

Growing Arkansas's Largest Industry



**ARKANSAS**  
Department of Agriculture

**2022**

**ARKANSAS GROUNDWATER PROTECTION  
AND MANAGEMENT REPORT**



## Arkansas Department of Agriculture

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Little Rock, AR 72205



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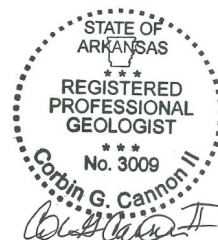
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United States Department of Agriculture Natural Resources Conservation Service



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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 2021 and 2022, including water level monitoring and studies of water use trends in the state.

This report focuses exclusively on two aquifers: the Mississippi River Valley alluvial (alluvial) aquifer, the most important water resource for agricultural production in the state, and the Sparta/Memphis (Sparta) aquifer, one of the state's best sources of quality groundwater for drinking and industrial uses. The report compares synoptic water level data collected in the spring of 2022 to historical synoptic water level data in one, five, and ten-year intervals; as well as data collected continuously, monthly, and quarterly, to quantify the aquifers response to the stresses of the 2021 growing season. 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 2022 had positive average change values for both the alluvial and Sparta aquifers when compared to spring data from 2017, 2021, and 2022. This result continues the trend of mostly positive average change values in recent years. Maps depicting spring 2022 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.

The general trend in Arkansas's long-term water level change is that the groundwater levels are declining in response to continued withdrawals at rates which are not sustainable. Based on 2015 water use data, only approximately 44.2 percent of the current alluvial aquifer withdrawal of 7,636.08 million gallons per day, and approximately 55 percent of the Sparta aquifer withdrawal of 160 million gallons per day is sustainable. At these pumping rates, water level declines and the adverse impacts on the state's groundwater system will continue to be observed.

## Introduction

This report is prepared in accordance with Arkansas Groundwater Protection and Management Act of 1991, Arkansas Code Annotated 15-22-906, to provide 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 data from the Arkansas Water Well Construction Commission.

This report focuses on the two most used aquifers in the state, the Mississippi River Valley alluvial (alluvial) aquifer and the Sparta/Memphis (Sparta) 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, approximately 300 to 400 wells are monitored in the alluvial aquifer, and approximately 100 to 200 wells are monitored each spring for water levels in the Sparta aquifer. In 2022, water level data was collected from approximately 414 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. Historically, fall water level collection is not as comprehensive as the spring effort, but this year, 343 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 alluvial and Sparta aquifers. Water level declines are consistently observed in areas where water use is highest, such as portions of the Grand Prairie and Cache River study areas for the alluvial aquifer, and in the South Arkansas study area for the Sparta aquifer.

The United States Geological Survey (USGS) maintains the Arkansas Masterwell Program that supplies long-term groundwater quality monitoring in 25 wells from 14 aquifers. These Masterwells are located throughout 21 counties and each year five sites are sampled for a variety of water quality constituents. Hydrogeologic data is collected statewide; however, resources are focused on study areas where water level declines and water quality degradation have been historically observed.

## Water Policy

Water resources policy in Arkansas was established in the Arkansas Water Plan, in which the Arkansas Department of Agriculture's Natural Resources Division (NRD) advocates conservation, education, and the conjunctive use of ground and surface water, along with the development of excess surface water to meet future water use needs. It is hoped that protection of the state's groundwater resources can be achieved through these measures rather than management strategies that may require allocation of water. If conservation and the development of excess surface water are not successfully implemented in the impaired areas in the future, the state may have to consider regulatory alternatives to preserve the aquifers at a sustainable level. All water use strategies must consider the wise use of our state's water

resources while protecting the sustainable yield of the state's aquifers. Stream flow needs of the state's surface water flow system must also be considered if our water resources are to be protected for future generations to utilize and enjoy. The NRD advocates 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

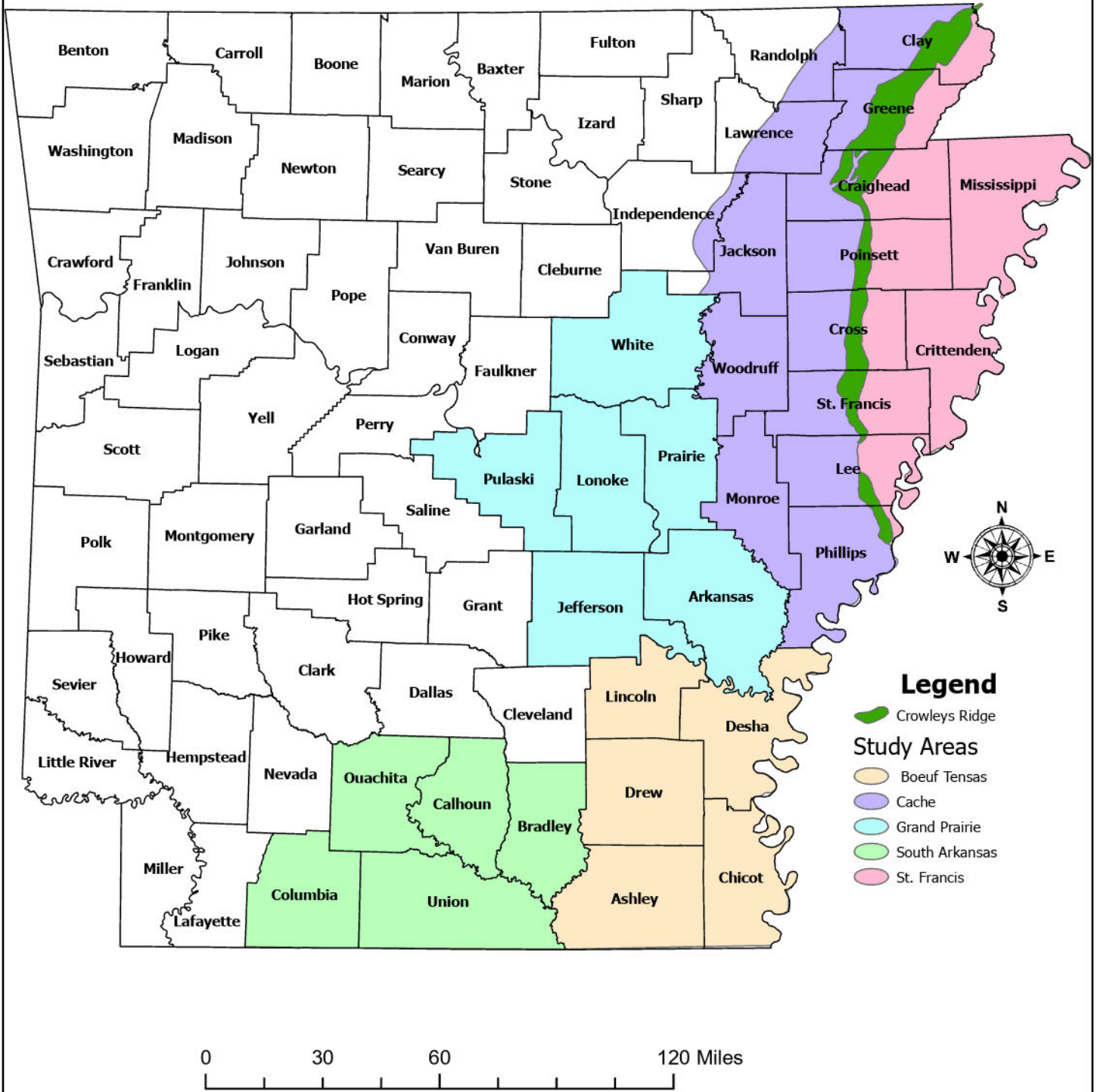


Figure 1

# Critical Groundwater Areas



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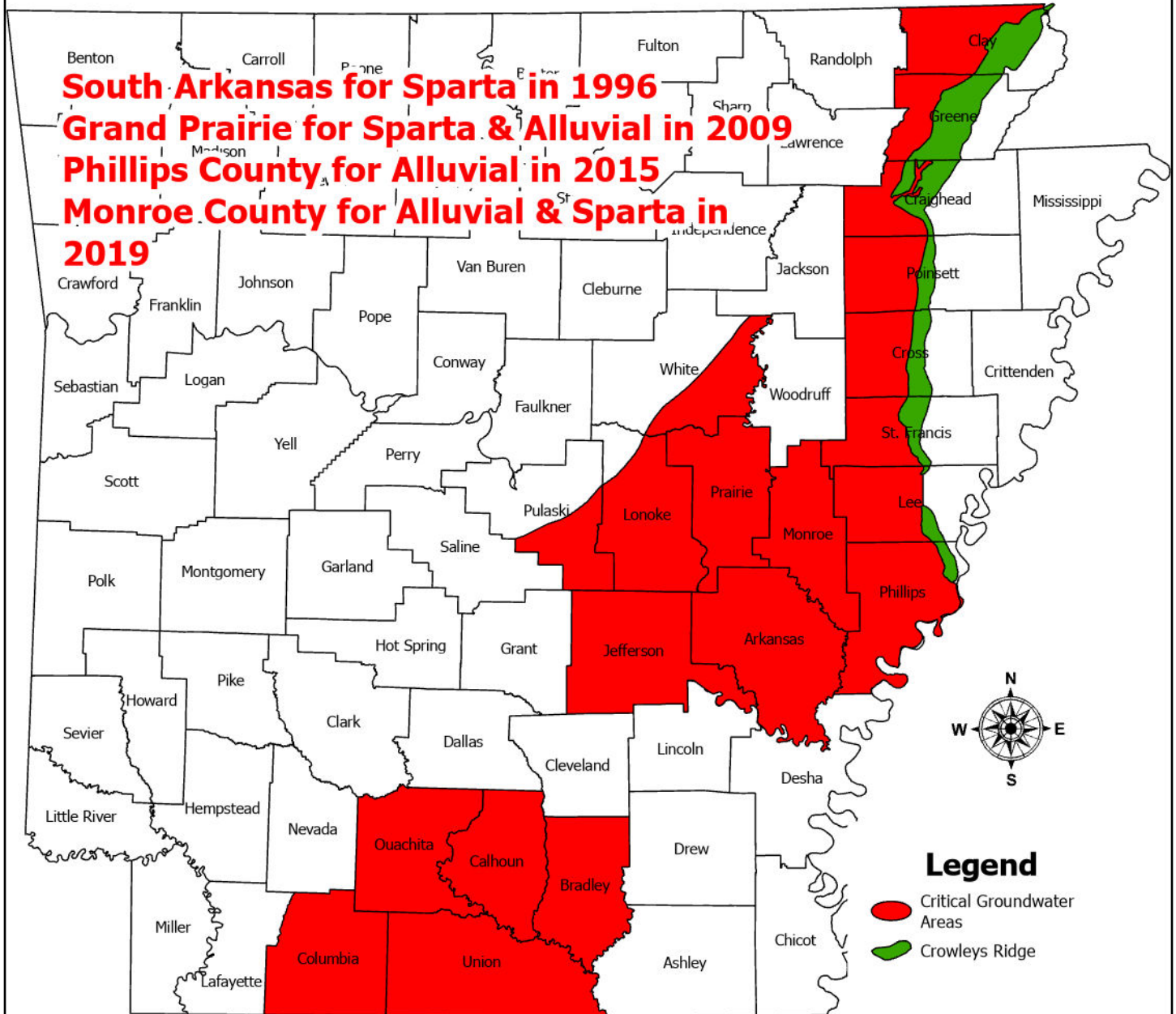


Figure 2



## 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 to 150 feet of sand and gravel, grading from coarse gravel at the bottom to fine sand at the top. 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 414 wells across the alluvial aquifer prior to the irrigation season in 2022, 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) Mississippi Embayment Regional Aquifer Study (MERAS) model (USGS, 2008). The areas of greatest decline continue to be the historical cones of depression in the Grand Prairie and Cache River regions.

# Alluvial Aquifer Water Level Altitude Spring 2022

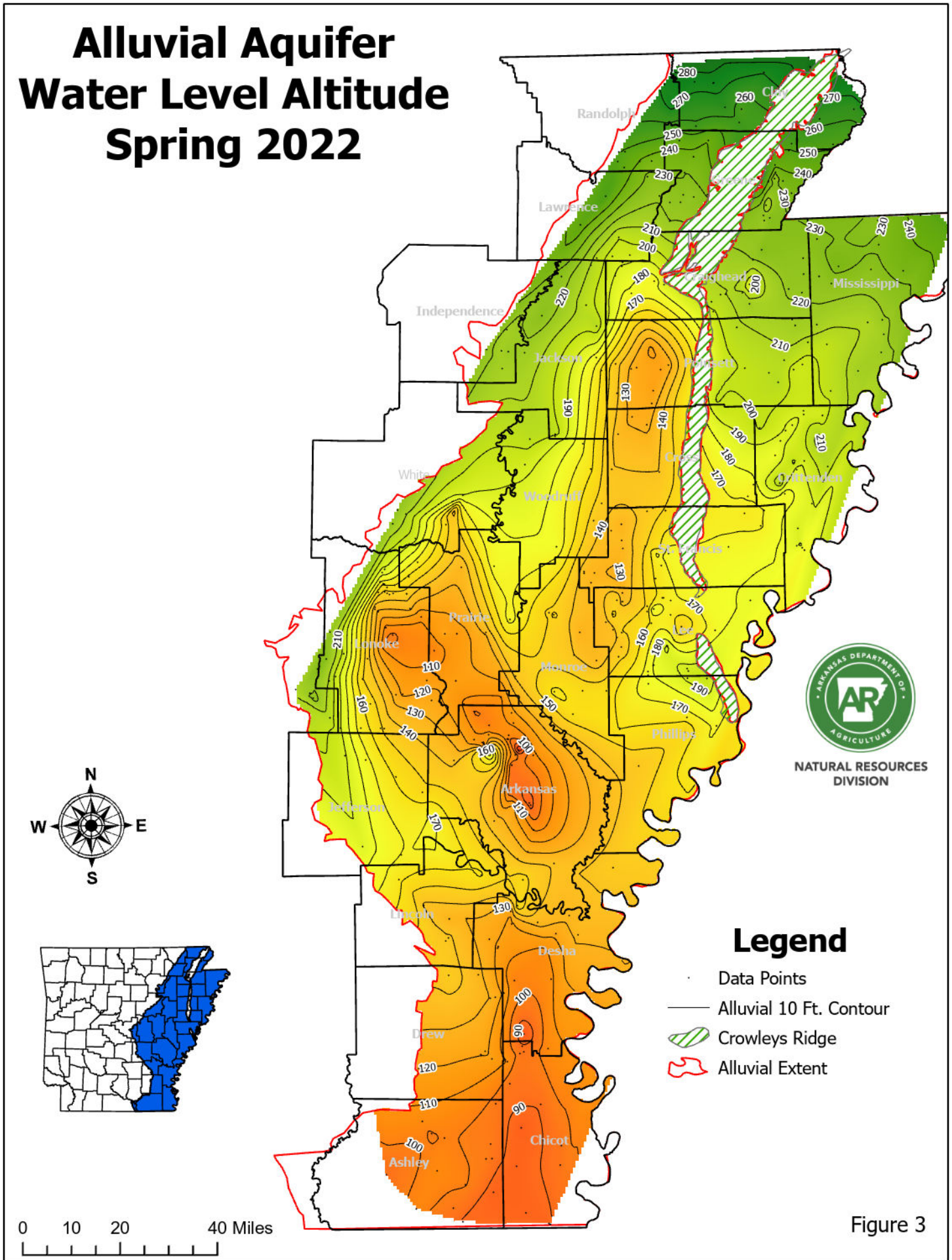
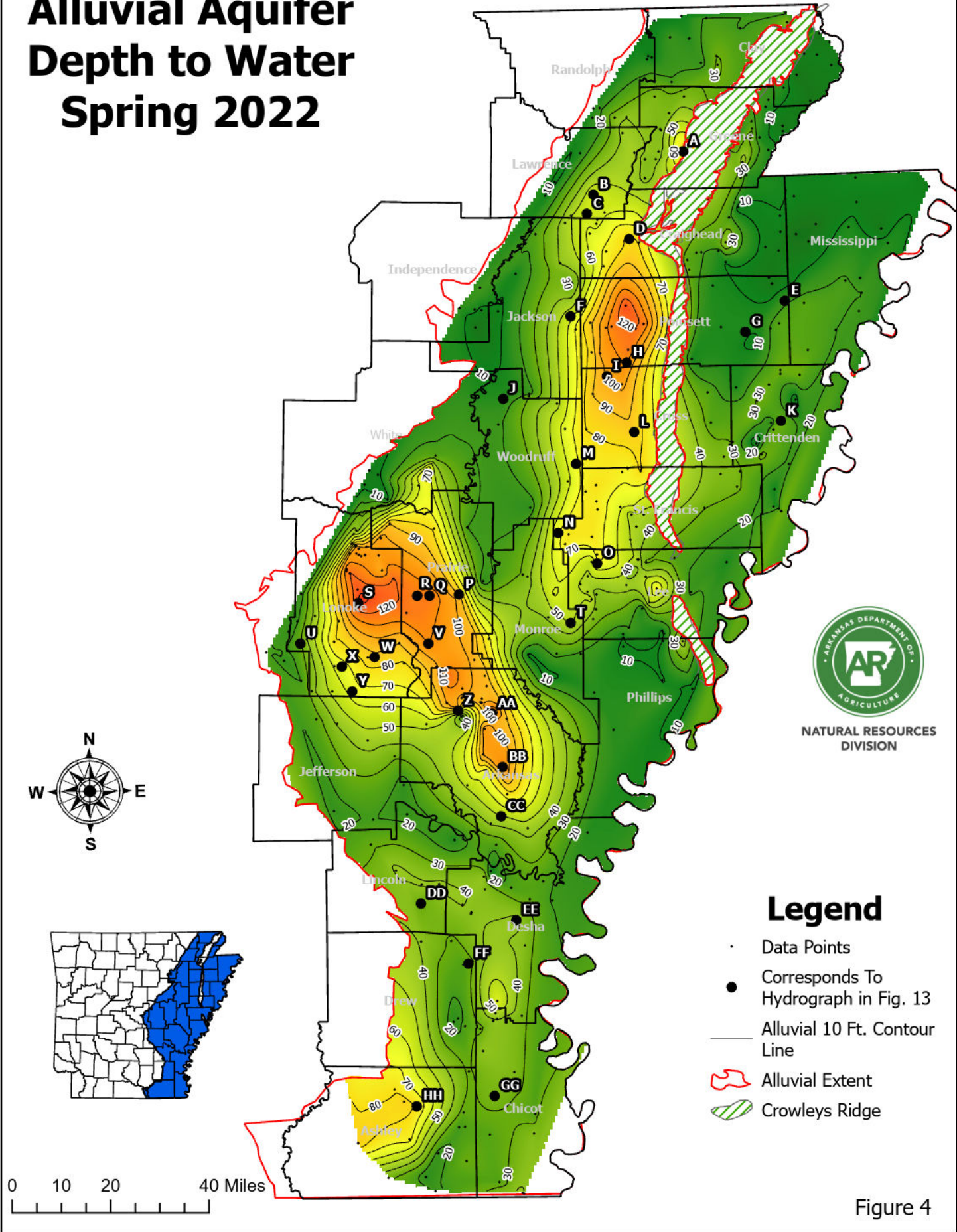


