



Arkansas Department of Agriculture

Arkansas Groundwater Protection and Management Report 2023





Arkansas Department of Agriculture's Natural Resources Division

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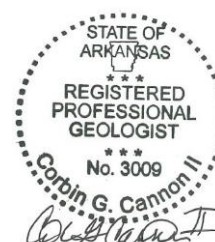


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Abstract

The Arkansas Groundwater Protection and Management Report is produced annually by the Arkansas Department of Agriculture's Natural Resources Division (NRD) 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 NRD during the years 2022 and 2023, including water-level monitoring and studies of water use trends in the state.

This report focuses on aquifer level and water quality data collected by the NRD and its partners in 2023, but primarily features data from two major aquifers in the state, the Mississippi River Valley Alluvial Aquifer (alluvial aquifer), the most important water resource for agricultural production in the state, and the Sparta/Memphis Aquifer (Sparta), one of the state's best sources of good quality groundwater for drinking and industrial uses. Data collected from the Tokio and Nacatoch aquifers have also been included in this report. The report compares synoptic water-level data collected in the spring of 2023 to historical synoptic water level data; typically, in one-, five-, and ten-year intervals. This report also examines data collected continuously, monthly, and quarterly, to monitor the various aquifers responses to the stress conditions of 2022 and early 2023. Climate and water use data are considered along with water level data to explain the water level change results.

Aquifer-wide water level data collected during the pre-irrigation period of spring 2023 had positive average change values for both the alluvial and Sparta aquifers when compared to spring data from 2018 and 2013 but showed slight decreases in water level when compared to 2022. Maps depicting spring 2023 water level elevations and one-, five-, and ten-year water level change are presented in this report. Numerous water level hydrographs are also presented across both aquifers to illustrate water level trends over time. Long term trends in the Nacatoch and Tokio aquifers show that wells in both aquifers are experiencing water level decline in some areas but that the overall average change is positive for most of the areas that were monitored.

While we are seeing positive average change values in the five and ten-year intervals in this report, the general trend in Arkansas's long-term water level change is that the groundwater levels are declining. It is important to remember that, overall, Arkansas is withdrawing groundwater from the alluvial and Sparta aquifers in Eastern and Southern Arkansas at a rate above that which has been estimated to be sustainable. Some wells in certain areas where there have been historical declines do appear to show a slowing of the decline, or in some cases a rebounding trend in water level in recent years; however, it is difficult to determine the primary causes for the rebounding trends. It is speculated that above average precipitation in previous years, coupled with water conservation efforts and efficiency programs that have been implemented in recent years may be having the desired effect on the aquifers, but this has not been specifically studied. Further research and analysis of these areas and the many factors that determine their groundwater usage may give valuable guidance for future efforts to protect groundwater reserves. The Department of Agriculture should continue to work with partners to monitor these resources and promote conservation, education, and the conjunctive use of ground and surface water at rates that are sustainable for current and future water use needs.

Introduction

This report is prepared in accordance with Arkansas Groundwater Protection and Management Act of 1991, Arkansas Code Annotated 15-22-906 to provide the State of Arkansas with a comprehensive water-quantity and water-quality document to be utilized, along 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 water well construction data.

This report focuses on the two most used aquifers in the state, the Mississippi River Valley alluvial aquifer (alluvial aquifer) and the Sparta/Memphis aquifer. Data collection for the program is dependent upon a strong partnership with other state, federal, and local water resources agencies. A monitoring schedule has been established to obtain data from the alluvial aquifer and the Sparta aquifer on an annual basis. Historically, each spring approximately 300-400 wells are monitored in the alluvial aquifer, and approximately 100-200 wells are monitored each year for water levels in the Sparta/Memphis aquifer. In 2023, water level data was collected from approximately 439 wells in the alluvial aquifer during the spring. In addition to the spring measurements, synoptic alluvial aquifer water level measurements are collected in the fall to gauge aquifer drawdown once irrigation has ended for the year. This fall water level collection is not as comprehensive as the spring effort, historically, but this year 264 wells were measured that shared data with wells measured in the spring. The number of wells monitored will vary from year to year depending on the resources available, well accessibility, and other factors.

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 Mississippi River Valley alluvial and Sparta 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 for the alluvial, and in the South Arkansas study area for the Sparta.

In addition to the great effort to collect synoptic water level data in the alluvial and Sparta aquifers for groundwater quantity assessment, the state is interested in groundwater quality data in these aquifers and others across the state. The Arkansas Department of Agriculture's Natural Resources Division (NRD) collects groundwater quality data through a long-standing partnership with the US Geological Survey (USGS), who maintains the Groundwater Salinity and the Arkansas Masterwell Network programs. The Groundwater Salinity program is focused on collecting basic field parameters and chloride and bromide concentrations in an established well network in the alluvial aquifer and Sparta aquifer. The Masterwell Network is a long-term groundwater quality network that is comprised of 47 active wells and springs in 14 different aquifers across the state. See the Groundwater Quality section of this report for more information and sampling results from both of these programs in 2023.

Water Policy

Water resources policy in Arkansas was established in the Arkansas Water Plan, in which the NRD identifies 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. All water use strategies must consider the wise use of

our state's water resources while protecting the state's aquifers. The NRD recommends that the state moves toward a sustainable yield pumping strategy through conservation and utilization of Critical Groundwater Area designation where needed to focus resources. Designation as a Critical Groundwater Area fosters conservation by offering enhanced tax credit benefits for conservation practices through the state's Water Conservation Tax Credit Program, by increasing educational outreach, and by qualifying the area for federal programs and funding. A Critical Groundwater Area is a non-regulatory designation; regulation cannot be initiated without a new process involving legal proceedings, additional notice, and public hearings. Figure 1 presents the groundwater study areas, while Figure 2 presents the Critical Groundwater Areas as designated.

Arkansas Groundwater Study Areas

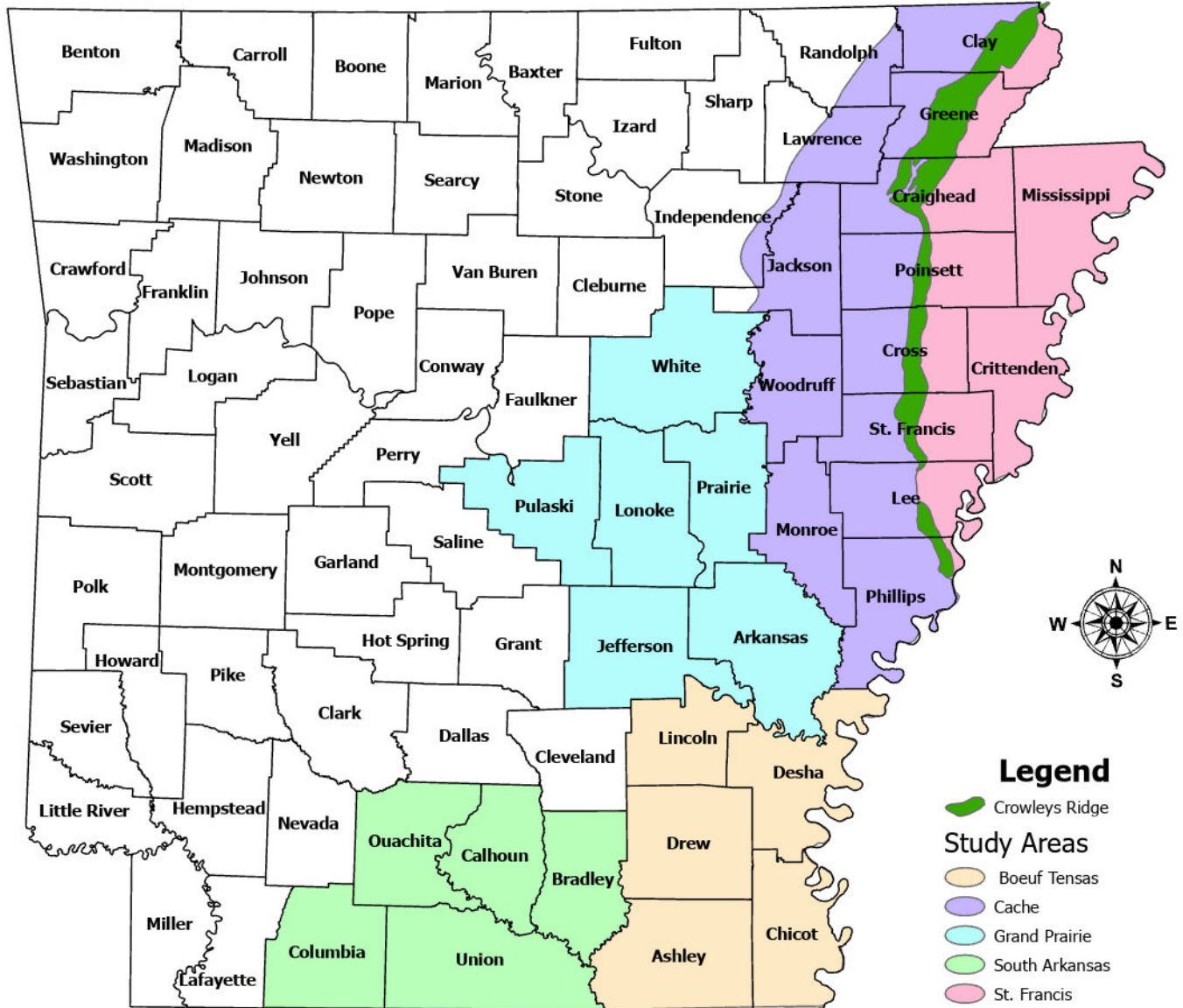


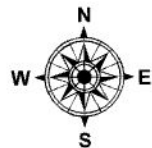
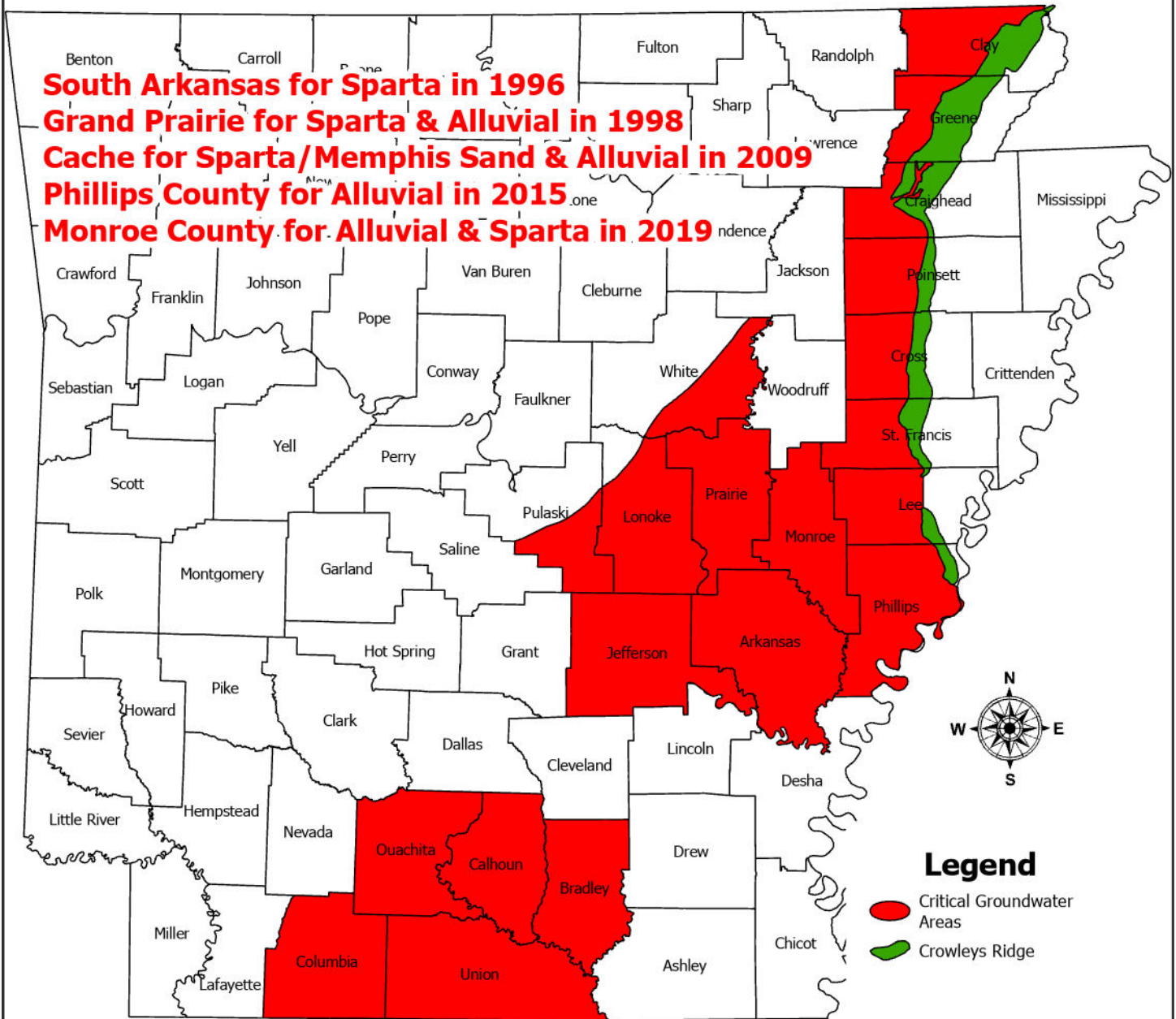
Figure 1

Critical Groundwater Areas



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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 for Alluvial & Sparta in 2019



Legend

- Critical Groundwater Areas
- Crowley's Ridge



Figure 2

Hydrogeology and Water Level Trends

Mississippi River Valley Alluvial Aquifer

The Mississippi River Valley alluvial (alluvial) aquifer is the uppermost aquifer in the Mississippi Embayment and is composed of 50-150 feet of sand and gravel, grading from coarse gravel at the base to fine sand at the surface. It is generally overlain by the Mississippi River Confining Unit, which is composed of up 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).

Static water level measurements were collected from 439 wells across the alluvial aquifer prior to the irrigation season in 2023, with most of the measurements being collected in April. Figure 3 presents the potentiometric surface data as altitude relative to mean sea level. Figure 4 presents the depth to water in the alluvial aquifer as feet below ground surface. Figure 5 presents the saturated thickness of the alluvial aquifer as a percentage of the total aquifer thickness. Saturated thickness values were calculated by subtracting the depth to water by the total aquifer thickness on a well-to-well basis. Aquifer thickness values were obtained from the United States Geological Survey (USGS) Scientific Investigations Map 3426 (Torak, 2019). The areas of greatest decline continue to be the historical cones of depression in the Grand Prairie and Cache River regions.

A significant change was made as to how saturated thickness values were generated for this report. In past reports, aquifer thickness values were obtained from the Mississippi Embayment Regional Aquifer System (MERAS) 2.0 USGS model (USGS, 2008). For this report, alluvial aquifer thickness values were obtained from the USGS Scientific Investigations Map 3426 (Torak, 2019). This change has resulted in some differences in the saturated thickness values than what has been previously estimated but should result in a more accurate estimation of aquifer thickness and saturated thickness values across the alluvial aquifer.

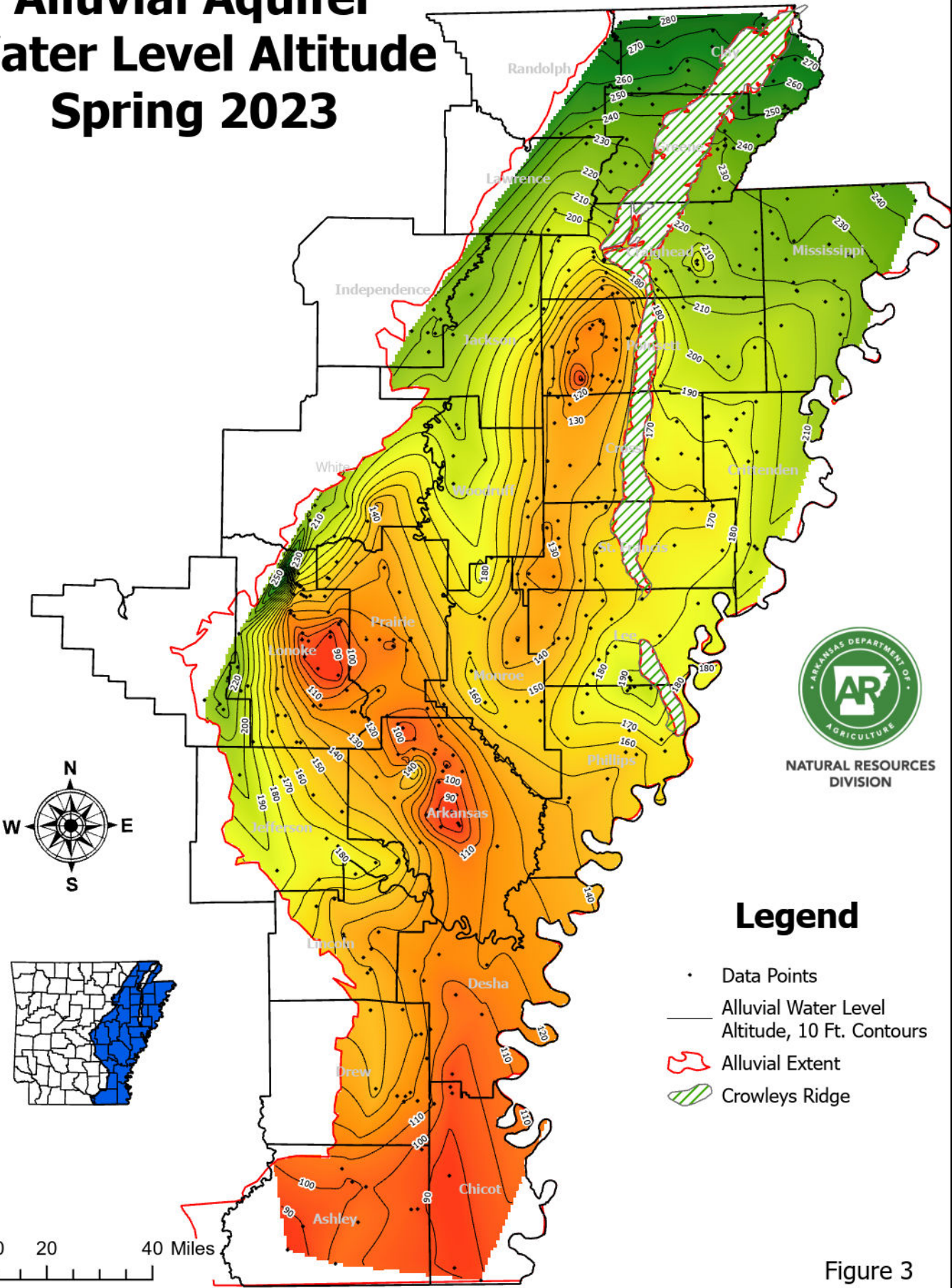
Within the Grand Prairie cone of depression, the updated thickness data and 2023 water level data shows that the area below 50 percent has widened, particularly in Jefferson and Arkansas counties; and the area under 20 percent saturated is significantly larger in Lonoke and Prairie counties, when compared with the saturated thickness values estimated in the 2022 groundwater report (NRD, 2023). In the Cache study area cone of depression, the new thickness data has estimated the alluvial aquifer to be slightly thicker than previously estimated resulting in higher saturated thickness numbers in much of the area using 2023 water level data. Craighead and Poinsett counties are still mostly below 50 percent saturated thickness, but the new data shows a significant decrease in the amount of area below 20 percent saturated in these counties. The largest differences in the Cache critical area are found in Cross and St. Francis counties. In the 2022 groundwater report, all of Cross County and a large portion of St. Francis County were estimated to be below 50 percent saturated thickness. This has now been reduced to only about half of what was previously below 50 percent saturated thickness in Cross county, and only a small area in the western toe of St. Francis is showing below 50 percent.

One of the most striking differences with the aquifer thickness data is in Ashley and Drew counties. In the 2022 groundwater report, only 2 wells located in central Ashley county had water levels below 50 percent saturated thickness. The new aquifer thickness values estimate the alluvial aquifer to be considerably thinner, and the 2023 water level data are now estimating that over half of Ashley County is less than 50 percent saturated with saturated thickness values as low as 20 percent over a

considerable area in the north central part of the county. The southwest corner of Drew County is estimated at less than 50 percent as shown in Figure 5; however, there are no actual water level data in this part of the county in these maps. Water level data will need to be collected in this area to verify the data presented here. The Arkansas Department of Agriculture's Natural Resources Division (NRD) will further research the aquifer thickness data in Ashley and Drew counties to ensure that these estimations are accurate for these areas.

There are research efforts by our USGS partners currently underway to refine the aquifer thickness estimates using advancements in subsurface modeling technology. Once this research is completed, we expect there will be minor changes to the estimates presented here, but it is also expected that the new estimations will be closer to the values used in this report, than the values from MERAS used in previous reports. Any further recommendations for these areas, such as a Critical Groundwater Area designation, will be made when the aquifer thickness values can be verified using the new subsurface modeling data.

Alluvial Aquifer Water Level Altitude Spring 2023



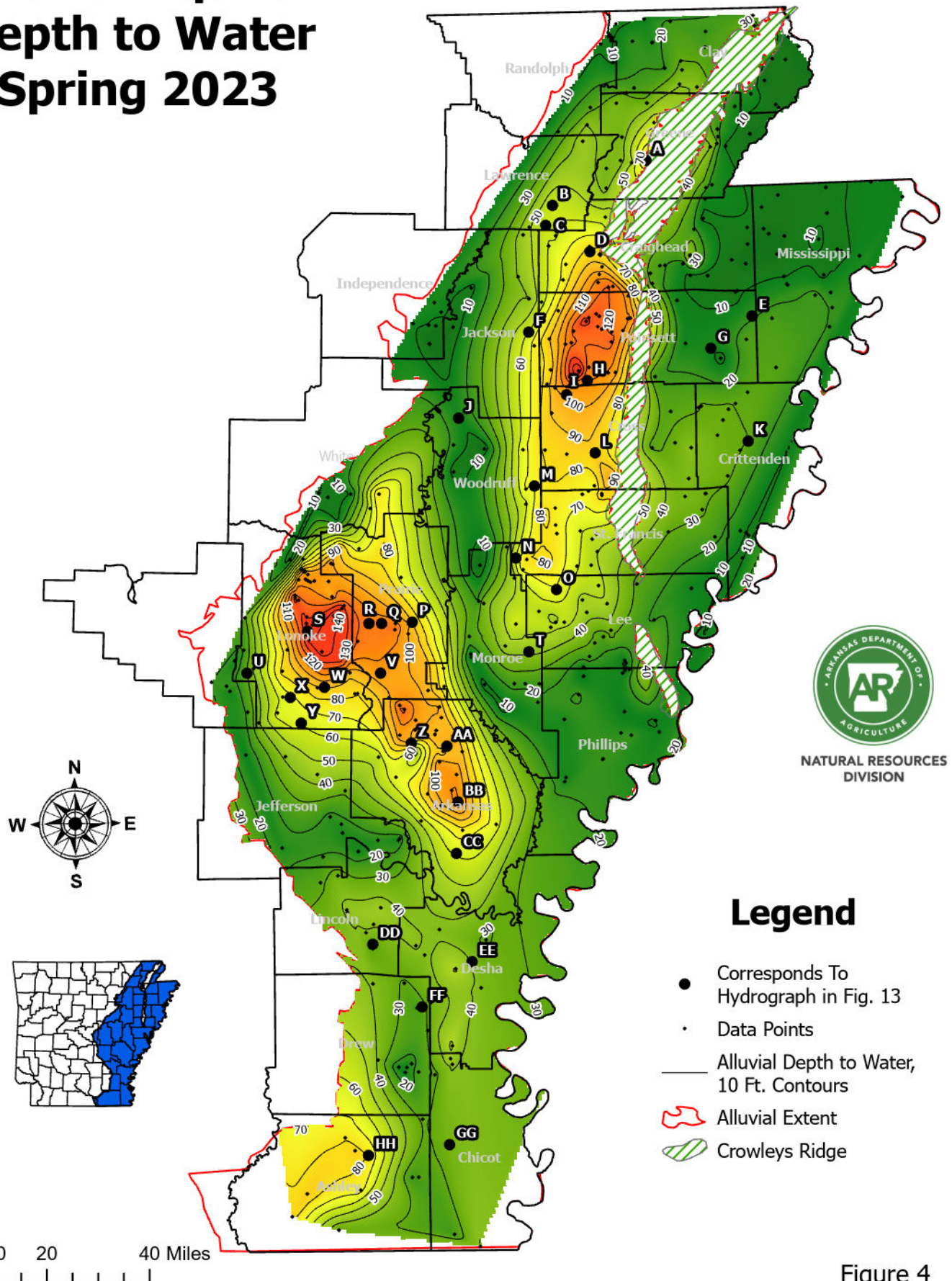
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Legend

- Data Points
- Alluvial Water Level Altitude, 10 Ft. Contours
- ▭ Alluvial Extent
- ▨ Crowley's Ridge

Figure 3

Alluvial Aquifer Depth to Water Spring 2023



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Legend

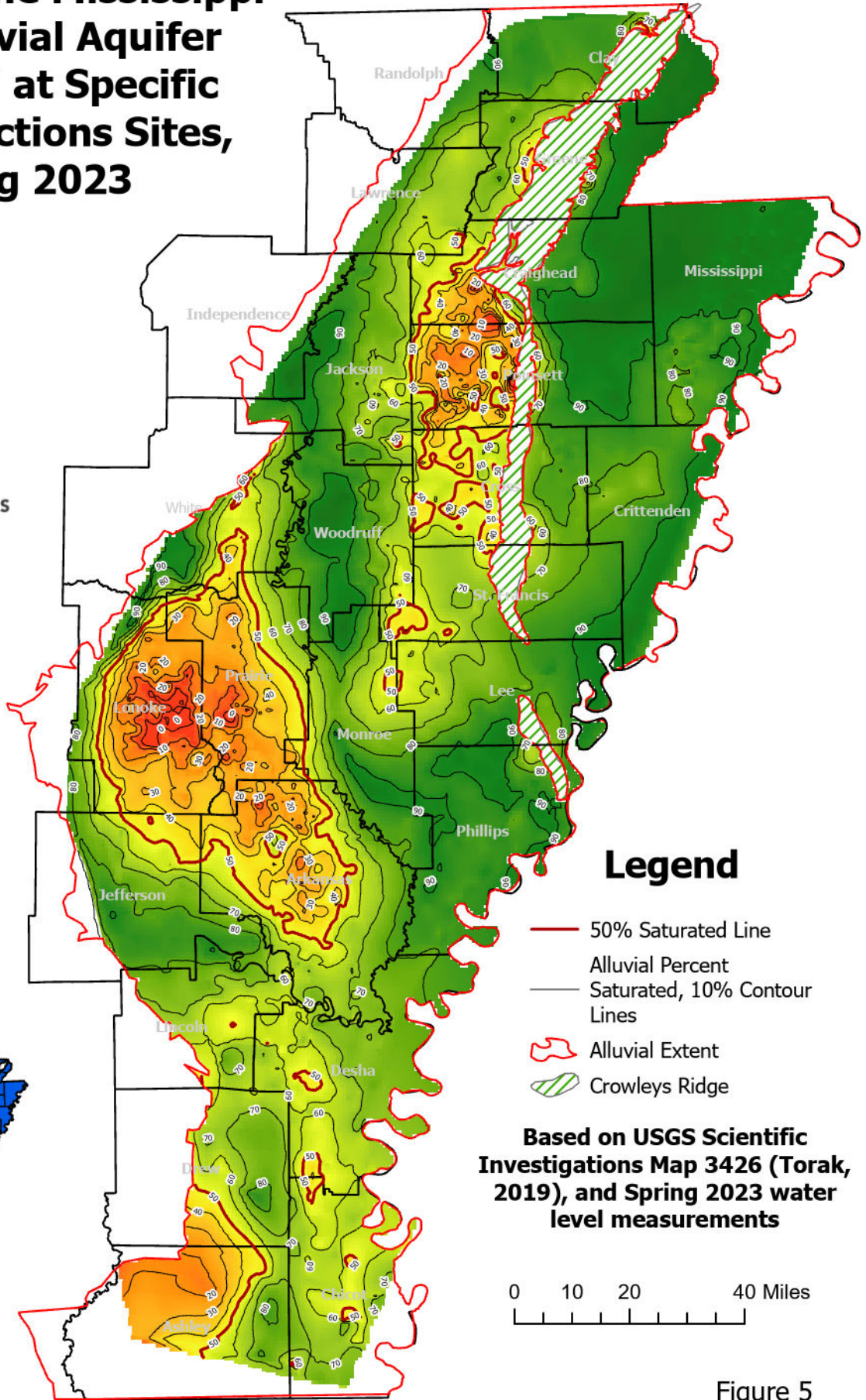
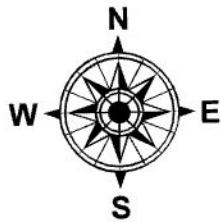
- Corresponds To Hydrograph in Fig. 13
- Data Points
- Alluvial Depth to Water, 10 Ft. Contours
- ⬭ Alluvial Extent
- ⬭ Crowleys Ridge

Figure 4

Percent of the Mississippi River Alluvial Aquifer Saturated at Specific Data Collections Sites, Spring 2023



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Legend

- 50% Saturated Line
- Alluvial Percent Saturated, 10% Contour Lines
- ⬮ Alluvial Extent
- ▨ Crowley's Ridge

Based on USGS Scientific Investigations Map 3426 (Torak, 2019), and Spring 2023 water level measurements

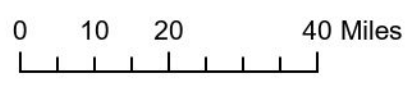


Figure 5

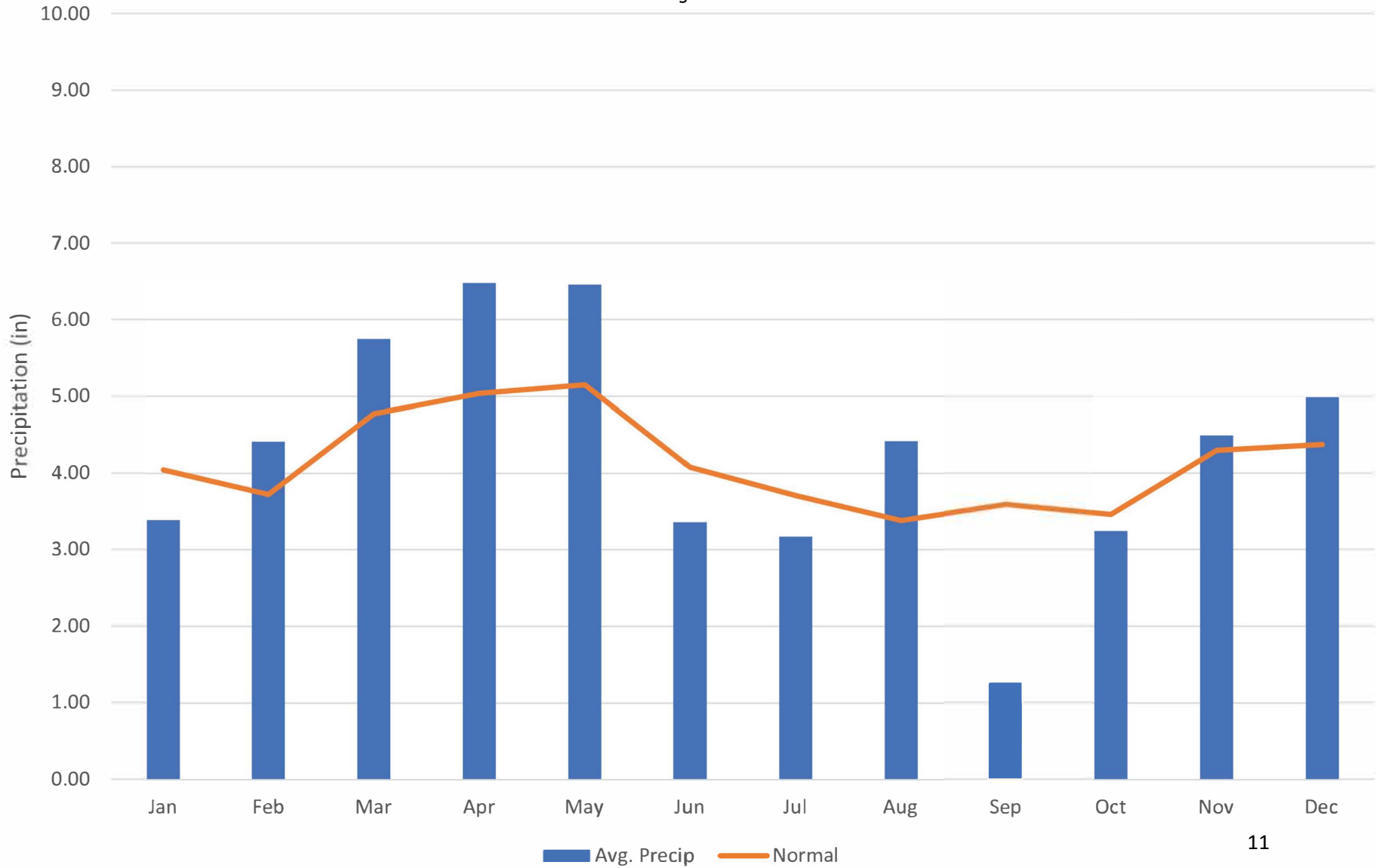
Precipitation and Weather Events

The amount of rainfall is considered for comparison with the water level change during times of drought or excess rainfall. 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 (March through September). In 2022, the total average precipitation was 51.42 inches, 1.81 inches more than the annual average and 0.55 inches above 2021. During the 2022 growing season, most months had below average precipitation except for August, which was just above average, and May, which was significantly above average. Figure 6 shows the statewide monthly average precipitation for 2022 compared with the normal average monthly values.

Arkansas has received average to above average rainfall for most years since 2011. During this period, the average water level change across the alluvial aquifer has generally been trending upwards, with the notable exception of 2021. One year precipitation totals for 2022 represent the second year in a row of near normal rainfall but significantly below normal precipitation during the growing season. The spring 2022 to 2023 average water level change comparison exhibits a negative average change value of -0.7 feet. Figure 7 compares the statewide annual average precipitation to the average change in water levels in the alluvial aquifer from 1997 to 2022. Figure 8 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 2022 growing season (NOAA, 2023).

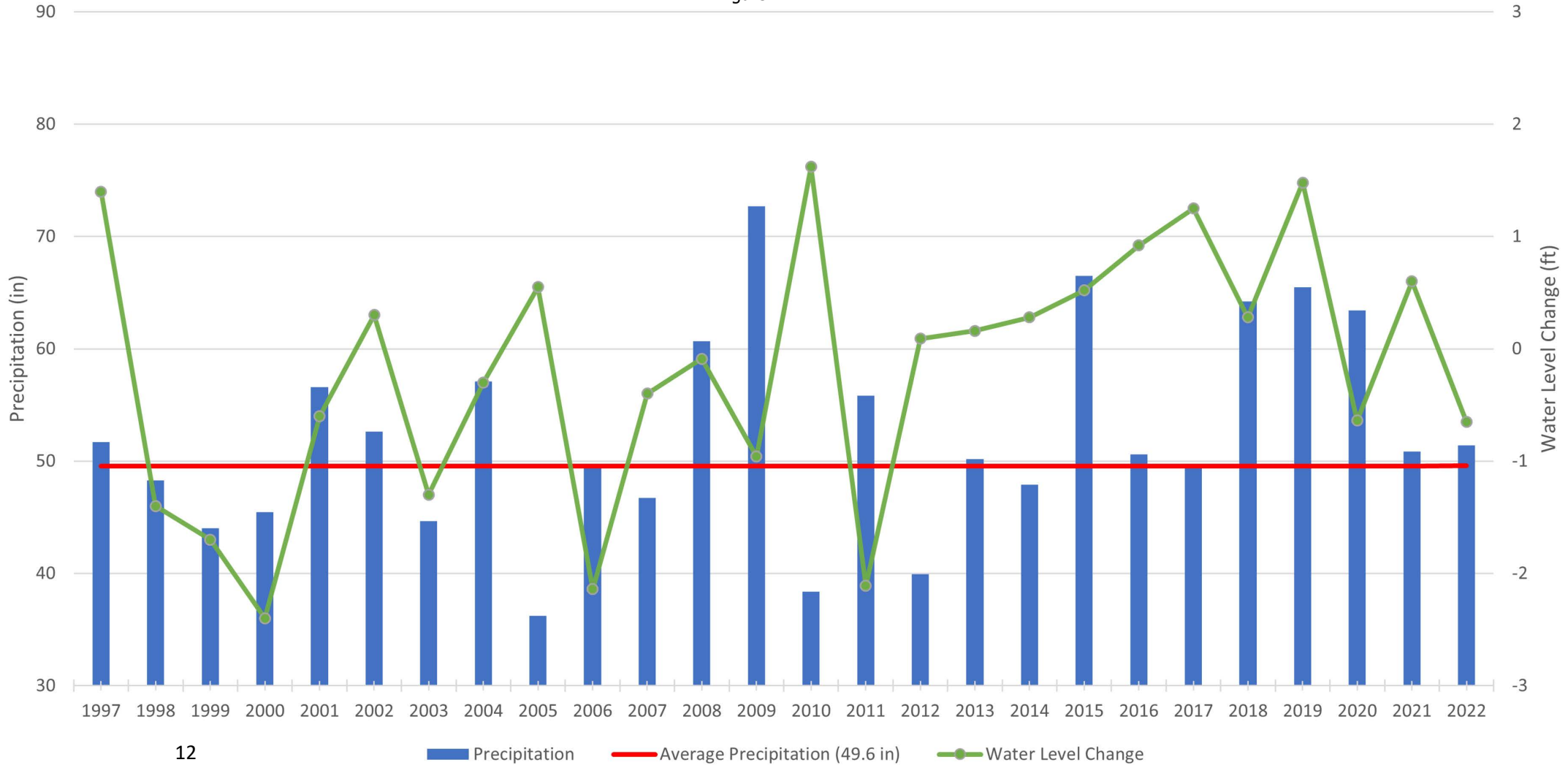
Average Monthly Precipitation, 2022

Figure 6



One Year Average Alluvial Aquifer Ground Water Level Change Vs. Average Annual Precipitation

Figure 7



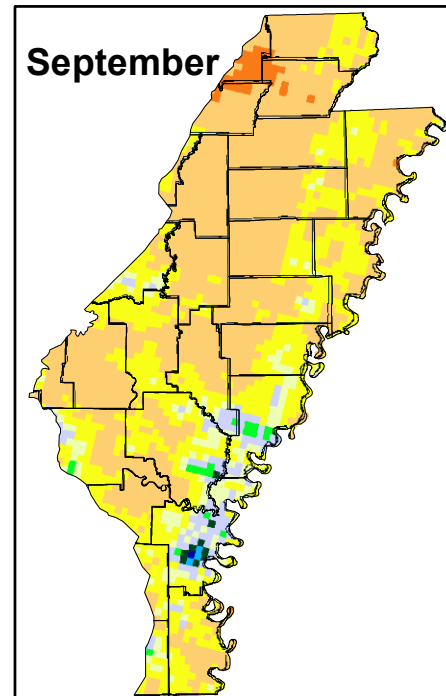
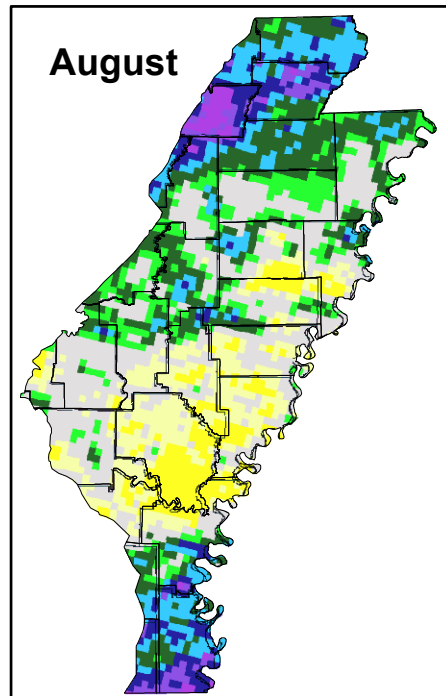
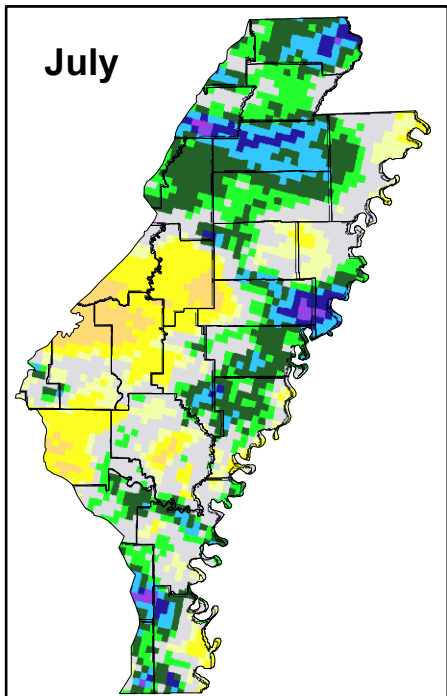
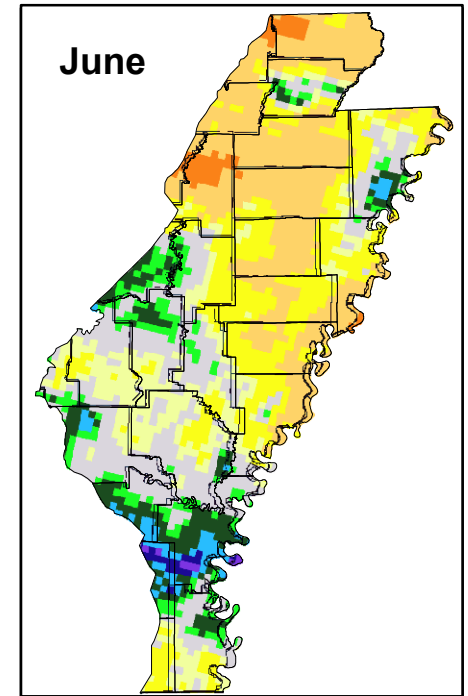
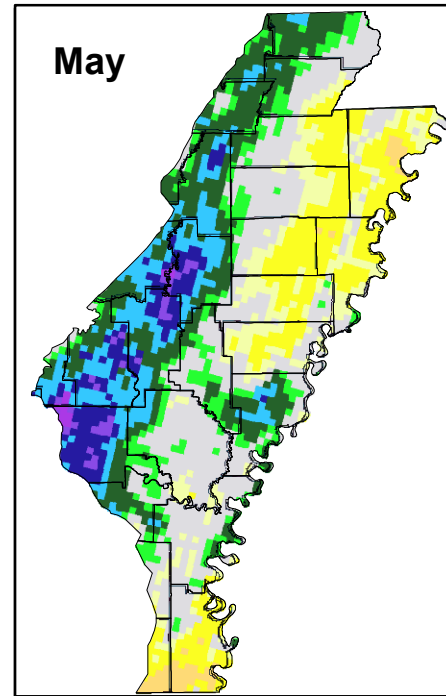
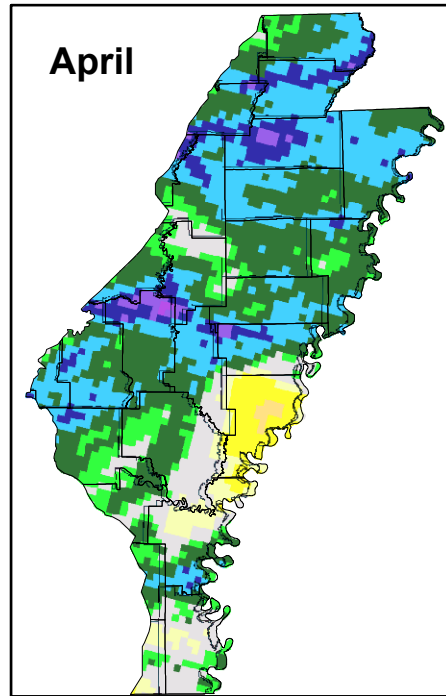
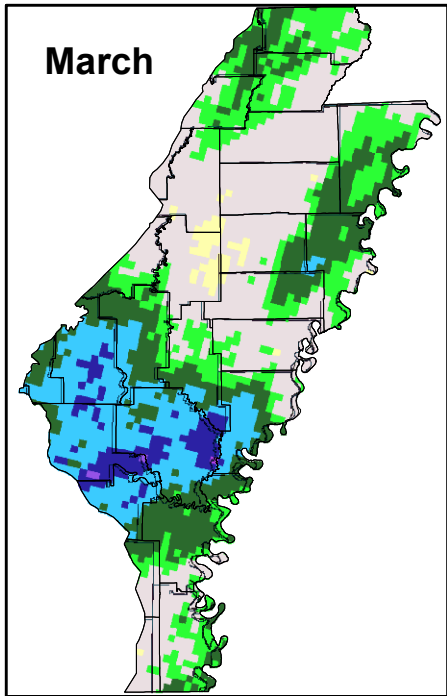
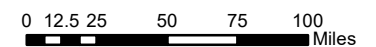
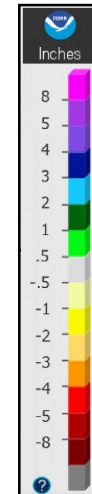


Figure 8
 Mississippi River Valley Alluvial Plain
 2022 Total Monthly Precipitation
 Departure from Normal
 (DFN) Value



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 aquifer over time. For the one-year change comparison, 332 of the 439 wells measured in spring 2023 shared data with the spring 2022 dataset, and when compared, give a total average water level change of -0.7 feet with 226 wells (68.07 percent) showing a decline in level. For the five-year comparison, 259 wells were identified as having data for both 2023 and 2018 giving a total average water level change of +0.41 feet with 107 wells (41.31 percent) having declining static water levels. The ten-year comparison found 159 wells with water level data for the spring seasons of 2023 and 2013 and gave a total average water level change of +2.46 with 37 wells (23.27 percent) compared showing declining aquifer levels.

Aquifer-wide water level change maps were created for the different time intervals: Figure 9 presents the one-year spring 2022 to spring 2023 water level change, Figure 10 presents the five-year spring 2018 to spring 2023 water level change, and Figure 11 presents the ten-year spring 2013 to spring 2023 change data. These maps show that water level declines continue to be primarily concentrated in the Cache and Grand Prairie areas where historical declines have been significant, particularly in the areas of the aquifer furthest from a major surface water source (e.g. the Arkansas, White, and Mississippi rivers). Conversely, the areas with increasing water level change values can generally be found along these sources. The five and ten-year change maps illustrate the movement of the existing cones of depression as Prairie and Lonoke counties continue to have declines in the Grand Prairie, and as the Cache depression continues to expand southward into Monroe and Lee counties. Some water level decline can be found in the Beouf-Tensas and St. Francis study areas in the one-year comparison, but these declines do not appear to be causing significant aquifer drawdown over time.

Approximately 264 alluvial aquifer wells were measured in the fall of 2023 that had also been measured during the spring. When compared, the total average change for spring to fall 2023 measurements was -4.06 feet, which is the highest average change calculated in a few years: 2018 (-3.57), 2019 (-2.90), 2020 (-3.32), 2021 (-2.80), and 2022 (-3.42). Figure 12 presents the spring to fall water level.

Selected water level hydrographs from the alluvial aquifer are presented on Figure 13; the well locations are shown on Figure 4. All of these hydrographs are from monitoring wells maintained by the Arkansas Department of Agriculture's Natural Resources Division or the USGS and are measured semi-annually or more during the year or have real-time data loggers installed for continuous water level data.

As previously mentioned, the spring 2023 water level change values showed a negative average change of -0.70 feet for the entire alluvial aquifer in the one-year period, while the five and ten-year periods had positive average values of +0.41 and +2.46, respectively. The aquifer-wide data has been focused on the four study areas that include the alluvial aquifer: Grand Prairie, Cache, St. Francis, and Beouf-Tensas, for each period. The 2023 data shows increasing average water level changes for most study areas for five and ten-year time periods but decreasing values for all study areas in the one-year comparison. Figures 14 through 25 depict the spring 2023 alluvial aquifer water level change data and well locations for the four study areas over the one, five, and ten-year change intervals.

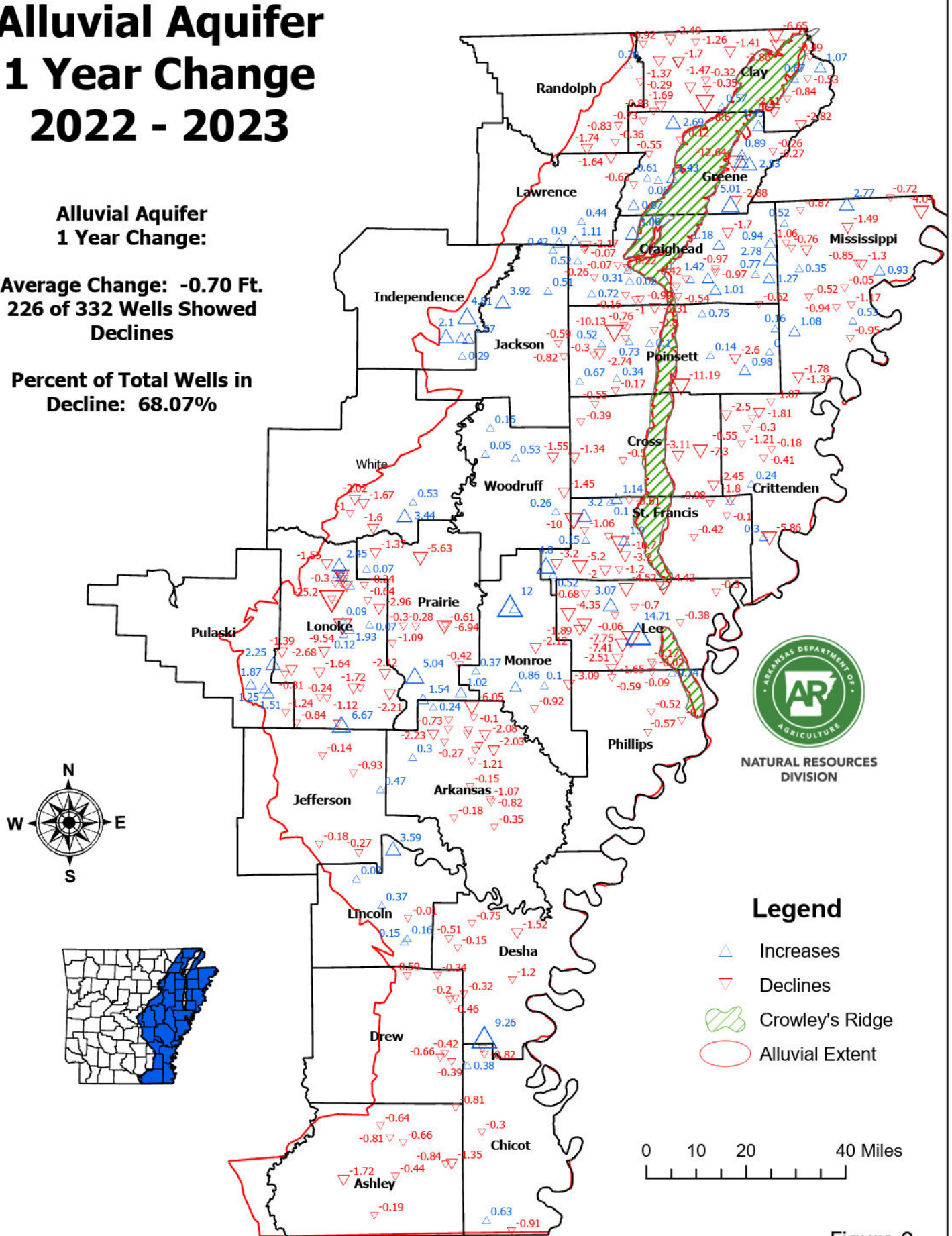
Appendix A presents the 2023 aquifer water level data along with the 2013, 2018, and 2022 water level data for wells measured in 2023 as used in this report.

Alluvial Aquifer 1 Year Change 2022 - 2023

Alluvial Aquifer
1 Year Change:

Average Change: **-0.70 Ft.**
226 of 332 Wells Showed
Declines

Percent of Total Wells in
Decline: **68.07%**



Legend

- △ Increases
- ▽ Declines
- ▨ Crowley's Ridge
- Alluvial Extent

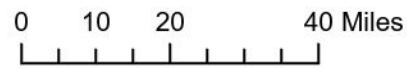


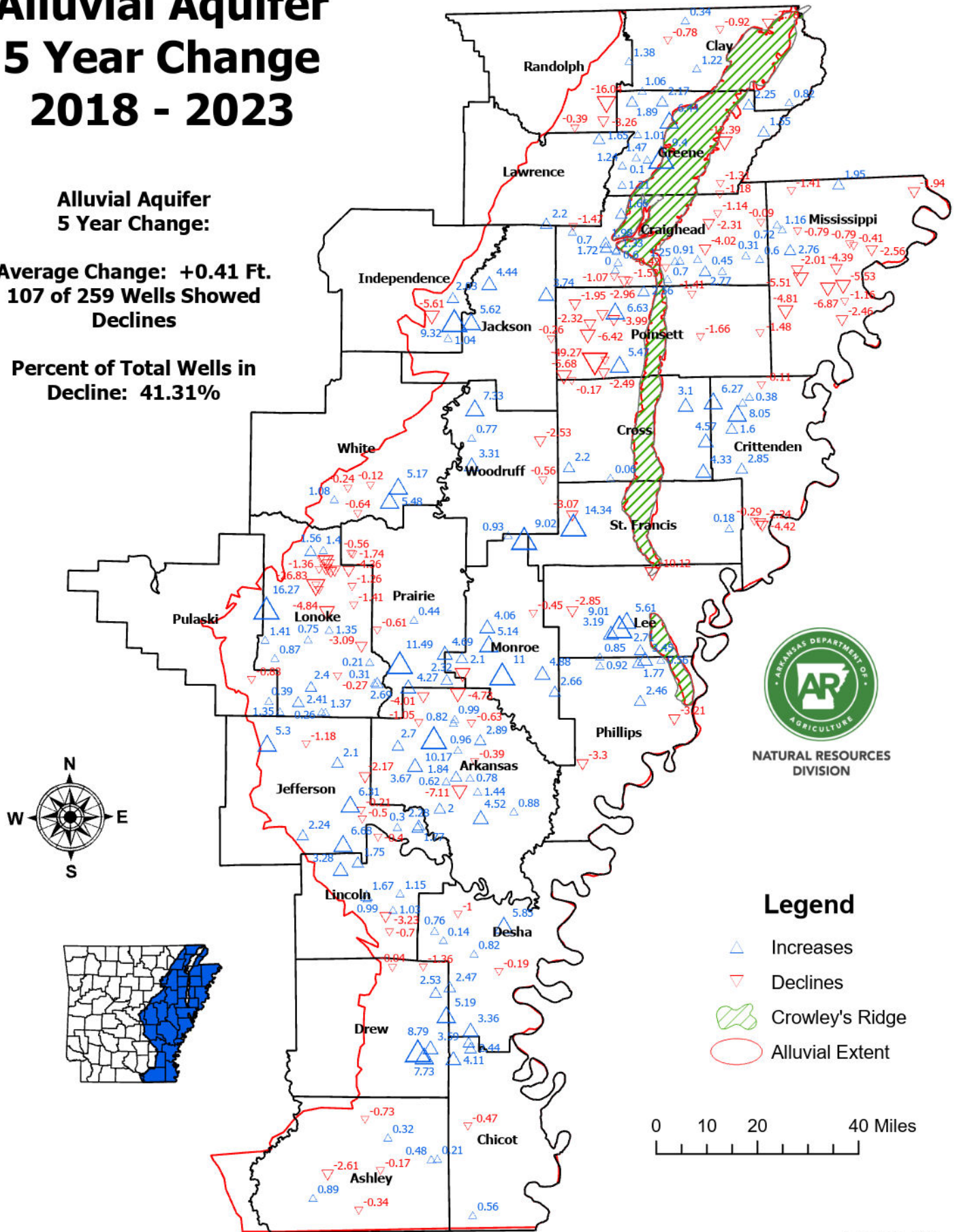
Figure 9

Alluvial Aquifer 5 Year Change 2018 - 2023

Alluvial Aquifer
5 Year Change:

Average Change: +0.41 Ft.
107 of 259 Wells Showed
Declines

Percent of Total Wells in
Decline: 41.31%



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Legend

- ▲ Increases
- ▼ Declines
- ▨ Crowley's Ridge
- Alluvial Extent

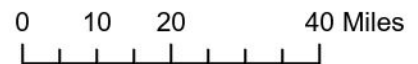


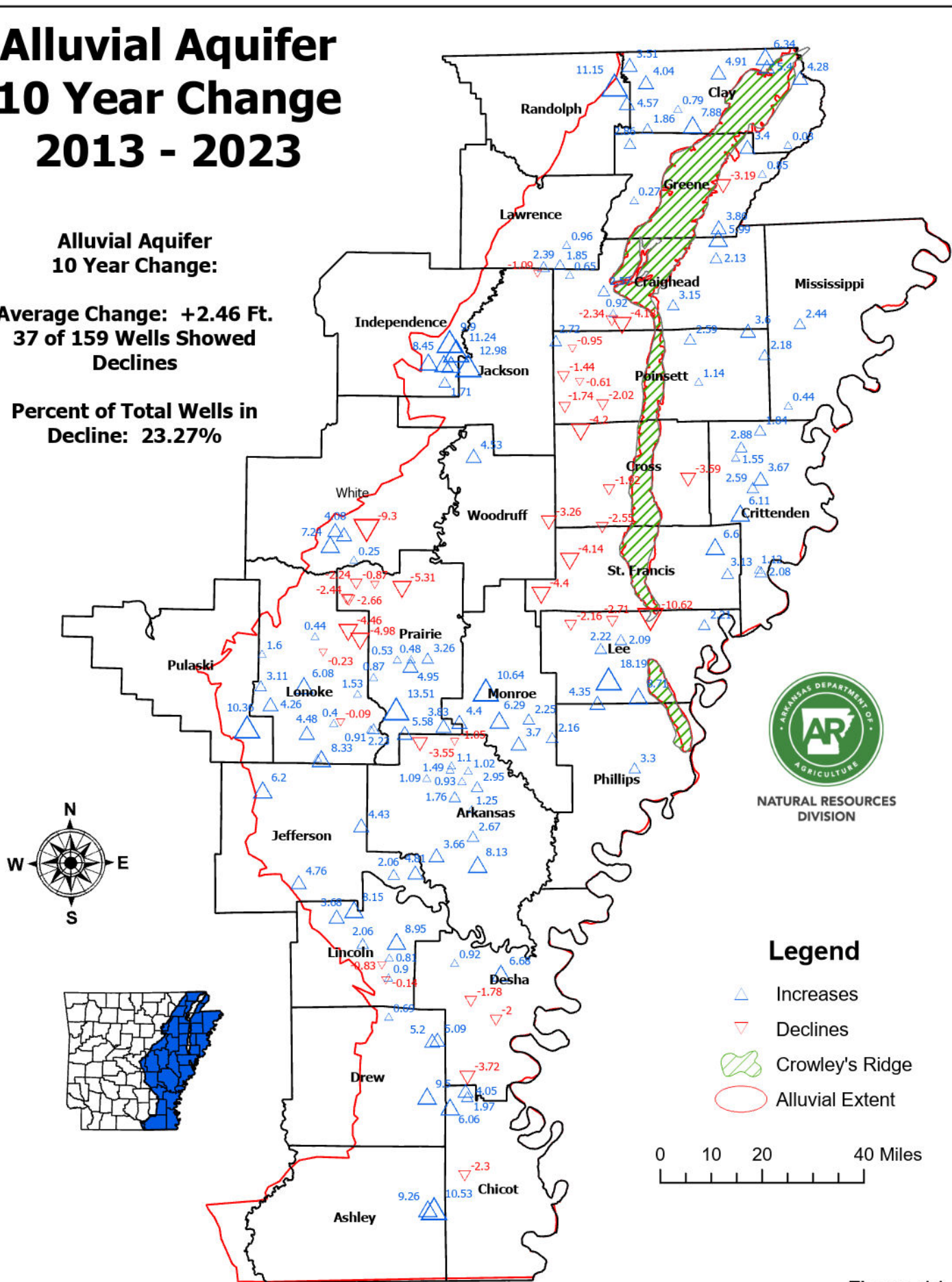
Figure 10

Alluvial Aquifer 10 Year Change 2013 - 2023

Alluvial Aquifer
10 Year Change:

Average Change: +2.46 Ft.
37 of 159 Wells Showed
Declines

Percent of Total Wells in
Decline: 23.27%



NATURAL RESOURCES
DIVISION

Legend

- ▲ Increases
- ▼ Declines
- ▨ Crowley's Ridge
- Alluvial Extent

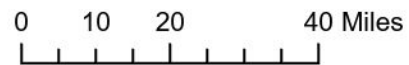


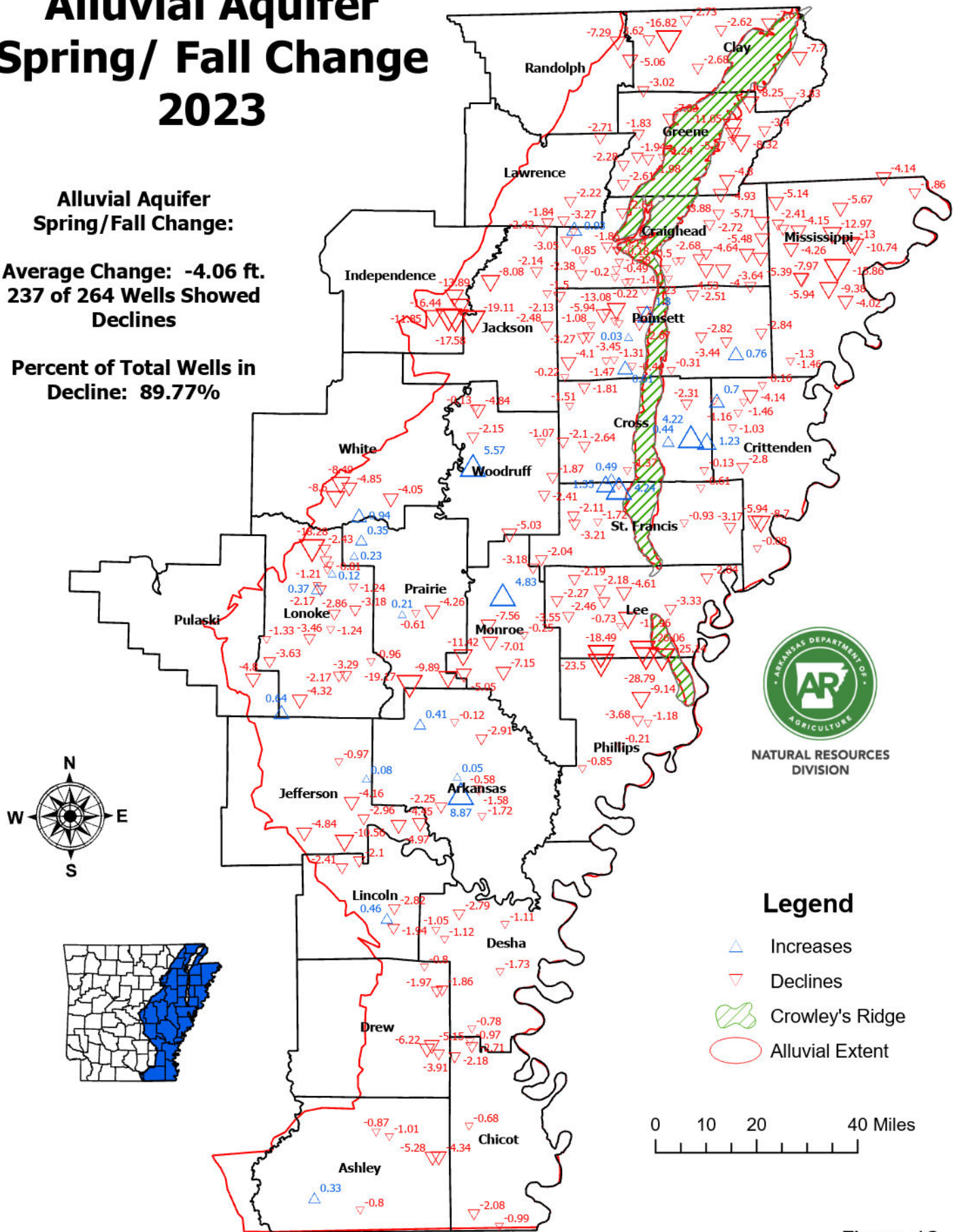
Figure 11

Alluvial Aquifer Spring/ Fall Change 2023

Alluvial Aquifer
Spring/Fall Change:

