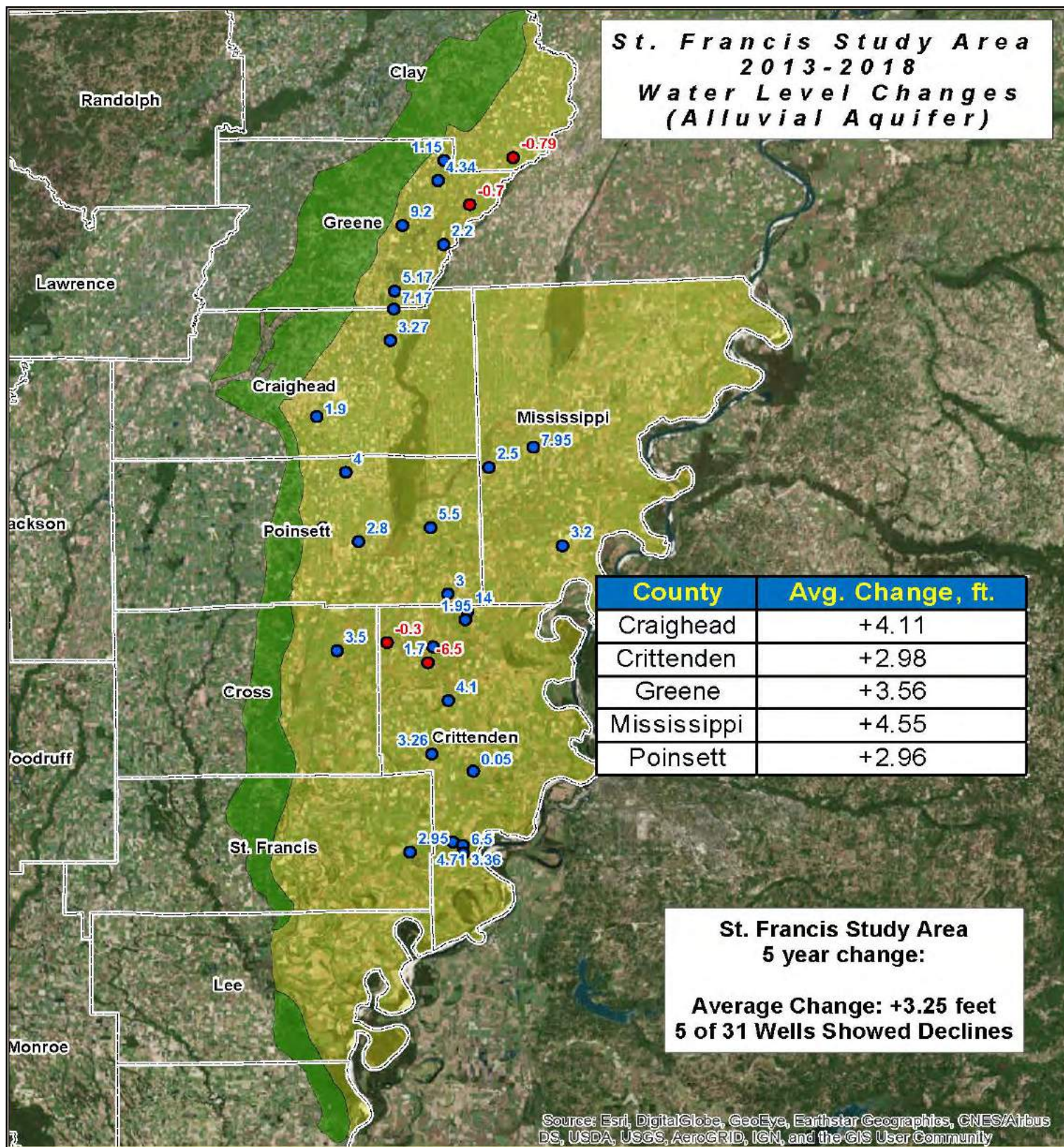


- Legend**
- Wells with Increases or No Change
 - Wells with Declines
 - Crowleys Ridge
 - St. Francis Study Area

0 3 6 12 18 24 30 Miles



Figure 21



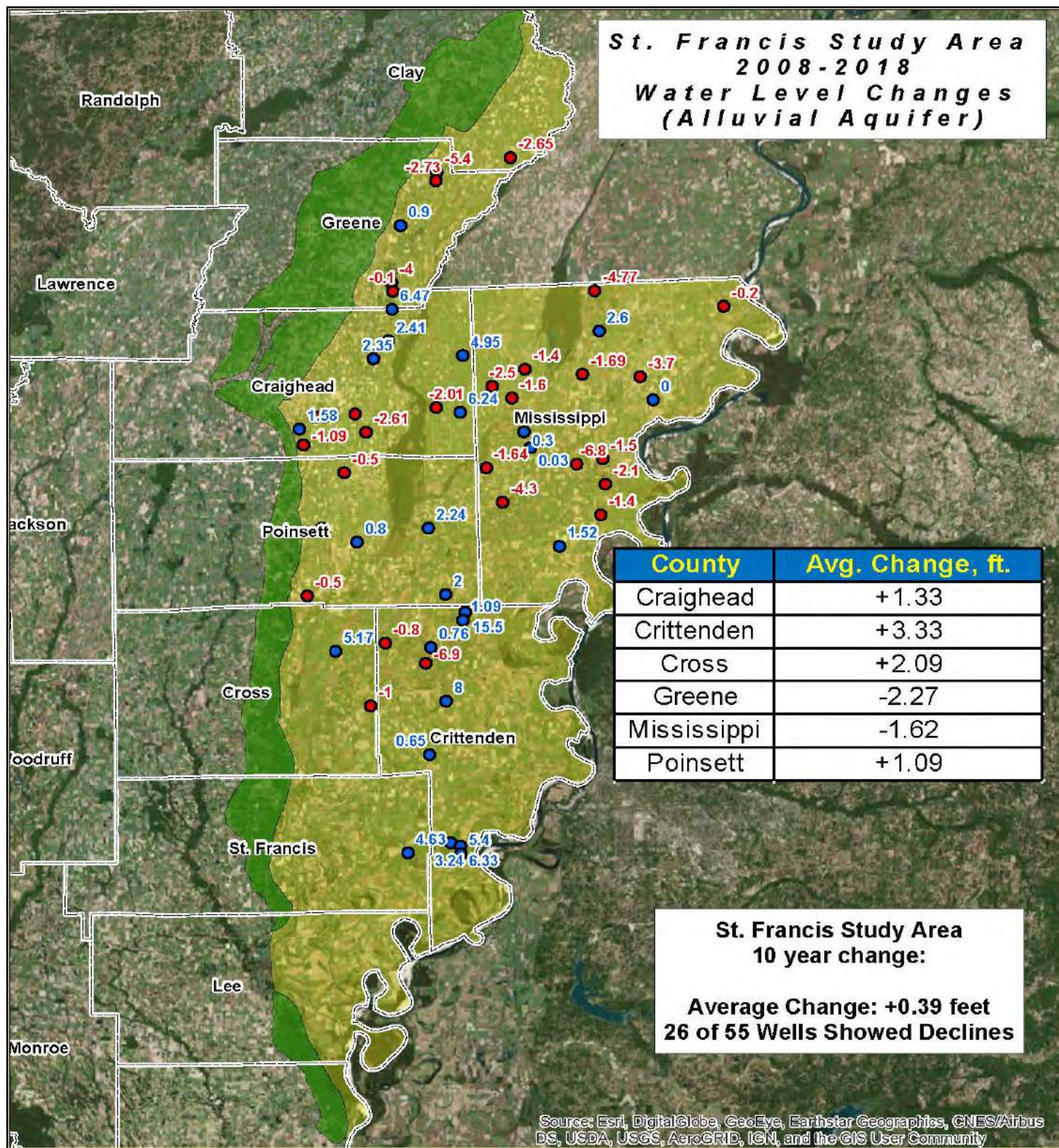
Legend

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

0 3 6 12 18 24 30 Miles



Figure 22



Legend

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

0 3 6 12 18 24 30 Miles



Figure 23

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 in south Arkansas and subcrops beneath the alluvial aquifer in parts of Pulaski, Lonoke, Prairie, Woodruff, Poinsett, Craighead, Greene, and Clay counties in east Arkansas. The Sparta/Memphis 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; however, lithological differences are present in the Sparta aquifer in Arkansas.

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. Northward of approximately 35 degrees latitude in northeast Arkansas, the underlying Cane River and Carrizo Sand formations undergo a facies change and become sand, making them generally indistinguishable from the Sparta Sand in this region (Kresse, T.M., et al., 2014). As such, the three formations are grouped together and referred to as the Memphis Sand, or the Memphis Aquifer, in this region. The Memphis aquifer is the major source of quality drinking water in the area.

Groundwater levels were collected from 253 water wells in the Sparta/Memphis aquifer throughout the south and east portions of Arkansas in 2018. Figure 24 depicts the 2018 potentiometric surface as depth to water values for the Sparta/Memphis aquifer.

Sparta/ Memphis Aquifer Depth to Water, Feet 2018

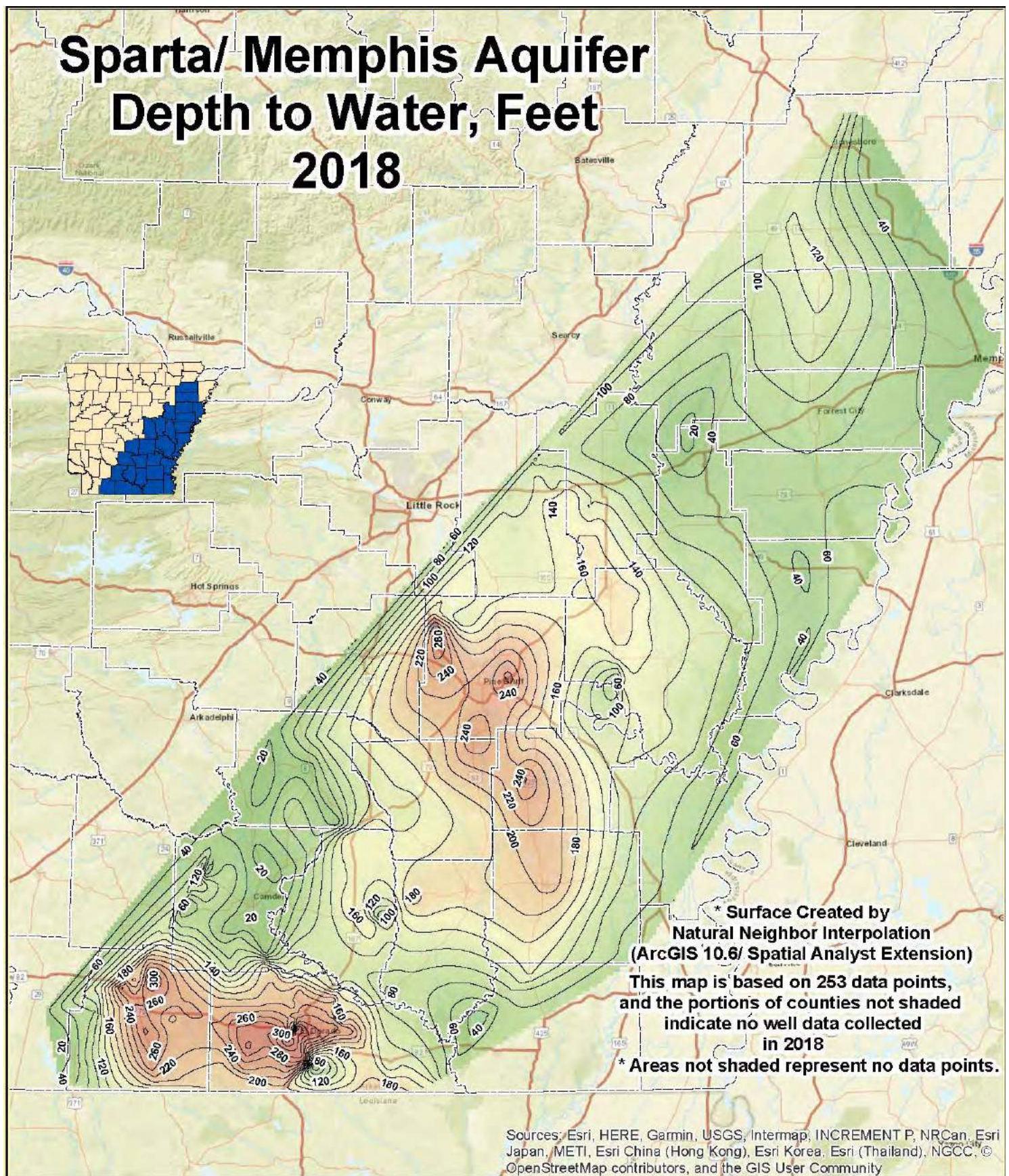


Figure 24

Water Level Trends

Water level data collected in 2018 was compared with historical data in 1, 5 and 10 years intervals. Two hundred and fifty three (253) wells were monitored in 2018; of these 173 were found to share data with wells measured in 2017, and when compared, 61 of the 173 wells (35.26%) were found to be in decline. Water level data for 180 wells was found between the 2013 and 2018 datasets with 47 wells in decline (26.11%) over the 5 year period. A comparison of the 2008 and 2018 datasets revealed shared water level data at 195 wells with 56 wells in decline (28.72%) over the 10 year period.

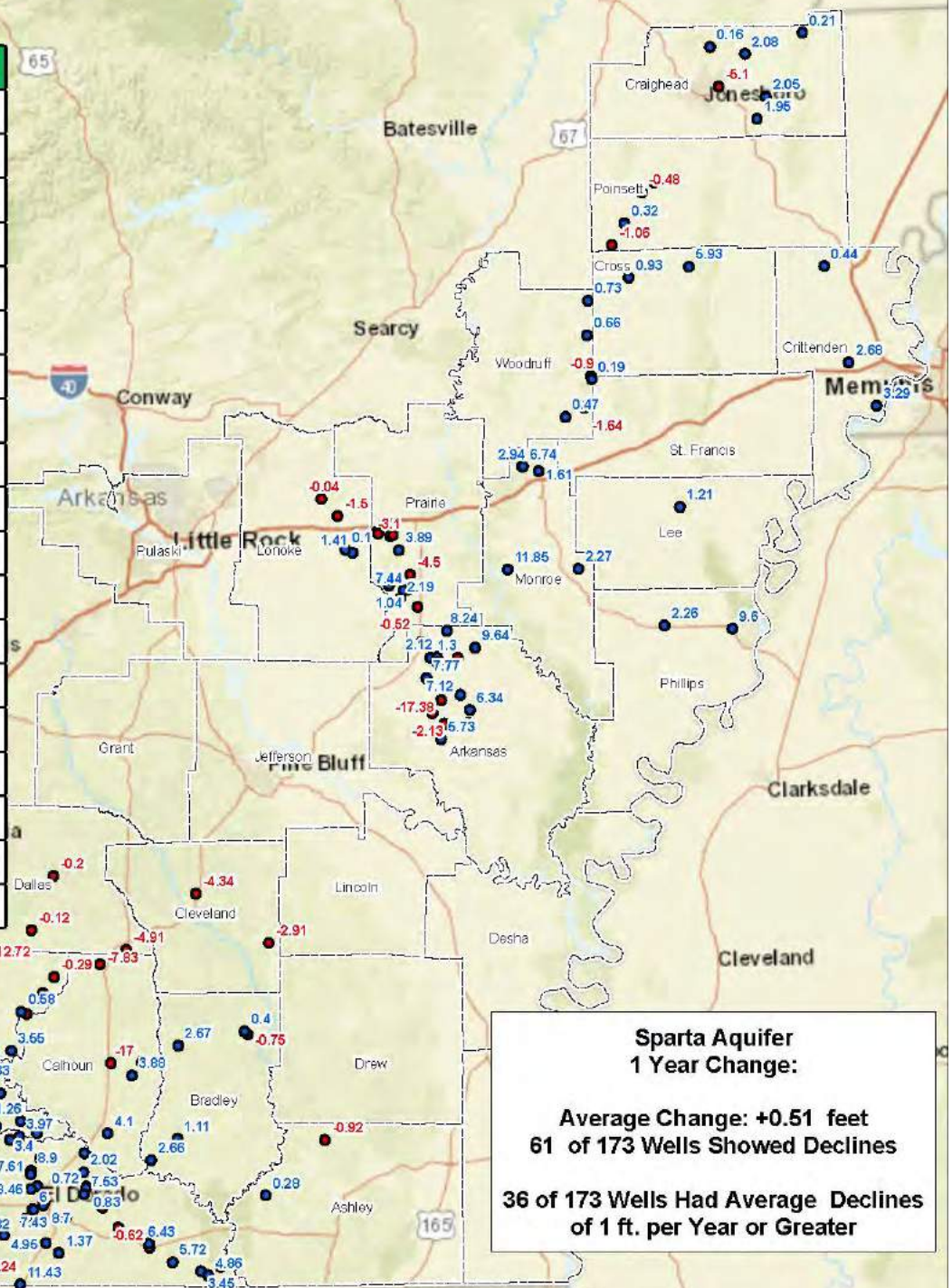
The average change over the entire aquifer from the 2017 monitoring period to the 2018 monitoring period was +0.51 feet; from 2013 to 2018, the total average change was +4.83 feet over the entire aquifer; and from 2008 to 2018, the total average change was +7.99 feet over the entire aquifer. Figure 25 presents the 2017 to 2018 change values for each wellsite with per county averages for the entire Sparta aquifer.

Overall recovery continues in the areas where historical drawdown has been the most significant with the South Arkansas and Grand Prairie Study Areas showing stable to increasing average change over the 1, 5 and 10 year periods. Since 2008, Sparta aquifer wells in South Arkansas demonstrate an average change of +17.23 feet with only 11 out of 81 wells showing declines. In the Grand Prairie, the average change is +4.41 feet over the 10 year period with 21 of 61 of the wells being in decline. The Grand Prairie Study Area is rather divided with Lonoke and Prairie counties declining on average while Jefferson and Arkansas counties appear to be recovering overall, particularly in the 10 year interval. Comparative data is sparse in the Cache Study Area for the 1 and 5 year change periods, but the 10 year period indicates that aquifer levels continue to decline generally, with Cross and Poinsett counties having average declines of >5 feet.

The Boeuf-Tensas Study Area had almost no data for the 2017 to 2018 period with only 2 wells in Ashley County averaging -0.32 feet, while the 5 year and 10 year intervals had average change values of +0.21 and +4.93 feet, respectively. In the St. Francis Study Area data was sparse between the time periods with no data for the 5 year change interval; however, the 1 and 10 year intervals both have an average change value of +0.95. For the

Sparta Aquifer 1 Year Change 2017 - 2018

County	1 Year Change
Arkansas	+2.02
Ashley	-0.32
Bradley	+1.22
Calhoun	-3.38
Cleveland	-3.63
Columbia	-2.28
Craighead	+0.23
Crittenden	+2.14
Cross	+3.43
Dallas	-1.74
Lafayette	-3.28
Lonoke	-0.01
Monroe	+5.08
Ouachita	+1.71
Phillips	+5.93
Poinsett	-0.35
Prairie	-0.94
Union	+2.00
Woodruff	-0.08



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

Legend

- Wells with Increases
- Wells with Declines
- County Boundaries

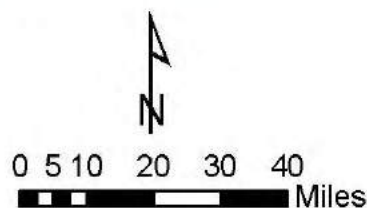


Figure 25

Cache Study Area the 1 and 5 year average change values are positive at +2.05 and +0.95 feet, respectively, while the 10 year average change shows a decline of -2.66 feet.

Data beginning as early as 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 significant rebound in water levels in some areas. Union County alone has seen an average change in water level of +31.48 feet from 2008 to 2018, based on 33 wells. The surrounding counties in the South Arkansas Study Area have also seen an average rise in water levels during this time with Calhoun County having an average change of +14.56 (5 wells), Columbia County +5.30 (20 wells), Bradley County +16.59 (5 wells), and Ouachita County +5.09 feet.

The following Figure 26 and Figure 27 present hydrographs from wells in the South Arkansas and Grand Prairie study areas, respectively. Within the cone of depression in Union and Columbia counties in South Arkansas, recovery has been steady for approximately 20 years. In two of these hydrographs current water levels are near or above what they were in the 1960's or 1970's when the wells were first measured. In the Grand Prairie depression the hydrographs show that wells have recovered slightly since approximately 2009-2012 when water levels were at their lowest in the period of record.

Figure 26. South Arkansas Critical Groundwater Area Hydrographs Sparta Aquifer

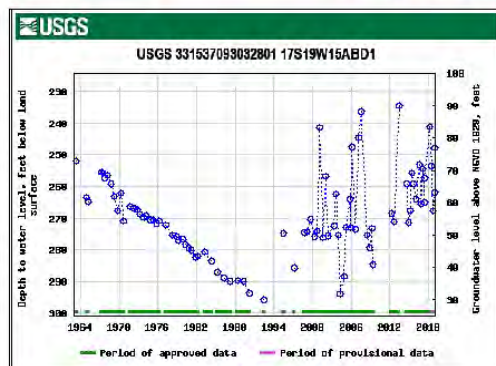
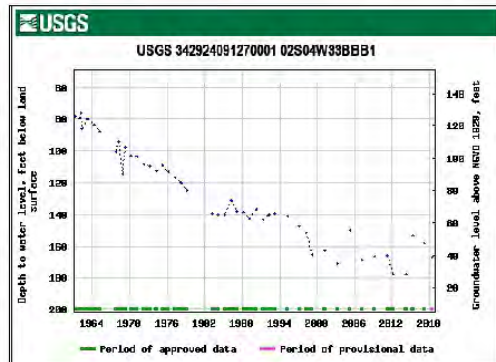


Figure 27. Grand Prairie Critical Groundwater Area Hydrographs Sparta Aquifer



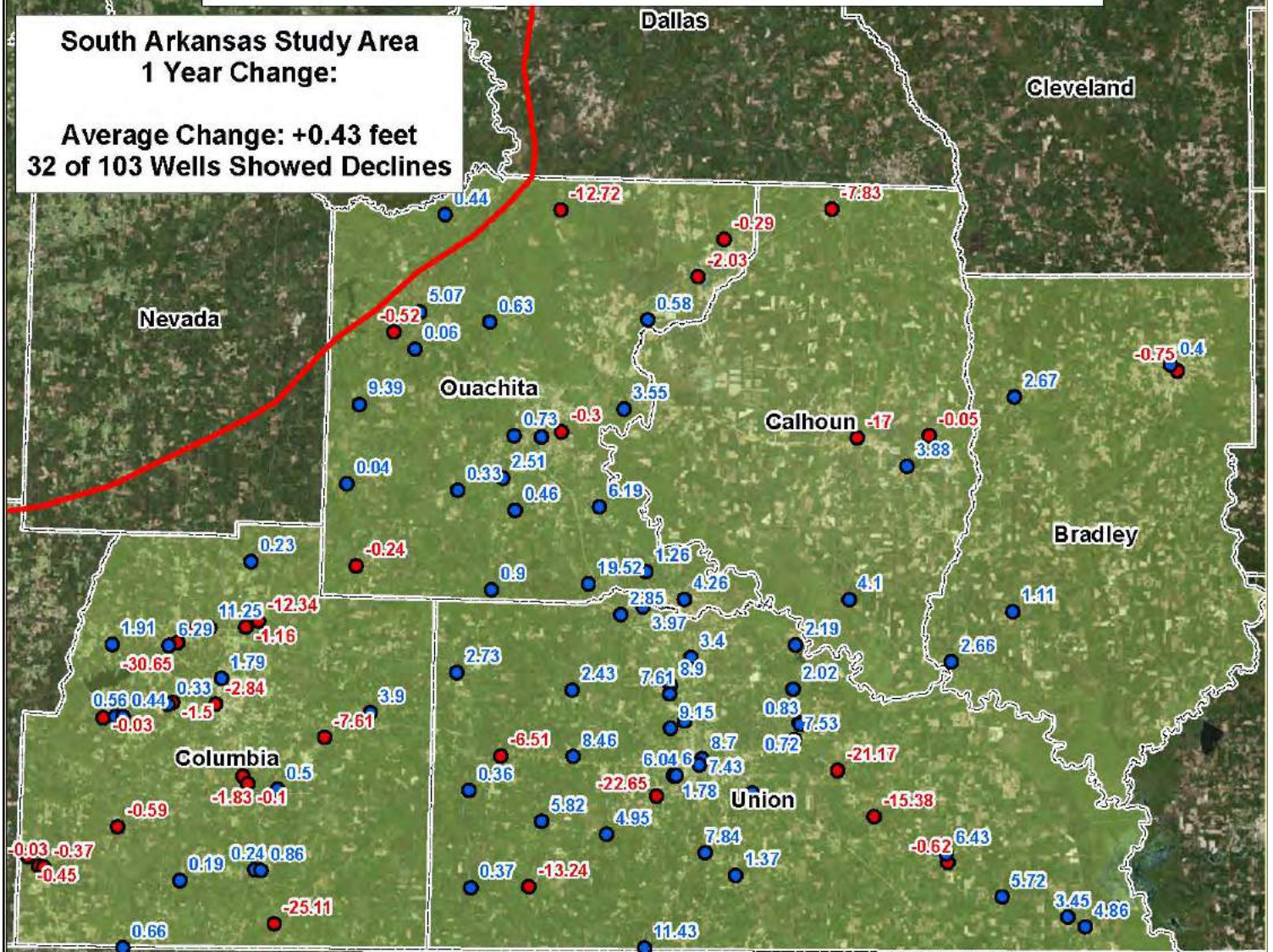
The following Figures 28-41 present the 2018 Sparta/Memphis aquifer water level change data and well locations for the five (5) study areas over the one (1), five (5), and ten (10) year change intervals.