Figure 3



# Alluvial Aquifer Depth to Water Spring 2022



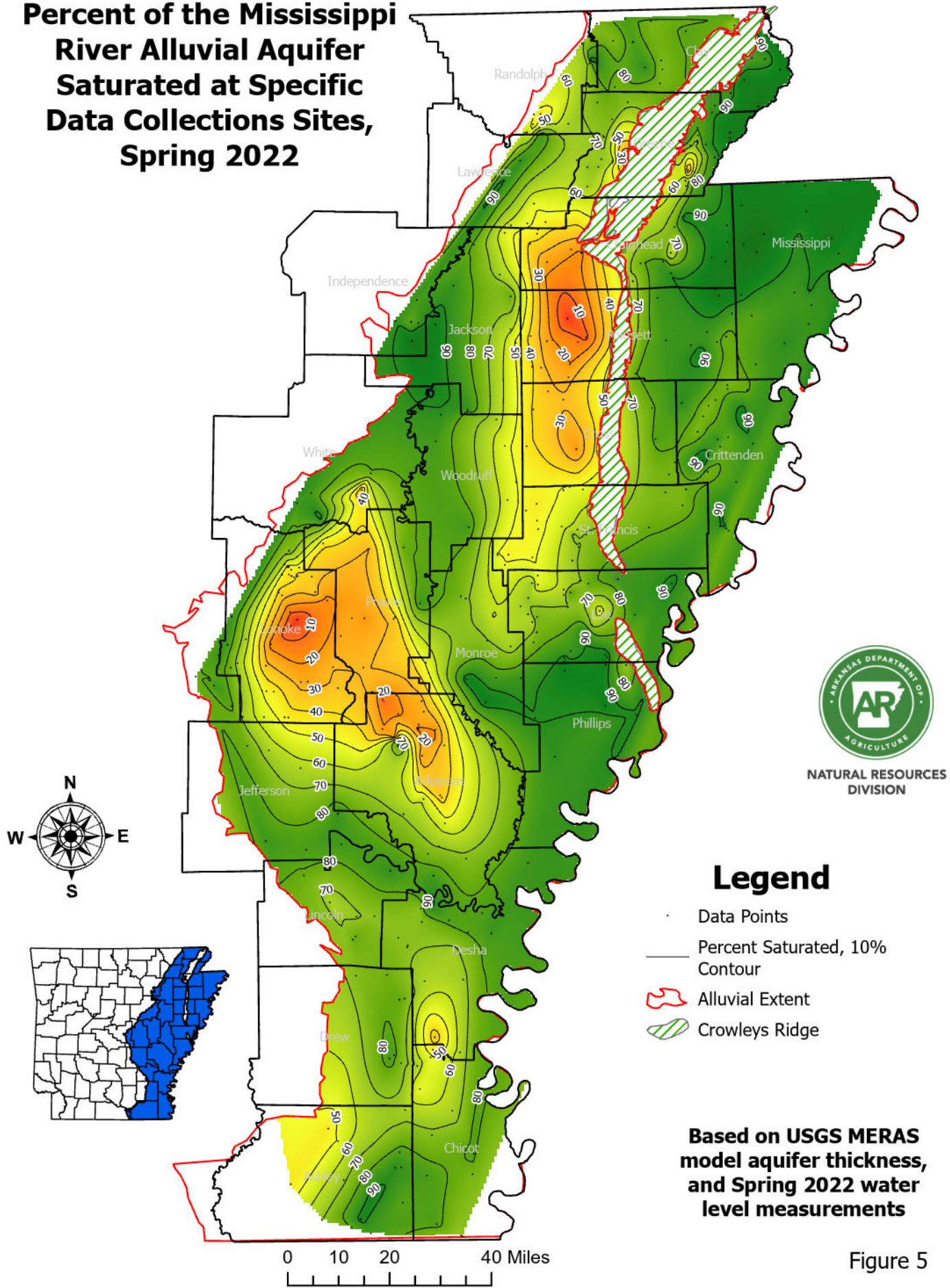
## Legend

- Data Points
- Corresponds To Hydrograph in Fig. 13
- Alluvial 10 Ft. Contour Line
- Alluvial Extent
- ▨ Crowley's Ridge

Figure 4



# Percent of the Mississippi River Alluvial Aquifer Saturated at Specific Data Collections Sites, Spring 2022



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## Legend

- Data Points
- Percent Saturated, 10% Contour
- ⬡ Alluvial Extent
- ▨ Crowleys Ridge

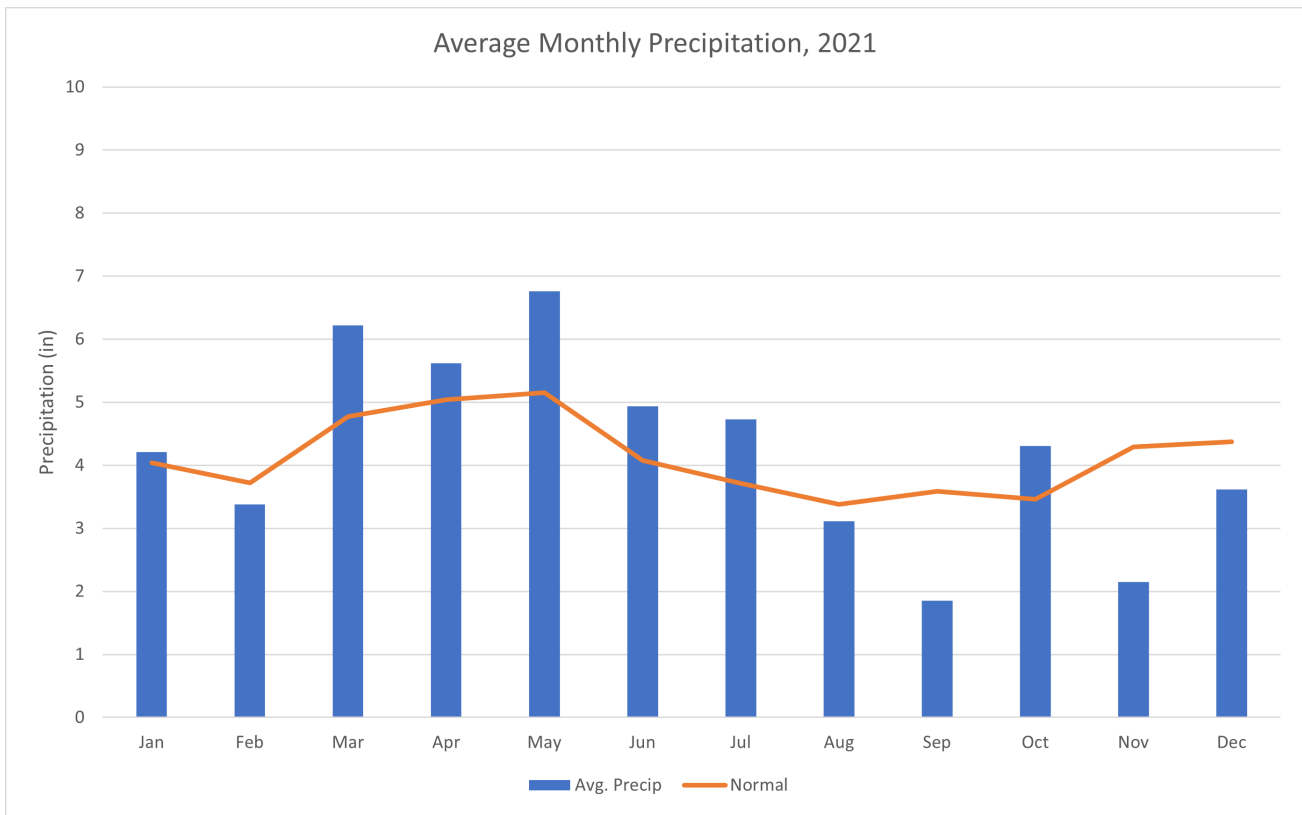
Based on USGS MERAS model aquifer thickness, and Spring 2022 water level measurements

Figure 5

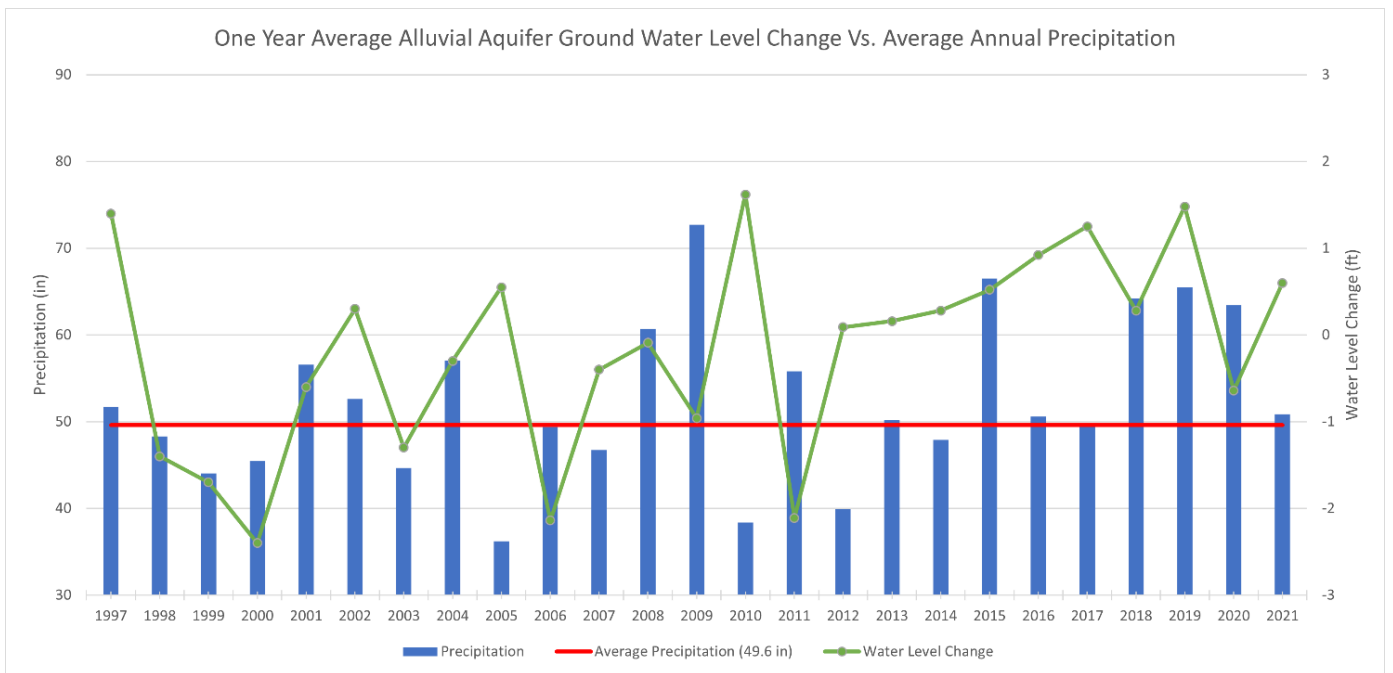
## Precipitation and Weather Events

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 2021, the total average precipitation was 50.87 inches, 1.26 inches more than the annual average, but 12.56 inches below 2020. During the 2021 growing season, most months had above average precipitation except for August, which was just below average, and September, which was significantly below average. Figure 6 shows the statewide monthly average precipitation for 2021 compared with the normal average monthly values.

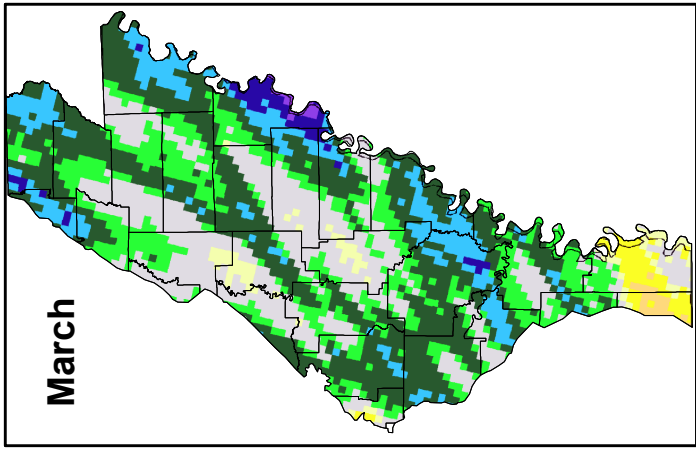
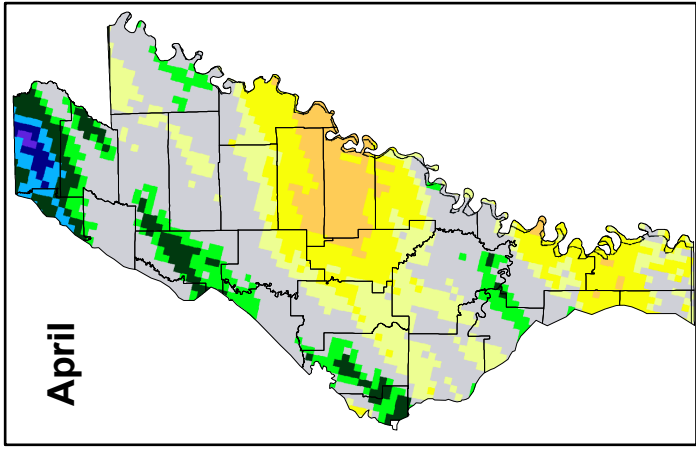
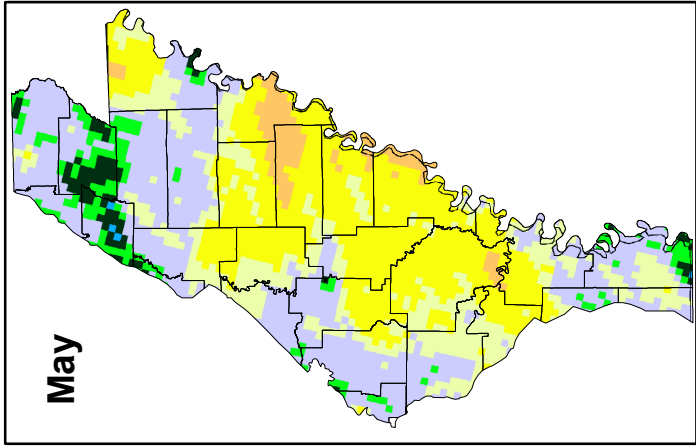
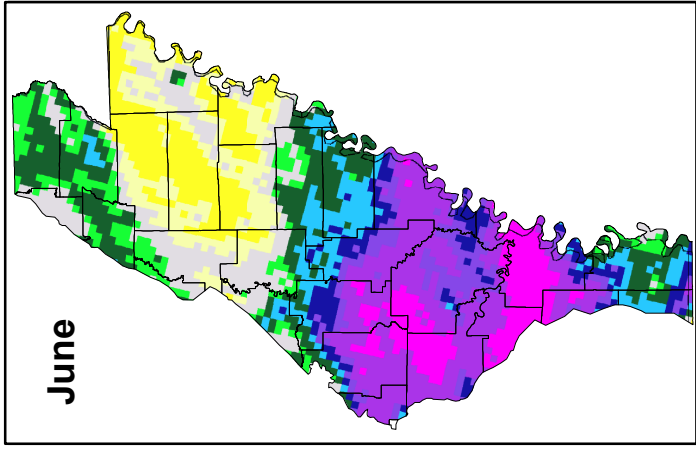
Arkansas has consistently received average to above average rainfall since 2011, except for 2012, and the average water level change across the alluvial aquifer had been trending upwards until 2021. The spring 2021 to 2022 average water level change comparison resumed this trend having a positive average change value of +0.6 feet. Figure 7 compares the statewide annual average precipitation to the average change in water levels in the alluvial aquifer from 1997 to 2021. 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 2021 growing season (NOAA, 2022).



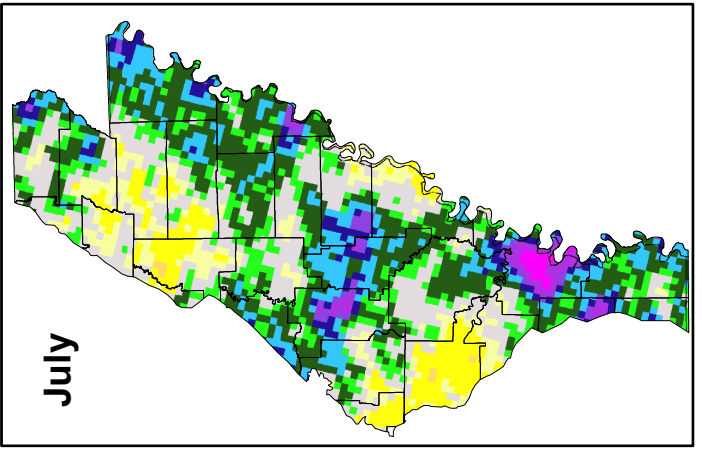
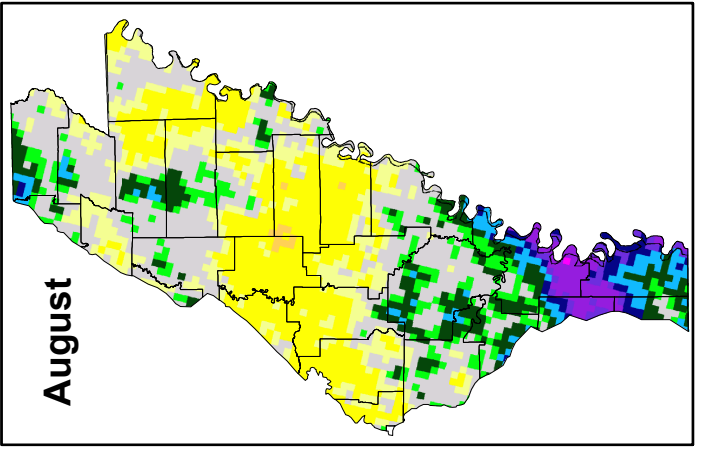
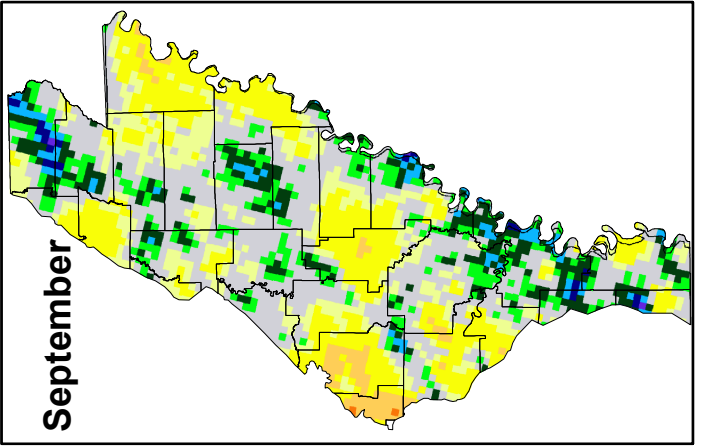
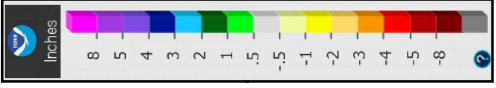
**Figure 6: Average Monthly Precipitation, 2021**



**Figure 7: One Year Average Alluvial Aquifer Ground Water Change Vs. Average Annual Precipitation**



**Figure 8:**  
Mississippi River Valley Alluvial Plain  
2021 Total Monthly Precipitation  
Departure from Normal  
(DFN) Value



## Water Level Trends

Water level data from the current year is compared with previous data on a well-to-well basis in one, five, and ten-year intervals to illustrate the water level change of the aquifer over time. For the one-year change comparison, 332 of the 414 wells measured in spring 2022 shared data with the spring 2021 dataset, and when compared, give a total average water level change of +0.60 feet with 183 wells (55.12 percent) showing a decline in level. For the five-year comparison, 238 wells were identified as having data for both 2022 and 2017 giving a total average water level change of +2.66 feet with only 56 wells (23.53 percent) having declined static water levels. The ten-year comparison found 286 wells with water level data for the spring seasons of 2022 and 2012 and gave a total average water level change of +1.05 with 109 wells (37.7 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 2021 to spring 2022 water level change, Figure 10 presents the five-year spring 2017 to spring 2022 water level change, and Figure 11 presents the ten-year spring 2012 to spring 2022 change data. These maps show that water level declines continue to be primarily concentrated in the Cache River 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 area, and as the Cache River 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 343 alluvial aquifer wells were measured in the fall of 2022 that had also been measured during the spring. When compared, the total average change for spring to fall 2022 measurements was -3.42 feet, which is consistent with the average change calculated in past years: 2018 (-3.57), 2019 (-2.90), 2020 (-3.32), and 2021 (-2.80). Figure 12 presents the spring to fall water level change data for the entire alluvial aquifer.