Average Change: -4.06 ft.
237 of 264 Wells Showed
Declines

Percent of Total Wells in
Decline: 89.77%



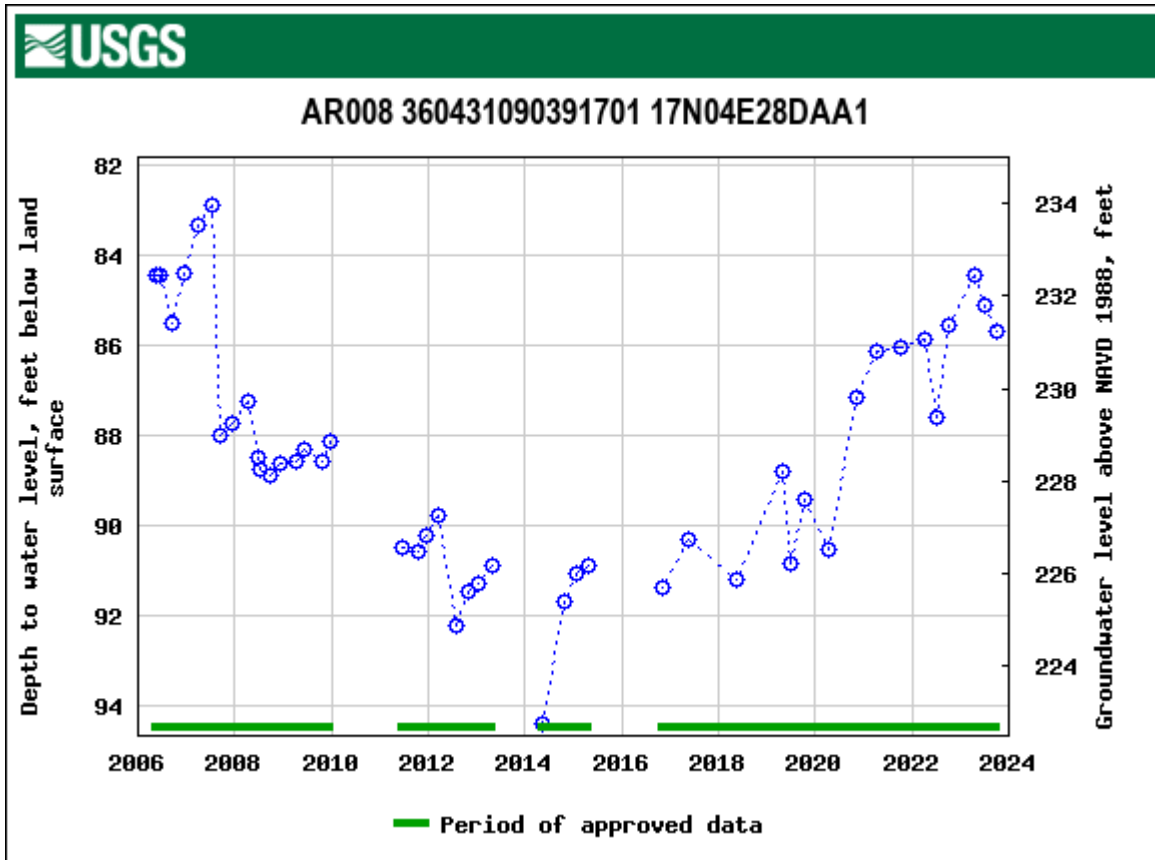
Legend

- Increases
- Declines
- Crowley's Ridge
- Alluvial Extent

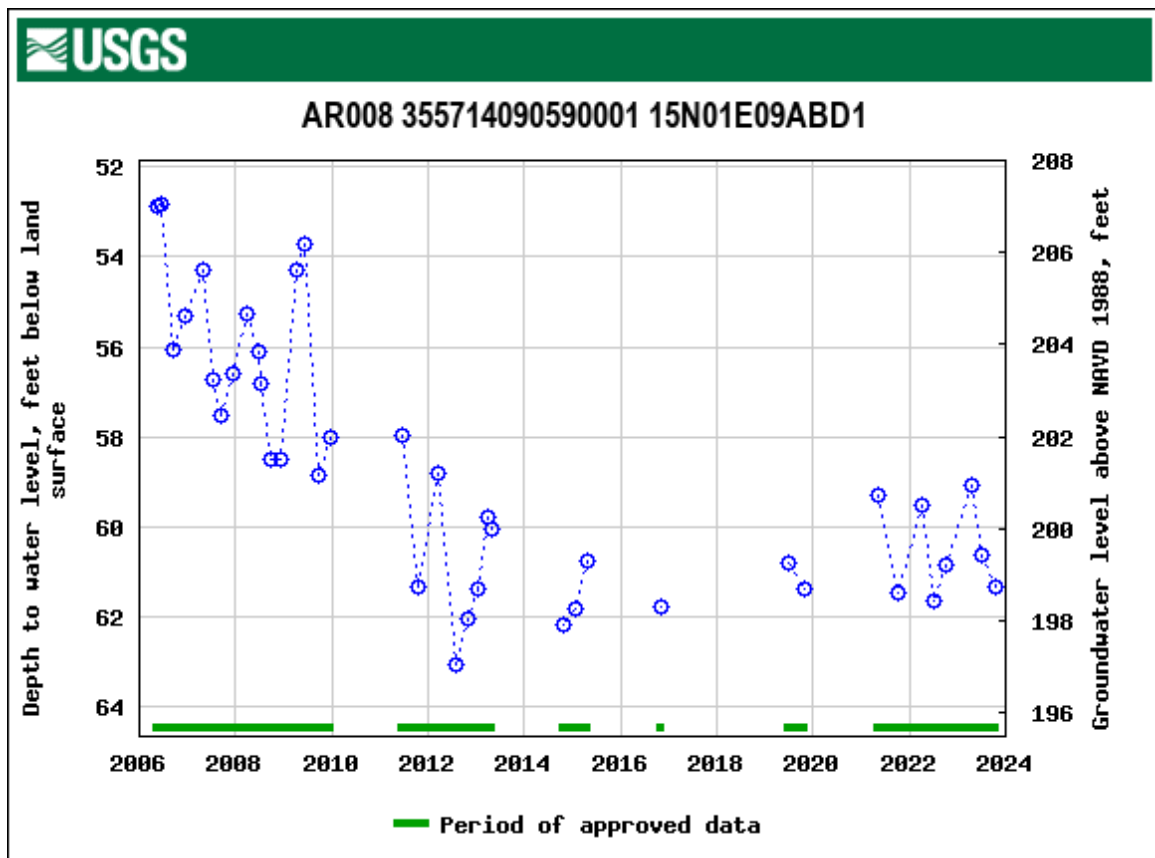
0 10 20 40 Miles

Figure 12

Figure 13. Selected water level hydrographs from the Mississippi River Valley Alluvial Aquifer

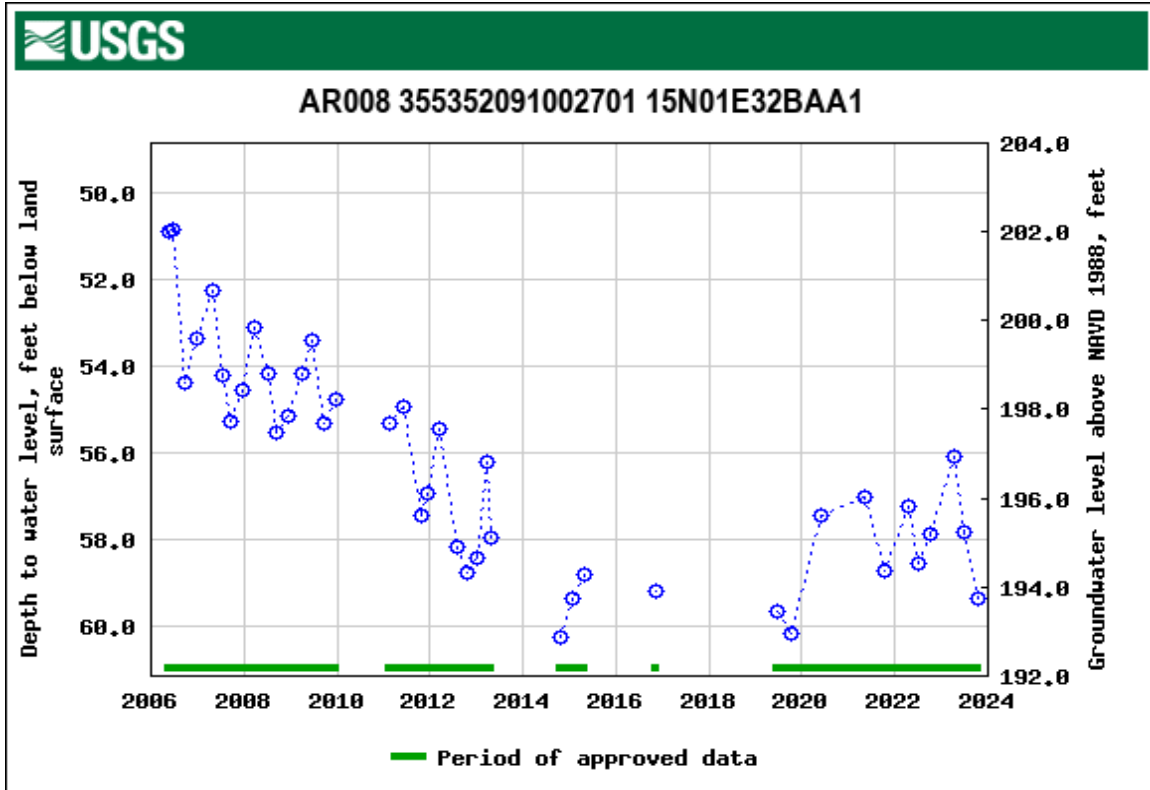


A. Greene County, Well 17N04E28DAA1

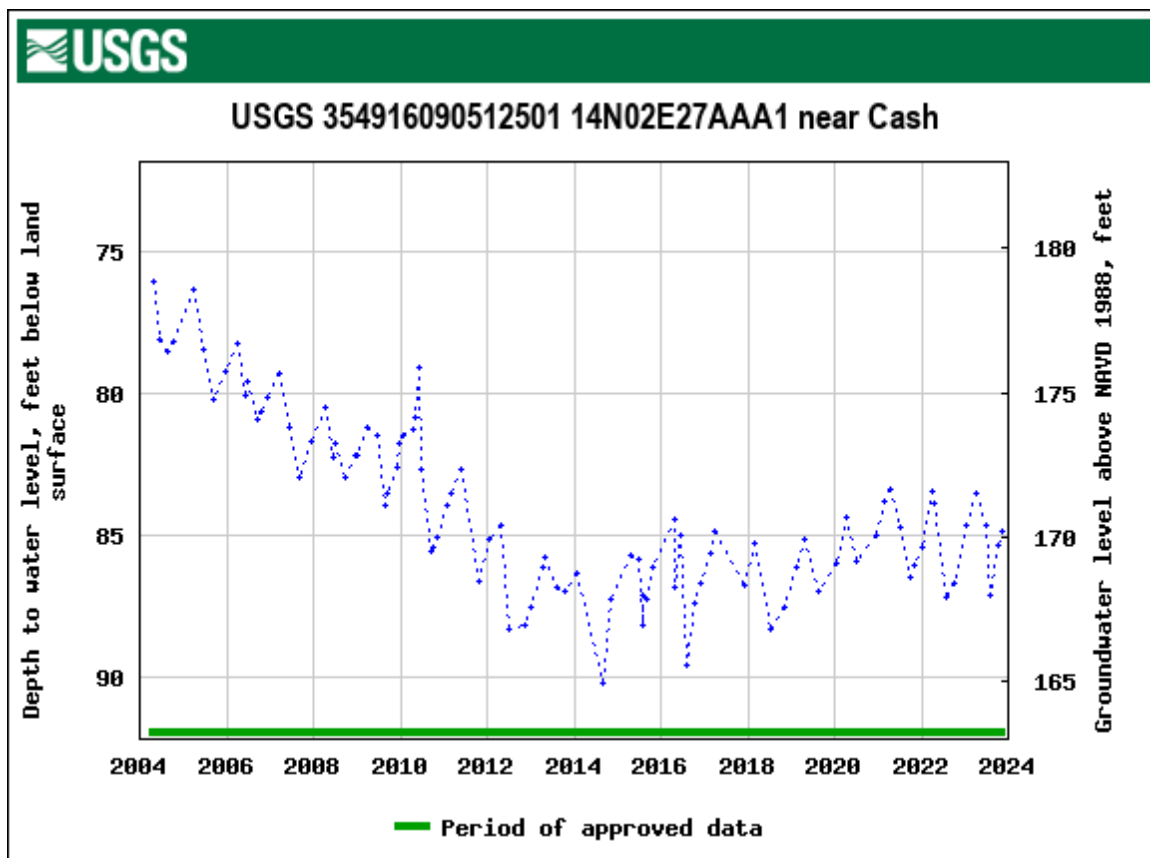


B. Lawrence County, Well 15N01E09ABD1

Figure 13. Selected water level hydrographs from the Mississippi River Valley Alluvial Aquifer

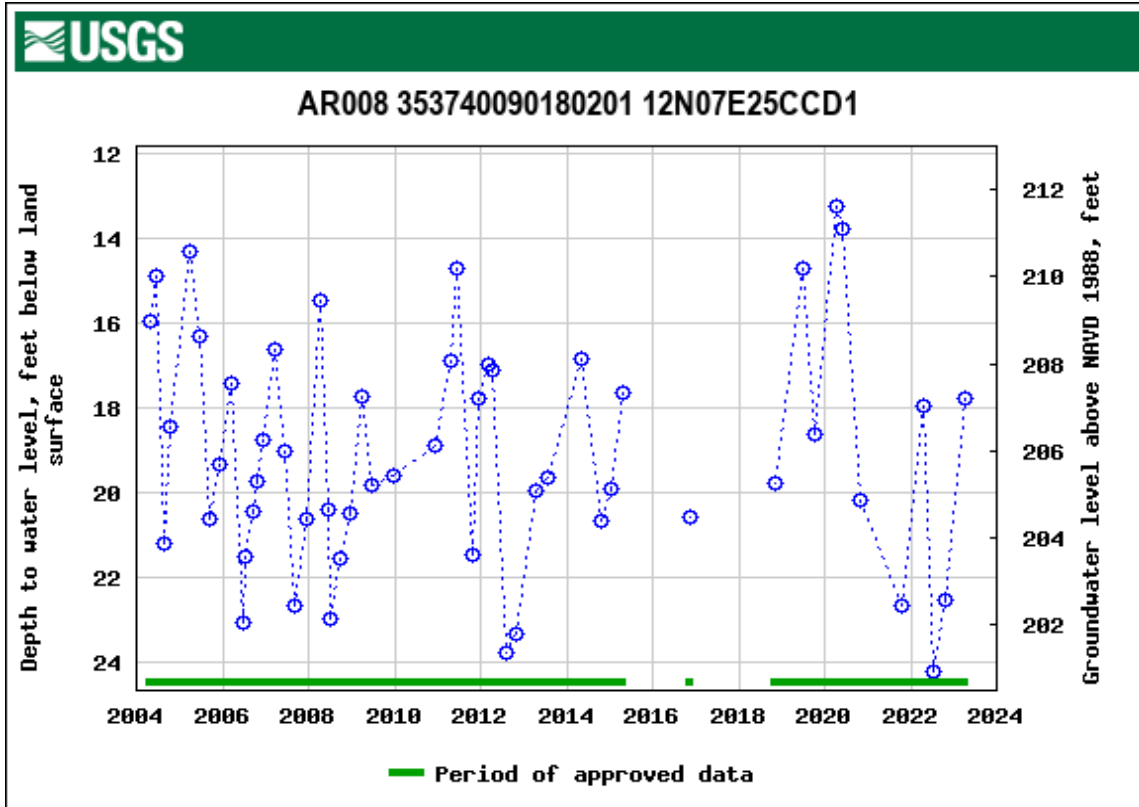


C. Lawrence County, Well 15N01E32BAA1

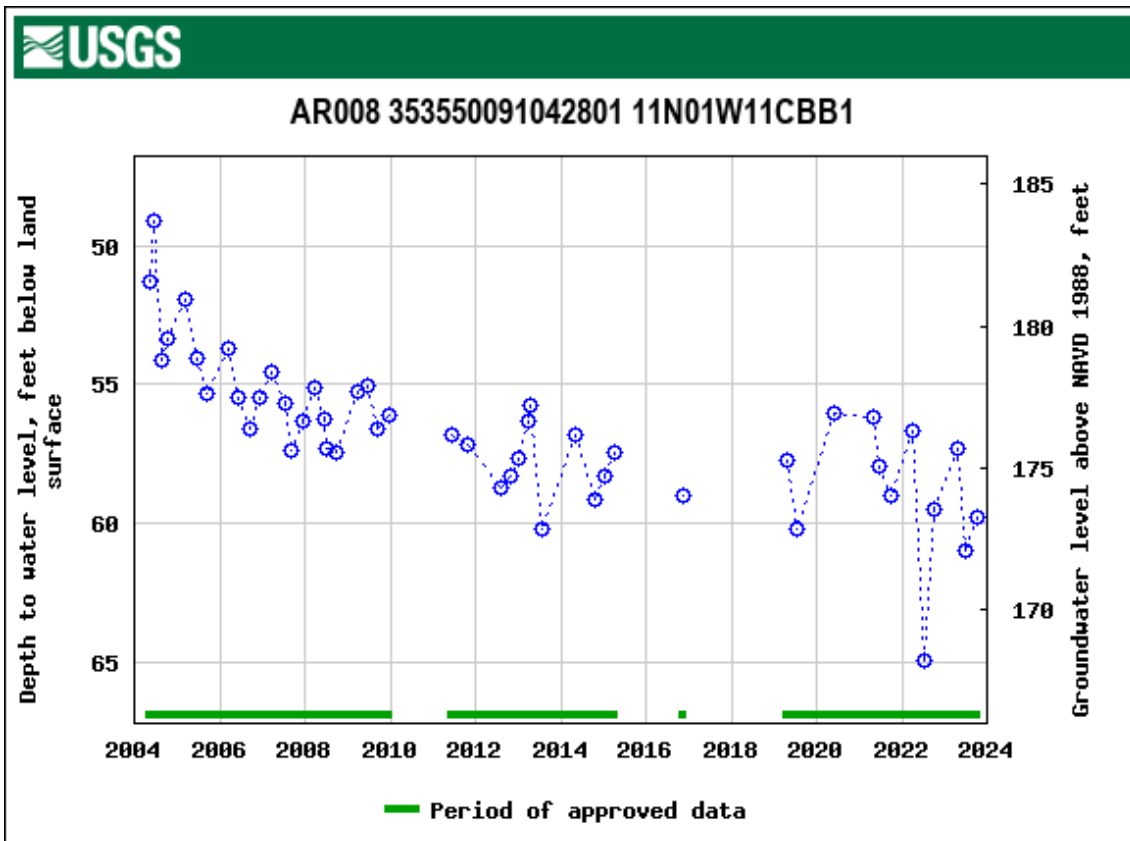


D. Craighead County, Well 14N02E27AAA1

Figure 13. Selected water level hydrographs from the Mississippi River Valley Alluvial Aquifer

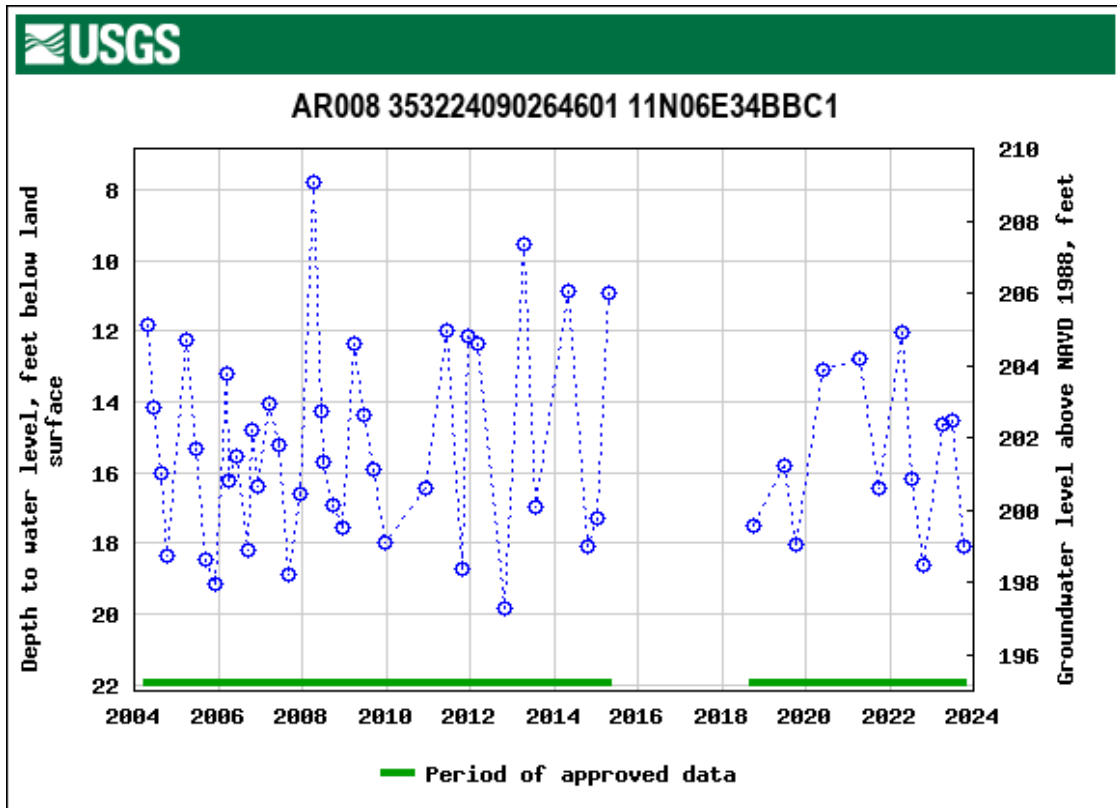


E. Poinsett County, Well 12N07E25CCD1

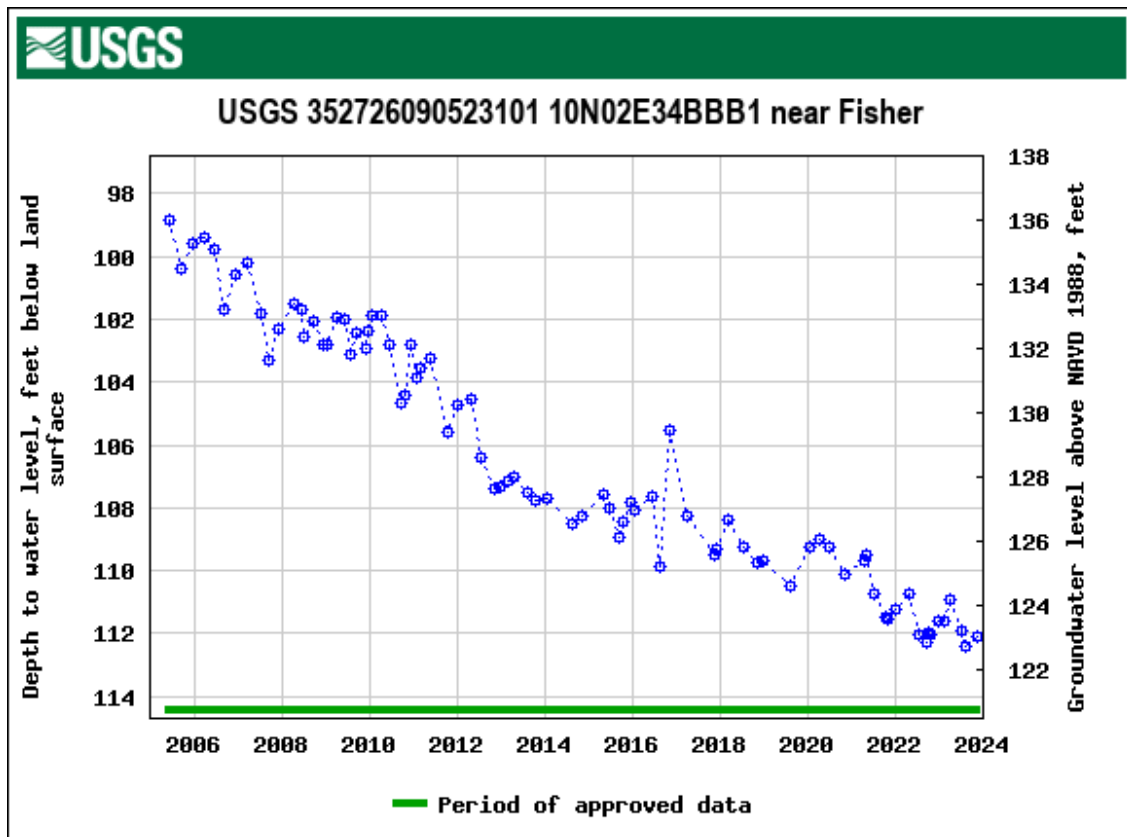


F. Jackson County, Well 11N01W11CCB1

Figure 13. Selected water level hydrographs from the Mississippi River Valley Alluvial Aquifer

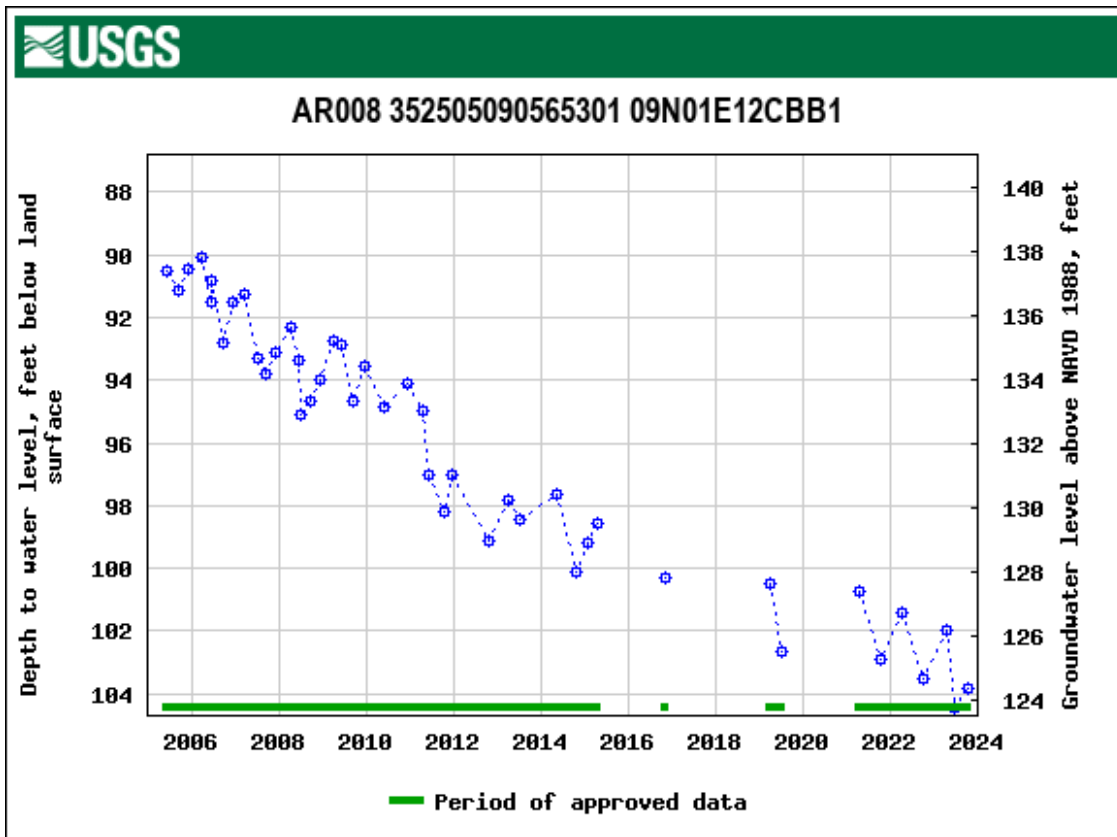


G. Poinsett County, Well 11N06E34BBC1

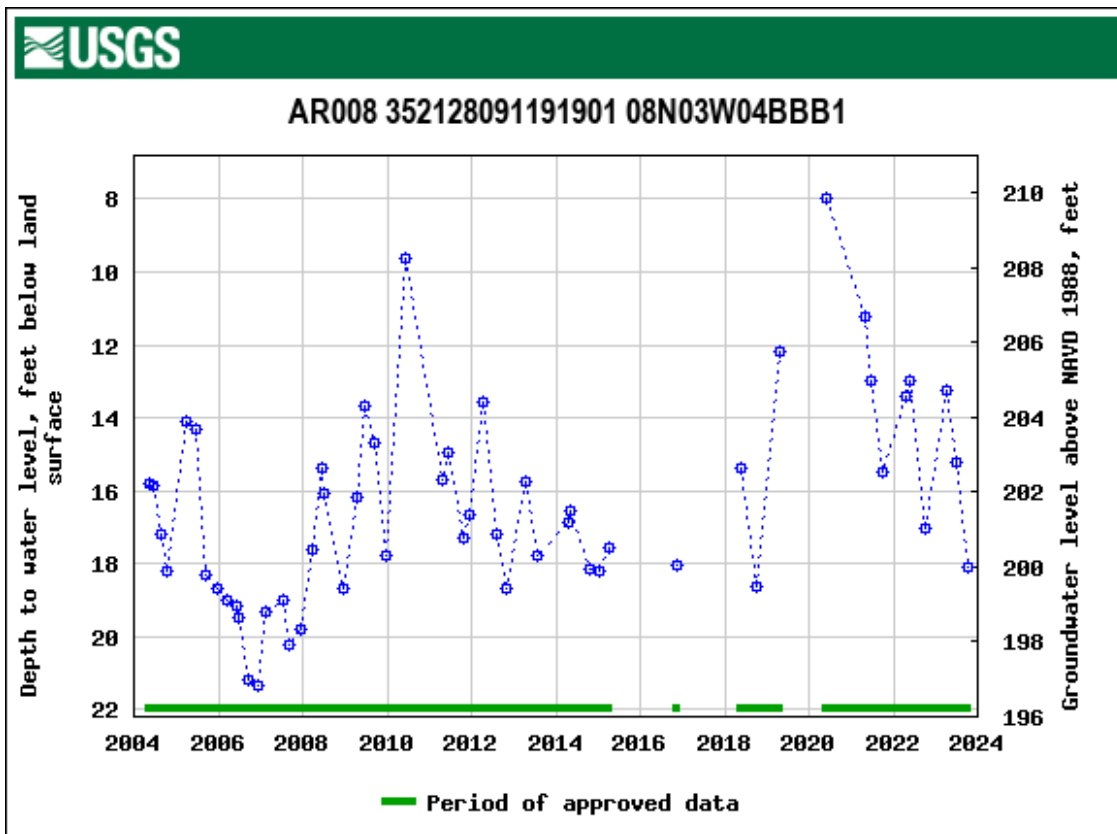


H. Poinsett County, Well 10N02E34BBB1

Figure 13. Selected water level hydrographs from the Mississippi River Valley Alluvial Aquifer

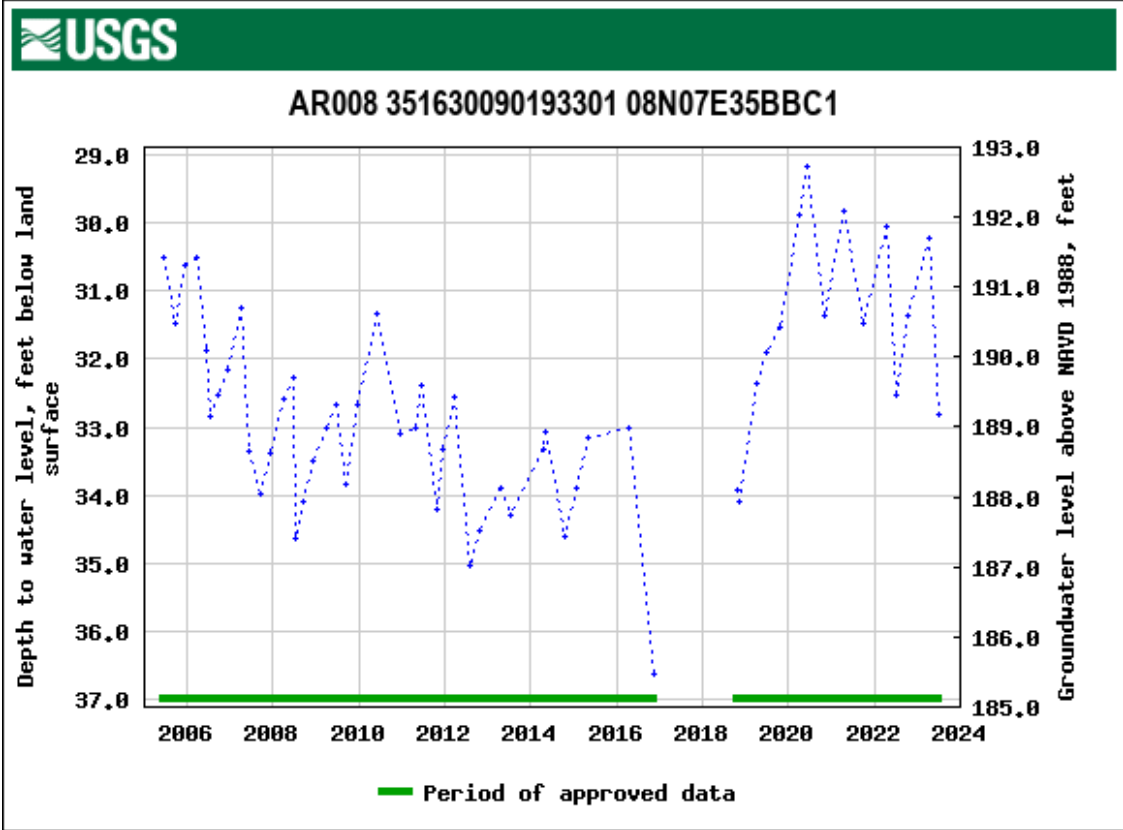


I. Cross County, Well 09N01E12CBB1

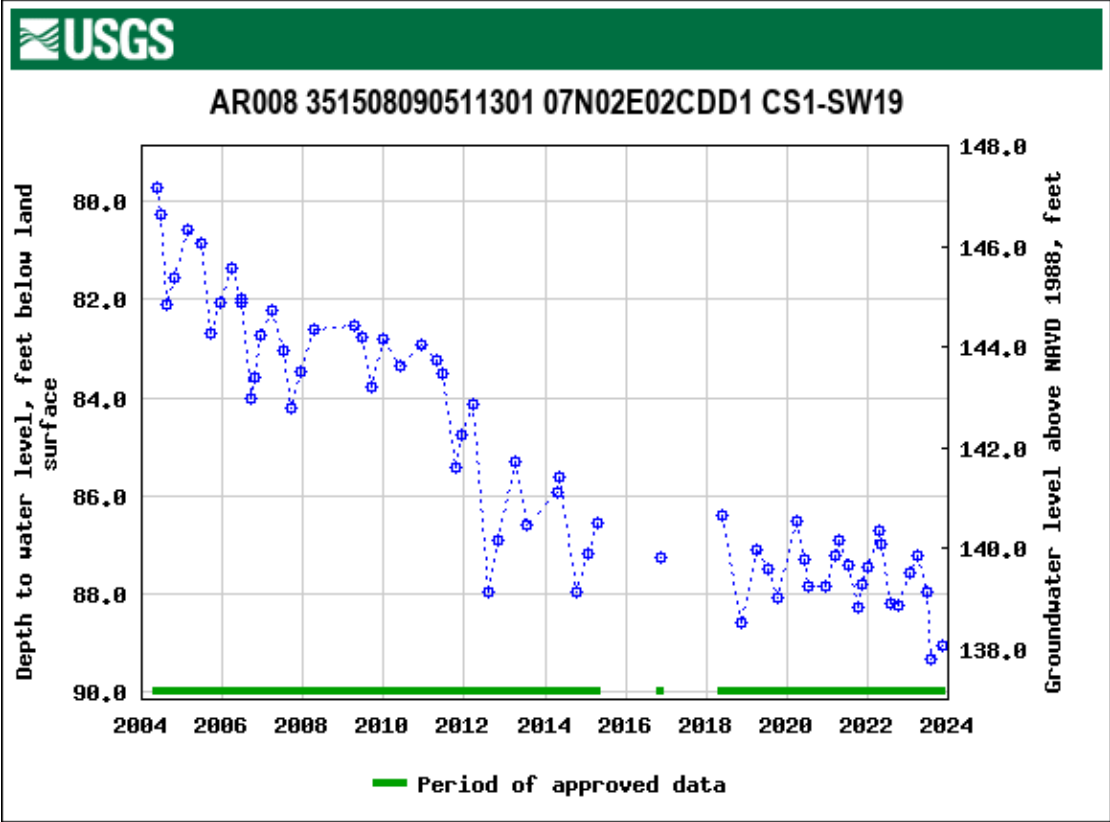


J. Woodruff County, Well 08N03W04BBB1

Figure 13. Selected water level hydrographs from the Mississippi River Valley Alluvial Aquifer

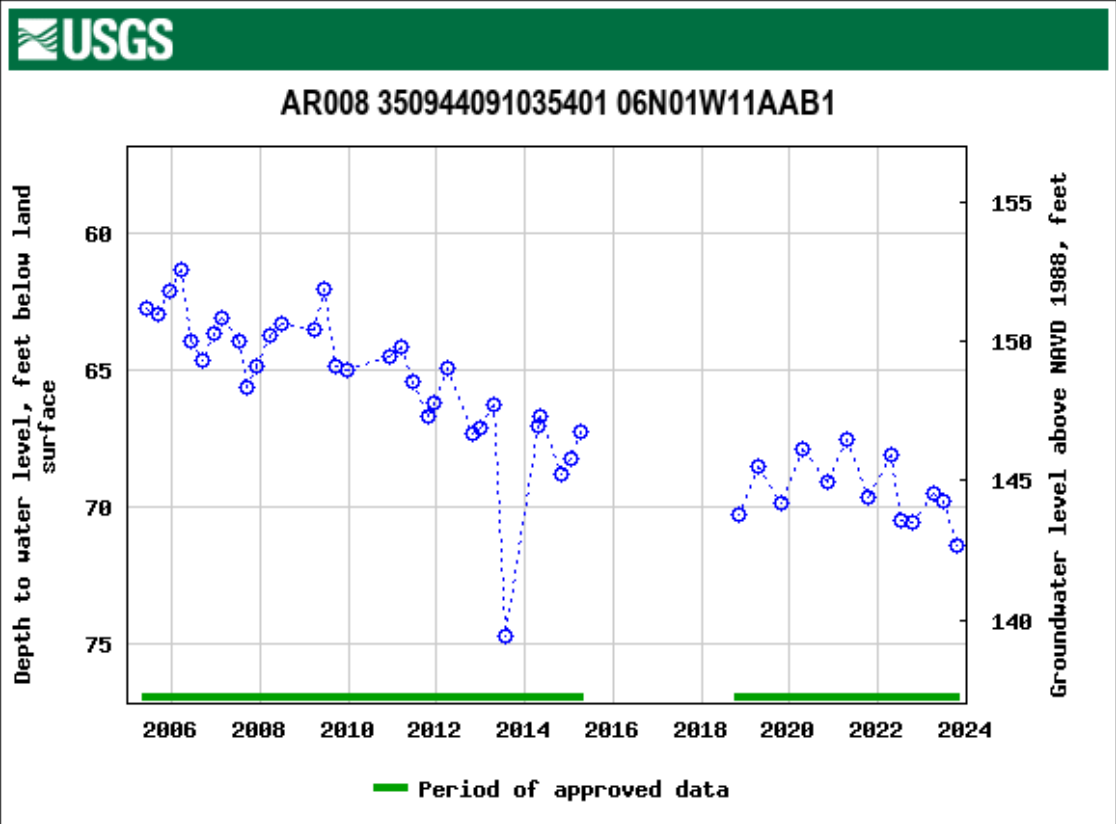


K. Crittenden County, Well 08N07E35BBC1

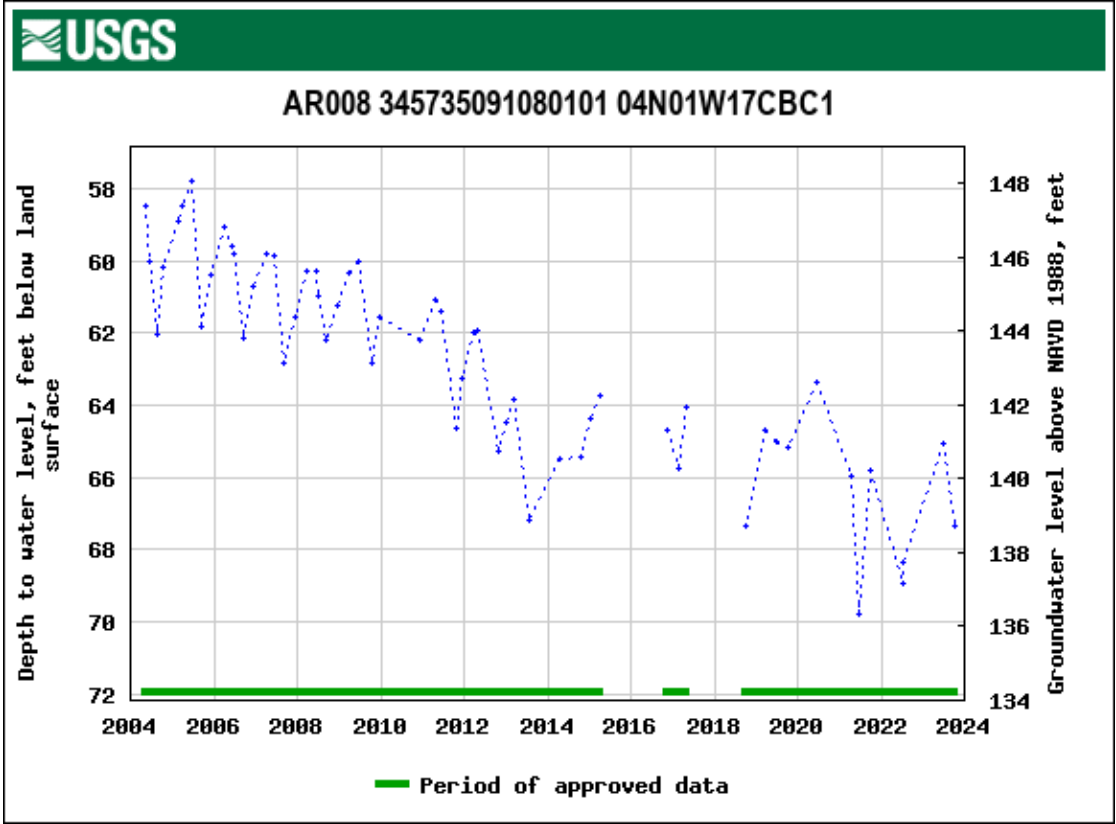


L. Cross County, Well 07N02E02CDD1 CS1-SW19

Figure 13. Selected water level hydrographs from the Mississippi River Valley Alluvial Aquifer

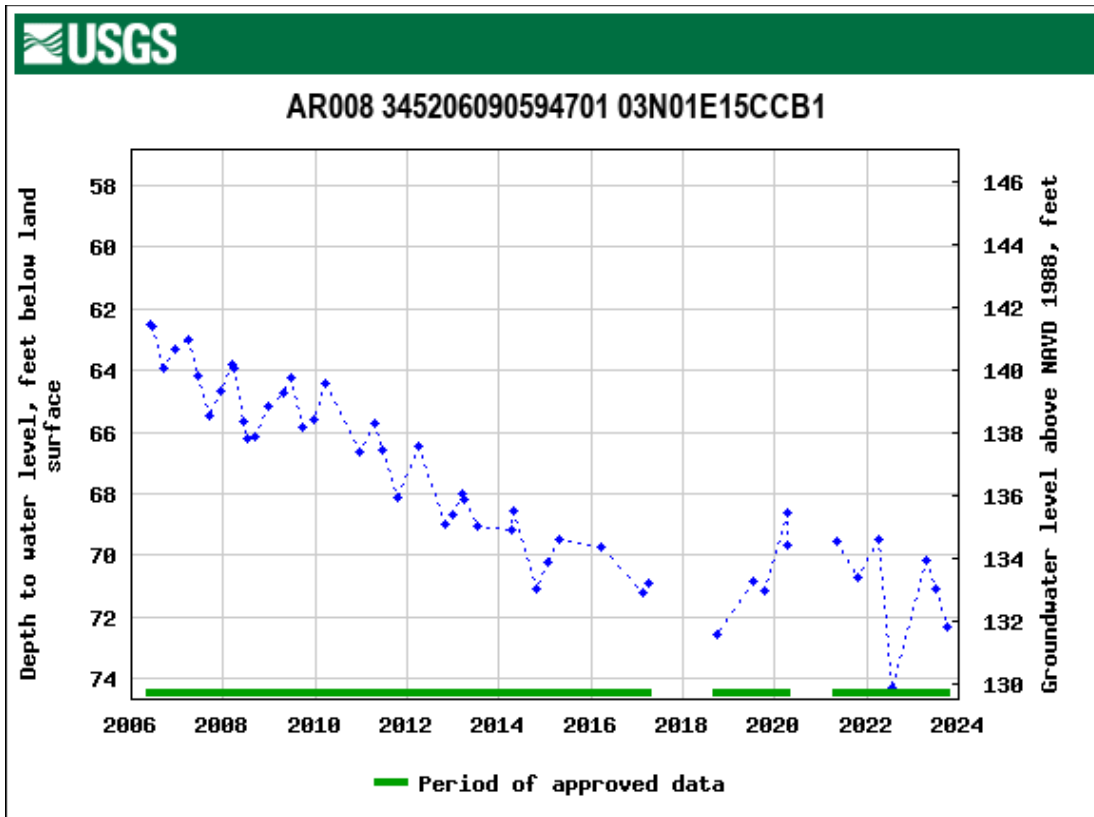


M. Woodruff County, Well 06N01W11AAB1

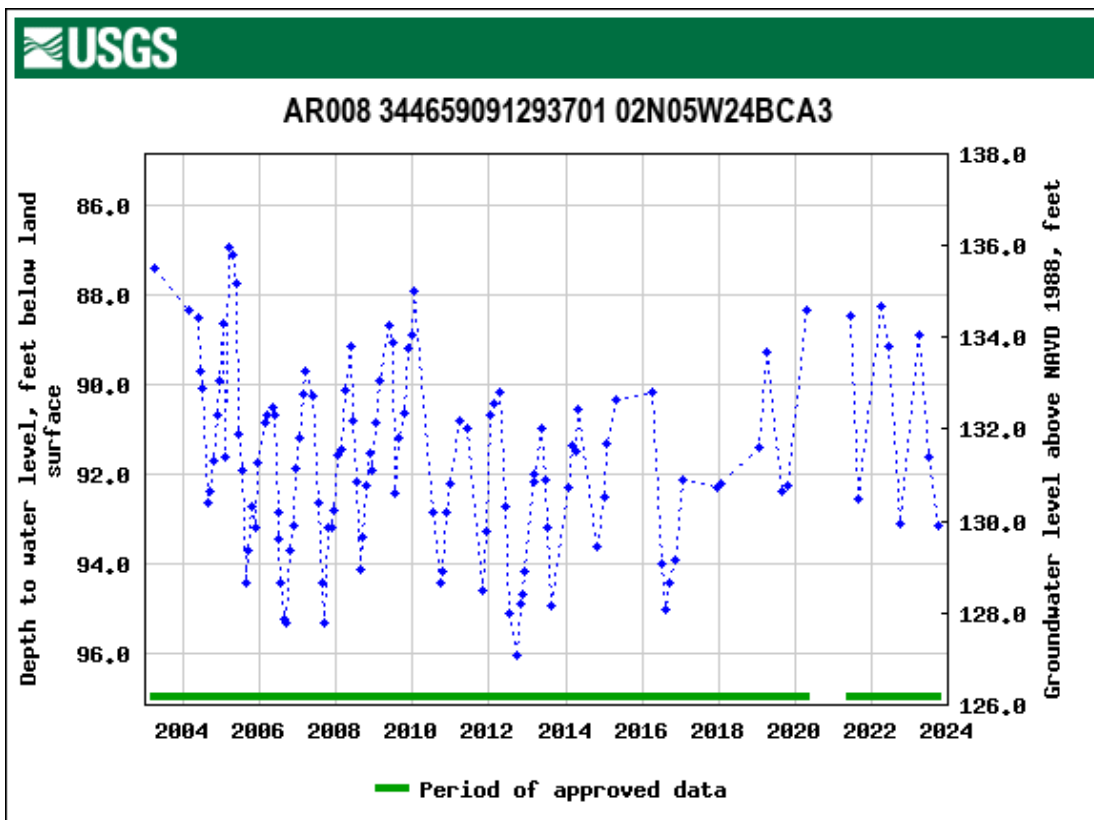


N. St. Francis County, Well 04N01W17CBC1

Figure 13. Selected water level hydrographs from the Mississippi River Valley Alluvial Aquifer

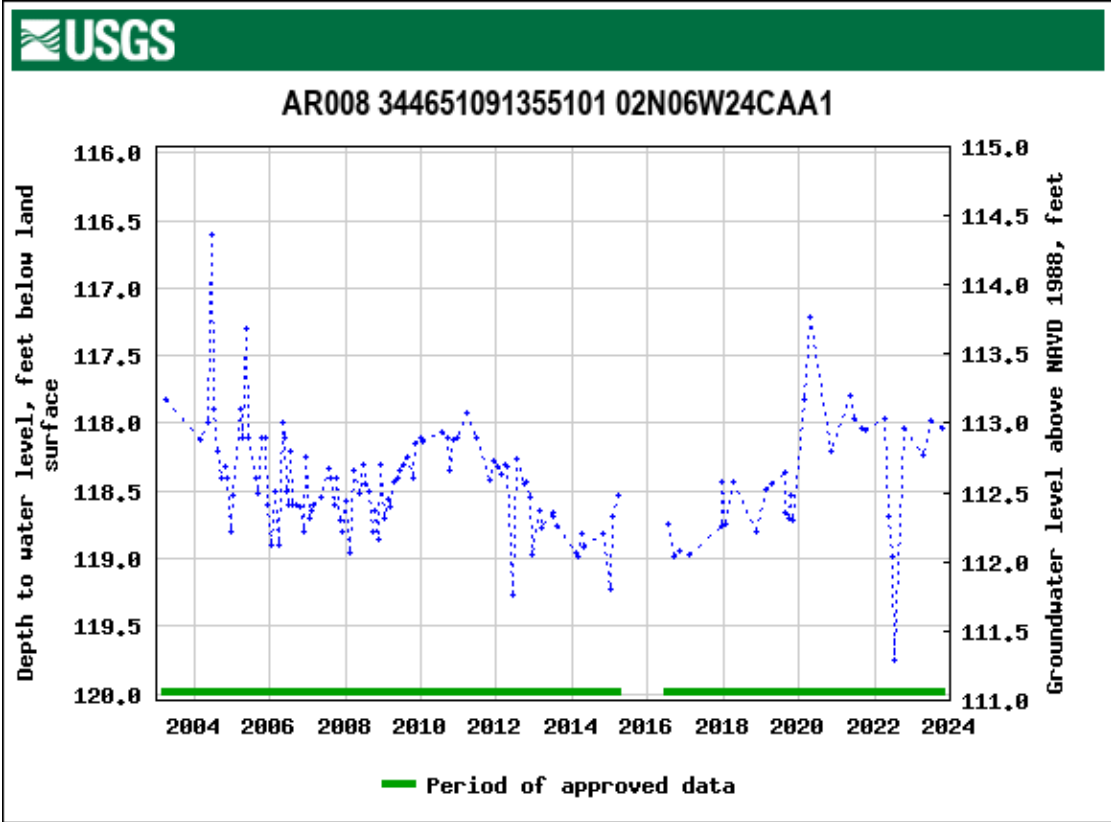


O. Lee County, Well 03N01E15CCB1

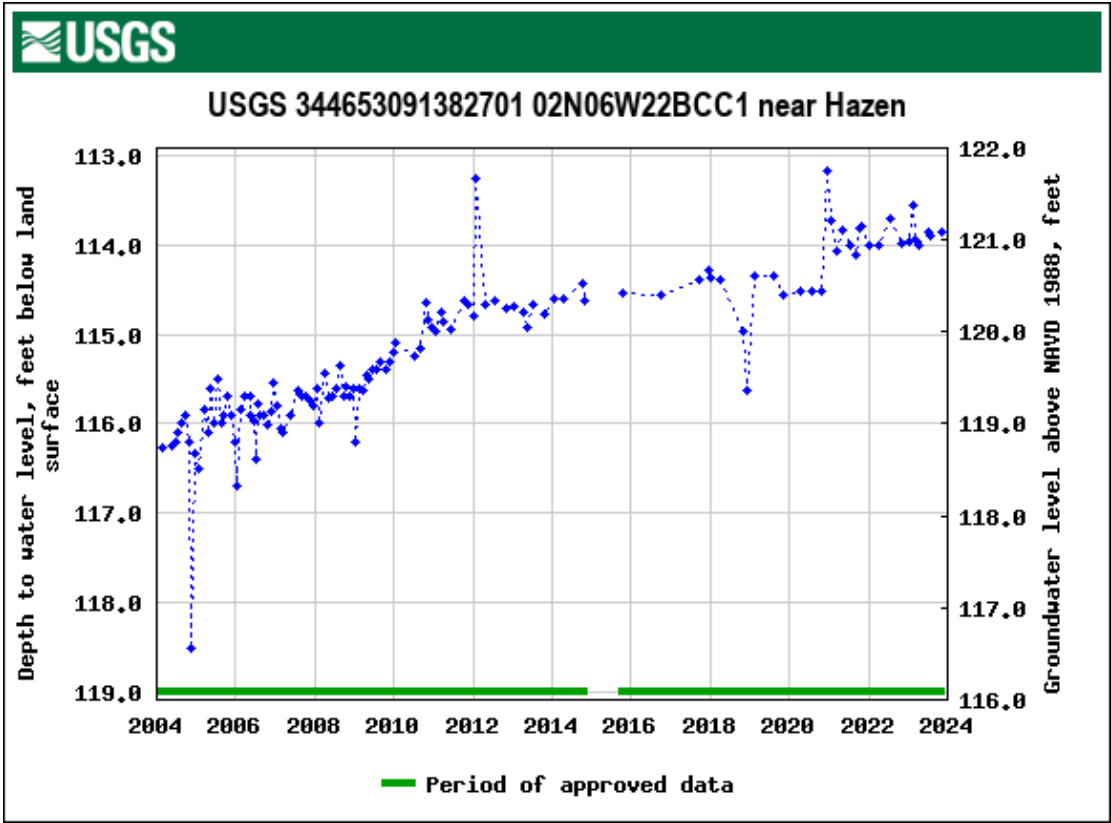


P. Prairie County, Well 02N05W24BCA3

Figure 13. Selected water level hydrographs from the Mississippi River Valley Alluvial Aquifer

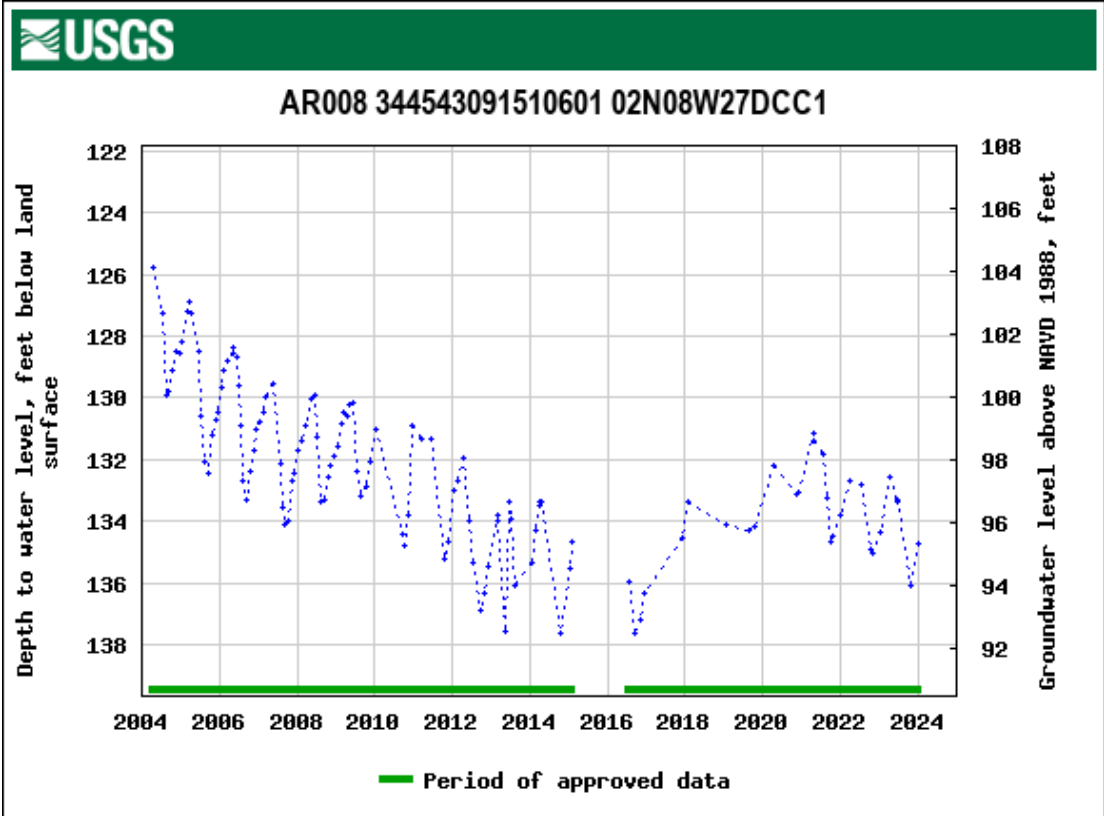


Q. Prairie County, Well 02N06W24CAA1

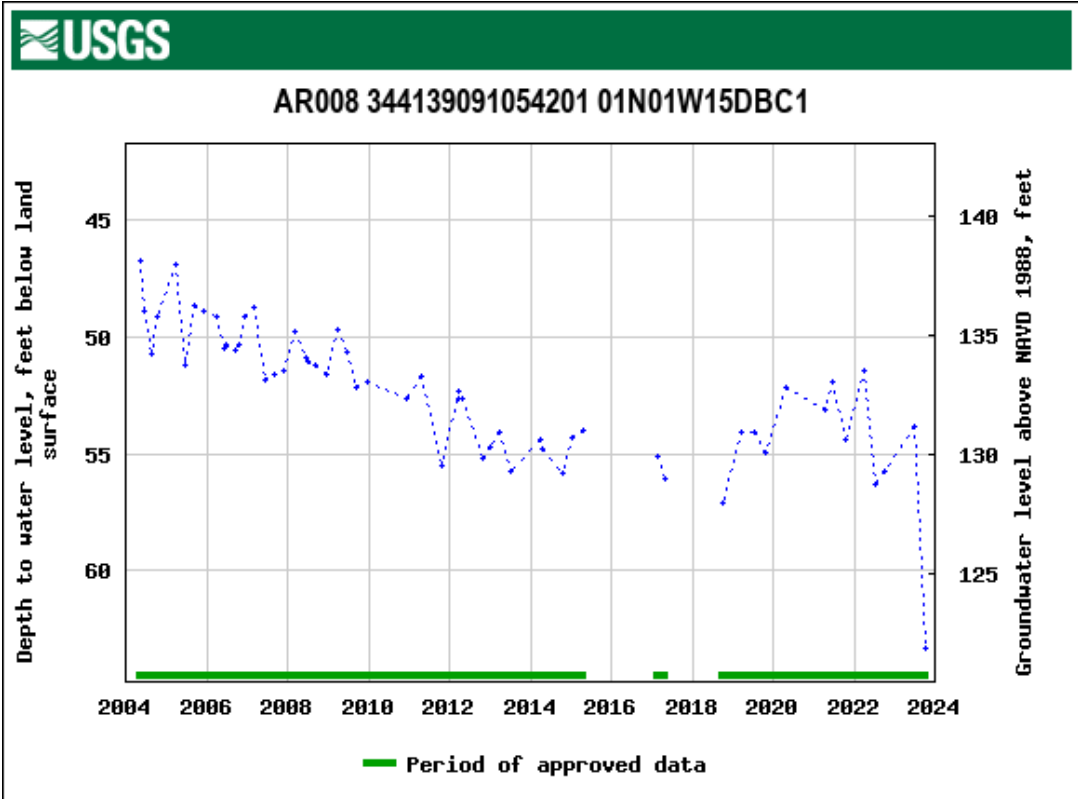


R. Prairie County, Well 02N06W22BCC1

Figure 13. Selected water level hydrographs from the Mississippi River Valley Alluvial Aquifer

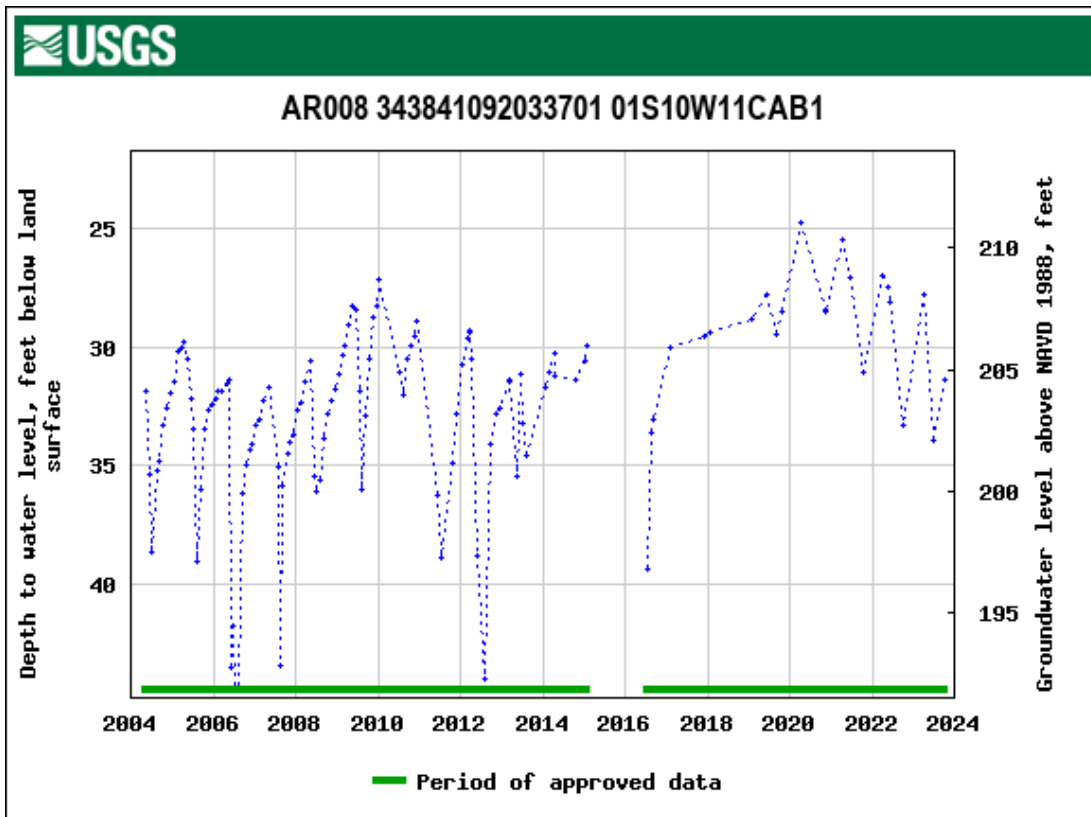


S. Lonoke County, Well 02N08W27DCC1

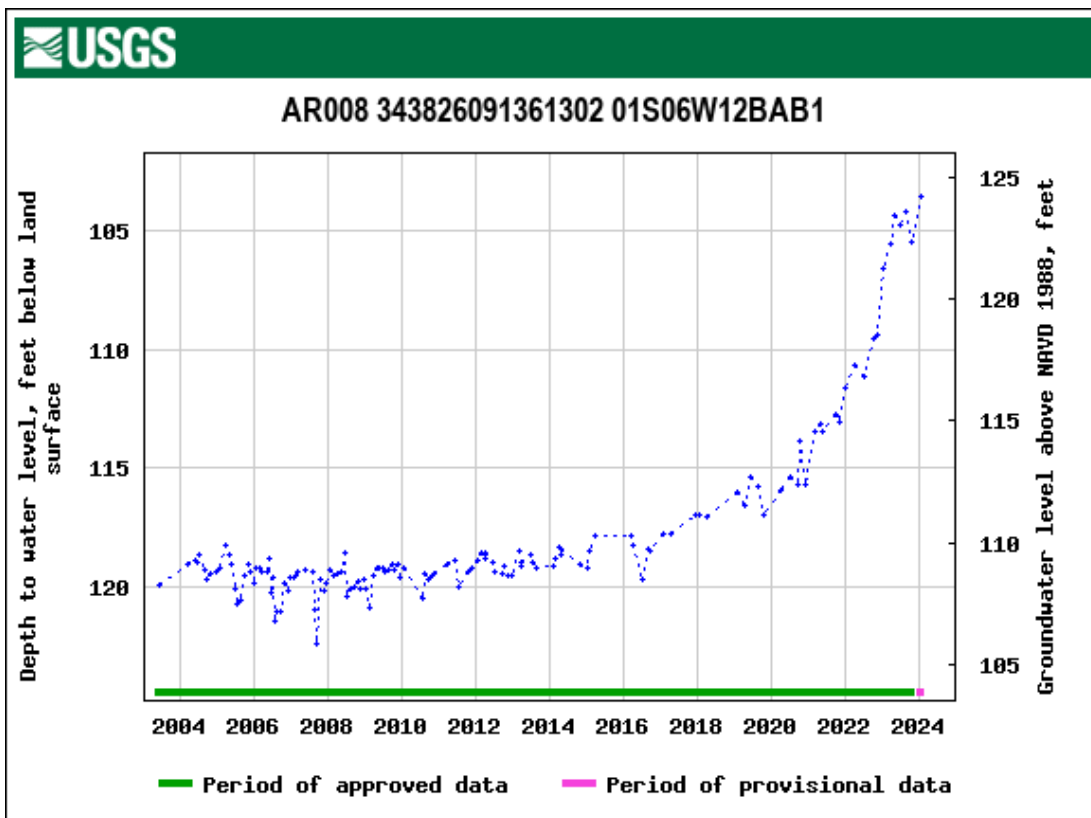


T. Monroe County, Well 01N01W15DBC1

Figure 13. Selected water level hydrographs from the Mississippi River Valley Alluvial Aquifer