Appendix B presents a table of specific water-level monitoring data for the Sparta/Memphis aquifer from the 2018 monitoring period, as well as the 1, 5, and 10 year change comparisons.

South Arkansas Study Area 2017-2018 Water Level Changes (Sparta Aquifer)

South Arkansas Study Area
1 Year Change:

Average Change: +0.43 feet
32 of 103 Wells Showed Declines



County	Avg. Change
Bradley	+1.22
Calhoun	-3.38
Columbia	-2.28
Ouachita	+1.71
Union	+2.00

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

Legend

0 2.5 5 10 15 20 25 Miles

● Wells with Increases

● Wells with Declines

— Sparta Boundary

■ South Arkansas Study Area

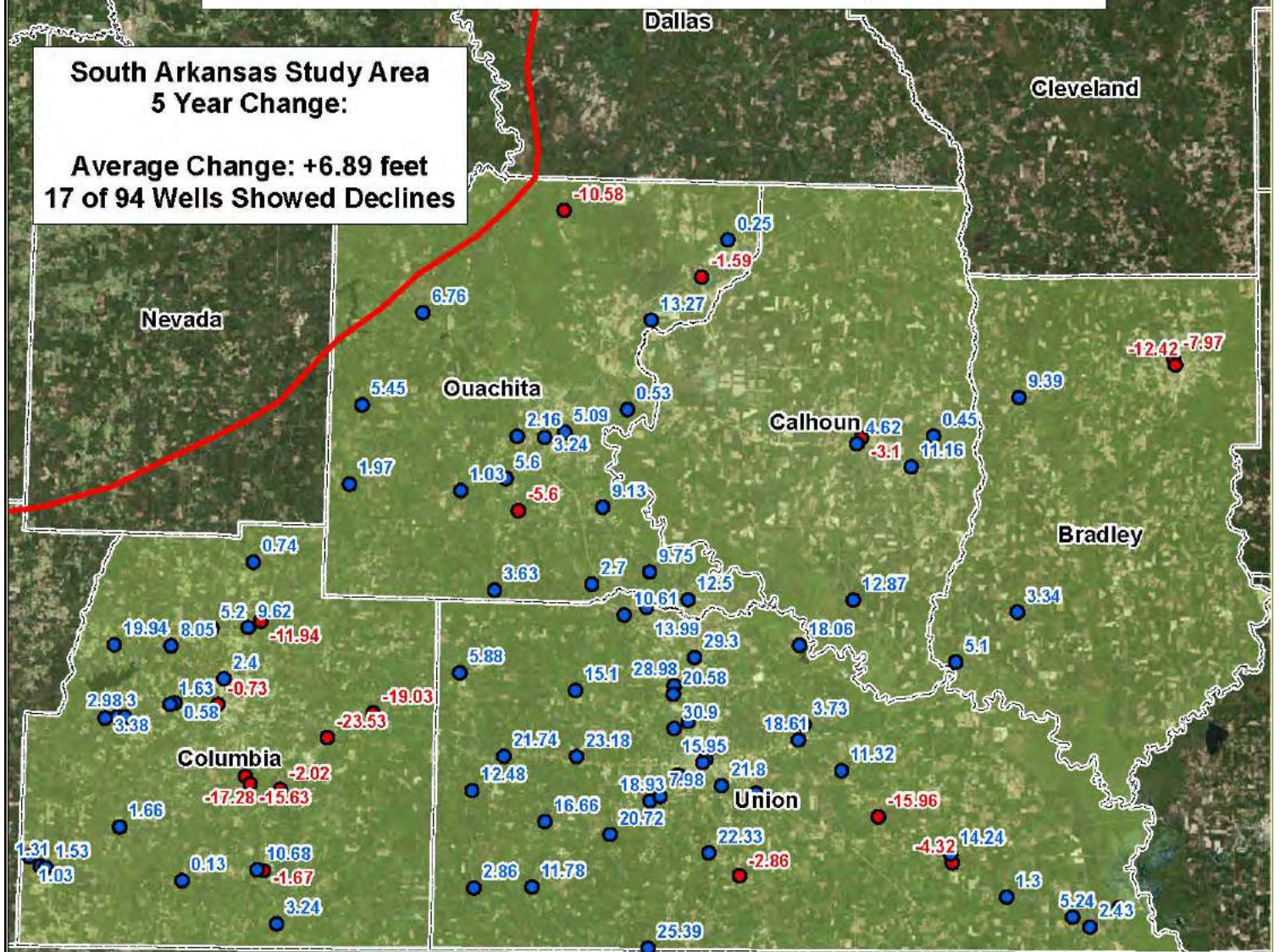


Figure 28

South Arkansas Study Area 2013-2018 Water Level Changes (Sparta Aquifer)

South Arkansas Study Area
5 Year Change:

Average Change: +6.89 feet
17 of 94 Wells Showed Declines



County	Avg. Change
Bradley	-0.51
Calhoun	+5.20
Columbia	-0.49
Ouachita	+3.44
Union	+14.84

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

Legend

0 2.5 5 10 15 20 25 Miles

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

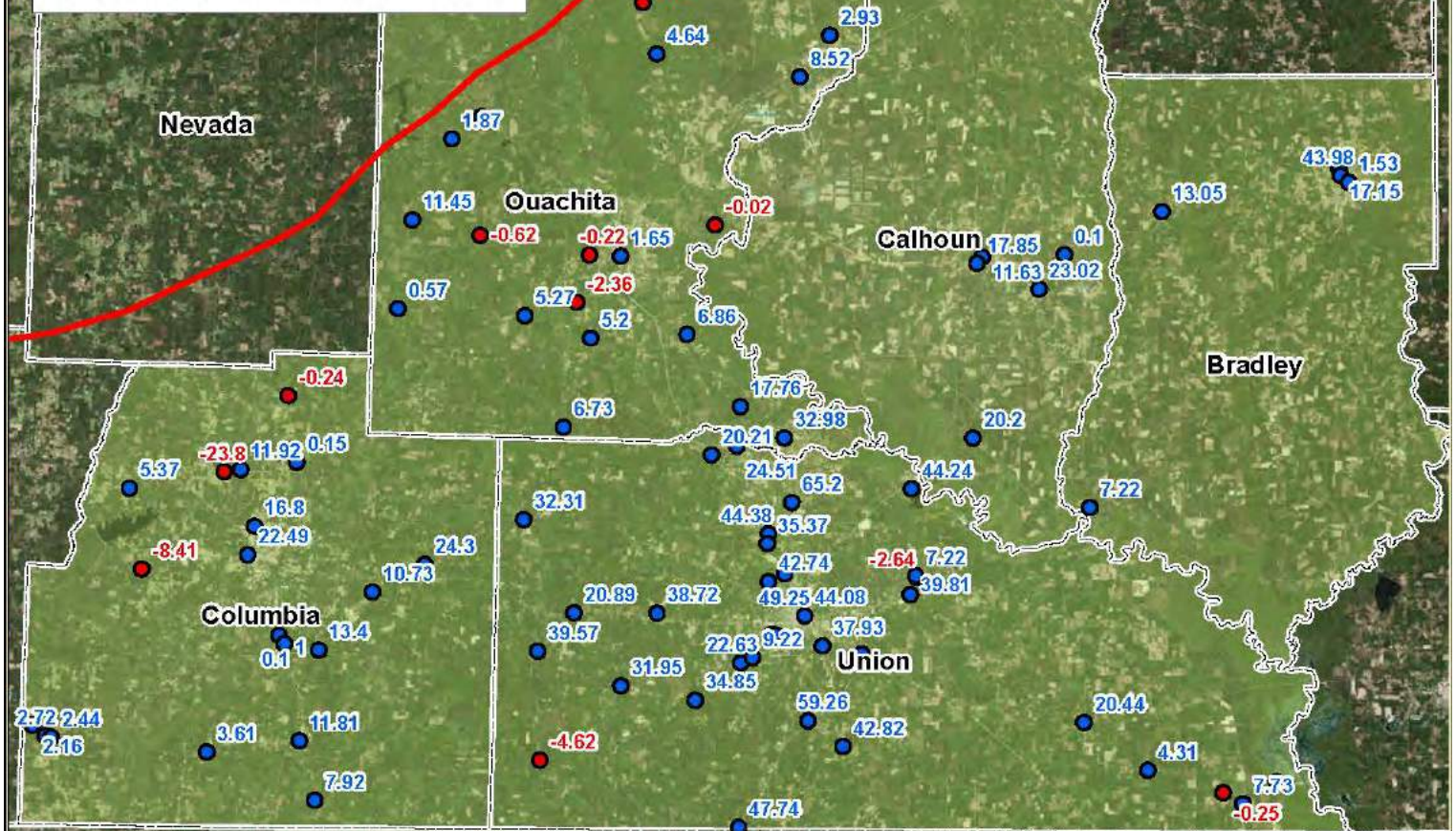


Figure 29

South Arkansas Study Area 2008-2018 Water Level Changes (Sparta Aquifer)

**South Arkansas Study Area
10 Year Change:**

**Average Change: +17.23 feet
11 of 81 Wells Showed Declines**



County	Avg. Change
Bradley	+16.59
Calhoun	+14.56
Columbia	+5.30
Ouachita	+5.09
Union	+31.48

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

Legend

0 2.5 5 10 15 20 25 Miles

- Wells with Increases
- Wells with Declines

— Sparta Boundary

■ South Arkansas Study Area



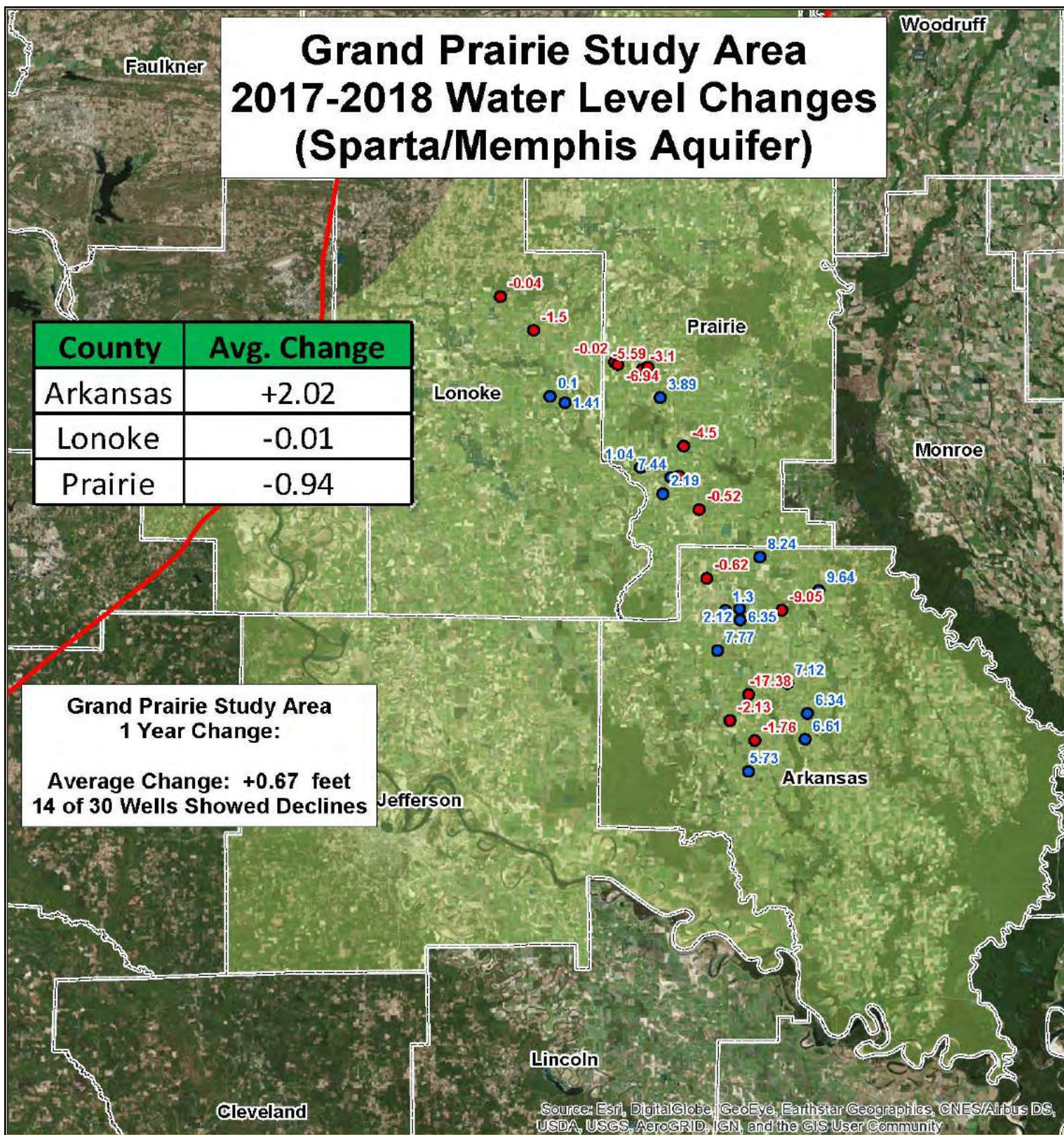
Figure 30

Grand Prairie Study Area 2017-2018 Water Level Changes (Sparta/Memphis Aquifer)

County	Avg. Change
Arkansas	+2.02
Lonoke	-0.01
Prairie	-0.94

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

Average Change: +0.67 feet
14 of 30 Wells Showed Declines



Legend

0 2.5 5 10 15 20 25 Miles

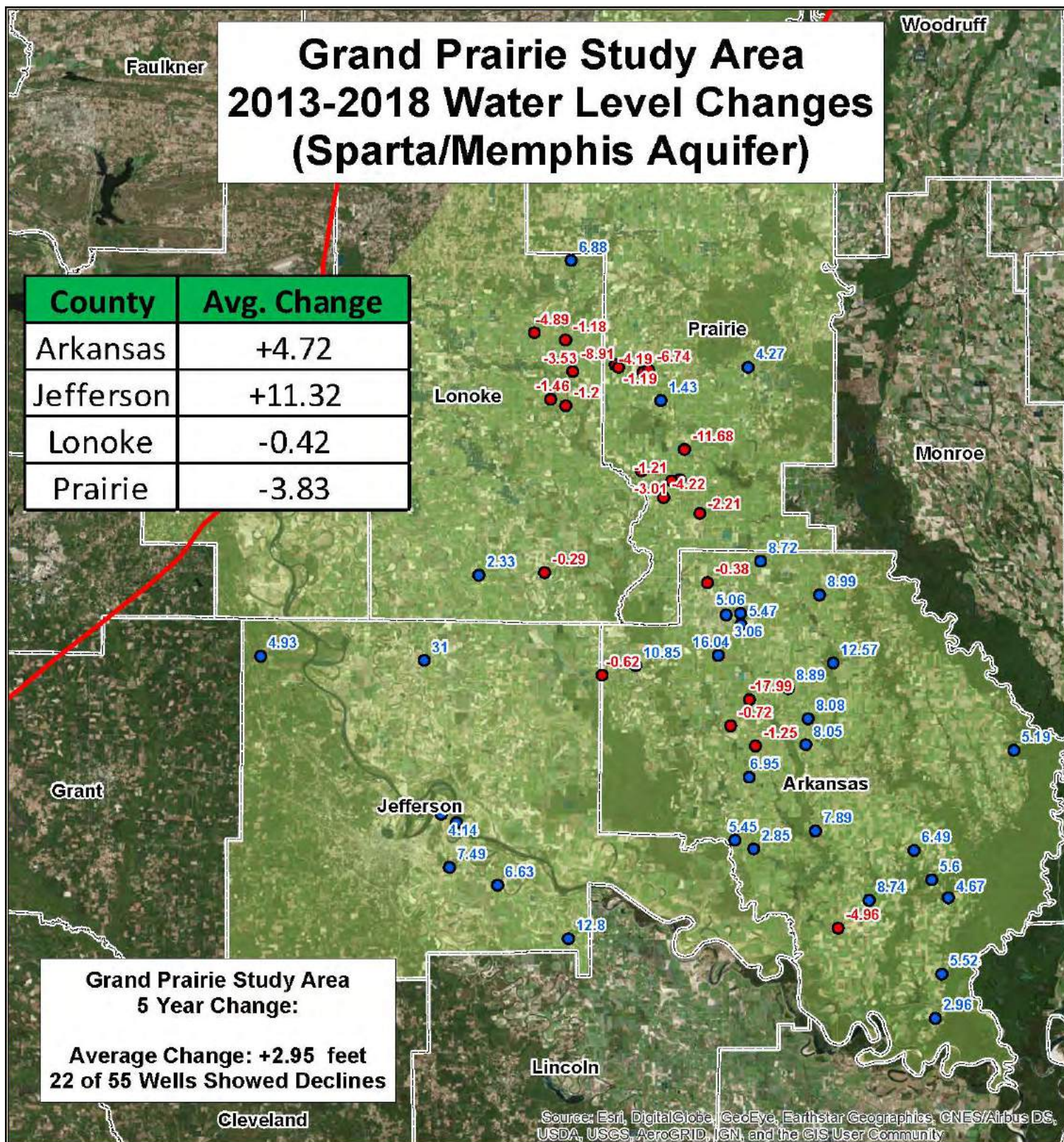
- Wells with Increases
- Wells with Declines
- Sparta Boundary
- Grand Prairie Study Area



Figure 31

Grand Prairie Study Area 2013-2018 Water Level Changes (Sparta/Memphis Aquifer)

County	Avg. Change
Arkansas	+4.72
Jefferson	+11.32
Lonoke	-0.42
Prairie	-3.83



Legend

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

0 2.5 5 10 15 20 25 Miles



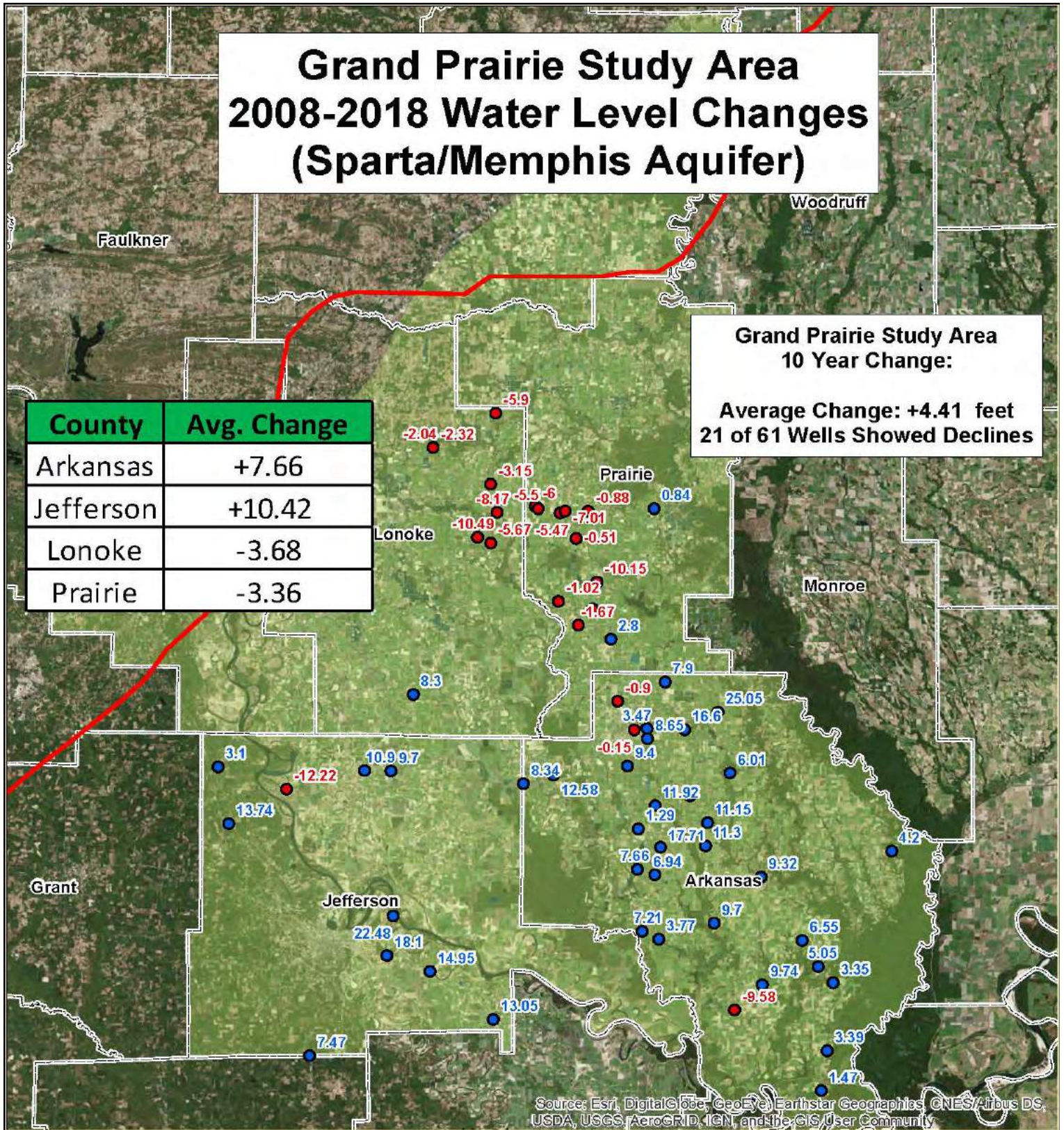
Figure 32

Grand Prairie Study Area 2008-2018 Water Level Changes (Sparta/Memphis Aquifer)

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

**Average Change: +4.41 feet
21 of 61 Wells Showed Declines**

County	Avg. Change
Arkansas	+7.66
Jefferson	+10.42
Lonoke	-3.68
Prairie	-3.36



Legend

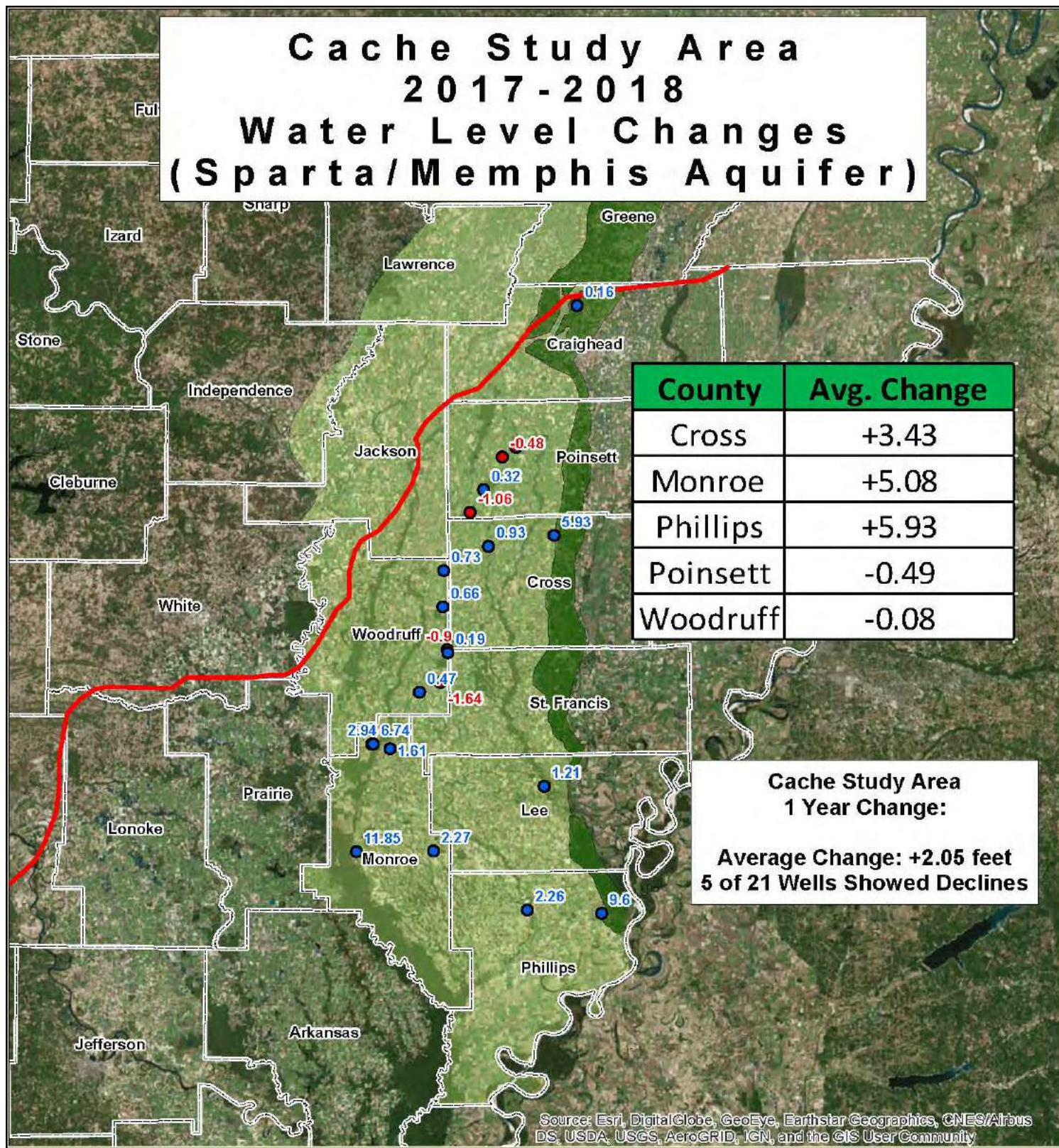
- Wells with Increases
- Wells with Declines
- Sparta Boundary
- Grand Prairie Study Area

0 2.5 5 10 15 20 25 Miles



Figure 33

Cache Study Area 2017-2018 Water Level Changes (Sparta/Memphis Aquifer)