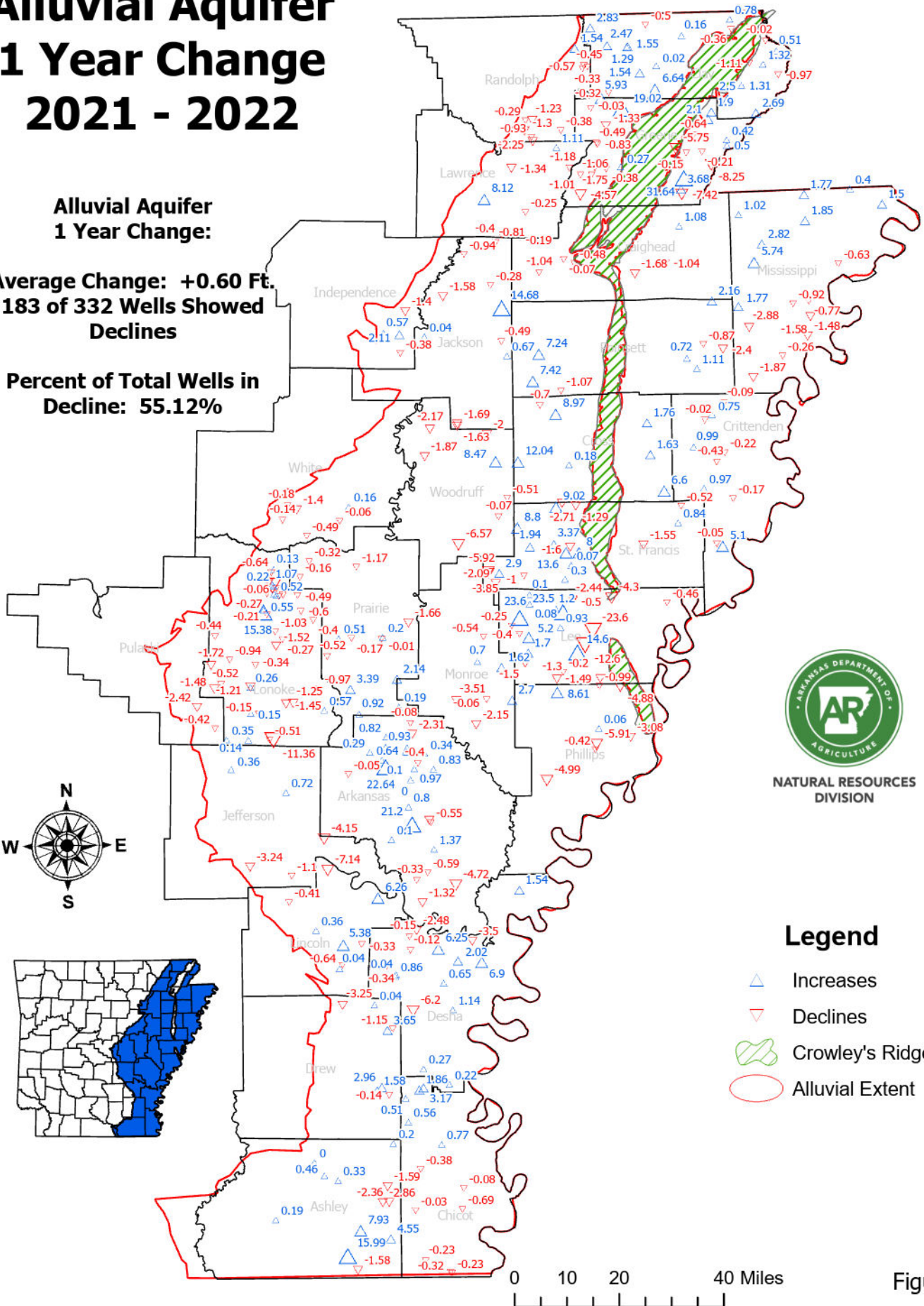


# Alluvial Aquifer 1 Year Change 2021 - 2022

Alluvial Aquifer  
1 Year Change:

Average Change: **+0.60 Ft.**  
183 of 332 Wells Showed  
Declines

Percent of Total Wells in  
Decline: **55.12%**



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### Legend

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

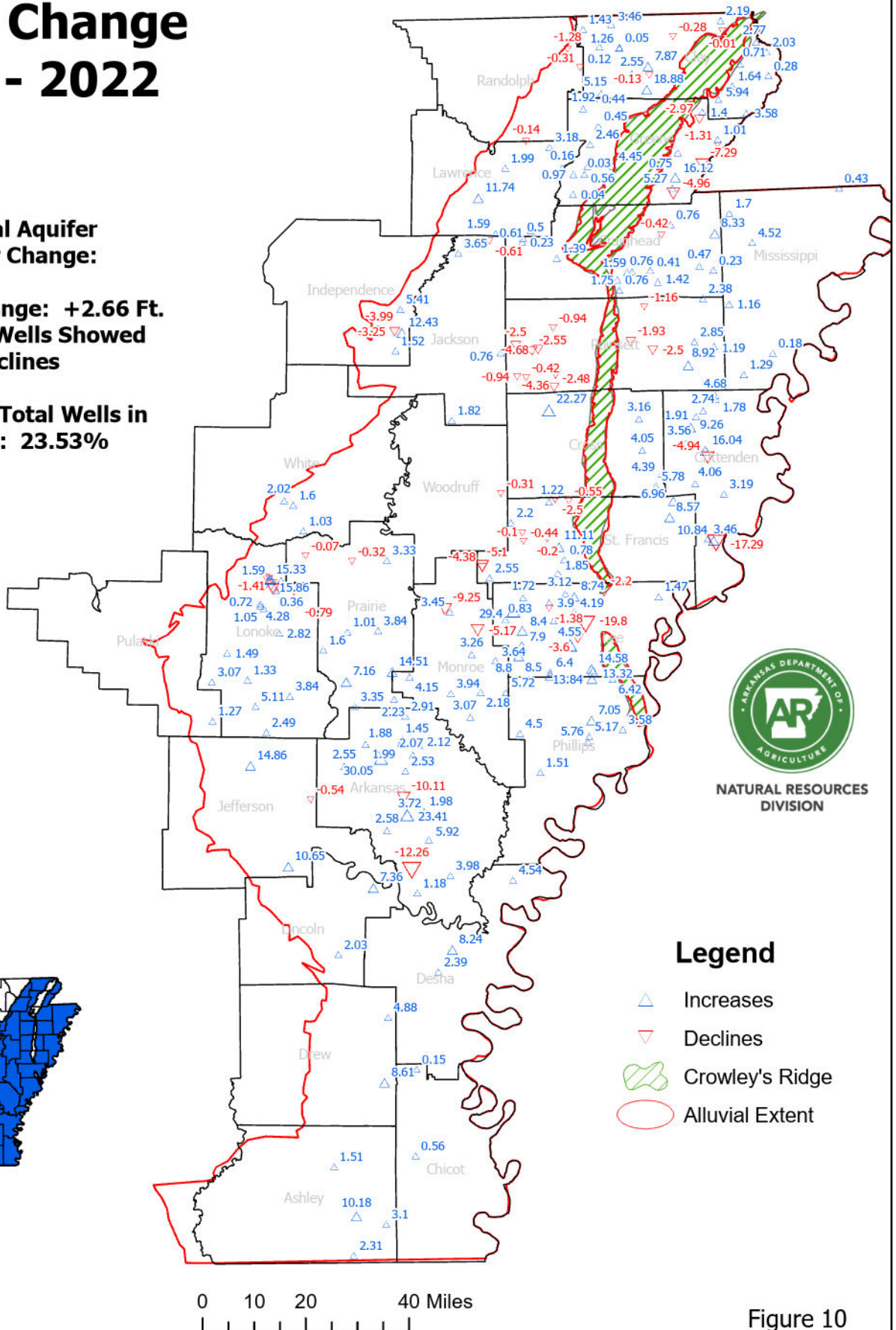
Figure 9

# Alluvial Aquifer 5 Year Change 2017 - 2022

**Alluvial Aquifer  
5 Year Change:**

**Average Change: +2.66 Ft.  
56 of 238 Wells Showed  
Declines**

**Percent of Total Wells in  
Decline: 23.53%**



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### Legend

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

Figure 10

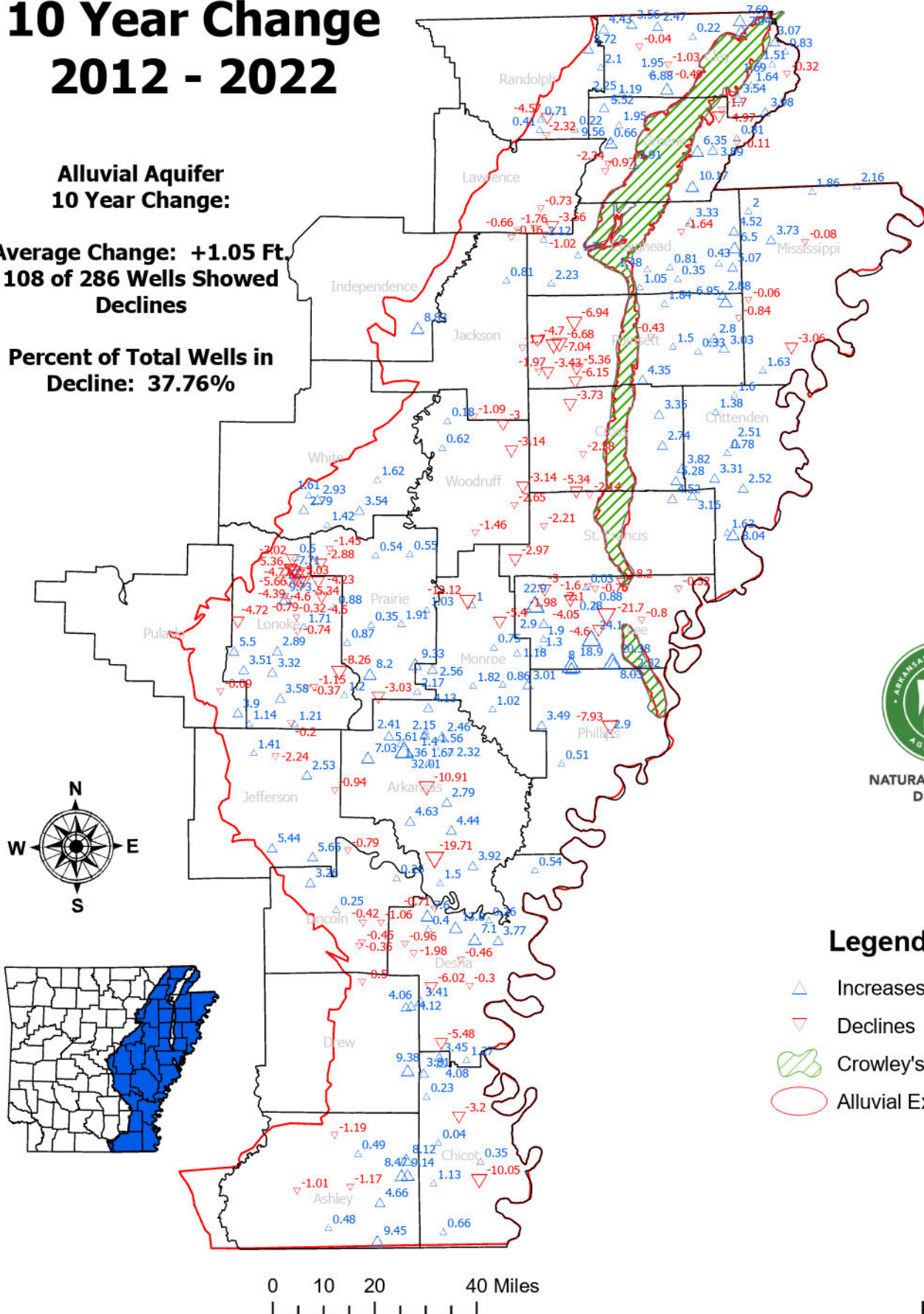


# Alluvial Aquifer 10 Year Change 2012 - 2022

Alluvial Aquifer  
10 Year Change:

Average Change: +1.05 Ft.  
108 of 286 Wells Showed  
Declines

Percent of Total Wells in  
Decline: 37.76%



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## Legend

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

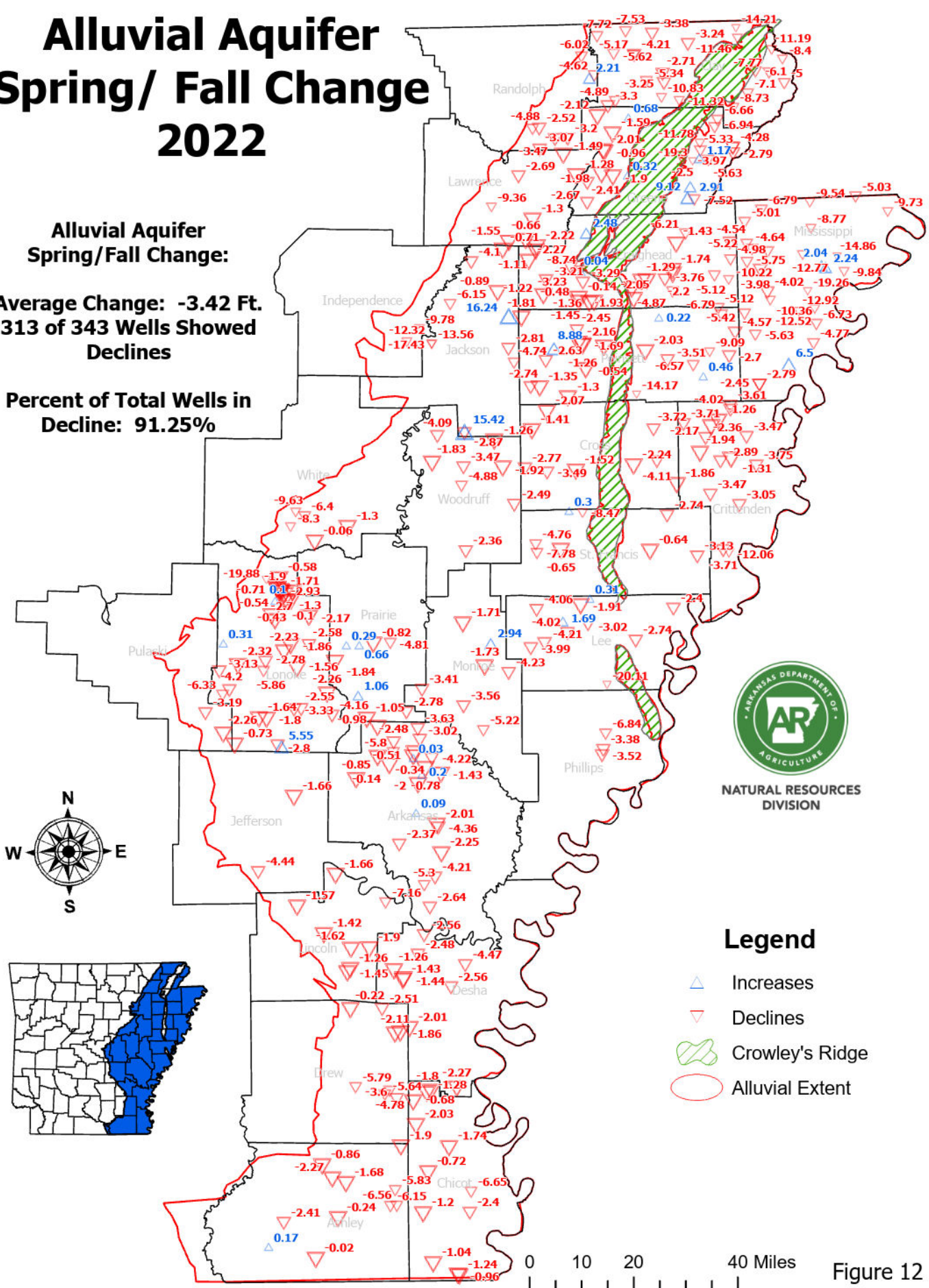
Figure 11

# Alluvial Aquifer Spring/ Fall Change 2022

Alluvial Aquifer  
Spring/Fall Change:

Average Change: -3.42 Ft.  
313 of 343 Wells Showed  
Declines

Percent of Total Wells in  
Decline: 91.25%



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## Legend

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

Figure 12

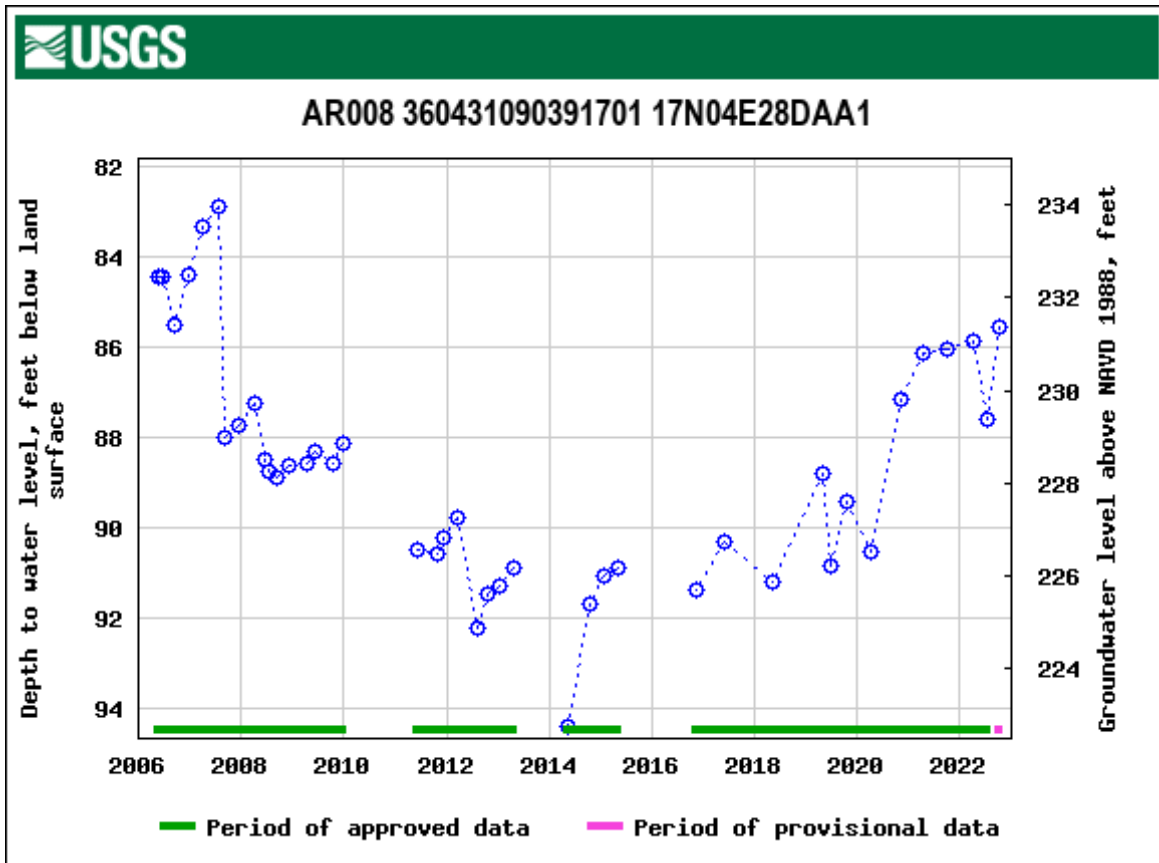
### Water Level Trends, cont.