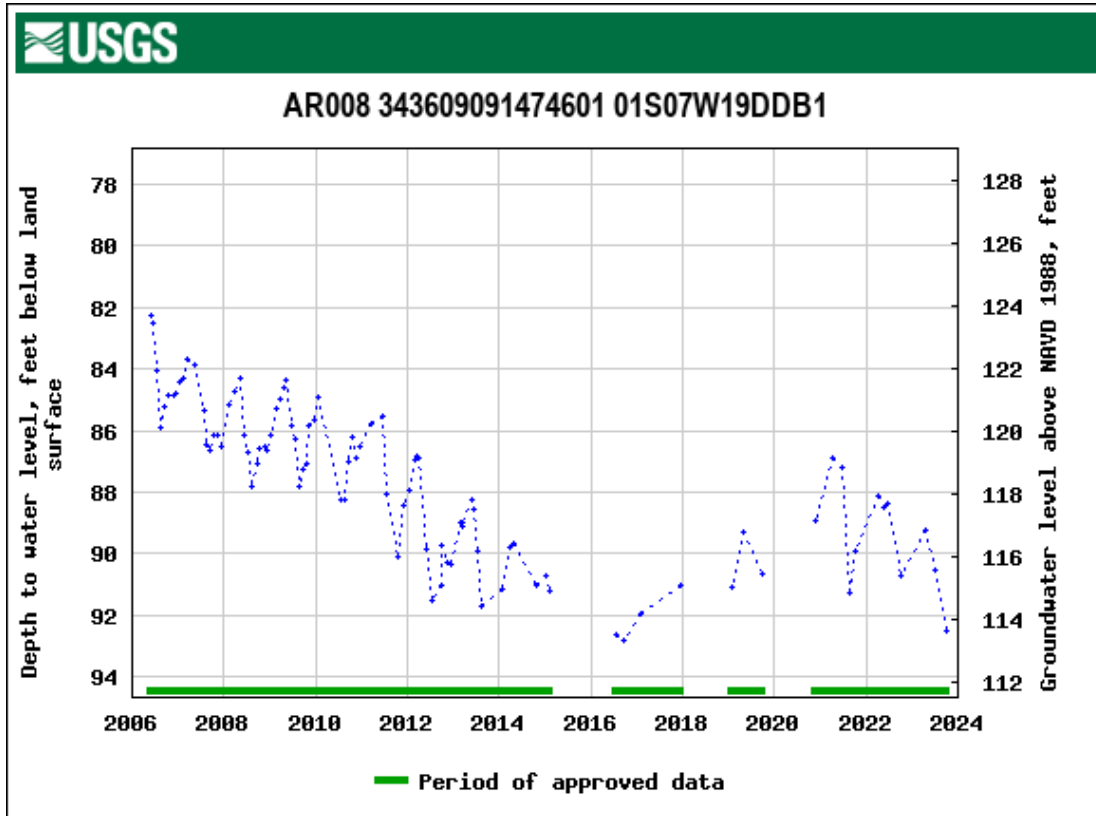


U. Lonoke County, Well 01S10W11CAB1

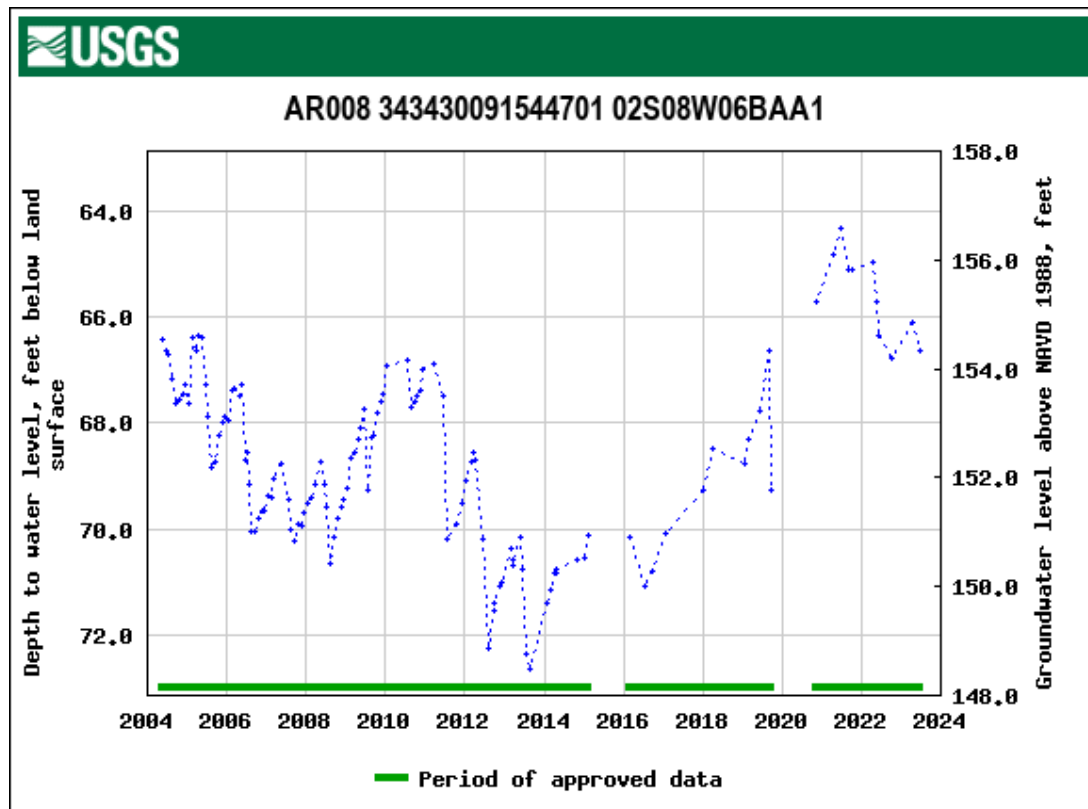


V. Prairie County, Well 01S06W12BAB1

Figure 13. Selected water level hydrographs from the Mississippi River Valley Alluvial Aquifer

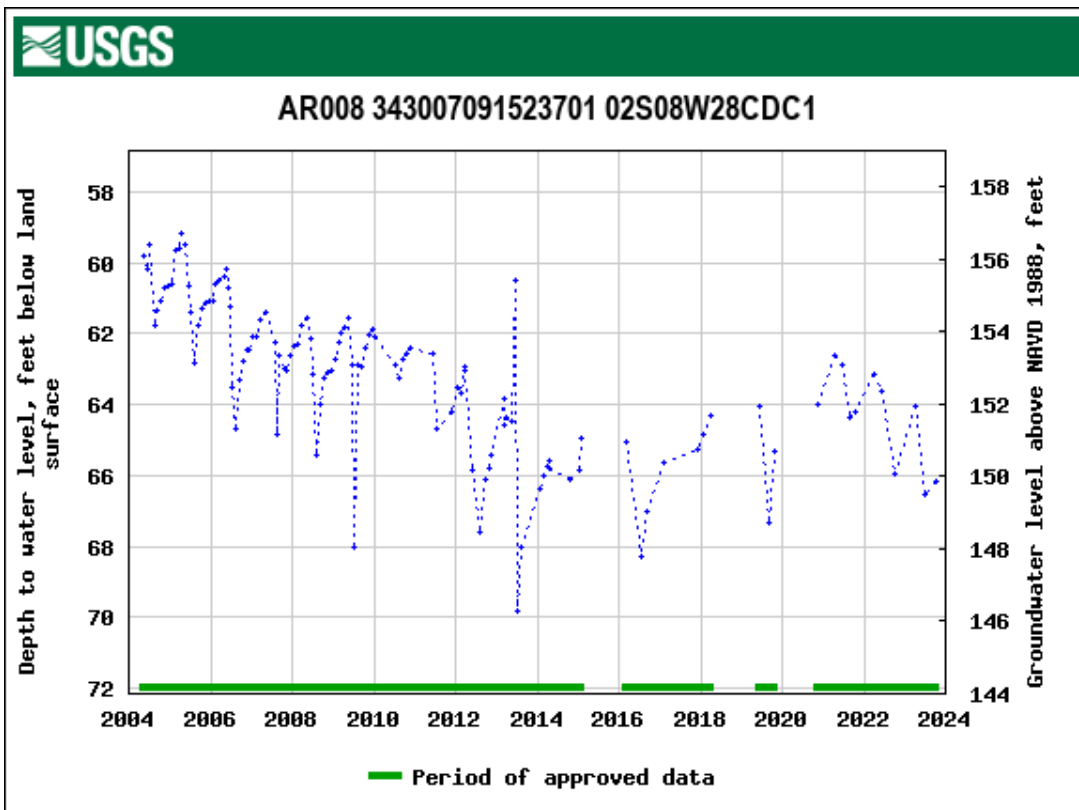


W. Lonoke County, Well 01S07W19DDB1

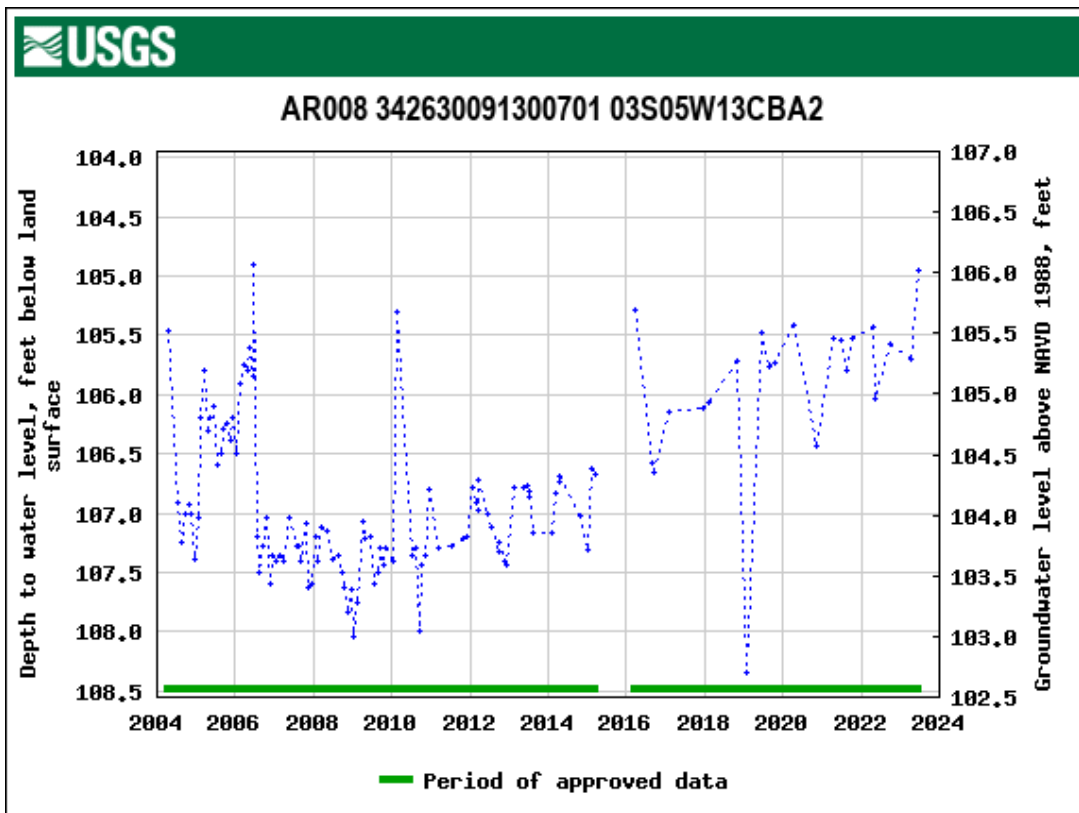


X. Lonoke County, Well 02S08W06BAA1

Figure 13. Selected water level hydrographs from the Mississippi River Valley Alluvial Aquifer

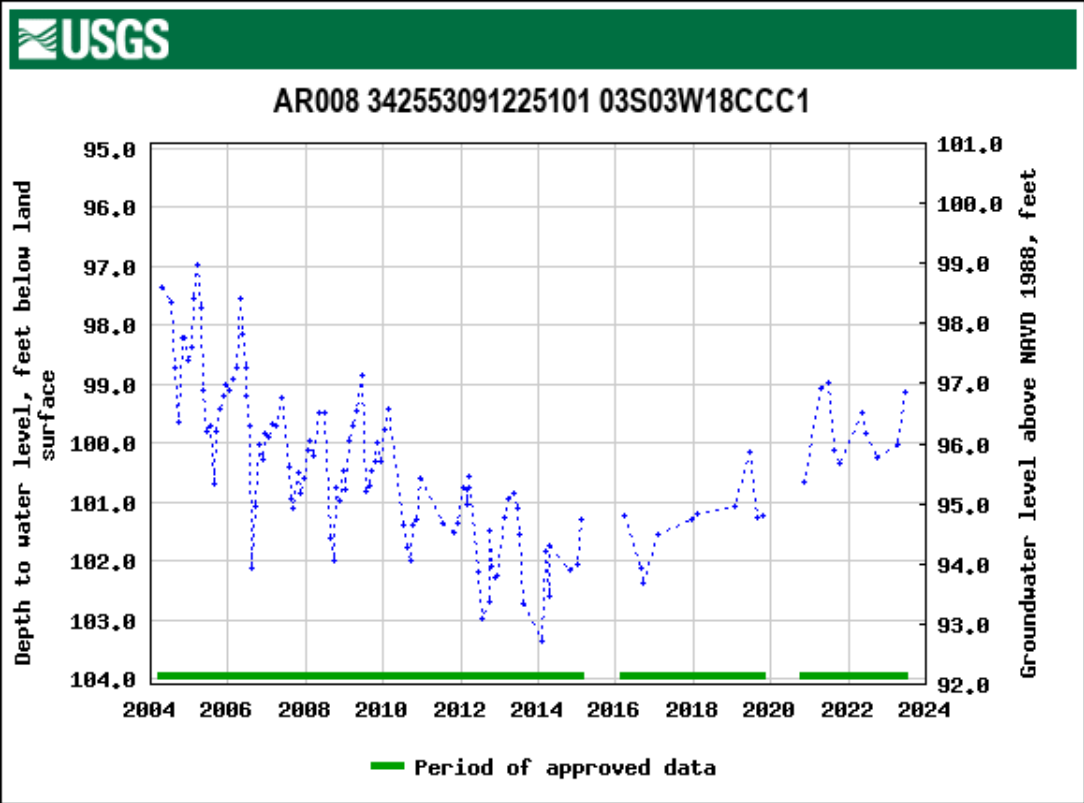


Y. Lonoke County, Well 02S08W28CDC1

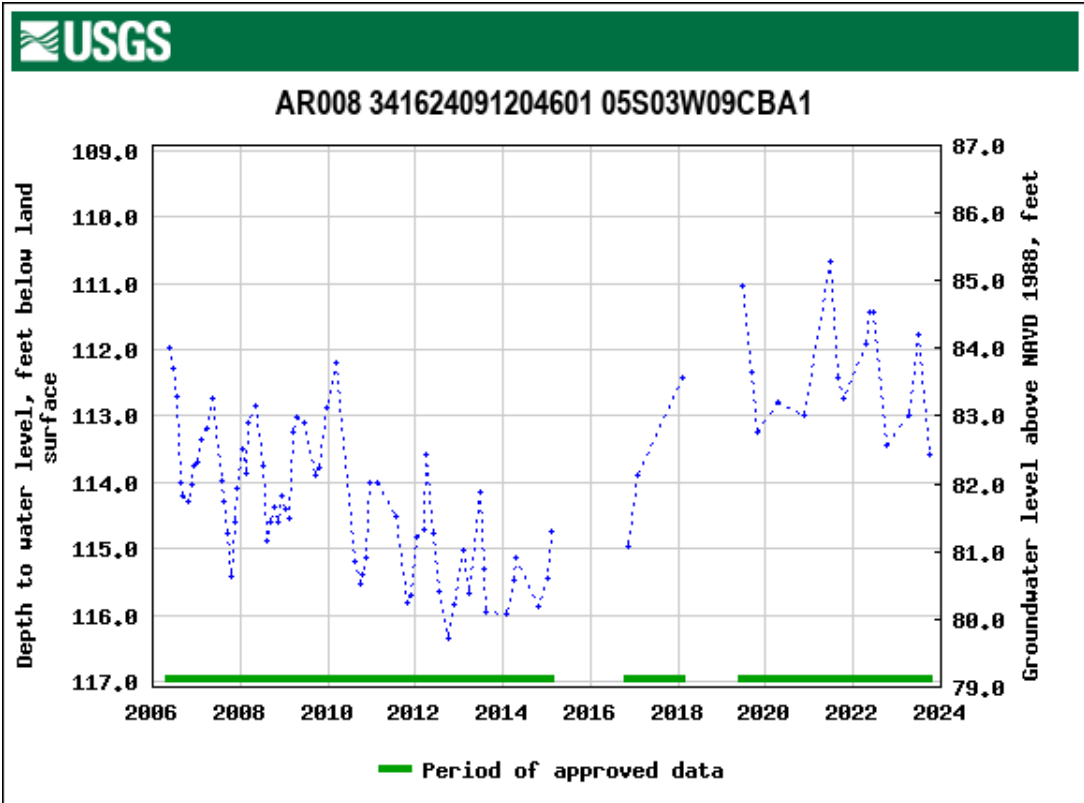


Z. Arkansas County, Well 03S05W13CBA2

Figure 13. Selected water level hydrographs from the Mississippi River Valley Alluvial Aquifer

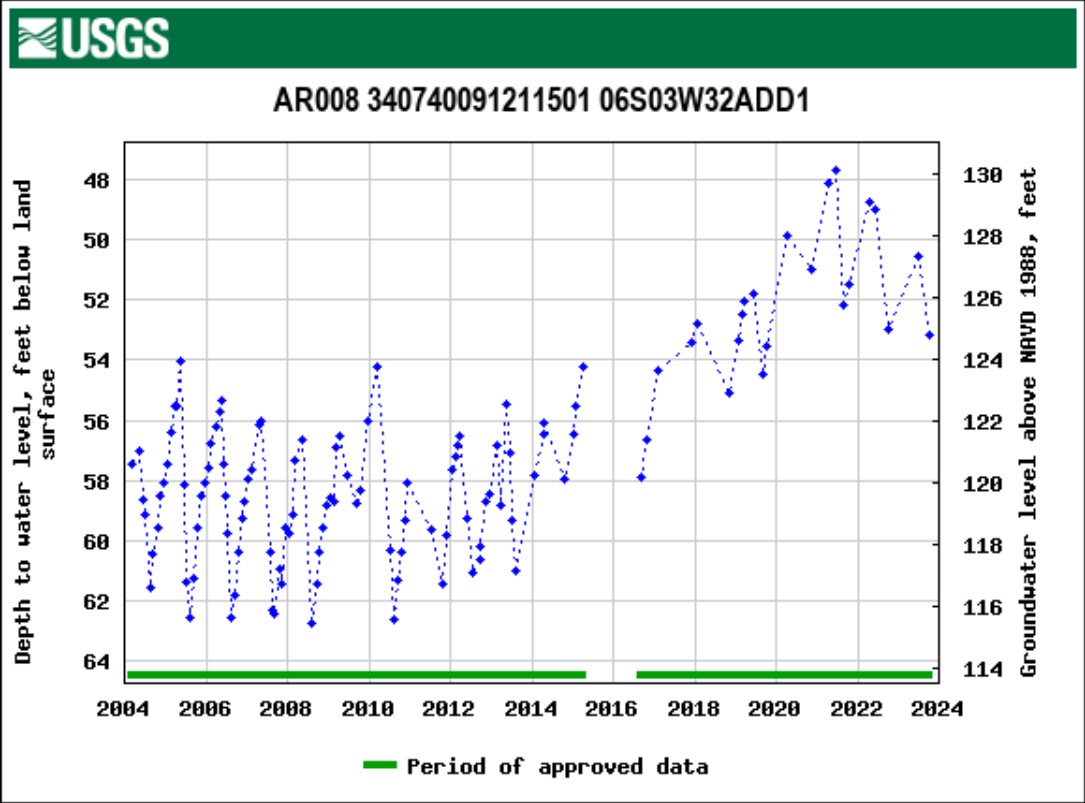


AA. Arkansas County, Well 03S03W18CCC1

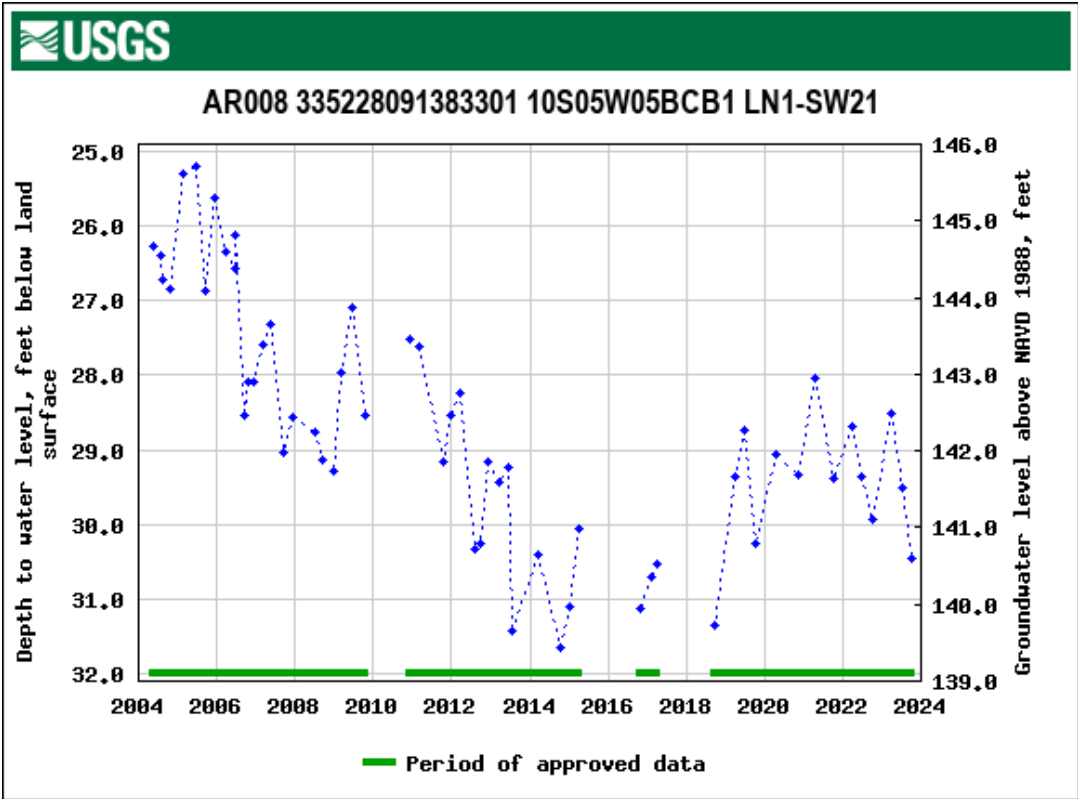


BB. Arkansas County, Well 05S03W09CBA1

Figure 13. Selected water level hydrographs from the Mississippi River Valley Alluvial Aquifer

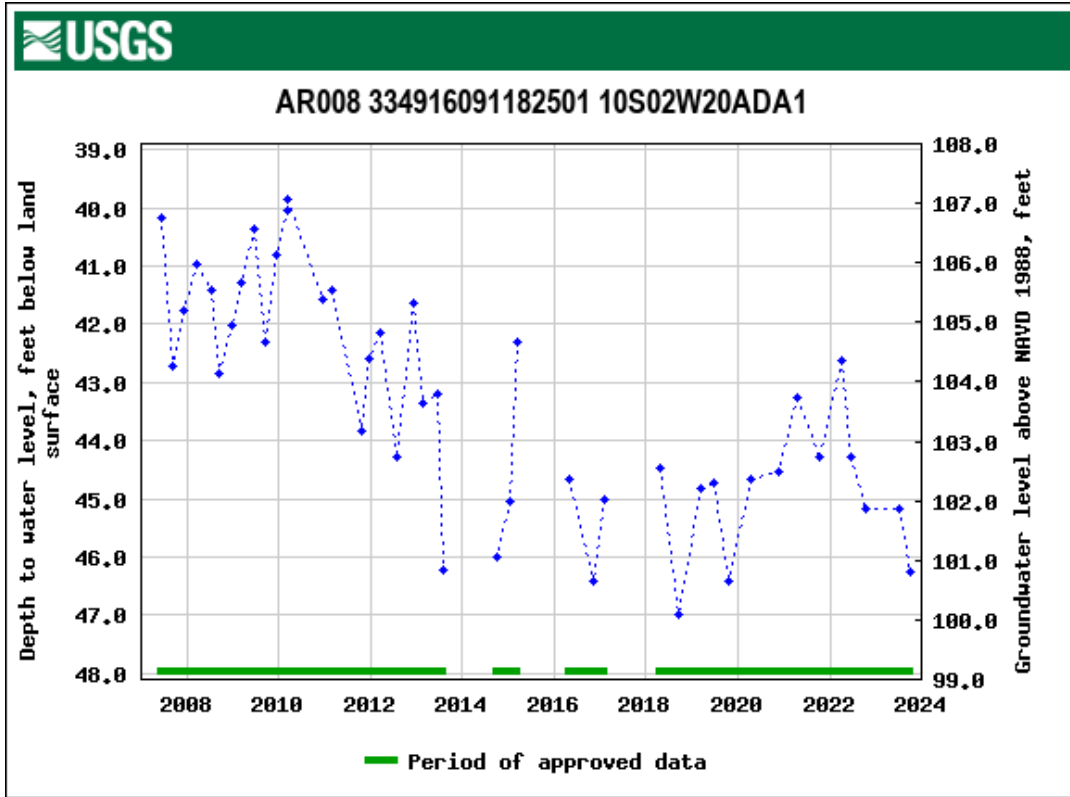


CC. Arkansas County, Well 06S03W32ADD1

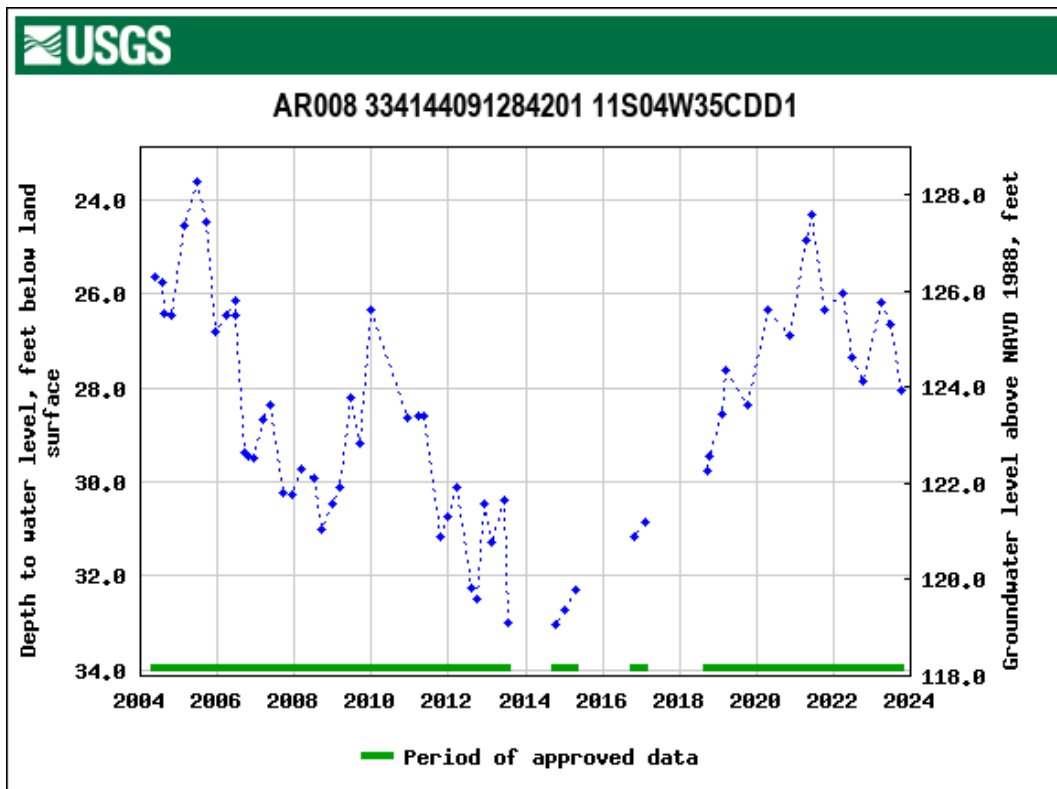


DD. Lincoln County, Well 10S05W05BCB1 LN1-SW21

Figure 13. Selected water level hydrographs from the Mississippi River Valley Alluvial Aquifer

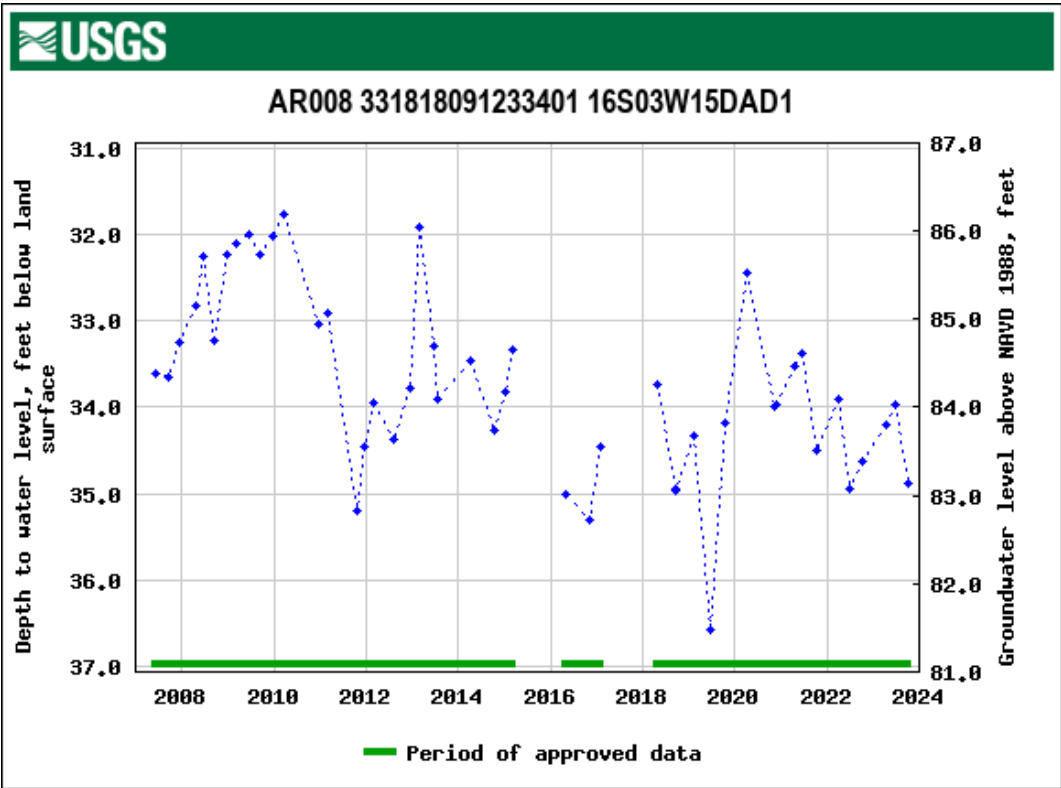


EE. Desha County, Well 10S02W20ADA1

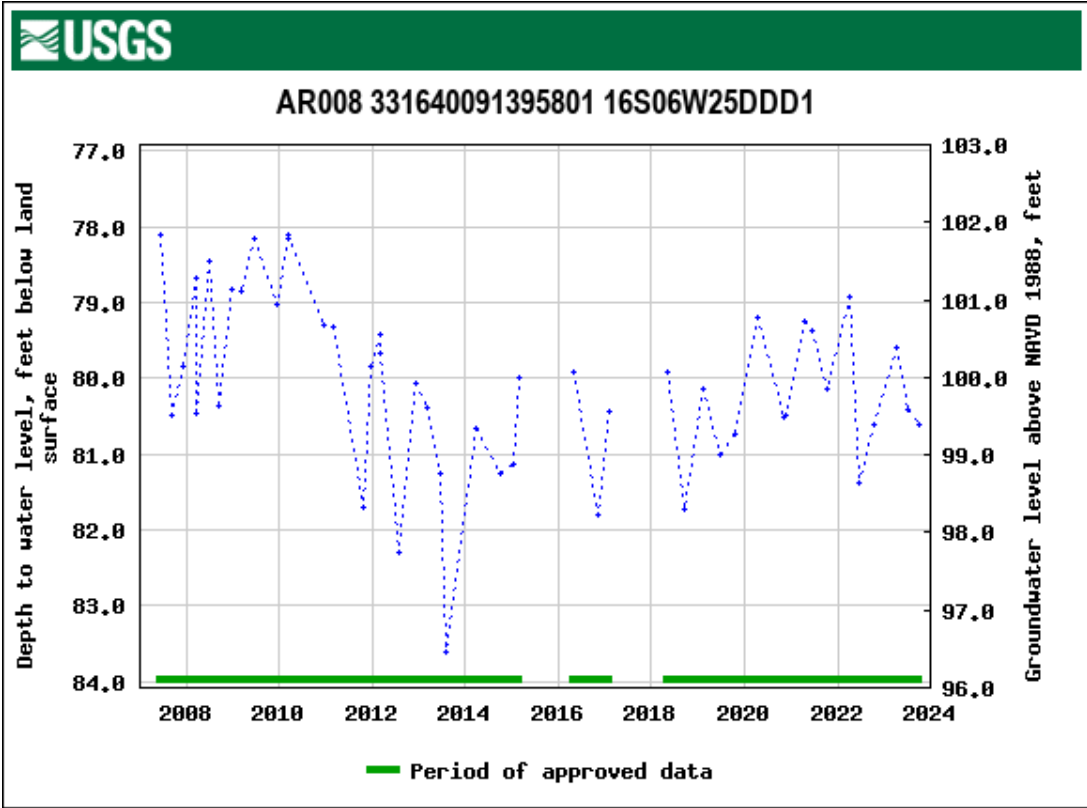


FF. Drew County, Well 11S04W35CDD1

Figure 13. Selected water level hydrographs from the Mississippi River Valley Alluvial Aquifer



GG. Chicot County, Well 16S03W15DAD1



HH. Ashley County, Well 16S06W25DDD1

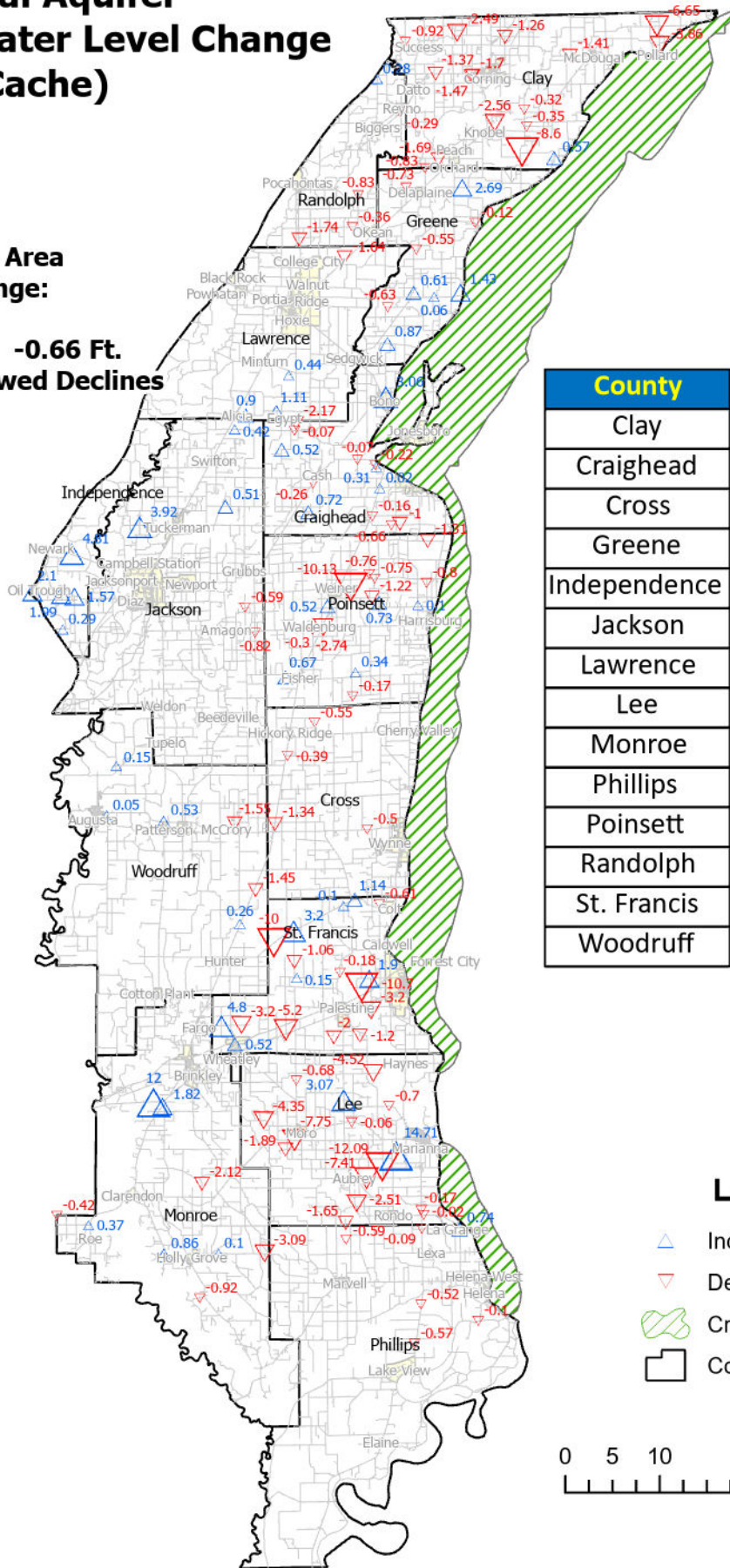
Alluvial Aquifer 2022-2023 Water Level Change (Cache)



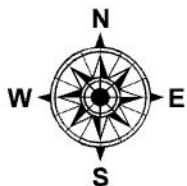
NATURAL RESOURCES
DIVISION

Cache Study Area
1 Year Change:

Average Change: **-0.66 Ft.**
81 of 128 Wells Showed Declines



County	Avg. Change, ft.
Clay	-2.72
Craighead	0.00
Cross	-0.70
Greene	+0.28
Independence	+2.15
Jackson	+0.70
Lawrence	+0.20
Lee	-1.73
Monroe	+0.80
Phillips	-0.11
Poinsett	-1.13
Randolph	-0.60
St. Francis	-1.50
Woodruff	-0.34



Legend

- Increases
- Declines
- Crowley's Ridge
- County Boundaries



Figure 14

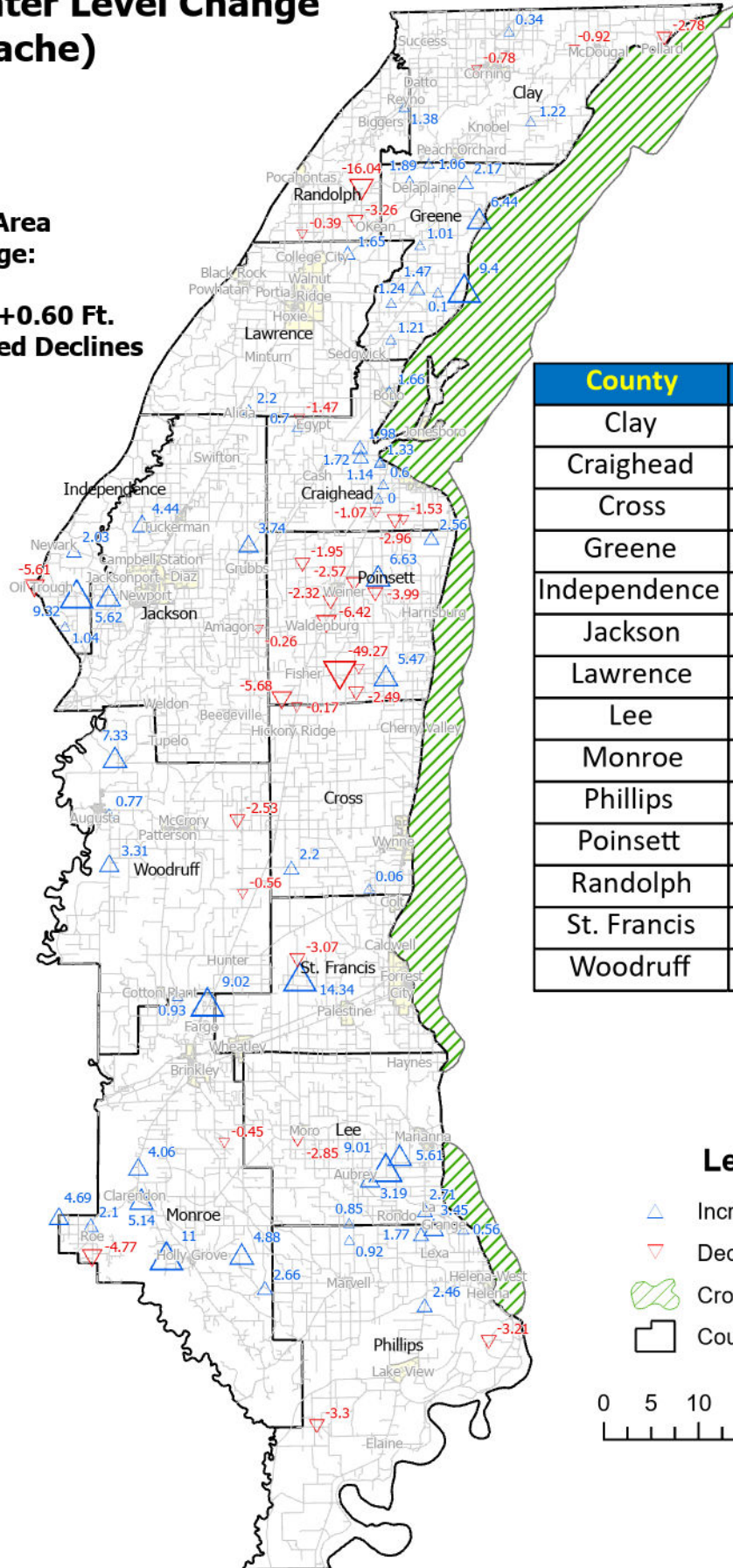
Alluvial Aquifer 2018-2023 Water Level Change (Cache)



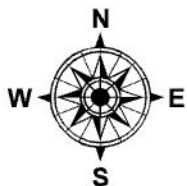
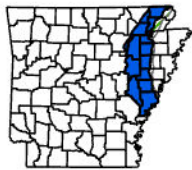
NATURAL RESOURCES
DIVISION

Cache Study Area
5 Year Change:

Average Change: **+0.60 Ft.**
30 of 87 Wells Showed Declines



County	Avg. Change, ft.
Clay	-0.58
Craighead	+0.18
Cross	+0.70
Greene	+2.60
Independence	+1.70
Jackson	+3.39
Lawrence	+1.93
Lee	+3.09
Monroe	+3.35
Phillips	+0.29
Poinsett	-5.07
Randolph	-4.58
St. Francis	+5.64
Woodruff	-1.66



Legend

- Increases
- Declines
- Crowley's Ridge
- County Boundaries

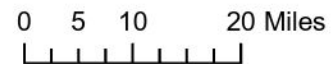


Figure 15

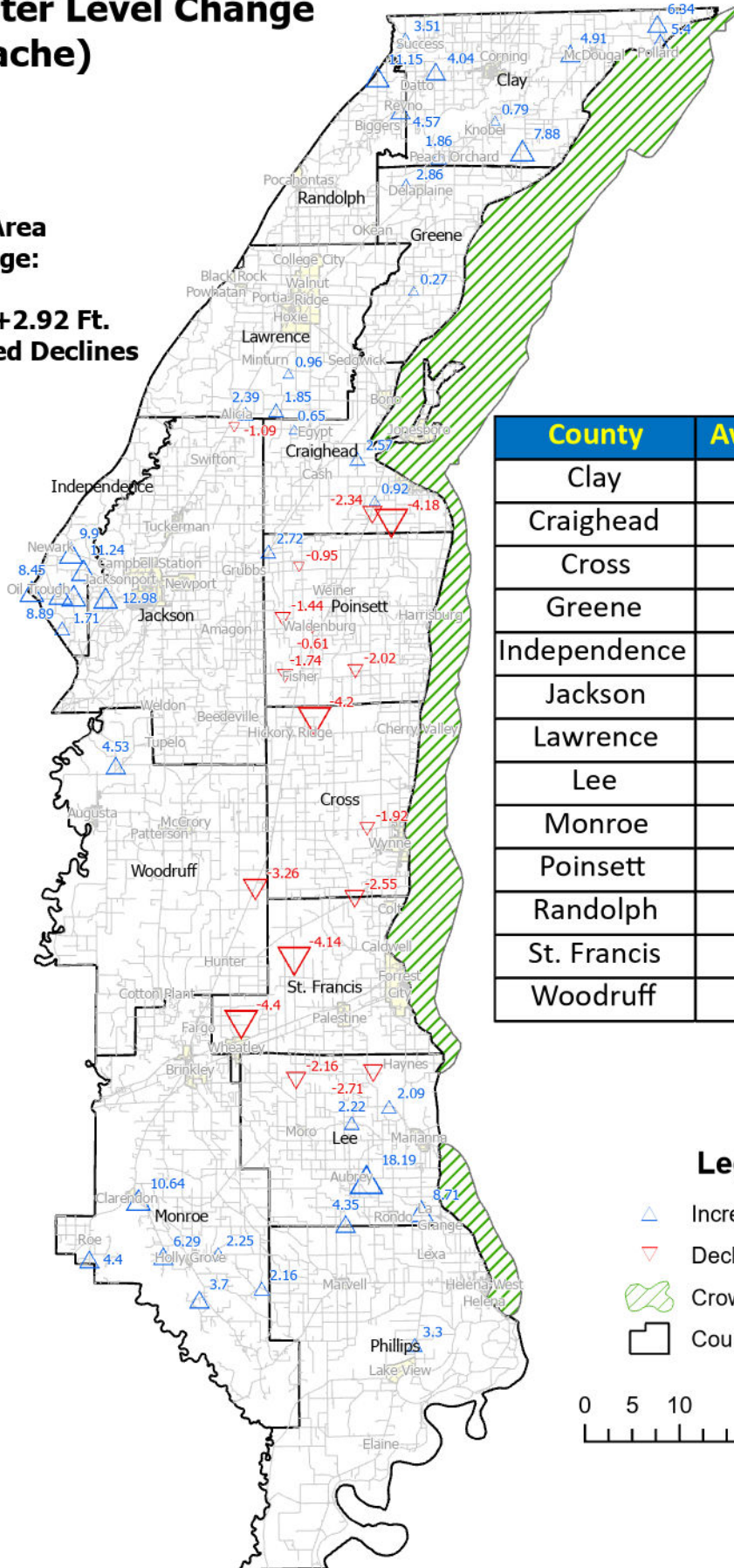
Alluvial Aquifer 2013-2023 Water Level Change (Cache)



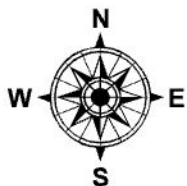
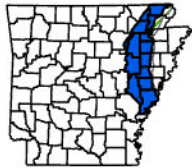
NATURAL RESOURCES
DIVISION

**Cache Study Area
10 Year Change:**

**Average Change: +2.92 Ft.
16 of 55 Wells Showed Declines**



County	Avg. Change, ft.
Clay	+4.34
Craighead	-0.48
Cross	-3.06
Greene	+1.57
Independence	+8.15
Jackson	+5.95
Lawrence	+1.73
Lee	+4.38
Monroe	+4.91
Poinsett	-0.67
Randolph	+7.86
St. Francis	-3.70
Woodruff	+0.64



Legend

- Increases
- Declines
- Crowley's Ridge
- County Boundaries



Figure 16

Alluvial Aquifer 2022-2023 Water Level Change (St. Francis)

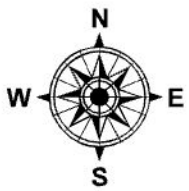
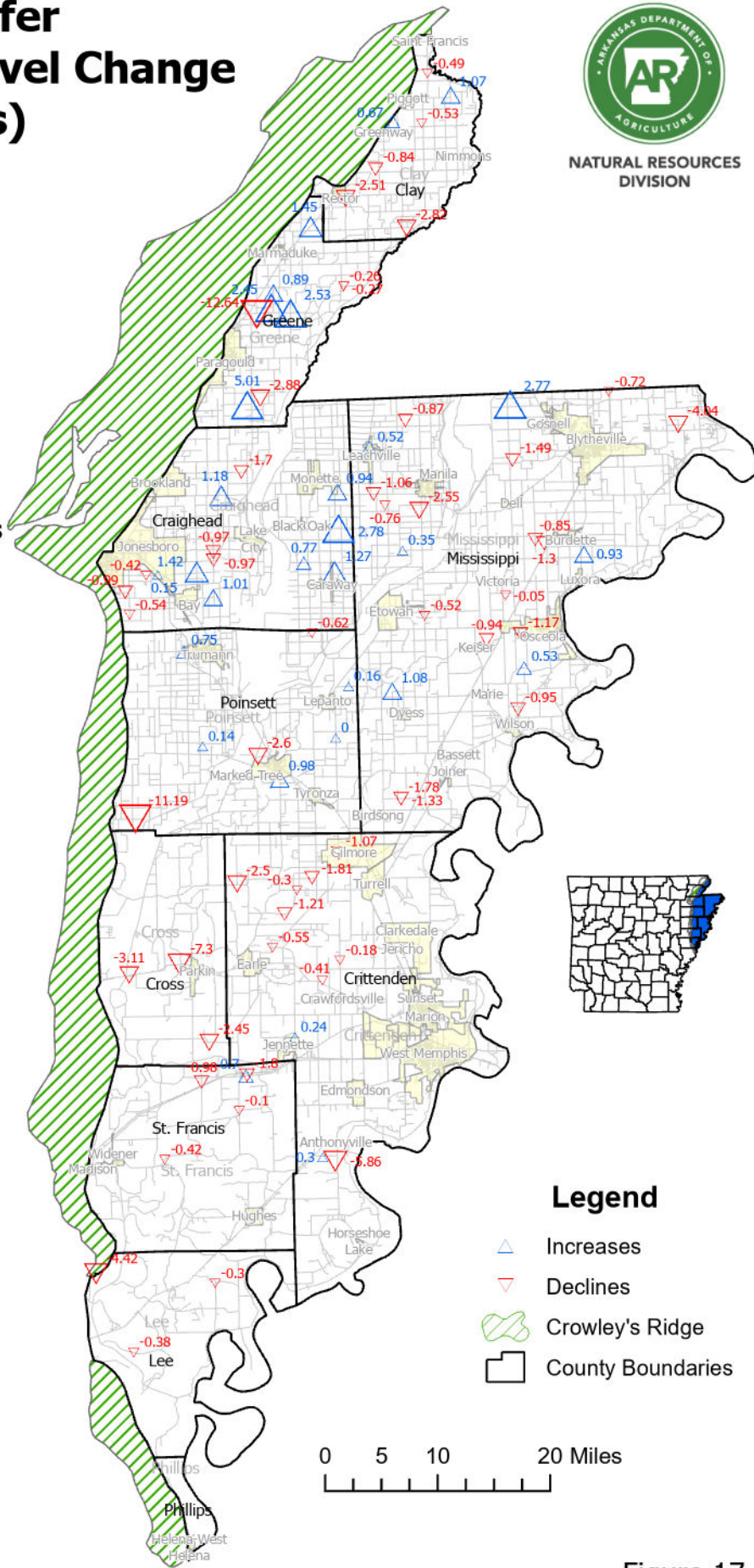


NATURAL RESOURCES
DIVISION

**St. Francis Study Area
1 Year Change:**

**Average Change: -0.80 Ft.
53 of 82 Wells Showed Declines**

County	Avg. Change, ft.
Clay	-0.78
Craighead	+0.28
Crittenden	-1.21
Cross	-4.29
Greene	-0.41
Lee	-1.70
Mississippi	-0.65
Poinsett	-1.55
St. Francis	-0.52



Legend

- ▲ Increases
- ▼ Declines
- Crowley's Ridge
- County Boundaries

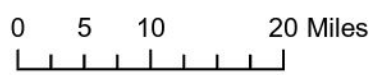


Figure 17

Alluvial Aquifer 2013-2023 Water Level Change (St. Francis)

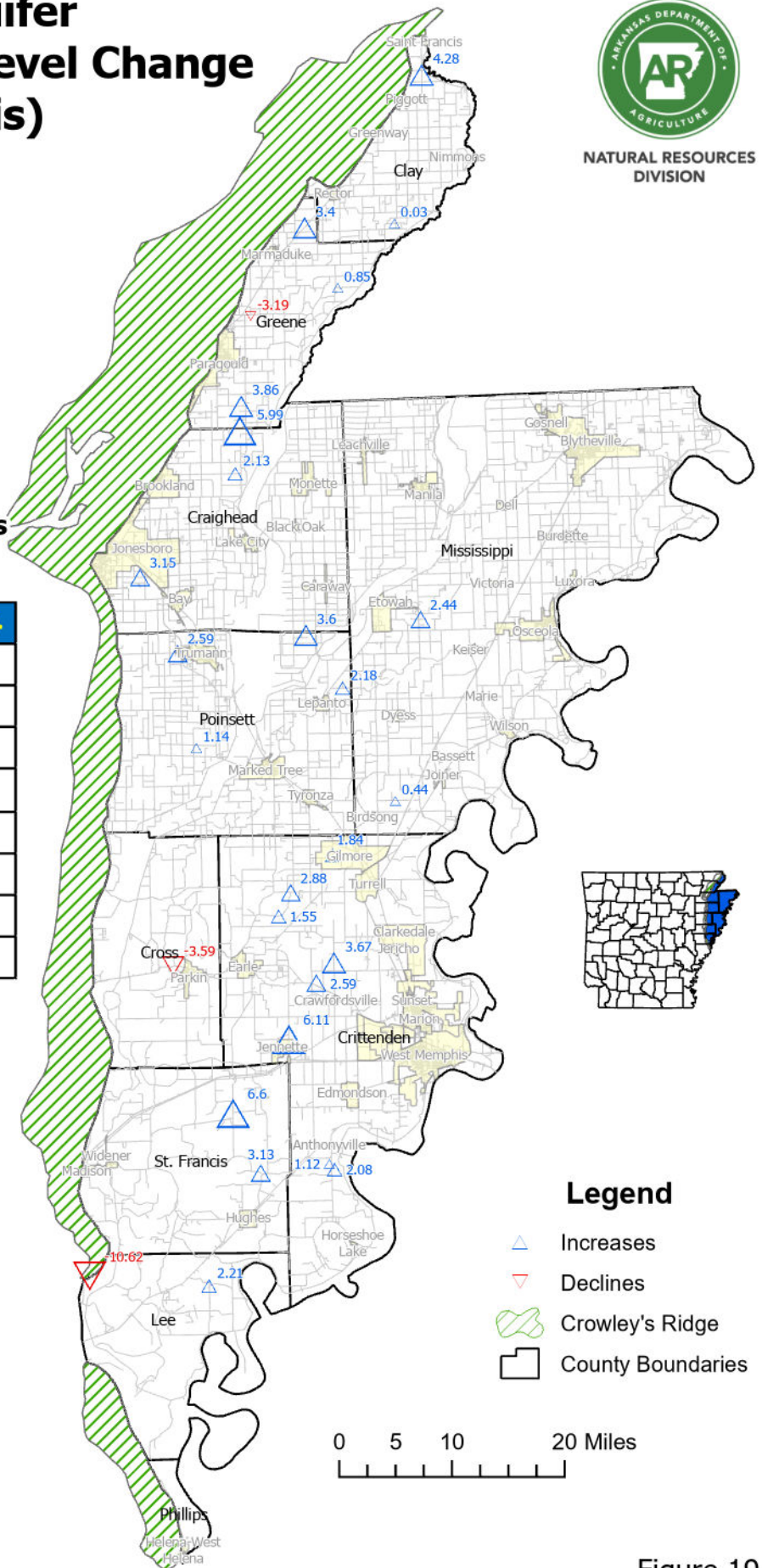


NATURAL RESOURCES
DIVISION

**St. Francis Study Area
10 Year Change:**

**Average Change: +1.87 Ft.
3 of 28 Wells Showed Declines**

County	Avg. Change, ft.
Clay	+2.16
Craighead	+3.76
Crittenden	+2.73
Greene	+1.23
Lee	-4.21
Mississippi	+1.44
Poinsett	+2.38
St. Francis	+4.87



Legend

- ▲ Increases
- ▼ Declines
- Crowley's Ridge
- County Boundaries

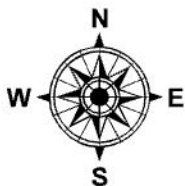


Figure 19

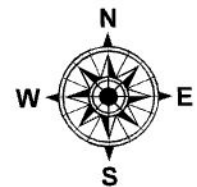


NATURAL RESOURCES
DIVISION

Alluvial Aquifer 2022-2023 Water Level Change (Grand Prairie)

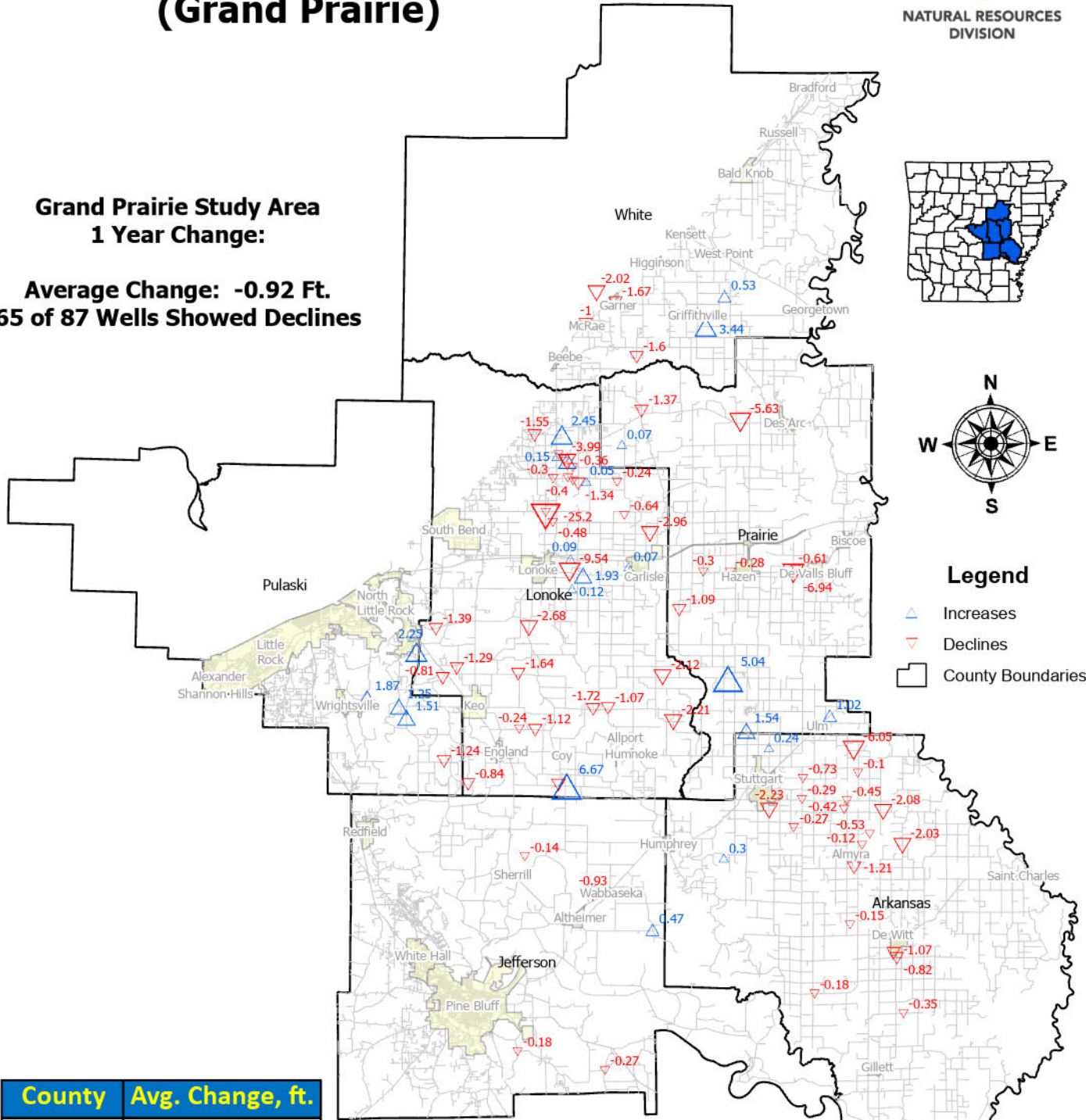
**Grand Prairie Study Area
1 Year Change:**

**Average Change: -0.92 Ft.
65 of 87 Wells Showed Declines**



Legend

- ▲ Increases
- ▼ Declines
- County Boundaries



County	Avg. Change, ft.
Arkansas	-0.90
Jefferson	-0.21
Lonoke	-1.40
Prairie	-0.78
Pulaski	+1.13
White	-0.39



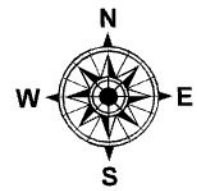
Figure 20

Alluvial Aquifer 2018-2023 Water Level Change (Grand Prairie)