Legend

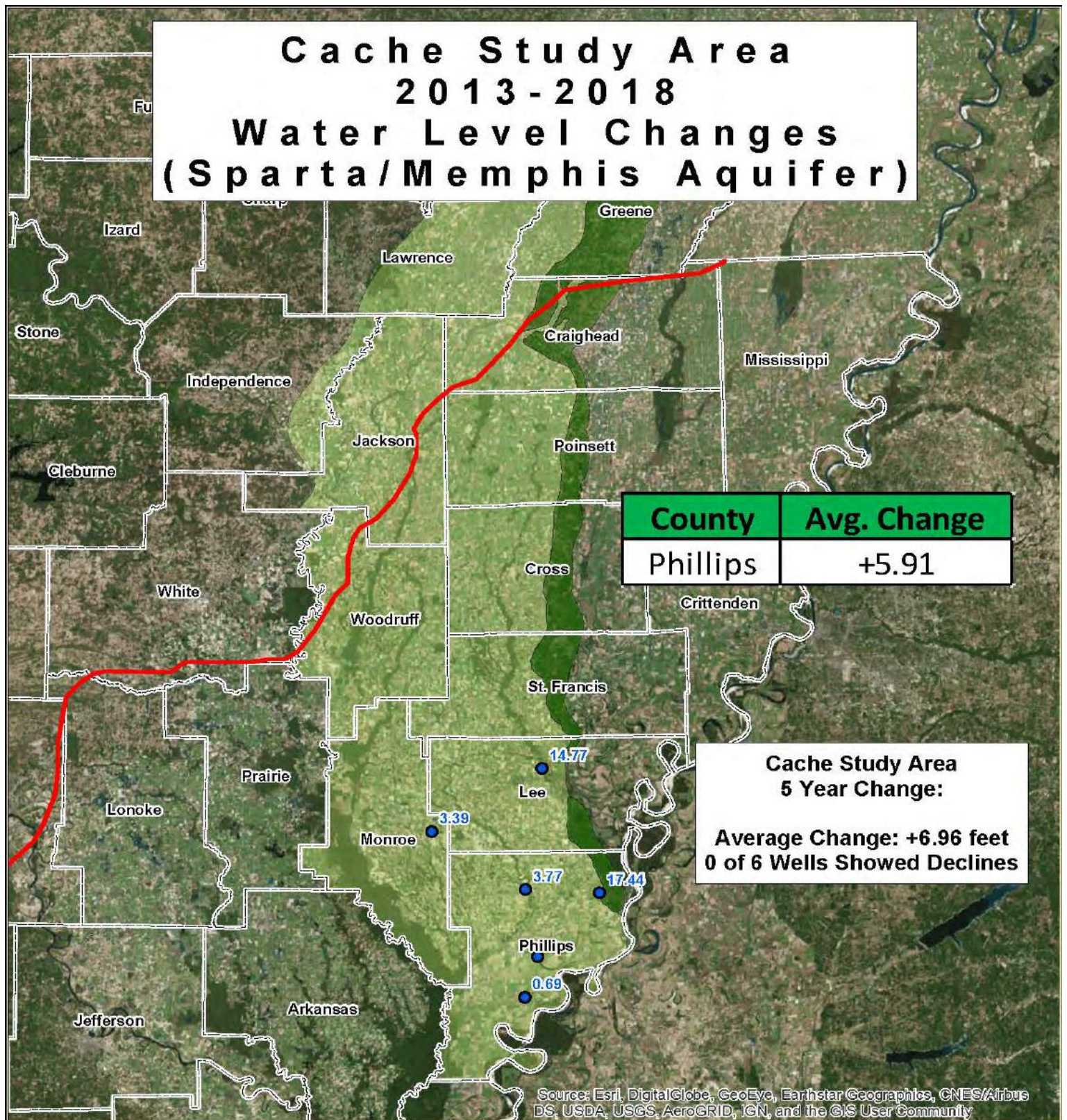
- Wells with Increases
- Wells with Declines
- Sparta Boundary
- Crowley's Ridge
- Cache Study Area

0 5 10 20 30 Miles



Figure 34

Cache Study Area 2013 - 2018 Water Level Changes (Sparta/Memphis Aquifer)



Legend

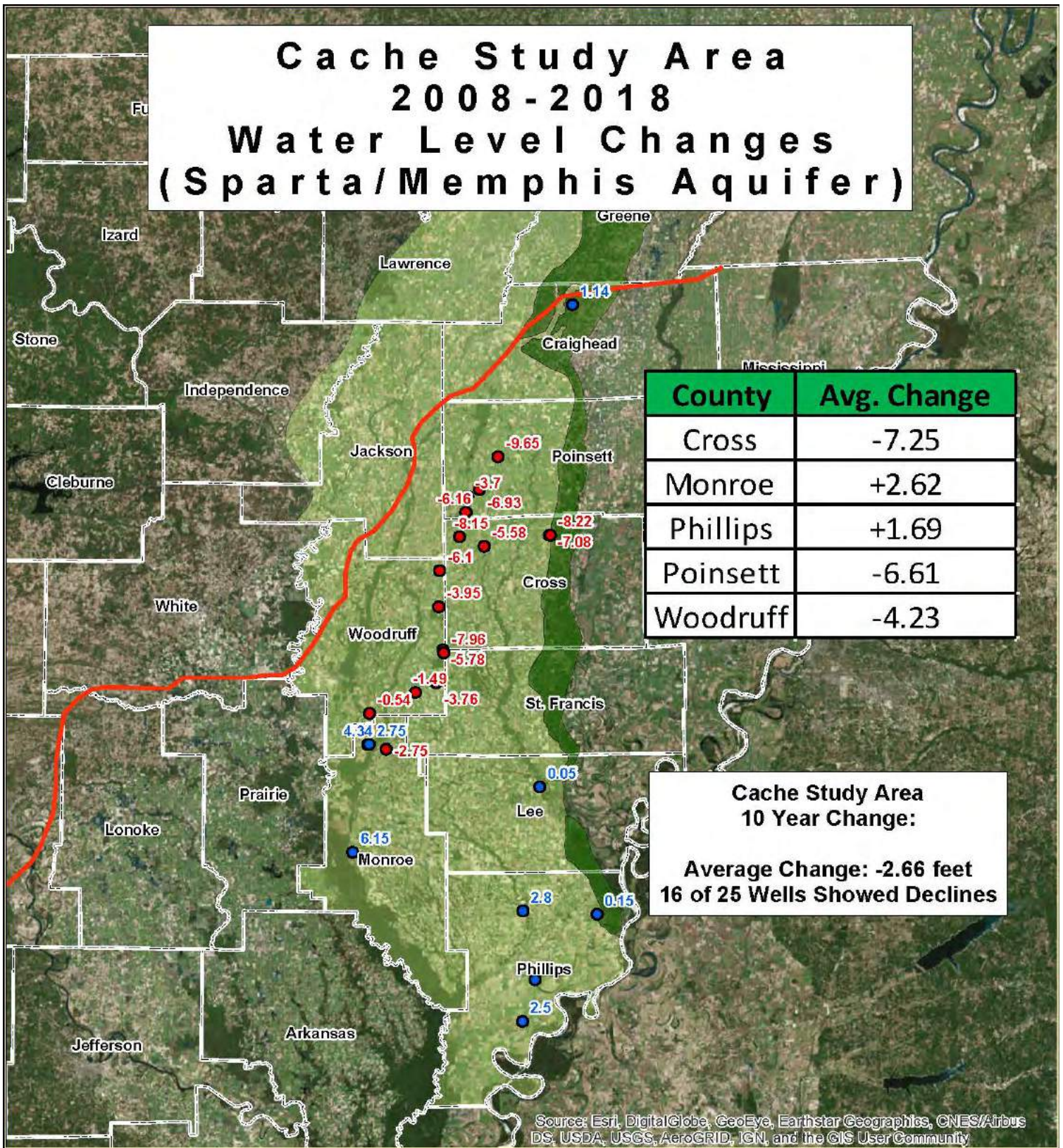
- Wells with Increases
- Sparta Boundary
- Crowleys Ridge
- Cache Study Area

0 5 10 20 30 Miles



Figure 35

Cache Study Area 2008-2018 Water Level Changes (Sparta/Memphis Aquifer)



Legend

0 5 10 20 30 Miles

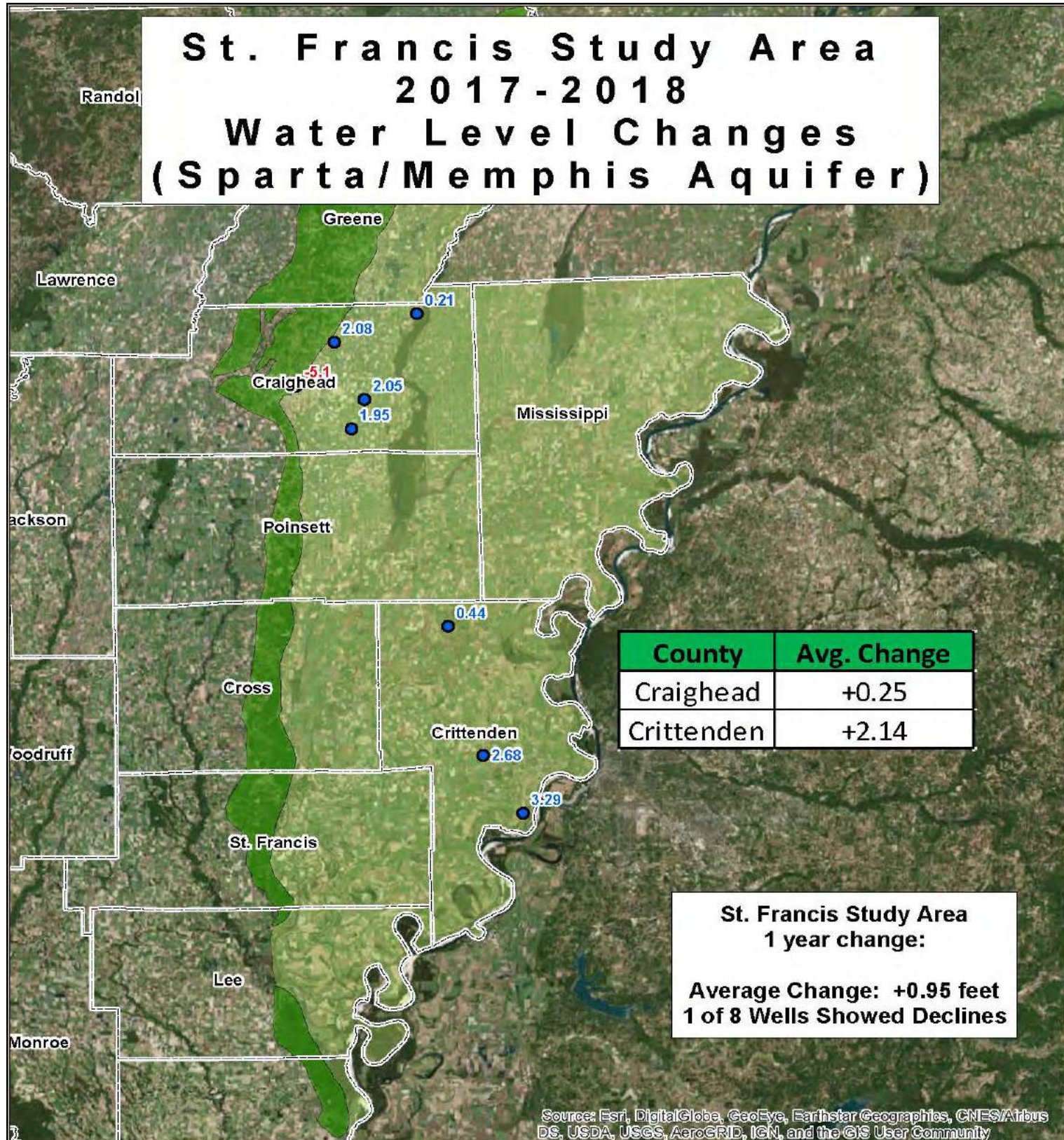


- Wells with Increases
- Wells with Declines
- Crowley's Ridge
- Cache Study Area



Figure 36

St. Francis Study Area 2017 - 2018 Water Level Changes (Sparta/Memphis Aquifer)



0 2.5 5 10 15 20 25
Miles

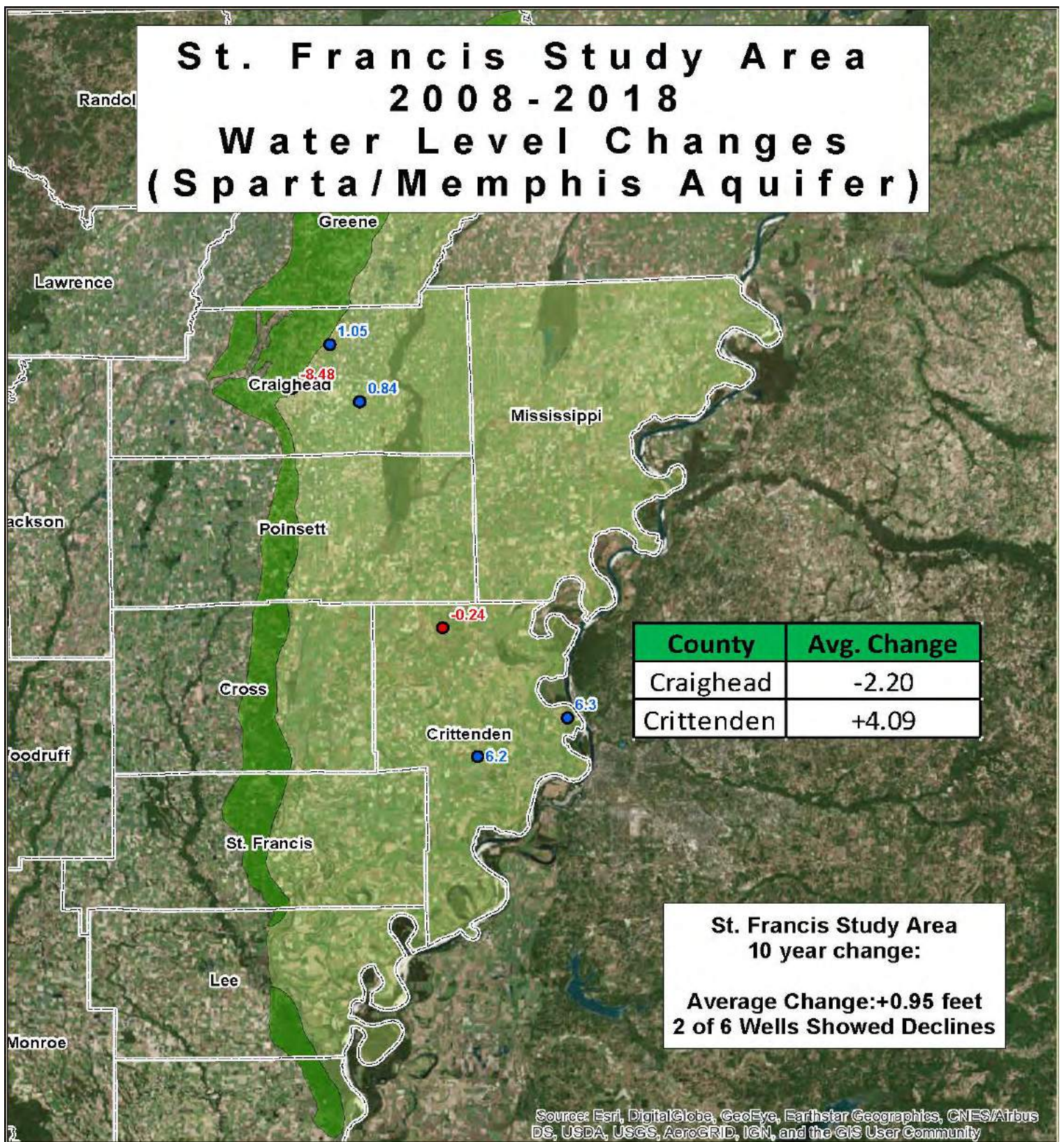
Legend

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



Figure 37

St. Francis Study Area 2008-2018 Water Level Changes (Sparta/Memphis Aquifer)



Legend

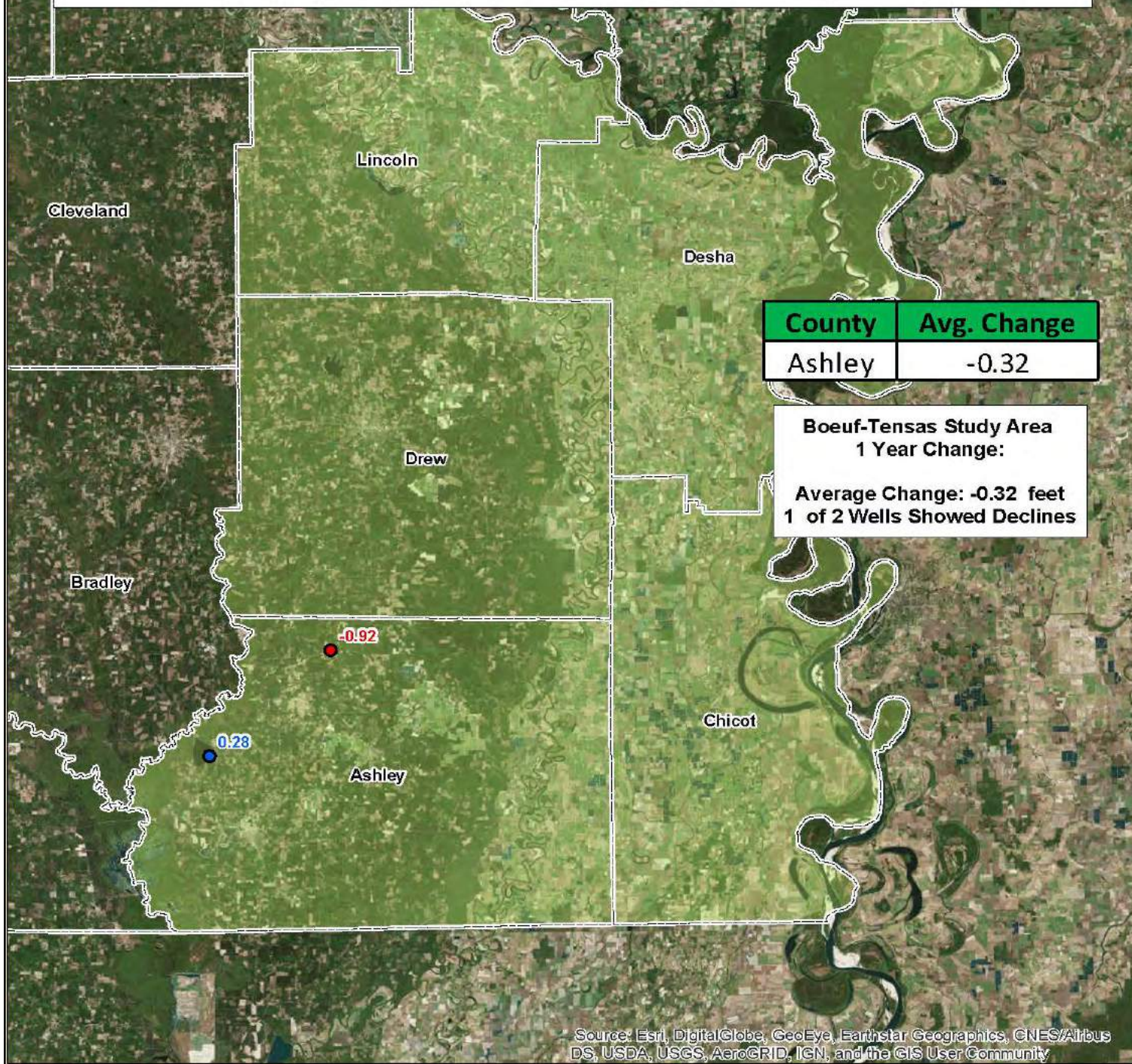
- Wells with Increases
- Wells with Declines
- Crowleys Ridge
- St. Francis Study Area

0 2.5 5 10 15 20 25 Miles



Figure 38

Boeuf-Tensas Study Area 2017-2018 Water Level Changes (Sparta Aquifer)



Legend

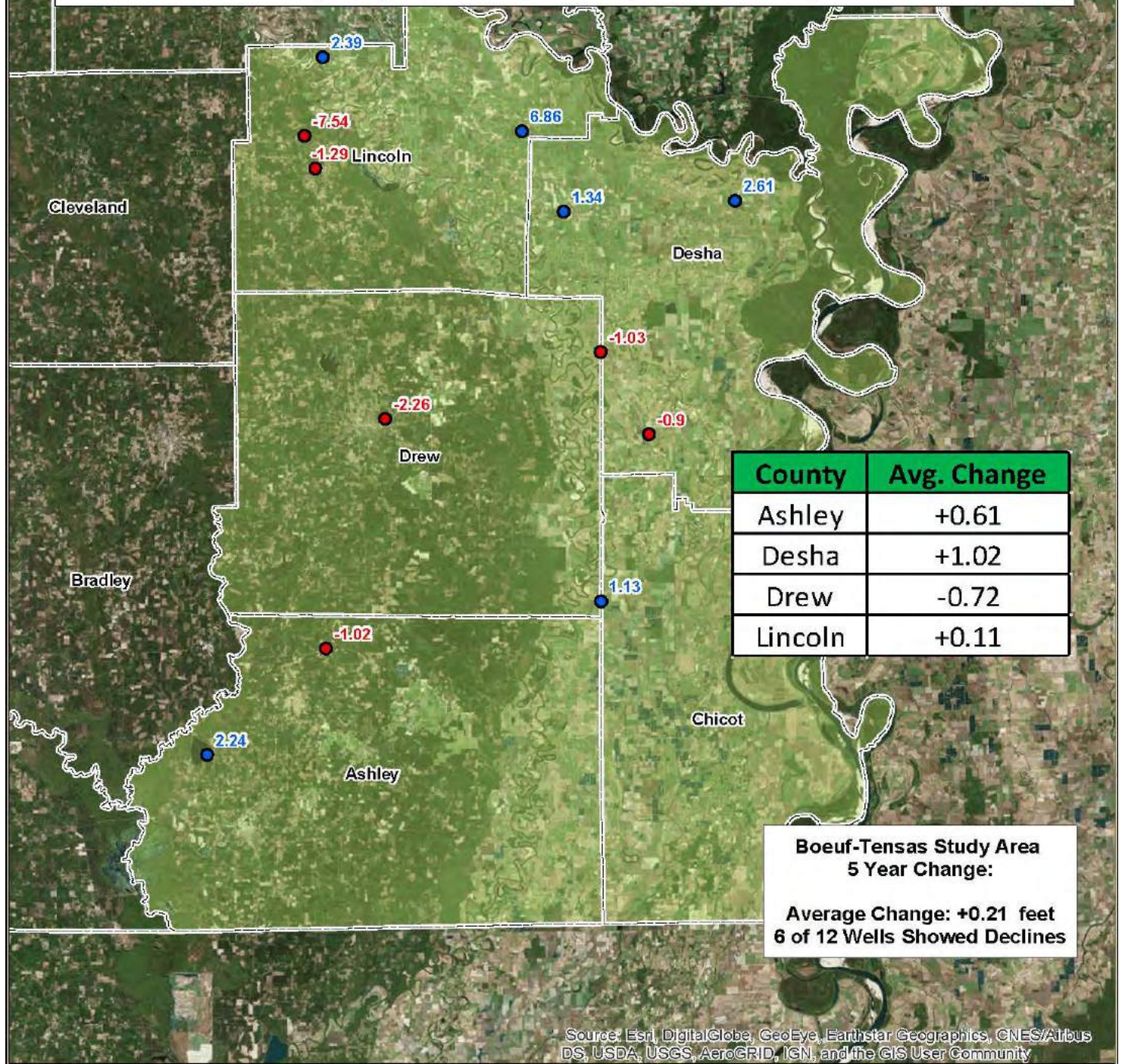
- Wells with Increases
- Wells With Declines
- Boeuf-Tensas Study Area

0 2.5 5 10 15 20 25 Miles



Figure 39

Boeuf-Tensas Study Area 2013-2018 Water Level Changes (Sparta Aquifer)



Legend

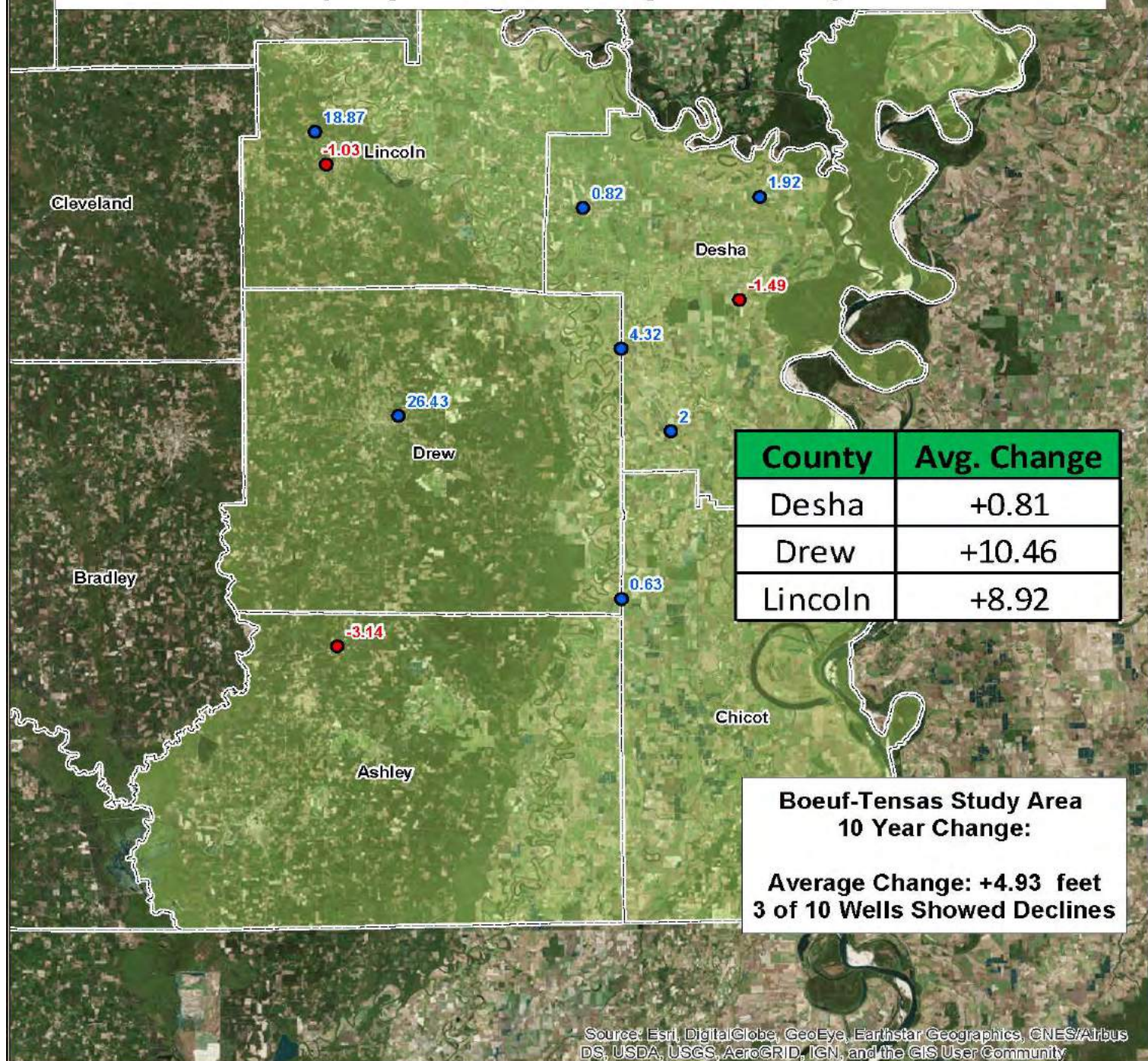
0 2.5 5 10 15 20 25 Miles

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



Figure 40

Boeuf-Tensas Study Area 2008-2018 Water Level Changes (Sparta Aquifer)