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.

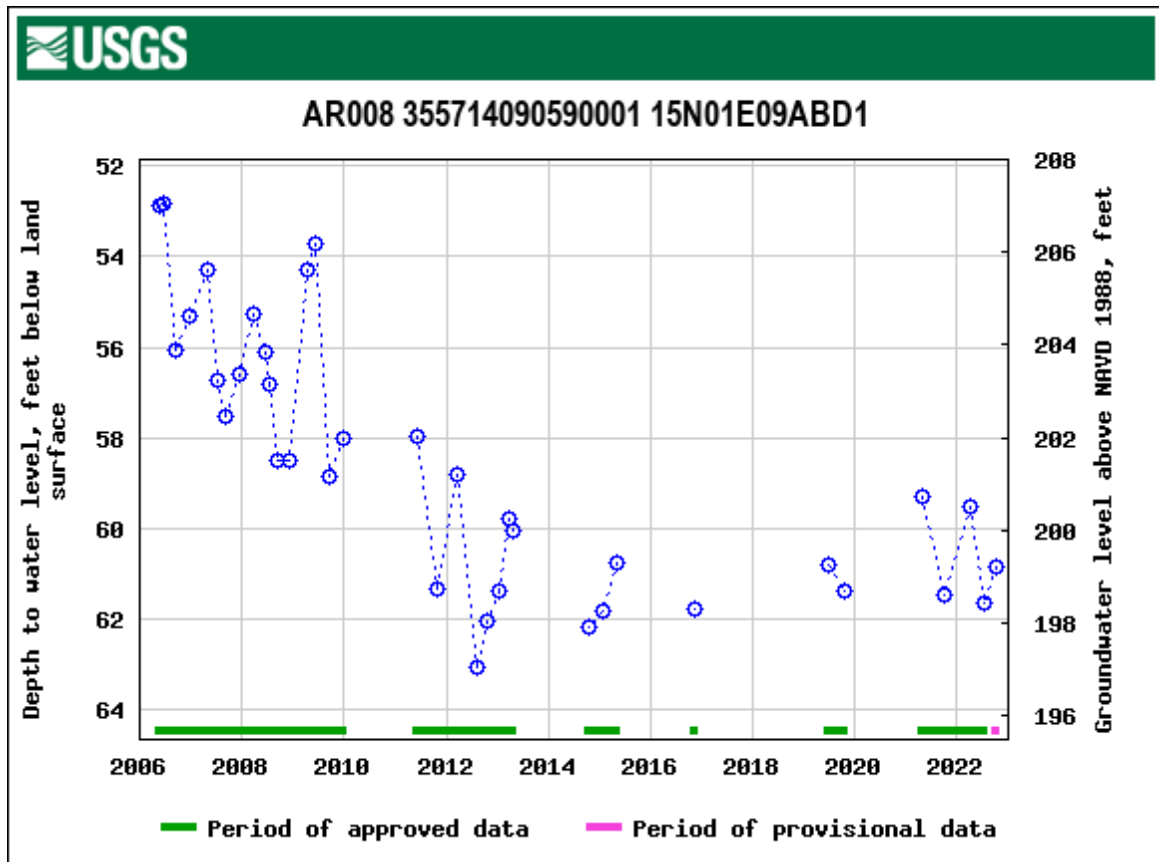
As previously mentioned, the spring 2022 water level change values showed a positive average change of +0.60 feet for the entire alluvial aquifer in the one-year period, while the five and ten-year periods had positive average values of +2.66 and +0.81, respectively. The aquifer-wide data has been focused on the four study areas that include the alluvial aquifer; Grand Prairie, Cache, St. Francis, and Beouf-Tensas, for each period. The 2022 data shows increasing average water level changes for each study area for all time periods. Figures 14 through 25 depict the spring 2022 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 2022 aquifer water level data along with the 2012, 2017, and 2021 water level data for wells measured in 2022 as used in this report.