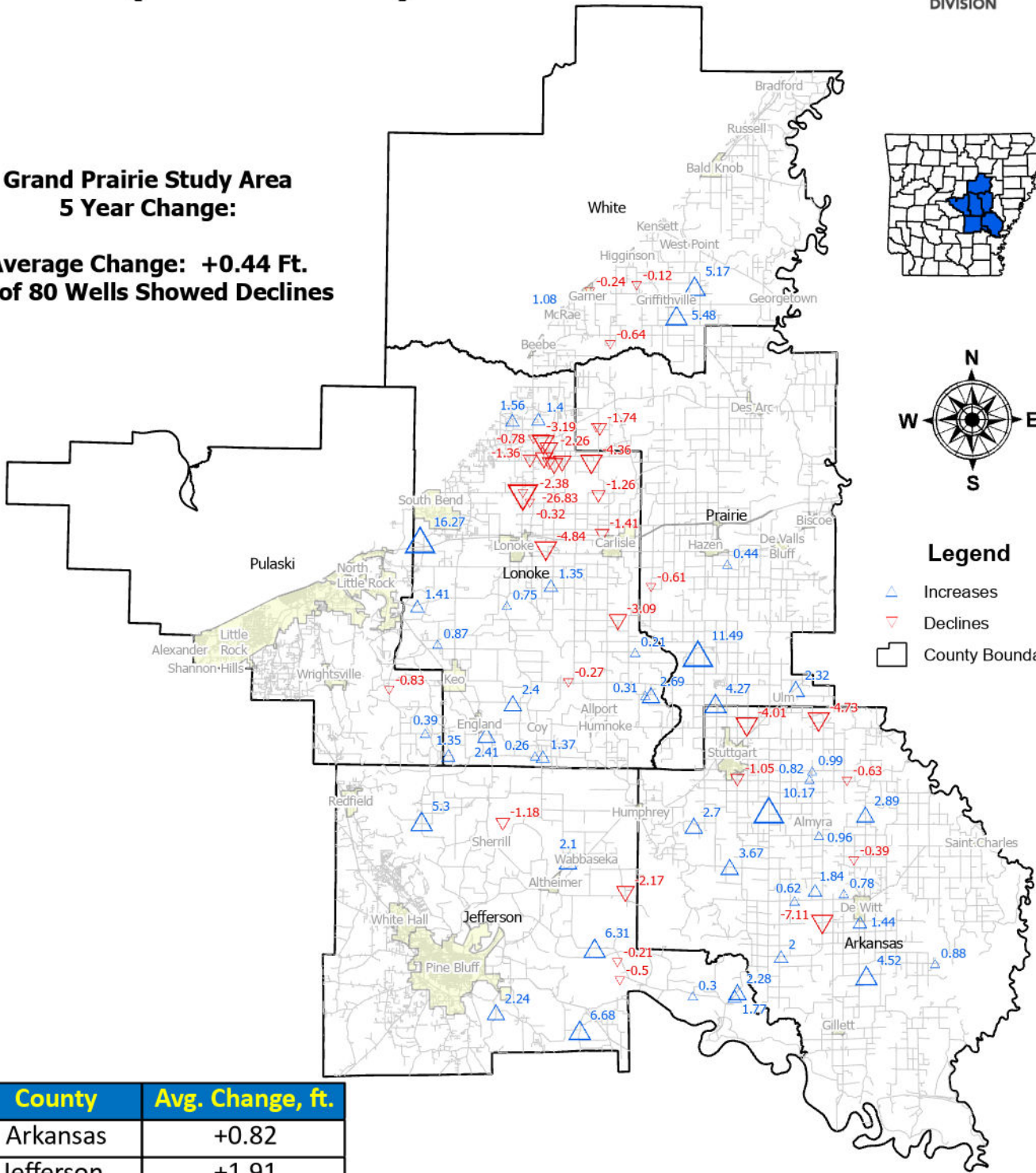


NATURAL RESOURCES
DIVISION

**Grand Prairie Study Area
5 Year Change:**
Average Change: +0.44 Ft.
35 of 80 Wells Showed Declines



- Legend**
- ▲ Increases
 - ▼ Declines
 - County Boundaries



County	Avg. Change, ft.
Arkansas	+0.82
Jefferson	+1.91
Lonoke	-0.91
Prairie	+2.23
Pulaski	-0.22
White	+1.79



Figure 21

Alluvial Aquifer 2013-2023 Water Level Change (Grand Prairie)



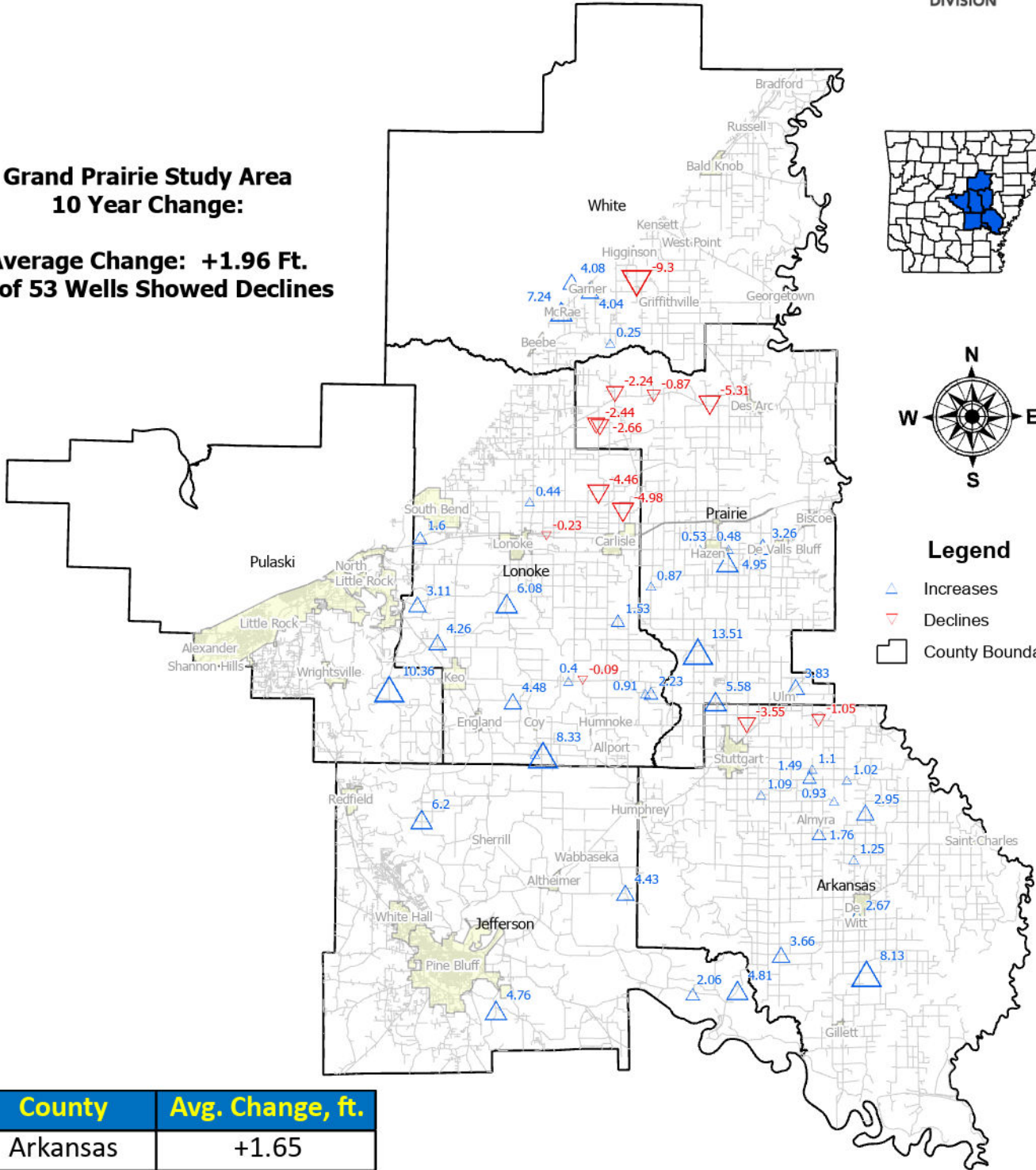
NATURAL RESOURCES
DIVISION

**Grand Prairie Study Area
10 Year Change:
Average Change: +1.96 Ft.
12 of 53 Wells Showed Declines**



Legend

- ▲ Increases
- ▼ Declines
- County Boundaries



County	Avg. Change, ft.
Arkansas	+1.65
Jefferson	+4.45
Lonoke	+1.51
Prairie	+1.50
White	+1.26



Figure 22

Alluvial Aquifer 2022-2023 Water Level Change (Boeuf - Tensas)

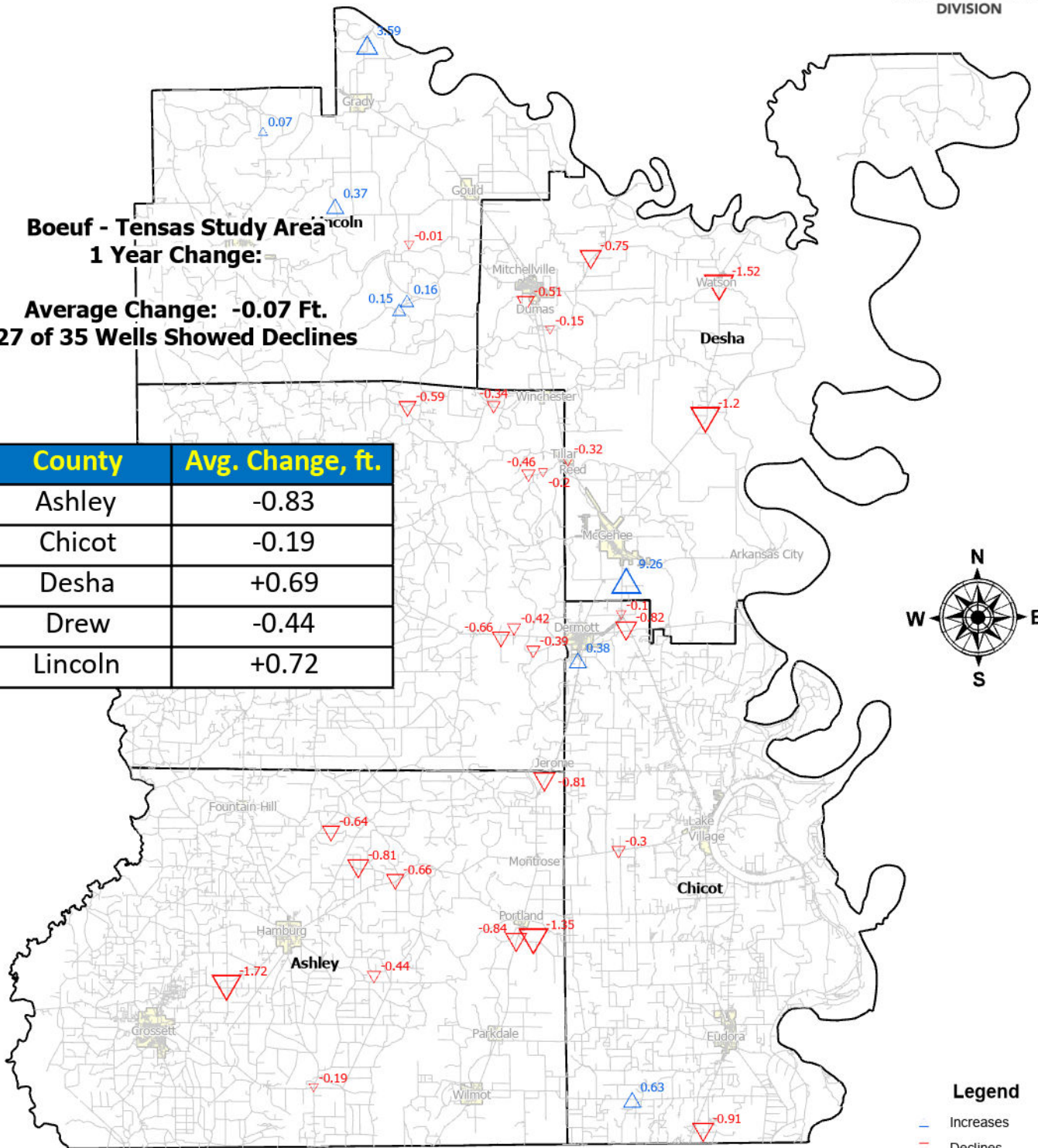


NATURAL RESOURCES
DIVISION

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

**Average Change: -0.07 Ft.
27 of 35 Wells Showed Declines**

County	Avg. Change, ft.
Ashley	-0.83
Chicot	-0.19
Desha	+0.69
Drew	-0.44
Lincoln	+0.72



Legend

- ▲ Increases
- ▼ Declines
- County Boundaries

Figure 23

Alluvial Aquifer 2018-2023 Water Level Change (Boeuf - Tensas)



NATURAL RESOURCES
DIVISION

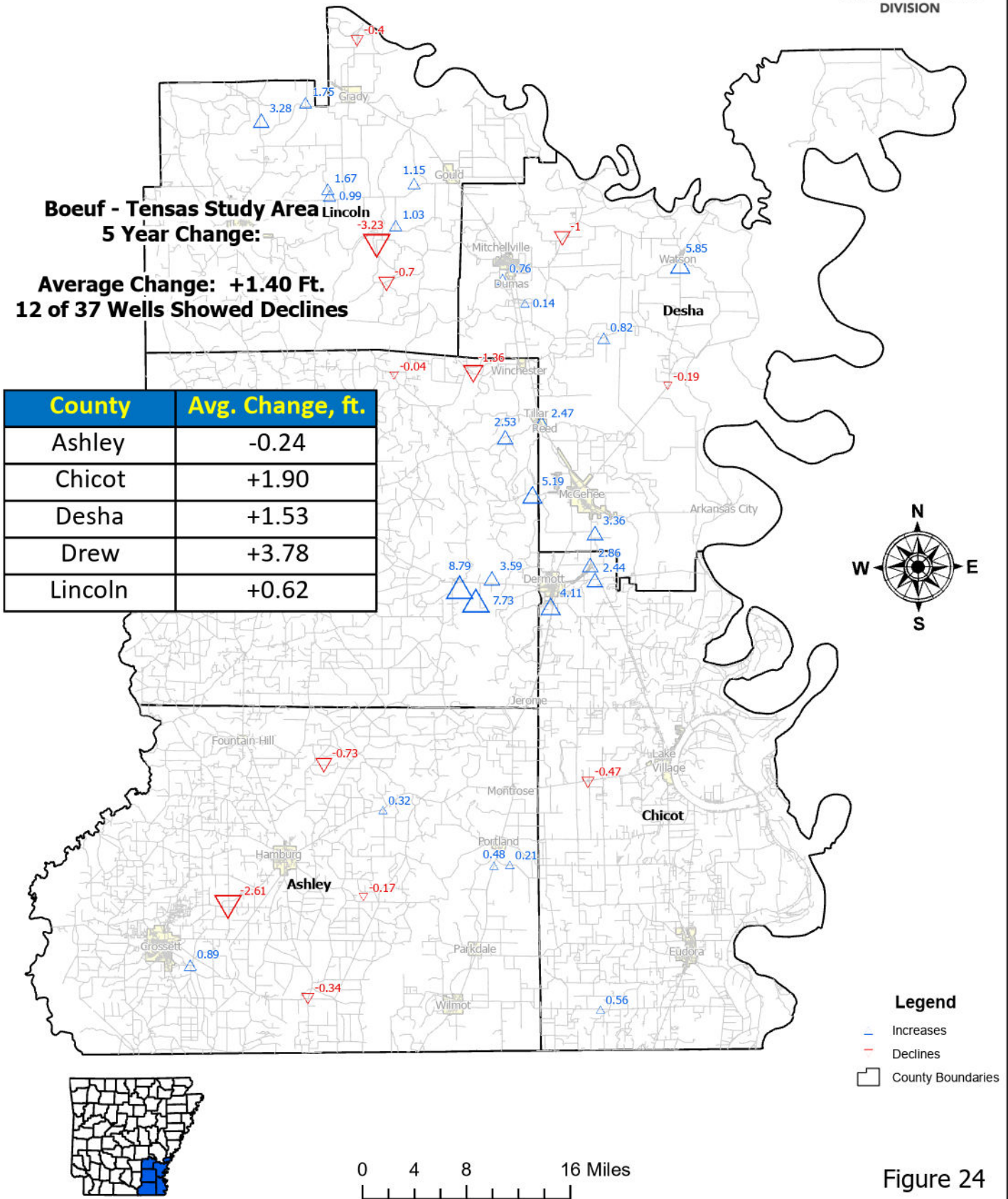


Figure 24

Alluvial Aquifer 2013-2023 Water Level Change (Boeuf - Tensas)



NATURAL RESOURCES
DIVISION

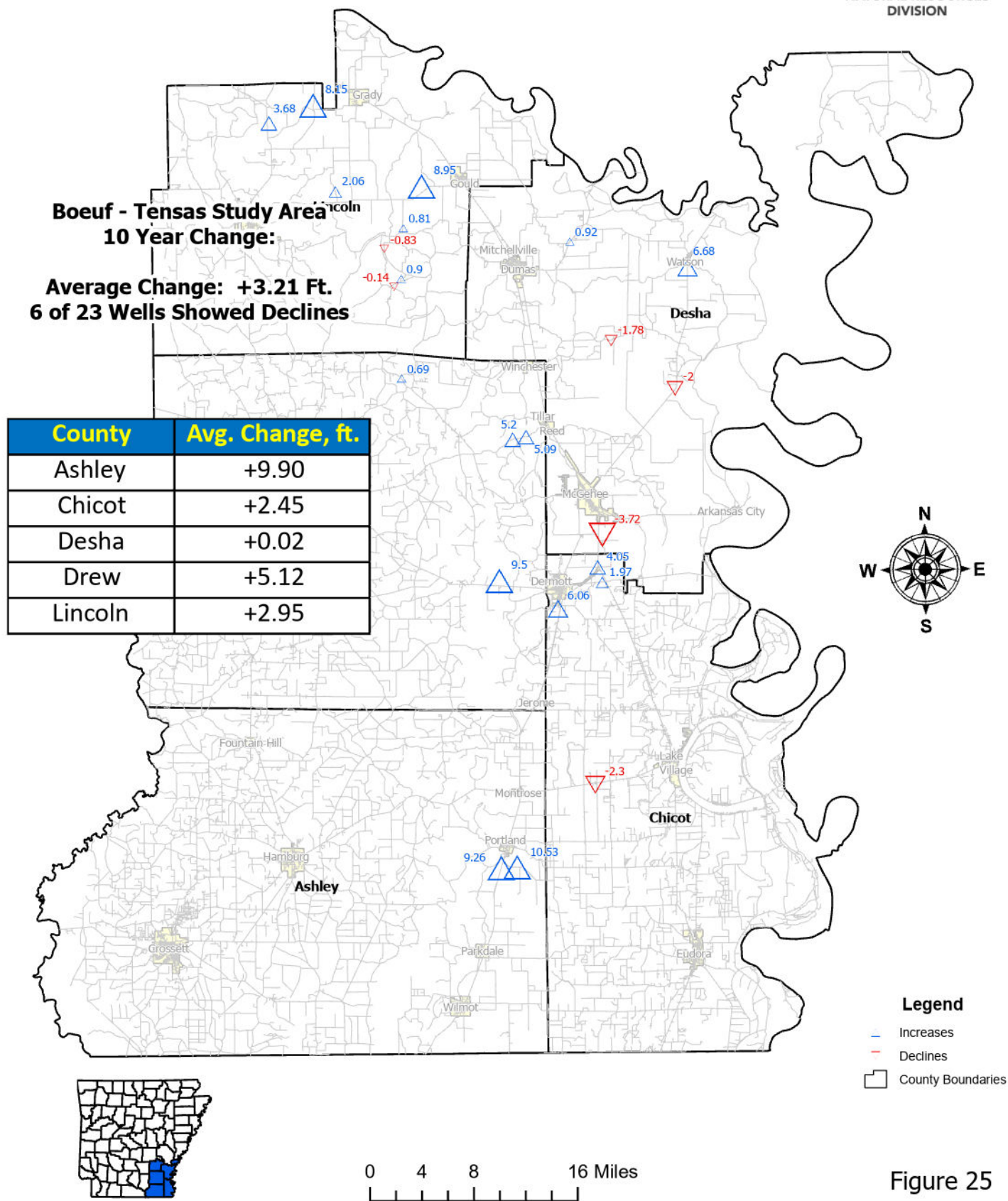


Figure 25

Sparta/Memphis Aquifer

The Sparta/Memphis (Sparta) aquifer, also known as the Sparta Sand, the Memphis Sand/Memphis aquifer, and the middle Claiborne formation, is a tertiary-aged water bearing assemblage composed mainly of sand with considerable amounts of silt, clay, shale, and lignite found in lenses throughout the unit. The formation outcrops along the western edge of the Mississippi Embayment in Southern Arkansas and is overlain by the Mississippi River Valley alluvial aquifer throughout Central and Northeastern Arkansas. The Sparta Sand is the thickest sand unit in the Mississippi Embayment system, ranging in thickness from zero to 200 feet along the outcrop and up to 900 feet in the southeastern part of the state. Generally, the Sparta Sand is a confined aquifer system as it is confined by the underlying Cook Mountain formation and overlying Cane River formation. Lithological differences occur in the Sparta aquifer in Southern Arkansas and Northeastern Arkansas. In Southern Arkansas, the Sparta aquifer is divided into two units; the Greensand (upper Sparta) and the El Dorado sand (lower Sparta), by a confining layer. In Northeastern Arkansas, the underlying Cane River and Carrizo Sand formations become sand and are generally indistinguishable from the Sparta Sand; because of this, the three formations are grouped together and referred to as the Memphis Sand, or the Memphis aquifer, in this region (Kresse, T. M., et al., 2014).

Groundwater levels were collected from 230 water wells in the Sparta aquifer during the spring of 2023. Figure 26 depicts the spring 2023 potentiometric surface as water level altitude in feet above mean sea level, and Figure 27 presents the depth to water as feet below ground surface for the Sparta aquifer.

Water Level Trends

Water level data from the 230 wells collected in spring 2023 were compared with historical data in one, five, and ten-year intervals. The one-year interval had 182 comparable wells giving a total average water level change of -0.73 feet with 109 (59.89 percent) of the wells in decline. The five-year change had data for 165 comparable wells with a total average change of +4.16 feet with 41 (24.85 percent) wells in decline. As for the ten-year interval, water level data was compared for 162 wells with total average water level change of +7.87 feet with 37 (22.84 percent) wells in decline. Aquifer-wide water level change maps were created for the one, five, and ten-year periods and presented as Figure 28, Figure 29, and Figure 30, respectively.

Selected water level hydrographs from the Sparta aquifer are presented in Figure 31 and illustrate the changes in water level overtime back to the early 2000s. These hydrographs correspond with the wells shown on Figure 27. All of the hydrographs in this figure are from monitoring wells maintained by the Arkansas Natural Resources Division (NRD), the Union County Water Conservation Board, or the United States Geological Survey (USGS) and are measured semi-annually or more during the year or have real-time data loggers installed for continuous water level data.

Overall recovery continues in the areas where historical drawdown has been the most significant in South Arkansas with the study area having positive average water level change values of +1.53, +7.14, and +11.74 feet in the one, five, and ten-year intervals, respectively. These values are very consistent with those presented in last year's report (NRD, 2022). The area of most significant recovery continues to be Union County where several wells have positive water level change values as much as 50 feet over the ten-year period. The historical depression in Jefferson County continues to rebound with significant increases in water levels observed throughout the county, particularly in the five and ten-year comparisons. Figures 32, 33, and 34 present the South Arkansas water level change data.

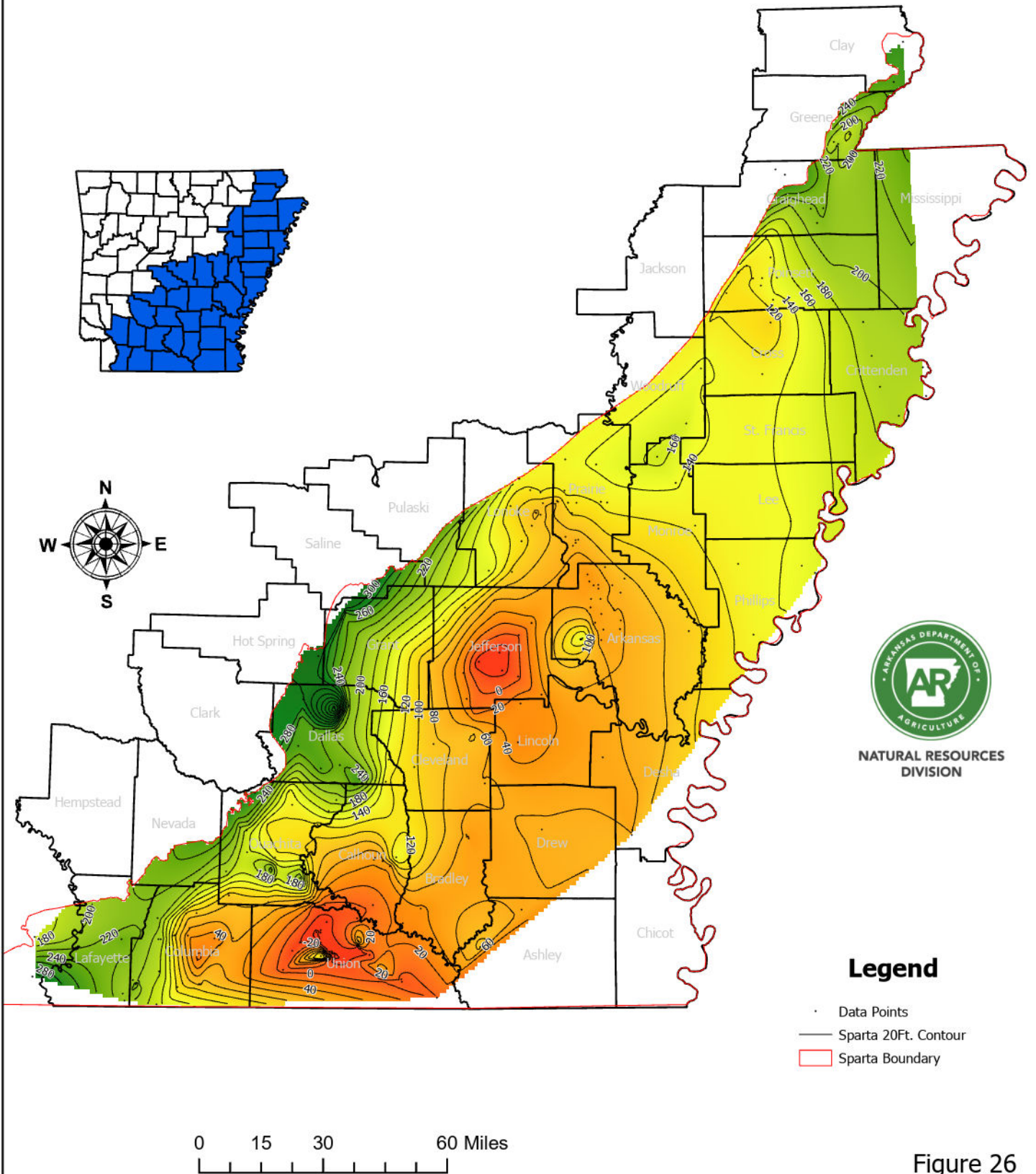
Declining water levels were observed in wells throughout the aquifer in each comparison, but there are some observable patterns. In the 1-year comparison, the western edge of the aquifer has a high concentration of declining water level values. This area is where the aquifer is the shallowest and close to, or in, the recharge zone for the aquifer. This pattern does not occur in the five and ten-year

comparisons in the southern part of the state, but it continues to be very noticeable in the northern portion, from Lonoke county extending up along the aquifers extent into Craighead. There is a lack of data for the Sparta in the northeastern part of the state in the ten-year comparison; however, based on the pattern in the five and ten- year declines in Lonoke and Prairie county it is assumed that this declining trend would be observed in wells near the western extent of the aquifer in Cross, Poinsett, and Craighead counties, if there were wells with data to compare.

We believe that his pattern of water level decline is highlighting a change in the hydrogeologic structure of the region. Within the Lonoke and Prairie County area the Sparta aquifer goes from outcropping at the ground surface at its western extent to subcropping beneath the overlying alluvial aquifer deposits. In other words, the sediments of the Sparta aquifer directly underlie those of the alluvial aquifer with no significant confining unit or aquitard between them. It is our presumption that this pattern of long-term declining water levels in the Sparta aquifer along this trace is due to the stresses on the overlying alluvial aquifer along this area where the alluvial and Sparta aquifers are hydraulically connected.

Appendix B presents a table of specific water-level monitoring data for the Sparta aquifer from the 2023 monitoring period, as well as the one, five, and ten- year water level change data.

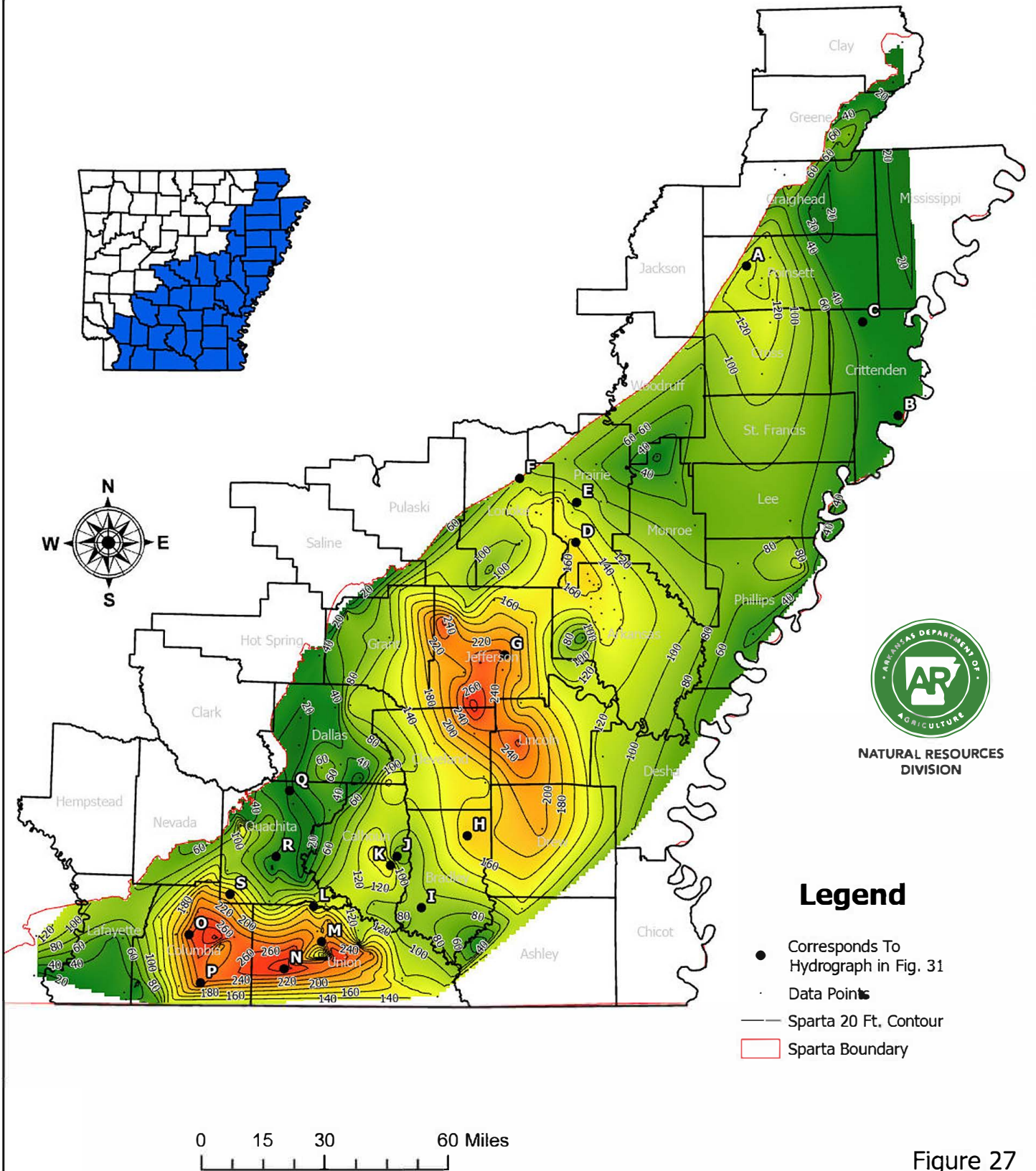
Sparta Aquifer Water Level Altitude Spring 2023



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Figure 26

Sparta Aquifer Depth to Water Spring 2023



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Legend

- Corresponds To Hydrograph in Fig. 31
- Data Points
- Sparta 20 Ft. Contour
- ▭ Sparta Boundary

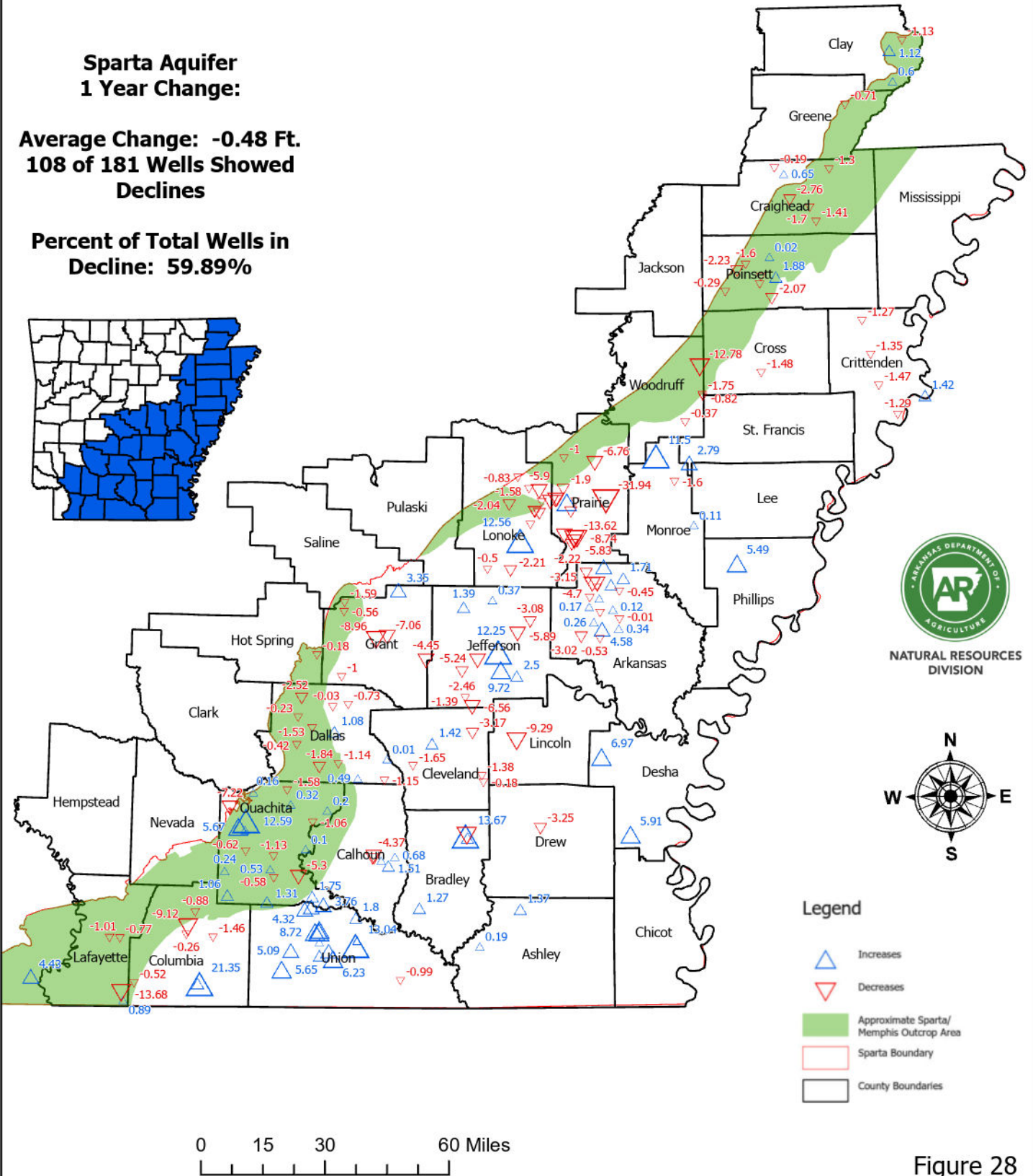
Figure 27

Sparta Aquifer 1 Year Change 2022 - 2023

**Sparta Aquifer
1 Year Change:**

**Average Change: -0.48 Ft.
108 of 181 Wells Showed
Declines**

**Percent of Total Wells in
Decline: 59.89%**



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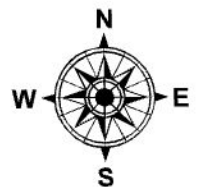


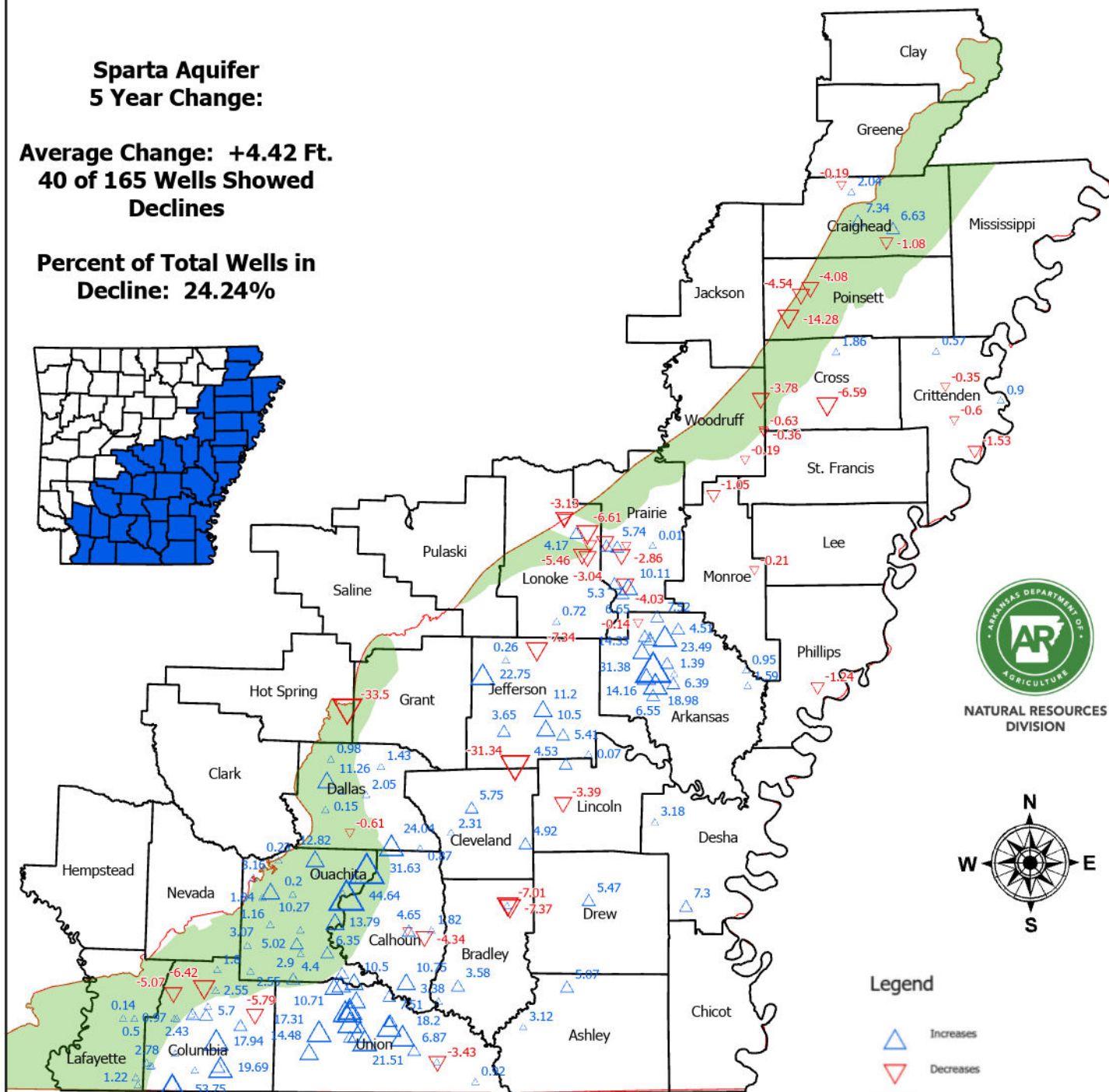
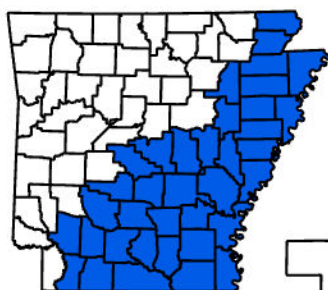
Figure 28

Sparta Aquifer 5 Year Change 2018 - 2023

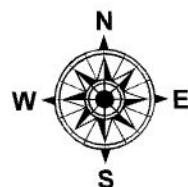
**Sparta Aquifer
5 Year Change:**

**Average Change: +4.42 Ft.
40 of 165 Wells Showed
Declines**

**Percent of Total Wells in
Decline: 24.24%**



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Legend

- ▲ Increases
- ▼ Decreases
- Approximate Sparta/Memphis Outcrop Area
- Sparta Boundary
- County Boundaries



Figure 29

Sparta Aquifer 10 Year Change 2013 - 2023

**Sparta Aquifer
10 Year Change:**

**Average Change: +7.87 Ft.
37 of 162 Wells Showed
Declines**

**Percent of Total Wells in
Decline: 22.84%**

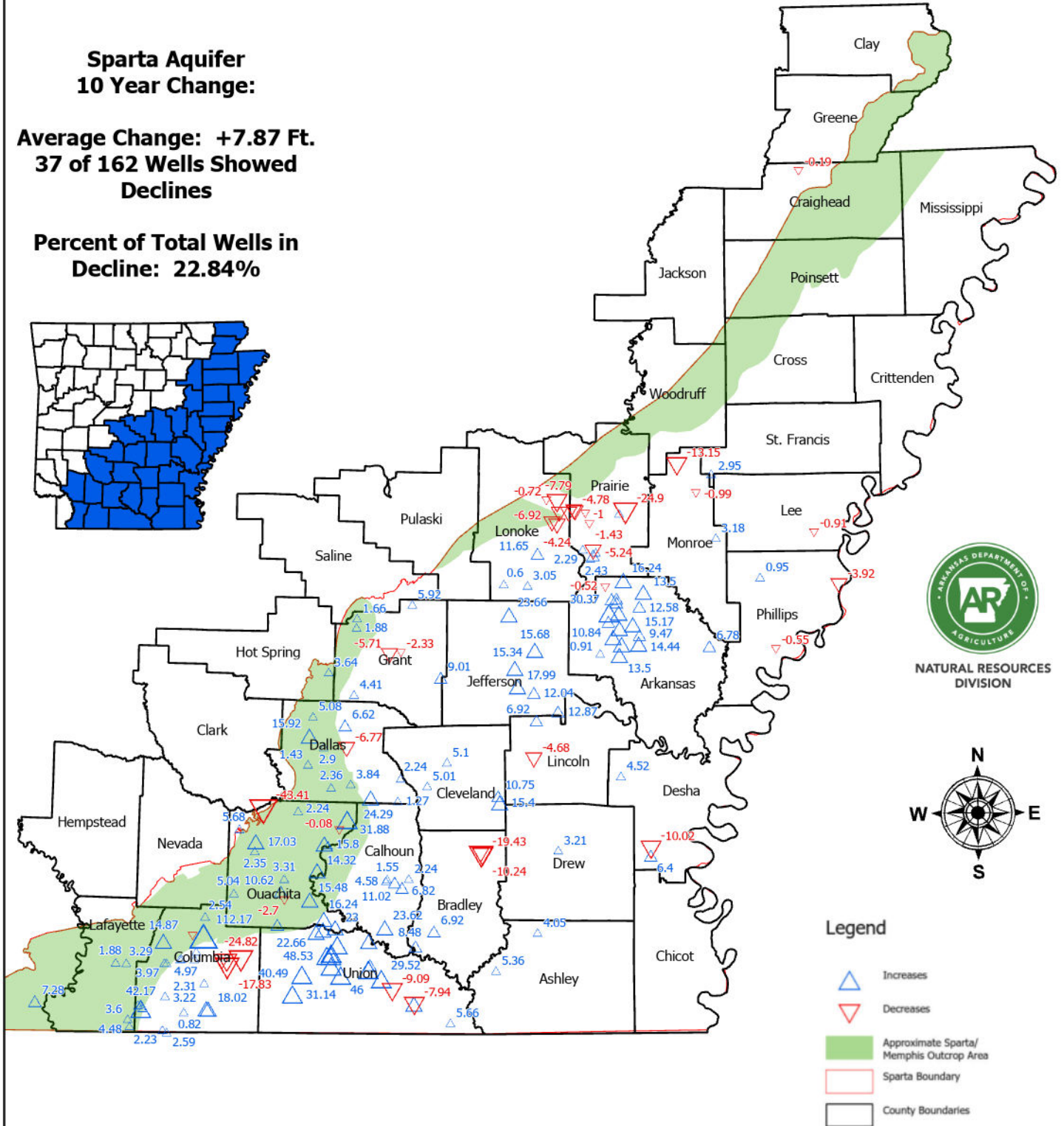
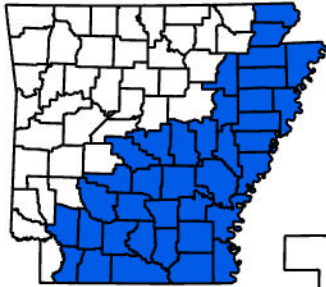
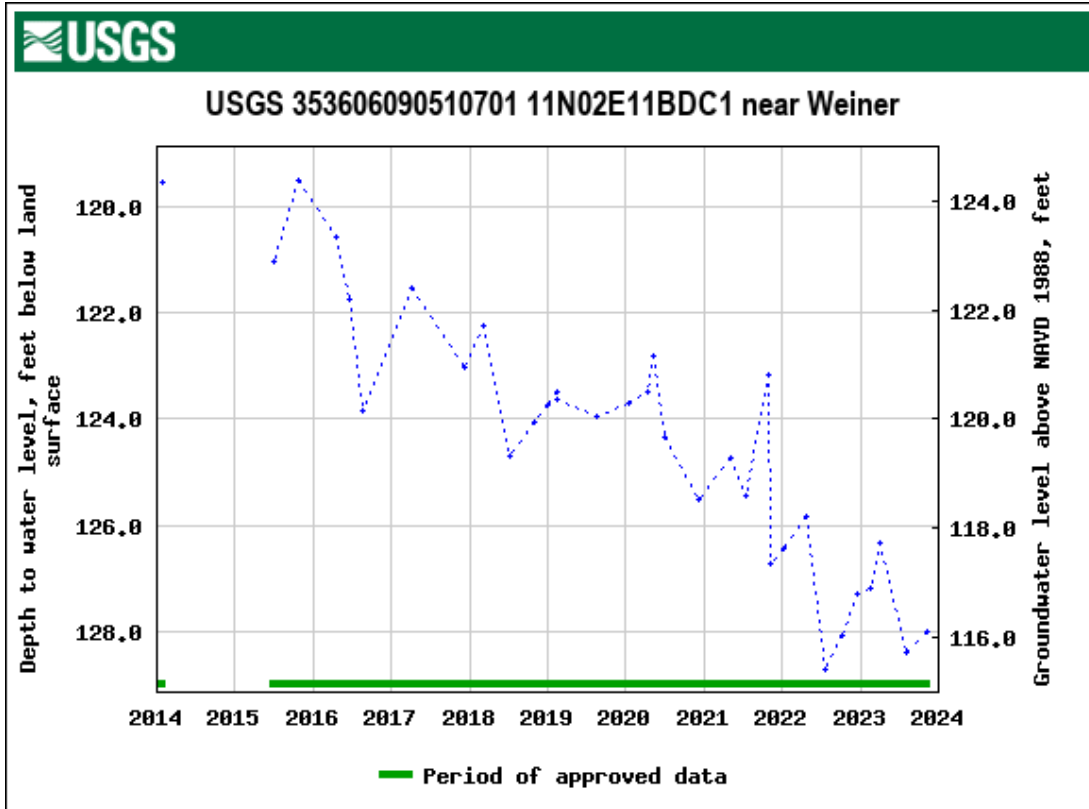