Legend

0 2.5 5 10 15 20 25 Miles

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



Figure 41

GROUNDWATER 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 55,000 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

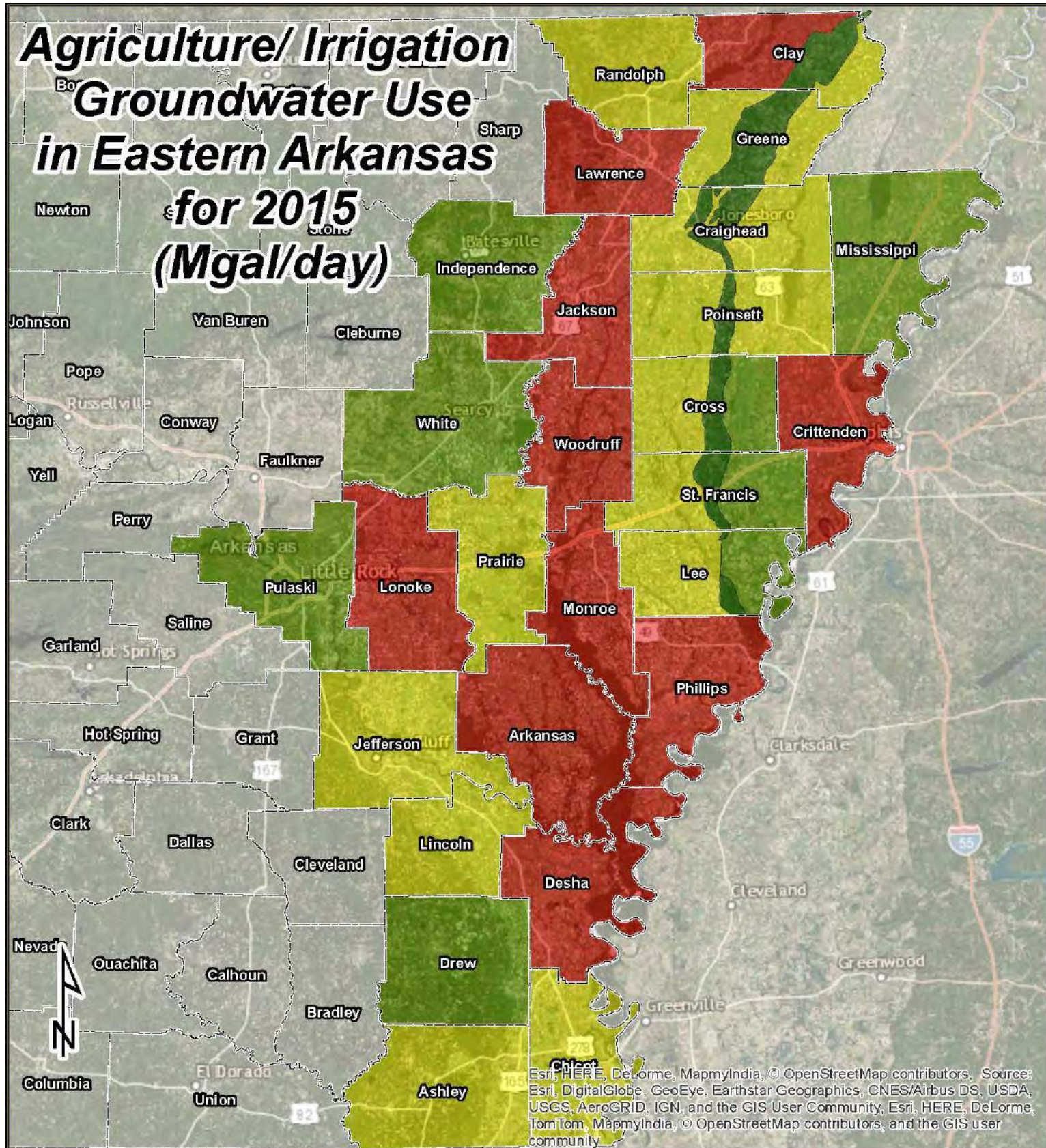
In 2015 an estimated 8,254.60 million gallons per day (Mgal/d) of water were reported to be withdrawn from all the State's aquifers. The greatest reported volume was pumped from the alluvial aquifer and used primarily for irrigation. There was 7,255 Mgal/d reported pumped from the alluvial aquifer in 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.

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 groundwater, with an average withdrawal of 42 Mgal/d.

Figure 42 presents per county water use as reported in 2015.

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



- Greater than 10 - 100 Mgal/day
- Greater than 100 - 300 Mgal/day
- Greater than 300 - 873 Mgal/day
- No Data Available
- Crowleys 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.



Figure 42

Water Conservation Tax Incentive Program

The Water Conservation Tax Incentive Program encourages water users to invest in water conservation practices by offering a tax credit equal to 10% (statewide) or 50% (in a Critical Groundwater Area) of the cost to implement the practice. The following water conservation practices are eligible for tax credits: (1) the construction of impoundments to utilize available surface water and reduce our dependence on ground water; (2) the conversion from ground water use to surface water use when surface water is available; (3) land leveling to reduce agricultural irrigation water use; and (4) the installation of water meters to monitor ground water usage.

Figure 43 shows the locations of the water conservation projects that were approved for a tax credit for the years 2016 through 2018. A summary table of the number and types of conservation practices approved for a tax credit can be found below.

Approved Tax Credits, 2016-2018			
Conservation Practice	Year Approved		
	2016	2017	2018
Impoundments	22	12	13
Surface Water Conversions	10	8	15
Land Leveling	64	45	22
Water Meters			23
Total Approved:	96	65	73

Each applicant is required to list the estimated total acre-footage of groundwater used in the year prior to applying for a tax credit and the estimated total acre-footage of groundwater used after the project has been completed. Based on the 234 tax credit applications that were approved in 2016 through 2018, an estimated 52,925 acre-feet of groundwater will be conserved after these projects have been completed and implemented.

Water Conservation Tax Credits Approved from 2016 to 2018

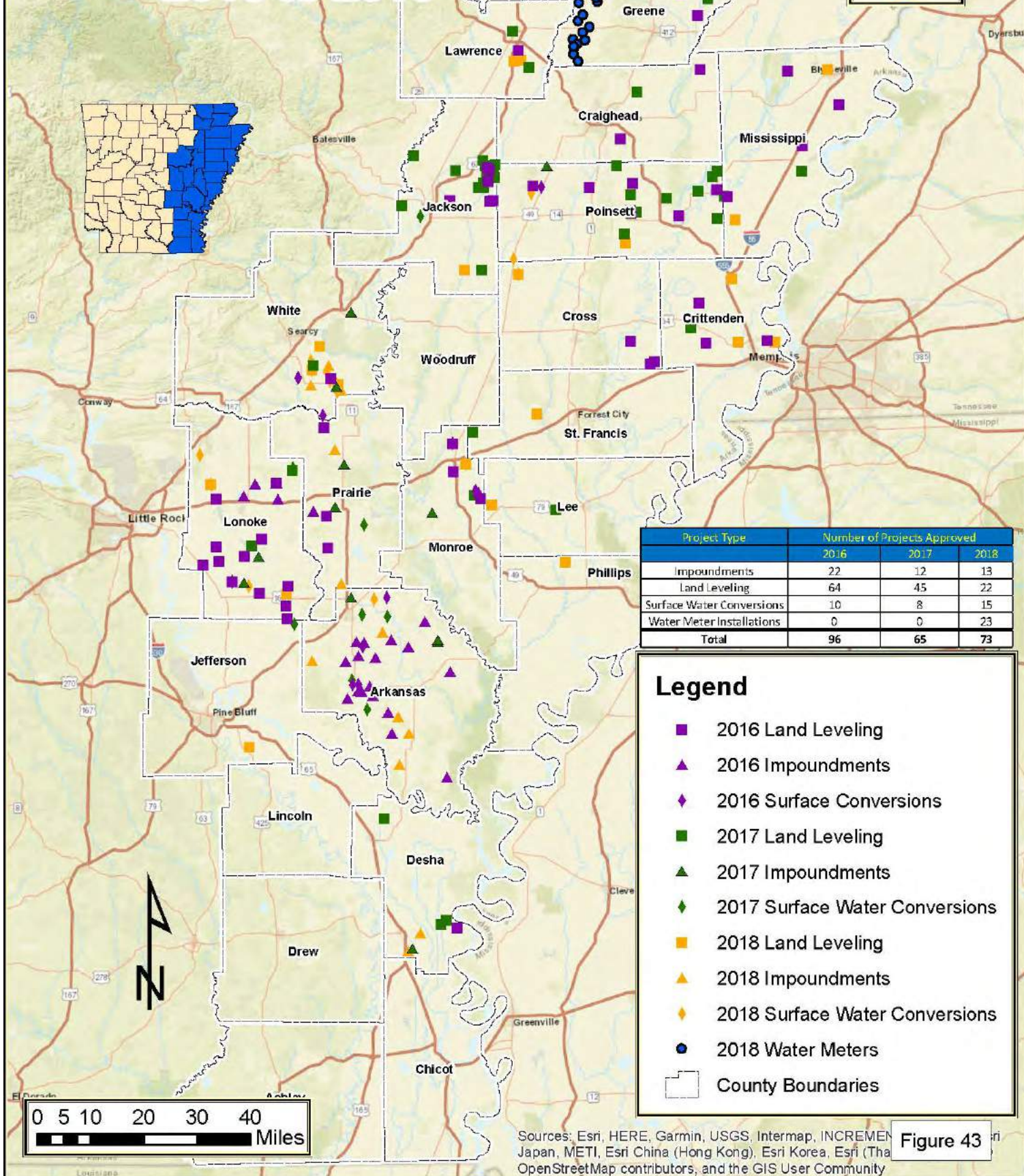


Figure 43

SUMMARY

The Groundwater Protection and Management Report for 2018 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.

In the Mississippi River Valley alluvial aquifer, spring water-level measurements from 2017 to 2018 provided short term data indicating an overall average increase in water levels of +1.25 feet with 34.06% of wells showing decline. The 5 year overall average change in the alluvial aquifer from spring 2013 to spring 2018 was also positive at +1.89 feet with 30 percent of measured wells showing a water-level decline. The 10 year period continues to show an overall decline in the average change over the entire aquifer. The overall average change from spring 2008 to spring 2018 is -0.63 feet with 57.81% of wells in decline. The areas with the most severe groundwater declines continue to be the Grand Prairie and Cache study areas.

In the Sparta/Memphis aquifer 35.8% of the wells measured from 2017 to 2018 showed declines, with the aquifer average change being +0.51 feet. The overall average water level change showed an increase in the 5 and 10 year periods as well with increases of +4.83 feet from 2013 to 2018, and +7.99 feet from 2008 to 2018. The areas of heightened concern due to water-level decline continue to be in the Grand Prairie, South Arkansas, and Cache Study Areas. While aquifer and study area wide averages may show that water levels are increasing over the 10 year period, it is important to realize that groundwater levels continue to decline in areas with the highest water use. In the Cache study area, Poinsett, Cross, and Woodruff counties show average declines. In the Grand

Prairie study area, water levels are declining, on average, in Lonoke and Prairie counties, while Jefferson and Arkansas counties show average increases.

Arkansas is withdrawing groundwater 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
Hydrologic Data 2018 2017 2013 2008

County	Local Well ID Number	Latitude	Longitude	Altitude of Land Surface	Altitude Datum	2018 DTW (ft)	Aquifer Thickness	2018 Saturated Thickness (ft)	% Saturated	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Arkansas	02S04W11DBB1	34.542469	-91.404225	213.04	NGVD29	97.27	130.64	33.37	25.54%	98.86	100.95	100.74	1.59	3.68	3.47
Arkansas	02S05W15AAB1	34.536856	-91.524089	212	NAVD88	118.84	135.00	16.16	11.97%		119.3	107.38		0.46	-11.46
Arkansas	03S02W27ABB1	34.413311	-91.214169	196	NAVD88	62.32	126.50	64.18	50.74%	62.47	64.20	65.92	0.15	1.88	3.60
Arkansas	03S03W05CCD1	34.460283	-91.358842	203	NAVD88	98.77	122.47	23.70	19.35%	99.44	100.42	99.78	0.67	1.65	1.01
Arkansas	03S03W27BBC1	34.415203	-91.328911	198	NAVD88	95.69	137.00	41.31	30.15%		95.75	93.04		0.06	-2.65
Arkansas	03S04W02BBB1	34.475976	-91.416175	197.63	NGVD29	93.39	121.40	28.01	23.07%	93.40	93.5	93.22	0.01	0.11	-0.17
Arkansas	03S04W03DCA16 Rice Resea	34.464733	-91.420936	200	NAVD88	101.48	120.82	19.34	16.01%	101.39	101.29	101.14	-0.09	-0.19	-0.34
Arkansas	03S04W03DCA6	34.464808	-91.421067	204	NGVD29	100.62	120.00	19.38	16.15%						
Arkansas	03S04W03DDA1	34.463914	-91.416733	200	NAVD88	101.04	120.00	18.96	15.80%			100.94			-0.10
Arkansas	03S05W03CCC1	34.464486	-91.540953	215	NGVD29	102.65	127.76	25.11	19.66%	103.35		104.42	0.70		1.77
Arkansas	03S05W24DAA1	34.423658	-91.489439	207	NAVD88	49.87	127.07	77.20	60.75%	45.81			-4.06		
Arkansas	03S06W35ADD1	34.403167	-91.614353	190	NAVD88	55.3	105.76	50.46	47.71%	55.45		54.81	0.15		-0.49
Arkansas	04S01W19AAD1 AR-16 WU	34.336586	-91.155372	195	NAVD88	60.57	154.40	93.83	60.77%	61.10	64.45		0.53	3.88	
Arkansas	04S01W31DCB1	34.298181	-91.163706	180	NAVD88	37.11	142.00	104.89	73.87%	41.76	49.95	52.42	4.65	12.84	15.31
Arkansas	04S03W17ADD1	34.350519	-91.349475	200	NAVD88	108.61	145.10	36.49	25.15%	109.86	110.25	109.98	1.25	1.64	1.37
Arkansas	04S03W32BCC1	34.306369	-91.366850	192	NAVD88	110.98	158.30	47.32	29.89%	110.45		123.19	-0.53		12.21
Arkansas	04S04W02ABB1	34.387000	-91.406581	200	NGVD29	110.56	140.58	30.02	21.35%	110.92	111.36	109.89	0.36	0.80	-0.67
Arkansas	04S04W35ABC1	34.309821	-91.410400	193	NGVD29	104.1	166.70	62.60	37.55%	92.00		91.00	-12.10		-13.10
Arkansas	04S05W16CDC1	34.345744	-91.555803	201	NGVD29	69.75	155.00	85.25	55.00%			71.25			1.50
Arkansas	05S01W16BAB1	34.264331	-91.124858	186	NAVD88	44.7	170.46	125.76	73.78%	49.47	50.08	51.37	4.77	5.38	6.67
Arkansas	05S03W16ABB1	34.266667	-91.340833	197	NAVD88	113.94	172.50	58.56	33.95%	115.40			1.46		
Arkansas	05S04W04BAA1	34.297321	-91.448456	186	NGVD29	88.72	163.80	75.08	45.84%	75.44			-13.28		
Arkansas	05S04W07CCC1	34.265378	-91.492114	194	NGVD29	75.92	173.00	97.08	56.12%		73.49	75.05		-2.43	-0.87
Arkansas	05S04W14AAD1	34.263710	-91.403177	186	NGVD29	90.19	162.60	72.41	44.53%	90.30			0.11		
Arkansas	05S04W32BBA1	34.221103	-91.472725	191	NGVD29	54.17	168.31	114.14	67.82%	54.57	55.83	58.75	0.40	1.66	4.58
Arkansas	05S04W34BAC1	34.219675	-91.434817	190	NAVD88	71.87	166.00	94.13	56.70%	65.83			-6.04		
Arkansas	06S02W03AA1	34.205102	-91.213451	191	NAVD88	65.46	136.00	70.54	51.87%						
Arkansas	06S02W03AB1	34.207889	-91.217306	188	NAVD88	64.8	165.00	100.20	60.73%	68.29			3.49		
Arkansas	06S02W23DCD1	34.147950	-91.201800	188	NAVD88	54.23	161.00	106.77	66.32%	61.17	62.4	70.61	6.94	8.17	16.38
Arkansas	06S03W10BBA1	34.193325	-91.331617	184	NAVD88	79.79	164.03	84.24	51.36%	80.84	83.4	82.25	1.05	3.61	2.46
Arkansas	06S03W27AAA1	34.149328	-91.320217	183.14	NGVD29	63.84	165.11	101.27	61.33%	65.06	71.15	68.55	1.22	7.31	4.71
Arkansas	07S02W04BBB1	34.118653	-91.247747	176	NGVD29	38.08	158.83	120.75	76.03%	48.56	45.1	50.50	10.48	7.02	12.42
Arkansas	07S02W17BBA1	34.091622	-91.260728	184	NGVD29	41.84	164.30	122.46	74.53%	48.95	51.13	54.05	7.11	9.29	12.21
Arkansas	07S03W18CCD1	34.076467	-91.387803	185	NAVD88	40.08	137.84	97.76	70.92%	40.68	41.19	44.17	0.60	1.11	4.09
Arkansas	07S03W32BBC1	34.044546	-91.371231	176.92	NGVD29	23.16	152.99	129.83	84.86%	23.90	24.09	26.45	0.74	0.93	3.29
Arkansas	07S04W01DDD1	34.107014	-91.390875	181	NAVD88	41.49	163.40	121.91	74.61%	29.36	23.4	48.48	-12.13	-18.09	6.99
Arkansas	08S02W08ACA1	34.011397	-91.251547	179	NGVD29	31.86	146.20	114.34	78.21%	42.14	42.55	42.67	10.28	10.69	10.81
Arkansas	08S03WT2299	34.029847	-91.367361	177	NAVD88	19.16	161.02	141.86	88.10%	21.46	24.5	22.09	2.30	5.34	2.93
						Average % Saturated:			48.90%		Wells in Decline:		7	3	9
						Min % Saturated:			11.97%		Total Wells:		31	24	29
						Max % Saturated:			88.10%		Average Change:		0.41	2.78	3.38

**Alluvial Aquifer
Hydrologic Data 2018, 2017, 2013, 2008**

County	Local Well ID Number	Latitude	Longitude	Altitude of Land Surface	Altitude Datum	2018 DTW (ft)	Aquifer Thickness	2018 Saturated Thickness (ft)	% Saturated	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Ashley	15S04W23DBD1	33.379814	-91.481086	128	NGVD29	32.2	83.00	50.80	61.20%			33.42			1.22
Ashley	16S06W08CAA1	33.328150	-91.743961	184	NAVD88	78.43	141.00	62.57	44.38%			78.92			0.49
Ashley	16S06W25DDD1	33.277778	-91.666111	180	NAVD88	79.91	212.00	132.09	62.31%	80.44	80.4	78.47	0.53	0.49	-1.44
Ashley	16S06W27BAB1	33.291572	-91.711169	183	NAVD88	85.45	172.00	86.55	50.32%			84.07			-1.38
Ashley	17S04W03ABB1	33.258081	-91.502750	124	NAVD88	29.64	158.00	128.36	81.24%		36.45	30.77		6.81	1.13
Ashley	17S04W15DDC1	33.214578	-91.498358	116	NAVD88	24.25	185.00	160.75	86.89%		34.57	27.70		10.32	3.45
Ashley	17S04W21ABA1	33.213914	-91.519450	118	NAVD88	21.02	190.00	168.98	88.94%		29.8	22.97		8.78	1.95
Ashley	17S06W35CAC1	33.180386	-91.693553	179	NAVD88	73.86	232.00	158.14	68.16%		73.1	72.41		-0.76	-1.45
Ashley	18S04W23DDD1	33.116234	-91.482341	103	NGVD29	32.81	155.20	122.39	78.86%	32.01	35	30.00	-0.80	2.19	-2.81
Ashley	18S05W11CCD1	33.144845	-91.594011	118	NGVD29	27.1	240.00	212.90	88.71%	26.52	28	27.00	-0.58	0.90	-0.10
Ashley	18S05W22DDA1	33.120123	-91.598733	112	NAVD88	22.91	248.00	225.09	90.76%	20.05	25	22.00	-2.86	2.09	-0.91
Ashley	18S08W01AAB1	33.170825	-91.873644	178	NAVD88	85.34	152.00	66.66	43.86%			84.34			-1.00
Ashley	18S08W28DDD2 near Crosse	33.106889	-91.924572	163.26	NGVD29	85.02	131.00	45.98	35.10%	84.89	85.2	85.11	-0.13	0.18	0.09
Ashley	19S04W14BBB1	33.052902	-91.487063	103	NAVD88	28.22	141.00	112.78	79.99%	29.58	33	31.00	1.36	4.78	2.78
Ashley	19S05W08ACA1	33.068528	-91.637528	109	NAVD88	30.17	179.00	148.83	83.15%	30.14	20	18.00	-0.03	-10.17	-12.17
Ashley	19S05W16ABB1	33.056514	-91.621789	116	NGVD29	16.83	141.10	124.27	88.07%	17.84	35	28.00	1.01	18.17	11.17
Ashley	19S05W22DCD1	33.027626	-91.604288	108	NAVD88	23.24	126.60	103.36	81.64%	21.26	29	26.00	-1.98	5.76	2.76
Ashley	19S06W07BCC1	33.067656	-91.768867	134.7	NGVD29	30.93	138.39	107.46	77.65%		32.7	32.46		1.77	1.53
						Average % Saturated:			71.73%		Wells in Decline:		6	2	8
						Min % Saturated:			35.10%		Total Wells:		9	14	18
						Max % Saturated:			90.76%		Average Change:		-0.39	3.67	0.29
Chicot	13S03W27AAA1	33.548167	-91.386230	138	NGVD29	48.81	75.62	26.81	35.45%	46.00	50	48.00	-2.81	1.19	-0.81
Chicot	13S03W34CAA1	33.526533	-91.393278	134	NAVD88	41.99	79.00	37.01	46.85%		43.26	37.92		1.27	-4.07
Chicot	13S03W35BAC1	33.531681	-91.379314	133	NAVD88	43.58	79.00	35.42	44.84%		43.11	41.29		-0.47	-2.29
Chicot	14S02W09BDD1	33.497335	-91.309282	133	NGVD29	30.58	87.40	56.82	65.01%	35.25	31	30.00	4.67	0.42	-0.58
Chicot	14S03W07BBD1	33.503081	-91.438889	137	NAVD88	30.82	81.00	50.18	61.95%		32.77	27.62		1.95	-3.20
Chicot	14S03W32CDB2	33.437075	-91.430958	134	NAVD88	41.37	82.00	40.63	49.55%			35.76			-5.61
Chicot	15S02W20DDC1	33.374053	-91.322175	128	NAVD88	33.58	100.00	66.42	66.42%		32	28.12		-1.58	-5.46
Chicot	16S03W15DAD1	33.305000	-91.392778	118	NGVD29	33.73	121.23	87.50	72.18%	34.46	31.9		0.73	-1.83	
Chicot	17S01W06BCC1	33.250328	-91.251450	117	NAVD88	21.31	139.00	117.69	84.67%		23.15	21.57		1.84	0.26
Chicot	17S03W18CBC1	33.215953	-91.460119	117	NGVD29	34.38	156.80	122.42	78.07%	41.00	38	35.00	6.62	3.62	0.62
Chicot	17S03W28DBA1	33.190719	-91.411506	110	NAVD88	25.69	154.00	128.31	83.32%			24.74			-0.95
Chicot	19S03W14ABB1	33.051242	-91.380747	110	NAVD88	23.49	132.00	108.51	82.20%			23.99			0.50
						Average % Saturated:			64.21%		Wells in Decline:		1	3	8
						Min % Saturated:			35.45%		Total Wells:		4	9	11
						Max % Saturated:			84.67%		Average Change:		2.30	0.71	-1.96