**Figure 13.** Selected water level hydrographs from the Mississippi River Valley alluvial aquifer



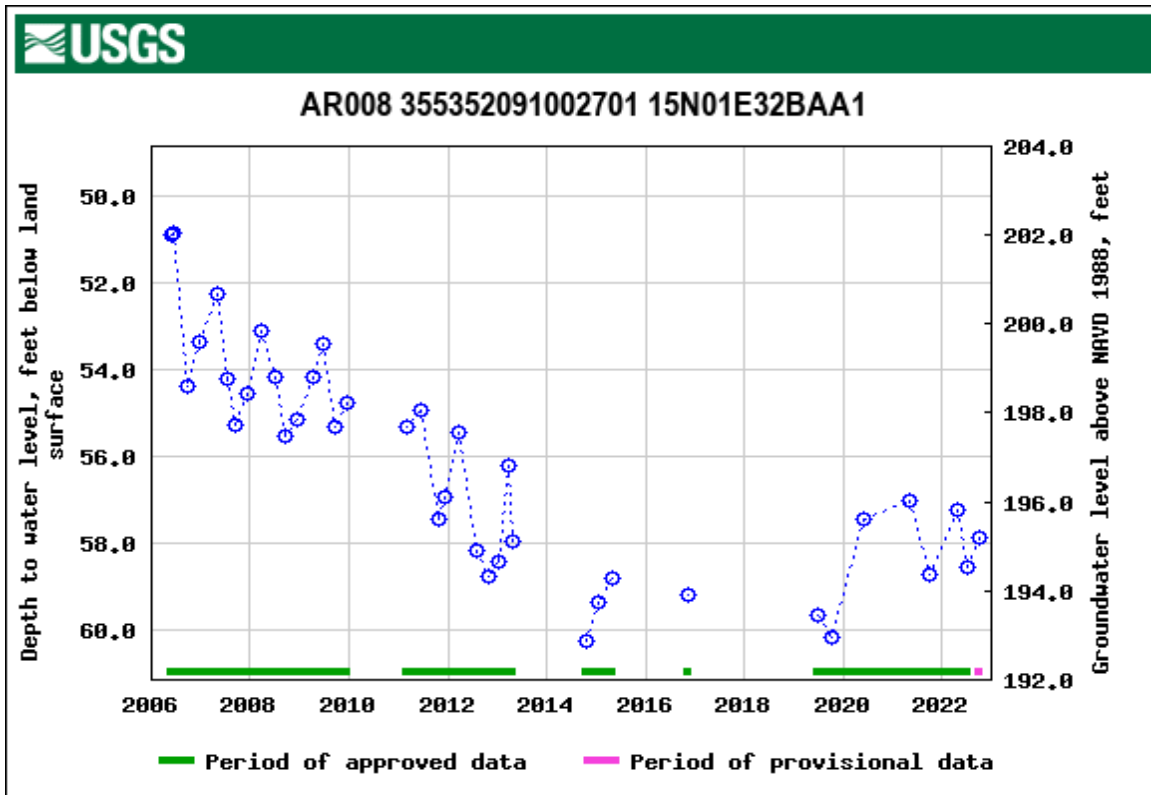
A. Greene County, Well 17N04E28DAA1



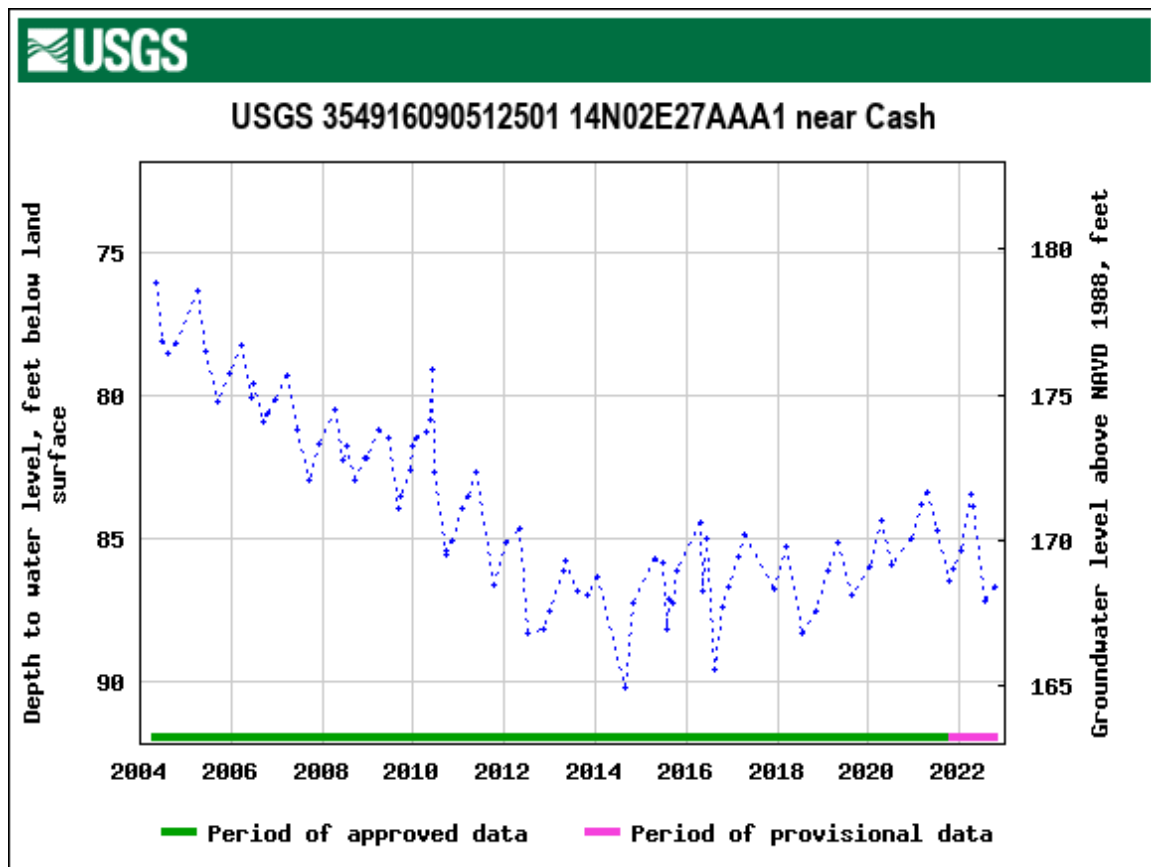
B. Lawrence County, Well 15N01E9ABD1



**Figure 13.** Selected water level hydrographs from the Mississippi River Valley alluvial aquifer

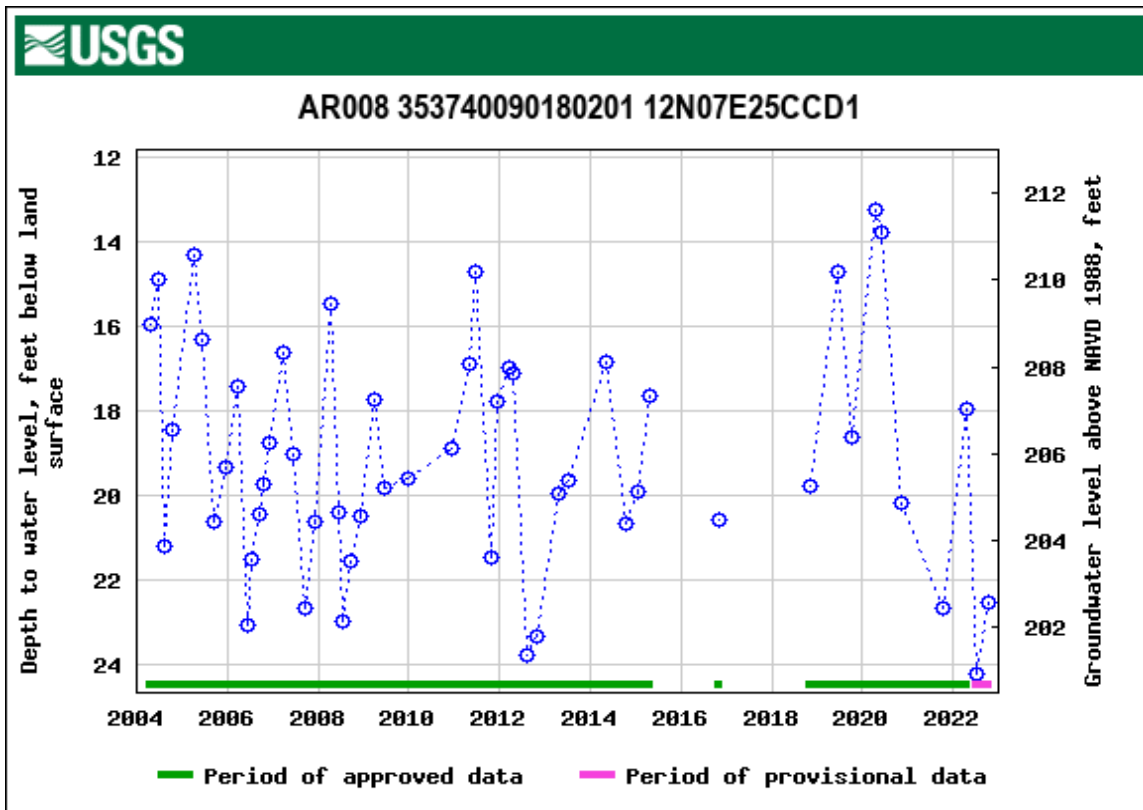


C. Lawrence County, Well 15N01E32BAA1

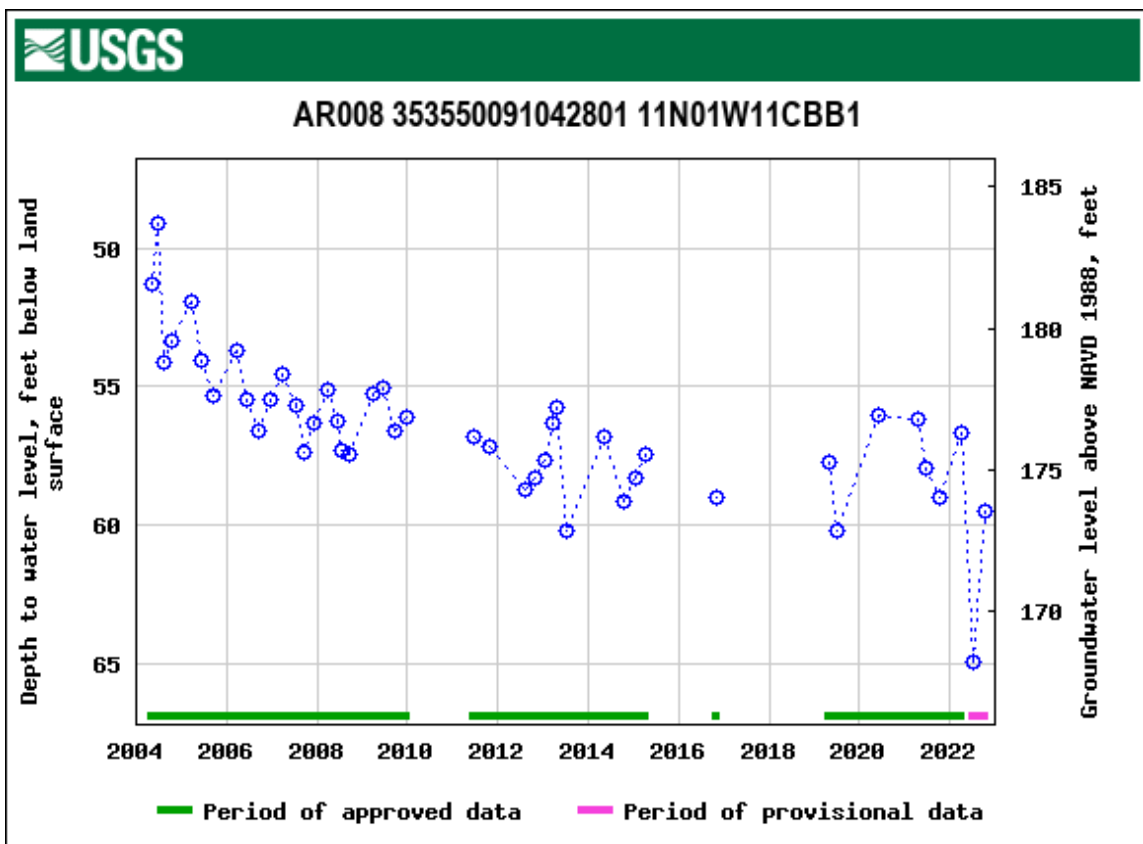


D. Craighead County, Well 14N02E27AAA1

**Figure 13.** Selected water level hydrographs from the Mississippi River Valley alluvial aquifer

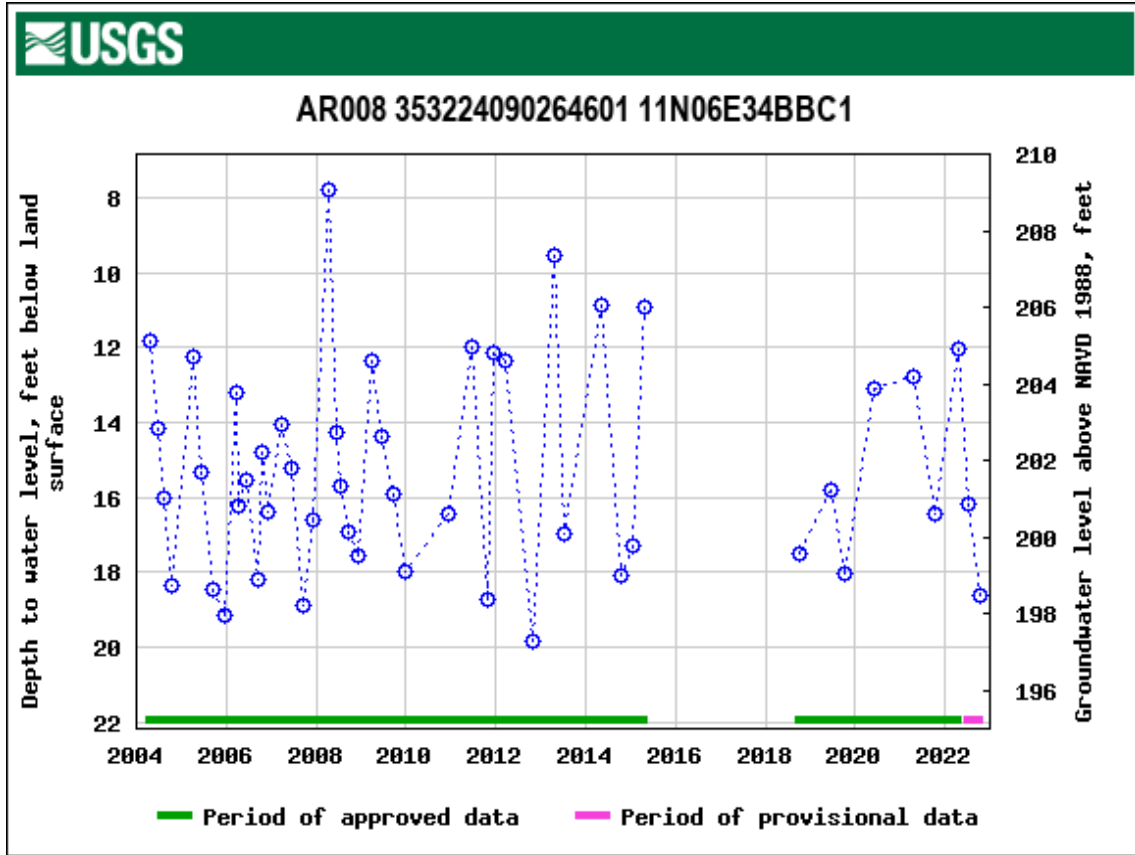


E. Poinsett County, Well 12N07E25CCD1

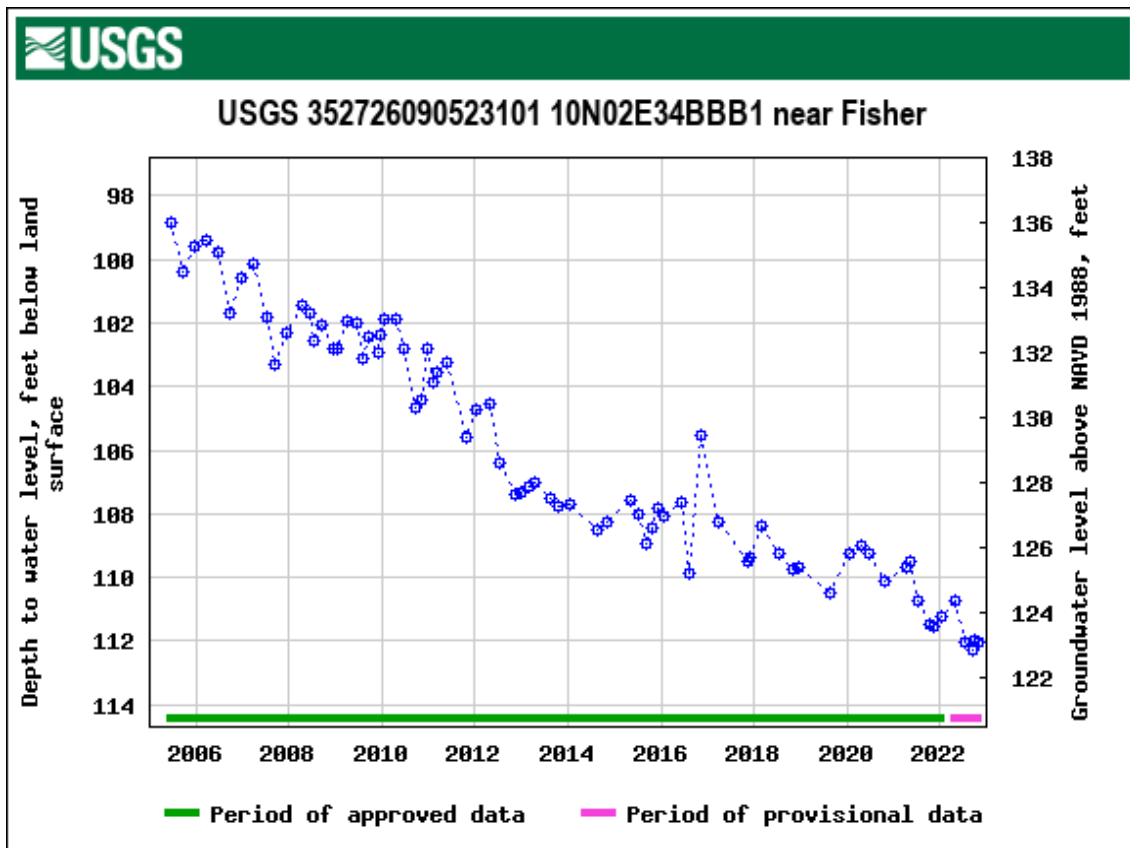


F. Jackson County, Well 11N01W11CCB1

**Figure 13.** Selected water level hydrographs from the Mississippi River Valley alluvial aquifer

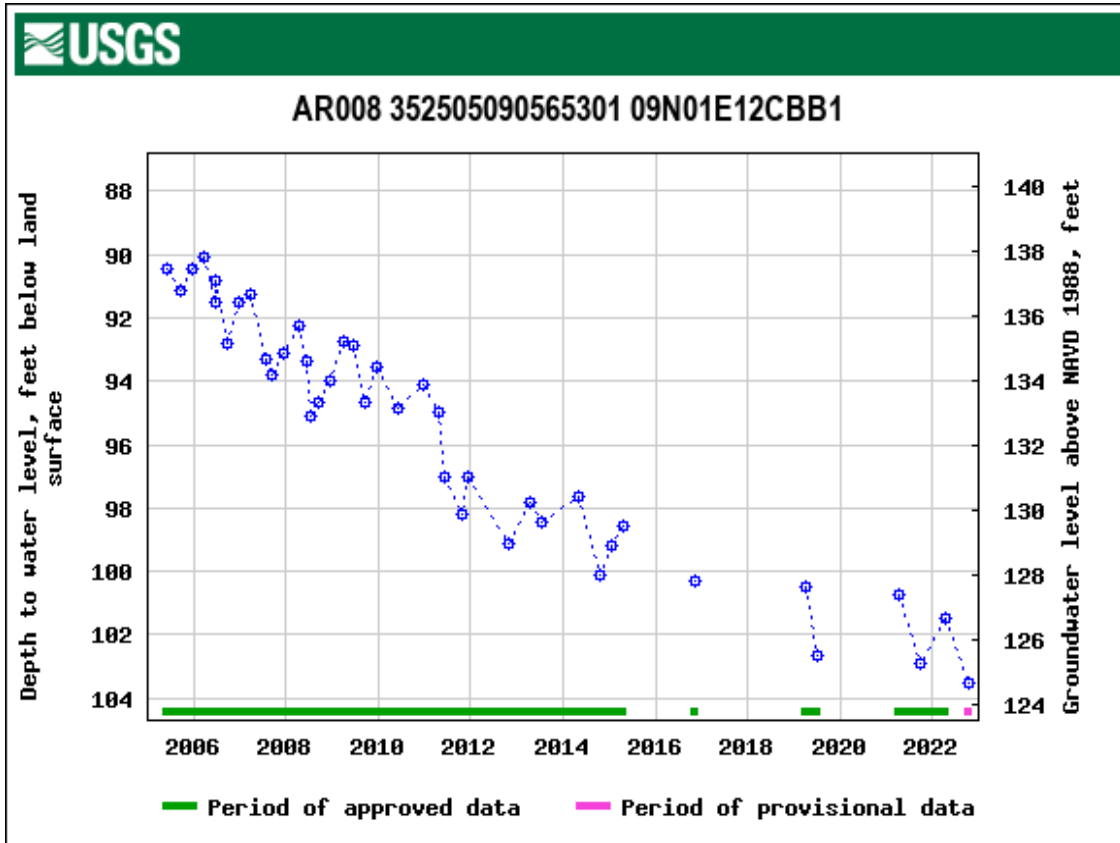


G. Poinsett County, Well 11N06E34BBC1