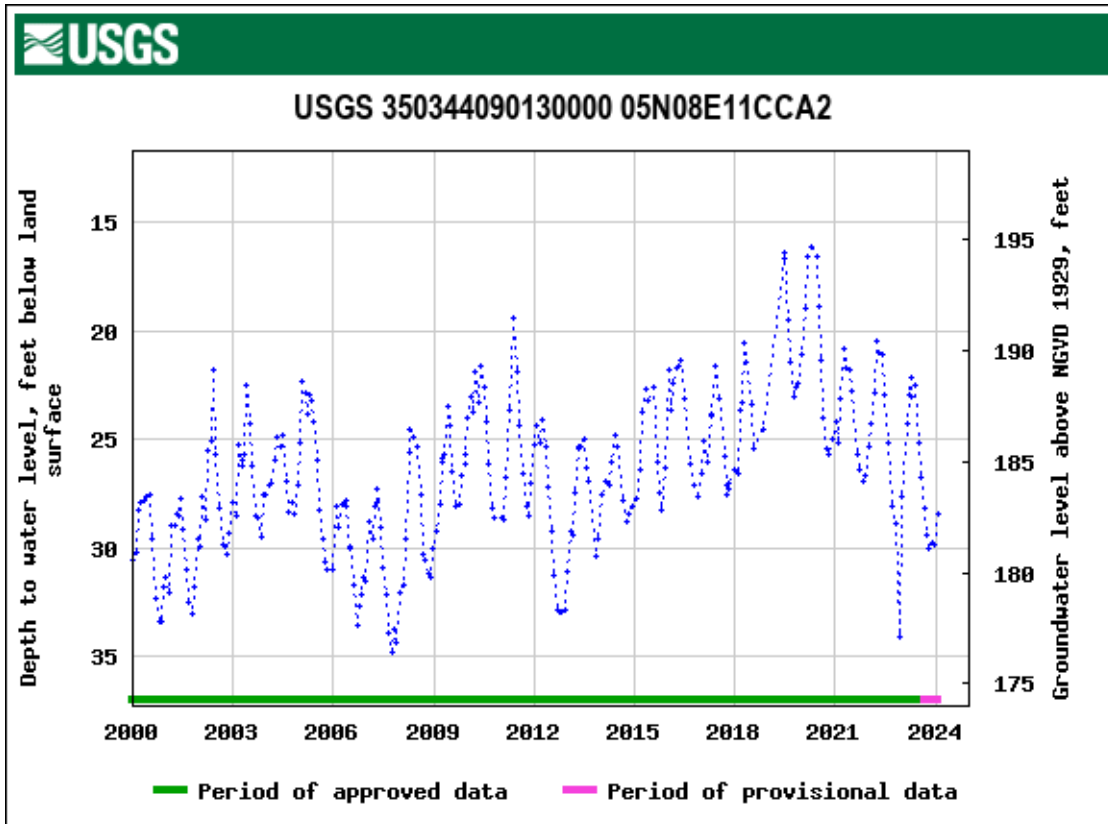
Figure 30

Figure 31. Selected water level hydrographs from the Sparta aquifer

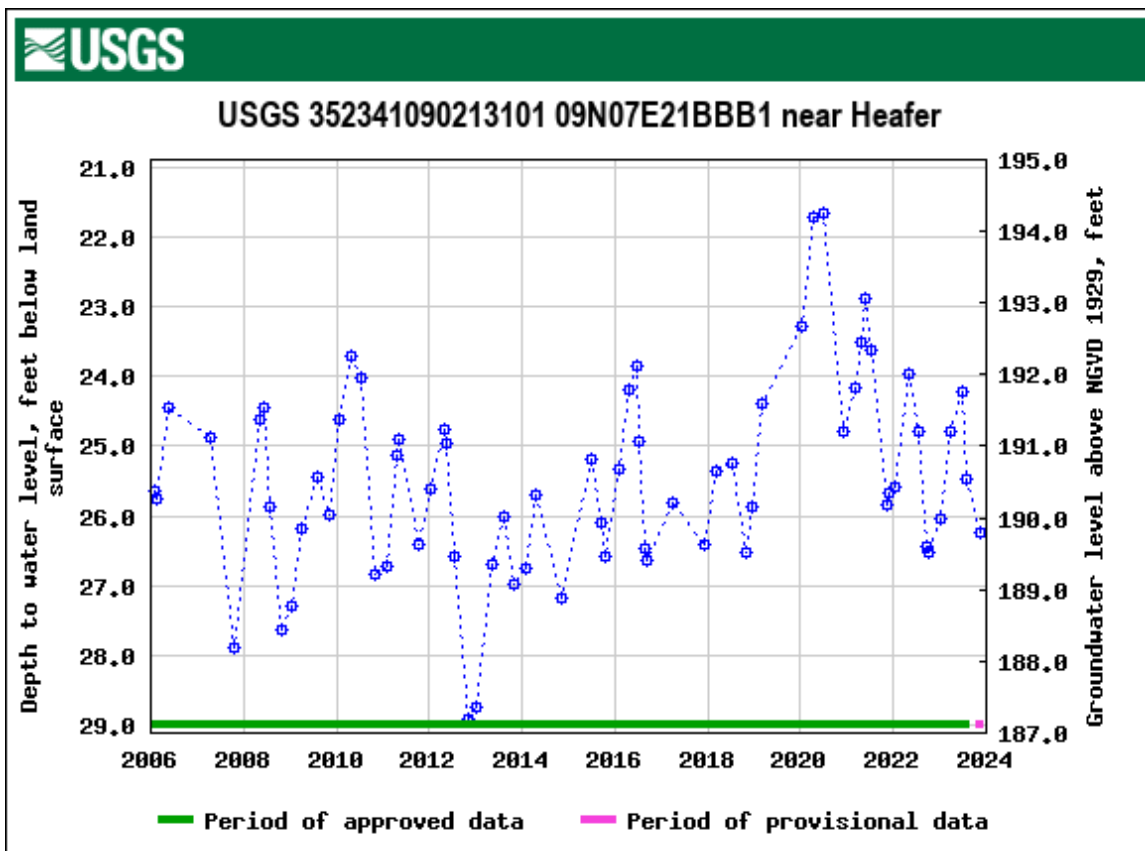


A. Poinsett County, Well 11N02E11BDC1

Figure 31. Selected water level hydrographs from the Sparta aquifer

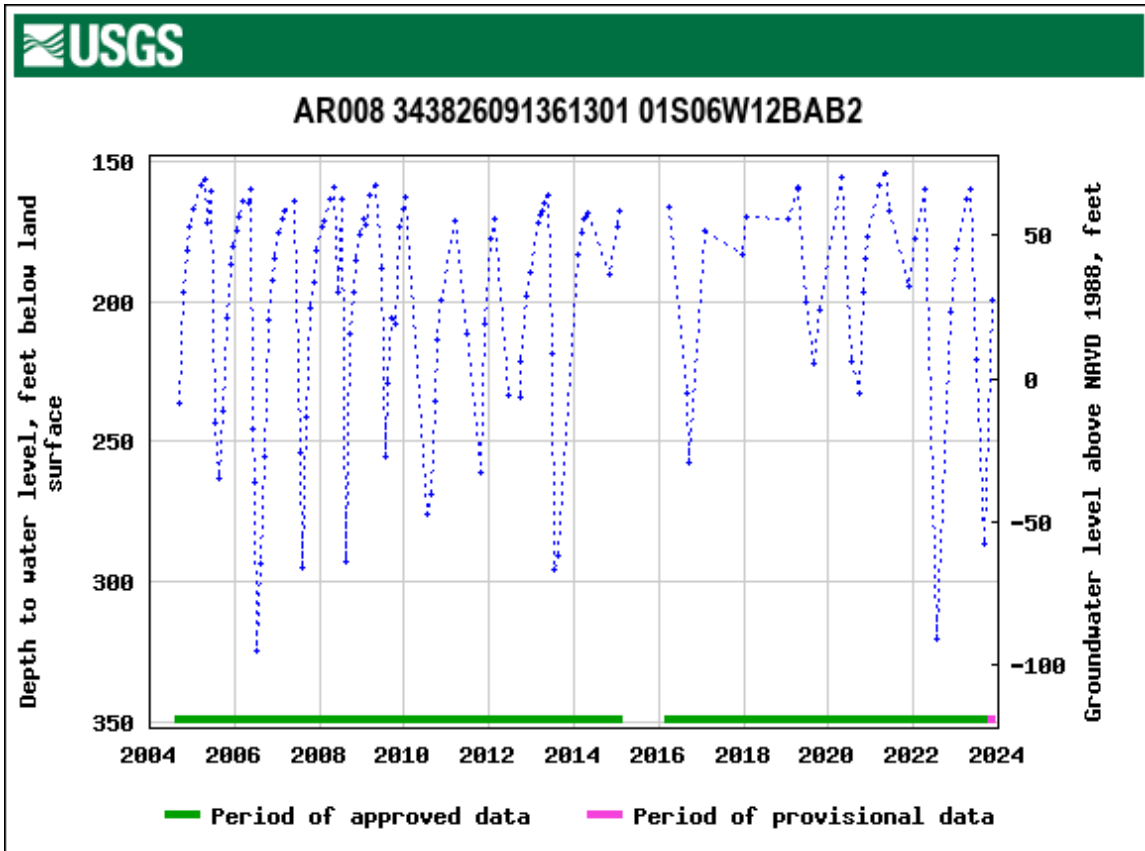


B. Crittenden County, Well 05N08E11CCA2

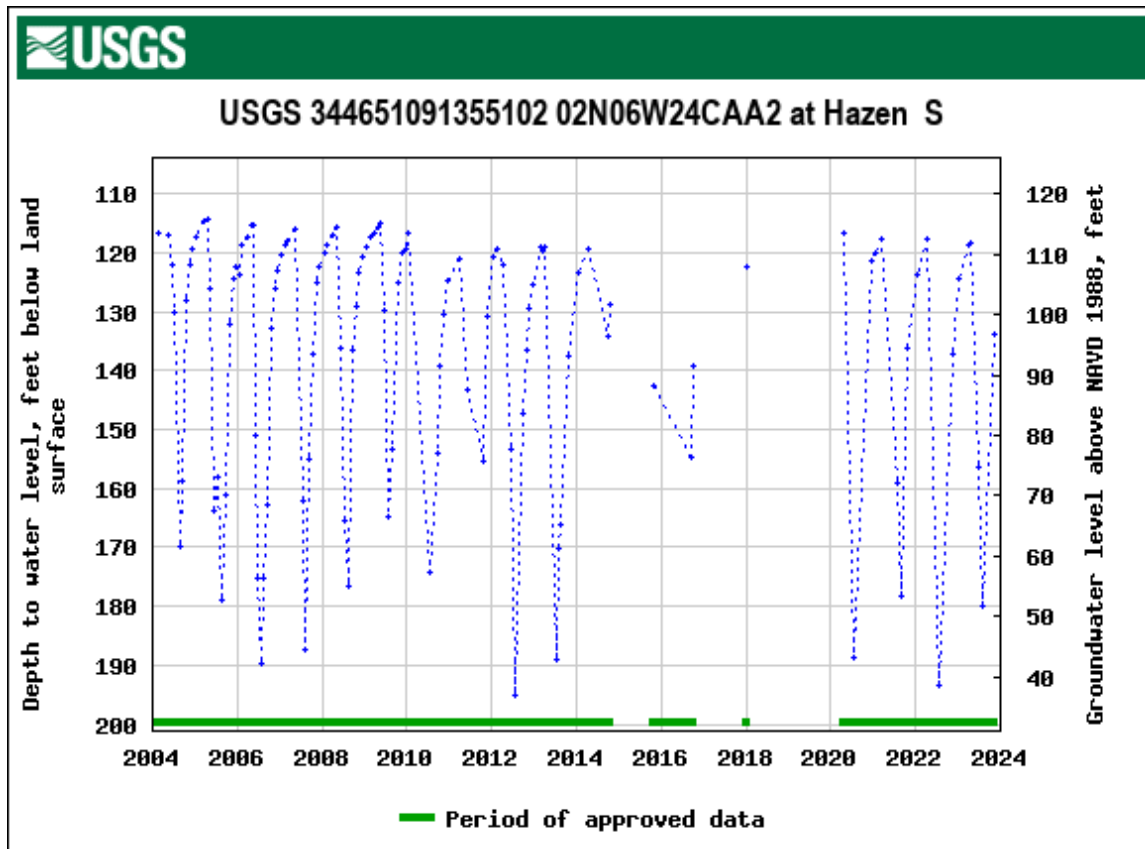


C. Crittenden County, Well 09N07E21BBB1

Figure 31. Selected water level hydrographs from the Sparta aquifer

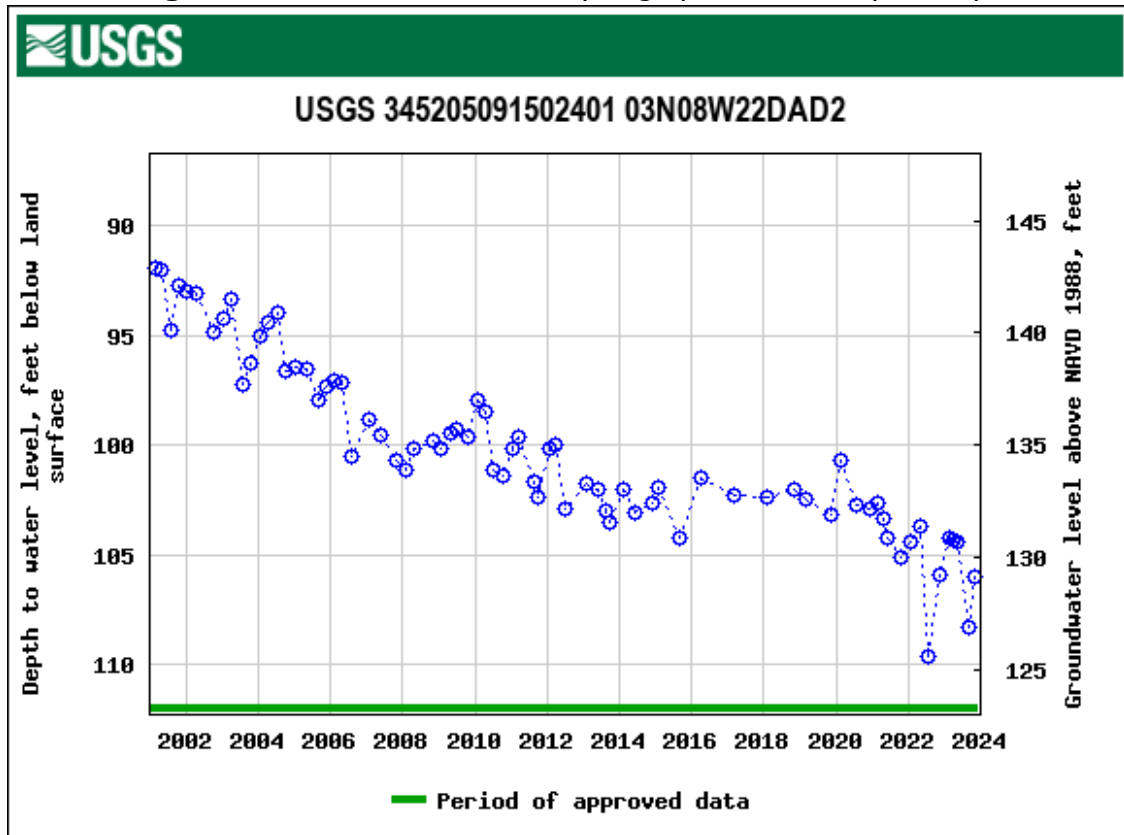


D. Prairie County, Well 01S06W12BAB2

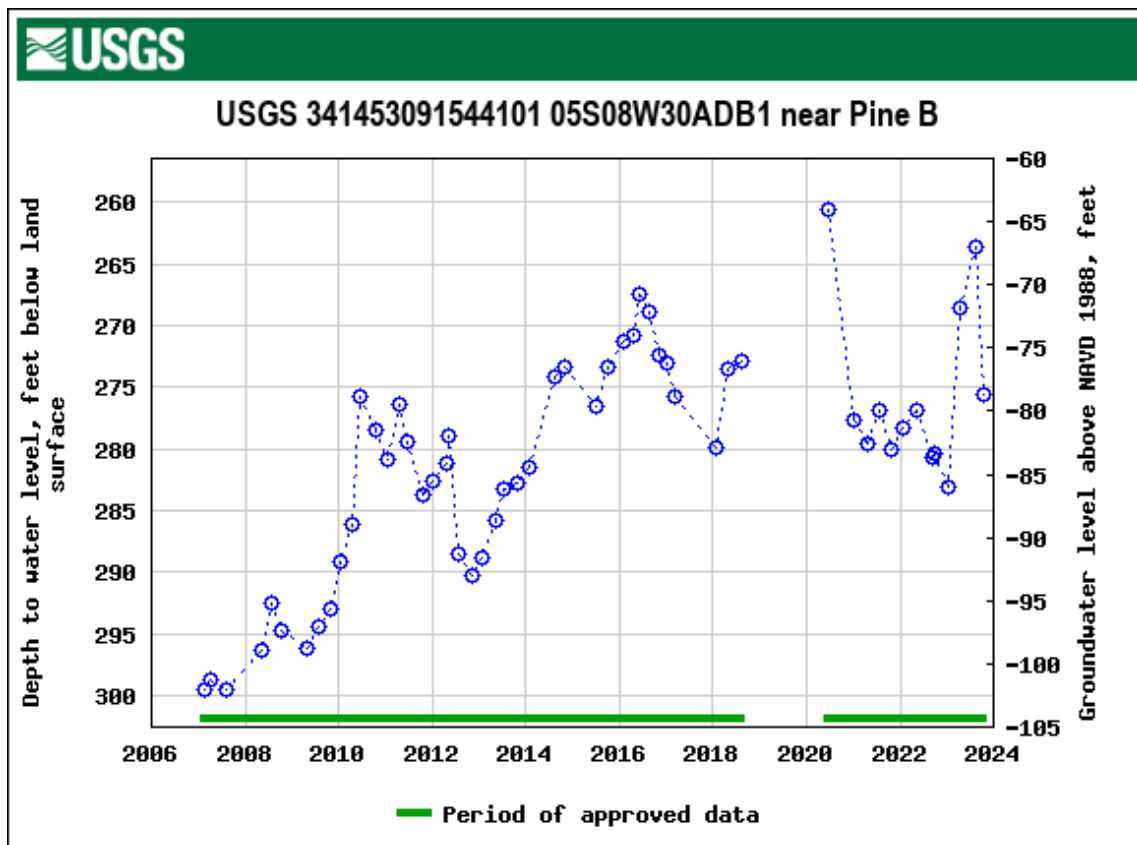


E. Prairie County, Well 02N06W24CAA2

Figure 31. Selected water level hydrographs from the Sparta aquifer

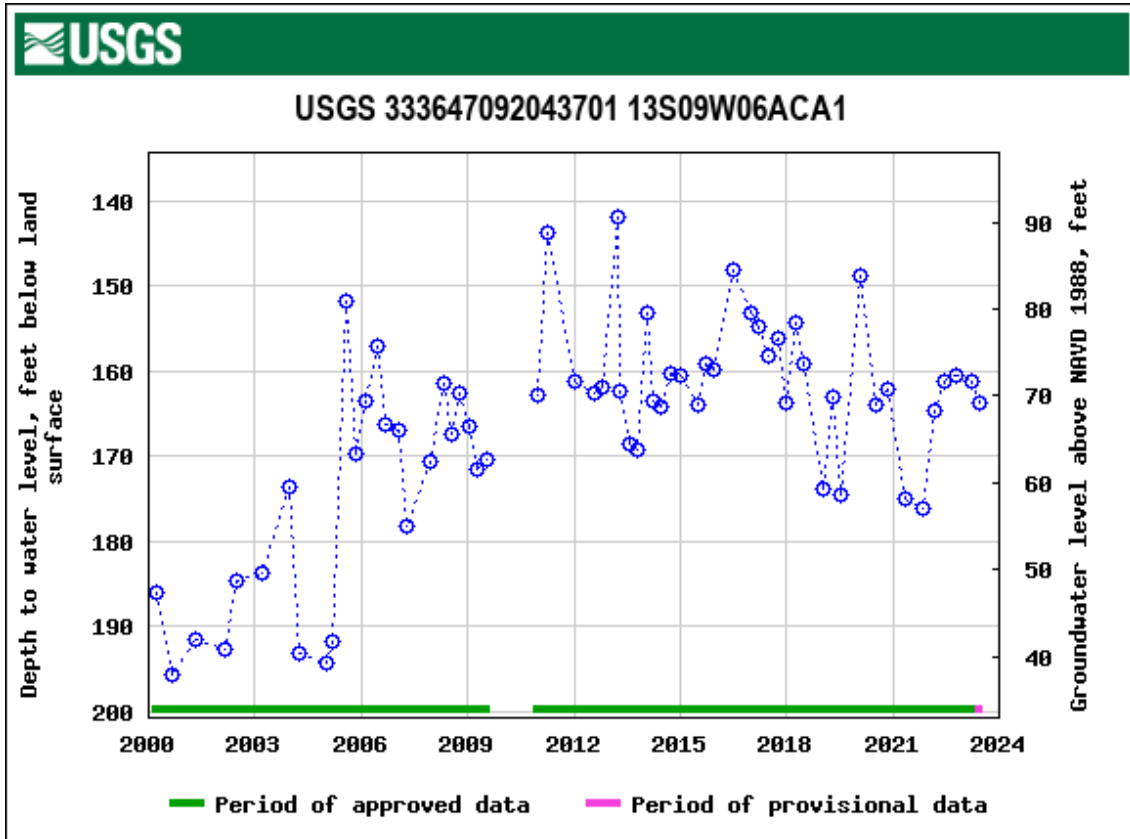


F. Lonoke County, Well 03N08W22DAD2

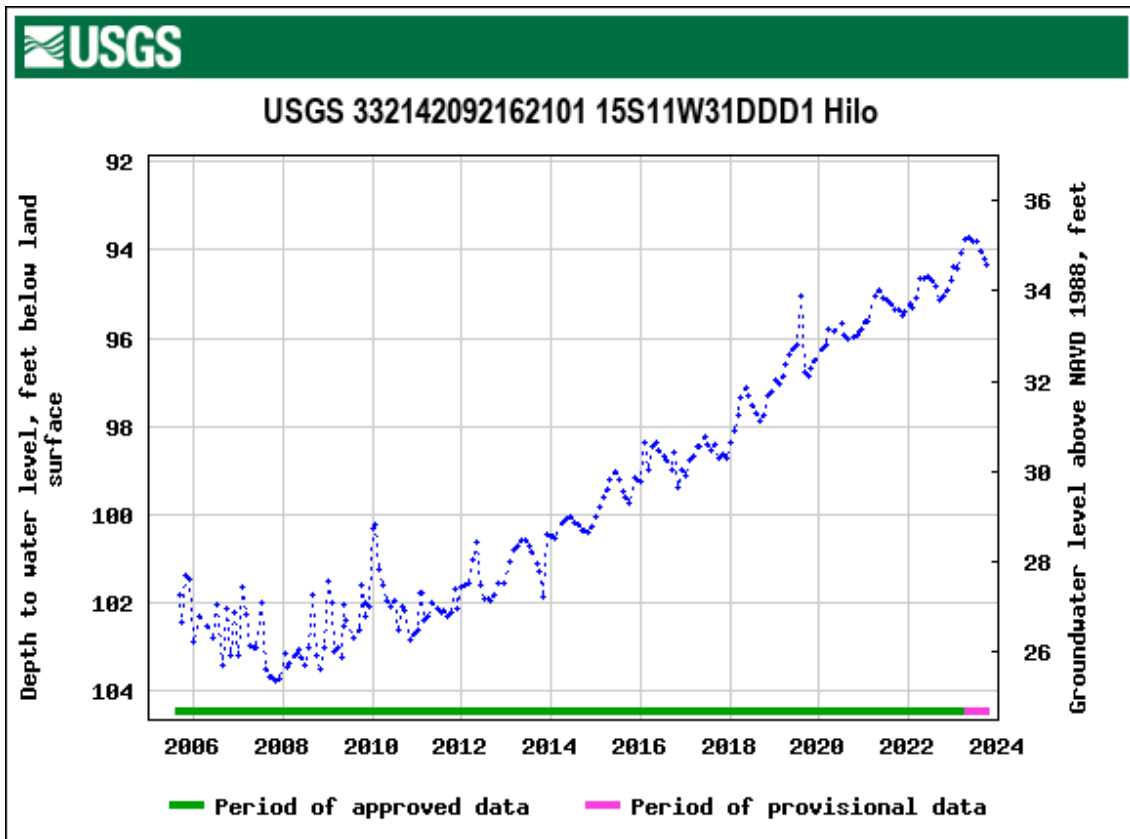


G. Jefferson County, Well 05S08W30ADB1

Figure 31. Selected water level hydrographs from the Sparta aquifer

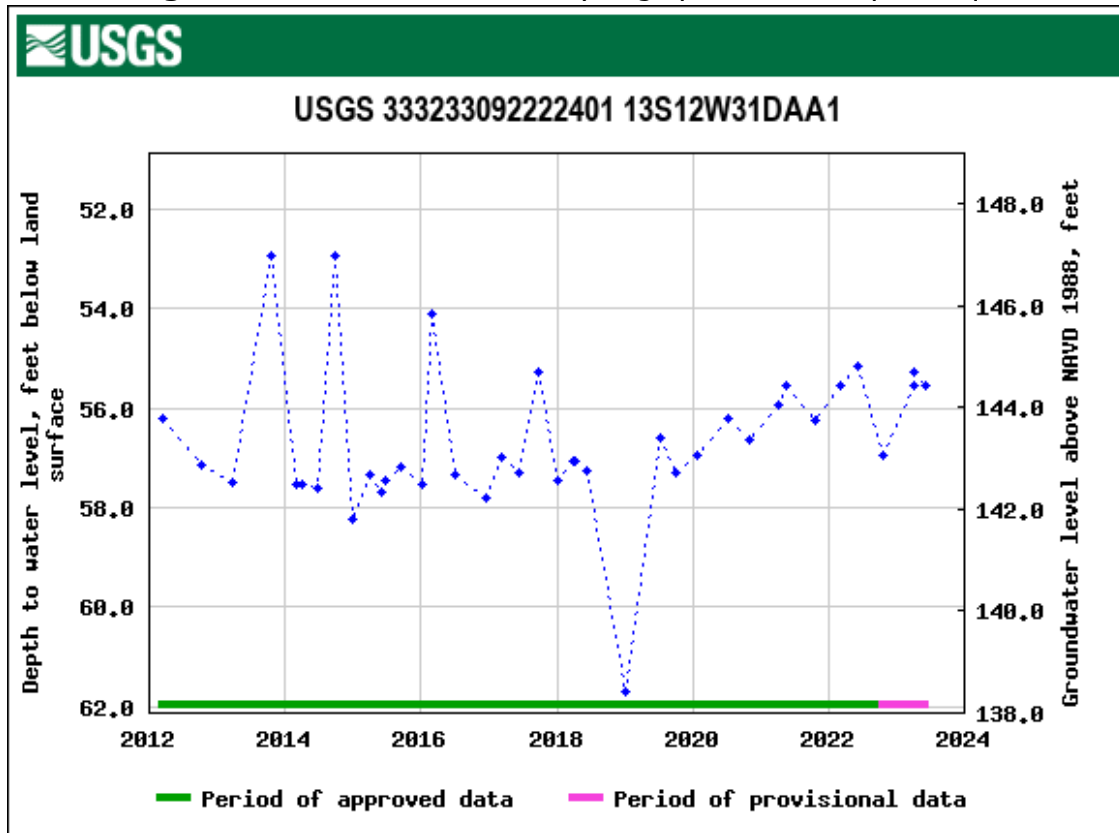


H. Bradley County, Well 13S09W06ACA1

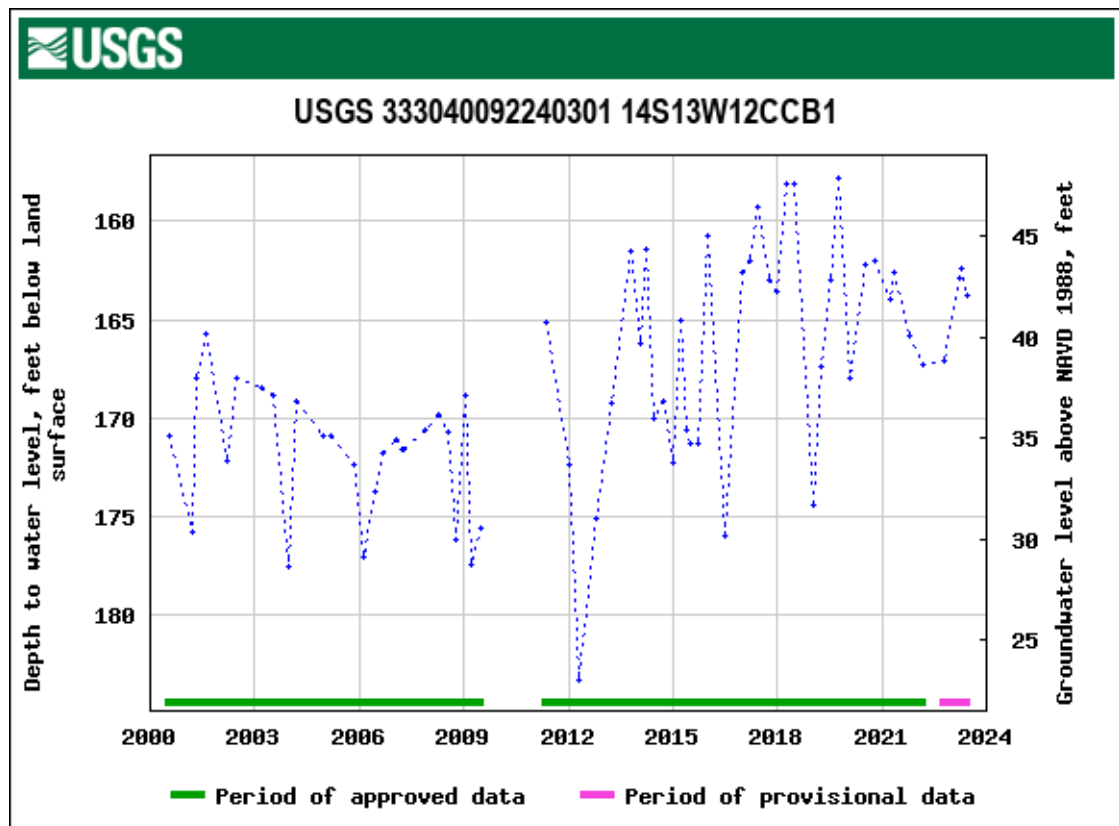


I. Bradley County, Well 15S11W31DDD1

Figure 31. Selected water level hydrographs from the Sparta aquifer

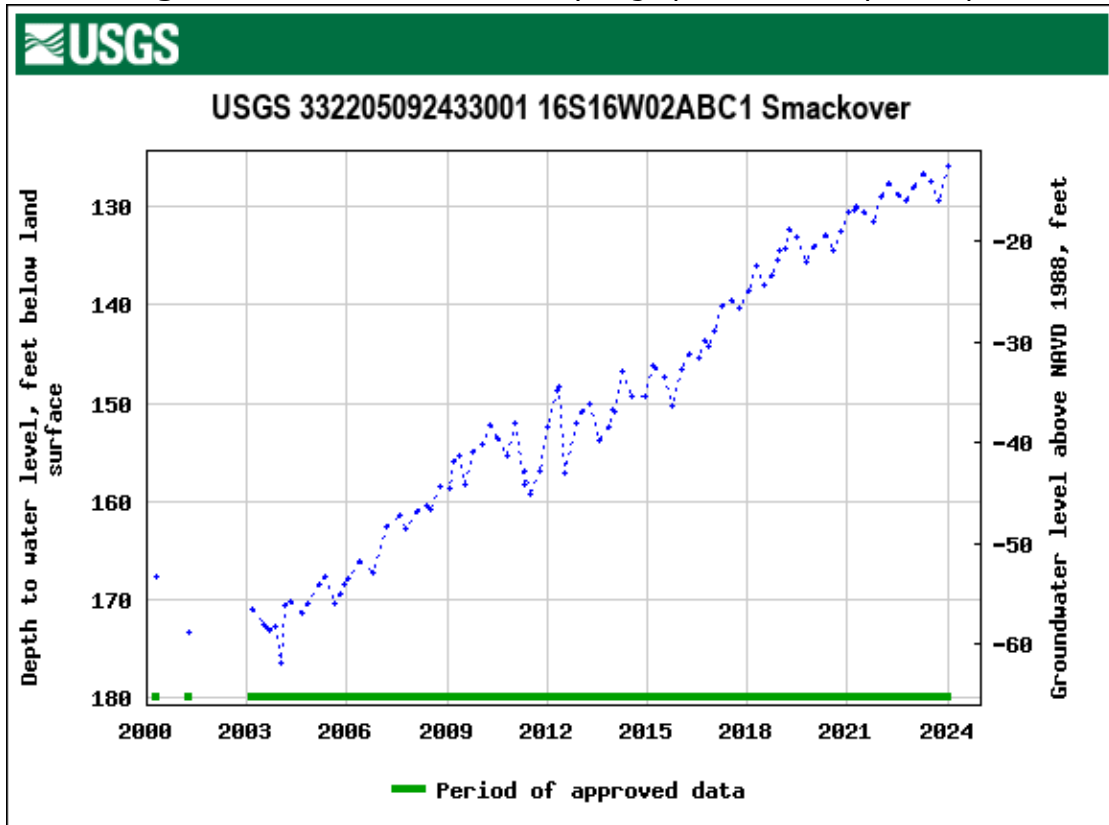


J. Calhoun County, Well 13S12W31DAA1

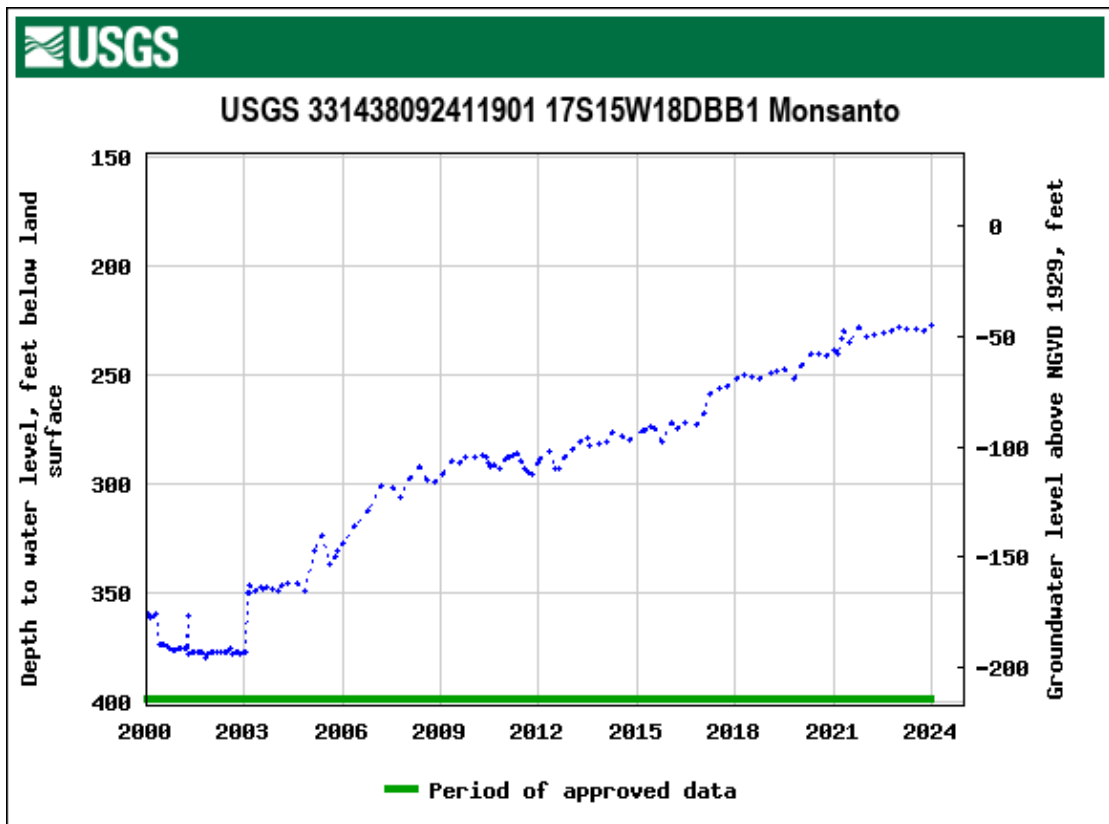


K. Calhoun County, Well 14S13W12CCB1

Figure 31. Selected water level hydrographs from the Sparta aquifer

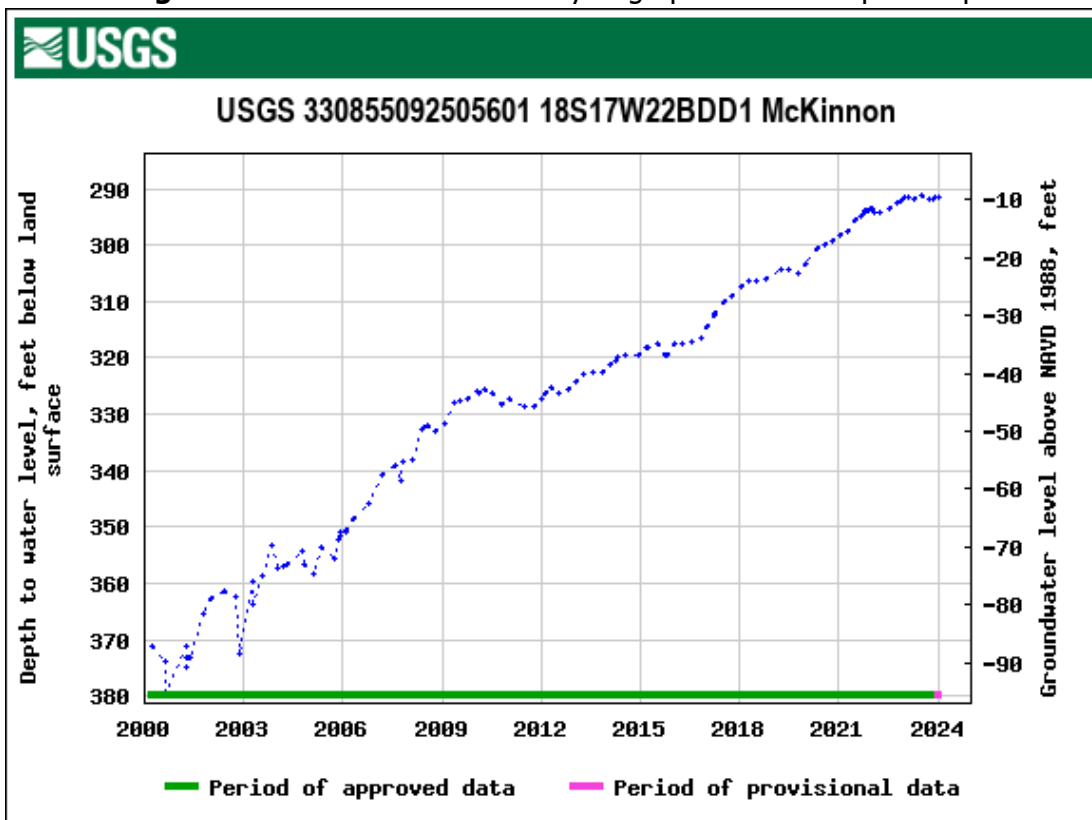


L. Union County, Well 16S16W02ABC1

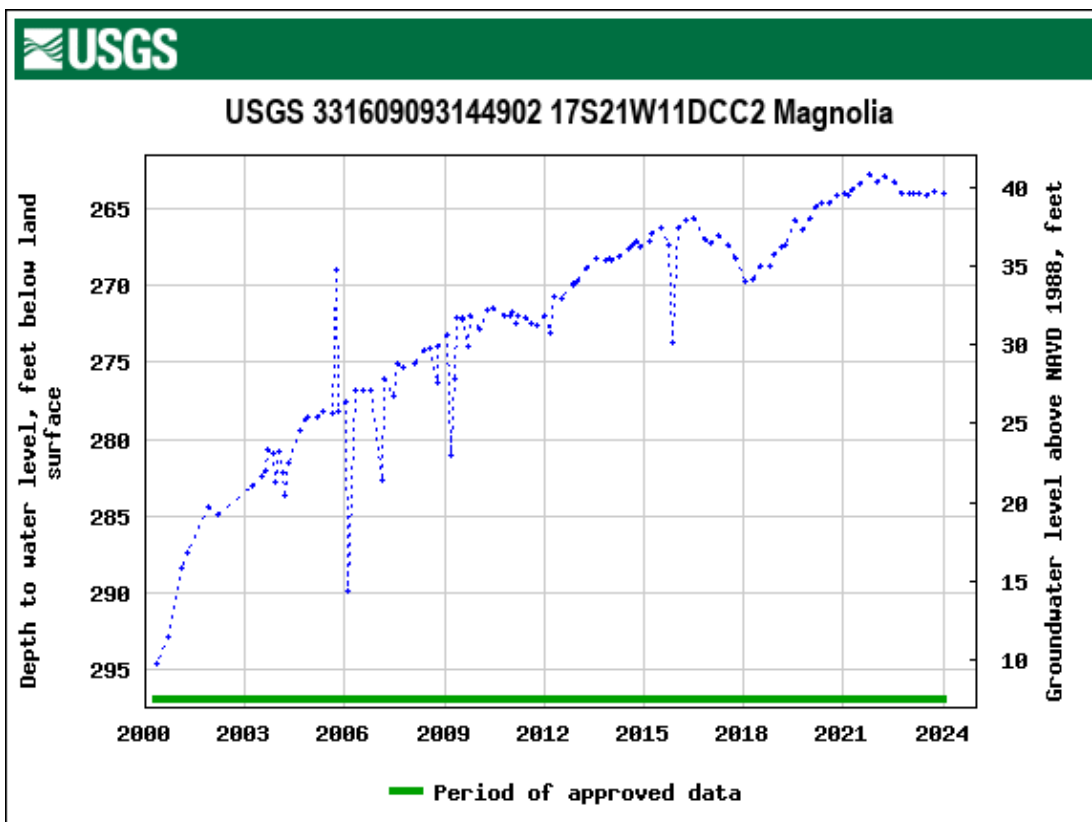


M. Union County, Well 17S15W18DBB1

Figure 31. Selected water level hydrographs from the Sparta aquifer

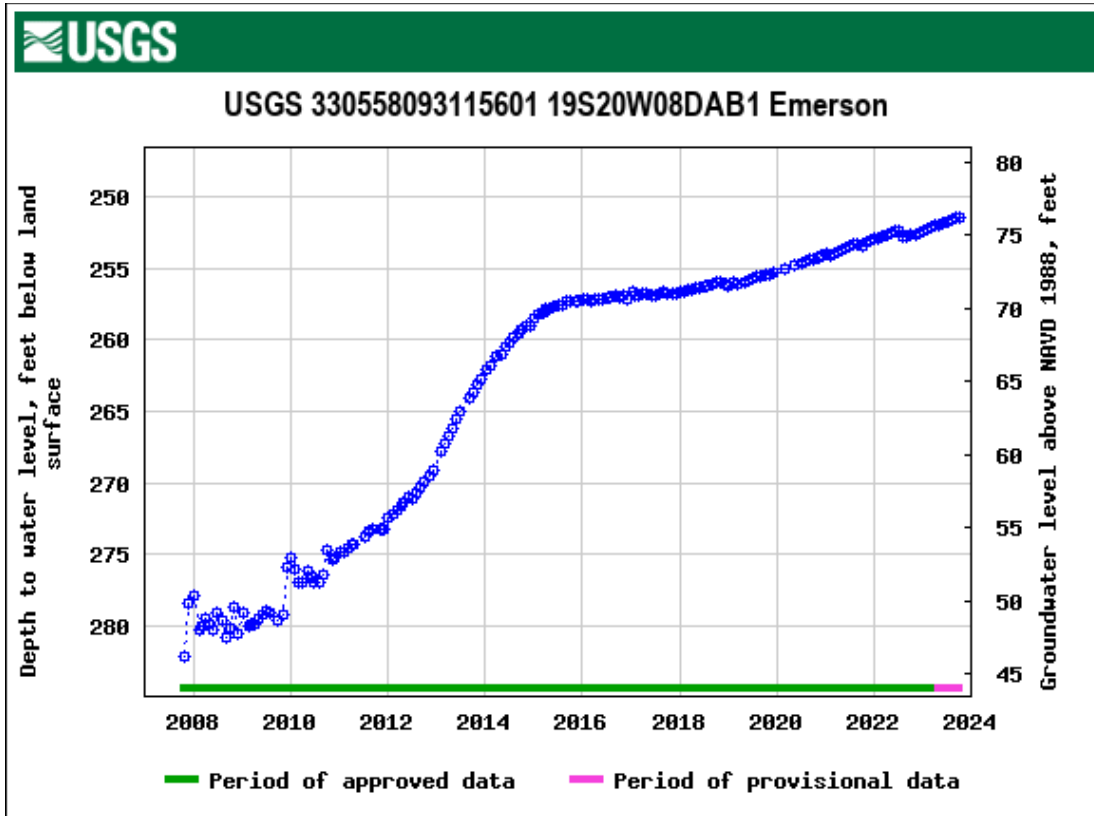


N. Union County, Well 18S17W22BDD1

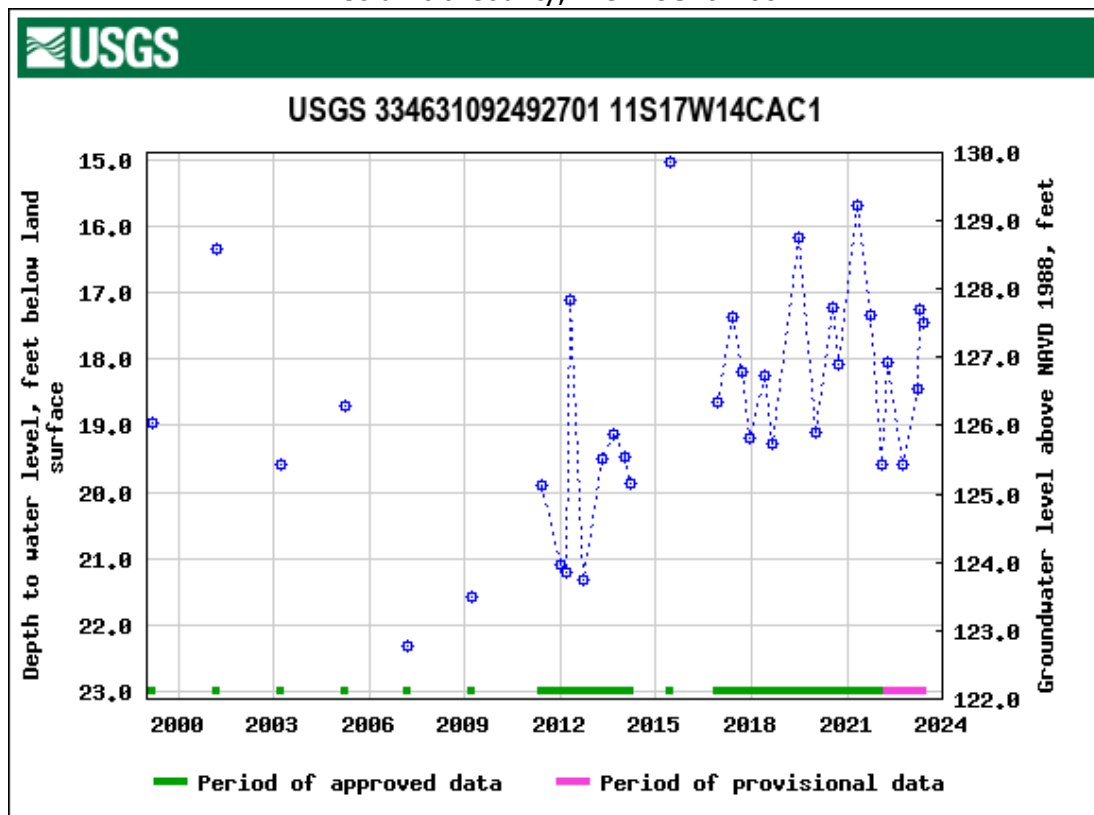


O. Columbia County, Well 17S21W11DCC2

Figure 31. Selected water level hydrographs from the Sparta aquifer

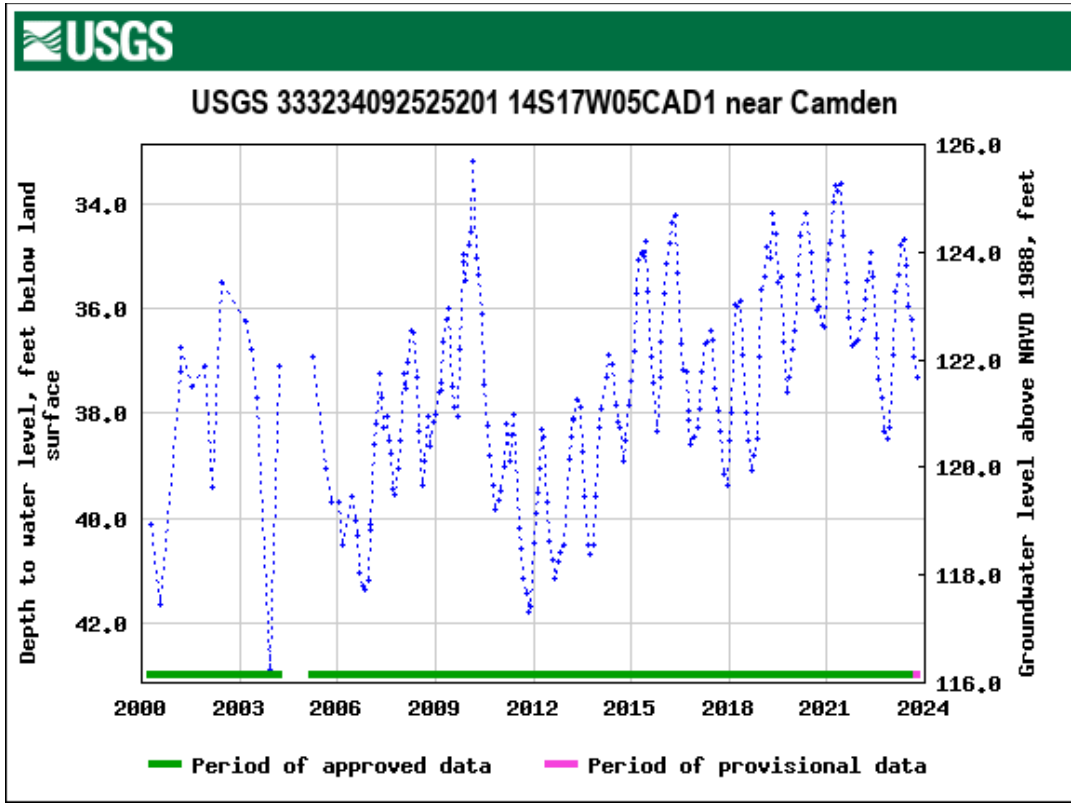


P. Columbia County, Well 19S20W08DAB1

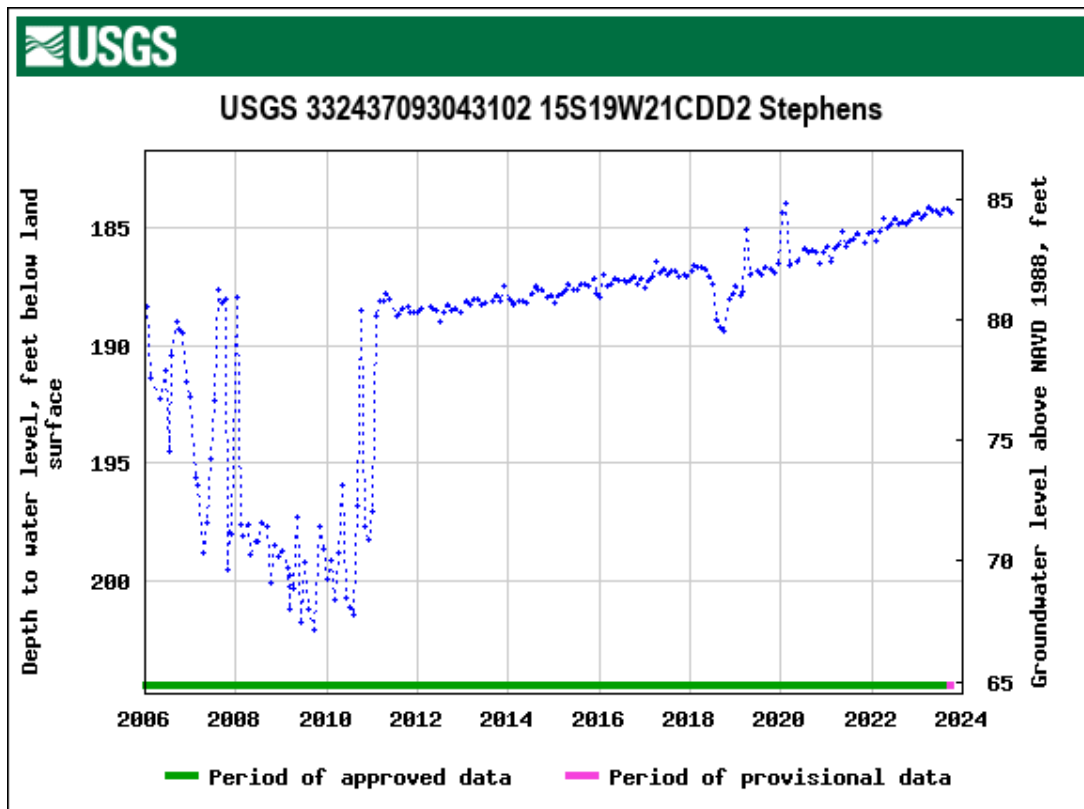


Q. Ouachita County, Well 11S17W14CAC1

Figure 31. Selected water level hydrographs from the Sparta aquifer



R. Ouachita County, Well14S17W05CAD1



S. Ouachita County, Well 15S19W21CDD2

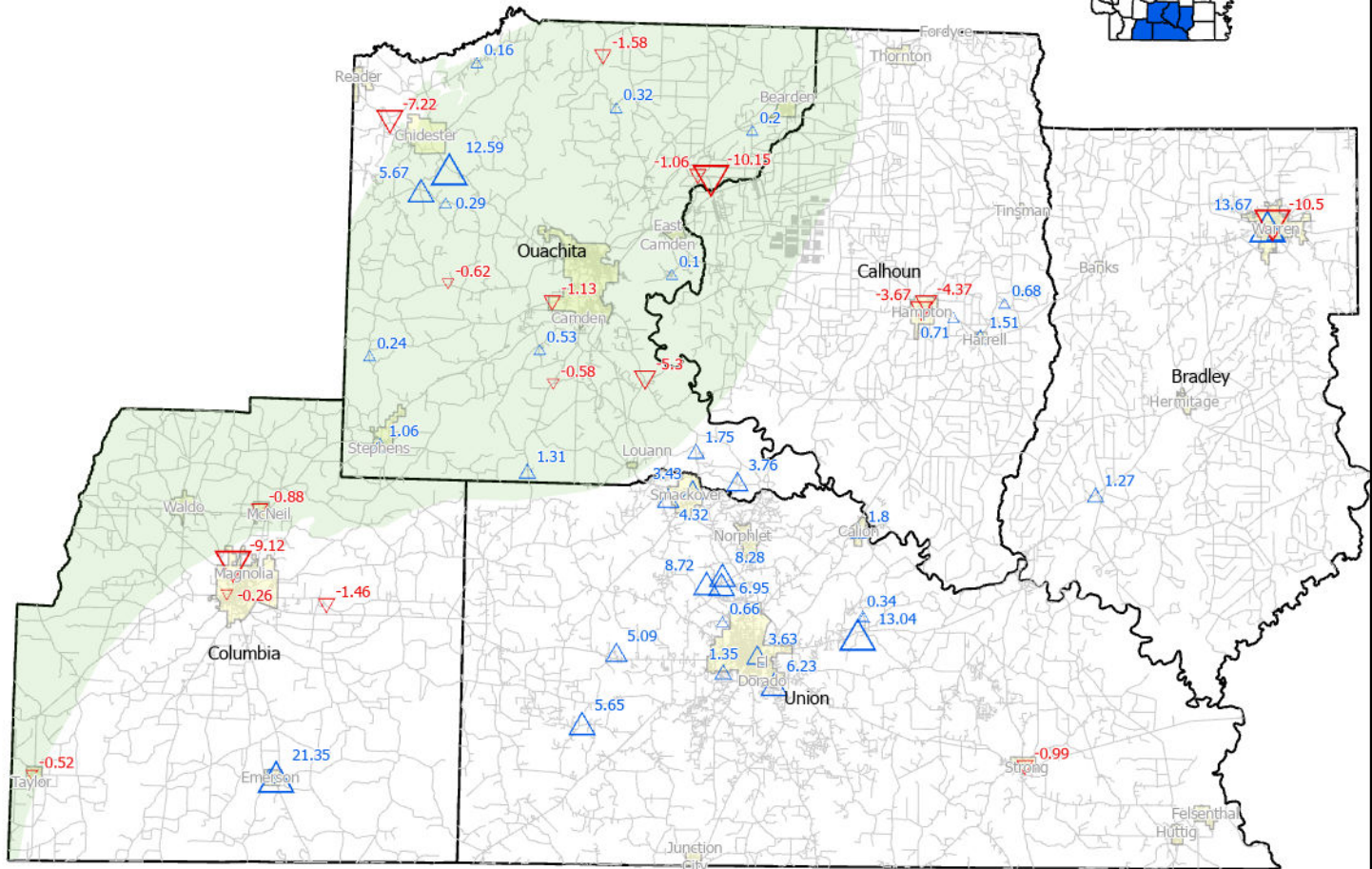
Sparta Aquifer 2022-2023 Water Level Change (South Arkansas)



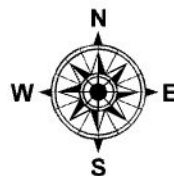
NATURAL RESOURCES
DIVISION

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

**Average Change: +1.53 Ft.
17 of 53 Wells Showed Declines**



County	Avg. Change, ft.
Bradley	+1.45
Calhoun	-1.03
Columbia	+1.57
Ouachita	+0.02
Union	+4.31



- ▲ Increases
- ▼ Decreases
- Approximate Sparta Outcrop Area
- South Arkansas Area



Figure 32

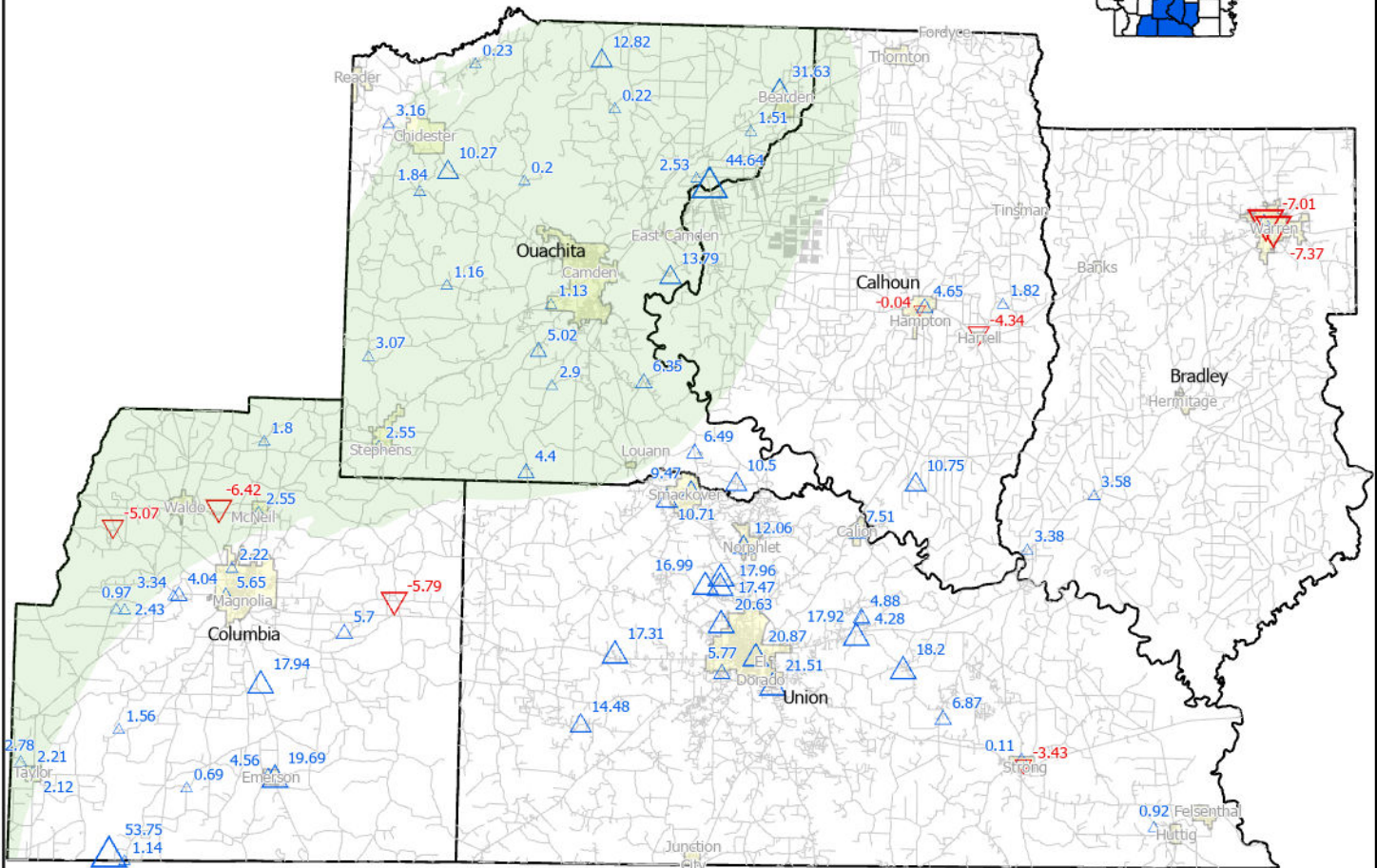
Sparta Aquifer 2018-2023 Water Level Change (South Arkansas)



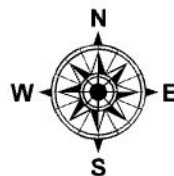
NATURAL RESOURCES
DIVISION

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

**Average Change: +7.14 Ft.
8 of 75 Wells Showed Declines**



County	Avg. Change, ft.
Bradley	-0.89
Calhoun	+2.57
Columbia	+5.36
Ouachita	+7.56
Union	+11.55



- ▲ Increases
- ▼ Decreases
- Approximate Sparta Outcrop Area
- South Arkansas Area



Figure 33

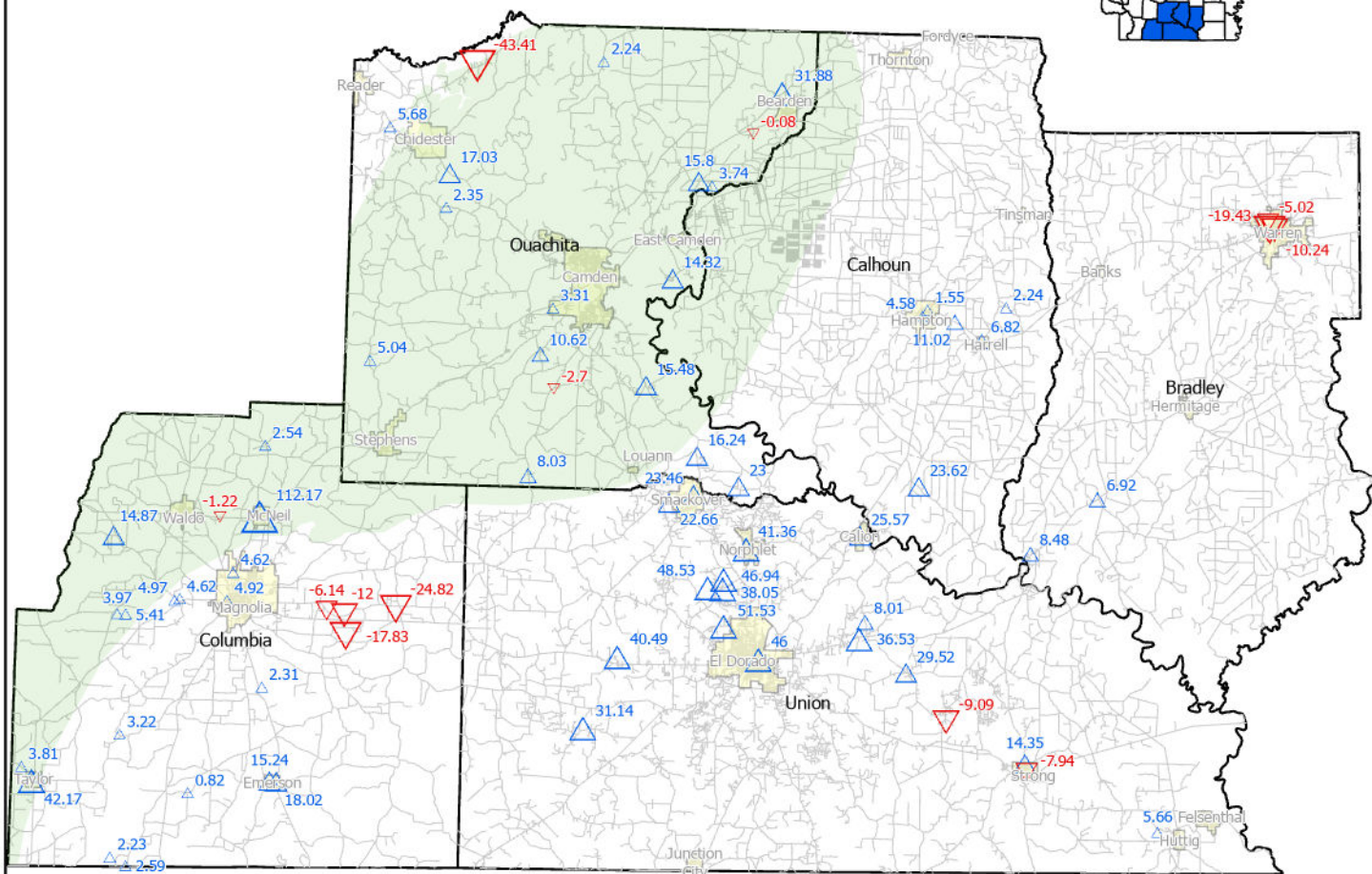
Sparta Aquifer 2013-2023 Water Level Change (South Arkansas)



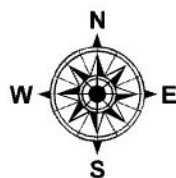
NATURAL RESOURCES
DIVISION

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

**Average Change: +11.74 Ft.
13 of 72 Wells Showed Declines**



County	Avg. Change, ft.
Bradley	-3.86
Calhoun	+8.31
Columbia	+7.75
Ouachita	+7.14
Union	+27.38



- ▲ Increases
- ▼ Decreases
- Approximate Sparta Outcrop Area
- South Arkansas Area



Figure 34

Tokio and Nacatoch Aquifers

In addition to the alluvial and Sparta/Memphis aquifers, the United States Geological Survey (USGS) also monitors lesser utilized aquifers throughout the state on a rotational basis. Every third year, the USGS monitors wells in the Cockfield and Wilcox, the Tokio and Nacatoch aquifers, and Paleozoic Age aquifers. The 2023 monitoring year was designated for the Tokio and Nacatoch aquifers.

Tokio

Static water level measurements were collected from 36 wells across the Tokio aquifer during the 2023 measurement season. Figure 35 depicts the 2023 potentiometric surface as water level altitude in feet above mean sea level.

Figure 36 shows a comparison of water level data from the current year on a well-to-well basis with a 12-year interval to illustrate the water level change of the aquifer over time. Overall, the aquifer declined -0.81 ft. over that time with 17 out of 31 wells (54.84 percent) showing declines. Wells with increasing aquifer levels are concentrated in the shallower parts of the aquifer along the northern extent, while the greater declining values occur in the southern and eastern extent where the aquifer is deeper.

Nacatoch

Static water level measurements were collected from 39 wells across the Nacatoch aquifer during the 2023 measurement season. Figure 37 presents the potentiometric surface as water level altitude in feet above mean sea level.

Figure 38 presents a comparison of water level data collected in 2023 with data from a 12-year interval. Overall, the aquifer increased +3.32 ft. over that period with 6 out of 31 wells (19.35 percent) showing declines. There does not appear to be a pattern with the 6 wells that experienced declines in the 12-year comparison.

Tokio Aquifer Water Level Altitude Spring 2023

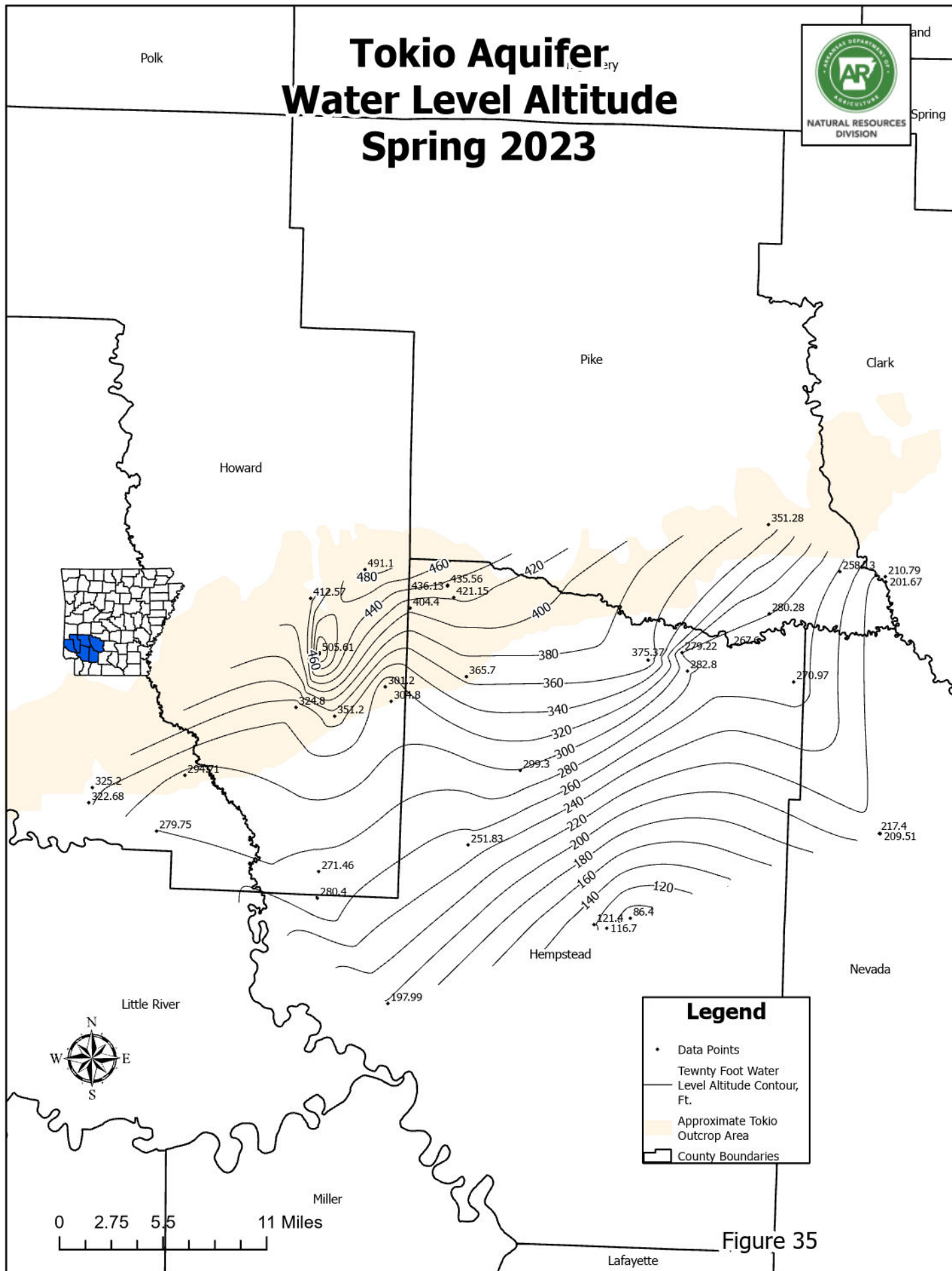
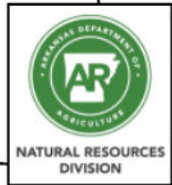


Figure 35

Tokio Aquifer 12 Year Change 2011 - 2023



**Tokio Aquifer
12 Year Change:**

**Average Change: -0.81 Ft.
17 of 31 Wells Showed
Declines**

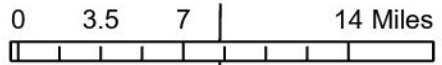
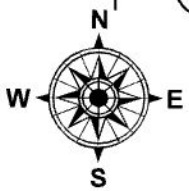
**Percent of Total Wells in
Decline: 54.84%**



**NATURAL RESOURCES
DIVISION**

County	Avg. Change, ft.
Clark	-5.03
Hempstead	-2.49
Howard	+3.26
Pike	+0.18
Sevier	-0.11

- △ Increases
- ▽ Declines
- Approximate Tokio Outcrop Area
- County Boundaries



Columbia
Figure 36

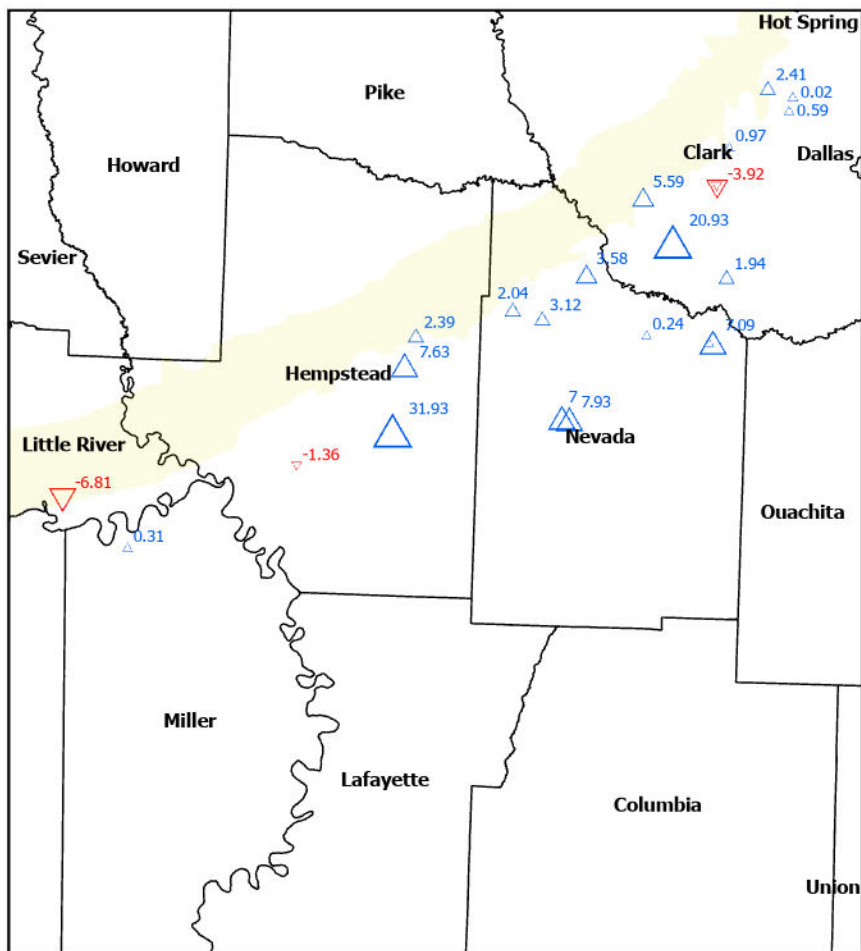
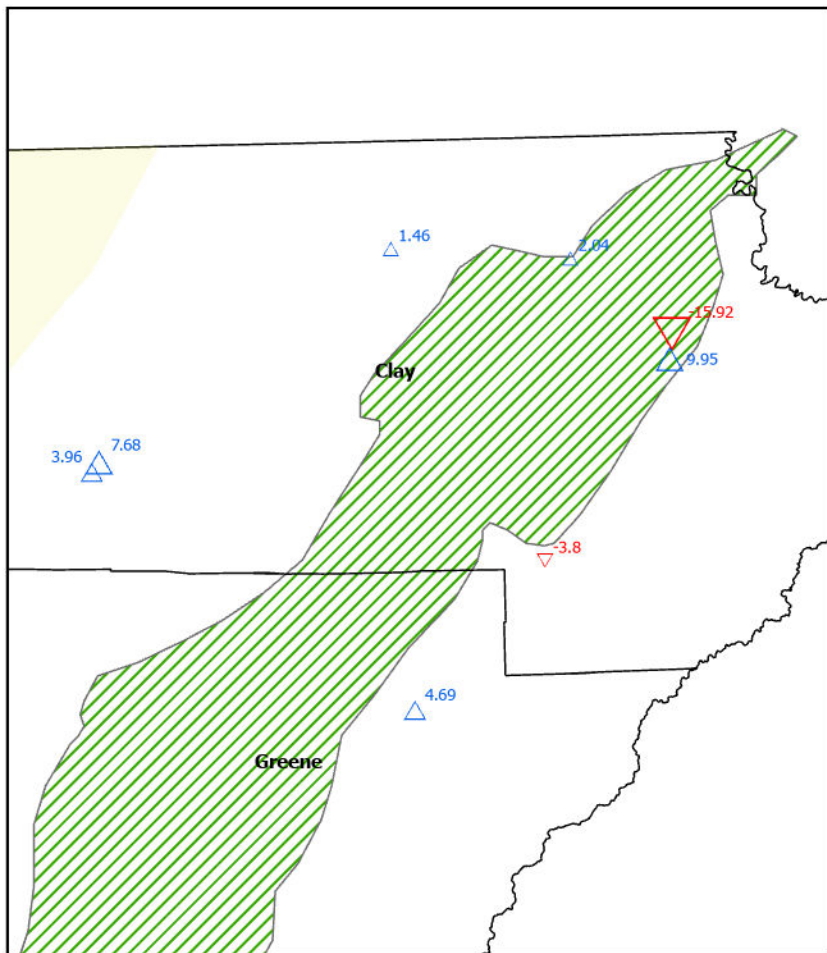
Nacatoch Aquifer 12 Year Change 2011 - 2023

**Nacatoch Aquifer
12 Year Change:**

**Average Change: +3.32 Ft.
6 of 31 Wells Showed
Declines**

**Percent of Total Wells in
Decline: 19.35%**

County	Avg. Change, ft.
Clark	+3.10
Clay	+0.77
Hempstead	+10.15
Nevada	+3.89



**NATURAL RESOURCES
DIVISION**



- ▲ Increases
- ▼ Decreases
- Approximate Nacatoch Outcrop Area
- Crowley's Ridge
- County Boundaries

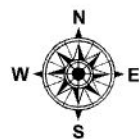


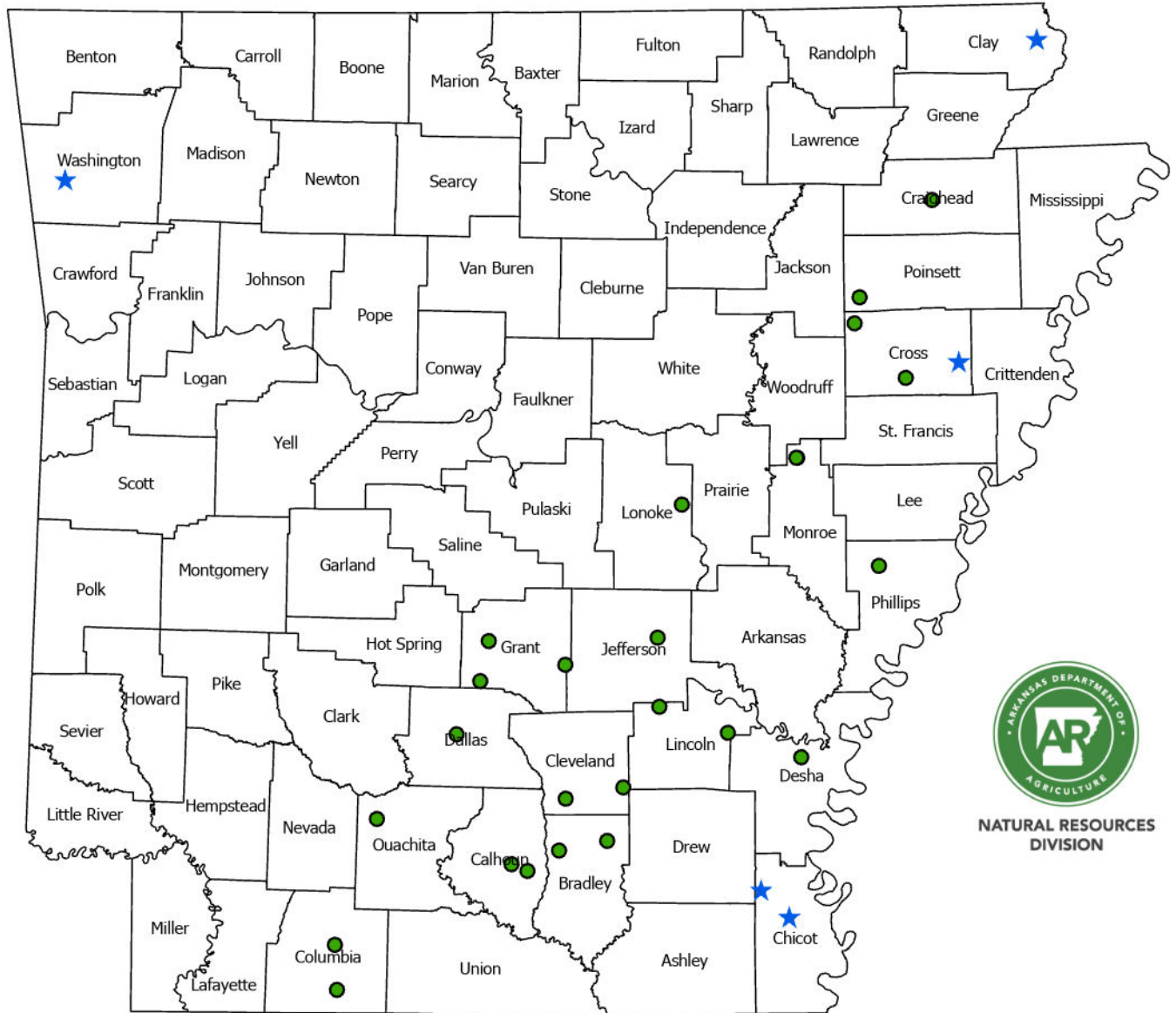
Figure 38

Groundwater Quality

Our United State Geological Survey (USGS) partners contribute groundwater salinity data every year from a network of 100 wells, 50 in the Mississippi River Valley Alluvial aquifer and 50 in the Sparta-Memphis aquifer. This network is sampled on a rotation of 25 wells per year alternating years between the alluvial and Sparta aquifers. In 2023 field measurements from 25 wells in the Sparta were performed recording pH values, temperature, specific conductance, and concentrations of chloride and bromide. In 2024, 25 wells from the alluvial aquifer will be sampled per the contracted schedule. Results from the 2023 sampling event are presented below in Figures 39 and 40.