**Alluvial Aquifer
Hydrologic Data 2018, 2017, 2013, 2008**

County	Local Well ID Number	Latitude	Longitude	Altitude of Land Surface	Altitude Datum	2018 DTW (ft)	Aquifer Thickness	2018 Saturated Thickness (ft)	% Saturated	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Clay	18N08E03DAB1	36.223119	-90.198064	257	NGVD29	6.94	131.00	124.06	94.70%		6.15	4.29		-0.79	-2.65
Clay	19N04E19AAA1	36.281778	-90.680553	282	NGVD29	31.33	139.50	108.17	77.54%	30.26		31.56	-1.07		0.23
Clay	20N04E02BB1	36.407936	-90.621611	288	NAVD88	14.92	126.30	111.38	88.19%	14.05	22.7		-0.87	7.78	
Clay	20N05E34DBA1	36.327586	-90.521436	285	NGVD29	33.75	121.53	87.78	72.23%	32.05		31.78	-1.70		-1.97
Clay	21N05E17ABB1	36.465408	-90.558028	299	NAVD88	23.49	88.00	64.51	73.31%			23.92			0.43
Clay	21N06E28BB1	36.434700	-90.435547	290	NAVD88	20.17	107.49	87.32	81.24%	19.40	26	19.38	-0.77	5.83	-0.79
Clay	21N08E18CCC1	36.447472	-90.263981	324	NGVD29	37.07	111.90	74.83	66.87%	35.98	45.25	40.71	-1.09	8.18	3.64
								Average % Saturated:	79.15%			Wells in Decline:	5	1	3
								Min % Saturated:	66.87%			Total Wells:	5	4	6
								Max % Saturated:	94.70%			Average Change:	-1.10	5.25	-0.19
Craighead	13N04E12ABB1	35.776465	-90.615665	232	NAVD88	25.8	109.03	83.23	76.34%	24.89	27.7	24.51	-0.91	1.90	-1.29
Craighead	13N04E15DBA1	35.755910	-90.649277	230	NGVD29	25.02	80.98	55.96	69.10%	25.21		26.60	0.19		1.58
Craighead	13N04E26BCC1	35.727855	-90.641499	225	NGVD29	27.69	78.79	51.10	64.86%	28.20		26.60	0.51		-1.09
Craighead	13N05E02CCC1	35.780076	-90.533996	230	NGVD29	13.68	107.70	94.02	87.30%	14.60		13.50	0.92		-0.18
Craighead	13N05E06DCC1	35.777020	-90.596498	229	NGVD29	21.22	111.44	90.22	80.96%	22.61		20.40	1.39		-0.82
Craighead	13N05E24BAC1	35.747577	-90.512607	225	NGVD29	11.41	102.66	91.25	88.89%	11.07		8.80	-0.34		-2.61
Craighead	13N06E21AAA1	35.747299	-90.450383	222	NGVD29	7.04	102.82	95.78	93.15%	7.89			0.85		
Craighead	13N07E02CAB1	35.778409	-90.317044	226	NGVD29	4.26	121.64	117.38	96.50%	5.16		10.50	0.90		6.24
Craighead	13N07E05ABB1	35.787853	-90.366213	225	NGVD29	6.41	109.24	102.83	94.13%	7.34		4.40	0.93		-2.01
Craighead	14N01E03ACB1	35.879518	-90.971231	249	NGVD29	57.22	105.57	48.35	45.80%	57.02		51.50	-0.20		-5.72
Craighead	14N01E10BAB1	35.867852	-90.974565	246	NGVD29	58.05	105.11	47.06	44.77%	57.51	58	54.00	-0.54	-0.05	-4.05
Craighead	14N02E22AAA1	35.835353	-90.858172	255	NGVD29	81.32	119.27	37.95	31.82%	79.65			-1.67		
Craighead	14N02E27AAA1 near Cash	35.821028	-90.856806	255	NAVD88	85.25	92.46	7.21	7.80%	84.85	86.1	82.25	-0.40	0.85	-3.00
Craighead	14N05E36BAD1 near Jonesb	35.804892	-90.508606	230	NAVD88	39.86	105.00	65.14	62.04%	39.51			-0.35		
Craighead	14N06E06BAA1	35.876185	-90.492884	240	NGVD29	19.15	101.65	82.50	81.16%	22.22		21.50	3.07		2.35
Craighead	15N06E04BAD1	35.962293	-90.451772	239	NGVD29	10.93	77.87	66.94	85.96%	12.26	18.1	17.40	1.33	7.17	6.47
Craighead	15N06E20DDD1	35.907008	-90.460875	235	NAVD88	6.96	87.20	80.24	92.02%	7.16	10.23	9.37	0.20	3.27	2.41
Craighead	15N07E35DCB1	35.878129	-90.308711	231	NGVD29	8.95	113.84	104.89	92.14%	18.31		13.90	9.36		4.95
								Average % Saturated:	71.93%			Wells in Decline:	7	1	9
								Min % Saturated:	7.80%			Total Wells:	18	5	15
								Max % Saturated:	96.50%			Average Change:	0.85	2.63	0.22

**Alluvial Aquifer
Hydrologic Data 2018, 2017, 2013, 2008**

County	Local Well ID Number	Latitude	Longitude	Altitude of Land Surface	Altitude Datum	2018 DTW (ft)	Aquifer Thickness	2018 Saturated Thickness (ft)	% Saturated	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Crittenden	05N07E28CBA1	35.022589	-90.361069	201	NGVD29	13.84	133.78	119.94	89.65%	17.89	18.55	17.08	4.05	4.71	3.24
Crittenden	05N07E34BAB1	35.016497	-90.341628	203	NGVD29	9.94	136.18	126.24	92.70%	17.16	13.3	16.27	7.22	3.36	6.33
Crittenden	05N07E34CDD1	35.002872	-90.341209	205	NGVD29	4.5	138.00	133.50	96.74%	13.30	11	9.90	8.80	6.50	5.40
Crittenden	06N07E13BAA1	35.147106	-90.302103	207	NAVD88	19.59	125.21	105.62	84.35%	21.46			1.87		
Crittenden	06N07E14ABA1	35.146758	-90.316209	211	NGVD29	21.95	125.00	103.05	82.44%	23.70	22		1.75	0.05	
Crittenden	07N07E31CCC1	35.178306	-90.399714	207	NGVD29	35.83	136.61	100.78	73.77%	37.28	39.09	36.48	1.45	3.26	0.65
Crittenden	08N06E01DCC1	35.339253	-90.402323	215	NGVD29	40	123.00	83.00	67.48%	40.00	33.5	33.10	0.00	-6.50	-6.90
Crittenden	08N06E26BB1	35.293611	-90.431111	211	NAVD88	34.06	124.00	89.94	72.53%	35.47			1.41		
Crittenden	08N07E32DAA1	35.271754	-90.362877	215	NGVD29	23.4	138.20	114.80	83.07%	29.50	27.5	31.40	6.10	4.10	8.00
Crittenden	08N07E34BD1	35.336336	-90.271652	220	NGVD29	28.6	133.00	104.40	78.50%						
Crittenden	09N06E30ADD1	35.376474	-90.484548	216	NGVD29	34.8	118.00	83.20	70.51%	38.50	34.5	34.00	3.70	-0.30	-0.80
Crittenden	09N07E02CDB1	35.426906	-90.318747	225	NAVD88	18	126.00	108.00	85.71%	35.20	32	33.50	17.20	14.00	15.50
Crittenden	09N07E10DDA1	35.413217	-90.323511	221	NGVD29	28.2	124.88	96.68	77.42%	29.02	30.15	29.29	0.82	1.95	1.09
Crittenden	09N07E20DCC1	35.382222	-90.366111	213	NAVD88	29.69	118.00	88.31	74.84%	30.24			0.55		
Crittenden	09N07E31BAB1	35.366625	-90.390714	221	NGVD29	33.3	124.70	91.40	73.30%	33.73	35	34.06	0.43	1.70	0.76
Crittenden	09N08E17ABA1	35.408794	-90.254967	224	NAVD88	24.4	139.00	114.60	82.45%						
						Average % Saturated:			80.34%		Wells in Decline:		0	2	2
						Min % Saturated:			67.48%		Total Wells:		14	11	10
						Max % Saturated:			96.74%		Average Change:		3.95	2.98	3.33
Cross	06N02E11BDB1	35.159534	-90.859004	220	NGVD29	72	152.00	80.00	52.63%	69.50			-2.50		
Cross	06N05E05AAA1	35.178423	-90.575661	205	NGVD29	42	148.00	106.00	71.62%	41.00			-1.00		
Cross	07N01E33BBA1	35.193528	-91.003028	218	NGVD29	85	140.00	55.00	39.29%						
Cross	07N04E03BDA1	35.262866	-90.657054	205	NGVD29	31	69.00	38.00	55.07%	27.00			-4.00		
Cross	07N05E02AAB1	35.266754	-90.517604	210	NGVD29	44	141.00	97.00	68.79%	41.50		43.00	-2.50		-1.00
Cross	07N05E16ACA1	35.232866	-90.564550	210	NGVD29	33	157.00	124.00	78.98%	36.50			3.50		
Cross	08N01E16DBB1	35.316339	-90.994339	223	NAVD88	93	148.00	55.00	37.16%	91.50		87.00	-1.50		-6.00
Cross	08N02E17AAA1	35.323142	-90.898450	225	NGVD29	98.5	137.00	38.50	28.10%	96.50		90.00	-2.00		-8.50
Cross	09N01E04ACD1	35.438111	-90.987000	238	NGVD29	99.5	148.00	48.50	32.77%	96.50			-3.00		
Cross	09N01E36AAB1	35.365363	-90.934840	225	NGVD29	98	147.00	49.00	33.33%	94.50		91.50	-3.50		-6.50
Cross	09N02E20AAA1	35.400640	-90.895117	231	NGVD29	128.5	150.00	21.50	14.33%	125.00			-3.50		
Cross	09N05E32BCB1	35.364252	-90.590385	206	NGVD29	30.5	104.00	73.50	70.67%	28.00			-2.50		
Cross	09N05E32BDB1	35.364036	-90.586697	210	NGVD29	27	121.00	94.00	77.69%	28.80	30.5	32.17	1.80	3.50	5.17
						Average % Saturated:			50.80%		Wells in Decline:		10	0	4
						Min % Saturated:			14.33%		Total Wells:		12	1	5
						Max % Saturated:			78.98%		Average Change:		-1.73	3.50	-3.37

**Alluvial Aquifer
Hydrologic Data 2018, 2017, 2013, 2008**

County	Local Well ID Number	Latitude	Longitude	Altitude of Land Surface	Altitude Datum	2018 DTW (ft)	Aquifer Thickness	2018 Saturated Thickness (ft)	% Saturated	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Desha	07S01E19ABA1	34.074549	-91.050944	154	NGVD29	9.7	96.40	86.70	89.94%	18.00	14	22.50	8.30	4.30	12.80
Desha	08S03W33ABD1	33.967478	-91.393939	165.04	NGVD29	4.69	147.00	142.31	96.81%			6.93			2.24
Desha	09S01W08BDA1	33.935660	-91.209559	156	NGVD29	18.76	137.00	118.24	86.31%		32			13.24	
Desha	09S01W15CBB1	33.917049	-91.182058	152	NGVD29	40.76	137.00	96.24	70.25%		40	39.00		-0.76	-1.76
Desha	09S02W26DDC1 near Watson	33.882381	-91.258233	149.27	NGVD29	33.55	138.80	105.25	75.83%	34.42	34.38	31.68	0.87	0.83	-1.87
Desha	09S03W05BAC1	33.951213	-91.418454	161	NGVD29	43.51	144.00	100.49	69.78%		42.8			-0.71	
Desha	09S03W13BAB1	33.916770	-91.322896	156	NGVD29	34.69	130.00	95.31	73.32%		35.2			0.51	
Desha	09S03W17DCB1	33.913397	-91.415739	155.08	NGVD29	36.73	137.00	100.27	73.19%		38.65	33.68		1.92	-3.05
Desha	09S04W06CBB1	33.941417	-91.549056	162	NGVD29	45.7	148.00	102.30	69.12%	49.30	52	39.00	3.60	6.30	-6.70
Desha	10S01W23CDA1	33.884828	-91.175669	151	NGVD29	10.12	140.00	129.88	92.77%		30.8			20.68	
Desha	10S02W02CAA1	33.860556	-91.262778	146	NAVD88	34.12	124.00	89.88	72.48%						
Desha	10S02W20ADA1	33.821111	-91.306944	148	NGVD29	44.46	126.26	81.80	64.79%	45.01	43.35	40.85	0.55	-1.11	-3.61
Desha	10S03W26CAA1	33.801667	-91.362375	155	NAVD88	52.28	128.00	75.72	59.16%		49.68	47.43		-2.60	-4.85
Desha	10S04W03BAB1	33.869058	-91.496572	165	NAVD88	41.78	143.00	101.22	70.78%			36.86			-4.92
Desha	10S04W11DDA1	33.842036	-91.467133	156	NAVD88	37.79	133.00	95.21	71.59%			33.33			-4.46
Desha	10S04W12CCB1	33.846667	-91.465000	156	NAVD88	37.63	136.00	98.37	72.33%		37.03	31.73		-0.60	-5.90
Desha	11S02W15ADD1	33.746218	-91.276505	144	NGVD29	37.21	112.00	74.79	66.78%		35.4	36.00		-1.81	-1.21
Desha	11S03W16CBA1	33.744274	-91.409287	155	NGVD29	40.13	117.00	76.87	65.70%		38.3			-1.83	
Desha	11S03W31BBA1	33.707839	-91.447528	151	NAVD88	35.33	113.00	77.67	68.73%			37.27			1.94
Desha	13S02W27CAC1	33.539997	-91.292989	138	NAVD88	34.11	89.00	54.89	61.67%		34.58	32.43		0.47	-1.68
Desha	13S03W11CAB1	33.584278	-91.378174	142	NGVD29	55.98	93.00	37.02	39.81%		48.9	52.00		-7.08	-3.98
						Average % Saturated:		71.96%		Wells in Decline:		0	8	12	
						Min % Saturated:		39.81%		Total Wells:		4	16	15	
						Max % Saturated:		96.81%		Average Change:		3.33	1.98	-1.80	
Drew	11S04W08DBA1	33.758883	-91.526722	158	NAVD88	27.29	124.00	96.71	77.99%			26.08			-1.21
Drew	11S05W08CCC1	33.762911	-91.643656	185	NAVD88	39.57	143.00	103.43	72.33%		40.3	37.47		0.73	-2.10
Drew	12S04W03ABB1	33.692756	-91.496147	155	NGVD29	26.13	114.00	87.87	77.08%		28.8	26.02		2.67	-0.11
Drew	12S04W25DBB1	33.627610	-91.460677	149	NGVD29	35.06	104.00	68.94	66.29%			40.00			4.94
Drew	13S04W09ACD1	33.586777	-91.509568	145	NGVD29	25.31	100.60	75.29	74.84%	25.00		20.00	-0.31		-5.31
Drew	13S04W33BAA1	33.534914	-91.517347	138	NAVD88	19.68	89.00	69.32	77.89%		25.59	19.32		5.91	-0.36
Drew	14S04W03ADD1	33.514001	-91.491511	141	NGVD29	33.06	88.00	54.94	62.43%	32.23		33.00	-0.83		-0.06
Drew	14S04W05CBA1	33.513168	-91.538457	131	NGVD29	19.87	86.50	66.63	77.03%	19.13			-0.74		
Drew	14S04W05CBC1	33.511779	-91.540679	131	NGVD29	18.97	85.00	66.03	77.68%	18.57		26.00	-0.40		7.03
Drew	15S04W13DAD1	33.394004	-91.458454	131	NGVD29	37.96	93.55	55.59	59.42%	45.25			7.29		
						Average % Saturated:		72.30%		Wells in Decline:		4	0	6	
						Min % Saturated:		59.42%		Total Wells:		5	3	8	
						Max % Saturated:		77.99%		Average Change:		1.00	3.10	0.35	

**Alluvial Aquifer
Hydrologic Data 2018, 2017, 2013, 2008**

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Greene	16N03E03BA1	36.054408	-90.754403	260	NGVD29	40.01	124.36	84.35	67.83%	37.38	37.5	33.17	-2.63	-2.51	-6.84
Greene	16N03E16DDD1	36.013682	-90.763170	258	NGVD29	36.2	113.52	77.32	68.11%	35.70	37.2	28.10	-0.50	1.00	-8.10
Greene	16N03E20CDA1	35.999167	-90.795000	253	NGVD29	37.3	109.32	72.02	65.88%	37.00	37.25		-0.30	-0.05	
Greene	16N06E21BAA1	36.008681	-90.451494	249	NGVD29	31.6	80.35	48.75	60.67%	30.10		27.60	-1.50		-4.00
Greene	16N06E28ABB1	35.993975	-90.449169	251	NGVD29	25.83	83.00	57.17	68.88%	27.19	31	25.73	1.36	5.17	-0.10
Greene	17N03E02BDB1	36.142211	-90.737042	266	NGVD29	36.2	122.00	85.80	70.33%						
Greene	17N03E02DCC1	36.135068	-90.731225	267	NGVD29	38.6	135.60	97.00	71.53%	38.50	39.1	30.80	-0.10	0.50	-7.80
Greene	17N03E32CDC1	36.054792	-90.793171	257	NGVD29	36.9	118.47	81.57	68.85%	36.00	36.5		-0.90	-0.40	
Greene	17N03E35CB1	36.063125	-90.743725	259	NGVD29	39.7	121.87	82.17	67.42%	39.40	38.5		-0.30	-1.20	
Greene	17N04E28DAA1	36.075278	-90.654722	317	NGVD29	93.85	97.10	3.25	3.35%	90.33	90.9	87.26	-3.52	-2.95	-6.59
Greene	17N04E30CDC1	36.069564	-90.705217	268	NAVD88	43.55	127.00	83.45	65.71%			39.09			-4.46
Greene	17N06E15ABC1	36.108678	-90.429549	268	NGVD29	30	106.31	76.31	71.78%	30.50	39.2	30.90	0.50	9.20	0.90
Greene	17N07E01BBA1	36.142288	-90.290100	250	NGVD29	6.1	125.17	119.07	95.13%	5.30	5.4		-0.80	-0.70	
Greene	17N07E28CBA1	36.073333	-90.345833	246	NGVD29	5.3	113.59	108.29	95.33%	5.60	7.5		0.30	2.20	
Greene	18N03E24ACA1	36.188678	-90.704557	271	NGVD29	35.6	135.13	99.53	73.66%	35.00	36.25	35.10	-0.60	0.65	-0.50
Greene	18N04E04AAC1	36.232287	-90.648444	273	NGVD29	34.5	128.00	93.50	73.05%		36.75	31.30		2.25	-3.20
Greene	18N07E05DAB1	36.221175	-90.340241	274	NGVD29	16.6	114.02	97.42	85.44%	17.20	17.75		0.60	1.15	
Greene	18N07E17BAB1	36.200898	-90.351491	255	NGVD29	14	111.02	97.02	87.39%	9.00		8.60	-5.00		-5.40
Greene	18N07E20BBA1	36.186214	-90.353675	257	NGVD29	9.96	113.12	103.16	91.19%	9.62	14.3	7.23	-0.34	4.34	-2.73
Greene	19N03E26AD1	36.266867	-90.716231	281	NGVD29	30.19	143.03	112.84	78.89%	28.74		30.28	-1.45		0.09
Greene	19N03E33DDD1	36.238399	-90.754559	276	NGVD29	37.7	143.34	105.64	73.70%	37.00	38.67	36.50	-0.70	0.97	-1.20
								Average % Saturated:	71.63%			Wells in Decline:	14	6	12
								Min % Saturated:	3.35%			Total Wells:	18	16	14
								Max % Saturated:	95.33%			Average Change:	-0.88	1.23	-3.57
Independence	11N04W22BBA1	35.569167	-91.418333	216	NGVD29	2.33	121.23	118.90	98.08%	3.10	3		0.77	0.67	
Independence	12N04W35CBB1	35.619524	-91.395965	238	NGVD29	15.32	124.00	108.68	87.64%	20.00			4.68		
Independence	12N05W36AAA1	35.627233	-91.474228	236	NGVD29	7.54	132.91	125.37	94.33%	11.26	21.6	6.41	3.72	14.06	-1.13
Independence	14N03W14CB2	35.851389	-91.283333	230	NGVD29	2.15	103.12	100.97	97.92%	3.38	1.9		1.23	-0.25	
								Average % Saturated:	94.49%			Wells in Decline:	0	1	1
								Min % Saturated:	87.64%			Total Wells:	4	3	1
								Max % Saturated:	98.08%			Average Change:	2.60	4.83	-1.13

**Alluvial Aquifer
Hydrologic Data 2018, 2017, 2013, 2008**

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Jackson	09N02W32BBB1	35.370918	-91.229015	220	NGVD29	32.08	136.51	104.43	76.50%	32.21			0.13		
Jackson	11N01W26AAD1	35.558269	-91.056447	230	NAVD88	72.85	138.36	65.51	47.35%	73.05		68.29	0.20		-4.56
Jackson	11N03W05CAB1	35.615357	-91.335685	225	NGVD29	10.15	128.83	118.68	92.12%	19.71			9.56		
Jackson	12N01W11BCB1	35.690911	-91.071234	233	NGVD29	42.89	121.33	78.44	64.65%	41.70		40.70	-1.19		-2.19
Jackson	12N04W10BBC1	35.685278	-91.399167	236	NGVD29	16.73	124.27	107.54	86.54%	24.92	24.6		8.19	7.87	
Jackson	13N03W35AA1	35.724800	-91.270129	236	NGVD29	11.08	115.49	104.41	90.41%	13.32			2.24		
Jackson	14N02W22BBC1	35.840631	-91.195961	250	NGVD29	25.98	114.11	88.13	77.23%	27.98		25.20	2.00		-0.78
							Average % Saturated:		76.40%		Wells in Decline:		1	0	3
							Min % Saturated:		47.35%		Total Wells:		7	1	3
							Max % Saturated:		92.12%		Average Change:		3.02	7.87	-2.51
Jefferson	03S09W29CBD1	34.421336	-92.006478	217	NAVD88	27.16	111.00	83.84	75.53%		28.4	27.74		1.24	0.58
Jefferson	03S09W36ACC1	34.407874	-91.932082	214	NGVD29	40.1	121.00	80.90	66.86%	56.00		29.00	15.90		-11.10
Jefferson	03S10W35BBC1	34.413707	-92.066254	215	NGVD29	16.1	107.90	91.80	85.08%	13.00	17	8.50	-3.10	0.90	-7.60
Jefferson	04S07W35DDB1	34.310097	-91.729852	185	NGVD29	28.9	109.60	80.70	73.63%	31.00	35.5	28.80	2.10	6.60	-0.10
Jefferson	04S08W13DCB1	34.356347	-91.824014	204	NAVD88	48.3	124.00	75.70	61.05%			47.99			-0.31
Jefferson	05S06W31BAD1 (CAA1)	34.224722	-91.698333	188	NAVD88	13.23	112.00	98.77	88.19%		18.1	18.33		4.87	5.10
Jefferson	05S07W29DDD1	34.236256	-91.781633	194	NGVD29	22.7	113.00	90.30	79.91%	25.00	15.6		2.30	-7.10	
Jefferson	06S05W15BCA1	34.173042	-91.545833	177.14	NGVD29	15.23	132.00	116.77	88.46%		17.76	18.22		2.53	2.99
Jefferson	06S05W16ADD1	34.167222	-91.550278	200	NGVD29	16.57	132.00	115.43	87.45%						
Jefferson	06S06W23AAD1	34.168539	-91.620056	189.01	NGVD29	16.24	122.00	105.76	86.69%		18	19.02		1.76	2.78
Jefferson	06S07W02BCA1	34.215098	-91.744019	102	NGVD29	16.09	106.00	89.91	84.82%						
Jefferson	06S07W14BAA1	34.190267	-91.740481	201	NAVD88	13.7	111.00	97.30	87.66%			15.25			1.55
Jefferson	07S07W16BAA1	34.122877	-91.807910	190	NGVD29	27.3	126.50	99.20	78.42%	31.00			3.70		
Jefferson	07S08W06BAA1	34.149592	-91.946461	202.31	NGVD29	17.6	111.00	93.40	84.14%		20.12	19.07		2.52	1.47
							Average % Saturated:		80.56%		Wells in Decline:		1	1	4
							Min % Saturated:		61.05%		Total Wells:		5	8	10
							Max % Saturated:		88.46%		Average Change:		4.18	1.67	-0.46