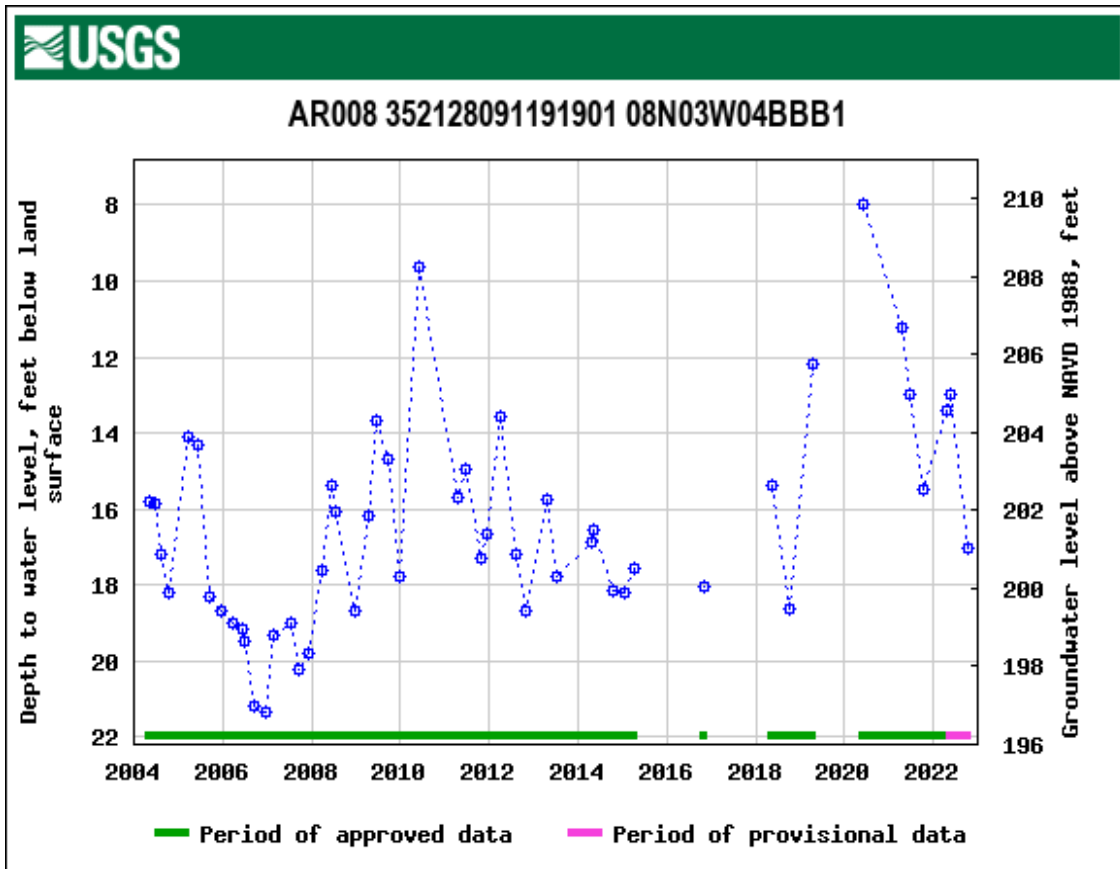


H. Poinsett County, Well 10N02E34BBB1

**Figure 13.** Selected water level hydrographs from the Mississippi River Valley alluvial aquifer



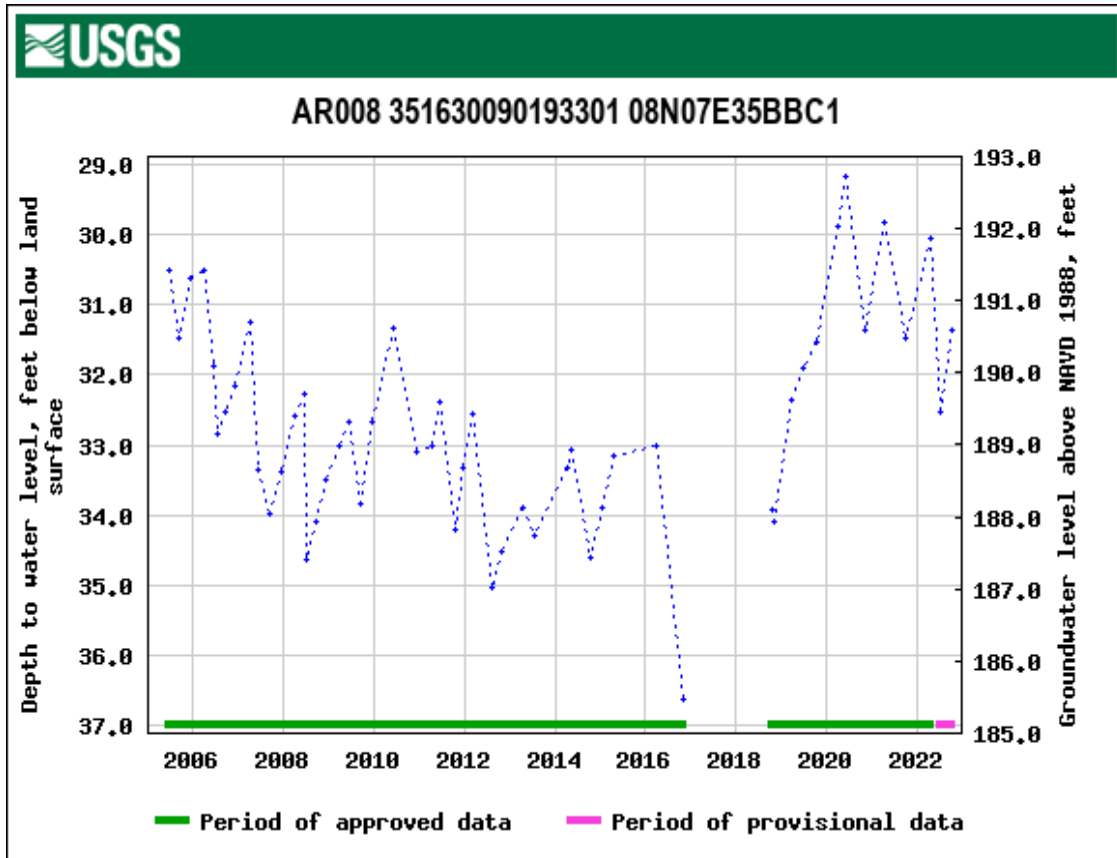
I. Cross County, Well 09N01E12CBB1



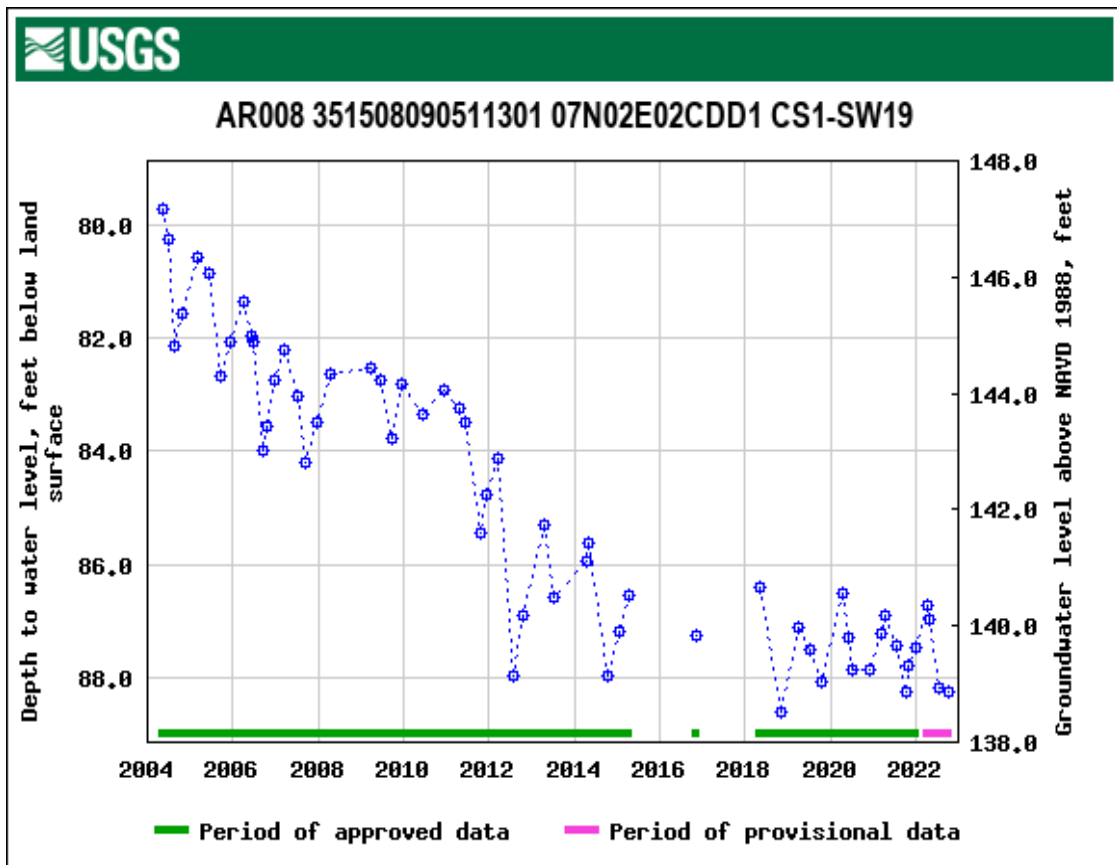
J. Woodruff County, Well 08N03W04BBB1



**Figure 13.** Selected water level hydrographs from the Mississippi River Valley alluvial aquifer

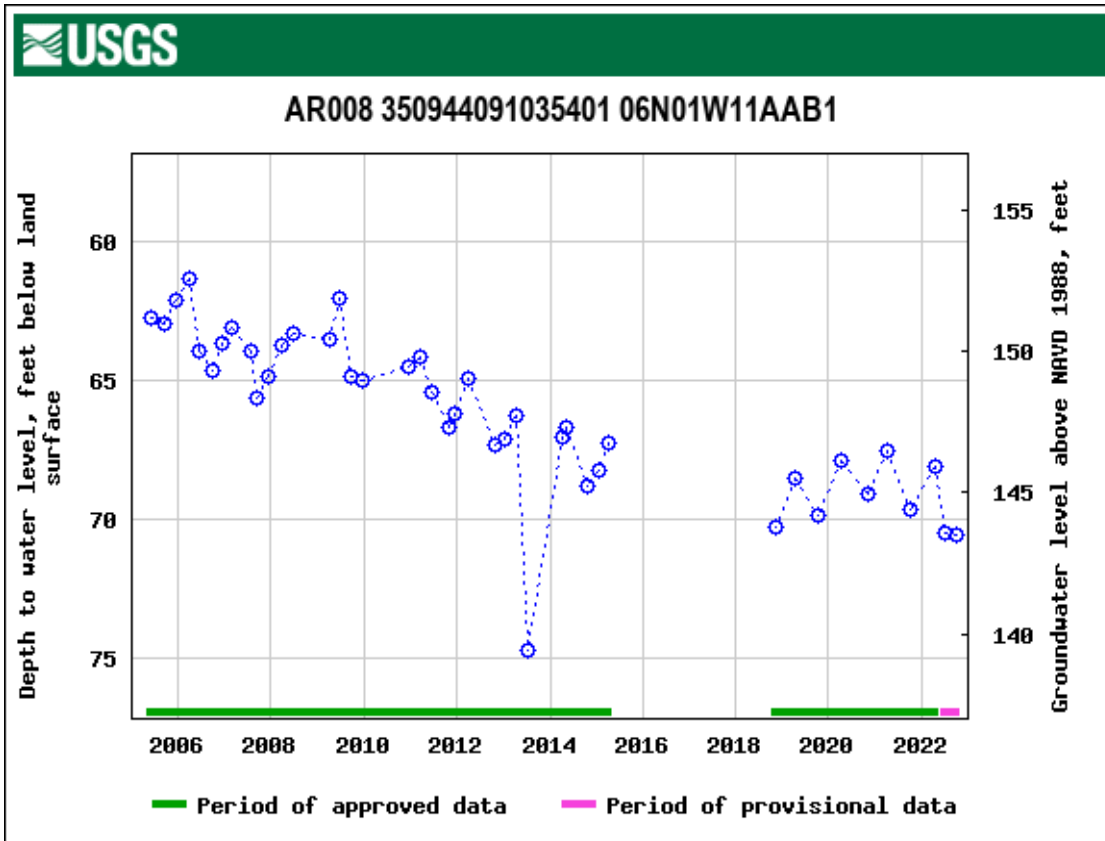


K. Crittenden County, Well 08N07E35BBC1

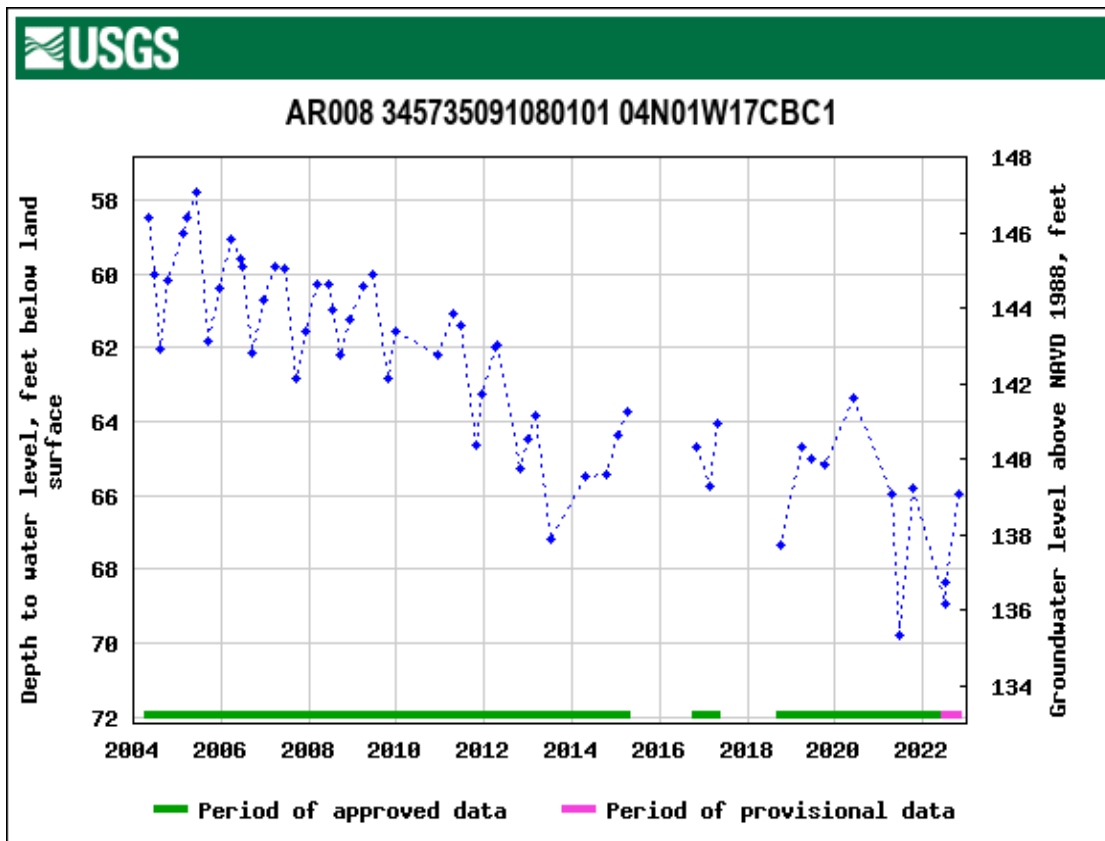


L. Cross County, Well 07N02E02CDD1 CS1-SW19

**Figure 13.** Selected water level hydrographs from the Mississippi River Valley alluvial aquifer

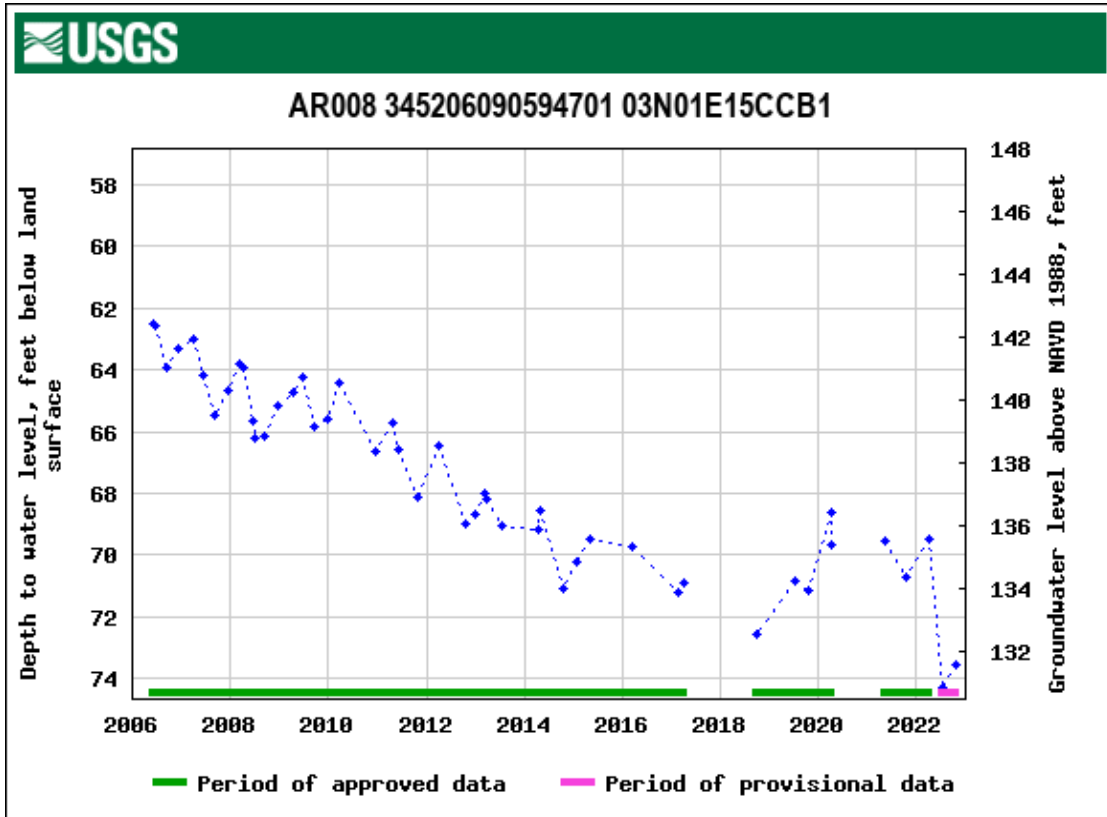


M. Woodruff County, Well 06N01W11AAB1

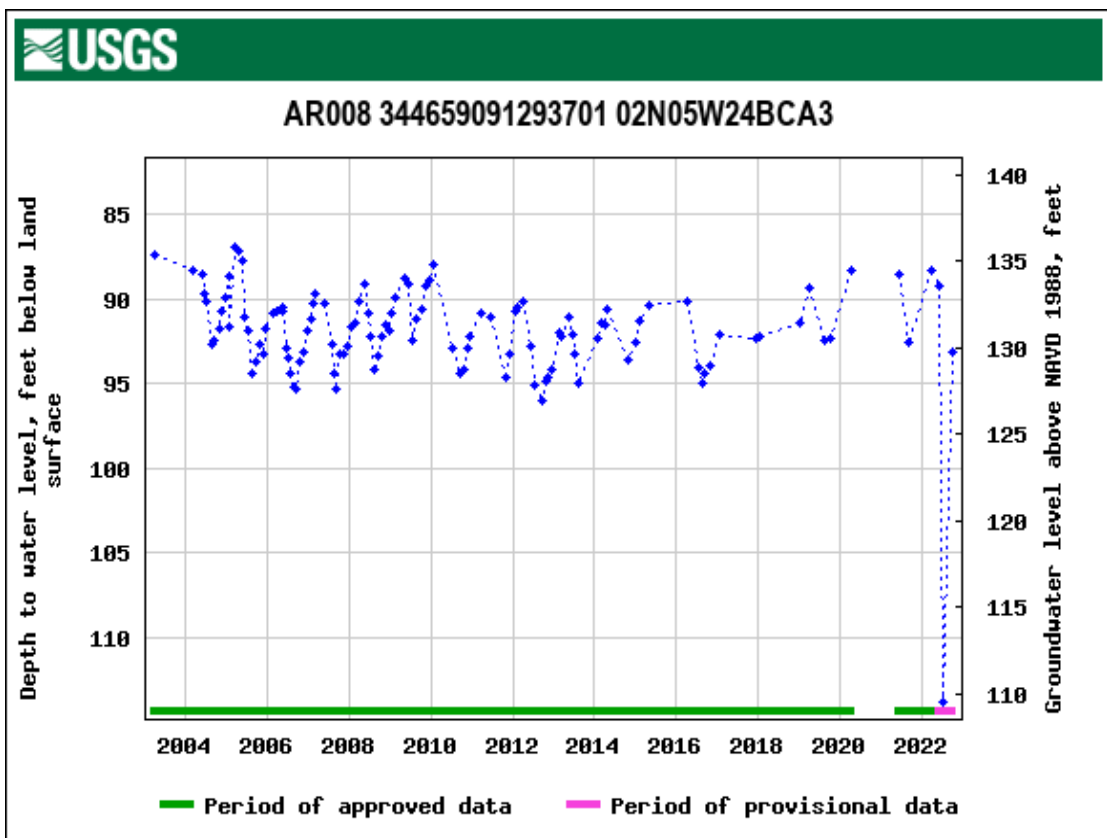


N. St. Francis County, Well 04N01W17CBC1

**Figure 13.** Selected water level hydrographs from the Mississippi River Valley alluvial aquifer

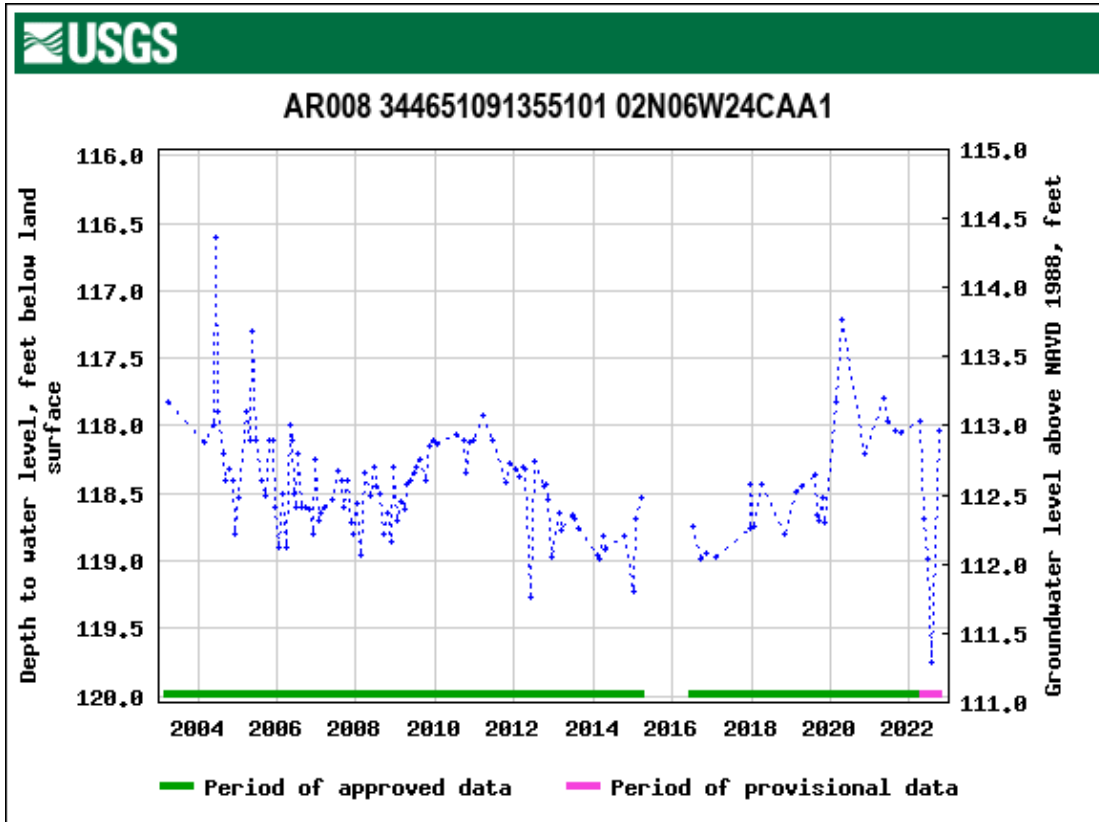