In addition to the Groundwater Salinity Program, the state is interested in monitoring other water quality parameters in other aquifers across the state. To achieve this, Arkansas Department of Agriculture's Natural Resources Division (NRD) partners with the USGS to maintain the Arkansas Masterwell Network program, a long-term groundwater quality network that is comprised of 47 active wells and springs in 14 different aquifers across the state. Each year five sites are sampled for a variety of water-quality constituents including common ions, metals, nutrients, and radiochemistry. In 2023, five different aquifers were represented by this sampling effort. The results can be seen in Figures 39 and 41.

2023 Water Quality Site Locations



NATURAL RESOURCES DIVISION

Legend

- Water Quality Data Stations
- ★ USGS Master Wells

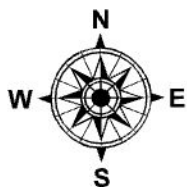


Figure 39

Figure 40
Salinity

Site ID	County	Coordinates	Aquifer	Temp C	Specific Conductance	Hydrogen ion (mg/L)	pH	Chloride (mg/L)	Bromide (mg/L)
330555093112801 19S20W09CBD1	Columbia	33°05'55.38", 93°11'28.72"	Sparta/Memphis	22.4	228	0.00001	8		
333040092240301 14S13W12CCB1	Calhoun	33°30'40.05", 92°24'03.54"	Sparta/Memphis	25.2	451	<u>M</u>	8.5	14.5	0.094
331519093115901 17S20W17CDA1	Columbia	33°15'19.76", 93°12'00.69"	Sparta/Memphis	22.2	387	0.00001	8.1	5.57	0.034
333204092280301 14S13W05BBD1	Calhoun	33°32'06.66", 92°28'01.55"	Sparta/Memphis	25.2	440	<u>M</u>	8.5	12.5	0.086
333453092160701 13S11W17BCD1	Bradley	33°34'53.65", 92°16'07.25"	Sparta/Memphis	24.3	437	<u>M</u>	8.5	14.6	0.074
333649092040601 13S09W06BDC1	Bradley	33°36'49.09", 92°04'06.24"	Sparta/Memphis	28.4	356	0.00001	7.8		
334137093013401 12S19W13BBC1	Quachita	33°41'37", 93°01'34"	Sparta/Memphis	18.9	29	0.00401	5.4	2.27	0.018
334543092142201 11S11W16AAB1	Cleveland	33°45'43.01", 92°14'23.47"	Sparta/Memphis	25.6	366	0.00001	7.9		
335341091152201 09S02W26AAC1	Desha	33°53'46.00", 91°15'20.82"	Sparta/Memphis	22.3	245	<u>M</u>	8.9		
335907091333301 08S05W35ACC1	Lincoln	33°59'06.60", 91°33'37.26"	Sparta/Memphis	24.6	243	<u>M</u>	8.4		
340444091504201 07S07W30CDC1	Lincoln	34°04'43.93", 91°50'42.86"	Sparta/Memphis	28.7	212	0.00001	8.1	1.46	< 0.010
341024092354501 06S15W26ACA1	Grant	34°10'21.99", 92°35'37.59"	Sparta/Memphis	20.6	56	0.00782	5.1		
341341092141401 06S11W05ACD1	Grant	34°13'40.82", 92°14'13.01"	Sparta/Memphis	28.1	135	0.00027	6.6		
341841092332001 05S14W06DCC1	Grant	34°18'42.50", 92°33'26.69"	Sparta/Memphis	21.1	90	0.00096	6		
341918091504901 04S08W35BBD1	Jefferson	34°19'09.06", 91°50'56.13"	Sparta/Memphis	24.7	146	0.00014	6.9		
343324090544601 01S02E32DDC1	Phillips	34°33'24.32", 90°54'55.41"	Sparta/Memphis	22.1	850	0.00002	7.6		
344652091441901 02N07W22DBA1	Lonoke	34°46'51.49", 91°44'25.68"	Sparta/Memphis	19.8	341	0.0001	7		
345616091150201 04N02W30BAD1	Monroe	34°56'16.80", 91°15'03.60"	Sparta/Memphis	22.1	1660	0.00003	7.5		
345618091150901 04N02W30BAC1	Monroe	34°56'17.16", 91°15'15.12"	Sparta/Memphis	19.7	250	0.00013	6.9	15.6	0.094
352403090594901 09N01E16CAC1	Cross	35°24'05.00", 90°59'50.75"	Sparta/Memphis	19.7	516	0.00014	6.9	9.63	0.079
352930090582501 10N01E15DBB1	Poinsett	35°29'30.54", 90°58'25.14"	Sparta/Memphis	19.2	563	0.00007	7.2	18.6	0.103
354929090392201 14N04E22CBD1	Craighead	35°49'28.92", 90°39'20.99"	Sparta/Memphis	18.9	200	0.00133	5.9	20	0.182
334758091595701 10S09W35ACD1	Cleveland	33°47'57.93", 91°59'57.13"	Sparta/Memphis	25	230	0.00002	7.8		
335916092413701 08S15W36BDA1	Dallas	33°59'16.40", 92°41'36.86"	Sparta/Memphis	29.9	336	0.00024	6.6		
351229090470601 07N03E28BAA1	Cross	35°12'29.18", 90°47'05.92"	Sparta/Memphis	19.5	561	0.00005	7.3	6.45	0.056

Figure 41
MasterWells

Site ID	County	Coordinates	Aquifer	Temp C	Specific Conductance	Hydrogen ion	pH	Hardness	Calcium	Magnesium	Sodium	SAR	Chloride
16S02W04BAC1	Chicot	33°20'27.37", 91°18'57.43"	Cockfield	21.8	937	0.00002	7.8	29.8	8.34	2.06	185	14.9	142
07N05E04ADD1	Cross	35°15'38.11", 90°33'29.85"	Sparta/Memphis	21.3	217	0.00018	6.8	56.4	15.2	4.2	21.3	1.25	2.87
20N08E14BAB2	Clay	36°22'26.88", 90°11'19.52"	Nacatoch	21.8	937	0.00002	7.8	29.8	8.34	2.06	185	14.9	142
14S03W32CDB2	Chicot	33°26'13.47", 91°25'51.45"	MRVA	19.5	533	0.00021	6.7	195	55.7	13.4	24.7	0.77	39
14N32W10BBB1	Washington	35°54'38.23", 94°21'34.38"	Ozark/Boone	21.6	551	0.00002	7.7	181	58.6	8.36	45.5	1.47	14.9

Site ID	County	Coordinates	Aquifer	Sulfate	Silica	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Cobalt	Copper
16S02W04BAC1	Chicot	33°20'27.37", 91°18'57.43"	Cockfield	<0.10	16.9	<0.10	74.4	<0.010	541	<0.030	<0.50	0.034	<0.40
07N05E04ADD1	Cross	35°15'38.11", 90°33'29.85"	Sparta/Memphis	1.23	13.4	<0.10	279	<0.010	60	<0.030	<0.50	0.361	1
20N08E14BAB2	Clay	36°22'26.88", 90°11'19.52"	Nacatoch	<0.10	16.9	<0.10	74.4	<0.010	541	<0.030	<0.50	0.034	<0.40
14S03W32CDB2	Chicot	33°26'13.47", 91°25'51.45"	MRVA	15.5	38.3	0.26	214	<0.010	32	<0.030	<0.50	0.063	<0.40
14N32W10BBB1	Washington	35°54'38.23", 94°21'34.38"	Ozark/Boone	6.15	9.05	<0.10	22.5	0.012	83	<0.030	<0.50	0.197	0.42

Site ID	County	Coordinates	Aquifer	Iron	Lead	Manganese	Thallium	Molybdenum	Nickel	Silver	Strontium	Vanadium	Zinc
16S02W04BAC1	Chicot	33°20'27.37", 91°18'57.43"	Cockfield	54.2	0.055	24.2	<0.040	0.281	<0.20	<1.00	341	<0.10	2.6
07N05E04ADD1	Cross	35°15'38.11", 90°33'29.85"	Sparta/Memphis	862	<0.030	19.2	<0.040	<0.050	<0.20	<1.00	744	<0.10	3.1
20N08E14BAB2	Clay	36°22'26.88", 90°11'19.52"	Nacatoch	54.2	0.055	24.2	<0.040	0.281	<0.20	<1.00	341	<0.10	2.6
14S03W32CDB2	Chicot	33°26'13.47", 91°25'51.45"	MRVA	12000	<0.030	624	<0.040	0.378	0.72	<1.00	303	<0.10	<2.0
14N32W10BBB1	Washington	35°54'38.23", 94°21'34.38"	Ozark/Boone	<5.0	<0.030	2.97	<0.040	<0.050	<0.20	<1.00	480	<0.10	2.3

Site ID	County	Coordinates	Aquifer	Antimony	Aluminum	Lithium	Selenium	Uranium	Bromide	Specific Conductance
16S02W04BAC1	Chicot	33°20'27.37", 91°18'57.43"	Cockfield	<0.060	<2	15	<0.05	<0.030	1.06	935
07N05E04ADD1	Cross	35°15'38.11", 90°33'29.85"	Sparta/Memphis	0.352	<2	6.52	<0.05	<0.030	0.027	217
20N08E14BAB2	Clay	36°22'26.88", 90°11'19.52"	Nacatoch	<0.060	<2	15	<0.05	<0.030	1.06	935
14S03W32CDB2	Chicot	33°26'13.47", 91°25'51.45"	MRVA	<0.060	<2	7.92	<0.05	<0.030	0.162	487
14N32W10BBB1	Washington	35°54'38.23", 94°21'34.38"	Ozark/Boone	0.065	<2	31.7	<0.05	0.039	0.052	532

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 Arkansas Department of Agriculture's Natural Resources Division (NRD). Domestic wells are exempt. The quantity used must be reported by March 1st of the following year. The USGS reports that there are approximately 50,000 registered wells in the state and over 97 percent are agricultural wells used primarily for irrigation in Eastern Arkansas. The remaining approximate three percent of reported wells are used predominately for commercial, industrial, and public water supply purposes.

Reported Water Use

In 2015, an estimated total of 8,254.60 million gallons per day (Mgal/d) of water were reportedly withdrawn from all of the state's aquifers. The greatest reported volumes are from the Mississippi River Valley alluvial (alluvial) aquifer and the Sparta/Memphis (Sparta) aquifer, with approximately 7,636.08 Mgal/d being used from the alluvial aquifer and approximately 160 Mgal/d being used from the Sparta aquifer. The 2015 total water use data is still the most recent accurate figure for total water use across the state for various reasons; however, reported agricultural irrigation water use numbers for 2020 have been provided by the USGS.

Reported agricultural irrigation water use in 2020 estimates that a total of 5,583 Mgal/d of groundwater was used for irrigation from all aquifer sources in Eastern Arkansas, with 5,092 Mgal/d from 36,166 wells in the alluvial aquifer and 76 Mgal/d from 571 wells in the Sparta aquifer (USGS, 2022). This is a reduction of over 2,000 Mgal/d from the estimated agricultural irrigation water use in 2018 of 7,590 Mgal/d (USGS, 2019). In 2015, reported irrigation groundwater use is estimated to have been 7,434 Mgal/d from 48,410 wells in the alluvial aquifer. Based on these numbers, irrigation groundwater use from the alluvial aquifer in 2020 was approximately 2,342 Mgal/d less than in 2015 with 12,000 fewer wells reported. This reduction in reporting can be partially attributed to the pandemic and the related difficulties it caused that year, but the 2018 data used in previous reports also showed a considerable reduction from 2015. Reported irrigation groundwater use from the Sparta aquifer in 2020 increased by 12 Mgal/d from 2015 with 286 more wells reported.

The sustainable yield of the alluvial aquifer has been estimated at approximately 3,374 Mgal/d using the Mississippi Embayment Regional Aquifer Study (MERAS) modeling scenarios in which the aquifer was maintained at 50 percent saturated or 30 feet above the base of the aquifer, whichever was greater (Clark, B.R., Westerman, D.A., and Fugitt, D.T., 2013). Based on this sustainable yield, approximately 66 percent of reported 2020 irrigation groundwater use is sustainable using an incomplete, conservative estimate. Regarding the Sparta aquifer, 2020 irrigation water use estimates of 76 Mgal/d would account for approximately 86 percent of the estimated sustainable yield of 87 Mgal/d. This sustainable yield estimate is derived from USGS conjunctive use optimization modeling where drawdown constraints were defined as the hydraulic head at the top of the Sparta aquifer formation where the formation is confined and the hydraulic head at 50 percent saturated along the outcrop areas (McKee, P.W., Clark, B.R., and Czarnecki, J.B., 2004).

Historically, counties that report the largest groundwater withdrawals from the alluvial aquifer are the same counties with groundwater depletion issues. Arkansas, Lonoke, Poinsett, Woodruff, Clay, Desha, and Cross counties used the most groundwater for irrigation, based on 2020 reported water use numbers. This is mostly consistent with the areas of significant drawdown in the alluvial aquifer. Figure 42 presents the 2020 agricultural irrigation water use as reported at the time of this report.

In consideration of the significant reduction in stations reporting in 2020 when compared to 2015, an effort was made to estimate the change in usage if reporting numbers were similar. Figure 43 shows the 2020 reported usage per county in Mgal/day. A graph comparing the number of stations reporting water use data from 2015, 2018, and 2020 can be seen in Figure 44.

Using this information, Figure 45 was created presenting the change in number of stations reporting between 2015 and 2020, as well as calculating the average usage per station in each county in Mgal/day. This allowed for creation of estimated usage numbers for each county based on the average reported use per station. These values are approximate and cannot be considered exact representations of usage, but they may give a closer to accurate estimate of irrigation water use per county in 2020. Figure 46 gives the projected water use per county for 2020 by combining actual reported use with estimated usage as described. In this analysis, several counties in critical areas of interest are shown to have significantly underreported usage.

Based on this estimated data we can compare the 2015 total agricultural irrigation usage number reported of 8,240 Mgal/day to the 2020 reported of 5,583 plus the average estimated usage of 2,443 Mgal/day, giving a total for 2020 of 8,026 Mgal/day, suggesting a decrease in usage from 2015 to 2020 of 214 Mgal/day. While merely an estimate based on averages, this information demonstrates the importance of increased reporting on accurate usage data and concurrently our ability to quantify the value of conservation methods on overall water usage and aquifer levels.

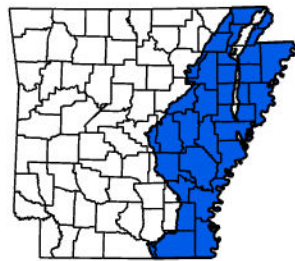
Figure 47 presents the 2020 water use reported per crop type for the state. The pie chart shows the percentage of total reported groundwater use per crop. The principal agricultural uses of groundwater in the state are for poultry watering and rice, soybean, corn, and cotton irrigation.



Agriculture/ Irrigation Groundwater Use in Eastern Arkansas for 2020 (Mgal/day)

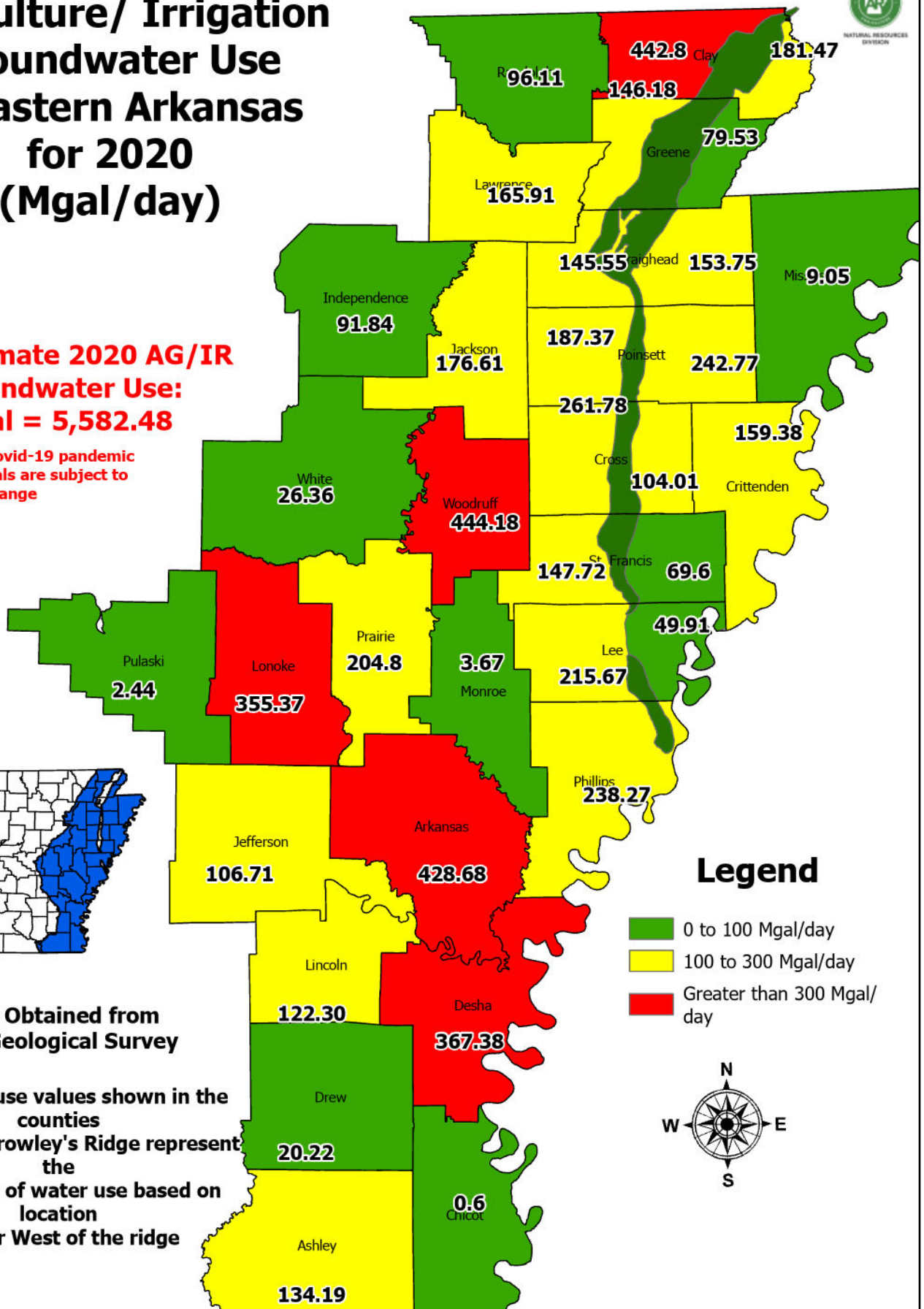
**Approximate 2020 AG/IR Groundwater Use:
Total = 5,582.48**

*** Due to the Covid-19 pandemic water use totals are subject to change**



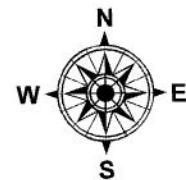
*** Data Obtained from United Geological Survey**

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



Legend

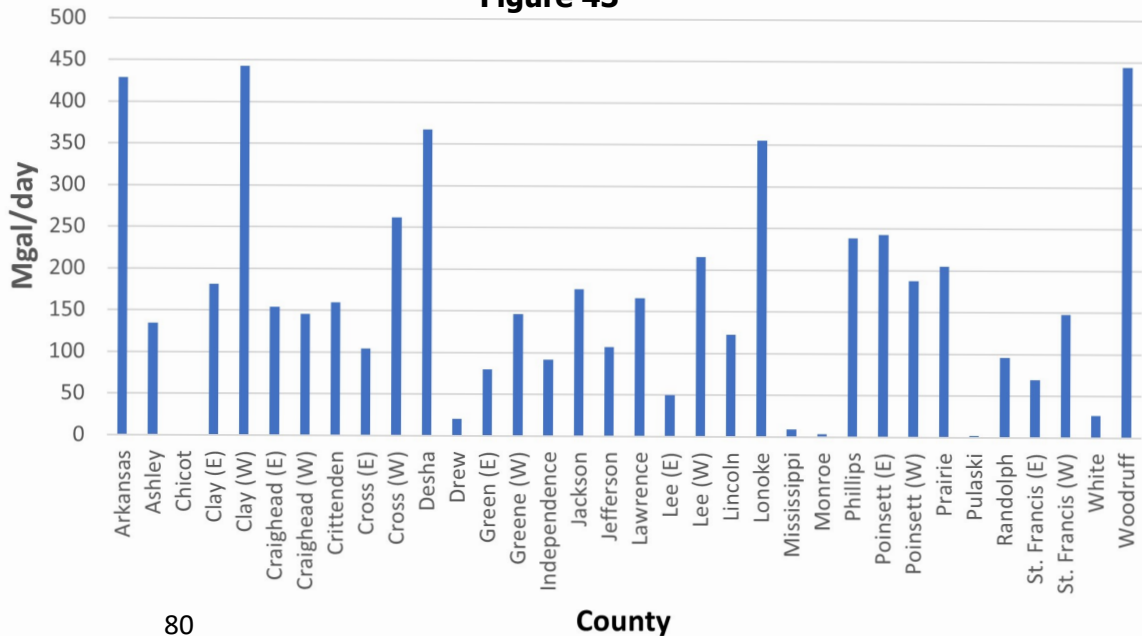
- 0 to 100 Mgal/day
- 100 to 300 Mgal/day
- Greater than 300 Mgal/day



0 10 20 40 Miles

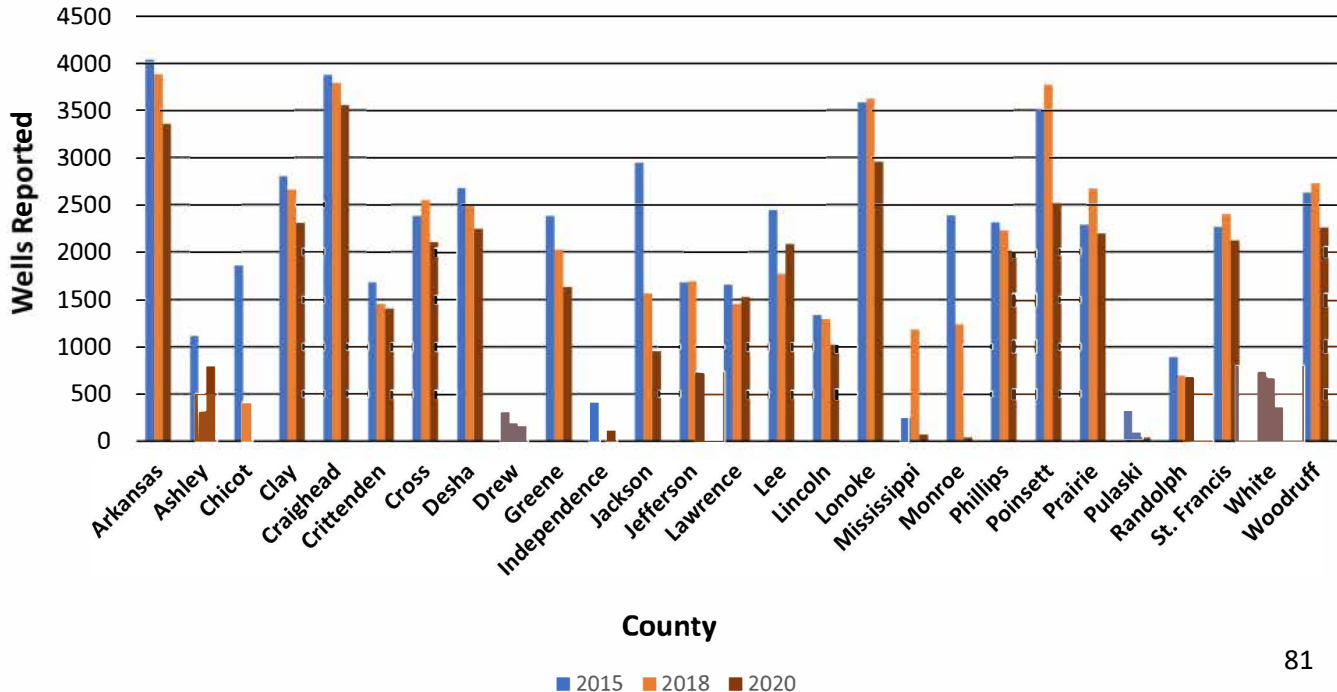
Figure 42

2020 Reported Water Use
Figure 43



Agriculture Water Use Reporting Station Total Comparison 2015/2018/2020

Figure 44

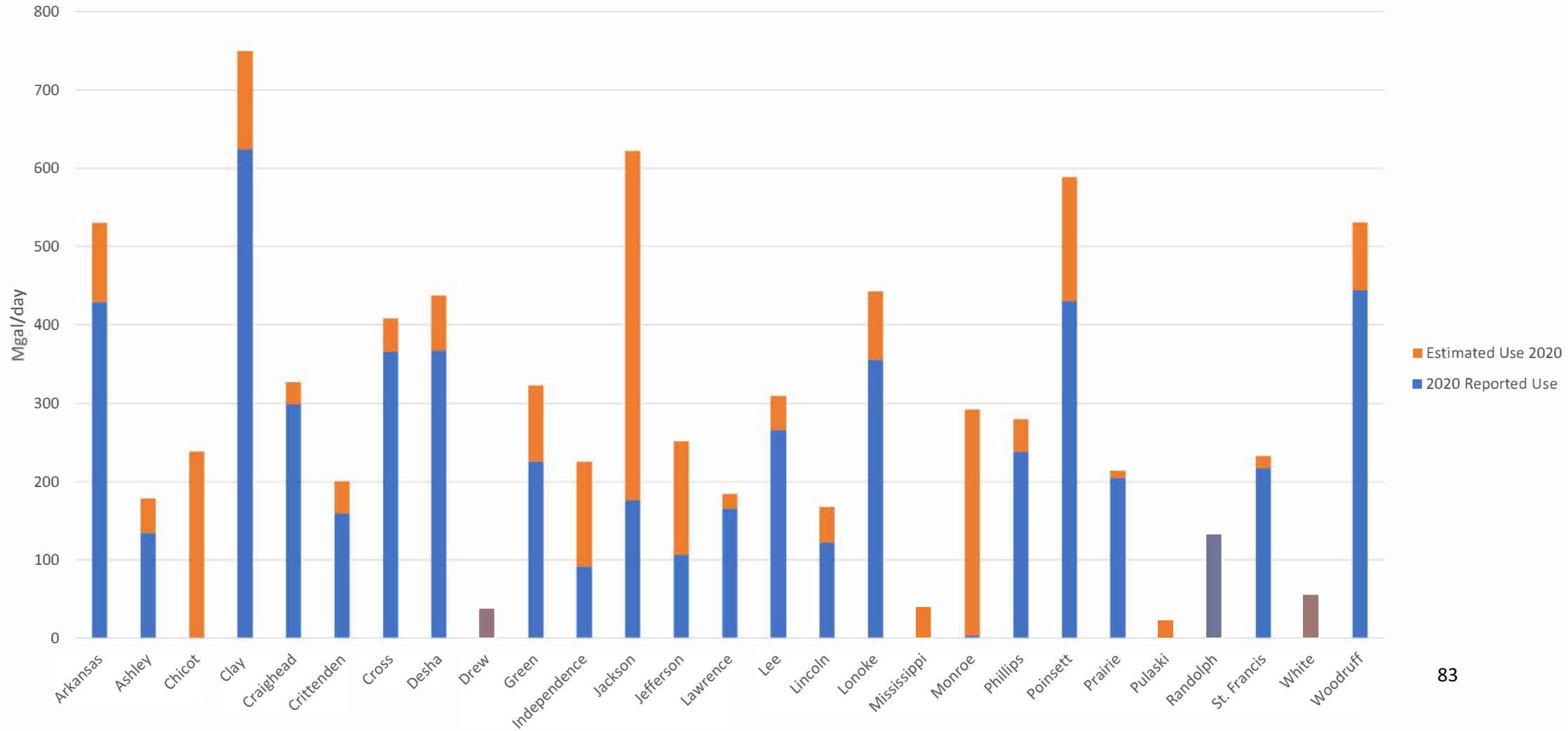


2020 Estimated Usage Table

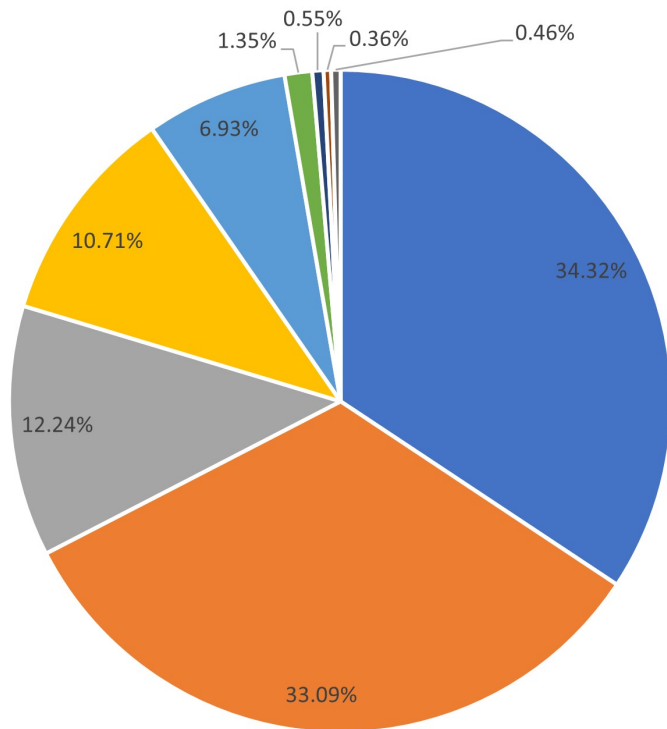
Figure 45

	2015	2018	2020	Range of use per station		Avg yrly use/station	Change in # Stations	Estimated Usage	Low end	High end	
County	Avg use/station	Avg use/station	Avg use/station	2015-2018-2020		2015-2018-2020	2015-2020	2015-2020	2015-2020	2015-2020	
Arkansas	0.1140	0.2085	0.1277	0.1140	0.2085	0.1501	676	101.44	77.04	140.94	
Ashley	0.1187	0.1347	0.1692	0.1187	0.1692	0.1408	316	44.51	37.50	53.47	
Chicot	0.1071	0.1294	0.1500	0.1071	0.1500	0.1288	1847	237.93	197.74	277.05	
Clay	0.2121	0.2722	0.2713	0.2121	0.2722	0.2519	498	125.43	105.61	135.57	
Craighead	0.0767	0.0982	0.0843	0.0767	0.0982	0.0864	325	28.08	24.92	31.92	
Crittenden	0.2012	0.1371	0.1134	0.1134	0.2012	0.1506	274	41.25	31.08	55.12	
Cross	0.1469	0.1275	0.1744	0.1275	0.1744	0.1496	283	42.33	36.09	49.34	
Desha	0.1484	0.1813	0.1636	0.1484	0.1813	0.1644	427	70.22	63.37	77.40	
Drew	0.1196	0.1124	0.1280	0.1124	0.1280	0.1200	149	17.88	16.75	19.07	
Greene	0.1190	0.1331	0.1384	0.1190	0.1384	0.1302	750	97.61	89.26	103.79	
Independence	0.0998	0.0000	0.8127	0.0998	0.8127	0.4563	293	133.69	29.25	238.13	
Jackson	0.2970	0.1873	0.1861	0.1861	0.2970	0.2235	1992	445.14	370.71	591.63	
Jefferson	0.1356	0.1687	0.1482	0.1356	0.1687	0.1508	961	144.95	130.33	162.10	
Lawrence	0.1958	0.1156	0.1088	0.1088	0.1958	0.1400	131	18.35	14.25	25.65	
Lee	0.1198	0.1200	0.1276	0.1198	0.1276	0.1225	360	44.09	43.13	45.94	
Lincoln	0.1517	0.1595	0.1201	0.1201	0.1595	0.1438	315	45.30	37.84	50.25	
Lonoke	0.1117	0.1808	0.1205	0.1117	0.1808	0.1377	633	87.13	70.68	114.47	
Mississippi	0.2548	0.1404	0.1275	0.1275	0.2548	0.1742	178	31.01	22.69	45.36	
Monroe	0.1597	0.1129	0.0966	0.0966	0.1597	0.1231	2348	288.95	226.77	374.95	
Phillips	0.1578	0.1147	0.1196	0.1147	0.1578	0.1307	319	41.69	36.59	50.33	
Poinsett	0.1269	0.1781	0.1713	0.1269	0.1781	0.1587	999	158.59	126.73	177.90	
Prairie	0.0826	0.1166	0.0934	0.0826	0.1166	0.0975	95	9.27	7.85	11.07	
Pulaski	0.0893	0.0620	0.0678	0.0620	0.0893	0.0730	279	20.38	17.30	24.92	
Randolph	0.1783	0.2022	0.1415	0.1415	0.2022	0.1740	212	36.89	30.01	42.87	
St Francis	0.1242	0.0998	0.1025	0.0998	0.1242	0.1089	142	15.46	14.18	17.64	
White	0.0720	0.0901	0.0734	0.0720	0.0901	0.0785	376	29.52	27.07	33.87	
Woodruff	0.3159	0.1849	0.1970	0.1849	0.3159	0.2326	372	86.52	68.79	117.50	
	82										
Totals								2443.61	1953.55	3068.26	

Figure 46
 Estimated Water Use for 2020 by County



2020 Water Use by Crop



■ RICE

■ SOYBEANS

■ POULTRY - Combined

■ CORN FOR GRAIN

■ COTTON

■ AQUACULTURE - Combined

■ DUCKS - ALL WATERFOWL HUNTING

■ PEANUTS

■ All other crops

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 25 percent (statewide) or 50 percent (in a Critical Groundwater Area) of the cost to implement the practice. The following water conservation practices are eligible for tax credits:

- The construction of impoundments to utilize available surface water and reduce our dependence on groundwater;
- The conversion from groundwater use to surface water use when surface water is available;
- Land leveling to reduce agricultural irrigation water use; and
- The installation of water meters to monitor groundwater usage.

Figure 48 shows the locations of the water conservation projects that were approved for a tax credit for the years 2016 through 2023. A summary table of the number and types of conservation practices approved for a tax credit can be found below.

	Impoundments	Land Leveling	Surface Water Conversion	Water Meter Installations	Totals
2016	22	64	10	0	96
2017	12	45	8	0	65
2018	13	22	15	23	73
2019	9	27	12	9	57
2020	7	29	10	80	126
2021	15	43	10	7	75
2022	3	42	7	27	79
2023	13	64	12	0	89

In 2023, 89 projects were approved, 10 more than were approved in 2022. Land leveling constituted the largest number of these projects (64), but there were also significant increases in impoundments (13) and surface water conversions (12). These 89 projects created a near doubling of total land acres covered by groundwater tax credit conservation practices with 13,227.20 acres covered in 2023 compared to 7,077.36 acres in 2022. All these projects are critically important parts of the effort to sustainably manage groundwater resources.

Water Conservation Tax Credits Approved from 2016 to 2023

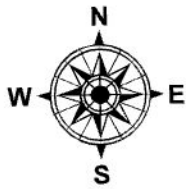
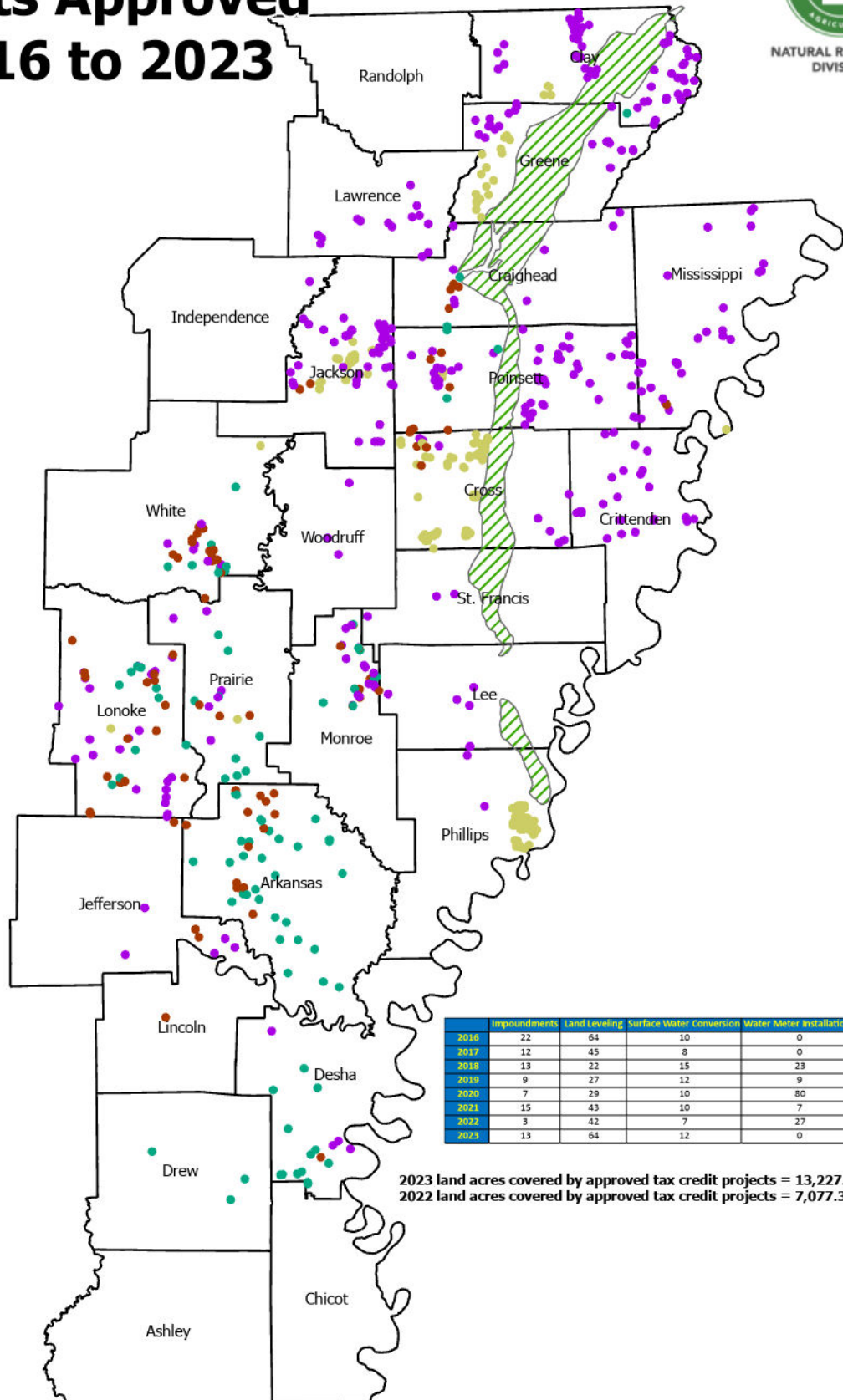


NATURAL RESOURCES DIVISION

Legend

Project Type

- Impoundment
- Land Leveling
- Surface Water Conversion
- Water Meter
- Crowley's Ridge



	Impoundments	Land Leveling	Surface Water Conversion	Water Meter Installations	Totals
2016	22	64	10	0	96
2017	12	45	8	0	65
2018	13	22	15	23	73
2019	9	27	12	9	57
2020	7	29	10	80	126
2021	15	43	10	7	75
2022	3	42	7	27	79
2023	13	64	12	0	89

2023 land acres covered by approved tax credit projects = 13,227.20 acres
 2022 land acres covered by approved tax credit projects = 7,077.36 acres

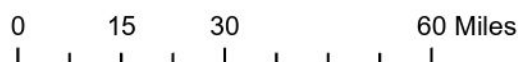


Figure 48

Summary

The 2023 Groundwater Protection and Management Report is a summary of the activities and significant findings of the Arkansas Department of Agriculture's Natural Resources Division (NRD) Groundwater Section staff. This report is prepared annually in response to legislative mandates that direct the NRD 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 NRD, the United States Department of Agriculture Natural Resources Conservation Service, and the United States Geological Survey (USGS) monitor up to approximately 1,000 water wells each year for water levels and prescribed water quality parameters. This monitoring is accomplished through a cooperative agreement with the NRD and the USGS.

In the Mississippi River Valley alluvial (alluvial) aquifer, 439 water wells were measured in the spring of 2023, most of which were collected during the month of April prior to irrigation stresses during the growing season. As in previous reports, the spring 2023 data was compared with historical spring data in one, five, and ten-year intervals, and average water level change values were calculated to generally represent the water level trend over time. For the one-year comparison, 2022 to 2023, an average water level decrease of 0.7 feet was calculated. For the five-year comparison, 2018 to 2023, and the ten-year comparison, 2013 to 2023, average water level changes of +0.41 feet (five year) and +2.46 feet (ten year) were calculated. The spring to fall 2023 data comparison resulted in an average water level change of -4.06 feet, which is relatively consistent with the changes calculated in recent years. The areas with the most severe groundwater declines continue to be the Grand Prairie and Cache River study areas, particularly in the areas of the aquifer furthest from a major surface water source (i.e. the Arkansas, White, and Mississippi rivers). Water level decline in the Cache River study area continues in the southern part of the area moving into St. Francis, Monroe, and Lee counties. Some water level decline has been observed in the St. Francis and Beouf-Tensas study areas, but it is unclear if these declines are causing significant aquifer drawdown at this time.

These results show a positive average change in the five and ten-year trends representative of an overall rebound in aquifer water level, but a negative average change in the one-year. The decrease in the one-year comparison of -0.7 feet is a reversal of the positive change in the one-year value in the 2022 report of +0.6 feet. Being that these are simple comparisons of synoptic water level data from one year to another, it is difficult to explain definitively what causes these changes in trends. Changes in the timing and span of collected datasets in recent years lend to more accurate illustrations of the aquifer levels and will continue to do so for years to come as similar datasets are collected. However, it is important to keep in mind that this is limited data and that the year-to-year change comparisons are average numbers representing a large dataset in a complex and dynamic system.

In the Sparta/Memphis (Sparta) aquifer, 230 synoptic water level measurements were collected for the spring 2023 dataset. When compared with historical spring data, the 2023 data shows average water level change values of -0.73, +4.16, and +7.87 feet in the one, five, and ten-year intervals, respectively.

The Sparta aquifer in the South Arkansas study area continues to see recovery where historical drawdown has been the most severe. Union County continues to experience the most recovery, having the greatest average change in the five and ten-year intervals. The historical cone of depression in Jefferson County is recovering with significant rising water level values across the county in the time periods compared in this report. An apparent long-term pattern in declining Sparta levels is observable near the western extent of the aquifer where the alluvial and Sparta aquifers are hydraulically

connected. It is presumed that the over-production of the alluvial aquifer is impacting the underlying Sparta aquifer in this area.

While we are seeing positive average change values in the five and ten-year intervals in this report, it is important to remember that, overall, Arkansas is withdrawing groundwater from the alluvial and Sparta aquifers in Eastern and Southern Arkansas at a rate above that which is estimated to be sustainable. Wells in certain areas where there have been historical declines do appear to show a slowing of the decline, or even a rebounding trend in water level in recent years, but it is difficult to determine what the primary causes are for rebound trends in these areas. It is the hope of the NRD that the water conservation efforts and efficiency programs that have been implemented in recent years may be having the desired effect on the aquifers. Further research and analysis of these areas and the many factors that determine their groundwater usage may give valuable guidance for future efforts to protect groundwater reserves. The NRD should continue to monitor these resources and promote conservation, education, and the conjunctive use of ground and surface water at rates that are sustainable for current and future water use needs.

References

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Appendix A
Alluvial Aquifer Water Level Monitoring Data

Mississippi River Alluvial Aquifer
Hydrologic Data 2013,2018,2022,2023

County	Station ID Number	Latitude	Longitude	Aquifer Code	DATE	Land Surface Altitude	2013 Depth to Water (ft.)	2018 Depth to Water (ft.)	2022 Depth to Water (ft.)	2023 Depth to Water (ft.)	1 Year Change ('22 to '23)	5 Year Change ('18 to '23)	10 Year Change ('13 to '23)
Craighead	13N04E26BCC1	35.7266	-90.6434389	112TRRC	4/5/23	225		27.69	26.45	26.99	0.54	0.70	
Craighead	13N05E02CCC1	35.78063056	-90.53545	112TRRC	4/11/23	229		13.68	14.19	12.77	1.42	0.91	
Craighead	13N05E06DCC1	35.7777	-90.5975306	112TRRC	4/5/23	231		21.22	21.02	20.87	0.15	0.35	
Craighead	13N05E24BAC1	35.7469611	-90.51025	110ALVM	4/5/23	226		11.41	9.65	8.64	1.01	2.77	
Craighead	13N06E21AAA1	35.74518056	-90.4505	110ALVM	4/5/23	222		7.04		6.59		0.45	
Craighead	13N07E02CAB1	35.77623889	-90.3177	110ALVM	4/5/23	227		4.26	4.93	3.66	1.27	0.60	
Craighead	13N07E05ABB1	35.78808889	-90.3658194	110ALVM	4/5/23	229		6.41	6.87	6.1	0.77	0.31	
Craighead	14N01E03ACB1	35.87951846	-90.9712313	112TRRC	4/5/23	249		57.22	56.52	58.69	2.17	1.47	
Craighead	14N01E10BAB1	35.86785204	-90.9745648	110ALVM	4/5/23	246	58	58.05	57.28	57.35	0.07	0.70	0.65
Craighead	14N01E21BB2	35.8395361	-90.9993528	110ALVM	4/5/23	252			62.53	62.01	0.52		
Craighead	14N01E21BBB1	35.839475	-90.9994417	112TRRC	4/13/23	252				59.34			
Craighead	14N02E22AAA1	35.8353526	-90.8581725	112TRRC	4/14/23	255		81.32		79.34		1.98	
Craighead	14N02E25DAC1	35.8125722	-90.8236139	110ALVM	4/14/23	276			77.6	77.82	0.22		
Craighead	14N02E25DAC2	35.8125833	-90.8239028	112MRVAA	4/14/23	266				76.28			
Craighead	14N02E25DD1	35.81005556	-90.821375	110ALVM	4/14/23	269		80.46	79.63	79.32	0.31	1.14	
Craighead	14N02E27AAA1	35.82102778	-90.8568056	110ALVM	3/31/23	255	86.1	85.25	83.46	83.53	0.07	1.72	2.57
Craighead	14N03E30CBC1	35.8128222	-90.8208472	110ALVM	4/14/23	276		87.39		86.06		1.33	
Craighead	14N05E36BAD1	35.80489167	-90.5086056	110ALVM	3/30/23	230		39.86	42.91	43.88	0.97	4.02	
Craighead	14N05E36DC1	35.7942611	-90.5084694	110ALVM	4/11/23	228			41.44	42.41	0.97		
Craighead	14N06E06BAA1	35.8777611	-90.4937111	110ALVM	4/5/23	243		19.15	22.64	21.46	1.18	2.31	
Craighead	14N07E14DDC1	35.83143056	-90.30955	112TRRC	4/5/23	232			8	5.22	2.78		
Craighead	15N03E19ADA1	35.91730556	-90.8005667	112TRRC	4/12/23	262		55.75	57.15	54.09	3.06	1.66	
Craighead	15N06E04BAD1	35.96229349	-90.4517716	110ALVM	4/3/23	239	18.1	10.93		12.11		1.18	5.99
Craighead	15N06E20DD1	35.9070083	-90.460875	110ALVM	4/10/23	235	10.23	6.96	6.4	8.1	1.70	1.14	2.13
Craighead	15N07E35DCB1	35.8786	-90.3096306	112TRRC	4/5/23	234		8.95	9.98	9.04	0.94	0.09	
										Wells in Decline:	14	10	2
										Total Wells:	27	26	8
										Average Change:	0.15	0.01	1.11
Crittenden	04N07E21AAD1	34.9455083	-90.3559694	110ALVM	4/12/23	202				7.62			
Crittenden	05N07E28CBA1	35.02258889	-90.3610694	110ALVM	4/12/23	201		13.84	14.43	14.13	0.30	0.29	
Crittenden	05N07E34BAB1	35.0164972	-90.3416278	110ALVM	4/12/23	203	13.3	9.94	6.32	12.18	5.86	2.24	1.12
Crittenden	05N07E34CDD1	35.00906944	-90.3335917	110ALVM	4/12/23	205	11	4.5		8.92		4.42	2.08
Crittenden	07N07E05DAD1	35.2495111	-90.3542611	110ALVM	4/10/23	215	33.2		30.2	30.61	0.41		2.59
Crittenden	07N07E31CCC1	35.17830556	-90.3997139	110ALVM	4/11/23	209	39.09	35.83	33.22	32.98	0.24	2.85	6.11
Crittenden	08N06E01DCC1	35.336425	-90.4107361	110ALVM	4/10/23	217	33.5	40	30.74	31.95	1.21	8.05	1.55
Crittenden	08N06E26BB1	35.2936111	-90.4311111	110ALVM	4/10/23	211		34.06	31.91	32.46	0.55	1.60	
Crittenden	08N07E35BBC1	35.275	-90.3258333	110ALVM	4/10/23	222	33.9		30.05	30.23	0.18		3.67
Crittenden	09N05E29DA1	35.37665	-90.4842583	110ALVM	4/11/23	213.18			28.71	31.21	2.50		
Crittenden	09N06E30ADD1	35.373275	-90.49325	110ALVM	4/11/23	216.17		34.8		28.53		6.27	
Crittenden	09N07E10DDA1	35.41321667	-90.3235111	110ALVM	4/10/23	219	30.15	28.2	27.24	28.31	1.07	0.11	1.84
Crittenden	09N07E20DCC1	35.3822222	-90.3661111	110ALVM	4/10/23	213		29.69	27.5	29.31	1.81	0.38	
Crittenden	09N07E31BAB1	35.366625	-90.3907139	110ALVM	4/10/23	221	35	33.3	31.82	32.12	0.30	1.18	2.88
										Wells in Decline:	9	4	0
										Total Wells:	11	10	8
										Average Change:	1.21	1.33	2.73

Mississippi River Alluvial Aquifer
Hydrologic Data 2013,2018,2022,2023

County	Station ID Number	Latitude	Longitude	Aquifer Code	DATE	Land Surface Altitude	2013 Depth to Water (ft.)	2018 Depth to Water (ft.)	2022 Depth to Water (ft.)	2023 Depth to Water (ft.)	1 Year Change ('22 to '23)	5 Year Change ('18 to '23)	10 Year Change ('13 to '23)
Cross	06N02E11BDB1	35.15953394	-90.8590039	110ALVM	4/16/23	220		72		71.94		0.06	
Cross	06N05E05AAA1	35.1736861	-90.5342083	110ALVM	4/11/23	207		42	35.22	37.67	2.45	4.33	
Cross	07N01E06ACC1	35.26319444	-91.02625	110ALVM	4/7/23	221			80.46	81.8	1.34		
Cross	07N01E11AAA1	35.2503472	-90.9514694	110ALVM	4/7/23	217				85.63			
Cross	07N01E33BBA1	35.19352778	-91.0030278	112TRRC	4/7/23	218		85		82.8		2.20	
Cross	07N02E02CDD1	35.2522222	-90.8536111	110ALVM	3/30/23	227	85.3		86.72	87.22	0.50		1.92
Cross	07N03E32DCC1	35.1792472	-90.8028556	110ALVM	4/16/23	251				101.89			
Cross	07N05E02AAB1	35.2607972	-90.5227583	110ALVM	4/11/23	216		44		39.43		4.57	
Cross	08N04E34DC1	35.2629611	-90.65735	110ALVM	4/11/23	207.05			24.33	27.44	3.11		
Cross	08N05E32ADD1	35.2754583	-90.5779028	110ALVM	4/11/23	206	28.2		24.49	31.79	7.30		3.59
Cross	09N01E04ACD1	35.4381111	-90.987	110ALVM	4/12/23	238		99.5		99.67		0.17	
Cross	09N01E12CBB1	35.41805556	-90.9480556	110ALVM	4/12/23	228	97.8		101.45	102	0.55		4.20
Cross	09N01E33BBA2	35.3674333	-91.0001667	112TRRC	4/12/23	225			90.4	90.79	0.39		
Cross	09N05E32BCB1	35.36425187	-90.5903849	110ALVM	4/11/23	206		30.5		27.4		3.10	
										Wells in Decline:	7	1	3
										Total Wells:	7	6	3
										Average Change:	2.23	2.35	3.24
Desha	09S02W26DDC1	33.88238056	-91.2582333	110ALVM	4/20/23	149	34.38	33.55	26.18	27.7	1.52	5.85	6.68
Desha	09S03W17DCB1	33.9133972	-91.4157389	110ALVM	4/5/23	154.7	38.65	36.73	36.98	37.73	0.75	1.00	0.92
Desha	10S03W26CAA1	33.80166667	-91.362375	110ALVM	4/5/23	155	49.68	52.28		51.46		0.82	1.78
Desha	10S04W03BAB1	33.8690583	-91.4965722	110ALVM	4/4/23	164		41.78	40.51	41.02	0.51	0.76	
Desha	10S04W11DDA1	33.8420361	-91.4671333	110ALVM	4/3/23	156		37.79	37.5	37.65	0.15	0.14	
Desha	11S02W15ADD1	33.74691667	-91.2778333	110ALVM	4/4/23	144	35.4	37.21	36.2	37.4	1.20	0.19	2.00
Desha	11S03W31BBA1	33.70783889	-91.4475278	110ALVM	4/3/23	151		35.33	32.54	32.86	0.32	2.47	
Desha	13S03W11CAB1	33.58427754	-91.3781742	110ALVM	4/4/23	142	48.9	55.98	61.88	52.62	9.26	3.36	3.72
										Wells in Decline:	6	2	3
										Total Wells:	7	8	5
										Average Change:	0.69	1.53	0.02
Drew	11S04W08DD1	33.7634611	-91.5377806	110ALVM	4/3/23	161		27.29	28.31	28.65	0.34	1.36	
Drew	11S04W35CDD1	33.69555556	-91.4783333	110ALVM	4/3/23	152	31.28		25.99	26.19	0.20		5.09
Drew	11S05W08CCC1	33.7629111	-91.6436556	110ALVM	4/7/23	185	40.3	39.57	39.02	39.61	0.59	0.04	0.69
Drew	12S04W03ABB1	33.69275556	-91.4961472	110ALVM	4/3/23	153	28.8	26.13	23.14	23.6	0.46	2.53	5.20
Drew	12S04W25DBB1	33.62810278	-91.4609639	110ALVM	4/3/23	148		35.06		29.87		5.19	
Drew	13S04W32BAD1	33.52508889	-91.5327722	110ALVM	4/3/23	134			13.6	14.26	0.66		
Drew	13S04W33BAA1	33.53518889	-91.5166917	110ALVM	4/3/23	138	25.59	19.68	15.67	16.09	0.42	3.59	9.50
Drew	13S05W29ADA1	33.54673056	-91.6298083	110ALVM	4/3/23	185				39.09			
Drew	14S04W03DA1	33.51190278	-91.4934861	110ALVM	4/3/23	142			23.62	24.01	0.39		
Drew	14S04W05CBA1	33.5260611	-91.5599306	110ALVM	4/3/23	131		19.87		11.08		8.79	
Drew	14S04W05CBC1	33.51094444	-91.5385278	110ALVM	4/3/23	132		18.97		11.24		7.73	
										Wells in Decline:	7	2	0
										Total Wells:	7	7	4
										Average Change:	0.44	3.78	5.12
Greene	16N03E20CDA1	35.9991472	-90.7951528	110ALVM	4/12/23	257		37.3	36.96	36.09	0.87	1.21	
Greene	16N03E27BD1	35.9991722	-90.7951	110ALVM	4/12/23	257				36.5			

Mississippi River Alluvial Aquifer
Hydrologic Data 2013,2018,2022,2023

County	Station ID Number	Latitude	Longitude	Aquifer Code	DATE	Land Surface Altitude	2013 Depth to Water (ft.)	2018 Depth to Water (ft.)	2022 Depth to Water (ft.)	2023 Depth to Water (ft.)	1 Year Change ('22 to '23)	5 Year Change ('18 to '23)	10 Year Change ('13 to '23)
Greene	16N06E22DA1	36.00125	-90.4279694	110ALVM	4/14/23	243			13.81	16.69	2.88		
Greene	16N06E28ABB1	35.99376944	-90.4487611	110ALVM	4/14/23	250	31	25.83	32.15	27.14	5.01	1.31	3.86
Greene	17N03E02BDB1	36.14233056	-90.7363389	110ALVM	4/12/23	267		36.2	34.64	35.19	0.55	1.01	
Greene	17N03E32CDC1	36.05473889	-90.7930556	110ALVM	4/12/23	259		36.9	35.03	35.66	0.63	1.24	
Greene	17N03E35CB1	36.07658056	-90.7434472	110ALVM	4/12/23	265	38.5	39.7	38.84	38.23	0.61	1.47	0.27
Greene	17N04E28DAA1	36.07527778	-90.6547222	110ALVM	4/12/23	317		93.85	85.88	84.45	1.43	9.40	
Greene	17N04E30CDC1	36.0694083	-90.7048583	110ALVM	4/12/23	267		43.55	43.51	43.45	0.06	0.10	
Greene	17N06E02AD1	36.13695278	-90.4026028	110ALVM	4/13/23	258			27.77	26.88	0.89		
Greene	17N06E11DA1	36.118175	-90.4065389	110ALVM	4/13/23	255			36.69	34.24	2.45		
Greene	17N06E15ABC1	36.10886944	-90.4299306	110ALVM	4/13/23	269	39.2	30	29.75	42.39	12.64	12.39	3.19
Greene	17N07E01BBA1	36.1425	-90.29075	110ALVM	4/13/23	247	5.4	6.1	4.29	4.55	0.26	1.55	0.85
Greene	17N07E18ABB1	36.1103	-90.3761389	110ALVM	4/13/23	248			11.47	8.94	2.53		
Greene	18N04E04AAC1	36.23665556	-90.6466583	110ALVM	4/12/23	276	36.75	34.5	35.02	32.33	2.69	2.17	
Greene	18N04E04AAC2	36.2366333	-90.6466167	110ALVM	4/12/23	276				32.03			
Greene	18N04E21CBD1	36.1812	-90.6235444	110ALVM	4/12/23	294		63.14	56.58	56.7	0.12	6.44	
Greene	18N06E26CDD1	36.1584	-90.4036889	110ALVM	4/13/23	266				22.3			
Greene	18N07E05DAB1	36.22096667	-90.3406333	110ALVM	4/12/23	270	17.75	16.6	15.8	14.35	1.45	2.25	3.40
Greene	18N07E35DCD1	36.1425833	-90.2911667	110ALVM	4/13/23	248			4.76	5.03	0.27		
Greene	19N03E26AD1	36.26686667	-90.7162306	110ALVM	4/12/23	281.1		30.19	28.3	29.13	0.83	1.06	
Greene	19N03E33DDD1	36.23845278	-90.7532889	110ALVM	4/12/23	278	38.67	37.7	35.08	35.81	0.73	1.89	2.86
										Wells in Decline:	9	2	1
										Total Wells:	19	14	6
										Average Change:	0.05	1.15	1.34
Independence	11N04W22BBA1	35.56924444	-91.4182944	110ALVM	4/14/23	217	3	2.33	1.58	1.29	0.29	1.04	1.71
Independence	11N04W22BBA2	35.5692333	-91.4182694	110ALVM	4/14/23	217				1.18			
Independence	12N04W10BBC1	35.68508056	-91.3991333	110ALVM	4/14/23	236	24.6	16.73	19.51	14.7	4.81	2.03	9.90
Independence	12N04W14DD1	35.658175	-91.3765667	110ALVM	4/14/23	233	24.43			13.19			11.24
Independence	12N04W34CBB1	35.62225	-91.4201389	110ALVM	4/14/23	226	18.9		12	10.01	1.99		8.89
Independence	12N04W35CBB1	35.61950278	-91.3954	110ALVM	4/14/23	228	14.7	15.32	7.57	6	1.57	9.32	8.70
Independence	12N05W36AAA1	35.6272333	-91.4742278	110ALVM	4/14/23	239	21.6	7.54	15.25	13.15	2.10	5.61	8.45
										Wells in Decline:	0	1	0
										Total Wells:	5	4	6
										Average Change:	2.15	1.70	8.15
Jackson	11N01W11CBB1	35.5972222	-91.0744444	110ALVM	4/18/23	233			56.71	57.3	0.59		
Jackson	11N01W26AAD1	35.55826944	-91.0564472	110ALVM	4/18/23	230		72.85	72.29	73.11	0.82	0.26	
Jackson	11N03W06DAB1	35.61531389	-91.3356944	110ALVM	4/14/23	224	17.51	10.15		4.53		5.62	12.98
Jackson	12N01W11BCB1	35.6911333	-91.0711806	110ALVM	4/14/23	234		42.89		39.15		3.74	
Jackson	13N01W20AAA1	35.75392778	-91.1076306	110ALVM	4/14/23	244			40.79	40.28	0.51		
Jackson	13N03W35AAA1	35.72481667	-91.270375	110ALVM	4/14/23	237		11.08	10.56	6.64	3.92	4.44	
Jackson	14N01W09AAA1	35.8723222	-91.0875444	110ALVM	4/13/23	255	44		45.51	45.09	0.42		1.09
										Wells in Decline:	2	1	1
										Total Wells:	5	4	2
										Average Change:	0.69	3.39	5.95