**Alluvial Aquifer
Hydrologic Data 2018, 2017, 2013, 2008**

County	Local Well ID Number	Latitude	Longitude	Altitude of Land Surface	Altitude Datum	2018 DTW (ft)	Aquifer Thickness	2018 Saturated Thickness (ft)	% Saturated	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Lawrence	15N01E26DDA1	35.900531	-90.944261	251	NGVD29	54.72	110.95	56.23	50.68%	58.93	55.2	54.07	4.21	0.48	-0.65
Lawrence	15N01W35CBB1	35.893375	-91.065647	255	NAVD88	51	113.34	62.34	55.00%	51.29		46.68	0.29		-4.32
Lawrence	16N01W30DDC1	35.993592	-91.123128	255	NGVD29	17.58	113.59	96.01	84.52%	19.21		13.00	1.63		-4.58
Lawrence	17N01E02BBA1	36.150346	-90.952065	260	NGVD29	16.94	133.74	116.80	87.33%	17.09		16.20	0.15		-0.74
Lawrence	17N01W36AAB1	36.076459	-91.032900	257	NGVD29	13.99	125.40	111.41	88.84%	14.32			0.33		
Lawrence	17N02E04DCA1	36.132846	-90.873451	270	NGVD29	47.26	145.12	97.86	67.43%	47.15		44.20	-0.11		-3.06
Lawrence	17N02E25CBD1	36.073125	-90.830116	265	NGVD29	46.91	132.21	85.30	64.52%	46.00	44.1		-0.91	-2.81	
						Average % Saturated:			71.19%		Wells in Decline:		2	1	5
						Min % Saturated:			50.68%		Total Wells:		7	2	5
						Max % Saturated:			88.84%		Average Change:		0.80	-1.17	-2.67
Lee	01N01E04AAB1	34.732875	-91.004285	175	NGVD29	45	141.00	96.00	68.09%	43.50	39		-1.50	-6.00	
Lee	01N01E09CCC1	34.704265	-91.015119	182	NGVD29	35.3	141.00	105.70	74.96%	43.50		35.50	8.20		0.20
Lee	01N01E24CBD1	34.675932	-90.958172	185	NGVD29	18	141.00	123.00	87.23%	26.00		16.70	8.00		-1.30
Lee	01N02E11BAB1	34.715376	-90.869003	202	NGVD29	29	149.00	120.00	80.54%	39.00		33.00	10.00		4.00
Lee	01N02E12ABB1	34.715098	-90.844558	206	NGVD29	56.53	150.00	93.47	62.31%	40.00		34.00	-16.53		-22.53
Lee	01N02E22CA1	34.677071	-90.888087	200	NGVD29	25.5	143.00	117.50	82.17%			29.50			4.00
Lee	01N02E33CBB1	34.649543	-90.909560	186	NGVD29	12.5	142.00	129.50	91.20%	18.00		11.00	5.50		-1.50
Lee	01N02E33CCB1	34.647599	-90.909282	185	NGVD29	10	142.00	132.00	92.96%	16.00	13.5	9.00	6.00	3.50	-1.00
Lee	01N03E27ADD1	34.664543	-90.768167	204	NGVD29	11.5	148.00	136.50	92.23%	23.20	17.5		11.70	6.00	
Lee	02N01E21BAA1	34.775930	-91.001508	185	NGVD29	39.5	142.00	102.50	72.18%	43.00		38.30	3.50		-1.20
Lee	02N02E36DDC1	34.732042	-90.839003	205	NGVD29	33	149.00	116.00	77.85%	38.00			5.00		
Lee	02N03E09DDD1	34.789819	-90.785390	220	NGVD29	47.5	157.00	109.50	69.75%	51.50	52	47.00	4.00	4.50	-0.50
Lee	02N03E29CAD1	34.750098	-90.812891	220	NGVD29	42.5	158.00	115.50	73.10%	48.00		43.00	5.50		0.50
Lee	03N01E32BCC1	34.830929	-91.030675	200	NGVD29	70	157.00	87.00	55.41%	76.00			6.00		
Lee	03N02E21CBC1	34.853151	-90.907894	209	NGVD29	60.9	153.00	92.10	60.20%	62.00			1.10		
Lee	03N03E05CDD1	34.890928	-90.810390	204	NGVD29	56.5	159.00	102.50	64.47%	58.00		49.00	1.50		-7.50
Lee	03N03E18DAB1	34.868428	-90.822058	196	NGVD29	36.5	135.00	98.50	72.96%	36.50			0.00		
Lee	03N04E07CBB1	34.879261	-90.720110	200	NGVD29	18.5	169.00	150.50	89.05%	22.00	18	30.00	3.50	-0.50	11.50
						Average % Saturated:			75.93%		Wells in Decline:		2	2	7
						Min % Saturated:			55.41%		Total Wells:		17	5	12
						Max % Saturated:			92.96%		Average Change:		3.62	1.50	-1.28

**Alluvial Aquifer
Hydrologic Data 2018, 2017, 2013, 2008**

County	Local Well ID Number	Latitude	Longitude	Altitude of Land Surface	Altitude Datum	2018 DTW (ft)	Aquifer Thickness	2018 Saturated Thickness (ft)	% Saturated	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Lincoln	07S06W03CCA2	34.141210	-91.687351	190	NGVD29	12.8	114.30	101.50	88.80%	19.10	20	18.00	6.30	7.20	5.20
Lincoln	07S07W36CBD1	34.069822	-91.758186	183	NGVD29	37.6	116.20	78.60	67.64%	39.10	44	41.00	1.50	6.40	3.40
Lincoln	08S04W06ABD1	34.061489	-91.521235	171	NGVD29	15	101.50	86.50	85.22%	19.10	14	16.00	4.10	-1.00	1.00
Lincoln	08S04W29ABC1	34.005934	-91.512346	176	NGVD29	49.2	154.00	104.80	68.05%	50.10	47	45.00	0.90	-2.20	-4.20
Lincoln	08S05W12AAD1	34.046211	-91.537347	165	NGVD29	14.8	109.90	95.10	86.53%	19.50	26		4.70	11.20	
Lincoln	08S05W21DCD1	34.007601	-91.592626	169	NGVD29	34	129.70	95.70	73.79%	35.60	31		1.60	-3.00	
Lincoln	08S05W32DCC1	33.977879	-91.612349	172	NGVD29	47.2	137.30	90.10	65.62%	48.70	55	47.00	1.50	7.80	-0.20
Lincoln	08S07W05DDD1	34.050225	-91.817422	190	NGVD29	31.05	130.00	98.95	76.12%		31.45	30.23		0.40	-0.82
Lincoln	09S05W14AAA1	33.930556	-91.569167	167	NAVD88	43.34	148.00	104.66	70.72%						
Lincoln	09S05W14ABC1	33.931394	-91.577522	172.5	NGVD29	44.08	148.00	103.92	70.22%		44.88			0.80	
Lincoln	09S05W17BCB1	33.930997	-91.638875	172	NAVD88	42.42	133.00	90.58	68.11%		42.2	43.17		-0.22	0.75
Lincoln	09S05W19CCC1	33.907880	-91.661517	171	NGVD29	35.6	131.40	95.80	72.91%	37.00	38		1.40	2.40	
Lincoln	09S06W04BCD1	33.972606	-91.729397	181	NAVD88	44.26	119.00	74.74	62.81%		44.65	42.58		0.39	-1.68
Lincoln	09S06W04BDD1	33.966490	-91.726519	178	NGVD29	44	122.90	78.90	64.20%	49.20		46.00	5.20		2.00
Lincoln	10S05W06DCC1	33.865361	-91.652211	173	NAVD88	29.32	133.00	103.68	77.95%		29.88	32.37		0.56	3.05
						Average % Saturated:			73.25%		Wells in Decline:		0	4	4
						Min % Saturated:			62.81%		Total Wells:		9	13	10
						Max % Saturated:			88.80%		Average Change:		3.02	2.36	0.85

Alluvial Aquifer
Hydrologic Data 2018, 2017, 2013, 2008

County	Local Well ID Number	Latitude	Longitude	Altitude of Land Surface	Altitude Datum	2018 DTW (ft)	Aquifer Thickness	2018 Saturated Thickness (ft)	% Saturated	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Lonoke	01N07W27AAD1	34.684300	-91.736222	220	NGVD29	131.73	137.00	5.27	3.85%		136.35			4.62	
Lonoke	01N08W03DDA1	34.736480	-91.847359	229	NGVD29	142.69	201.00	58.31	29.01%	141.03		137.00	-1.66		-5.69
Lonoke	01N09W07DAA1	34.727035	-92.008197	240	NGVD29	47.51	125.00	77.49	61.99%	44.77		51.00	-2.74		3.49
Lonoke	01N09W13DAB1	34.709769	-91.921392	226	NGVD29	85.07	98.00	12.93	13.19%		90.4	88.43		5.33	3.36
Lonoke	01N10W15CDA1	34.710092	-92.070699	240	NGVD29	21.3	124.00	102.70	82.82%		23	31.00		1.70	9.70
Lonoke	01S06W31ABB1	34.583164	-91.692078	200	NGVD29	81.26	117	35.74	30.55%		81.86	79.32		0.60	-1.94
Lonoke	01S06W32BBB1	34.583706	-91.682354	201	NGVD29	81.46	118.00	36.54	30.97%	79.43	81	78.50	-2.03	-0.46	-2.96
Lonoke	01S07W12ABA1	34.642864	-91.708289	207	NGVD29	92.41	128	35.59	27.80%			71.77			-20.64
Lonoke	01S08W24CDD1	34.601567	-91.820103	210	NGVD29	85.46	115	29.54	25.69%		86.13	83.34		0.67	-2.12
Lonoke	01S09W02DDD1	34.649259	-91.939861	230	NGVD29	86.75	118.00	31.25	26.48%	81.01	86		-5.74	-0.75	
Lonoke	01S09W36CCC1	34.576475	-91.938606	220	NGVD29	64.05	115.00	50.95	44.30%		65.09	61.91		1.04	-2.14
Lonoke	01S10W01ACB1	34.657456	-92.037489	236	NGVD29	42.12	120.00	77.88	64.90%		45.51	44.63		3.39	2.51
Lonoke	02N07W07DAA1	34.812591	-91.785414	232	NGVD29	140.82	145.00	4.18	2.88%	138.87		134.00	-1.95		-6.82
Lonoke	02N07W16BAB1	34.804222	-91.760972	240	NGVD29	144.78	146.00	1.22	0.84%			135.79			-8.99
Lonoke	02N10W15ACC1	34.802035	-92.064588	241	NGVD29	44.67	128.00	83.33	65.10%	33.64	30	32.00	-11.03	-14.67	-12.67
Lonoke	02N10W23BCA1	34.790347	-92.056153	242	NGVD29	14.55	132.00	117.45	88.98%		11.55			-3.00	
Lonoke	02S07W05CDC1	34.557317	-91.787634	205	NGVD29	76.6	112.00	35.40	31.61%	74.07	75	70.00	-2.53	-1.60	-6.60
Lonoke	02S07W10CCB1	34.546236	-91.756853	199	NAVD88	66.93	112.00	45.07	40.24%		69.28	63.34		2.35	-3.59
Lonoke	02S08W06BAA1	34.575000	-91.913056	221	NGVD29	68.49	119.82	51.33	42.84%	70.08	70.57		1.59	2.08	
Lonoke	02S08W28CDC1	34.501944	-91.876944	211	NGVD29	64.31	121.86	57.55	47.23%	65.62	64.59		1.31	0.28	
Lonoke	02S08W34DBB1	34.500822	-91.863819	214	NAVD88	61.63	119.00	57.37	48.21%		68.59	63.76		6.96	2.13
Lonoke	02S09W22AAA1	34.531483	-91.957639	226	NGVD29	65.95	119.00	53.05	44.58%	57.23		63.00	-8.72		-2.95
Lonoke	02S09W30CDD1	34.503983	-92.021114	226	NGVD29	39.96	115.00	75.04	65.25%			38.88			-1.08
Lonoke	03N07W08BDB1	34.901839	-91.777300	250	NAVD88	99.8	162.00	62.20	38.40%	98.77	100.55	98.31	-1.03	0.75	-1.49
Lonoke	03N07W29ADA1	34.857925	-91.766222	234	NGVD29	98.1	152.70	54.60	35.76%	97.93	94.9	92.27	-0.17	-3.20	-5.83
Lonoke	03N07W29CDD1	34.849257	-91.775692	232	NGVD29	104.35	147.00	42.65	29.01%	111.23	101	98.00	6.88	-3.35	-6.35
Lonoke	03N08W03BAA1	34.921817	-91.848200	260	NGVD29	104.36	194.00	89.64	46.21%	104.85	102.43	95.69	0.49	-1.93	-8.67
Lonoke	03N08W03CCC1	34.908294	-91.856444	260	NGVD29	111.04	180.00	68.96	38.31%	110.91	109.25	105.10	-0.13	-1.79	-5.94
Lonoke	03N08W08ABA1	34.907494	-91.879964	258	NGVD29	102.14	194.00	91.86	47.35%	100.64	99.71	95.71	-1.50	-2.43	-6.43
Lonoke	03N08W10ACB1	34.904069	-91.847983	250	NGVD29	99.07	180.00	80.93	44.96%	94.04	96.1	92.62	-5.03	-2.97	-6.45
Lonoke	03N08W10ADD1	34.900294	-91.839661	250	NGVD29	100.7	182.00	81.30	44.67%	102.10	97.84	95.05	1.40	-2.86	-5.65
Lonoke	03N08W11ACA1	34.903533	-91.826183	257	NAVD88	107.9	172.00	64.10	37.27%	107.28	105.36	104.23	-0.62	-2.54	-3.67
Lonoke	03N08W29BBB1	34.863083	-91.892447	249	NGVD29	114.62	188.00	73.38	39.03%	115.09	114.62	113.34	0.47	0.00	-1.28
Lonoke	03N08W29BCC1	34.856947	-91.892611	250	NGVD29	112.8	188.00	75.20	40.00%	118.71	116.33	133.08	5.91	3.53	20.28
Lonoke	03N08W32ABB1 UAPB Lonoke	34.849475	-91.881117	250	NAVD88	121.91	189.20	67.29	35.57%	122.80	122.67	120.61	0.89	0.76	-1.30
Lonoke	04N08W15BCB2	34.975811	-91.855903	224	NAVD88	34.29	144.00	109.71	76.19%		37	29.20		2.71	-5.09
Lonoke	04N08W16DCC1	34.965906	-91.865006	225	NGVD29	49.77	163.00	113.23	69.47%		48.85	47.88		-0.92	-1.89
Lonoke	04N08W28CCC1	34.937381	-91.873697	237	NAVD88	66.67	178.00	111.33	62.54%	67.18	58.58	61.43	0.51	-8.09	-5.24
Lonoke	04N08W33ABD1	34.932944	-91.861472	258	NAVD88	93.51	184.00	90.49	49.18%	94.54	92.51	85.22	1.03	-1.00	-8.29
Lonoke	04N08W33ADB1	34.931278	-91.856944	263	NAVD88	101.33	184.00	82.67	44.93%	114.46	103.14	94.55	13.13	1.81	-6.78
Lonoke	04N08W33ADD1	34.929528	-91.857083	267	NAVD88	106.23	184.00	77.77	42.27%	110.03	105.08	97.00	3.80	-1.15	-9.23
Lonoke	04N08W36DBB1	34.927925	-91.820672	259	NAVD88	97.56	184.00	86.44	46.98%	99.41	96.14	93.08	1.85	-1.42	-4.48
						Average % Saturated:			42.56%		Wells in Decline:		14	18	31
						Min % Saturated:			0.84%		Total Wells:		27	35	37
						Max % Saturated:			88.98%		Average Change:		-0.21	-0.44	-3.53

Alluvial Aquifer

Hydrologic Data 2018, 2017, 2013, 2008

County	Local Well ID Number	Latitude	Longitude	Altitude of Land Surface	Altitude Datum	2018 DTW (ft)	Aquifer Thickness	2018 Saturated Thickness (ft)	% Saturated	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Mississippi	11N09E34BBB1	35.538258	-90.120881	235	NGVD29	17.6	190.78	173.18	90.77%	20.23	20.8	19.12	2.63	3.20	1.52
Mississippi	11N10E09BCB1	35.591747	-90.033978	236	NGVD29	17.4	149.00	131.60	88.32%			16.00			-1.40
Mississippi	12N08E08BCB1	35.679739	-90.266458	225	NGVD29	7.9	134.35	126.45	94.12%	10.86	10.4	6.26	2.96	2.50	-1.64
Mississippi	12N08E28ddb1	35.618691	-90.235096	225	NGVD29	19.8	138.00	118.20	85.65%			15.50			-4.30
Mississippi	12N09E12ABC1	35.681745	-90.080369	232	NGVD29	15.8	151.00	135.20	89.54%			9.00			-6.80
Mississippi	12N10E04CAA1	35.690078	-90.026756	235	NGVD29	9.5	150.00	140.50	93.67%			8.00			-1.50
Mississippi	12N10E21DBA1	35.645079	-90.022867	236	NGVD29	18.6	146.00	127.40	87.26%			16.50			-2.10
Mississippi	13N08E24ABB1	35.741188	-90.186762	230	NGVD29	7.2	148.00	140.80	95.14%			7.50			0.30
Mississippi	13N09E30CCD1	35.713281	-90.174619	230	NGVD29	7.05	148.24	141.19	95.24%	13.75	15	7.08	6.70	7.95	0.03
Mississippi	14N08E12DAB1	35.851158	-90.181094	235	NGVD29	4.15	166.10	161.95	97.50%	6.91		2.75	2.76		-1.40
Mississippi	14N08E20DAA1	35.822575	-90.249542	225	NGVD29	5	134.00	129.00	96.27%			2.50			-2.50
Mississippi	14N08E26CC1	35.800909	-90.209818	230	NGVD29	5.1	150.00	144.90	96.60%			3.50			-1.60
Mississippi	14N10E18ABC1	35.839544	-90.062600	232	NAVD88	9.8	119.00	109.20	91.76%			8.11			-1.69
Mississippi	14N11E17CBB1	35.832020	-89.944254	240	NGVD29	6.7	151.00	144.30	95.56%			3.00			-3.70
Mississippi	14N11E33CAA1	35.790909	-89.918975	240	NGVD29	10	160.00	150.00	93.75%			10.00			0.00
Mississippi	15N10E21ABC1	35.914167	-90.025556	240	NGVD29	4.9	122.00	117.10	95.98%			7.50			2.60
Mississippi	15N12E01BCD1	35.951185	-89.767026	258	NGVD29	9.2	140.00	130.80	93.43%			9.00			-0.20
Mississippi	16N10E28BBD1	35.985036	-90.032231	238	NGVD29	10.1	138.00	127.90	92.68%			5.33			-4.77
						Average % Saturated:			92.96%		Wells in Decline:		0	0	13
						Min % Saturated:			85.65%		Total Wells:		4	3	18
						Max % Saturated:			97.50%		Average Change:		3.76	4.55	-1.62
Monroe	01N03W23BAC1	34.690096	-91.295403	170	NGVD29	13	119.93	106.93	89.16%	17.82	18.5	14.30	4.82	5.50	1.30
Monroe	01N04W33BBB2	34.666533	-91.446811	220	NAVD88	100.72	154.16	53.44	34.67%	110.12		97.56	9.40		-3.16
Monroe	01S01W16DB	34.604265	-91.109009	175	NGVD29	25.48	145.37	119.89	82.47%	24.80		20.00	-0.68		-5.48
Monroe	01S02W20BBB1	34.603528	-91.248917	170	NGVD29	18	138.87	120.87	87.04%	11.80	13.29	12.22	-6.20	-4.71	-5.78
Monroe	01S03W20BBA1	34.593969	-91.354925	210	NGVD29	70.83	149	78.17	52.46%		80	75.03		9.17	4.20
Monroe	01S04W01BAB1	34.651628	-91.387981	210	NGVD29	73.9	154.67	80.77	52.22%	76.32		76.88	2.42		2.98
Monroe	02N01W19ADD1	34.773430	-91.137345	188	NGVD29	59.53	148.91	89.38	60.02%	40.20		54.00	-19.33		-5.53
Monroe	02N03W35BCA1	34.748707	-91.295960	188	NGVD29	29.86	133.60	103.74	77.65%	31.85		35.00	1.99		5.14
Monroe	02S01W01BCD1	34.551488	-91.069007	176	NGVD29	20.5	145.90	125.40	85.95%	22.20	20	22.00	1.70	-0.50	1.50
Monroe	03N01W20ABA1	34.866994	-91.123008	193	NAVD88	49.8	144.94	95.14	65.64%	54.99		48.61	5.19		-1.19
Monroe	04N02W01BCC1	34.991481	-91.167902	175	NGVD29	41.82	118.45	76.63	64.69%	42.30		39.00	0.48		-2.82
Monroe	04N02W05BBB1	34.999259	-91.219848	188	NGVD29	14.02	95.94	81.92	85.39%	15.52		16.00	1.50		1.98
Monroe	04N02W27CDD3	34.927839	-91.197147	200	NGVD29	45.46	151.28	105.82	69.95%	46.83		45.68	1.37		0.22
Monroe	04N02W28DDD3	34.926403	-91.205744	192	NGVD29	34.1	142.10	108.00	76.00%	33.99		32.81	-0.11		-1.29
						Average % Saturated:			70.24%		Wells in Decline:		4	2	7
						Min % Saturated:			34.67%		Total Wells:		13	4	14
						Max % Saturated:			89.16%		Average Change:		0.20	2.37	-0.57

**Alluvial Aquifer
Hydrologic Data 2018, 2017, 2013, 2008**

County	Local Well ID Number	Latitude	Longitude	Altitude of Land Surface	Altitude Datum	2018 DTW (ft)	Aquifer Thickness	2018 Saturated Thickness (ft)	% Saturated	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Phillips	01S01E20DDB1	34.591488	-91.016229	185	NGVD29	34.8	154.59	119.79	77.49%	30.40		27.00	-4.40		-7.80
Phillips	01S02E09CBB1	34.621869	-90.909461	185	NGVD29	10.1	142.79	132.69	92.93%	18.90	16.45	15.44	8.80	6.35	5.34
Phillips	01S02E32BCC1	34.563989	-90.924004	200	NGVD29	44	180.13	136.13	75.57%	52.90	50.8		8.90	6.80	
Phillips	01S03E02ADD1	34.637321	-90.753167	200	NGVD29	14.6	129.80	115.20	88.75%	23.50		17.00	8.90		2.40
Phillips	01S03E10ABB1	34.628155	-90.776223	205	NGVD29	15	140.80	125.80	89.35%	28.01		19.00	13.01		4.00
Phillips	01S03E20BDD1	34.592600	-90.812891	210	NGVD29	18.3	151.00	132.70	87.88%	28.70			10.40		
Phillips	01S04E05DCD1	34.633989	-90.697609	246	NAVD88	46	146.90	100.90	68.69%	52.60		50.23	6.60		4.23
Phillips	02S02E29DDD1	34.483712	-90.912337	180	NGVD29	23.7	150.65	126.95	84.27%	30.70		24.00	7.00		0.30
Phillips	02S02E33ACC1	34.467932	-90.901453	177	NGVD29	22.1	151.42	129.32	85.41%	28.80		24.00	6.70		1.90
Phillips	02S03E15ACD1 near Barton	34.519433	-90.772633	174	NAVD88	12.05	150.65	138.60	92.00%	16.12		8.59	4.07		-3.46
Phillips	02S03E34BCD1	34.474546	-90.781500	165	NGVD29	19.3	122.44	103.14	84.24%	21.60		20.40	2.30		1.10
Phillips	02S04E27AAC1	34.492103	-90.666969	179	NGVD29	6.7	85.78	79.08	92.19%	10.86	9	9.74	4.16	2.30	3.04
Phillips	03S04E02CAA1	34.458992	-90.655107	176	NGVD29	9	121.81	112.81	92.61%	16.02	16.5	17.48	7.02	7.50	8.48
Phillips	04S01E01AAD1	34.377324	-90.950113	156	NGVD29	12.9	121.49	108.59	89.38%	15.00		18.00	2.10		5.10
Phillips	04S01E14CDD1	34.337325	-90.977057	155	NGVD29	10	117.42	107.42	91.48%	13.40		16.00	3.40		6.00
Phillips	04S01E29CDC1	34.312324	-91.030114	150	NGVD29	5	112.00	107.00	95.54%	10.10	5.6	7.00	5.10	0.60	2.00
Phillips	04S02E01DBB1	34.372325	-90.848166	163	NGVD29	15.5	118.73	103.23	86.95%	16.70		16.00	1.20		0.50
						Average % Saturated:			86.75%	Wells in Decline:			1	0	2
						Min % Saturated:			68.69%	Total Wells:			17	5	15
						Max % Saturated:			95.54%	Average Change:			5.60	4.71	2.21
Poinsett	10N01E02AAA	35.534803	-90.948452	235	NGVD29	108.5	149.00	40.50	27.18%	135.00	103.00	101.00	26.50	-5.50	-7.50
Poinsett	10N01E32CBB1	35.449250	-91.014842	222	NGVD29	77	145.00	68.00	46.90%	79.00		76.50	2.00		-0.50
Poinsett	10N01E33ACB1	35.464306	-90.992889	220	NGVD29	97	143.32	46.32	32.32%	95.00	87.5	81.00	-2.00	-9.50	-16.00
Poinsett	10N02E15CAA1	35.494526	-90.869283	237	NGVD29	116.2	146.91	30.71	20.90%	113.00	115	108.00	-3.20	-1.20	-8.20
Poinsett	10N02E20BAB1	35.485082	-90.905117	237	NGVD29	105	148.19	43.19	29.14%	105.00	116		0.00	11.00	
Poinsett	10N02E34BBB1 near Fisher	35.457167	-90.875361	235	NAVD88	108.4	149.59	41.19	27.53%	108.24	107.13	102.08	-0.16	-1.27	-6.32
Poinsett	10N03E19BCB1	35.484804	-90.818726	239	NGVD29	115.8	143.26	27.46	19.17%	116.00	112	101.00	0.20	-3.80	-14.80
Poinsett	10N04E35BBA1	35.462583	-90.642054	212	NGVD29	20	112.48	92.48	82.22%	19.00		19.50	-1.00		-0.50
Poinsett	10N07E28CBB1	35.459250	-90.357878	217	NGVD29	29	110.59	81.59	73.78%	29.00	32	31.00	0.00	3.00	2.00
Poinsett	11N01E17DDC1	35.577025	-91.004287	232	NGVD29	85	142.52	57.52	40.36%	85.50		80.89	0.50		-4.11
Poinsett	11N01E34AAA	35.548970	-90.966508	229	NGVD29	96	142.48	46.48	32.62%	96.50		90.50	0.50		-5.50
Poinsett	11N02E30BBB1	35.564525	-90.927896	239	NGVD29	111	144.81	33.81	23.35%	110.00	112	105.00	-1.00	1.00	-6.00
Poinsett	11N04E13DDA1	35.580636	-90.608720	211	NGVD29	15.5	67.97	52.47	77.20%	14.00	15	18.00	-1.50	-0.50	2.50
Poinsett	11N05E26BDB1	35.555081	-90.537051	213	NGVD29	10.2	91.95	81.75	88.91%	9.50	13	11.00	-0.70	2.80	0.80
Poinsett	11N07E18CAB1	35.576297	-90.389258	217	NGVD29	11.8	102.40	90.60	88.48%	16.04	17.3	14.04	4.24	5.50	2.24
Poinsett	11N07E22ADD1	35.563611	-90.322778	221	NAVD88	23.87	115.90	92.03	79.40%	26.54			2.67		
Poinsett	12N01E22DAB1	35.656190	-90.969286	235	NGVD29	80	117.00	37.00	31.63%	81.00	81	76.50	1.00	1.00	-3.50
Poinsett	12N05E16ABA1	35.677578	-90.559274	221	NGVD29	10	86.23	76.23	88.40%	11.00	14	9.50	1.00	4.00	-0.50
						Average % Saturated:			50.53%	Wells in Decline:			7	6	12
						Min % Saturated:			19.17%	Total Wells:			18	13	16
						Max % Saturated:			88.91%	Average Change:			1.61	0.50	-4.12