O. Lee County, Well 03N01E15CCB1

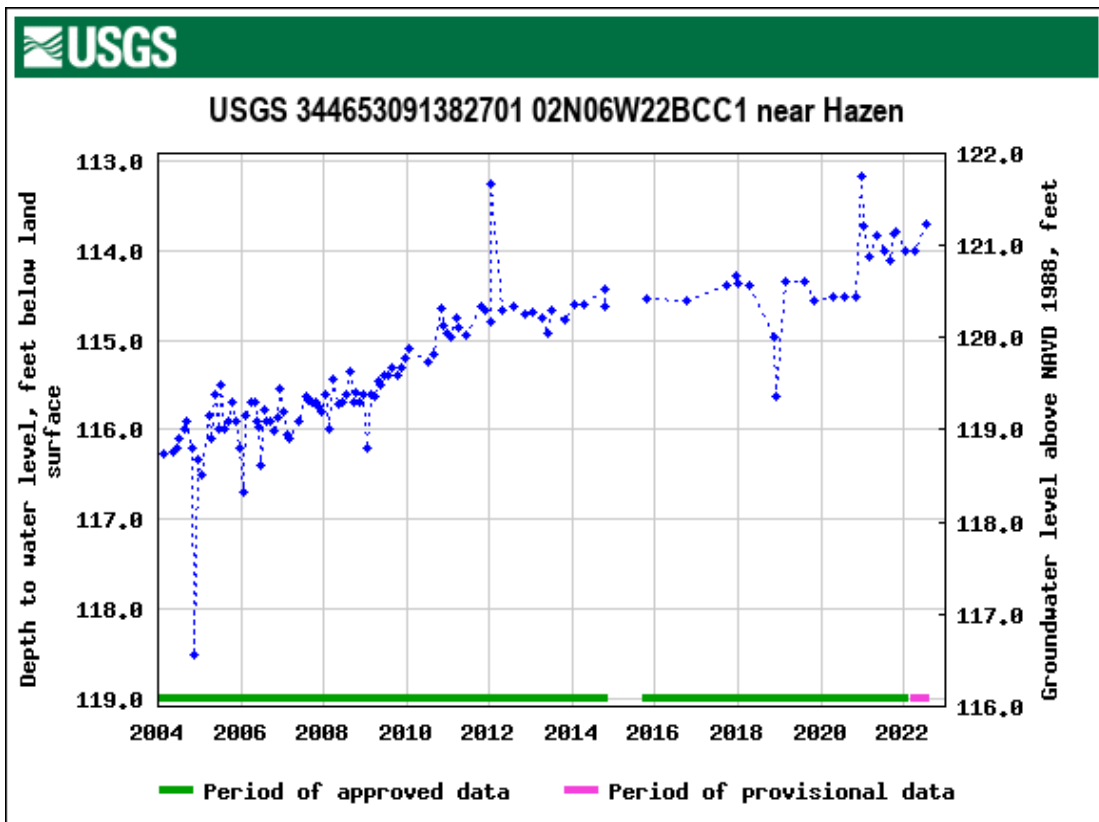


P. Prairie County, Well 02N05W24BCA3

**Figure 13.** Selected water level hydrographs from the Mississippi River Valley alluvial aquifer

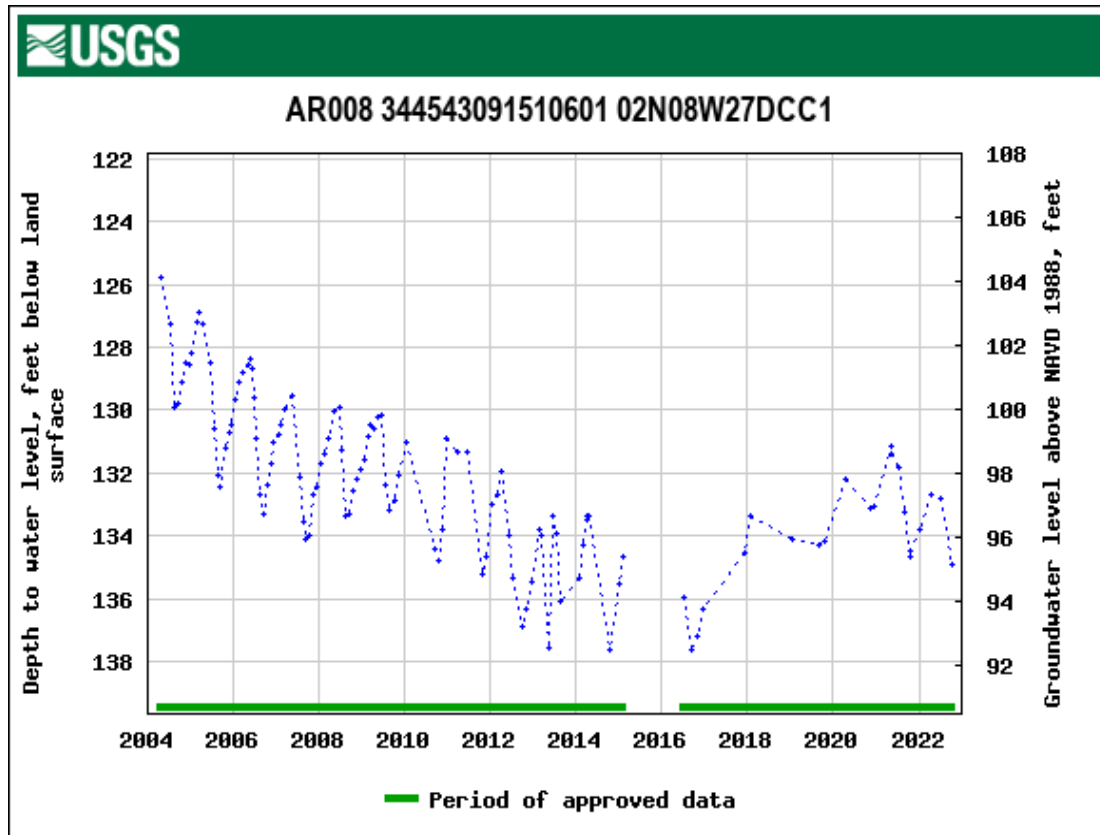


Q. Prairie County, Well 02N06W24CAA1

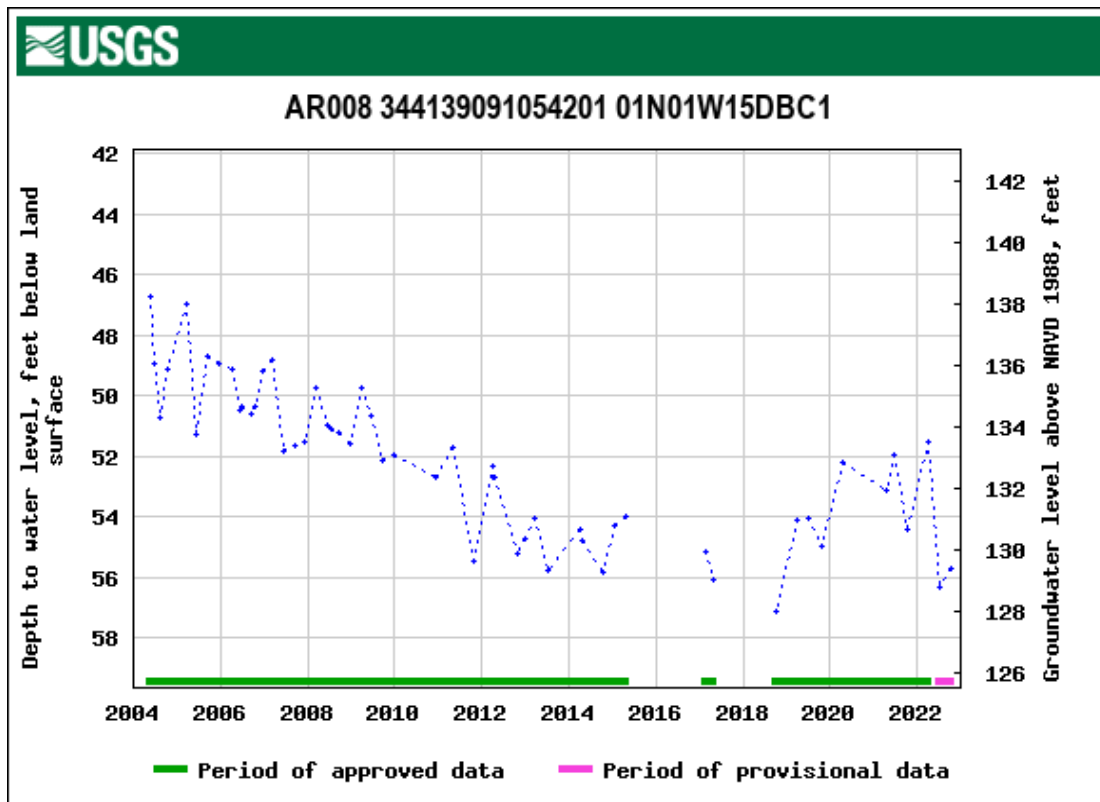


R. Prairie County, Well 02N06W22BCC1

**Figure 13.** Selected water level hydrographs from the Mississippi River Valley alluvial aquifer

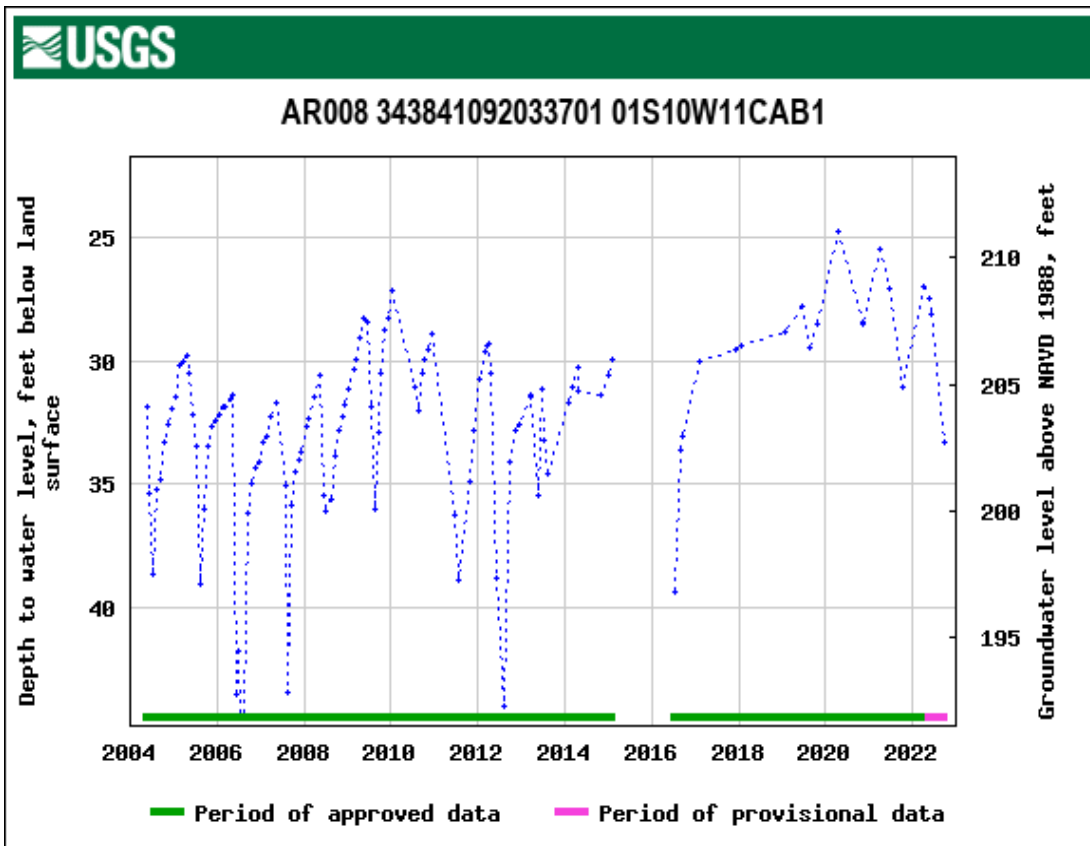


S. Lonoke County, Well 02N08W27DCC1

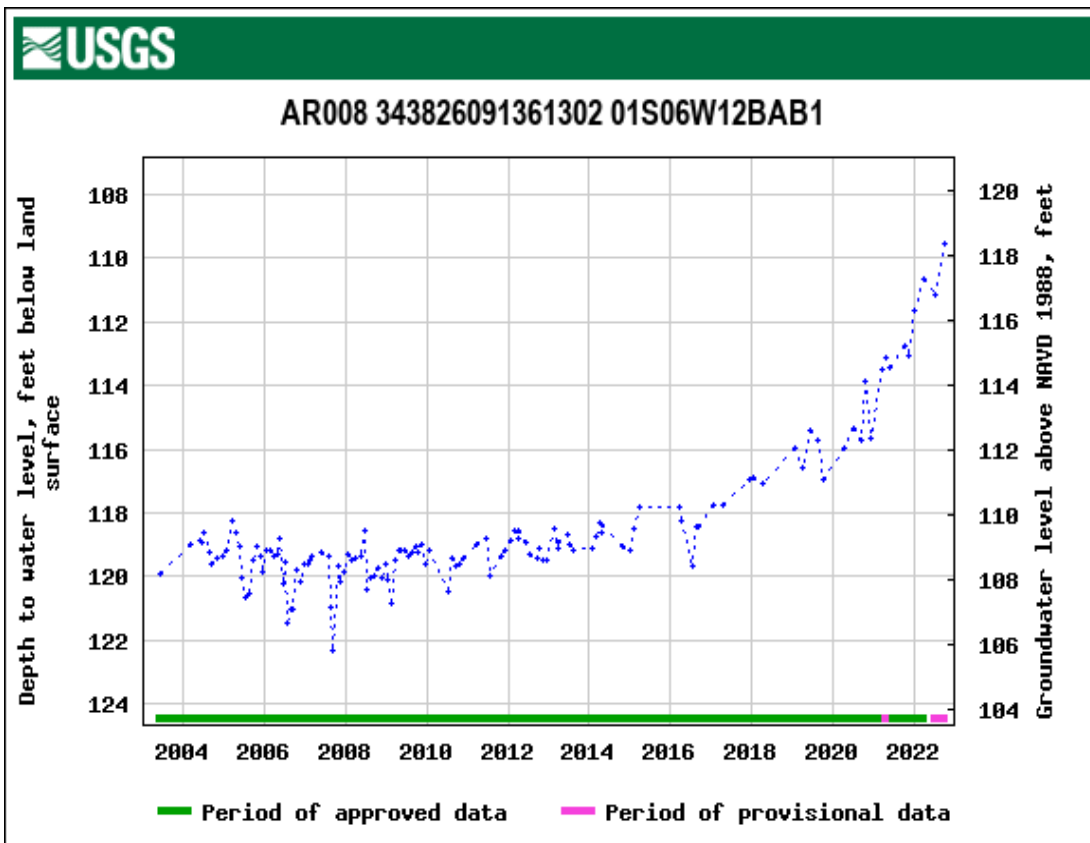


T. Monroe County, Well 01N01W15DBC1

**Figure 13.** Selected water level hydrographs from the Mississippi River Valley alluvial aquifer

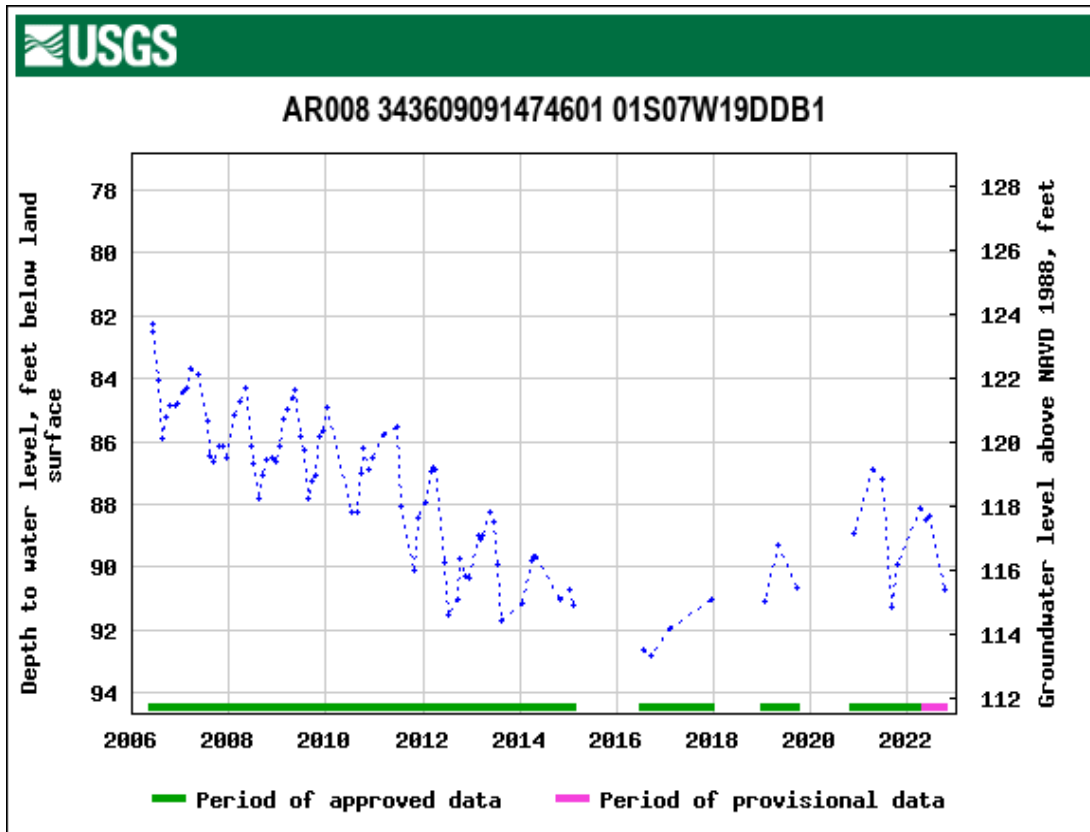


U. Lonoke County, Well 01S10W11CAB1

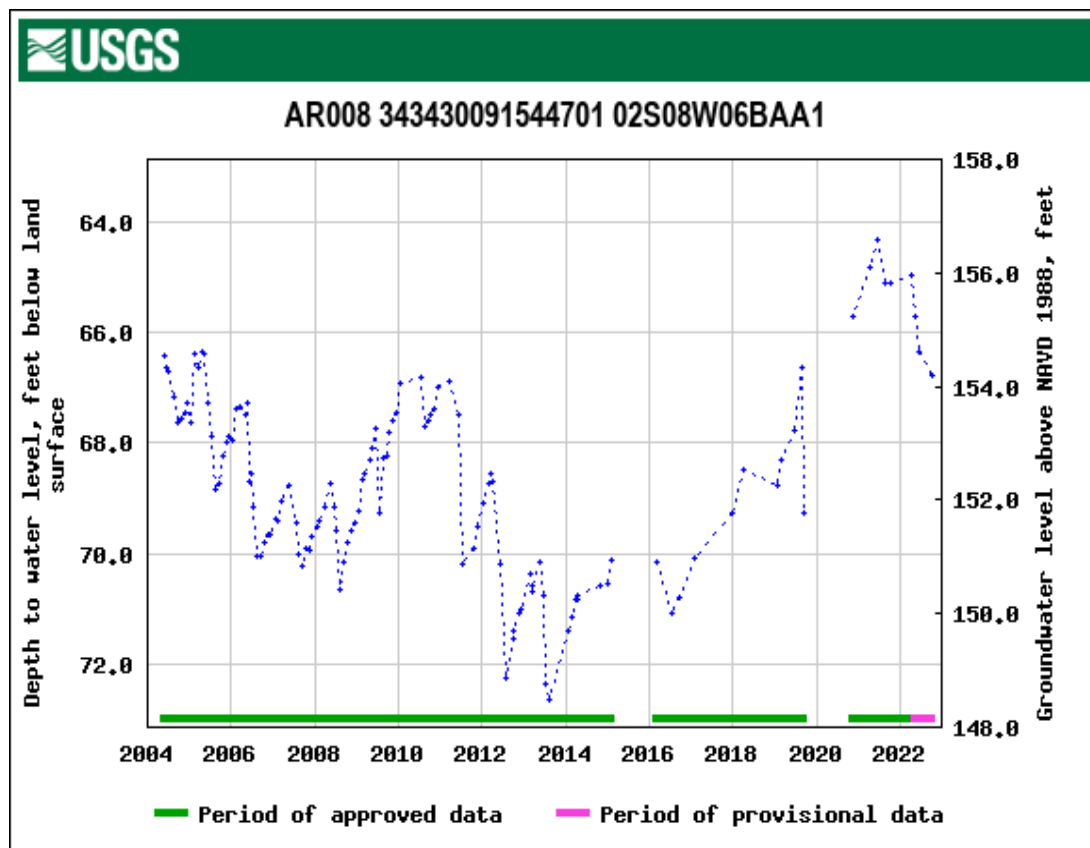


V. Prairie County, Well 01S06W12BAB1