Mississippi River Alluvial Aquifer
Hydrologic Data 2013,2018,2022,2023

County	Station ID Number	Latitude	Longitude	Aquifer Code	DATE	Land Surface Altitude	2013 Depth to Water (ft.)	2018 Depth to Water (ft.)	2022 Depth to Water (ft.)	2023 Depth to Water (ft.)	1 Year Change ('22 to '23)	5 Year Change ('18 to '23)	10 Year Change ('13 to '23)
Jefferson	03S09W36ACC1	34.40758889	-91.9318889	110ALVM	4/3/23	215		40.1	41.14	41.28	0.14	1.18	
Jefferson	03S10W35BBC1	34.41363889	-92.0667	110ALVM	4/3/23	216	17	16.1		10.8		5.30	6.20
Jefferson	04S07W35DDB1	34.3095611	-91.7294806	110ALVM	4/6/23	184	35.5	28.9	31.54	31.07	0.47	2.17	4.43
Jefferson	04S08W13DCB1	34.3563472	-91.8240139	110ALVM	4/7/23	204		48.3	45.27	46.2	0.93	2.10	
Jefferson	05S07W29DDD1	34.23625556	-91.7816333	110ALVM	4/7/23	192		22.7		16.39		6.31	
Jefferson	06S05W15BCA1	34.17304167	-91.5458333	110ALVM	4/11/23	176.89	17.76	15.23		12.95		2.28	4.81
Jefferson	06S05W16ADD1	34.1672222	-91.5502778	110ALVM	4/11/23	179		16.57		14.8		1.77	
Jefferson	06S06W23AAD1	34.16853889	-91.6200556	110ALVM	4/11/23	188.77	18	16.24		15.94		0.30	2.06
Jefferson	06S07W02BCA1	34.21519167	-91.74415	110ALVM	4/11/23	193		16.09		16.3		0.21	
Jefferson	06S07W14BAA1	34.19026667	-91.7404806	110ALVM	4/11/23	201		13.7		14.2		0.50	
Jefferson	07S07W16BAA1	34.1235111	-91.8078889	110ALVM	4/7/23	190		27.3	20.35	20.62	0.27	6.68	
Jefferson	07S08W06BAA1	34.14959167	-91.9464611	110ALVM	4/7/23	202	20.12	17.6	15.18	15.36	0.18	2.24	4.76
										Wells in Decline:	4	4	0
										Total Wells:	5	12	5
										Average Change:	0.21	1.91	4.45
Lawrence	15N01E09ABD1	35.95388889	-90.9833333	110ALVM	4/13/23	260	60.05		59.53	59.09	0.44		0.96
Lawrence	15N01E32BAA1	35.89788056	-91.0081	110ALVM	4/13/23	253	57.95		57.21	56.1	1.11		1.85
Lawrence	15N01W35CBB1	35.893375	-91.0656472	110ALVM	4/13/23	255	51.19	51	49.7	48.8	0.90	2.20	2.39
Lawrence	17N02E04DCA1	36.13308889	-90.8732389	112TRRC	4/12/23	272		47.26	43.97	45.61	1.64	1.65	
										Wells in Decline:	1	0	0
										Total Wells:	4	2	3
										Average Change:	0.20	1.93	1.73
Lee	01N02E11BAB1	34.71527778	-90.86888889	110ALVM	4/16/23	198	44	29	18.4	25.81	7.41	3.19	18.19
Lee	01N02E22CA1	34.67707065	-90.8880871	110ALVM	4/16/23	202			20.4	22.91	2.51		
Lee	01N02E33CCB1	34.64759876	-90.909282	110ALVM	4/16/23	185	13.5	10	7.5	9.15	1.65	0.85	4.35
Lee	01N03E27ADD1	34.66463056	-90.7681889	110ALVM	4/17/23	202	17.5	11.5	8.62	8.79	0.17	2.71	8.71
Lee	01N03E35BBA1	34.65701944	-90.7640167	110ALVM	4/17/23	202			7.88	7.9	0.02		
Lee	02N01E21BAA1	34.77593029	-91.0015076	112TRRC	4/16/23	185		39.5	34.6	42.35	7.75	2.85	
Lee	02N01E23AAA1	34.77561389	-90.9720194	110ALVM	4/16/23	201				56.97			
Lee	02N01E29AA1	34.76205	-91.0186917	110ALVM	4/16/23	194			53.48	55.37	1.89		
Lee	02N01W12BAA1	34.80785	-91.0582083	110ALVM	4/16/23	185			48.82	53.17	4.35		
Lee	02N02E08ADC1	34.80203889	-90.8940972	110ALVM	4/16/23	207	48.35		46.07	46.13	0.06		2.22
Lee	02N02E36DDC1	34.7320422	-90.8390026	112TRRC	4/16/23	205		33	11.9	23.99	12.09	9.01	
Lee	02N03E29CAD1	34.75009757	-90.8128907	112TRRC	4/16/23	220		42.5	51.6	36.89	14.71	5.61	
Lee	02N04E15DAC1	34.77686944	-90.6639972	110ALVM	4/12/23	192			17.94	18.32	0.38		
Lee	03N01E15CCB1	34.86810556	-90.9961111	110ALVM	4/16/23	204	68		69.48	70.16	0.68		2.16
Lee	03N02E13BBA1	34.87705556	-90.8520333	110ALVM	4/12/23	212	52		50.19	54.71	4.52		2.71
Lee	03N02E29DAD1	34.83711667	-90.9082722	112TRRC	4/12/23	205			50.56	47.49	3.07		
Lee	03N03E32CAB1	34.8257361	-90.8239528	110ALVM	4/12/23	214	50.9		48.11	48.81	0.70		2.09
Lee	03N04E07CBB1	34.8792614	-90.7201098	110ALVM	4/12/23	200	18	18.5	24.2	28.62	4.42	10.12	10.62
Lee	03N05E14DDA1	34.86335556	-90.5342361	110ALVM	4/12/23	195	14.6		12.09	12.39	0.30		2.21
										Wells in Decline:	16	2	3
										Total Wells:	18	7	9
										Average Change:	1.73	1.20	2.48

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Lincoln	07S06W03CCA2	34.13763056	-91.6874111	110ALVM	4/7/23	187		12.8	16.79	13.2	3.59	0.40	
Lincoln	07S07W36CBD1	34.0696	-91.7578	110ALVM	4/7/23	182	44	37.6		35.85		1.75	8.15
Lincoln	08S05W32DCC1	33.97761944	-91.6135306	110ALVM	4/7/23	172	55	47.2		46.05		1.15	8.95
Lincoln	08S07W05DDD1	34.050225	-91.8174222	110ALVM	4/7/23	190	31.45	31.05	27.84	27.77	0.07	3.28	3.68
Lincoln	09S05W17BCB1	33.9309972	-91.638875	110ALVM	4/7/23	172	42.2	42.42	41.38	41.39	0.01	1.03	0.81
Lincoln	09S05W19CCC1	33.90785	-91.6647	110ALVM	4/7/23	175	38	35.6		38.83		3.23	0.83
Lincoln	09S06W04BCD1	33.97260556	-91.7293972	110ALVM	4/7/23	181	44.65	44.26	42.96	42.59	0.37	1.67	2.06
Lincoln	09S06W04BDD1	33.96509167	-91.726875	110ALVM	4/7/23	180		44		43.01		0.99	
Lincoln	10S05W05BCB1	33.87444444	-91.6425	110ALVM	4/3/23	171	29.42		28.68	28.52	0.16		0.90
Lincoln	10S05W06DCC1	33.8653611	-91.6522111	110ALVM	4/3/23	173	29.88	29.32	30.17	30.02	0.15	0.70	0.14
										Wells in Decline:	1	3	2
										Total Wells:	6	9	8
										Average Change:	0.72	0.62	2.95
Lonoke	01N07W18CD1	34.70316944	-91.8034	110ALVM	4/13/23	229				144.17			
Lonoke	01N07W27AAD1	34.6843	-91.7362222	110ALVM	4/11/23	218	136.35	131.73		134.82		3.09	1.53
Lonoke	01N08W03DDA1	34.73648044	-91.8473592	112TRRC	4/12/23	229		142.69		141.34		1.35	
Lonoke	01N09W13DAB1	34.70976944	-91.9213917	110ALVM	4/5/23	226	90.4	85.07	81.64	84.32	2.68	0.75	6.08
Lonoke	01N10W15CDA1	34.7099833	-92.0704306	110ALVM	4/11/23	244.89	23	21.3	18.5	19.89	1.39	1.41	3.11
Lonoke	01S06W31ABB1	34.58316389	-91.6920778	110ALVM	4/11/23	203	81.86	81.26	78.74	80.95	2.21	0.31	0.91
Lonoke	01S06W32BBB1	34.58385	-91.6827806	110ALVM	4/11/23	202.18	81	81.46		78.77		2.69	2.23
Lonoke	01S07W12ABA1	34.64286389	-91.7082889	110ALVM	4/11/23	207		92.41	90.08	92.2	2.12	0.21	
Lonoke	01S07W19DDB1	34.6025	-91.7961111	110ALVM	4/12/23	206	89.11		88.13	89.2	1.07		0.09
Lonoke	01S08W24CDD1	34.60156667	-91.8201028	110ALVM	4/12/23	210	86.13	85.46	84.01	85.73	1.72	0.27	0.40
Lonoke	01S09W11AA1	34.6493111	-91.9393111	110ALVM	4/5/23	230		80.6		82.24	1.64		
Lonoke	01S09W36CCC1	34.576475	-91.9386056	110ALVM	4/11/23	220		61.16		61.4	0.24		
Lonoke	01S10W01ACB1	34.65745556	-92.0374889	110ALVM	4/11/23	236	45.51	42.12	39.96	41.25	1.29	0.87	4.26
Lonoke	01S10W11CAB1	34.6447222	-92.0602778	110ALVM	4/3/23	236			26.95	27.76	0.81		
Lonoke	02N07W03DAA1	34.82481309	-91.73263479	110ALVM	4/5/23	236				140.6			
Lonoke	02N07W16BAB1	34.8042222	-91.7609722	110ALVM	4/13/23	239		144.78		146.19		1.41	
Lonoke	02N07W16CA1	34.7902611	-91.7608306	110ALVM	4/13/23	232			145.66	145.59	0.07		
Lonoke	02N08W16ABC1	34.8018	-91.8537806	110ALVM	4/12/23	234	126.87		127.19	127.1	0.09		0.23
Lonoke	02N08W23CAB1	34.78314638	-91.8551376	110ALVM	4/14/23	229		137.99	133.29	142.83	9.54	4.84	
Lonoke	02N08W23DC2	34.77943889	-91.8337	110ALVM	4/14/23	231			135.33	133.4	1.93		
Lonoke	02N08W27DCC1	34.76194444	-91.8516667	110ALVM	4/21/23	230			132.7	132.58	0.12		
Lonoke	02N10W15ACC1	34.80161944	-92.0649111	110ALVM	4/14/23	242.04	30	44.67		28.4		16.27	1.60
Lonoke	02S08W06AAB1	34.575	-91.9130556	110ALVM	4/11/23	221	70.57	68.49	64.97	66.09	1.12	2.40	4.48
Lonoke	02S08W28CDC	34.50194444	-91.8769444	110ALVM	4/3/23	216	64.59	64.31	63.13	64.05	0.92	0.26	0.54
Lonoke	02S08W34DBB1	34.5008222	-91.8638194	110ALVM	4/3/23	214	68.59	61.63	66.93	60.26	6.67	1.37	8.33
Lonoke	02S09W22AAA1	34.5318111	-91.9575	110ALVM	4/3/23	227.24		65.95		63.54		2.41	
Lonoke	02S09W30CDD1	34.5039833	-92.0211139	110ALVM	4/6/23	228		39.96	37.77	38.61	0.84	1.35	
Lonoke	03N07W08BDB1	34.90183889	-91.7773	110ALVM	5/2/23	250		99.8	103.92	104.16	0.24	4.36	
Lonoke	03N07W29ADA1	34.857925	-91.7662222	110ALVM	5/1/23	232	94.9	98.1	98.72	99.36	0.64	1.26	4.46
Lonoke	03N07W35CDC2	34.83254444	-91.7255861	110ALVM	4/6/23	232	118.86		120.88	123.84	2.96		4.98
Lonoke	03N08W03BAA1	34.92181667	-91.8482	110ALVM	5/1/23	260		104.36	106.26	106.62	0.36	2.26	
Lonoke	03N08W03CCC1	34.90829444	-91.8564444	110ALVM	5/1/23	260		111.04	112.55	113.32	0.77	2.28	
Lonoke	03N08W08ABA1	34.90749444	-91.8799639	110ALVM	5/1/23	258		102.14	103.2	103.5	0.30	1.36	
Lonoke	03N08W10ACB1	34.90406944	-91.8479833	110ALVM	5/2/23	248		99.07	100.1	100.5	0.40	1.43	

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Lonoke	03N08W10ADD1	34.90029444	-91.8396611	110ALVM	5/1/23	248		100.7	101.74	103.08	1.34	2.38	
Lonoke	03N08W11ACA1	34.9035333	-91.8261833	110ALVM	5/1/23	257		107.9	110.06	110.01	0.05	2.11	
Lonoke	03N08W29BBB1	34.8630833	-91.8924472	110ALVM	4/4/23	249		114.62	114.37	114.79	0.42	0.17	
Lonoke	03N08W29BCC1	34.8569472	-91.8926111	110ALVM	4/4/23	249		112.8	114.43	139.63	25.20	26.83	
Lonoke	03N08W32ABB1	34.849475	-91.8811167	110ALVM	5/1/23	250	122.67	121.91	121.75	122.23	0.48	0.32	0.44
Lonoke	04N08W16DCC1	34.96590556	-91.8650056	110ALVM	4/4/23	234		49.77	50.82	48.37	2.45	1.40	
Lonoke	04N08W19BBB1	34.9648333	-91.9088333	110ALVM	4/4/23	300		5	1.89	3.44	1.55	1.56	
Lonoke	04N08W28CAC1	34.93896389	-91.87105	110ALVM	5/9/23	234			61.89	62.05	0.16		
Lonoke	04N08W28CCC1	34.93738056	-91.8736972	110ALVM	4/4/23	237		67.01	67.94	67.79	0.15	0.78	
Lonoke	04N08W33ABD1	34.93294444	-91.8614722	110ALVM	5/9/23	258		93.51	96.09	96.7	0.61	3.19	
Lonoke	04N08W33ACD1	34.92969444	-91.8613611	110ALVM	5/9/23	256			98.4	98.9	0.50		
Lonoke	04N08W33ADB1	34.93127778	-91.8569444	110ALVM	5/9/23	263			98.6	97.2	1.40		
Lonoke	04N08W33ADD1	34.92952778	-91.8570833	110ALVM	5/9/23	267		106.23	108.44	112.43	3.99	6.20	
										Wells in Decline:	30	18	4
										Total Wells:	39	33	16
										Average Change:	1.40	0.91	1.51
Mississippi	10N08E22AB1	35.48083889	-90.2225389	110ALVM	4/11/23	228.12			25.09	26.87	1.78		
Mississippi	10N08E22AB2	35.48085	-90.2226889	110ALVM	4/11/23	228.12	26.56		24.79	26.12	1.33		0.44
Mississippi	11N10E09BCB1	35.5914583	-90.03435	110ALVM	4/12/23	236.14		17.4	18.91	19.86	0.95	2.46	
Mississippi	12N08E28ddb1	35.62005	-90.2318	110ALVM	4/12/23	227		19.8	25.69	24.61	1.08	4.81	
Mississippi	12N09E12ABC1	35.68195	-90.0806306	110ALVM	4/12/23	232		15.8	21.73	22.67	0.94	6.87	
Mississippi	12N10E04CAA1	35.6882111	-90.0268389	110ALVM	4/12/23	233		9.5	13.86	15.03	1.17	5.53	
Mississippi	12N10E21DBA1	35.64507899	-90.022867	110ALVM	4/12/23	236		18.6	20.29	19.76	0.53	1.16	
Mississippi	13N08E24ABB1	35.7374	-90.1866806	110ALVM	4/12/23	232		7.2		9.21		2.01	
Mississippi	13N09E30CCC2	35.71538889	-90.1775583	110ALVM	4/11/23	223.12			13.04	13.56	0.52		
Mississippi	13N09E30CCD1	35.71328056	-90.1746194	110ALVM	4/11/23	230	15	7.05		12.56		5.51	2.44
Mississippi	13N10E20B 1	35.7383361	-90.0488167	110ALVM	4/11/23	229		3.34	7.68	7.73	0.05	4.39	
Mississippi	14N08E04DD2	35.8589472	-90.2351028	110ALVM	4/12/23	231		5.9	3.98	4.74	0.76	1.16	
Mississippi	14N08E12DAB1	35.8511583	-90.1810944	110ALVM	4/12/23	236		4.15	2.39	4.94	2.55	0.79	
Mississippi	14N08E26CC1	35.80076944	-90.2092194	110ALVM	4/12/23	228		5.1	2.69	2.34	0.35	2.76	
Mississippi	14N10E18BD1	35.83935	-90.0626694	110ALVM	4/12/23	239				12.03			
Mississippi	14N10E26DC1	35.80417778	-89.9854417	110ALVM	4/11/23	234		7.37	6.48	7.78	1.30	0.41	
Mississippi	14N10E27AD1	35.8093083	-89.9992167	110ALVM	4/11/23	233		5.33	5.27	6.12	0.85	0.79	
Mississippi	14N11E33CAA1	35.78911667	-89.9227889	110ALVM	4/12/23	243		10	13.49	12.56	0.93	2.56	
Mississippi	15N08E08DBC2	35.9346111	-90.2573111	112TRRC	4/12/23	238			9.24	8.72	0.52		
Mississippi	15N08E32DD1	35.8738722	-90.2527944	110ALVM	4/12/23	228		4.75	2.97	4.03	1.06	0.72	
Mississippi	15N10E21BBD1	35.91234444	-90.031325	110ALVM	4/12/23	239			7.27	8.76	1.49		
Mississippi	15N12E01BCD1	35.95148889	-89.7669889	110ALVM	4/12/23	255		9.2	7.1	11.14	4.04	1.94	
Mississippi	16N08E35DA1	35.96735	-90.1990556	110ALVM	4/12/23	239		5.59	6.13	7	0.87	1.41	
Mississippi	16N10E28BBD1	35.9850361	-90.0322306	110ALVM	4/12/23	238		10.1	10.92	8.15	2.77	1.95	
Mississippi	16N11E23ADA1	35.996325	-89.8753778	110ALVM	4/12/23	256			11.41	12.13	0.72		
										Wells in Decline:	16	14	0
										Total Wells:	22	18	2
										Average Change:	0.65	1.89	1.44

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Monroe	01N02W12CBC1	34.71175	-91.1755278	112VLTR	4/5/23	182			42.01	44.13	2.12		
Monroe	01N03W23BAC1	34.69048889	-91.2934	110ALVM	4/11/23	173	18.5	13		7.86		5.14	10.64
Monroe	01N04W33BBB2	34.6665333	-91.4468111	110ALVM	4/6/23	220		100.72	95.61	96.03	0.42	4.69	
Monroe	01S01W13CDD1	34.60303889	-91.0612611	110ALVM	4/17/23	175			18.32	21.41	3.09		
Monroe	01S01W16DB	34.60383889	-91.1093194	110ALVM	4/3/23	177		25.48		20.6		4.88	
Monroe	01S01W18DCD1	34.6049333	-91.147	110ALVM	4/5/23	179	25.25		23.1	23	0.10		2.25
Monroe	01S02E09CBB1	34.62186944	-90.9094611	110ALVM	4/16/23	185		10.1	8.59	9.18	0.59	0.92	
Monroe	01S02W20BBB1	34.60352778	-91.2489167	110ALVM	4/3/23	171	13.29	18	7.86	7	0.86	11.00	6.29
Monroe	01S03W20BBA1	34.60043889	-91.3864694	110ALVM	4/4/23	209	80	70.83		75.6		4.77	4.40
Monroe	01S04W01BAB1	34.65162778	-91.3879806	112TRRC	4/4/23	214		73.9	72.17	71.8	0.37	2.10	
Monroe	02N01W19ADD1	34.7731	-91.1374389	110ALVM	4/11/23	189		59.53		59.98		0.45	
Monroe	02N03W35BCA1	34.74028889	-91.2980306	112TRRC	4/4/23	186		29.86		25.8		4.06	
Monroe	02S01W01BCD1	34.55088056	-91.0675389	110ALVM	4/17/23	176	20	20.5		17.84		2.66	2.16
Monroe	02S02W11DAC1	34.535825	-91.1834944	110ALVM	4/5/23	164	10.4		5.78	6.7	0.92		3.70
Monroe	03N01W06DBA1	34.90314966	-91.1395673	112TRRC	4/13/23	191				46.15			
Monroe	03N02W31ADC1	34.83285556	-91.2464444	112TRRC	4/3/23	190			37.27	35.45	1.82		
Monroe	03N03W36AAA1	34.83930278	-91.2630583	112TRRC	4/3/23	178			31.1	19.1	12.00		
Monroe	04N02W01BCC1	34.99113889	-91.16435	112TRRC	4/11/23	195		41.82		32.8		9.02	
Monroe	04N02W05BBB1	35.00046667	-91.2195222	112TRRC	4/4/23	188		14.02		13.09		0.93	
Monroe	04N02W30BBB1	34.94107778	-91.2568639	112TRRC	4/19/23	185.19				0.87			
										Wells in Decline:	5	2	0
										Total Wells:	10	12	6
										Average Change:	0.80	3.35	4.91
Phillips	01S02E32BBB1	34.57035278	-90.9274917	110ALVM	4/17/23	197				22.16			
Phillips	01S03E02ADD1	34.63850278	-90.7525917	110ALVM	4/17/23	202		14.6		11.15		3.45	
Phillips	01S03E02CBB1	34.6358333	-90.7677778	110ALVM	4/17/23	202			9.59	9.68	0.09		
Phillips	01S03E10ABB1	34.62815485	-90.776223	112TRRC	4/17/23	205		15		13.23		1.77	
Phillips	01S04E05DCD1	34.63398865	-90.6976094	112TRRC	4/17/23	246		46	46.18	45.44	0.74	0.56	
Phillips	02S01E23CA1	34.50113889	-90.9784833	110ALVM	4/18/23	177				14.07			
Phillips	02S03E15ACD1	34.5194333	-90.7726333	110ALVM	4/20/23	174		12.05	9.07	9.59	0.52	2.46	
Phillips	02S04E27AAC1	34.49210278	-90.6669694	110ALVM	4/17/23	180			7.28	7.38	0.10		
Phillips	03S03E02DDD1	34.45240556	-90.7507417	110ALVM	4/17/23	174				19.52			
Phillips	03S03E04DAA1	34.45958889	-90.7860917	110ALVM	4/17/23	171	20.5		16.63	17.2	0.57		3.30
Phillips	03S04E02CAA1	34.45994444	-90.6557639	110ALVM	4/17/23	179		9		12.21		3.21	
Phillips	04S01E14CDD1	34.33683889	-90.9765889	110ALVM	4/17/23	156		10		13.3		3.30	
Phillips	04S01E23CCA1	34.3253611	-90.9812833	110ALVM	4/17/23	155				14.93			
Phillips	04S02E03AB1	34.38741944	-90.8486833	110ALVM	4/17/23	166				20.25			
										Wells in Decline:	4	2	0
										Total Wells:	5	6	1
										Average Change:	0.11	0.29	3.30
Poinsett	10N01E16CCB1	35.4894083	-91.0014861	110ALVM	4/12/23	225	80.55		82.96	82.29	0.67		1.74
Poinsett	10N01E32CBB1	35.44916667	-91.0147194	112TRRC	4/12/23	221		77		82.68		5.68	
Poinsett	10N02E13BCC1	35.4968111	-90.8406361	112TRRC	4/11/23	237.16				114.69			
Poinsett	10N02E15CAA1	35.49452635	-90.8692828	110ALVM	4/11/23	237	115	116.2	117.36	117.02	0.34	0.82	2.02
Poinsett	10N02E20BAB1	35.48508215	-90.9051171	110ALVM	4/11/23	237		105		154.27		49.27	

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County	Station ID Number	Latitude	Longitude	Aquifer Code	DATE	Land Surface Altitude	2013 Depth to Water (ft.)	2018 Depth to Water (ft.)	2022 Depth to Water (ft.)	2023 Depth to Water (ft.)	1 Year Change ('22 to '23)	5 Year Change ('18 to '23)	10 Year Change ('13 to '23)
Poinsett	10N02E34BBB1	35.45716667	-90.8753611	110ALVM	3/30/23	235		108.4	110.72	110.89	0.17	2.49	
Poinsett	10N03E19BCB1	35.48480436	-90.8187257	110ALVM	4/11/23	239		115.8		110.33		5.47	
Poinsett	10N03E20CC1	35.47780556	-90.8025472	110ALVM	4/11/23	239				110.89			
Poinsett	10N03E21CD1	35.47826944	-90.7776889	110ALVM	4/11/23	239				105.97			
Poinsett	10N04E35BBA1	35.46355	-90.6415389	112TRRC	4/11/23	212			10.65	21.84	11.19		
Poinsett	10N06E11AAA1	35.51096944	-90.4129611	110ALVM	4/12/23	213			6.35	5.37	0.98		
Poinsett	11N01E17DDD1	35.5768972	-91.0036694	112TRRC	4/17/23	230	86.9			88.34			1.44
Poinsett	11N01E26AA1	35.56120278	-90.9481444	110ALVM	4/17/23	236	107.65		107.96	108.26	0.30		0.61
Poinsett	11N02E01CC1	35.60856944	-90.8354028	110ALVM	4/17/23	242		119.07	121.84	123.06	1.22	3.99	
Poinsett	11N02E07CA1	35.59754167	-90.9193944	110ALVM	4/17/23	241		119.32	122.16	121.64	0.52	2.32	
Poinsett	11N02E30BBB1	35.5645249	-90.9278959	110ALVM	4/17/23	239		111	114.68	117.42	2.74	6.42	
Poinsett	11N03E07CBB1	35.601	-90.8216389	110ALVM	4/17/23	243			123.05	122.32	0.73		
Poinsett	11N03E10DDA1	35.596025	-90.7490389	110ALVM	4/17/23	251			114.05	113.95	0.10		
Poinsett	11N03E20DCD1	35.5647361	-90.7888306	112TRRC	4/17/23	244				124.47			
Poinsett	11N05E26BDB1	35.55563889	-90.5331611	110ALVM	4/12/23	213	13	10.2	12	11.86	0.14	1.66	1.14
Poinsett	11N06E34BBC1	35.54	-90.4461111	110ALVM	4/12/23	217			12.03	14.63	2.60		
Poinsett	11N07E22ADD1	35.5621611	-90.3229111	110ALVM	4/11/23	221		23.87	25.35	25.35	0.00	1.48	
Poinsett	12N01E07CDA1	35.68158056	-91.028125	110ALVM	4/14/23	241	56.7			53.98			2.72
Poinsett	12N01E22DAB1	35.65604167	-90.9706861	110ALVM	4/14/23	234	81	80		81.95		1.95	0.95
Poinsett	12N02E25DCC1	35.6377611	-90.8293333	110ALVM	4/13/23	246		134	126.62	127.37	0.75	6.63	
Poinsett	12N02E26DAD1	35.64476667	-90.8397	110ALVM	3/31/23	245			125.34	126.1	0.76		
Poinsett	12N02E34CCC1	35.62457778	-90.8747833	112TRRC	4/17/23	247		136.5	128.94	139.07	10.13	2.57	
Poinsett	12N02E34DA1	35.63455	-90.8657139	110ALVM	4/17/23	244				125.9			
Poinsett	12N03E01CBD1	35.69375	-90.7277889	110ALVM	4/10/23	248		110	106.13	107.44	1.31	2.56	
Poinsett	12N03E35AD1	35.62924585	-90.7315015	110ALVM	4/17/23	246			109.42	110.22	0.80		
Poinsett	12N03E36ACB1	35.63038889	-90.7218667	110ALVM	4/17/23	250				111.65			
Poinsett	12N05E16ABA1	35.67775	-90.5589694	110ALVM	4/12/23	220	14	10	12.16	11.41	0.75	1.41	2.59
Poinsett	12N07E04BA1	35.7006	-90.3495889	110ALVM	4/11/23	222				8			
Poinsett	12N07E04BAA1	35.6970611	-90.35605	110ALVM	4/11/23	220	8.5		4.28	4.9	0.62		3.60
Poinsett	12N07E25CCD1	35.62781944	-90.30055	110ALVM	4/11/23	225	19.97		17.95	17.79	0.16		2.18
										Wells in Decline:	12	12	5
										Total Wells:	22	15	10
										Average Change:	1.28	4.36	0.55
Prairie	01N06W05CCB1	34.73138056	-91.6803	110ALVM	4/10/23	220	119.7	118.22	117.74	118.83	1.09	0.61	0.87
Prairie	01S04W28BDB1	34.5896333	-91.4415917	110ALVM	4/4/23	205	98.73	97.22	95.92	94.9	1.02	2.32	3.83
Prairie	01S05W31DDA1	34.57133889	-91.5754694	110ALVM	4/4/23	205.92	101.17	99.86	97.13	95.59	1.54	4.27	5.58
Prairie	01S06W12BAB1	34.64055556	-91.6036111	110ALVM	4/6/23	228	119.09	117.07	110.62	105.58	5.04	11.49	13.51
Prairie	02N05W21CBB2	34.78027778	-91.55	110ALVM	4/6/23	227	111.25			110.77			0.48
Prairie	02N05W24BCA3	34.78340278	-91.492625	110ALVM	4/6/23	223	92.15		88.28	88.89	0.61		3.26
Prairie	02N05W24CBB1	34.7779111	-91.4965694	110ALVM	4/12/23	225			98.46	105.4	6.94		
Prairie	02N05W29DDB2	34.7625611	-91.5524306	110ALVM	4/10/23	226	125.93	121.42		120.98		0.44	4.95
Prairie	02N05W35DB1	34.7507111	-91.5066889	110ALVM	4/12/23	220				99.1			
Prairie	02N06W22BCC1 ne	34.7813333	-91.6409444	110ALVM	4/10/23	235			113.72	114.02	0.30		
Prairie	02N06W24CAA1	34.7808333	-91.5975	110ALVM	4/10/23	231	118.77		117.96	118.24	0.28		0.53
Prairie	03N05W03CB1	34.91036944	-91.52885	110ALVM	4/17/23	200				65.7			
Prairie	04N05W07CDC1	34.97850556	-91.5780333	110ALVM	4/12/23	211	79.2		78.88	84.51	5.63		5.31
Prairie	04N06W05CCC1	34.9927111	-91.6716556	110ALVM	4/12/23	205.99	62.36			63.23			0.87

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Prairie	04N07W03DCB1	34.9956472	-91.7365194	110ALVM	4/6/23	256	89.17		90.04	91.41	1.37		2.24
Prairie	04N07W20DDDB1	34.95256389	-91.7686861	110ALVM	5/1/23	264	103.24	105.12	105.75	105.68	0.07	0.56	2.44
Prairie	04N07W28BBA1	34.9501472	-91.7624667	110ALVM	4/6/23	258	98.22	99.14		100.88		1.74	2.66
										Wells in Decline:	7	3	5
										Total Wells:	11	7	13
										Average Change:	0.78	2.23	1.50
Pulaski	01N10W29DC1	34.68033889	-92.10205	110ALVM	4/3/23	246			15.87	13.62	2.25		
Pulaski	01S10W19CDC1	34.60848889	-92.1307389	110ALVM	4/3/23	239			21.05	19.8	1.25		
Pulaski	01S10W29CC1	34.59382778	-92.1187944	110ALVM	4/3/23	239	22.2	11.01	13.35	11.84	1.51	0.83	10.36
Pulaski	01S11W22AB1	34.61998889	-92.1816083	110ALVM	4/5/23	233			21.22	19.35	1.87		
Pulaski	02S10W14DC1	34.53464167	-92.059375	110ALVM	4/3/23	225		21.53	19.9	21.14	1.24	0.39	
										Wells in Decline:	1	1	0
										Total Wells:	5	2	1
										Average Change:	1.13	0.22	10.36
Randolph	18N01E34AAC1	36.1618583	-90.9580917	110ALVM	4/12/23	264		19.83	18.48	20.22	1.74	0.39	
Randolph	18N02E03DAD1	36.22818889	-90.844425	110ALVM	4/12/23	279		9.75	24.96	25.79	0.83	16.04	
Randolph	18N02E27BA1	36.17910278	-90.8568472	110ALVM	4/12/23	274.02		36.88	39.78	40.14	0.36	3.26	
Randolph	20N02E01ADD1	36.406725	-90.8031639	110ALVM	4/13/23	280	19		8.13	7.85	0.28		11.15
Randolph	20N03E28BA1	36.3537583	-90.7605472	110ALVM	4/13/23	279	13.4	10.21	8.54	8.83	0.29	1.38	4.57
										Wells in Decline:	4	3	0
										Total Wells:	5	4	2
										Average Change:	0.59	4.58	7.86
St. Francis	04N02E27AAA1	34.93520278	-90.8755278	110ALVM	4/18/23	211			49.6	50.8	1.20		
St. Francis	04N01W20BBB1	34.95476944	-91.1337028	112TRRC	4/18/23	202			66.5	61.7	4.80		
St. Francis	04N01W22BB1	34.9552472	-91.0962444	110ALVM	4/18/23	208	75.6		76.8	80	3.20		4.40
St. Francis	04N01W28CDD1	34.9264611	-91.1093194	110ALVM	4/13/23	208			75.93	75.41	0.52		
St. Francis	04N02E11AD1	34.9733722	-90.8535333	110ALVM	4/18/23	213			47.4	50.6	3.20		
St. Francis	04N0W329BB1	34.9333361	-90.9243556	110ALVM	5/1/23	206			60.5	62.5	2.00		
St. Francis	04N10E20DA1	34.9461972	-91.0135833	110ALVM	4/18/23	204			76.8	82	5.20		
St. Francis	05N01E06CDA1	35.08030278	-91.0327444	112TRRC	4/18/23	211			75	85	10.00		
St. Francis	05N01E15BCB1	35.05071389	-90.9951139	110ALVM	4/10/23	209	71.23	72.3	74.31	75.37	1.06	3.07	4.14
St. Francis	05N01E27BBA1	35.02659167	-90.9913278	110ALVM	4/10/23	209		90.6	76.41	76.26	0.15	14.34	
St. Francis	05N02E20ADC1	35.0324722	-90.9103222	110ALVM	4/10/23	211			62.03	62.21	0.18		
St. Francis	05N02E26AAB1	35.02315	-90.8557917	110ALVM	4/18/23	218			58	56.1	1.90		
St. Francis	05N02E26CD1	35.0088861	-90.8703389	110ALVM	4/18/23	215			42	52.7	10.70		
St. Francis	05N05E19DCA1	35.024325	-90.6084306	110ALVM	4/11/23	205			30.28	30.7	0.42		
St. Francis	05N06E05BBB1	35.08486667	-90.489925	110ALVM	4/18/23	201	39		32.3	32.4	0.10		6.60
St. Francis	05N06E34CAB1	35.00710278	-90.4491306	110ALVM	4/12/23	200	26.7	23.75		23.57		0.18	3.13
St. Francis	06N01E33AD1	35.09869167	-90.9952583	110ALVM	4/18/23	210			79	75.8	3.20		
St. Francis	06N02E13DCA1	35.13684444	-90.8340861	110ALVM	4/16/23	232			81.04	81.65	0.61		
St. Francis	06N02E15BDD1	35.144975	-90.8798083	110ALVM	4/16/23	214.73	65.6		69.29	68.15	1.14		2.55
St. Francis	06N02E16CCC1	35.13591389	-90.90095	112TRRC	4/18/23	218			73	72.9	0.10		
St. Francis	06N02E24AAA1	35.1319972	-90.8340056	110ALVM	4/16/23	232				85.08			

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Arkansas	02S04W11DBB1	34.54246944	-91.404225	110ALVM	4/6/23	212.93	102		
Arkansas	02S04W19AA1	34.50635	-91.4860306	110ALVM	4/4/23	205	105.7		
Arkansas	02S04W23DA1	34.51231944	-91.3981194	112MRVAA	4/4/23	207	95.96		
Arkansas	02S05W09AA1	34.54833889	-91.5396194	112MRVAA	4/4/23	220	121.19		
Arkansas	02S05W15AAB1	34.53701944	-91.5239444	110ALVM	4/4/23	212	122.85		
Arkansas	02S05W36DDD1	34.47851944	-91.4881194	110ALVM	4/4/23	212	96.97		
Arkansas	03S03W05CCD1	34.4602833	-91.3588417	110ALVM	4/6/23	203	99.4		
Arkansas	03S03W18CCC1	34.43138889	-91.3808333	110ALVM	4/12/23	196	100.01		
Arkansas	03S03W27BBC1	34.41520278	-91.3289111	110ALVM	4/6/23	198	92.8	95.71	2.91
Arkansas	03S04W02BBB1	34.4760722	-91.4163	110ALVM	4/12/23	197.46	92.4		
Arkansas	03S04W03DCA16	34.4647333	-91.4209361	110ALVM	4/19/23	200	99.8	99.92	0.12
Arkansas	03S04W03DCA6	34.4648083	-91.4210667	110ALVM	4/12/23	204	99.5		
Arkansas	03S04W24CC1	34.41693056	-91.3934	112MRVAA	4/4/23	193	81.31		
Arkansas	03S05W03CCC1	34.4644861	-91.5409528	110ALVM	4/7/23	215	103.7	103.29	0.41
Arkansas	03S05W13CBA2	34.44166667	-91.5019444	110ALVM	4/13/23	211	105.7		
Arkansas	03S05W24DAA1	34.4236583	-91.4894389	110ALVM	4/13/23	207	39.7		
Arkansas	03S06W35ADD1	34.40316667	-91.6143528	110ALVM	4/7/23	190	52.6		
Arkansas	04S03W17ADD1	34.35051944	-91.349475	110ALVM	4/6/23	200	109		
Arkansas	04S03W32BCC1	34.30636944	-91.36685	110ALVM	4/6/23	192	110.2		
Arkansas	04S04W02ABB1	34.387	-91.4065806	110ALVM	4/12/23	200	109.6		
Arkansas	04S04W35ABC1	34.31168889	-91.4145194	110ALVM	4/4/23	193	102.26	102.21	0.05
Arkansas	04S05W16CDC1	34.34574444	-91.5558028	110ALVM	4/10/23	201	66.08		
Arkansas	05S03W09CBA1	34.2733333	-91.3461111	110ALVM	4/6/23	196	112.99	113.57	0.58
Arkansas	05S03W16ABB1	34.26666667	-91.3408333	110ALVM	4/6/23	197	112.5	114.08	1.58
Arkansas	05S04W04BAA2	34.2973333	-91.4489944	110ALVM	4/10/23	185	88.1		
Arkansas	05S04W14AAD1	34.26365	-91.4034417	110ALVM	4/10/23	189	97.3	88.43	8.87
Arkansas	05S04W32BBA1	34.22110278	-91.472725	110ALVM	4/12/23	187	52.17	54.42	2.25
Arkansas	06S02W03AB1	34.20788889	-91.2173056	110ALVM	4/19/23	188	63.92		
Arkansas	06S03W10BBA1	34.193325	-91.3316167	110ALVM	4/19/23	184	75.27	76.99	1.72
								Wells in Decline:	6
								Total Wells:	9
								Average Change:	0.02
Ashley	15S04W23DB1	33.37813056	-91.4821	110ALVM	4/7/23	125	29.2		
Ashley	16S06W08CAA1	33.32815	-91.7439611	110ALVM	4/7/23	184	79.16		
Ashley	16S06W25DDD1	33.27777778	-91.6661111	110ALVM	4/7/23	180	79.59	80.6	1.01

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County	Station ID Number	Latitude	Longitude	Aquifer Code	DATE	Land Surface Altitude	2023 Depth to Water (ft.)	2023 Fall Depth to Water (ft.)	Spring to Fall Change
Ashley	16S06W27BAB1	33.2915722	-91.7111694	110ALVM	4/7/23	183	85.97	86.84	0.87
Ashley	17S04W15DDC1	33.21457778	-91.4983583	110ALVM	4/7/23	116	24.04	28.38	4.34
Ashley	17S04W21ABA1	33.21391389	-91.51945	110ALVM	4/7/23	118	20.54	25.82	5.28
Ashley	17S06W35CAC1	33.1803861	-91.6935528	110ALVM	4/7/23	179	74.03		
Ashley	18S08W01AAB1	33.170825	-91.8736444	110ALVM	4/6/23	178	87.95		
Ashley	18S08W28DDD2	33.10688889	-91.9245722	110ALVM	4/6/23	163.01	84.13	83.8	0.33
Ashley	19S06W07BCC1	33.06765556	-91.7688667	110ALVM	4/7/23	134.41	31.27	32.07	0.80
								Wells in Decline:	5
								Total Wells:	6
								Average Change:	2.00
Chicot	13S03W27AAA1	33.54855	-91.3851222	110ALVM	4/6/23	138	45.95	46.92	0.97
Chicot	13S03W35BAC1	33.53168056	-91.3793139	110ALVM	4/6/23	133	41.14	43.85	2.71
Chicot	14S03W07BBD1	33.50308056	-91.4388889	110ALVM	4/6/23	137	26.71	28.89	2.18
Chicot	16S03W15DAD1	33.305	-91.3927778	110ALVM	4/7/23	118	34.2	34.88	0.68
Chicot	19S02W27ACC1	33.01598056	-91.29495	110ALVM	4/7/23	129	40.34	41.33	0.99
Chicot	19S03W14ABB1	33.05124167	-91.3807472	110ALVM	4/7/23	110	22.93	25.01	2.08
								Wells in Decline:	6
								Total Wells:	6
								Average Change:	1.60
Clay	18N08E03DAB1	36.22311944	-90.1980639	110ALVM	4/12/23	258	6.12	9.95	3.83
Clay	18N08E11BAA1	36.2147868	-90.188153	110ALVM	4/11/23	256	6.44		
Clay	19N04E19BAA1	36.2803423	-90.6903906	110ALVM	4/10/23	279	22.54		
Clay	19N05E15BBD1	36.28784086	-90.5312189	110ALVM	4/10/23	289	39.02		
Clay	19N06E18DBC1	36.27836389	-90.4708	110ALVM	4/10/23	291	40.39		
Clay	19N07E25BCB1	36.25533889	-90.2836306	112TRRC	4/11/23	273	15.57		
Clay	19N08E08DCA1	36.29196389	-90.2348083	112TRRC	4/11/23	266	4.1		
Clay	20N04E02BB1	36.4079361	-90.6216111	110ALVM	4/11/23	288	15.7	32.52	16.82
Clay	20N04E03ADA1	36.4070058	-90.623724	112TRRC	4/11/23	287	15.41		
Clay	20N04E06BB1	36.41231667	-90.6920139	110ALVM	4/11/23	290	18.66	22.28	3.62
Clay	20N05E22CAD1	36.35331667	-90.5251889	112TRRC	4/11/23	289	30.35		
Clay	20N05E30CAC1	36.3342292	-90.5817769	110ALVM	4/10/23	283	19.11		
Clay	20N05E34DBA1	36.3275861	-90.5214361	112TRRC	4/13/23	285	32.53	35.21	2.68
Clay	20N06E09BBA1	36.390894	-90.4389954	112TRRC	4/11/23	290	23.63		

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County	Station ID Number	Latitude	Longitude	Aquifer Code	DATE	Land Surface Altitude	2023 Depth to Water (ft.)	2023 Fall Depth to Water (ft.)	Spring to Fall Change
Clay	20N08E22BDC1	36.35316389	-90.2056139	112TRRC	4/11/23	276	5.92		
Clay	20N08E24DDA1	36.3490972	-90.1592944	110ALVM	4/11/23	276	8.27	15.97	7.70
Clay	20N09E09ABC1	36.38506156	-90.1117626	112TRRC	4/11/23	279	3.5		
Clay	21N03E15CBC1	36.4625	-90.7480556	110ALVM	4/11/23	291	7.29		
Clay	21N04E09DBC1	36.47425	-90.6491889	112TRRC	4/11/23	297	10.93		
Clay	21N05E17ABB1	36.46595	-90.5581111	110ALVM	4/11/23	300	23.15	25.88	2.73
Clay	21N06E28BB1	36.4347	-90.4355472	110ALVM	4/11/23	290	21.09	23.71	2.62
Clay	21N07E01DDC1	36.4764481	-90.268713	110ALVM	4/11/23	303	24.46		
Clay	21N08E18CCC1	36.44745	-90.2642194	110ALVM	4/11/23	325	39.85	47.46	7.61
Clay	21N09E31BDA1	36.4130611	-90.1478417	110ALVM	4/11/23	283	2.62		
								Wells in Decline:	8
								Total Wells:	8
								Average Change:	5.95
Craighead	13N01E01BDC1	35.7863611	-90.9415	110ALVM	4/14/23	250	72.31	73.16	0.85
Craighead	13N01E23DAA1	35.74298889	-90.9516889	112TRRC	4/14/23	240	71.12	73.5	2.38
Craighead	13N02E13DA1	35.75616667	-90.82585	110ALVM	4/10/23	247	101.4	101.89	0.49
Craighead	13N02E25AB1	35.733675	-90.8310083	110ALVM	4/10/23	252	113.3	113.5	0.20
Craighead	13N03E07BA1	35.7774	-90.8158194	110ALVM	4/10/23	250	93.35	94.73	1.38
Craighead	13N03E28CDB1	35.72125	-90.7793306	112TRRC	4/10/23	251	119.31	120.72	1.41
Craighead	13N03E32BA1	35.71946667	-90.7956139	110ALVM	4/10/23	251	120.96	121.18	0.22
Craighead	13N04E12ABB1	35.77666944	-90.6153667	110ALVM	4/11/23	233	24.55	25.05	0.50
Craighead	13N04E15DBA1	35.7559099	-90.6492775	112TRRC	4/5/23	231	25.44	26.13	0.69
Craighead	13N04E26BCC1	35.7266	-90.6434389	112TRRC	4/5/23	225	26.99	28.18	1.19
Craighead	13N05E02CCC1	35.78063056	-90.53545	112TRRC	4/11/23	229	12.77	15.75	2.98
Craighead	13N05E06DCC1	35.7777	-90.5975306	112TRRC	4/5/23	231	20.87	22.35	1.48
Craighead	13N05E24BAC1	35.7469611	-90.51025	110ALVM	4/5/23	226	8.64	13.17	4.53
Craighead	13N06E21AAA1	35.74518056	-90.4505	110ALVM	4/5/23	222	6.59	10.59	4.00
Craighead	13N07E02CAB1	35.77623889	-90.3177	110ALVM	4/5/23	227	3.66	9.05	5.39
Craighead	13N07E05ABB1	35.78808889	-90.3658194	110ALVM	4/5/23	229	6.1	10.74	4.64
Craighead	14N01E03ACB1	35.87951846	-90.9712313	112TRRC	4/5/23	249	58.69	57.76	0.93
Craighead	14N01E10BAB1	35.86785204	-90.9745648	110ALVM	4/5/23	246	57.35	58.31	0.96
Craighead	14N01E21BB2	35.8395361	-90.9993528	110ALVM	4/5/23	252	62.01	64.52	2.51
Craighead	14N01E21BBB1	35.839475	-90.9994417	112TRRC	4/13/23	252	59.34	62.39	3.05
Craighead	14N02E22AAA1	35.8353526	-90.8581725	112TRRC	4/14/23	255	79.34		
Craighead	14N02E25DAC1	35.8125722	-90.8236139	110ALVM	4/14/23	276	77.82		

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Craighead	14N02E25DAC2	35.8125833	-90.8239028	112MRVAA	4/14/23	266	76.28	76.42	0.14
Craighead	14N02E25DD1	35.81005556	-90.821375	110ALVM	4/14/23	269	79.32	79.47	0.15
Craighead	14N02E27AAA1	35.82102778	-90.8568056	110ALVM	3/31/23	255	83.53	85.39	1.86
Craighead	14N03E30CBC1	35.8128222	-90.8208472	110ALVM	4/14/23	276	86.06	86.24	0.18
Craighead	14N05E36BAD1	35.80489167	-90.5086056	110ALVM	3/30/23	230	43.88		
Craighead	14N05E36DC1	35.7942611	-90.5084694	110ALVM	4/11/23	228	42.41	45.09	2.68
Craighead	14N06E06BAA1	35.8777611	-90.4937111	110ALVM	4/5/23	243	21.46	24.18	2.72
Craighead	14N07E14DDC1	35.83143056	-90.30955	112TRRC	4/5/23	232	5.22	10.7	5.48
Craighead	15N03E19ADA1	35.91730556	-90.8005667	112TRRC	4/12/23	262	54.09	56.73	2.64
Craighead	15N06E04BAD1	35.96229349	-90.4517716	110ALVM	4/3/23	239	12.11	17.04	4.93
Craighead	15N06E20DDD1	35.9070083	-90.460875	110ALVM	4/10/23	235	8.1	11.98	3.88
Craighead	15N07E35DCB1	35.8786	-90.3096306	112TRRC	4/5/23	234	9.04	14.75	5.71
								Wells in Decline:	30
								Total Wells:	31
								Average Change:	2.20
Crittenden	04N07E21AAD1	34.9455083	-90.3559694	110ALVM	4/12/23	202	7.62	7.7	0.08
Crittenden	05N07E28CBA1	35.02258889	-90.3610694	110ALVM	4/12/23	201	14.13	20.07	5.94
Crittenden	05N07E34BAB1	35.0164972	-90.3416278	110ALVM	4/12/23	203	12.18	20.88	8.70
Crittenden	05N07E34CDD1	35.00906944	-90.3335917	110ALVM	4/12/23	205	8.92		
Crittenden	07N07E05DAD1	35.2495111	-90.3542611	110ALVM	4/10/23	215	30.61		
Crittenden	07N07E31CCC1	35.17830556	-90.3997139	110ALVM	4/11/23	209	32.98	35.78	2.80
Crittenden	08N06E01DCC1	35.336425	-90.4107361	110ALVM	4/10/23	217	31.95	33.11	1.16
Crittenden	08N06E26BB1	35.2936111	-90.4311111	110ALVM	4/10/23	211	32.46	33.49	1.03
Crittenden	08N07E35BBC1	35.275	-90.3258333	110ALVM	4/10/23	222	30.23		
Crittenden	09N05E29DA1	35.37665	-90.4842583	110ALVM	4/11/23	213.18	31.21	30.51	0.70
Crittenden	09N06E30ADD1	35.373275	-90.49325	110ALVM	4/11/23	216.17	28.53	29.61	1.08
Crittenden	09N07E10DDA1	35.41321667	-90.3235111	110ALVM	4/10/23	219	28.31	28.47	0.16
Crittenden	09N07E20DCC1	35.3822222	-90.3661111	110ALVM	4/10/23	213	29.31	33.45	4.14
Crittenden	09N07E31BAB1	35.366625	-90.3907139	110ALVM	4/10/23	221	32.12	33.58	1.46
								Wells in Decline:	10
								Total Wells:	11
								Average Change:	2.35
Cross	06N02E11BDB1	35.15953394	-90.8590039	110ALVM	4/16/23	220	71.94	71.45	0.49

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Cross	06N05E05AAA1	35.1736861	-90.5342083	110ALVM	4/11/23	207	37.67	37.8	0.13
Cross	07N01E06ACC1	35.26319444	-91.02625	110ALVM	4/7/23	221	81.8	83.9	2.10
Cross	07N01E11AAA1	35.2503472	-90.9514694	110ALVM	4/7/23	217	85.63	88.27	2.64
Cross	07N01E33BBA1	35.19352778	-91.0030278	112TRRC	4/7/23	218	82.8		
Cross	07N02E02CDD1	35.2522222	-90.8536111	110ALVM	3/30/23	227	87.22		
Cross	07N03E32DCC1	35.1792472	-90.8028556	110ALVM	4/16/23	251	101.89	103.26	1.37
Cross	07N05E02AAB1	35.2607972	-90.5227583	110ALVM	4/11/23	216	39.43	38.2	1.23
Cross	08N04E34DC1	35.2629611	-90.65735	110ALVM	4/11/23	207.05	27.44	27	0.44
Cross	08N05E32ADD1	35.2754583	-90.5779028	110ALVM	4/11/23	206	31.79	27.57	4.22
Cross	09N01E04ACD1	35.4381111	-90.987	110ALVM	4/12/23	238	99.67		
Cross	09N01E12CBB1	35.41805556	-90.9480556	110ALVM	4/12/23	228	102	103.81	1.81
Cross	09N01E33BBA2	35.3674333	-91.0001667	112TRRC	4/12/23	225	90.79	92.3	1.51
Cross	09N05E32BCB1	35.36425187	-90.5903849	110ALVM	4/11/23	206	27.4	29.71	2.31
								Wells in Decline:	7
								Total Wells:	11
								Average Change:	0.50
Desha	09S02W26DDC1	33.88238056	-91.2582333	110ALVM	4/20/23	149	27.7	28.81	1.11
Desha	09S03W17DCB1	33.9133972	-91.4157389	110ALVM	4/5/23	154.7	37.73	40.52	2.79
Desha	10S03W26CAA1	33.80166667	-91.362375	110ALVM	4/5/23	155	51.46		
Desha	10S04W03BAB1	33.8690583	-91.4965722	110ALVM	4/4/23	164	41.02	42.07	1.05
Desha	10S04W11DDA1	33.8420361	-91.4671333	110ALVM	4/3/23	156	37.65	38.77	1.12
Desha	11S02W15ADD1	33.74691667	-91.2778333	110ALVM	4/4/23	144	37.4	39.13	1.73
Desha	11S03W31BBA1	33.70783889	-91.4475278	110ALVM	4/3/23	151	32.86		
Desha	13S03W11CAB1	33.58427754	-91.3781742	110ALVM	4/4/23	142	52.62	53.4	0.78
								Wells in Decline:	6
								Total Wells:	6
								Average Change:	1.43
Drew	11S04W08DD1	33.7634611	-91.5377806	110ALVM	4/3/23	161	28.65	29.45	0.80
Drew	11S04W35CDD1	33.69555556	-91.4783333	110ALVM	4/3/23	152	26.19	28.05	1.86
Drew	11S05W08CCC1	33.7629111	-91.6436556	110ALVM	4/7/23	185	39.61		
Drew	12S04W03ABB1	33.69275556	-91.4961472	110ALVM	4/3/23	153	23.6	25.57	1.97
Drew	12S04W25DBB1	33.62810278	-91.4609639	110ALVM	4/3/23	148	29.87		
Drew	13S04W32BAD1	33.52508889	-91.5327722	110ALVM	4/3/23	134	14.26	20.48	6.22

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Drew	13S04W33BAA1	33.53518889	-91.5166917	110ALVM	4/3/23	138	16.09	21.24	5.15
Drew	13S05W29ADA1	33.54673056	-91.6298083	110ALVM	4/3/23	185	39.09		
Drew	14S04W03DA1	33.51190278	-91.4934861	110ALVM	4/3/23	142	24.01	27.92	3.91
Drew	14S04W05CBA1	33.5260611	-91.5599306	110ALVM	4/3/23	131	11.08		
Drew	14S04W05CBC1	33.51094444	-91.5385278	110ALVM	4/3/23	132	11.24		
								Wells in Decline:	6
								Total Wells:	6
								Average Change:	3.32
Greene	16N03E20CDA1	35.9991472	-90.7951528	110ALVM	4/12/23	257	36.09	38.7	2.61
Greene	16N03E27BD1	35.9991722	-90.7951	110ALVM	4/12/23	257	36.5		
Greene	16N06E22DA1	36.00125	-90.4279694	110ALVM	4/14/23	243	16.69	21.49	4.80
Greene	16N06E28ABB1	35.99376944	-90.4487611	110ALVM	4/14/23	250	27.14		
Greene	17N03E02BDB1	36.14233056	-90.7363389	110ALVM	4/12/23	267	35.19	37.02	1.83
Greene	17N03E32CDC1	36.05473889	-90.7930556	110ALVM	4/12/23	259	35.66	37.94	2.28
Greene	17N03E35CB1	36.07658056	-90.7434472	110ALVM	4/12/23	265	38.23	40.17	1.94
Greene	17N04E28DAA1	36.07527778	-90.6547222	110ALVM	4/12/23	317	84.45	85.69	1.24
Greene	17N04E30CDC1	36.0694083	-90.7048583	110ALVM	4/12/23	267	43.45	45.43	1.98
Greene	17N06E02AD1	36.13695278	-90.4026028	110ALVM	4/13/23	258	26.88	32.85	5.97
Greene	17N06E11DA1	36.118175	-90.4065389	110ALVM	4/13/23	255	34.24	35.26	1.02
Greene	17N06E15ABC1	36.10886944	-90.4299306	110ALVM	4/13/23	269	42.39		
Greene	17N07E01BBA1	36.1425	-90.29075	110ALVM	4/13/23	247	4.55		
Greene	17N07E18ABB1	36.1103	-90.3761389	110ALVM	4/13/23	248	8.94	17.26	8.32
Greene	18N04E04AAC1	36.23665556	-90.6466583	110ALVM	4/12/23	276	32.33		
Greene	18N04E04AAC2	36.2366333	-90.6466167	110ALVM	4/12/23	276	32.03		
Greene	18N04E21CBD1	36.1812	-90.6235444	110ALVM	4/12/23	294	56.7	64.53	7.83
Greene	18N06E26CDD1	36.1584	-90.4036889	110ALVM	4/13/23	266	22.3	33.35	11.05
Greene	18N07E05DAB1	36.22096667	-90.3406333	110ALVM	4/12/23	270	14.35	22.6	8.25
Greene	18N07E35DCD1	36.1425833	-90.2911667	110ALVM	4/13/23	248	5.03	8.43	3.40
Greene	19N03E26AD1	36.26686667	-90.7162306	110ALVM	4/12/23	281.1	29.13	32.15	3.02
Greene	19N03E33DDD1	36.23845278	-90.7532889	110ALVM	4/12/23	278	35.81		
								Wells in Decline:	15
								Total Wells:	15
								Average Change:	4.37

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Independence	11N04W22BBA1	35.56924444	-91.4182944	110ALVM	4/14/23	217	1.29		
Independence	11N04W22BBA2	35.5692333	-91.4182694	110ALVM	4/14/23	217	1.18		
Independence	12N04W10BBC1	35.68508056	-91.3991333	110ALVM	4/14/23	236	14.7	28.59	13.89
Independence	12N04W14DD1	35.658175	-91.3765667	110ALVM	4/14/23	233	13.19	27.92	14.73
Independence	12N04W34CBB1	35.62225	-91.4201389	110ALVM	4/14/23	226	10.01	26.45	16.44
Independence	12N04W35CBB1	35.61950278	-91.3954	110ALVM	4/14/23	228	6	23.58	17.58
Independence	12N05W36AAA1	35.6272333	-91.4742278	110ALVM	4/14/23	239	13.15	25	11.85
								Wells in Decline:	5
								Total Wells:	5
								Average Change:	14.90
Jackson	11N01W11CBB1	35.5972222	-91.0744444	110ALVM	4/18/23	233	57.3	59.78	2.48
Jackson	11N01W26AAD1	35.55826944	-91.0564472	110ALVM	4/18/23	230	73.11		
Jackson	11N03W06DAB1	35.61531389	-91.3356944	110ALVM	4/14/23	224	4.53	23.64	19.11
Jackson	12N01W11BCB1	35.6911333	-91.0711806	110ALVM	4/14/23	234	39.15	40.65	1.50
Jackson	13N01W20AAA1	35.75392778	-91.1076306	110ALVM	4/14/23	244	40.28	42.42	2.14
Jackson	13N03W35AA1	35.72481667	-91.270375	110ALVM	4/14/23	237	6.64	14.72	8.08
Jackson	14N01W09AAA1	35.8723222	-91.0875444	110ALVM	4/13/23	255	45.09	47.51	2.42
								Wells in Decline:	6
								Total Wells:	6
								Average Change:	5.96
Jefferson	03S09W36ACC1	34.40758889	-91.9318889	110ALVM	4/3/23	215	41.28		
Jefferson	03S10W35BBC1	34.41363889	-92.0667	110ALVM	4/3/23	216	10.8		
Jefferson	04S07W35DDB1	34.3095611	-91.7294806	110ALVM	4/6/23	184	31.07	30.99	0.08
Jefferson	04S08W13DCB1	34.3563472	-91.8240139	110ALVM	4/7/23	204	46.2	47.17	0.97
Jefferson	05S07W29DDD1	34.23625556	-91.7816333	110ALVM	4/7/23	192	16.39	20.55	4.16
Jefferson	06S05W15BCA1	34.17304167	-91.5458333	110ALVM	4/11/23	176.89	12.95	17.4	4.45
Jefferson	06S05W16ADD1	34.1672222	-91.5502778	110ALVM	4/11/23	179	14.8		
Jefferson	06S06W23AAD1	34.16853889	-91.6200556	110ALVM	4/11/23	188.77	15.94	20.91	4.97
Jefferson	06S07W02BCA1	34.21519167	-91.74415	110ALVM	4/11/23	193	16.3		
Jefferson	06S07W14BAA1	34.19026667	-91.7404806	110ALVM	4/11/23	201	14.2	17.16	2.96
Jefferson	07S07W16BAA1	34.1235111	-91.8078889	110ALVM	4/7/23	190	20.62	31.18	10.56
Jefferson	07S08W06BAA1	34.14959167	-91.9464611	110ALVM	4/7/23	202	15.36	20.2	4.84

Mississippi River Alluvial Aquifer
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County	Station ID Number	Latitude	Longitude	Aquifer Code	DATE	Land Surface Altitude	2023 Depth to Water (ft.)	2023 Fall Depth to Water (ft.)	Spring to Fall Change
								Wells in Decline:	7
								Total Wells:	8
								Average Change:	4.10
Lawrence	15N01E09ABD1	35.95388889	-90.98333333	110ALVM	4/13/23	260	59.09	61.31	2.22
Lawrence	15N01E32BAA1	35.89788056	-91.0081	110ALVM	4/13/23	253	56.1	59.37	3.27
Lawrence	15N01W35CBB1	35.893375	-91.0656472	110ALVM	4/13/23	255	48.8	50.64	1.84
Lawrence	17N02E04DCA1	36.13308889	-90.8732389	112TRRC	4/12/23	272	45.61	48.32	2.71
								Wells in Decline:	4
								Total Wells:	4
								Average Change:	2.51
Lee	01N02E11BAB1	34.71527778	-90.86888889	110ALVM	4/16/23	198	25.81		
Lee	01N02E22CA1	34.67707065	-90.8880871	110ALVM	4/16/23	202	22.91		
Lee	01N02E33CCB1	34.64759876	-90.909282	110ALVM	4/16/23	185	9.15	27.64	18.49
Lee	01N03E27ADD1	34.66463056	-90.7681889	110ALVM	4/17/23	202	8.79		
Lee	01N03E35BBA1	34.65701944	-90.7640167	110ALVM	4/17/23	202	7.9	33.96	26.06
Lee	02N01E21BAA1	34.77593029	-91.0015076	112TRRC	4/16/23	185	42.35		
Lee	02N01E23AAA1	34.77561389	-90.9720194	110ALVM	4/16/23	201	56.97		
Lee	02N01E29AA1	34.76205	-91.0186917	110ALVM	4/16/23	194	55.37	58.92	3.55
Lee	02N01W12BAA1	34.80785	-91.0582083	110ALVM	4/16/23	185	53.17	55.44	2.27
Lee	02N02E08ADC1	34.80203889	-90.8940972	110ALVM	4/16/23	207	46.13	48.59	2.46
Lee	02N02E36DDC1	34.7320422	-90.8390026	112TRRC	4/16/23	205	23.99	24.72	0.73
Lee	02N03E29CAD1	34.75009757	-90.8128907	112TRRC	4/16/23	220	36.89	48.85	11.96
Lee	02N04E15DAC1	34.77686944	-90.6639972	110ALVM	4/12/23	192	18.32	21.65	3.33
Lee	03N01E15CCB1	34.86810556	-90.9961111	110ALVM	4/16/23	204	70.16	72.35	2.19
Lee	03N02E13BBA1	34.87705556	-90.8520333	110ALVM	4/12/23	212	54.71		
Lee	03N02E29DAD1	34.83711667	-90.9082722	112TRRC	4/12/23	205	47.49	49.67	2.18
Lee	03N03E32CAB1	34.8257361	-90.8239528	110ALVM	4/12/23	214	48.81	53.42	4.61
Lee	03N04E07CBB1	34.8792614	-90.7201098	110ALVM	4/12/23	200	28.62		
Lee	03N05E14DDA1	34.86335556	-90.5342361	110ALVM	4/12/23	195	12.39	15.23	2.84
								Wells in Decline:	12
								Total Wells:	12
								Average Change:	6.72