Alluvial Aquifer

Hydrologic Data 2018, 2017, 2013, 2009

County	Local Well ID Number	Latitude	Longitude	Altitude of Land Surface	Altitude Datum	2018 DTW (ft)	Aquifer Thickness	2018 Saturated Thickness (ft)	% Saturated	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Prairie	01N06W05CCB1	34.731381	-91.680300	220	NAVD88	118.22	157.04	38.82	24.72%	119.34	119.7	119.27	1.12	1.48	1.05
Prairie	01N06W26CDD1	34.670800	-91.618781	219	NAVD88	104.23	142.97	38.74	27.10%	105.32	108.6		1.09	4.37	
Prairie	01S04W28BDB1	34.589633	-91.441592	205	NGVD29	97.22	137.33	40.11	29.21%	98.15	98.73	98.00	0.93	1.51	0.78
Prairie	01S05W14BBC1	34.622767	-91.519100	211	NGVD29	109.17	150.17	41.00	27.30%	106.96		109.68	-2.21		0.51
Prairie	01S05W31DDA1	34.571339	-91.575469	206	NGVD29	99.86	137.31	37.45	27.27%	100.48	101.17	105.57	0.62	1.31	5.71
Prairie	01S06W12BAB1	34.640556	-91.603611	228	NAVD88	117.07	156.88	39.81	25.38%	117.78	119.09		0.71	2.02	
Prairie	02N05W29DDB2	34.762561	-91.552431	228	NGVD29	121.42	139.29	17.87	12.83%	121.60	125.93	119.78	0.18	4.51	-1.64
Prairie	02N06W17ABB1	34.802633	-91.666511	235	NGVD29	125.58	144.76	19.18	13.25%	126.47	132.23	125.82	0.89	6.65	0.24
Prairie	02N06W22BCC1 near Hazen	34.781333	-91.640944	235	NAVD88	114.4	153.00	38.60	25.23%	114.39	114.75		-0.01	0.35	
Prairie	03N05W03ADA2	34.914347	-91.511808	206	NAVD88	61.2	108.00	46.80	43.33%		67.41			6.21	
Prairie	03N05W20CCC1	34.862422	-91.565653	212	NAVD88	76.7	124.00	47.30	38.15%						
Prairie	03N06W20CDD1	34.861178	-91.667758	228	NAVD88	87.38	132.00	44.62	33.80%						
Prairie	04N07W20DDB1	34.952564	-91.768686	264	NAVD88	105.12	174.50	69.38	39.76%		103.24	103.11		-1.88	-2.01
Prairie	04N07W28BBA1	34.950147	-91.762467	258	NGVD29	99.14	182.73	83.59	45.75%	99.68	98.22	97.67	0.54	-0.92	-1.47
Prairie	05N05W28DDA1	35.022034	-91.541243	191	NGVD29	35.3	86.00	50.70	58.95%						
						Average % Saturated:			31.47%		Wells in Decline:		2	2	3
						Min % Saturated:			12.83%		Total Wells:		10	11	8
						Max % Saturated:			58.95%		Average Change:		0.39	2.33	0.40
Pulaski	01S10W29CC1	34.593828	-92.118794	239	NGVD29	11.01	102.00	90.99	89.21%		22.2	14.87		11.19	3.86
Pulaski	02S10W14DC1	34.534642	-92.059375	225	NAVD88	21.53	109.20	87.67	80.28%	21.17	22.2	23.50	-0.36	0.67	1.97
Pulaski	02S11W23BCB1	34.530917	-92.173375	230	NAVD88	14.43	106.70	92.27	86.48%	18.80			4.37		
						Average % Saturated:			85.32%		Wells in Decline:		1	0	0
						Min % Saturated:			80.28%		Total Wells:		2	2	2
						Max % Saturated:			89.21%		Average Change:		2.01	5.93	2.92

**Alluvial Aquifer
Hydrologic Data 2018, 2017, 2013, 2008**

County	Local Well ID Number	Latitude	Longitude	Altitude of Land Surface	Altitude Datum	2018 DTW (ft)	Aquifer Thickness	2018 Saturated Thickness (ft)	% Saturated	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Randolph	18N01E11CCC1	36.208897	-90.953825	265	NAVD88	7.75	29.00	21.25	73.28%		18			10.25	
Randolph	18N01E16ABA1	36.208411	-90.976683	263	NAVD88	15.17	25.00	9.83	39.32%		16			0.83	
Randolph	18N01E34AAC1	36.161858	-90.958092	264	NAVD88	19.83	54.00	34.17	63.28%			15.90			-3.93
Randolph	18N02E03DAD1	36.228219	-90.844569	279	NAVD88	9.75	86.00	76.25	88.66%			32.50			22.75
Randolph	18N02E27BA1	36.179161	-90.856750	274	NAVD88	36.88	116.00	79.12	68.21%		42			5.12	
Randolph	18N02E30BA1	36.178679	-90.900438	270	NGVD29	18	93.00	75.00	80.65%						
Randolph	20N03E20DCD1	36.357764	-90.773006	278	NAVD88	11.67	141.05	129.38	91.73%						
Randolph	20N03E28BA1	36.353758	-90.760547	279	NAVD88	10.21	137.24	127.03	92.56%	8.23	13.4	9.43	-1.98	3.19	-0.78
Randolph	20N03E29AD1	36.349153	-90.777836	288	NAVD88	16.75	41.00	24.25	59.15%						
						Average % Saturated:			72.98%		Wells in Decline:		1	0	2
						Min % Saturated:			39.32%		Total Wells:		1	4	3
						Max % Saturated:			92.56%		Average Change:		-1.98	4.85	6.01
St. Francis	05N01E15BCB1	35.050714	-90.995114	209	NGVD29	72.3	142.00	69.70	49.08%	73.87	71.98	69.66	1.57	-0.32	-2.64
St. Francis	05N01E27BBA1	35.026592	-90.991328	209	NAVD88	90.6	144.55	53.95	37.32%	76.31	71.23	69.07	-14.29	-19.37	-21.53
St. Francis	05N03E20AAA2	35.037308	-90.800231	251	NAVD88	101.9	194.00	92.10	47.47%	106.14	99.4	106.09	4.24	-2.50	4.19
St. Francis	05N06E34CAB1	35.007103	-90.449131	200	NAVD88	23.75	136.00	112.25	82.54%		26.7	28.38		2.95	4.63
						Average % Saturated:			54.10%		Wells in Decline:		1	3	2
						Min % Saturated:			37.32%		Total Wells:		3	4	4
						Max % Saturated:			82.54%		Average Change:		-2.83	-4.81	-3.84

**Alluvial Aquifer
Hydrologic Data 2018, 2017, 2013, 2008**

County	Local Well ID Number	Latitude	Longitude	Altitude of Land Surface	Altitude Datum	2018 DTW (ft)	Aquifer Thickness	2018 Saturated Thickness (ft)	% Saturated	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)			
White	05N07W09AAA1	35.079686	-91.744856	205	NGVD29	10.11	76.00	65.89	86.70%	9.80		12.62	-0.31		2.51			
White	05N07W10CCC1	35.066728	-91.743333	203	NGVD29	7.82	97.00	89.18	91.94%	7.89	8.71	7.79	0.07	0.89	-0.03			
White	06N06W13BA1	35.146501	-91.600539	215	NAVD88	85.57	112.00	26.43	23.60%	82.15			-3.42					
White	06N06W18BBC1	35.147592	-91.697756	210	NGVD29	9.18	15.00	5.82	38.80%	9.35		12.09	0.17		2.91			
White	06N06W18BCA1	35.143142	-91.697358	210	NGVD29	13.13	120.60	107.47	89.11%	14.25		13.80	1.12		0.67			
White	06N06W34AAB1	35.106547	-91.631542	212	NAVD88	59	117.00	58.00	49.57%			60.78			1.78			
White	06N07W17DCC1	35.139575	-91.776314	218	NAVD88	8.8	51.00	42.20	82.75%	8.97	13.08	13.42	0.17	4.28	4.62			
White	06N08W26DDB1	35.111172	-91.824667	224	NGVD29	9.88	53.00	43.12	81.36%		16.04	13.23		6.16	3.35			
						Average % Saturated:			67.98%		Wells in Decline:		2	0	1			
						Min % Saturated:			23.60%		Total Wells:		6	3	7			
						Max % Saturated:			91.94%		Average Change:		-0.37	3.78	2.26			
Woodruff	05N03W25DDB1	35.025925	-91.258737	190	NGVD29	13	92.94	79.94	86.01%	13.90		10.60	0.90		-2.40			
Woodruff	06N01W11CBC1	35.152867	-91.095122	220	NGVD29	72	133.00	61.00	45.86%	72.50			0.50					
Woodruff	07N01W04ABB1	35.265389	-91.102000	226	NGVD29	63.6	136.00	72.40	53.24%									
Woodruff	07N01W04ACB1	35.261476	-91.107344	225	NGVD29	68.5	127.56	59.06	46.30%	69.50		64.20	1.00		-4.30			
Woodruff	07N03W31BBA1	35.197865	-91.350961	195	NGVD29	10.5	102.86	92.36	89.79%	10.80		7.70	0.30		-2.80			
Woodruff	08N03W31AAD1	35.282030	-91.341239	211	NAVD88	18.92	122.00	103.08	84.49%			22.78			3.86			
Woodruff	09N03W28ABB1	35.386195	-91.312628	220	NGVD29	25	131.96	106.96	81.05%	24.00			-1.00					
Woodruff	09N03W32ACA1	35.368140	-91.326795	217	NGVD29	21.7	125.78	104.08	82.75%	22.20		16.90	0.50		-4.80			
						Average % Saturated:			71.19%		Wells in Decline:		1		4			
						Min % Saturated:			45.86%		Total Wells:		6		5			
						Max % Saturated:			89.79%		Average Change:		0.37		-2.09			
													Total No. of Wells in Decline:			94	66	174
													Total Wells:			276	219	301
													Percent of Total Wells in Decline:			34.06%	30.14%	57.81%
													Total Average Change:			1.25	1.89	-0.63

Appendix B

Sparta/Memphis Aquifer Water Level Monitoring Data

Sparta Aquifer
Depth to Water 2018, 2017, 2013, 2008

County	Local Well ID Number	Latitude	Longitude	Lat/Long Datum	Altitude of land surface	Altitude Datum	2018 DTW (ft)	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Arkansas	02S04W06CDB1	34.553206	-91.480358	NAD83	212.00	NGVD29	151.10	159.34	159.82	159.00	8.24	8.72	7.90
Arkansas	02S04W23DAA1	34.512283	-91.398481	NAD83	208.00	NGVD29	135.85	145.49	144.84	160.90	9.64	8.99	25.05
Arkansas	02S04W33BBB1	34.489483	-91.450744	NAD83	205.00	NGVD29	167.10	158.05		183.70	-9.05		16.60
Arkansas	02S05W16CBB1	34.528767	-91.555186	NAD83	213.00	NGVD29	174.20	173.58	173.82	173.30	-0.62	-0.38	-0.90
Arkansas	02S05W34ABC1	34.490181	-91.529942	NAD83	218.00	NAVD88	176.65	177.95	179.71	176.50	1.30	3.06	-0.15
Arkansas	02S05W35AAB1	34.491661	-91.509808	NAD83	216.00	NGVD29	171.33	173.45	176.39	174.80	2.12	5.06	3.47
Arkansas	03S03W18CCC2	34.431389	-91.380833	NAD83	196.00	NAVD88	132.95		145.52	138.96		12.57	6.01
Arkansas	03S04W33BAA1	34.401931	-91.444172	NAD83	201.00	NGVD29	146.95	154.07	155.84	165.22	7.12	8.89	18.27
Arkansas	03S05W02AAB1	34.478386	-91.509364	NAD83	210.00	NGVD29	165.25	171.60	170.72	173.90	6.35	5.47	8.65
Arkansas	03S05W15CBB1	34.442558	-91.541481	NAD83	209.00	NAVD88	162.90	170.67	178.94	172.30	7.77	16.04	9.40
Arkansas	03S06W21ACB1	34.431686	-91.657564	NAD83	193.00	NAVD88	148.22		159.07	160.80		10.85	12.58
Arkansas	03S06W30BBD1	34.420983	-91.704486	NAD83	191.00	NGVD29	152.26		151.64	160.60		-0.62	8.34
Arkansas	04S01W05CBD2	34.373761	-91.135619	NAD83	201.00	NAVD88	107.97						
Arkansas	04S01W28BAA1	34.324156	-91.130011	NAD83	190.00	NGVD29	100.80		105.99	105.00		5.19	4.20
Arkansas	04S04W11BCC1	34.365822	-91.417089	NAD83	198.00	NGVD29	143.95	150.29	152.03	155.10	6.34	8.08	11.15
Arkansas	04S04W19CBB1	34.334369	-91.491358	NAD83	195.00	NGVD29	158.79	157.03	157.54	176.50	-1.76	-1.25	17.71
Arkansas	04S04W22DAA1	34.335247	-91.420875	NAD83	195.00	NGVD29	145.90	152.51	153.95	157.20	6.61	8.05	11.30
Arkansas	04S05W01BAA1	34.389508	-91.499017	NAD83	196.00	NGVD29	180.08	162.70	162.09	192.00	-17.38	-17.99	11.92
Arkansas	04S05W15AAA1	34.358933	-91.525914	NAD83	200.00	NAVD88	166.01	163.88	165.29	167.30	-2.13	-0.72	1.29
Arkansas	04S05W34DAA1	34.305481	-91.528258	NAD83	191.00	NAVD88	150.04			157.70			7.66
Arkansas	04S05W36DCC1	34.297778	-91.501008	NAD83	196.00	NGVD29	154.26	159.99	161.21	161.20	5.73	6.95	6.94
Arkansas	05S03W04ADB1	34.292817	-91.335308	NAD83	190.00	NAVD88	128.08			137.40			9.32
Arkansas	05S04W26ACA1	34.232864	-91.409508	NAD83	186.00	NAVD88	129.90		137.79	139.60		7.89	9.70
Arkansas	05S05W26CDD1	34.223264	-91.522211	NAD83	186.00	NAVD88	30.34		35.79	37.55		5.45	7.21
Arkansas	05S05W36DAA1	34.212528	-91.496292	NAD83	180.00	NAVD88	140.28		143.13	144.05		2.85	3.77
Arkansas	06S02W06ABB1	34.207750	-91.272225	NAD83	181.00	NAVD88	111.85		118.34	118.40		6.49	6.55
Arkansas	06S02W17ADA1	34.172964	-91.248094	NAD83	185.00	NAVD88	107.90		113.50	112.95		5.60	5.05
Arkansas	06S02W22CDB1	34.151125	-91.225294	NAD83	186.00	NGVD29	107.35		112.02	110.70		4.67	3.35
Arkansas	06S03W27BAA1	34.149783	-91.335828	NAD83	181.00	NGVD29	110.36		119.10	120.10		8.74	9.74
Arkansas	07S02W28ABA1	34.061019	-91.236392	NAD83	181.00	NGVD29	100.81		106.33	104.20		5.52	3.39
Arkansas	07S03W06ABC1	34.117192	-91.379911	NAD83	188.00	NAVD88	136.68		131.72	127.10		-4.96	-9.58
Arkansas	08S02W09BCC1	34.008628	-91.246572	NAD83	174.00	NGVD29	97.83		100.79	99.30		2.96	1.47
									Wells in Decline:		5	6	3
									Total Wells:		15	28	31
									Average Change:		2.02	4.72	7.66

Sparta Aquifer
Depth to Water 2018, 2017, 2013, 2008

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Sparta Aquifer
Depth to Water 2018, 2017, 2013, 2008

County	Local Well ID Number	Latitude	Longitude	Lat/Long Datum	Altitude of land surface	Altitude Datum	2018 DTW (ft)	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Columbia	15S20W20CCB1	33.414825	-93.204169	NAD83	371.00	NAVD88	216.34	216.57	217.08	216.10	0.23	0.74	-0.24
Columbia	16S20W08DCC1	33.353911	-93.194817	NAD83	397.00	NAVD88	326.35	314.01	314.41	326.50	-12.34	-11.94	0.15
Columbia	16S20W18ACD1	33.348036	-93.210389	NAD83	338.00	NAVD88	255.40	254.24	265.02		-1.16	9.62	
Columbia	16S21W14CBB1	33.347047	-93.254800	NAD83	281.00	NGVD29	185.78	197.03	190.98	197.70	11.25	5.20	11.92
Columbia	16S21W15CBC1	33.345214	-93.272381	NAD83	286.00	NAVD88	214.90	204.23		191.10	-10.67		-23.80
Columbia	16S21W20CDC1	33.328737	-93.304336	NAD27	350.00	NGVD29	250.00	256.29	258.05		6.29	8.05	
Columbia	16S21W20DAD1	33.331961	-93.293464	NAD83	348.00	NAVD88	276.30	245.65			-30.65		
Columbia	16S22W22CCD1	33.329892	-93.373581	NAD83	347.00	NAVD88	132.03	133.94	151.97	137.40	1.91	19.94	5.37
Columbia	17S19W15ABD1	33.260406	-93.057943	NAD27	325.00	NGVD29	253.50	257.40	234.47	277.80	3.90	-19.03	24.30
Columbia	17S19W30ABB1	33.235033	-93.113928	NAD83	248.00	NGVD29	207.67	200.06	184.14	218.40	-7.61	-23.53	10.73
Columbia	17S21W01BBC1	33.295297	-93.239903	NAD83	305.00	NGVD29	248.60	250.39	251.00	265.40	1.79	2.40	16.80
Columbia	17S21W08DCA1	33.270394	-93.299528	NAD83	300.00	NAVD88	206.88	205.38	207.46		-1.50	0.58	
Columbia	17S21W11DCC2 Magnolia	33.269042	-93.246836	NAD83	304.00	NAVD88	269.66	266.82	268.93	292.15	-2.84	-0.73	22.49
Columbia	17S21W17BAB1	33.268886	-93.305444	NAD83	291.00	NAVD88	195.69	196.02	197.32		0.33	1.63	
Columbia	17S22W21ABD1	33.254608	-93.384503	NAD83	294.00	NAVD88	79.33	79.30	82.71		-0.03	3.38	
Columbia	17S22W22ABB1	33.256117	-93.369464	NAD83	319.00	NAVD88	131.00	131.56	134.00		0.56	3.00	
Columbia	17S22W23BBB1	33.255761	-93.360186	NAD83	340.00	NGVD29	145.26	145.70	148.24	136.85	0.44	2.98	-8.41
Columbia	18S20W06DDC1	33.195175	-93.213633	NAD83	300.00	NGVD29	287.90	286.07	270.62	288.00	-1.83	-17.28	0.10
Columbia	18S20W08CBC1	33.187442	-93.207511	NAD83	275.00	NAVD88	279.80	279.70	264.17	280.80	-0.10	-15.63	1.00
Columbia	18S20W10CAA1	33.181769	-93.171044	NAD83	307.00	NAVD88	269.85	270.35	267.83	283.25	0.50	-2.02	13.40
Columbia	18S22W27DDD1	33.142936	-93.366275	NAD83	312.00	NAVD88	130.67	130.08	132.33		-0.59	1.66	
Columbia	19S20W08DAB1 Emerson	33.099444	-93.198889	NAD83	328.00	NAVD88	256.56	256.80	267.24		0.24	10.68	
Columbia	19S20W09CBD1	33.098717	-93.191311	NAD83	331.00	NAVD88	261.89	262.75	260.22	273.70	0.86	-1.67	11.81
Columbia	19S20W34BDD1	33.044192	-93.175186	NAD83	278.00	NAVD88	202.70	177.59	205.94	210.62	-25.11	3.24	7.92
Columbia	19S21W16DBB1	33.088111	-93.290056	NAD83	283.00	NAVD88	171.09	171.28	171.22	174.70	0.19	0.13	3.61
Columbia	19S23W10ABD1	33.112200	-93.475925	NAD83	242.00	NGVD29	43.01	42.56	44.04	45.17	-0.45	1.03	2.16
Columbia	19S23W11CDA2	33.102608	-93.462228	NAD83	248.00	NGVD29	50.33	50.30	51.64	53.05	-0.03	1.31	2.72
Columbia	19S23W11DDB1	33.101369	-93.456144	NAD83	246.00	NGVD29	50.90	50.53	52.43	53.34	-0.37	1.53	2.44
Columbia	20S22W11ACD1	33.019222	-93.359222	NAD83	269.00	NAVD88	105.51	106.17	106.96	106.95	0.66	1.45	1.44
										Wells in Decline:	15	8	3
										Total Wells:	29	27	20
										Average Change:	-2.28	-0.49	5.30

Sparta Aquifer
Depth to Water 2018, 2017, 2013, 2008

County	Local Well ID Number	Latitude	Longitude	Lat/Long Datum	Altitude of land surface	Altitude Datum	2018 DTW (ft)	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Craighead	13N05E16DCC2	35.749144	-90.560781	NAD83	227.00	NAVD88	12.65						
Craighead	13N05E22BAD1	35.746183	-90.544825	NAD83	227.00	NAVD88	12.32	14.27			1.95		
Craighead	14N04E22CBD1	35.824700	-90.655831	NAD83	256.00	NGVD29	66.68	61.58		58.20	-5.10		-8.48
Craighead	14N05E36CBC1	35.797569	-90.516914	NAD83	230.00	NAVD88	11.61	13.66		12.45	2.05		0.84
Craighead	15N04E20ADB1	35.918336	-90.678669	NAD83	438.00	NGVD29	118.01	118.17		119.15	0.16		1.14
Craighead	15N05E29DBB1	35.899953	-90.575758	NAD83	258.00	NGVD29	24.20	26.28		25.25	2.08		1.05
									Wells in Decline:		1	0	1
									Total Wells:		5	0	4
									Average Change:		0.23	0.00	-1.36
Crittenden	05N08E11CCA2	35.062411	-90.216725	NAD83	211.00	NGVD29	20.61	23.90			3.29		
Crittenden	06N07E01DAD2	35.166122	-90.294006	NAD83	209.00	NGVD29	22.45	25.13		28.65	2.68		6.20
Crittenden	07N09E14BAC1	35.230039	-90.107842	NAD83	216.00	NAVD88	24.60			30.90			6.30
Crittenden	08N07E35BBC2	35.275000	-90.325833	NAD83	222.00	NAVD88	32.71						
Crittenden	09N07E21BBB1 near Heafer	35.394783	-90.358514	NAD83	216.00	NGVD29	25.36	25.80		25.12	0.44		-0.24
									Wells in Decline:		0	0	1
									Total Wells:		3	0	3
									Average Change:		2.14	0.00	4.09
Cross	07N03E17CAD1	35.220472	-90.795083	NAD83	248.00	NAVD88	109.90						
Cross	09N01E16CAC1	35.401389	-90.997431	NAD83	234.00	NGVD29	101.45			93.30			-8.15
Cross	09N01E25AAD1	35.378975	-90.931667	NAD83	226.00	NAVD88	96.38	97.31		90.80	0.93		-5.58
Cross	09N03E22AAB2	35.401061	-90.755108	NAD83	276.00	NAVD88	136.48	142.41		129.40	5.93		-7.08
Cross	09N03E22AAD1	35.400889	-90.753269	NAD83	281.00	NAVD88	133.22			125.00			-8.22
									Wells in Decline:		0	0	4
									Total Wells:		2	0	4
									Average Change:		3.43	0.00	-7.26

Sparta Aquifer
Depth to Water 2018, 2017, 2013, 2008

County	Local Well ID Number	Latitude	Longitude	Lat/Long Datum	Altitude of land surface	Altitude Datum	2018 DTW (ft)	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Dallas	07S14W30DCC1	34.075242	-92.566625	NAD83	335.00	NGVD29	119.97			120.80			0.83
Dallas	07S16W20CAB1	34.098658	-92.762519	NAD83	322.00	NGVD29	24.20		28.30	32.00		4.10	7.80
Dallas	08S15W34BDC1	33.982986	-92.625031	NAD83	240.00	NGVD29	26.73	26.53	17.91	23.50	-0.20	-8.82	-3.23
Dallas	08S16W18ACC1	34.031242	-92.777603	NAD83	251.00	NAVD88	12.96		17.62	15.40		4.66	2.44
Dallas	08S16W27DDD1	33.993542	-92.718658	NAD83	280.00	NGVD29	32.19		34.76	34.50		2.57	2.31
Dallas	09S16W19CAA1	33.934856	-92.783658	NAD83	260.00	NGVD29	5.80		7.08	6.30		1.28	0.50
Dallas	10S13W34ACA2	33.808183	-92.416003	NAD83	272.00	NAVD88	151.01	146.10	151.41	152.30	-4.91	0.40	1.29
Dallas	10S14W27CDB1	33.818778	-92.527219	NAD83	271.00	NAVD88	26.38		26.63	23.60		0.25	-2.78
Dallas	10S15W18BCC1	33.855425	-92.688911	NAD83	328.00	NGVD29	75.51	75.39	78.48	78.34	-0.12	2.97	2.83
									Wells in Decline:		3	1	2
									Total Wells:		3	8	9
									Average Change:		-1.74	0.93	1.33
Desha	09S02W26AAC1	33.896111	-91.255783	NAD83	153.00	NGVD29	71.05		73.66	72.97		2.61	1.92
Desha	09S04W28DDD1	33.886000	-91.501864	NAD83	165.00	NGVD29	113.22		114.56	114.04		1.34	0.82
Desha	11S02W03CCA1	33.771050	-91.286397	NAD83	138.00	NAVD88	70.99			69.50			-1.49
Desha	12S03W34DAD1	33.612067	-91.384733	NAD83	147.00	NGVD29	81.55		80.65	83.55		-0.90	2.00
									Wells in Decline:		0	1	1
									Total Wells:		0	3	4
									Average Change:		0.00	1.02	0.81
Drew	11S04W25DAA1	33.713739	-91.451939	NAD83	149.00	NAVD88	88.08		87.05	92.40		-1.03	4.32
Drew	12S06W30BBD1	33.635319	-91.761967	NAD83	271.00	NGVD29	212.67		210.41	239.10		-2.26	26.43
Drew	13S05W36ACB1	33.530800	-91.568775	NAD83	165.00	NAVD88	92.00						
Drew	15S04W12DDA1	33.408161	-91.456581	NAD83	125.00	NGVD29	63.27		64.40	63.90		1.13	0.63
									Wells in Decline:		0	2	0
									Total Wells:		0	3	3
									Average Change:		0.00	-0.72	10.46

Sparta Aquifer
Depth to Water 2018, 2017, 2013, 2008

County	Local Well ID Number	Latitude	Longitude	Lat/Long Datum	Altitude of land surface	Altitude Datum	2018 DTW (ft)	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Jefferson	03S08W19BAD1	34.439933	-91.912131	NAD83	217.00	NGVD29	160.80			170.50			9.70
Jefferson	03S09W23BBD1	34.440819	-91.953600	NAD83	224.00	NGVD29	160.40		191.40	171.30		31.00	10.90
Jefferson	03S10W27AAD1	34.417236	-92.076058	NAD83	222.00	NGVD29	116.00			103.78			-12.22
Jefferson	03S11W22ABC1	34.447447	-92.182853	NAD83	310.00	NGVD29	167.80		172.73	170.90		4.93	3.10
Jefferson	04S11W14BAD1	34.372150	-92.166686	NAD83	400.00	NGVD29	294.25			307.99			13.74
Jefferson	05S08W30ADB1 near Pine B	34.247867	-91.911167	NAD83	197.00	NAVD88	273.52		285.78	296.00		12.26	22.48
Jefferson	05S09W24DBD1	34.258244	-91.932111	NAD83	208.17	NGVD29	257.10		261.24			4.14	
Jefferson	06S08W16CCC1	34.195297	-91.921406	NAD83	202.42	NGVD29	239.70		247.19	257.80		7.49	18.10
Jefferson	06S08W25ADC1	34.173572	-91.854494	NAD83	203.48	NGVD29	213.25		219.88	228.20		6.63	14.95
Jefferson	06S10W23ACD1	34.187650	-92.085428	NAD83	239.00	NGVD29	213.55						
Jefferson	07S07W24BAB1	34.109078	-91.756386	NAD83	188.00	NGVD29	155.70		168.50	168.75		12.80	13.05
									Wells in Decline:		0	0	0
									Total Wells:		0	3	3
									Average Change:		0.00	11.32	10.42
Lafayette	17S23W19ACC1	33.255444	-93.524336	NAD83	291.00	NGVD29	52.50	52.11	55.29		-0.39	2.79	
Lafayette	17S24W23BBD1	33.257131	-93.567442	NAD83	261.00	NGVD29	33.05	32.54	34.79	32.81	-0.51	1.74	-0.24
Lafayette	18S23W29ACC1	33.153008	-93.510908	NAD83	255.00	NGVD29	15.47		18.38	16.30		2.91	0.83
Lafayette	19S23W29BDB1	33.064428	-93.517603	NAD83	239.00	NAVD88	39.30	27.02	41.68	40.57	-12.28	2.38	1.27
Lafayette	20S23W05ADB1	33.039819	-93.510022	NAD83	242.00	NGVD29	36.50	36.56	40.17	37.65	0.06	3.67	1.15
									Wells in Decline:		3	0	1
									Total Wells:		4	5	4
									Average Change:		-3.28	2.70	0.75
Lee	03N03E28CDB1	34.834981	-90.796900	NAD83	207.00	NGVD29	52.50	53.71	67.27	52.55	1.21	14.77	0.05
									Wells in Decline:		0	0	0
									Total Wells:		1	1	1
									Average Change:		1.21	14.77	0.05

Sparta Aquifer
Depth to Water 2018, 2017, 2013, 2008

County	Local Well ID Number	Latitude	Longitude	Lat/Long Datum	Altitude of land surface	Altitude Datum	2018 DTW (ft)	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Lincoln	07S07W30CDC1	34.078869	-91.845239	NAD83	208.00	NGVD29	170.95		173.34			2.39	
Lincoln	08S05W35ACC1	33.985167	-91.560350	NAD83	166.00	NGVD29	117.95		124.81			6.86	
Lincoln	08S08W35DBB1	33.982875	-91.872889	NAD83	244.00	NGVD29	216.67		209.13	235.54		-7.54	18.87
Lincoln	09S07W07DAD1	33.942747	-91.857864	NAD83	296.00	NGVD29	264.78		263.49	263.75		-1.29	-1.03
									Wells in Decline:		0	2	1
									Total Wells:		0	4	2
									Average Change:		0.00	0.11	8.92
Lonoke	01N07W03BCC1	34.740372	-91.750911	NAD83	223.00	NGVD29	137.57	138.98	136.37	131.90	1.41	-1.20	-5.67
Lonoke	02N07W06ACD1	34.827514	-91.793619	NAD83	241.00	NGVD29	132.85	131.35	127.96		-1.50	-4.89	
Lonoke	02N07W09AAA1	34.818450	-91.750083	NAD83	232.00	NGVD29	104.55		103.37	101.40		-1.18	-3.15
Lonoke	02N07W22DBA1	34.780969	-91.740467	NAD83	227.00	NGVD29	141.37		137.84	133.20		-3.53	-8.17
Lonoke	02N07W32DDD1	34.748128	-91.771936	NAD83	226.00	NGVD29	145.34	145.44	143.88	134.85	0.10	-1.46	-10.49
Lonoke	02S07W08DCC1	34.543192	-91.783414	NAD83	202.00	NGVD29	131.27		130.98			-0.29	
Lonoke	02S08W16BDA1	34.541022	-91.875692	NAD83	216.00	NGVD29	122.20		124.53	130.50		2.33	8.30
Lonoke	03N07W03CAA1	34.912472	-91.740639	NAD83	235.00	NGVD29	86.35		93.23	80.45		6.88	-5.90
Lonoke	03N08W22DAD1	34.868100	-91.839894	NAD83	235.00	NAVD88	101.81			99.77			-2.04
Lonoke	03N08W22DAD2	34.867939	-91.839964	NAD83	235.00	NAVD88	102.35	102.31			-0.04		
Lonoke	03N08W22DAD3	34.867778	-91.840000	NAD83	235.00	NAVD88	100.22			97.90			-2.32
									Wells in Decline:		2	6	7
									Total Wells:		4	8	8
									Average Change:		-0.01	-0.42	-3.68
Monroe	01N01W15DBC2	34.694167	-91.095000	NAD83	185.00	NAVD88	62.25	64.52	65.64		2.27	3.39	
Monroe	01N03W14CCB1	34.695536	-91.300311	NAD83	173.00	NAVD88	64.45	76.30		70.60	11.85		6.15
Monroe	04N02W28DDD4	34.926361	-91.205758	NAD83	191.00	NAVD88	32.40	34.01		29.65	1.61		-2.75
Monroe	04N02W30BAC1	34.938100	-91.254200	NAD83	176.00	NAVD88	7.56	10.50		11.90	2.94		4.34
Monroe	04N02W30BAD1	34.938000	-91.251000	NAD83	181.00	NAVD88	12.10	18.84		14.85	6.74		2.75
									Wells in Decline:		0	0	1
									Total Wells:		5	1	4
									Average Change:		5.08	3.39	2.62

Sparta Aquifer
Depth to Water 2018, 2017, 2013, 2008

County	Local Well ID Number	Latitude	Longitude	Lat/Long Datum	Altitude of land surface	Altitude Datum	2018 DTW (ft)	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Ouachita	11S15W27ABD1	33.744686	-92.623772	NAD83	222.00	NAVD88	67.77	67.48	68.02	70.70	-0.29	0.25	2.93
Ouachita	11S17W14CAC1	33.775375	-92.824294	NAD83	145.00	NAVD88	30.08	17.36	19.50	21.30	-12.72	-10.58	-8.78
Ouachita	11S17W36CCA1	33.728086	-92.809503	NAD83	133.00	NGVD29	4.00			8.64			4.64
Ouachita	11S18W20AAA1	33.770625	-92.966481	NAD83	301.00	NGVD29	43.64	44.08			0.44		
Ouachita	12S15W09BBA1	33.706478	-92.656233	NAD83	213.00	NAVD88	49.98	47.95	48.39	58.50	-2.03	-1.59	8.52
Ouachita	12S16W25BDA1	33.658056	-92.703056	NAD83	138.00	NGVD29	23.69						
Ouachita	12S16W26ABD1	33.662653	-92.717811	NAD83	137.00	NGVD29	20.78	21.36	34.05		0.58	13.27	
Ouachita	12S18W19CDC1	33.670550	-92.997586	NAD83	235.00	NAVD88	24.58	29.65	31.34	26.90	5.07	6.76	2.32
Ouachita	12S18W25CAB1	33.660331	-92.911631	NAD83	189.00	NAVD88	77.60	78.23			0.63		
Ouachita	12S19W35BDD1	33.650314	-93.029436	NAD83	350.00	NGVD29	156.82	156.30		158.69	-0.52		1.87
Ouachita	13S16W28ADD1	33.571172	-92.747397	NAD83	106.00	NGVD29	25.17	28.72	25.70	25.15	3.55	0.53	-0.02
Ouachita	13S18W06CBB1	33.632890	-93.003499	NAD27	235.00	NGVD29	114.26	114.32			0.06		
Ouachita	13S18W31BDD1	33.562025	-92.999006	NAD83	231.00	NAVD88	70.62			70.00			-0.62
Ouachita	13S19W28BCD1	33.576072	-93.071614	NAD83	230.00	NGVD29	28.15	37.54	33.60	39.60	9.39	5.45	11.45
Ouachita	14S16W32BDB1	33.471006	-92.777644	NAD83	239.00	NAVD88	19.94	26.13	29.07	26.80	6.19	9.13	6.86
Ouachita	14S17W02ABB1	33.547986	-92.824122	NAD83	115.00	NAVD88	19.71	19.41	24.80		-0.30	5.09	
Ouachita	14S17W03CBA1	33.542778	-92.848611	NAD83	140.00	NGVD29	13.83	15.16	17.07	15.48	1.33	3.24	1.65
Ouachita	14S17W05CAD1 near Camden	33.543892	-92.881844	NAD83	159.00	NAVD88	35.94	36.67	38.10	35.72	0.73	2.16	-0.22
Ouachita	14S17W19DBB1	33.500611	-92.895956	NAD83	259.00	NGVD29	13.06	15.57	18.66	10.70	2.51	5.60	-2.36
Ouachita	14S17W32CAD1	33.467614	-92.880883	NAD83	220.00	NGVD29	74.80	75.26	69.20	80.00	0.46	-5.60	5.20
Ouachita	14S18W27BDC1	33.488222	-92.951103	NAD83	309.00	NGVD29	42.93	43.26	43.96	48.20	0.33	1.03	5.27
Ouachita	14S19W29ABB1	33.494847	-93.087064	NAD83	280.00	NGVD29	88.13	88.17	90.10	88.70	0.04	1.97	0.57
Ouachita	15S15W32DBB2	33.376033	-92.674203	NAD83	121.00	NAVD88	143.52	147.78	156.02	176.50	4.26	12.50	32.98
Ouachita	15S16W07DDC1	33.431422	-92.787703	NAD83	228.00	NAVD88	23.85						
Ouachita	15S16W23DAC1	33.404658	-92.720600	NAD83	170.00	NGVD29	113.84	115.10	123.59	131.60	1.26	9.75	17.76
Ouachita	15S16W30DBD1	33.392222	-92.791389	NAD83	137.00	NGVD29	186.73	206.25	189.43		19.52	2.70	
Ouachita	15S18W36ADD1	33.386319	-92.910017	NAD83	160.00	NGVD29	86.87	87.77	90.50	93.60	0.90	3.63	6.73
Ouachita	15S19W21CDD2 Stephens	33.410561	-93.075528	NAD83	269.00	NAVD88	186.67	186.43			-0.24		
									Wells in Decline:		6	3	5
									Total Wells:		24	19	19
									Average Change:		1.71	3.44	5.09

Sparta Aquifer
Depth to Water 2018, 2017, 2013, 2008

County	Local Well ID Number	Latitude	Longitude	Lat/Long Datum	Altitude of land surface	Altitude Datum	2018 DTW (ft)	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Philips	02S02E01ADC1	34.556522	-90.848964	NAD83	176.00	NGVD29	33.40	35.66	37.17	36.20	2.26	3.77	2.80
Philips	02S04E02DBA1	34.545242	-90.651939	NAD83	250.00	NGVD29	92.15	101.75	109.59	92.30	9.60	17.44	0.15
Philips	03S03E30DAA1	34.400800	-90.820719	NAD83	172.00	NGVD29	41.10		42.82	42.40		1.72	1.30
Philips	04S02E25CCC1	34.307239	-90.856686	NAD83	166.00	NAVD88	32.90		33.59	35.40		0.69	2.50
									Wells in Decline:		0	0	0
									Total Wells:		2	4	4
									Average Change:		5.93	5.91	1.69
Poinsett	10N01E12BDC1	35.507319	-90.941547	NAD83	234.00	NGVD29	109.68	110.00		102.75	0.32		-6.93
Poinsett	10N01E15DBB1	35.491817	-90.973650	NAD83	232.00	NAVD88	99.40			95.70			-3.70
Poinsett	10N01E34BAA1	35.456667	-90.979444	NAD83	231.00	NGVD29	99.46	98.40		93.30	-1.06		-6.16
Poinsett	11N02E11BDC1 near Weiner	35.601528	-90.851944	NAD83	244.00	NGVD29	122.25	121.53			-0.72		
Poinsett	11N02E16CCC1	35.580058	-90.889228	NAD83	240.00	NAVD88	120.45	119.97		110.80	-0.48		-9.65
Poinsett	Un- 84 Truxno	32.946389	-92.404722	NAD83	212.00	NAVD88	251.94	252.15			0.21		
									Wells in Decline:		3	0	4
									Total Wells:		5	0	4
									Average Change:		-0.35	0.00	-6.61
Prairie	01N05W19CDC1	34.686972	-91.584797	NAD83	212.00	NGVD29	155.55	151.05	143.87	145.40	-4.50	-11.68	-10.15
Prairie	01N06W02ABB1	34.745111	-91.616933	NAD83	221.00	NGVD29	118.06	121.95	119.49	117.55	3.89	1.43	-0.51
Prairie	01N06W34CBB1	34.661947	-91.646158	NAD83	226.00	NGVD29	162.47	163.51	159.46	161.45	1.04	-3.01	-1.02
Prairie	01S05W06BCB1	34.651106	-91.592119	NAD83	220.00	NGVD29	163.93	159.74	155.64	158.20	-4.19	-8.29	-5.73
Prairie	01S05W20ABB1	34.611086	-91.564414	NAD83	220.00	NAVD88	159.90	159.38	157.69	162.70	-0.52	-2.21	2.80
Prairie	01S06W01BDD2	34.649856	-91.603547	NAD83	226.00	NGVD29	162.01	169.45	160.80		7.44	-1.21	
Prairie	01S06W11DBD1	34.630275	-91.615067	NAD83	226.00	NGVD29	170.77	172.96	166.55	169.10	2.19	-4.22	-1.67
Prairie	02N05W24BCA4	34.783056	-91.493611	NAD83	225.00	NAVD88	100.17		104.44	101.01		4.27	0.84
Prairie	02N06W19AAB1	34.788400	-91.680542	NAD83	236.00	NGVD29	157.07	157.05	155.88	151.07	-0.02	-1.19	-6.00
Prairie	02N06W20BCB1	34.785158	-91.675825	NAD83	238.00	NAVD88	160.90	153.96	151.99	155.40	-6.94	-8.91	-5.50
Prairie	02N06W21DAD1	34.778931	-91.641519	NAD83	232.00	NGVD29	127.82	124.72	123.63	122.35	-3.10	-4.19	-5.47
Prairie	02N06W22BDD1	34.781572	-91.633522	NAD83	233.00	NGVD29	127.81	122.22	121.07	120.80	-5.59	-6.74	-7.01
Prairie	02N06W24CAA2 at Hazen S	34.780833	-91.597500	NAD83	231.00	NAVD88	117.96			117.08			-0.88
									Wells in Decline:		7	10	10
									Total Wells:		11	12	12
									Average Change:		-0.94	-3.83	-3.36

Sparta Aquifer
Depth to Water 2018, 2017, 2013, 2008

County	Local Well ID Number	Latitude	Longitude	Lat/Long Datum	Altitude of land surface	Altitude Datum	2018 DTW (ft)	2017 DTW (ft)	2013 DTW (ft)	2008 DTW (ft)	1 Year Change (17 to 18)	5 Year Change (13 to 18)	10 Year Change (08 to 18)
Union	16S14W15CAB1	33.328897	-92.538358	NAD83	94.00	NGVD29	113.71	115.90	131.77	157.95	2.19	18.06	44.24
Union	16S14W34CBC1	33.283611	-92.541389	NAD83	150.00	NGVD29	234.58	236.60			2.02		
Union	16S15W20DAA1	33.316644	-92.666103	NAD83	189.00	NAVD88	228.70	232.10	258.00	293.90	3.40	29.30	65.20
Union	16S15W31ACC1	33.288081	-92.691361	NAD83	168.00	NAVD88	219.77	228.67	248.75	264.15	8.90	28.98	44.38
Union	16S16W02ABC1 Smackover	33.368303	-92.724611	NAD83	114.00	NAVD88	136.07	140.04	150.06	160.58	3.97	13.99	24.51
Union	16S16W03CBC1	33.360556	-92.751944	NAD83	202.00	NGVD29	198.94	201.79	209.55	219.15	2.85	10.61	20.21
Union	16S17W36DCC1	33.283333	-92.811667	NAD83	174.00	NAVD88	207.20	209.63	222.30		2.43	15.10	
Union	16S18W34ABC2	33.301664	-92.952475	NAD83	250.00	NAVD88	196.70	199.43	202.58	229.01	2.73	5.88	32.31
Union	17S13W31BAC1	33.200047	-92.487694	NAD83	217.00	NAVD88	259.35	238.18	270.67		-21.17	11.32	
Union	17S14W10DCC1	33.249108	-92.534239	NAD83	182.00	NGVD29	89.28	90.00		96.50	0.72		7.22
Union	17S14W15ABA1	33.247583	-92.533278	NAD83	169.00	NGVD29	89.24	90.07	92.97	86.60	0.83	3.73	-2.64
Union	17S14W22BAB1 Union Schoo	33.231769	-92.540047	NAD83	200.00	NAVD88	255.20	262.73	273.81	295.01	7.53	18.61	39.81
Union	17S15W06BAA1	33.279333	-92.692497	NAD83	170.00	NGVD29	199.13	206.74	219.71	234.50	7.61	20.58	35.37
Union	17S15W08CDD1	33.251325	-92.674281	NAD83	174.92	NGVD29	237.33	246.84	262.84	286.58	9.51	25.51	49.25
Union	17S15W18DBB1 Monsanto	33.244156	-92.691447	NAD83	182.93	NGVD29	249.67	258.82	280.57	292.41	9.15	30.90	42.74
Union	17S15W28DBA1	33.212800	-92.652717	NAD83	230.00	NGVD29	296.19	304.89	321.32	340.27	8.70	25.13	44.08
Union	17S15W28DCC1	33.209144	-92.656592	NAD83	274.00	NGVD29	354.95	351.82	370.90		-3.13	15.95	
Union	17S15W31DCA1	33.195847	-92.687983	NAD83	270.00	NAVD88	344.06	350.06	374.58	388.40	6.00	30.52	44.34
Union	17S15W31DCA3	33.195675	-92.687858	NAD83	268.00	NAVD88	100.23	102.01	104.89		1.78	4.66	
Union	17S15W31DCB1	33.196958	-92.690836	NAD83	258.00	NAVD88	100.66						
Union	17S15W31DDA1	33.195486	-92.684686	NAD83	261.00	NGVD29	335.06	341.10	364.75	372.30	6.04	29.69	37.24
Union	17S15W33ABB1	33.206519	-92.656545	NAD27	267.70	NGVD29	335.86	343.29			7.43		
Union	17S17W25DBA2 Airport	33.215686	-92.810439	NAD27	250.00	NGVD29	292.73	301.19	315.91	331.45	8.46	23.18	38.72
Union	17S17W30DCD1	33.215947	-92.898761	NAD83	276.00	NAVD88	276.76	270.25	298.50	297.65	-6.51	21.74	20.89
Union	18S12W33BBB1	33.114000	-92.355600	NAD83	112.00	NAVD88	122.30	128.73	136.54	142.74	6.43	14.24	20.44
Union	18S12W33CBC1 Strong	33.105131	-92.353739	NAD83	110.00	NAVD88	115.19	114.57	110.87		-0.62	-4.32	
Union	18S13W16ADD1	33.152908	-92.443308	NAD83	238.00	NAVD88	183.36	167.98	167.40		-15.38	-15.96	
Union	18S14W06CCD1	33.177564	-92.591908	NAD83	233.00	NAVD88	280.28	285.32	309.26	368.19	5.04	28.98	87.91
Union	18S15W03DAB2 Welcome Cen	33.185278	-92.633889	NAD83	240.00	NAVD88	304.10		325.90	342.03		21.80	37.93
Union	18S15W22DCD1	33.135410	-92.636266	NAD27	188.00	NGVD29	207.37						
Union	18S15W33ADA1	33.116478	-92.649578	NAD83	253.00	NGVD29	309.02	316.86	331.35	368.28	7.84	22.33	59.26
Union	18S16W11DAC1	33.169786	-92.721214	NAD83	273.00	NAVD88	355.27		374.20	377.90		18.93	22.63

Sparta Aquifer
Depth to Water 2018, 2017, 2013, 2008

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Union	18S16W12ACB1	33.174653	-92.708847	NAD83	305.00	NAVD88	393.42	370.77	401.40	402.64	-22.65	7.98	9.22
Union	18S16W28BBB1	33.135767	-92.769883	NAD83	225.00	NAVD88	266.35	271.30	287.07	301.20	4.95	20.72	34.85
Union	18S17W22BDD1	33.148864	-92.849022	NAD83	283.00	NAVD88	306.30	312.12	322.96	338.25	5.82	16.66	31.95
Union	18S18W11ACD2	33.180808	-92.937528	NAD83	239.00	NGVD29	244.71	245.07	257.19	284.28	0.36	12.48	39.57
Union	19S10W16CBC1	33.058064	-92.151100	NAD83	82.00	NGVD29	79.18	81.79	84.62	88.70	2.61	5.44	9.52
Union	19S11W23ACA1	33.048717	-92.208000	NAD83	142.00	NGVD29	143.87	147.32	149.11	143.62	3.45	5.24	-0.25
Union	19S11W25AAA1	33.038289	-92.186953	NAD83	133.00	NAVD88	141.35	146.21	143.78	149.08	4.86	2.43	7.73
Union	19S12W13AAA1	33.069794	-92.287994	NAD83	191.00	NGVD29	155.24	160.96	156.54	159.55	5.72	1.30	4.31
Union	19S15W01CCA1	33.093003	-92.612503	NAD83	190.00	NAVD88	30.93	32.30	28.07	73.75	1.37	-2.86	42.82
Union	19S16W35DDC1	33.019128	-92.723761	NAD83	173.00	NAVD88	188.20	199.63	213.59	235.94	11.43	25.39	47.74
Union	19S17W16BAA1	33.082081	-92.864605	NAD27	238.00	NAVD88	240.82	227.58	252.60		-13.24	11.78	
Union	19S18W14ADA1	33.081028	-92.935528	NAD83	243.00	NGVD29	186.84	187.21	189.70	182.22	0.37	2.86	-4.62
									Wells in Decline:		7	3	3
									Total Wells:		40	39	33
									Average Change:		2.00	14.84	31.48

Woodruff	05N01W11ABA1	35.073836	-91.068664	NAD83	210.00	NAVD88	64.26	62.62		60.50	-1.64		-3.76
Woodruff	05N01W17DBB1	35.052967	-91.124197	NAD83	208.00	NAVD88	49.04	49.51		47.55	0.47		-1.49
Woodruff	05N02W31DCB3	35.007472	-91.248861	NAD83	194.00	NAVD88	13.54			13.00			-0.54
Woodruff	06N01W13ABA1	35.147725	-91.048239	NAD83	212.00	NGVD29	76.48	75.58		70.70	-0.90		-5.78
Woodruff	06N01W13ADC1	35.140942	-91.046317	NAD83	212.00	NGVD29	74.76	74.95		66.80	0.19		-7.96
Woodruff	07N01W12BCB1	35.244883	-91.057269	NAD83	222.00	NGVD29	71.85	72.51		67.90	0.66		-3.95
Woodruff	08N01W12CDA1	35.326119	-91.052936	NAD83	225.00	NGVD29	78.60	79.33		72.50	0.73		-6.10
									Wells in Decline:		2	0	7
									Total Wells:		6	0	7
									Average Change:		-0.08	0.00	-4.23

Total No. of Wells in Decline:	61	47	55
Total Wells:	173	180	194
Percent of Total Wells in Decline:	35.26%	26.11%	28.35%
Total Average Change:	0.51	4.83	8.44