Mississippi River Alluvial Aquifer
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County	Station ID Number	Latitude	Longitude	Aquifer Code	DATE	Land Surface Altitude	2023 Depth to Water (ft.)	2023 Fall Depth to Water (ft.)	Spring to Fall Change
Lincoln	07S06W03CCA2	34.13763056	-91.6874111	110ALVM	4/7/23	187	13.2		
Lincoln	07S07W36CBD1	34.0696	-91.7578	110ALVM	4/7/23	182	35.85	37.95	2.10
Lincoln	08S05W32DCC1	33.97761944	-91.6135306	110ALVM	4/7/23	172	46.05		
Lincoln	08S07W05DDD1	34.050225	-91.8174222	110ALVM	4/7/23	190	27.77	30.18	2.41
Lincoln	09S05W17BCB1	33.9309972	-91.638875	110ALVM	4/7/23	172	41.39	44.21	2.82
Lincoln	09S05W19CCC1	33.90785	-91.6647	110ALVM	4/7/23	175	38.83	38.37	0.46
Lincoln	09S06W04BCD1	33.97260556	-91.7293972	110ALVM	4/7/23	181	42.59		
Lincoln	09S06W04BDD1	33.96509167	-91.726875	110ALVM	4/7/23	180	43.01		
Lincoln	10S05W05BCB1	33.87444444	-91.6425	110ALVM	4/3/23	171	28.52	30.46	1.94
Lincoln	10S05W06DCC1	33.8653611	-91.6522111	110ALVM	4/3/23	173	30.02		
								Wells in Decline:	4
								Total Wells:	5
								Average Change:	1.76
Lonoke	01N07W18CD1	34.70316944	-91.8034	110ALVM	4/13/23	229	144.17		
Lonoke	01N07W27AAD1	34.6843	-91.7362222	110ALVM	4/11/23	218	134.82		
Lonoke	01N08W03DDA1	34.73648044	-91.8473592	112TRRC	4/12/23	229	141.34	142.58	1.24
Lonoke	01N09W13DAB1	34.70976944	-91.9213917	110ALVM	4/5/23	226	84.32	87.78	3.46
Lonoke	01N10W15CDA1	34.7099833	-92.0704306	110ALVM	4/11/23	244.89	19.89	21.22	1.33
Lonoke	01S06W31ABB1	34.58316389	-91.6920778	110ALVM	4/11/23	203	80.95		
Lonoke	01S06W32BBB1	34.58385	-91.6827806	110ALVM	4/11/23	202.18	78.77		
Lonoke	01S07W12ABA1	34.64286389	-91.7082889	110ALVM	4/11/23	207	92.2	93.16	0.96
Lonoke	01S07W19DDB1	34.6025	-91.7961111	110ALVM	4/12/23	206	89.2	92.49	3.29
Lonoke	01S08W24CDD1	34.60156667	-91.8201028	110ALVM	4/12/23	210	85.73	87.9	2.17
Lonoke	01S09W11AA1	34.6493111	-91.9393111	110ALVM	4/5/23	230	82.24		
Lonoke	01S09W36CCC1	34.576475	-91.9386056	110ALVM	4/11/23	220	61.4		
Lonoke	01S10W01ACB1	34.65745556	-92.0374889	110ALVM	4/11/23	236	41.25		
Lonoke	01S10W11CAB1	34.6447222	-92.0602778	110ALVM	4/3/23	236	27.76	31.39	3.63
Lonoke	02N07W03DAA1	34.82481309	-91.73263479	110ALVM	4/5/23	236	140.6		
Lonoke	02N07W16BAB1	34.8042222	-91.7609722	110ALVM	4/13/23	239	146.19		
Lonoke	02N07W16CA1	34.7902611	-91.7608306	110ALVM	4/13/23	232	145.59	148.77	3.18
Lonoke	02N08W16ABC1	34.8018	-91.8537806	110ALVM	4/12/23	234	127.1		
Lonoke	02N08W23CAB1	34.78314638	-91.8551376	110ALVM	4/14/23	229	142.83		
Lonoke	02N08W23DC2	34.77943889	-91.8337	110ALVM	4/14/23	231	133.4	136.26	2.86
Lonoke	02N08W27DCC1	34.76194444	-91.8516667	110ALVM	4/21/23	230	132.58		
Lonoke	02N10W15ACC1	34.80161944	-92.0649111	110ALVM	4/14/23	242.04	28.4		

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County	Station ID Number	Latitude	Longitude	Aquifer Code	DATE	Land Surface Altitude	2023 Depth to Water (ft.)	2023 Fall Depth to Water (ft.)	Spring to Fall Change
Lonoke	02S08W06AAB1	34.575	-91.9130556	110ALVM	4/11/23	221	66.09		
Lonoke	02S08W28CDC	34.50194444	-91.8769444	110ALVM	4/3/23	216	64.05		
Lonoke	02S08W34DBB1	34.5008222	-91.8638194	110ALVM	4/3/23	214	60.26		
Lonoke	02S09W22AAA1	34.5318111	-91.9575	110ALVM	4/3/23	227.24	63.54	67.86	4.32
Lonoke	02S09W30CDD1	34.5039833	-92.0211139	110ALVM	4/6/23	228	38.61	37.97	0.64
Lonoke	03N07W08BDB1	34.90183889	-91.7773	110ALVM	5/2/23	250	104.16		
Lonoke	03N07W29ADA1	34.857925	-91.7662222	110ALVM	5/1/23	232	99.36	100.6	1.24
Lonoke	03N07W35CDC2	34.83254444	-91.7255861	110ALVM	4/6/23	232	123.84		
Lonoke	03N08W03BAA1	34.92181667	-91.8482	110ALVM	5/1/23	260	106.62	107.43	0.81
Lonoke	03N08W03CCC1	34.90829444	-91.8564444	110ALVM	5/1/23	260	113.32	114.53	1.21
Lonoke	03N08W08ABA1	34.90749444	-91.8799639	110ALVM	5/1/23	258	103.5		
Lonoke	03N08W10ACB1	34.90406944	-91.8479833	110ALVM	5/2/23	248	100.5		
Lonoke	03N08W10ADD1	34.90029444	-91.8396611	110ALVM	5/1/23	248	103.08	102.96	0.12
Lonoke	03N08W11ACA1	34.9035333	-91.8261833	110ALVM	5/1/23	257	110.01		
Lonoke	03N08W29BBB1	34.8630833	-91.8924472	110ALVM	4/4/23	249	114.79	115.34	0.55
Lonoke	03N08W29BCC1	34.8569472	-91.8926111	110ALVM	4/4/23	249	139.63	139.26	0.37
Lonoke	03N08W32ABB1	34.849475	-91.8811167	110ALVM	5/1/23	250	122.23	124.4	2.17
Lonoke	04N08W16DCC1	34.96590556	-91.8650056	110ALVM	4/4/23	234	48.37	50.8	2.43
Lonoke	04N08W19BBB1	34.9648333	-91.9088333	110ALVM	4/4/23	300	3.44	21.72	18.28
Lonoke	04N08W28CAC1	34.93896389	-91.87105	110ALVM	5/9/23	234	62.05		
Lonoke	04N08W28CCC1	34.93738056	-91.8736972	110ALVM	4/4/23	237	67.79		
Lonoke	04N08W33ABD1	34.93294444	-91.8614722	110ALVM	5/9/23	258	96.7	99	2.30
Lonoke	04N08W33ACD1	34.92969444	-91.8613611	110ALVM	5/9/23	256	98.9		
Lonoke	04N08W33ADB1	34.93127778	-91.8569444	110ALVM	5/9/23	263	97.2		
Lonoke	04N08W33ADD1	34.92952778	-91.8570833	110ALVM	5/9/23	267	112.43		
								Wells in Decline:	18
								Total Wells:	21
								Average Change:	2.59
Mississippi	10N08E22AB1	35.48083889	-90.2225389	110ALVM	4/11/23	228.12	26.87	28.17	1.30
Mississippi	10N08E22AB2	35.48085	-90.2226889	110ALVM	4/11/23	228.12	26.12	27.58	1.46
Mississippi	11N10E09BCB1	35.5914583	-90.03435	110ALVM	4/12/23	236.14	19.86		
Mississippi	12N08E28DDB1	35.62005	-90.2318	110ALVM	4/12/23	227	24.61		
Mississippi	12N09E12ABC1	35.68195	-90.0806306	110ALVM	4/12/23	232	22.67	32.05	9.38
Mississippi	12N10E04CAA1	35.6882111	-90.0268389	110ALVM	4/12/23	233	15.03		
Mississippi	12N10E21DBA1	35.64507899	-90.022867	110ALVM	4/12/23	236	19.76	23.78	4.02

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County	Station ID Number	Latitude	Longitude	Aquifer Code	DATE	Land Surface Altitude	2023 Depth to Water (ft.)	2023 Fall Depth to Water (ft.)	Spring to Fall Change
Mississippi	13N08E24ABB1	35.7374	-90.1866806	110ALVM	4/12/23	232	9.21		
Mississippi	13N09E30CCC2	35.71538889	-90.1775583	110ALVM	4/11/23	223.12	13.56	21.53	7.97
Mississippi	13N09E30CCD1	35.71328056	-90.1746194	110ALVM	4/11/23	230	12.56	18.5	5.94
Mississippi	13N10E20B 1	35.7383361	-90.0488167	110ALVM	4/11/23	229	7.73	23.59	15.86
Mississippi	14N08E04DD2	35.8589472	-90.2351028	110ALVM	4/12/23	231	4.74	8.01	3.27
Mississippi	14N08E12DAB1	35.8511583	-90.1810944	110ALVM	4/12/23	236	4.94	9.09	4.15
Mississippi	14N08E26CC1	35.80076944	-90.2092194	110ALVM	4/12/23	228	2.34	6.6	4.26
Mississippi	14N10E18BD1	35.83935	-90.0626694	110ALVM	4/12/23	239	12.03	25	12.97
Mississippi	14N10E26DC1	35.80417778	-89.9854417	110ALVM	4/11/23	234	7.78	18.52	10.74
Mississippi	14N10E27AD1	35.8093083	-89.9992167	110ALVM	4/11/23	233	6.12	19.12	13.00
Mississippi	14N11E33CAA1	35.78911667	-89.9227889	110ALVM	4/12/23	243	12.56		
Mississippi	15N08E08DBC2	35.9346111	-90.2573111	112TRRC	4/12/23	238	8.72	13.86	5.14
Mississippi	15N08E32DD1	35.8738722	-90.2527944	110ALVM	4/12/23	228	4.03	6.44	2.41
Mississippi	15N10E21BBD1	35.91234444	-90.031325	110ALVM	4/12/23	239	8.76	14.43	5.67
Mississippi	15N12E01BCD1	35.95148889	-89.7669889	110ALVM	4/12/23	255	11.14	13	1.86
Mississippi	16N08E35DA1	35.96735	-90.1990556	110ALVM	4/12/23	239	7		
Mississippi	16N10E28BBD1	35.9850361	-90.0322306	110ALVM	4/12/23	238	8.15		
Mississippi	16N11E23ADA1	35.996325	-89.8753778	110ALVM	4/12/23	256	12.13	16.27	4.14
								Wells in Decline:	18
								Total Wells:	18
								Average Change:	6.31
Monroe	01N02W12CBC1	34.71175	-91.1755278	112VLTR	4/5/23	182	44.13	44.38	0.25
Monroe	01N03W23BAC1	34.69048889	-91.2934	110ALVM	4/11/23	173	7.86	14.87	7.01
Monroe	01N04W33BBB2	34.6665333	-91.4468111	110ALVM	4/6/23	220	96.03		
Monroe	01S01W13CDD1	34.60303889	-91.0612611	110ALVM	4/17/23	175	21.41		
Monroe	01S01W16DB	34.60383889	-91.1093194	110ALVM	4/3/23	177	20.6		
Monroe	01S01W18DCD1	34.6049333	-91.147	110ALVM	4/5/23	179	23		
Monroe	01S02E09CBB1	34.62186944	-90.9094611	110ALVM	4/16/23	185	9.18	32.68	23.50
Monroe	01S02W20BBB1	34.60352778	-91.2489167	110ALVM	4/3/23	171	7	14.15	7.15
Monroe	01S03W20BBA1	34.60043889	-91.3864694	110ALVM	4/4/23	209	75.6	80.65	5.05
Monroe	01S04W01BAB1	34.65162778	-91.3879806	112TRRC	4/4/23	214	71.8	83.22	11.42
Monroe	02N01W19ADD1	34.7731	-91.1374389	110ALVM	4/11/23	189	59.98		
Monroe	02N03W35BCA1	34.74028889	-91.2980306	112TRRC	4/4/23	186	25.8	33.36	7.56
Monroe	02S01W01BCD1	34.55088056	-91.0675389	110ALVM	4/17/23	176	17.84		
Monroe	02S02W11DAC1	34.535825	-91.1834944	110ALVM	4/5/23	164	6.7		

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County	Station ID Number	Latitude	Longitude	Aquifer Code	DATE	Land Surface Altitude	2023 Depth to Water (ft.)	2023 Fall Depth to Water (ft.)	Spring to Fall Change
Monroe	03N01W06DBA1	34.90314966	-91.1395673	112TRRC	4/13/23	191	46.15	49.33	3.18
Monroe	03N02W31ADC1	34.83285556	-91.2464444	112TRRC	4/3/23	190	35.45	30.62	4.83
Monroe	03N03W36AAA1	34.83930278	-91.2630583	112TRRC	4/3/23	178	19.1		
Monroe	04N02W01BCC1	34.99113889	-91.16435	112TRRC	4/11/23	195	32.8		
Monroe	04N02W05BBB1	35.00046667	-91.2195222	112TRRC	4/4/23	188	13.09	18.12	5.03
Monroe	04N02W30BBB1	34.94107778	-91.2568639	112TRRC	4/19/23	185.19	0.87		
								Wells in Decline:	9
								Total Wells:	10
								Average Change:	6.53
Phillips	01S02E32BBB1	34.57035278	-90.9274917	110ALVM	4/17/23	197	22.16		
Phillips	01S03E02ADD1	34.63850278	-90.7525917	110ALVM	4/17/23	202	11.15	39.94	28.79
Phillips	01S03E02CBB1	34.6358333	-90.7677778	110ALVM	4/17/23	202	9.68		
Phillips	01S03E10ABB1	34.62815485	-90.776223	112TRRC	4/17/23	205	13.23		
Phillips	01S04E05DCD1	34.63398865	-90.6976094	112TRRC	4/17/23	246	45.44	70.58	25.14
Phillips	02S01E23CA1	34.50113889	-90.9784833	110ALVM	4/18/23	177	14.07		
Phillips	02S03E15ACD1	34.5194333	-90.7726333	110ALVM	4/20/23	174	9.59	18.73	9.14
Phillips	02S04E27AAC1	34.49210278	-90.6669694	110ALVM	4/17/23	180	7.38		
Phillips	03S03E02DDD1	34.45240556	-90.7507417	110ALVM	4/17/23	174	19.52	20.7	1.18
Phillips	03S03E04DAA1	34.45958889	-90.7860917	110ALVM	4/17/23	171	17.2	20.88	3.68
Phillips	03S04E02CAA1	34.45994444	-90.6557639	110ALVM	4/17/23	179	12.21		
Phillips	04S01E14CDD1	34.33683889	-90.9765889	110ALVM	4/17/23	156	13.3		
Phillips	04S01E23CCA1	34.3253611	-90.9812833	110ALVM	4/17/23	155	14.93	15.78	0.85
Phillips	04S02E03AB1	34.38741944	-90.8486833	110ALVM	4/17/23	166	20.25	20.46	0.21
								Wells in Decline:	7
								Total Wells:	7
								Average Change:	9.86
Poinsett	10N01E16CCB1	35.4894083	-91.0014861	110ALVM	4/12/23	225	82.29	86.39	4.10
Poinsett	10N01E32CBB1	35.44916667	-91.0147194	112TRRC	4/12/23	221	82.68	82.9	0.22
Poinsett	10N02E13BCC1	35.4968111	-90.8406361	112TRRC	4/11/23	237.16	114.69	116	1.31
Poinsett	10N02E15CAA1	35.49452635	-90.8692828	110ALVM	4/11/23	237	117.02	118.49	1.47
Poinsett	10N02E20BAB1	35.48508215	-90.9051171	110ALVM	4/11/23	237	154.27		
Poinsett	10N02E34BBB1	35.45716667	-90.8753611	110ALVM	3/30/23	235	110.89		
Poinsett	10N03E19BCB1	35.48480436	-90.8187257	110ALVM	4/11/23	239	110.33		

Mississippi River Alluvial Aquifer
Hydrologic Data Spring/Fall 2023

County	Station ID Number	Latitude	Longitude	Aquifer Code	DATE	Land Surface Altitude	2023 Depth to Water (ft.)	2023 Fall Depth to Water (ft.)	Spring to Fall Change
Poinsett	10N03E20CC1	35.47780556	-90.8025472	110ALVM	4/11/23	239	110.89	110.28	0.61
Poinsett	10N03E21CD1	35.47826944	-90.7776889	110ALVM	4/11/23	239	105.97	106.41	0.44
Poinsett	10N04E35BBA1	35.46355	-90.6415389	112TRRC	4/11/23	212	21.84	22.15	0.31
Poinsett	10N06E11AAA1	35.51096944	-90.4129611	110ALVM	4/12/23	213	5.37	4.61	0.76
Poinsett	11N01E17DDD1	35.5768972	-91.0036694	112TRRC	4/17/23	230	88.34		
Poinsett	11N01E26AA1	35.56120278	-90.9481444	110ALVM	4/17/23	236	108.26	111.53	3.27
Poinsett	11N02E01CC1	35.60856944	-90.8354028	110ALVM	4/17/23	242	123.06	124.68	1.62
Poinsett	11N02E07CA1	35.59754167	-90.9193944	110ALVM	4/17/23	241	121.64	122.72	1.08
Poinsett	11N02E30BBB1	35.5645249	-90.9278959	110ALVM	4/17/23	239	117.42	120.87	3.45
Poinsett	11N03E07CBB1	35.601	-90.8216389	110ALVM	4/17/23	243	122.32	123.89	1.57
Poinsett	11N03E10DDA1	35.596025	-90.7490389	110ALVM	4/17/23	251	113.95	116.62	2.67
Poinsett	11N03E20DCD1	35.5647361	-90.7888306	112TRRC	4/17/23	244	124.47	124.44	0.03
Poinsett	11N05E26BDB1	35.55563889	-90.5331611	110ALVM	4/12/23	213	11.86	14.68	2.82
Poinsett	11N06E34BBC1	35.54	-90.4461111	110ALVM	4/12/23	217	14.63	18.07	3.44
Poinsett	11N07E22ADD1	35.5621611	-90.3229111	110ALVM	4/11/23	221	25.35	28.19	2.84
Poinsett	12N01E07CDA1	35.68158056	-91.028125	110ALVM	4/14/23	241	53.98	56.11	2.13
Poinsett	12N01E22DAB1	35.65604167	-90.9706861	110ALVM	4/14/23	234	81.95		
Poinsett	12N02E25DCC1	35.6377611	-90.8293333	110ALVM	4/13/23	246	127.37	140.45	13.08
Poinsett	12N02E26DAD1	35.64476667	-90.8397	110ALVM	3/31/23	245	126.1		
Poinsett	12N02E34CCC1	35.62457778	-90.8747833	112TRRC	4/17/23	247	139.07	145.01	5.94
Poinsett	12N02E34DA1	35.63455	-90.8657139	110ALVM	4/17/23	244	125.9	127.03	1.13
Poinsett	12N03E01CBD1	35.69375	-90.7277889	110ALVM	4/10/23	248	107.44	108.67	1.23
Poinsett	12N03E35AD1	35.62924585	-90.7315015	110ALVM	4/17/23	246	110.22	115.58	5.36
Poinsett	12N03E36ACB1	35.63038889	-90.7218667	110ALVM	4/17/23	250	111.65	109.85	1.80
Poinsett	12N05E16ABA1	35.67775	-90.5589694	110ALVM	4/12/23	220	11.41	13.92	2.51
Poinsett	12N07E04BA1	35.7006	-90.3495889	110ALVM	4/11/23	222	8		
Poinsett	12N07E04BAA1	35.6970611	-90.35605	110ALVM	4/11/23	220	4.9	8.54	3.64
Poinsett	12N07E25CCD1	35.62781944	-90.30055	110ALVM	4/11/23	225	17.79		
								Wells in Decline:	23
								Total Wells:	27
								Average Change:	2.31
Prairie	01N06W05CCB1	34.73138056	-91.6803	110ALVM	4/10/23	220	118.83		
Prairie	01S04W28BDB1	34.5896333	-91.4415917	110ALVM	4/4/23	205	94.9	104.79	9.89
Prairie	01S05W31DDA1	34.57133889	-91.5754694	110ALVM	4/4/23	205.92	95.59	114.76	19.17
Prairie	01S06W12BAB1	34.64055556	-91.6036111	110ALVM	4/6/23	228	105.58		

Mississippi River Alluvial Aquifer
Hydrologic Data Spring/Fall 2023

County	Station ID Number	Latitude	Longitude	Aquifer Code	DATE	Land Surface Altitude	2023 Depth to Water (ft.)	2023 Fall Depth to Water (ft.)	Spring to Fall Change
Prairie	02N05W21CBB2	34.78027778	-91.55	110ALVM	4/6/23	227	110.77	111.38	0.61
Prairie	02N05W24BCA3	34.78340278	-91.492625	110ALVM	4/6/23	223	88.89	93.15	4.26
Prairie	02N05W24CBB1	34.7779111	-91.4965694	110ALVM	4/12/23	225	105.4		
Prairie	02N05W29DDB2	34.7625611	-91.5524306	110ALVM	4/10/23	226	120.98		
Prairie	02N05W35DB1	34.7507111	-91.5066889	110ALVM	4/12/23	220	99.1		
Prairie	02N06W22BCC1 near H	34.7813333	-91.6409444	110ALVM	4/10/23	235	114.02		
Prairie	02N06W24CAA1	34.7808333	-91.5975	110ALVM	4/10/23	231	118.24	118.03	0.21
Prairie	03N05W03CB1	34.91036944	-91.52885	110ALVM	4/17/23	200	65.7		
Prairie	04N05W07CDC1	34.97850556	-91.5780333	110ALVM	4/12/23	211	84.51		
Prairie	04N06W05CCC1	34.9927111	-91.6716556	110ALVM	4/12/23	205.99	63.23		
Prairie	04N07W03DCB1	34.9956472	-91.7365194	110ALVM	4/6/23	256	91.41	91.06	0.35
Prairie	04N07W20DDB1	34.95256389	-91.7686861	110ALVM	5/1/23	264	105.68		
Prairie	04N07W28BBA1	34.9501472	-91.7624667	110ALVM	4/6/23	258	100.88	100.65	0.23
								Wells in Decline:	4
								Total Wells:	7
								Average Change:	4.73
Pulaski	01N10W29DC1	34.68033889	-92.10205	110ALVM	4/3/23	246	13.62		
Pulaski	01S10W19CDC1	34.60848889	-92.1307389	110ALVM	4/3/23	239	19.8		
Pulaski	01S10W29CC1	34.59382778	-92.1187944	110ALVM	4/3/23	239	11.84	16.64	4.80
Pulaski	01S11W22AB1	34.61998889	-92.1816083	110ALVM	4/5/23	233	19.35		
Pulaski	02S10W14DC1	34.53464167	-92.059375	110ALVM	4/3/23	225	21.14		
Randolph	18N01E34AAC1	36.1618583	-90.9580917	110ALVM	4/12/23	264	20.22		
Randolph	18N02E03DAD1	36.22818889	-90.844425	110ALVM	4/12/23	279	25.79		
Randolph	18N02E27BA1	36.17910278	-90.8568472	110ALVM	4/12/23	274.02	40.14		
Randolph	20N02E01ADD1	36.406725	-90.8031639	110ALVM	4/13/23	280	7.85	15.14	7.29
Randolph	20N03E28BA1	36.3537583	-90.7605472	110ALVM	4/13/23	279	8.83	13.89	5.06
								Wells in Decline:	2
								Total Wells:	2
								Average Change:	6.18

Mississippi River Alluvial Aquifer
Hydrologic Data Spring/Fall 2023

County	Station ID Number	Latitude	Longitude	Aquifer Code	DATE	Land Surface Altitude	2023 Depth to Water (ft.)	2023 Fall Depth to Water (ft.)	Spring to Fall Change
St Francis	04N02E27AAA1	34.93520278	-90.8755278	110ALVM	4/18/23	211	50.8		
St. Francis	04N01W20BBB1	34.95476944	-91.1337028	112TRRC	4/18/23	202	61.7		
St. Francis	04N01W22BB1	34.9552472	-91.0962444	110ALVM	4/18/23	208	80		
St. Francis	04N01W28CDD1	34.9264611	-91.1093194	110ALVM	4/13/23	208	75.41	77.45	2.04
St. Francis	04N02E11AD1	34.9733722	-90.8535333	110ALVM	4/18/23	213	50.6		
St. Francis	04N0W329BB1	34.9333361	-90.9243556	110ALVM	5/1/23	206	62.5		
St. Francis	04N10E20DA1	34.9461972	-91.0135833	110ALVM	4/18/23	204	82		
St. Francis	05N01E06CDA1	35.08030278	-91.0327444	112TRRC	4/18/23	211	85		
St. Francis	05N01E15BCB1	35.05071389	-90.9951139	110ALVM	4/10/23	209	75.37	77.48	2.11
St. Francis	05N01E27BBA1	35.02659167	-90.9913278	110ALVM	4/10/23	209	76.26	79.47	3.21
St. Francis	05N02E20ADC1	35.0324722	-90.9103222	110ALVM	4/10/23	211	62.21	63.93	1.72
St. Francis	05N02E26AAB1	35.02315	-90.8557917	110ALVM	4/18/23	218	56.1		
St. Francis	05N02E26CD1	35.0088861	-90.8703389	110ALVM	4/18/23	215	52.7		
St. Francis	05N05E19DCA1	35.024325	-90.6084306	110ALVM	4/11/23	205	30.7	31.63	0.93
St. Francis	05N06E05BBB1	35.08486667	-90.489925	110ALVM	4/18/23	201	32.4		
St. Francis	05N06E34CAB1	35.00710278	-90.4491306	110ALVM	4/12/23	200	23.57	26.74	3.17
St. Francis	06N01E33AD1	35.09869167	-90.9952583	110ALVM	4/18/23	210	75.8		
St. Francis	06N02E13DCA1	35.13684444	-90.8340861	110ALVM	4/16/23	232	81.65	83.31	1.66
St. Francis	06N02E15BDD1	35.144975	-90.8798083	110ALVM	4/16/23	214.73	68.15	66.8	1.35
St. Francis	06N02E16CCC1	35.13591389	-90.90095	112TRRC	4/18/23	218	72.9		
St. Francis	06N02E24AAA1	35.1319972	-90.8340056	110ALVM	4/16/23	232	85.08	80.84	4.24
St. Francis	06N05E22ACC1	35.12315556	-90.5478361	110ALVM	4/11/23	200	36.62	37.23	0.61
St. Francis	06N06E17DDC1	35.13035556	-90.4761556	110ALVM	4/18/23	202	31.3		
St. Francis	06N06E20ABB2	35.12973889	-90.4781111	110ALVM	4/11/23	202	33.65		
								Wells in Decline:	8
								Total Wells:	10
								Average Change:	0.99
White	05N07W10CCC1	35.06672778	-91.7433333	110ALVM	4/11/23	200	8.46	7.52	0.94
White	06N06W13BA1	35.1465011	-91.6005392	110ALVM	4/14/23	215	80.4		
White	06N06W18BBC1	35.14759167	-91.6977556	112TRRC	4/11/23	211	9.3		
White	06N06W34AAB1	35.1065472	-91.6315417	110ALVM	4/11/23	212.08	53.52	57.57	4.05
White	06N07W17DCC1	35.139575	-91.7763139	110ALVM	4/11/23	218	9.04	13.89	4.85
White	06N08W13ABA1	35.1521472	-91.8067694	110ALVM	4/11/23	228	7.29	15.78	8.49
White	06N08W26DDB1	35.11119167	-91.8246778	110ALVM	4/11/23	226	8.8	17.4	8.60

Mississippi River Alluvial Aquifer
Hydrologic Data Spring/Fall 2023

County	Station ID Number	Latitude	Longitude	Aquifer Code	DATE	Land Surface Altitude	2023 Depth to Water (ft.)	2023 Fall Depth to Water (ft.)	Spring to Fall Change
								Wells in Decline:	4
								Total Wells:	5
								Average Change:	5.01
Woodruff	06N01W11AAB1	35.1622222	-91.065	110ALVM	4/6/23	214	69.51	71.38	1.87
Woodruff	06N01W11CBC1	35.1539	-91.09485	110ALVM	4/6/23	222	72.56		
Woodruff	06N01W27BCC1	35.11138889	-91.0955556	110ALVM	4/6/23	202	57.06	59.47	2.41
Woodruff	07N01W04ABB1	35.26538889	-91.102	110ALVM	4/7/23	226.13	66.13	67.2	1.07
Woodruff	07N03W31BBA1	35.2057083	-91.3426944	110ALVM	4/13/23	204	7.19	1.62	5.57
Woodruff	08N02W31 Patterson	35.2696111	-91.235025	112MRVAA	3/30/23	195	2.62		
Woodruff	08N03W04BBB1	35.35777778	-91.3219444	110ALVM	4/13/23	218	13.25	18.09	4.84
Woodruff	08N03W31AAD1	35.2821111	-91.3413667	110ALVM	4/13/23	213	18.15	20.3	2.15
Woodruff	09N03W32ACA1	35.36780278	-91.3285944	110ALVM	4/13/23	218	14.37	14.5	0.13
								Wells in Decline:	6
								Total Wells:	7
								Average Change:	0.99

Total Wells: 264
Total Wells in Decline: 237
Percent of Total Wells in Decline: 89.77%
Total Average Change (ft.): 0.82

Appendix B

Sparta/Memphis Aquifer Water Level Monitoring Data

Sparta/Memphis Aquifer
Hydrologic Data 2013,2018,2022,2023

County	Station ID	Latitude	Longitude	Aquifer Code	Land Surface Altitude	Date	2013 Depth to Water (ft.)	2018 Depth to Water (ft.)	2022 Depth to Water (ft.)	2023 Depth to Water (ft.)	1 Year Change ('22 to '23)	5 Year Change ('18 to '23)	10 Year Change ('13 to '23)
Arkansas	02S04W06CDB1	34.55320556	-91.4803583	124SPRT	211	4/4/2023	159.82	151.1	146.69	143.58	3.11	7.52	16.24
Arkansas	02S04W23DAA1	34.5122833	-91.3984806	124SPRT	208	4/6/2023	144.84	135.85	133.05	131.34	1.71	4.51	13.50
Arkansas	02S04W33BBB1	34.4894833	-91.4507444	124SPRT	205	4/12/2023		167.1	145.46	143.61	1.85	23.49	
Arkansas	02S05W16CBB1	34.52876667	-91.5551861	124SPRT	213	4/4/2023	173.82	174.2	171.19	174.34	3.15	0.14	0.52
Arkansas	02S05W28AC2	34.50394444	-91.5478333	124SPRT	214	4/4/2023			171.18	172.09	0.91		
Arkansas	02S05W34ABC1	34.49018056	-91.5299417	124SPRT	218	4/4/2023	179.71	176.65	166.87	171.57	4.70	5.08	8.14
Arkansas	02S05W35AAB1	34.4916611	-91.5098083	124SPRT	216	4/4/2023	176.39	171.33	160.97	168.84	7.87	2.49	7.55
Arkansas	03S04W02CCB1	34.46321667	-91.4161222	124SPRT	202	4/12/2023	152.46		139.43	139.88	0.45		12.58
Arkansas	03S04W33BAA1	34.40193056	-91.4441722	124SPRT	201	4/12/2023	155.84	146.95	140.79	140.67	0.12	6.28	15.17
Arkansas	03S05W02AAB1	34.4783861	-91.5093639	124SPRT	210	4/4/2023	170.72	165.25	158.88	160.68	1.80	4.57	10.04
Arkansas	03S05W13BDC1	34.4419861	-91.5012694	124SPRT	212	4/13/2023	168.27		152.37	152.15	0.22		16.12
Arkansas	03S05W15CBB1	34.4425583	-91.5414806	124SPRT	209	4/7/2023	178.94	162.9	148.09	148.57	0.48	14.33	30.37
Arkansas	03S05W28DAB1	34.4131	-91.5445139	124SPRT	204	4/7/2023	167.21		156.54	156.37	0.17		10.84
Arkansas	04S01W05DA1	34.3739895	-91.1356729	124SPRT	201	4/18/2023		107.97		107.02		0.95	
Arkansas	04S01W28BAA1	34.32415556	-91.1300111	124SPRT	190	4/18/2023	105.99	100.8		99.21		1.59	6.78
Arkansas	04S04W11BCC1	34.3658222	-91.4170889	124SPRT	200	4/12/2023	152.03	143.95	142.55	142.56	0.01	1.39	9.47
Arkansas	04S04W19CBB1	34.33436944	-91.4913583	124SPRT	195	4/10/2023	157.54	158.79	144.39	139.81	4.58	18.98	17.73
Arkansas	04S04W22DAA1	34.3352472	-91.420875	124SPRT	197	4/10/2023	153.95	145.9	139.85	139.51	0.34	6.39	14.44
Arkansas	04S05W01BAA1	34.3895083	-91.4990167	124SPRT	199	4/13/2023	162.09	180.08	148.62	148.7	0.08	31.38	13.39
Arkansas	04S05W15AAA1	34.3589333	-91.5259139	124SPRT	200	4/10/2023	165.29	166.01	152.11	151.85	0.26	14.16	13.44
Arkansas	04S05W31DDA1	34.3053472	-91.5800167	124SPRT	185	4/10/2023	34.26		30.33	33.35	3.02		0.91
Arkansas	04S05W36DCC1	34.29777778	-91.5010083	124SPRT	196	4/10/2023	161.21	154.26	147.18	147.71	0.53	6.55	13.50
										Wells in Decline:	11	1	1
										Total Wells:	20	17	19
										Average Change:	0.53	8.80	12.09
Ashley	15S07W32CDD1	33.3549361	-91.8502944	124SPRT	191	4/7/2023	139.27	140.29	136.59	135.22	1.37	5.07	4.05
Ashley	17S09W15ACC1	33.22601667	-92.0212333	124SPRT	106	4/6/2023	24.54	22.3	19.37	19.18	0.19	3.12	5.36
										Wells in Decline:	0	0	0
										Total Wells:	2	2	2
										Average Change:	0.78	4.10	4.71
Bradley	12S09W31CCB1	33.61978889	-92.0789472	124SPRT	230	4/3/2023	174.33	182.3		179.35		2.95	5.02
Bradley	13S09W06ACA1	33.61330556	-92.0770778	124SPRT	233	4/3/2023	141.85	154.27	174.95	161.28	13.67	7.01	19.43
Bradley	13S09W06ACB2	33.61309167	-92.0713444	124SPRT	208	4/4/2023	161.72		161.46	171.96	10.50		10.24
Bradley	13S09W06DBD1	33.60694444	-92.0686111	124SPRT	227	4/3/2023		173.97	182.69	181.34	1.35	7.37	
Bradley	15S11W31DDD1 Hilo	33.36166667	-92.2725	124SPRT	129	4/4/2023	100.7	97.36	95.05	93.78	1.27	3.58	6.92
Bradley	16S12W21CAA1	33.3109222	-92.3478833	124SPRT	98	4/6/2023	76.66	71.56		68.18		3.38	8.48
										Wells in Decline:	1	2	3
										Total Wells:	4	5	5
										Average Change:	1.45	0.89	3.86
Calhoun	13S12W31DAA1	33.5426128	-92.3734831	124SPRT	200	4/5/2023	57.5	57.08	55.94	55.26	0.68	1.82	2.24
Calhoun	13S13W32CDA1	33.54078056	-92.4615722	124SPRT	208	3/31/2023	178.15	181.25	172.23	176.6	4.37	4.65	1.55
Calhoun	14S13W03CAB1	33.52925556	-92.4309528	124SPRT	202	4/5/2023	163.39		153.08	152.37	0.71		11.02

Sparta/Memphis Aquifer
Hydrologic Data 2013,2018,2022,2023

County	Station ID	Latitude	Longitude	Aquifer Code	Land Surface Altitude	Date	2013 Depth to Water (ft.)	2018 Depth to Water (ft.)	2022 Depth to Water (ft.)	2023 Depth to Water (ft.)	1 Year Change ('22 to '23)	5 Year Change ('18 to '23)	10 Year Change ('13 to '23)
Calhoun	14S13W05BBD1	33.5351833	-92.4670972	124SPRT	189	4/5/2023	149.62	145	141.37	145.04	3.67	0.04	4.58
Calhoun	14S13W12CCB1	33.511125	-92.4009833	124SPRT	206	4/5/2023	169.24	158.08	163.93	162.42	1.51	4.34	6.82
Calhoun	15S13W32BCA1	33.375	-92.4725	124SPRT	98	4/3/2023	116.77	103.9		93.15		10.75	23.62
										Wells in Decline:	2	2	0
										Total Wells:	5	5	6
										Average Change:	1.03	2.57	8.31
Clay	19N08E34AA1	36.2333973	-90.1981535	124SPRT	260	4/12/2023			8.95	8.35	0.60		
Clay	20N08E27BB1	36.34202778	-90.2095861	124SPRT	280	4/11/2023			12.35	11.23	1.12		
Clay	20N09E19BC2	36.3732333	-90.1528528	124SPRT	275	4/11/2023			3.85	4.98	1.13		
										Wells in Decline:	1		
										Total Wells:	3		
										Average Change:	0.20		
Cleveland	08S09W06BBA1	34.0636111	-92.0436111	124SPRT	296	4/10/2023		261.33	286.11	292.67	6.56	31.34	
Cleveland	09S09W04BBD1	33.9722472	-92.0435972	124SPRT	308	4/4/2023			221.5	224.67	3.17		
Cleveland	09S11W11CDB1	33.9394611	-92.2139917	124SPRT	239	4/4/2023	160.69	161.34	157.01	155.59	1.42	5.75	5.10
Cleveland	10S09W23CDC1	33.82165	-92.0056944	124SPRT	220	4/4/2023	172.53	166.7	160.4	161.78	1.38	4.92	10.75
Cleveland	10S09W35ACD1	33.799425	-91.9992028	124SPRT	219	4/4/2023	166.4		150.82	151	0.18		15.40
Cleveland	10S12W12BDD1	33.85916389	-92.2953833	124SPRT	220	4/12/2023	121.95	119.25	115.29	116.94	1.65	2.31	5.01
										Wells in Decline:	5	1	0
										Total Wells:	6	4	4
										Average Change:	1.92	4.59	9.07
Columbia	15S20W20CCB1	33.414825	-93.2041694	124SPRT	371	4/13/2023	217.08	216.34		214.54		1.80	2.54
Columbia	16S20W18ACD1	33.3480361	-93.2103889	124SPRT	338	4/13/2023	365.02	255.4	251.97	252.85	0.88	2.55	112.17
Columbia	16S21W14CBB1	33.3470472	-93.2548	124SPRT	281	3/29/2023	190.98	185.78		192.2		6.42	1.22
Columbia	16S22W22CCD1	33.32989167	-93.3735806	124SPRT	347	3/29/2023	151.97	132.03		137.1		5.07	14.87
Columbia	17S19W15ABD1	33.2604059	-93.0579425	124SPRT	325	4/14/2023	234.47	253.5		259.29		5.79	24.82
Columbia	17S19W18CBD1	33.25466944	-93.1154417	124SPRT	302	4/14/2023	266.61			278.61			12.00
Columbia	17S19W30ABB1	33.23503333	-93.1139278	124SPRT	248	3/30/2023	184.14	207.67		201.97		5.70	17.83
Columbia	17S20W13BCD1	33.25900278	-93.1353	124SPRT	339	4/14/2023	308.06		312.74	314.2	1.46		6.14
Columbia	17S21W01BBC1	33.2952972	-93.2399028	124SPRT	304	3/29/2023	251	248.6	237.26	246.38	9.12	2.22	4.62
Columbia	17S21W08DCA1	33.27039444	-93.2995278	124SPRT	300	4/14/2023	207.46	206.88		202.84		4.04	4.62
Columbia	17S21W11DCC2 Magnolia	33.26904167	-93.2468361	124SPRT	304	4/6/2023	268.93	269.66	263.75	264.01	0.26	5.65	4.92
Columbia	17S21W17BAB1	33.2688861	-93.3054444	124SPRT	291	4/13/2023	197.32	195.69		192.35		3.34	4.97
Columbia	17S22W22ABB1	33.25611667	-93.3694639	124SPRT	319	4/14/2023	134	131		130.03		0.97	3.97
Columbia	17S22W23BBB1	33.2557611	-93.3601861	124SPRT	340	4/14/2023	148.24	145.26		142.83		2.43	5.41
Columbia	18S20W08CBC1	33.18744167	-93.2075111	124SPRT	275	4/14/2023	264.17	279.8		261.86		17.94	2.31
Columbia	18S22W27DDD1	33.1429361	-93.366275	124SPRT	312	4/14/2023	132.33	130.67		129.11		1.56	3.22
Columbia	19S20W08DAB1 Emerson	33.09944444	-93.1988889	124SPRT	328	4/4/2023	267.24	256.56	253.89	252	1.89	4.56	15.24
Columbia	19S20W09CBD1	33.09871667	-93.1913111	124SPRT	331	4/14/2023	260.22	261.89	263.55	242.2	21.35	19.69	18.02
Columbia	19S21W16DBB1	33.0881111	-93.2900556	124SPRT	283	3/30/2023	171.22	171.09		170.4		0.69	0.82
Columbia	19S23W10ABD1	33.1122	-93.475925	124SPRT	243	4/13/2023	44.04	43.01		40.23		2.78	3.81
Columbia	19S23W11CDA2	33.10260833	-93.4622278	124SPRT	249	4/13/2023	51.64	50.33		48.12		2.21	3.52

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Dallas	10S13W34ACA2	33.8081833	-92.4160028	124SPRT	272	4/4/2023	151.41	151.01	148.99	150.14	1.15	0.87	1.27
Dallas	10S14W27CDB1	33.81877778	-92.5272194	124SPRT	271	4/5/2023	26.63	26.38	2.83	2.34	0.49	24.04	24.29
Dallas	10S15W11DBB1	33.86694444	-92.6088889	124SPRT	291	4/4/2023	58.79		53.81	54.95	1.14		3.84
Dallas	10S15W18BCC1	33.855425	-92.6889111	124SPRT	328	4/4/2023	78.48	75.51	74.28	76.12	1.84	0.61	2.36
										Wells in Decline:	9	1	1
										Total Wells:	12	9	11
										Average Change:	0.67	4.50	5.38
Desha	09S04W28DDD1	33.886	-91.5018639	124SPRT	165	4/5/2023	114.56	113.22	117.01	110.04	6.97	3.18	4.52
Desha	12S03W26CBB1	33.63016667	-91.3831056	124SPRT	143	4/4/2023	81.62			91.64			10.02
Desha	12S03W34DAD1	33.61206667	-91.3847333	124SPRT	147	4/4/2023	80.65	81.55	80.16	74.25	5.91	7.30	6.40
										Wells in Decline:	0	0	1
										Total Wells:	2	2	3
										Average Change:	6.44	5.24	0.30
Drew	12S06W30BBD1	33.63531944	-91.7619667	124SPRT	271	4/7/2023	210.41	212.67	203.95	207.2	3.25	5.47	3.21
Grant	03S13W12AAA1	34.4793472	-92.3517333	124SPRT	362	4/3/2023	130.35		127.78	124.43	3.35		5.92
Grant	03S15W26DAA1	34.43347778	-92.579725	124SPRT	337	4/4/2023	7		3.75	5.34	1.59		1.66
Grant	04S15W02DAC1	34.40138889	-92.5822222	124SPRT	327	4/19/2023	85.9		83.46	84.02	0.56		1.88
Grant	05S13W03CAA1	34.31221389	-92.4001306	124SPRT	259	4/12/2023	85.62		80.89	87.95	7.06		2.33
Grant	05S13W07ADB1	34.30277778	-92.4471528	124SPRT	270	4/12/2023	79.49		76.24	85.2	8.96		5.71
Grant	06S11W05ACD1	34.22800556	-92.2369472	124SPRT	269	4/10/2023	196.49		183.03	187.48	4.45		9.01
Grant	06S15W26ACA1	34.172775	-92.593775	124SPRT	280	4/12/2023	65.41		60	61	1.00		4.41
										Wells in Decline:	6		2
										Total Wells:	7		7
										Average Change:	2.90		2.12
Greene	16N06E08DB2	36.02894444	-90.4639028	124SPRT	254	4/14/2023				79.45			
Greene	16N06E16AA1	36.02141944	-90.4456528	124SPRT	253	4/13/2023				45.88			
Greene	17N06E36BD1	36.05418056	-90.3956083	124SPRT	248	4/13/2023				77.29			
Greene	18N06E35BC1	36.15366389	-90.4072083	12405MP	266	4/13/2023			23.04	23.75	0.71		
Hot Spring	05S16W35ACA1	34.24986389	-92.6975333	124SPRT	342	4/4/2023	37.14		33.32	33.5	0.18	33.50	3.64
Jefferson	03S09W23BBD1	34.44081944	-91.9536	124SPRT	224	4/6/2023	191.4	160.4	168.11	167.74	0.37	7.34	23.66
Jefferson	03S10W27AAD1	34.4172361	-92.0760583	124SPRT	222	4/6/2023		116	117.13	115.74	1.39	0.26	
Jefferson	04S07W17BCC1	34.36100278	-91.7949583	124SPRT	200	4/10/2023			164.29	167.37	3.08		
Jefferson	04S08W35BBD1	34.3191833	-91.848925	124SPRT	200	4/6/2023	216.58		195.01	200.9	5.89		15.68
Jefferson	04S11W14BAD2	34.37215	-92.1666861	124SPRT	400	4/10/2023		294.25		271.5		22.75	
Jefferson	05S09W24BBD1	34.25824444	-91.9321111	124SPRT	207.97	45029	261.24	257.1	258.15	245.9	12.25	11.20	15.34
Jefferson	05S09W31DDC1	34.2268583	-92.0192833	124SPRT	226	3/30/2023			258.12	263.36	5.24		
Jefferson	06S08W16CCC1	34.1952972	-91.9214056	124SPRT	202.42	4/10/2023	247.19	239.7	238.92	229.2	9.72	10.50	17.99
Jefferson	06S08W25ADC1	34.1735722	-91.8544944	124SPRT	203.21	4/13/2023	219.88	213.25	210.34	207.84	2.50	5.41	12.04
Jefferson	06S10W23ACD1	34.18765	-92.0854278	124SPRT	233	4/10/2023		213.55	207.44	209.9	2.46	3.65	

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Jefferson	07S07W24BAB1	34.10907778	-91.7563861	124SPRT	189	4/11/2023	168.5	155.7		155.63		0.07	12.87
Jefferson	07S10W24CAC1	34.0968611	-92.0724472	124SPRT	311	4/10/2023			276.41	277.8	1.39		
										Wells in Decline:	5	1	0
										Total Wells:	10	8	6
										Average Change:	0.82	5.81	16.26
Lafayette	17S23W19ACC1	33.25544444	-93.5243361	124SPRT	291	4/13/2023	55.29	52.5	51.23	52	0.77	0.50	3.29
Lafayette	17S24W23BBD1	33.25713056	-93.5674417	124SPRT	261	4/13/2023	34.79	33.05	31.9	32.91	1.01	0.14	1.88
Lafayette	19S23W29BDB1	33.06442778	-93.5176028	124SPRT	239	4/13/2023	41.68	39.3	24.4	38.08	13.68	1.22	3.60
Lafayette	20S23W05ADB1	33.03981944	-93.5100222	124SPRT	242	4/13/2023	40.17	36.5	36.58	35.69	0.89	0.81	4.48
										Wells in Decline:	3	0	0
										Total Wells:	4	4	4
										Average Change:	3.64	0.67	3.31
Lee	01N04E09CDD1	34.70269167	-90.6886306	124SPRT	208	4/17/2023	67.75			68.66			0.91
Lincoln	07S07W30CDC1	34.07886944	-91.8452389	124SPRT	202	4/13/2023	173.34	170.95		166.42		4.53	6.92
Lincoln	09S07W07DAD1	33.9427472	-91.8578639	124SPRT	296	4/12/2023	263.49	264.78	258.88	268.17	9.29	3.39	4.68
										Wells in Decline:		1	1
										Total Wells:		2	2
										Average Change:		0.57	1.12
Lonoke	01N07W03BCC1	34.7403722	-91.7509111	124SPRT	224	4/11/2023	136.37	137.57	138.1	140.61	2.51	3.04	4.24
Lonoke	01N07W04BBB1	34.74653056	-91.7689694	124SPRT	225	4/13/2023			146.15	149.07	2.92		
Lonoke	01N07W17CCC1	34.70216944	-91.7889611	124SPRT	228	4/13/2023			143.88	144.41	0.53		
Lonoke	01S08W02DBD1	34.6485333	-91.8332583	124SPRT	210	4/12/2023	109.41		110.32	97.76	12.56		11.65
Lonoke	02N07W06ACD1	34.82751389	-91.7936194	124SPRT	242	4/5/2023	127.96	132.85	127.1	128.68	1.58	4.17	0.72
Lonoke	02N07W09AAA1	34.81845	-91.7500833	124SPRT	232	4/6/2023	103.37	104.55	105.26	111.16	5.90	6.61	7.79
Lonoke	02N07W22DBA1	34.78096944	-91.7404667	124SPRT	227	4/13/2023	137.84	141.37	142.08	143.71	1.63	2.34	5.87
Lonoke	02N07W24DAC1	34.78061944	-91.7026028	124SPRT	231	4/10/2023	153.36		152.54	157.01	4.47		3.65
Lonoke	02N07W32DDD1	34.74812778	-91.7719361	124SPRT	225	4/13/2023	143.88	145.34	147.99	150.8	2.81	5.46	6.92
Lonoke	02N08W28BC2	34.77218889	-91.8782306	124SPRT	233	4/12/2023			124.76	126.8	2.04		
Lonoke	02S08W16BDA1	34.5410222	-91.8756917	124SPRT	215	4/11/2023	124.53	122.2	119.27	121.48	2.21	0.72	3.05
Lonoke	02S09W15BBB2	34.54625	-91.9736111	124SPRT	227	4/6/2023	73.1		72	72.5	0.50		0.60
Lonoke	03N08W22DAD2	34.86793889	-91.8399639	12405MP	235	4/4/2023		102.35	103.35	104.29	0.94	1.94	
Lonoke	03N08W22DAD3	34.86777778	-91.84	12405MP	235	5/1/2023		100.22	102.52	103.35	0.83	3.13	
										Wells in Decline:	13	6	6
										Total Wells:	14	8	9
										Average Change:	1.17	2.20	1.54
Miller	19S27W10BBA1	33.1222472	-93.8950028	124SPRT	323	4/13/2023	16.96		14.11	9.68	4.43		7.28
Monroe	01N01W15DBC2	34.69416667	-91.095	124SPRT	185	4/18/2023	65.64	62.25	62.57	62.46	0.11	0.21	3.18
Monroe	03N02W26DAB1	34.8450583	-91.173775	124SPRT	195	4/13/2023	51.18		50.57	52.17	1.60		0.99

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Monroe	04N02W30BAD1	34.938	-91.251	12405MP	181	4/19/2023		12.1	24.65	13.15	11.50	1.05	13.15
										Wells in Decline:	1	2	2
										Total Wells:	3	2	3
										Average Change:	3.34	0.63	3.65
Ouachita	11S15W27ABD1	33.7446861	-92.6237722	124SPRT	222	4/5/2023	68.02	67.77		36.14		31.63	31.88
Ouachita	11S17W14CAC1	33.775375	-92.8242944	124SPRT	145	4/5/2023	19.5	30.08	15.68	17.26	1.58	12.82	2.24
Ouachita	11S17W36CCA1	33.7280861	-92.8095028	124SPRT	133	4/5/2023		4	4.1	3.78	0.32	0.22	
Ouachita	11S18W20AAA1	33.770625	-92.9664806	124SPRT	333	4/12/2023		43.64	43.57	43.41	0.16	0.23	43.41
Ouachita	12S15W09BBA1	33.70647778	-92.6562333	124SPRT	213	2/13/2023	48.39	49.98	48.67	48.47	0.20	1.51	0.08
Ouachita	12S16W25BDC1	33.65816667	-92.7030056	124SPRT	140	4/5/2023	37.08		24.18	33.34	9.16		3.74
Ouachita	12S16W26ABD1	33.66265278	-92.7178111	124SPRT	137	4/5/2023	34.05	20.78	17.19	18.25	1.06	2.53	15.80
Ouachita	12S18W19CDC1	33.67055	-92.9975861	124SPRT	235	4/12/2023	31.34	24.58	26.9	14.31	12.59	10.27	17.03
Ouachita	12S18W25CAB1	33.66033056	-92.9116306	124SPRT	189	4/17/2023		77.6		77.4		0.20	
Ouachita	12S19W09BAB1	33.71429444	-93.0644278	124CRVR	290	2/15/2023	12.9	10.38		7.22	7.22	3.16	5.68
Ouachita	12S19W35BDD1	33.65031389	-93.0294361	124SPRT	350	4/12/2023		156.82	160.65	154.98	5.67	1.84	
Ouachita	13S16W28ADD1	33.5711722	-92.7473972	124SPRT	106	4/5/2023	25.7	25.17	11.48	11.38	0.10	13.79	14.32
Ouachita	13S18W06BBA1	33.6386111	-93.0016667	124SPRT	281	4/17/2023	115.29		113.23	112.94	0.29		2.35
Ouachita	13S18W31BDD1	33.562025	-92.9990056	124SPRT	231	4/17/2023		70.62	68.84	69.46	0.62	1.16	
Ouachita	14S16W32BDB1	33.47100556	-92.7776444	124SPRT	239	4/19/2023	29.07	19.94	8.29	13.59	5.30	6.35	15.48
Ouachita	14S17W05CAD1 near Camden	33.54389167	-92.8818444	124SPRT	159	4/4/2023	38.1	35.92	33.66	34.79	1.13	1.13	3.31
Ouachita	14S17W19DBB1	33.5006111	-92.8959556	124SPRT	259	2/17/2023	18.66	13.06	8.57	8.04	0.53	5.02	10.62
Ouachita	14S17W32CAD1	33.46761389	-92.8808833	124SPRT	220	2/17/2023	69.2	74.8	71.32	71.9	0.58	2.90	2.70
Ouachita	14S19W29ABB1	33.4948472	-93.0870639	124SPRT	280	4/18/2023	90.1	88.13	85.3	85.06	0.24	3.07	5.04
Ouachita	15S15W32DBB2	33.3760333	-92.6742028	124SPRT	121	4/18/2023	156.02	143.52	136.78	133.02	3.76	10.50	23.00
Ouachita	15S16W23DAC1	33.4046583	-92.7206	124SPRT	170	2/13/2023	123.59	113.84	109.1	107.35	1.75	6.49	16.24
Ouachita	15S18W36ADD1	33.38631944	-92.9100167	124SPRT	160	4/18/2023	90.5	86.87	83.78	82.47	1.31	4.40	8.03
Ouachita	15S19W21CDD2 Stephens	33.4105611	-93.0755278	124SPRT	269	4/4/2023		186.67	185.18	184.12	1.06	2.55	
										Wells in Decline:	8	0	3
										Total Wells:	21	21	18
										Average Change:	0.06	5.80	7.14
Phillips	01S02E32DDC1	34.55675556	-90.9153917	124SPRT	210	4/17/2023	78.95		83.49	78	5.49		0.95
Phillips	02S04E02DAA1	34.54518889	-90.64565	124SPRT	255	4/17/2023				110.6			
Phillips	02S05E16BCB1	34.51897778	-90.5904556	124SPRT	188	4/17/2023	32.92			36.84			3.92
Phillips	04S02E25CCC1	34.30723889	-90.8566861	124SPRT	166	4/17/2023	33.59	32.9		34.14		1.24	0.55
										Wells in Decline:			2
										Total Wells:			3
										Average Change:			1.17
Poinsett	10N01E12BDC1	35.50731944	-90.9415472	12405MP	234	4/12/2023		109.68	123.67	123.96	0.29	14.28	
Poinsett	10N03E05AC1	35.53135556	-90.7929583	124SPRT	241	4/17/2023			109.66	110.51	0.85		
Poinsett	10N03E23CAC1	35.48045278	-90.7423028	12405MP	258	4/11/2023			119.64	121.71	2.07		
Poinsett	11N02E11BDC1 near Weiner	35.60152778	-90.8519444	12405MP	244	3/31/2023		122.25	124.73	126.33	1.60	4.08	
Poinsett	11N02E16CCC1	35.5800583	-90.8892278	12405MP	240	4/17/2023		120.45	122.76	124.99	2.23	4.54	

Sparta/Memphis Aquifer
Hydrologic Data 2013,2018,2022,2023

County	Station ID	Latitude	Longitude	Aquifer Code	Land Surface Altitude	Date	2013 Depth to Water (ft.)	2018 Depth to Water (ft.)	2022 Depth to Water (ft.)	2023 Depth to Water (ft.)	1 Year Change ('22 to '23)	5 Year Change ('18 to '23)	10 Year Change ('13 to '23)
Poinsett	11N02E25AC1	35.55717778	-90.8259417	124SPRT	240	4/17/2023				120.61			
Poinsett	11N03E25BDD1 W4	35.55781667	-90.72305	12405MP	273	4/17/2023			128.41	126.53	1.88		
Poinsett	11N03E29DB1	35.5571972	-90.7871556	124SPRT	243	4/17/2023			113.98	115.2	1.22		
Poinsett	12N03E04DAD1	35.69916667	-90.7666667	124SPRT	249	4/10/2023				112.2			
Poinsett	12N03E35BCC1	35.62910556	-90.7488056	12405MP	244	4/17/2023			114.19	114.17	0.02		
										Wells in Decline:	6	3	
										Total Wells:	8	3	
										Average Change:	0.79	7.63	
Prairie	01N06W02ABB1	34.74511111	-91.6169333	124SPRT	223.02	4/10/2023	119.49	118.06	118.15	120.92	2.77	2.86	1.43
Prairie	01N06W34CBB1	34.6619472	-91.6461583	124SPRT	227	4/10/2023	159.46	162.47	150.04	157.17	7.13	5.30	2.29
Prairie	01S05W06BCB1	34.65110556	-91.5921194	124SPRT	221	4/10/2023	155.64	163.93	145.08	153.82	8.74	10.11	1.82
Prairie	01S06W01BDD2	34.64985556	-91.6035472	124SPRT	226	4/10/2023	160.8	162.01	152.42	166.04	13.62	4.03	5.24
Prairie	01S06W11DBD1	34.630275	-91.6150667	124SPRT	230	4/6/2023	166.55	170.77	161.9	164.12	2.22	6.65	2.43
Prairie	01S06W12BAB2	34.64055556	-91.6036111	124SPRT	228	5/2/2023	168.71		153.72	159.55	5.83		9.16
Prairie	02N04W19ACB1	34.7803083	-91.4671	124SPRT	209	4/19/2023	55.59		48.55	80.49	31.94		24.90
Prairie	02N05W24BCA4	34.78305556	-91.4936111	124SPRT	222	4/6/2023	104.44	100.17		100.16		0.01	4.28
Prairie	02N06W04DBB1	34.82444444	-91.6477778	12405MP	234	4/12/2023			107.46	109.36	1.90		
Prairie	02N06W19AAB1	34.7884	-91.6805417	124SPRT	238	4/10/2023	155.88	157.07	156.14	160.66	4.52	3.59	4.78
Prairie	02N06W20BCB1	34.7851583	-91.675825	124SPRT	238	4/10/2023	151.99	160.9	152.84	156.68	3.84	4.22	4.69
Prairie	02N06W22BDD1	34.7815722	-91.6335222	124SPRT	235	4/10/2023	121.07	127.81	127.62	122.07	5.55	5.74	1.00
Prairie	02N06W24CAA2 at Hazen S	34.7808333	-91.5975	12405MP	231	4/21/2023		117.96		117.69	0.73	0.46	
Prairie	03N05W03ADA2	34.9143472	-91.5118083	124SPRT	206	4/12/2023			55.7	62.46	6.76		
Prairie	04N06W33ABA1	34.93388889	-91.6432611	124SPRT	220	4/17/2023			83.9	84.9	1.00		
										Wells in Decline:	13	4	6
										Total Wells:	14	10	11
										Average Change:	6.10	2.11	2.01
St. Francis	03N01W33CDD1	34.9128722	-91.1097444	124SPRT	209	4/13/2023	72.95		72.79	70	2.79		2.95
Union	16S14W15CAB1	33.3288972	-92.5383583	124SPRT	94	4/6/2023	131.77	113.71	108	106.2	1.80	7.51	25.57
Union	16S15W20DAA1	33.31664444	-92.6661028	124SPRT	189	4/19/2023	258	228.7		216.64		12.06	41.36
Union	16S15W31ACC1	33.28808056	-92.6913611	124SPRT	168	4/19/2023	248.75	219.77	210.09	201.81	8.28	17.96	46.94
Union	16S16W02ABC1 Smackover	33.36830278	-92.7246111	124SPRT	114	4/4/2023	150.06	136.07	130.03	126.6	3.43	9.47	23.46
Union	16S16W03CBC1	33.36055556	-92.7519444	124SPRT	202	4/18/2023	209.55	197.6	191.21	186.89	4.32	10.71	22.66
Union	17S13W31BAC1	33.2000472	-92.4876944	124SPRT	217	4/6/2023	270.67	259.35		241.15		18.20	29.52
Union	17S14W10DCC1	33.24910833	-92.5342389	124SPRT	182	4/6/2023		89.62	85.08	84.74	0.34	4.88	
Union	17S14W15ABA1	33.24758333	-92.5332778	124SPRT	169	4/6/2023	92.97	89.24	85.45	84.96	0.49	4.28	8.01
Union	17S14W22BAB1 Union Schoo	33.23176944	-92.5400472	124SPRT	200	4/4/2023	273.81	255.2	250.32	237.28	13.04	17.92	36.53
Union	17S15W06BAA1	33.27933333	-92.6924972	124SPRT	170	4/19/2023	219.71	199.13	188.61	181.66	6.95	17.47	38.05
Union	17S15W18DBB1 Monsanto	33.24415556	-92.6914472	124SPRT	182.78	4/4/2023	280.57	249.67	229.7	229.04	0.66	20.63	51.53
Union	17S15W28DBA1 Eld 8	33.2128	-92.6527167	124SPRT	231	4/6/2023	321.32	296.19	278.95	275.32	3.63	20.87	46.00
Union	17S15W31DCB1	33.19695833	-92.6908361	124SPRT	258	4/4/2023		100.66	96.24	94.89	1.35	5.77	
Union	17S16W01BAA1	33.28028889	-92.7091556	124SPRT	157	4/19/2023	255.6	224.06	215.79	207.07	8.72	16.99	48.53
Union	17S17W25DBA2 Airport	33.21568595	-92.8104389	124SPRT	250	4/4/2023	315.91	292.73	280.51	275.42	5.09	17.31	40.49
Union	18S12W33BBB1	33.114	-92.3556	124SPRT	112	4/6/2023	136.54	122.3		122.19		0.11	14.35

Sparta/Memphis Aquifer
Hydrologic Data 2013,2018,2022,2023

County	Station ID	Latitude	Longitude	Aquifer Code	Land Surface Altitude	Date	2013 Depth to Water (ft.)	2018 Depth to Water (ft.)	2022 Depth to Water (ft.)	2023 Depth to Water (ft.)	1 Year Change ('22 to '23)	5 Year Change ('18 to '23)	10 Year Change ('13 to '23)
Union	18S12W33CBC1 Strong	33.10513056	-92.3537389	124SPRT	110	4/4/2023	110.87	115.38	117.82	118.81	0.99	3.43	7.94
Union	18S13W16ADD1	33.15290833	-92.4433083	124SPRT	238	4/6/2023	167.4	183.36		176.49		6.87	9.09
Union	18S15W03DAB2 Welcome Cen	33.18527778	-92.6338889	124SPRT	240	4/4/2023		304.1	288.82	282.59	6.23	21.51	
Union	18S17W22BDD1 McKinnon	33.14886389	-92.8490222	124SPRT	283	4/6/2023	322.96	306.3	297.47	291.82	5.65	14.48	31.14
Union	19S11W23ACA1	33.04871667	-92.208	124SPRT	142	4/6/2023	149.11	144.37		143.45		0.92	5.66
										Wells in Decline:	1	1	2
										Total Wells:	16	21	18
										Average Change:	4.31	11.55	27.38
Woodruff	05N01W17DBB1	35.05296667	-91.1241972	12405MP	208	4/16/2023		49.04	48.86	49.23	0.37	0.19	
Woodruff	06N01W13ABA1	35.147725	-91.0482389	12405MP	212	4/6/2023		76.48	75.36	77.11	1.75	0.63	
Woodruff	06N01W13ADC1	35.14094167	-91.0463167	12405MP	214	4/6/2023		74.76	74.3	75.12	0.82	0.36	
Woodruff	07N01W12BCB1	35.2448833	-91.0572694	12405MP	222	4/7/2023		71.85	62.85	75.63	12.78	3.78	
	17S27W22DBB2	33.26099167	-93.8870167	124SPRT	297	4/13/2023				128.21			
										Wells in Decline:	4	4	
										Total Wells:	4	4	
										Average Change:	3.93	1.24	

Total Wells:	182	165	162
Total Wells in Decline:	109	41	37
Percent of Total Wells in Decline:	59.89%	24.85%	22.84%
Total Average Change (ft.):	0.73	4.16	7.87

Efficiently and responsibly managing and protecting our water and land resources for the sustainability, health, safety, and economic benefit of the State of Arkansas.



**NATURAL RESOURCES
DIVISION**

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