**Figure 13.** Selected water level hydrographs from the Mississippi River Valley alluvial aquifer

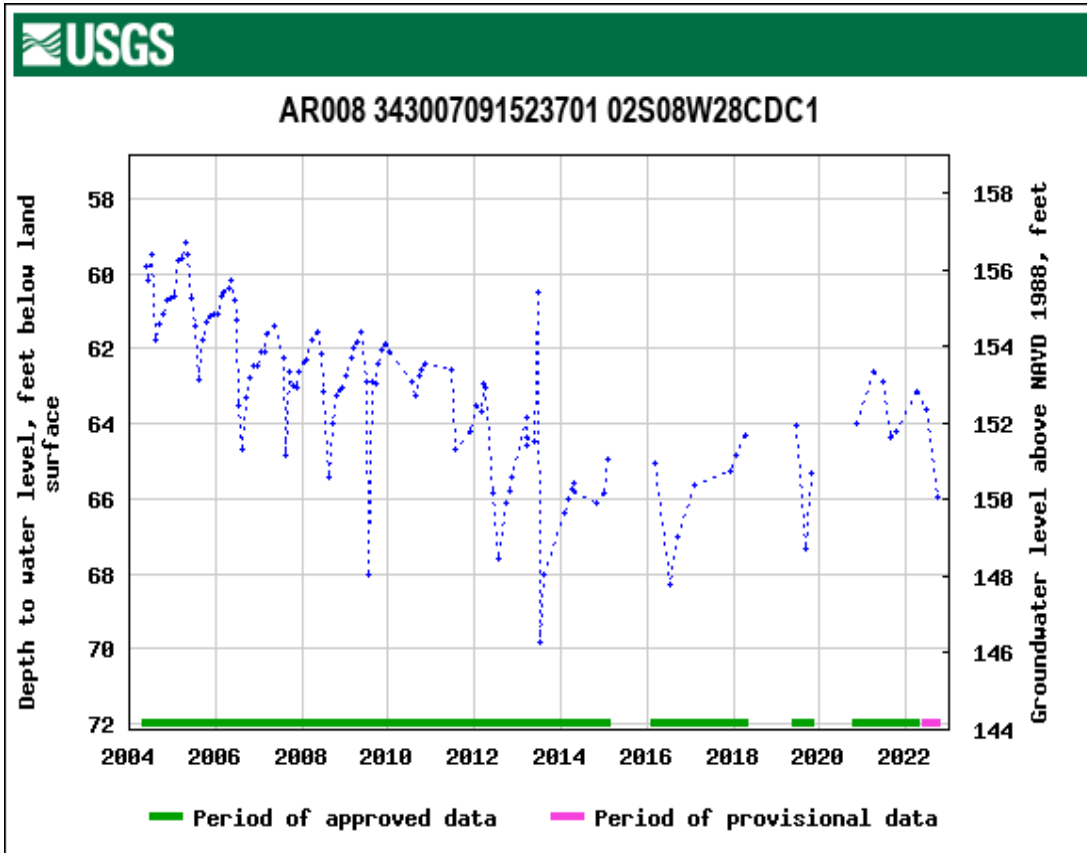


W. Lonoke County, Well 01S07W19DDB1

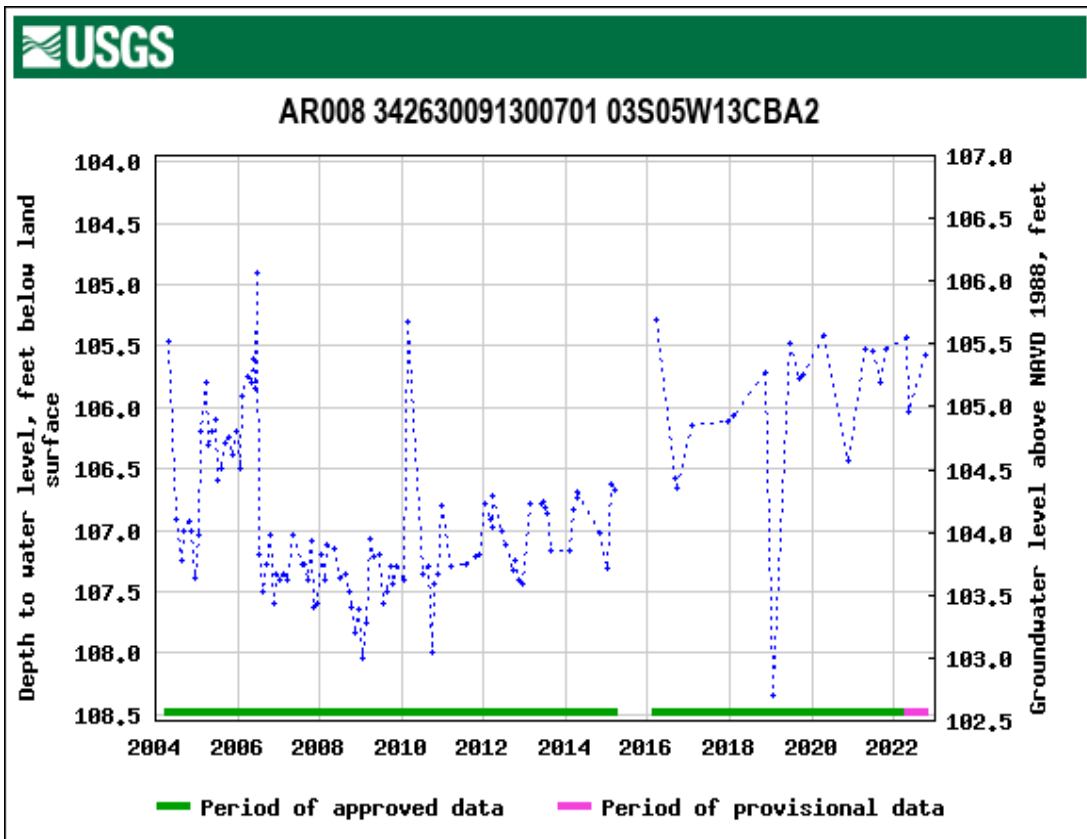


X. Lonoke County, Well 02S08W06BAA1

**Figure 13.** Selected water level hydrographs from the Mississippi River Valley alluvial aquifer



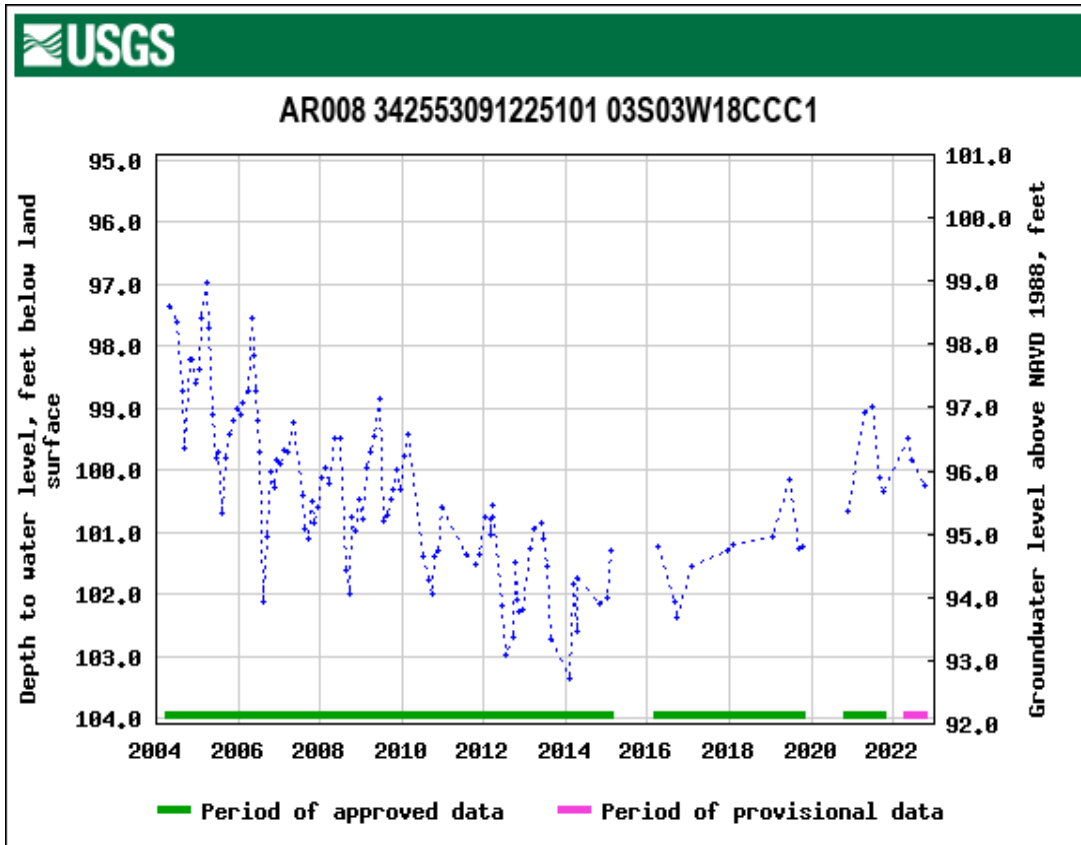
Y. Lonoke County, Well 02S08W28CDC1



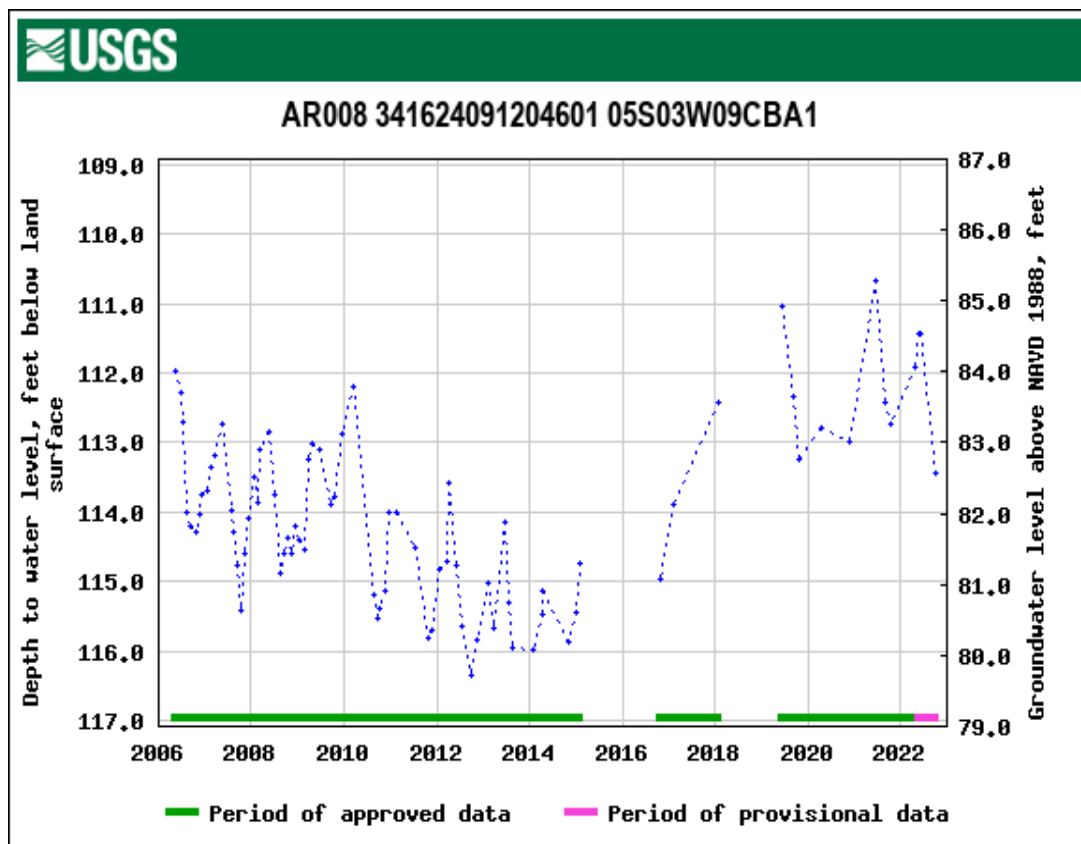
Z. Arkansas County, Well 03S05W13CBA2



**Figure 13.** Selected water level hydrographs from the Mississippi River Valley alluvial aquifer

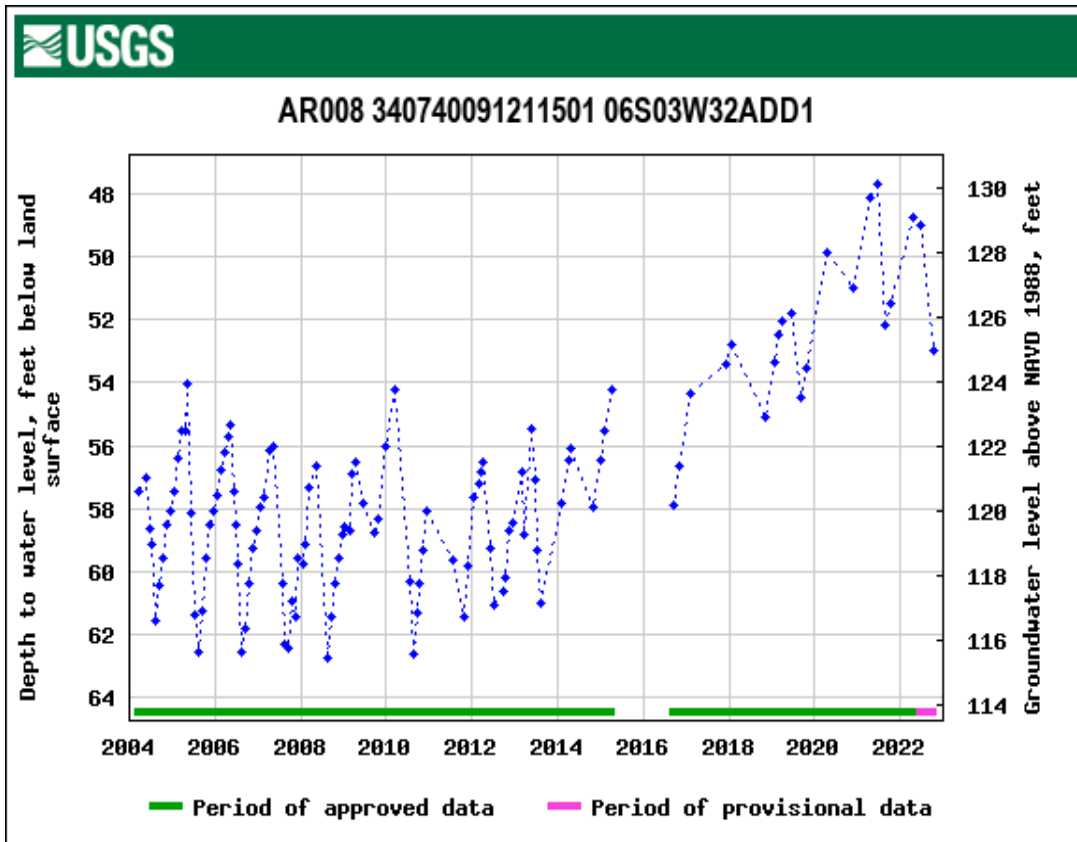


AA. Arkansas County, Well 03S03W18CCC1

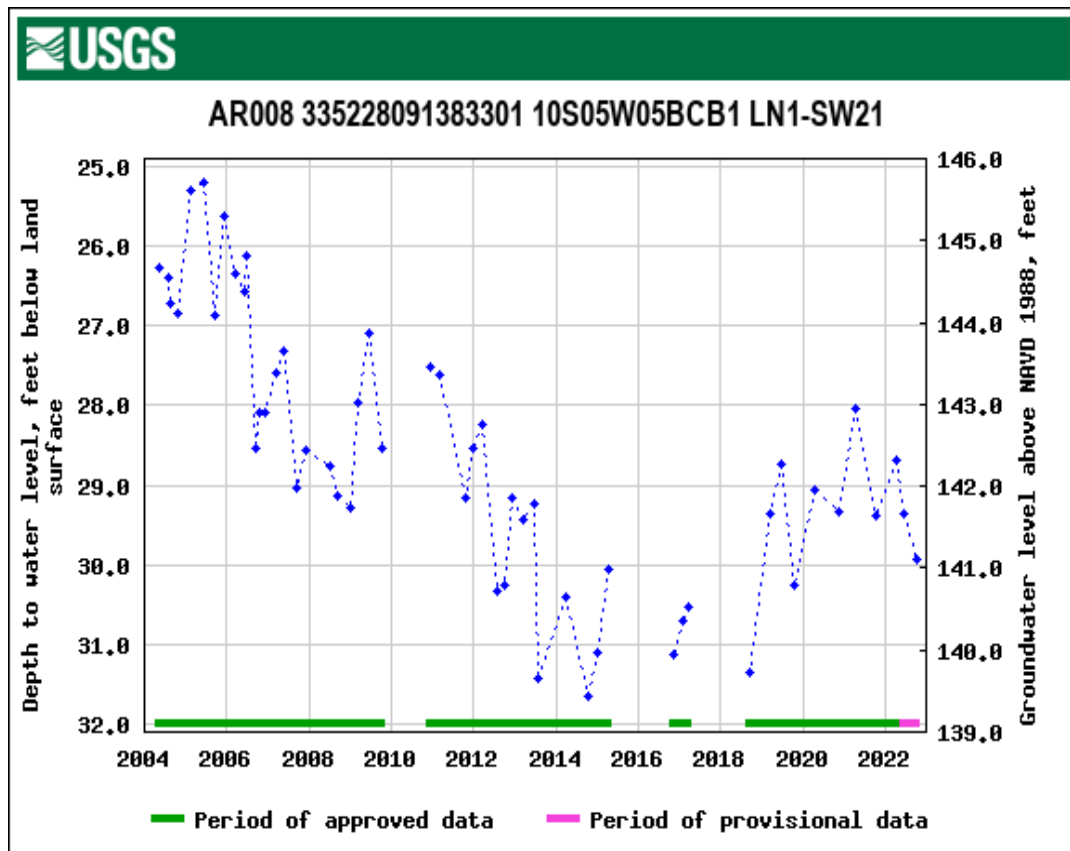


BB. Arkansas County, Well 05S03W09CBA1

**Figure 13.** Selected water level hydrographs from the Mississippi River Valley alluvial aquifer

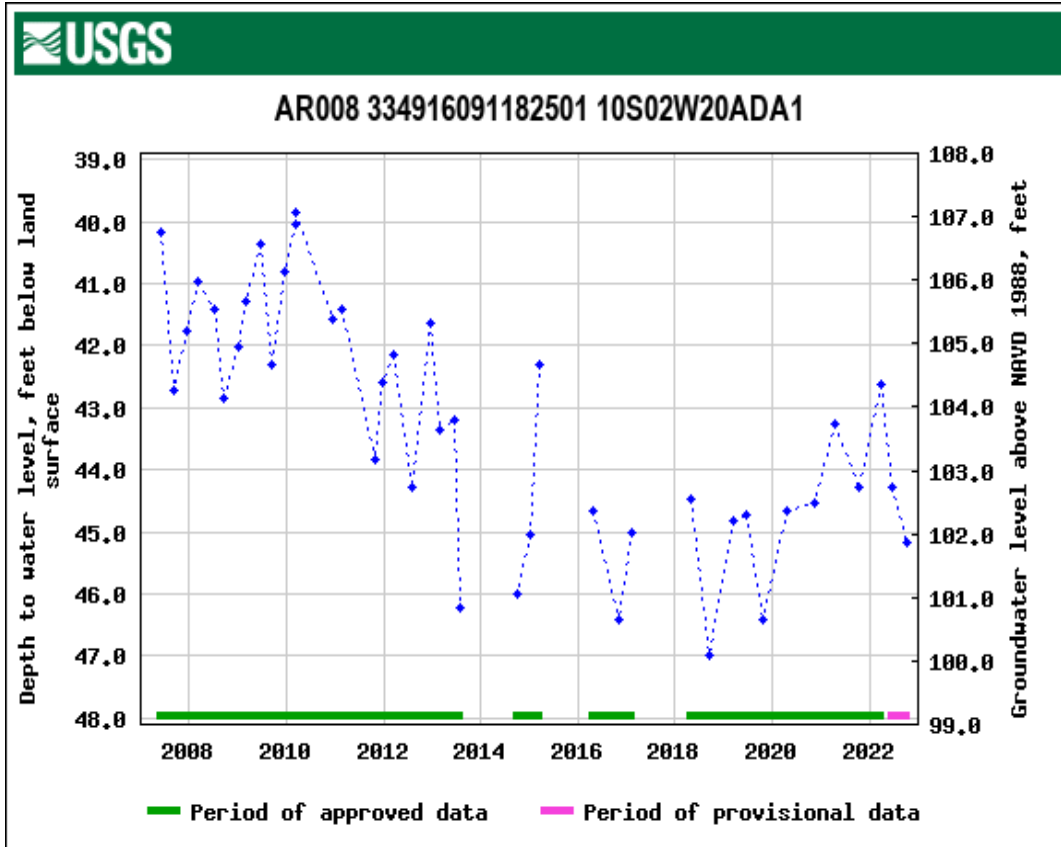


CC. Arkansas County, Well 06S03W32ADD1

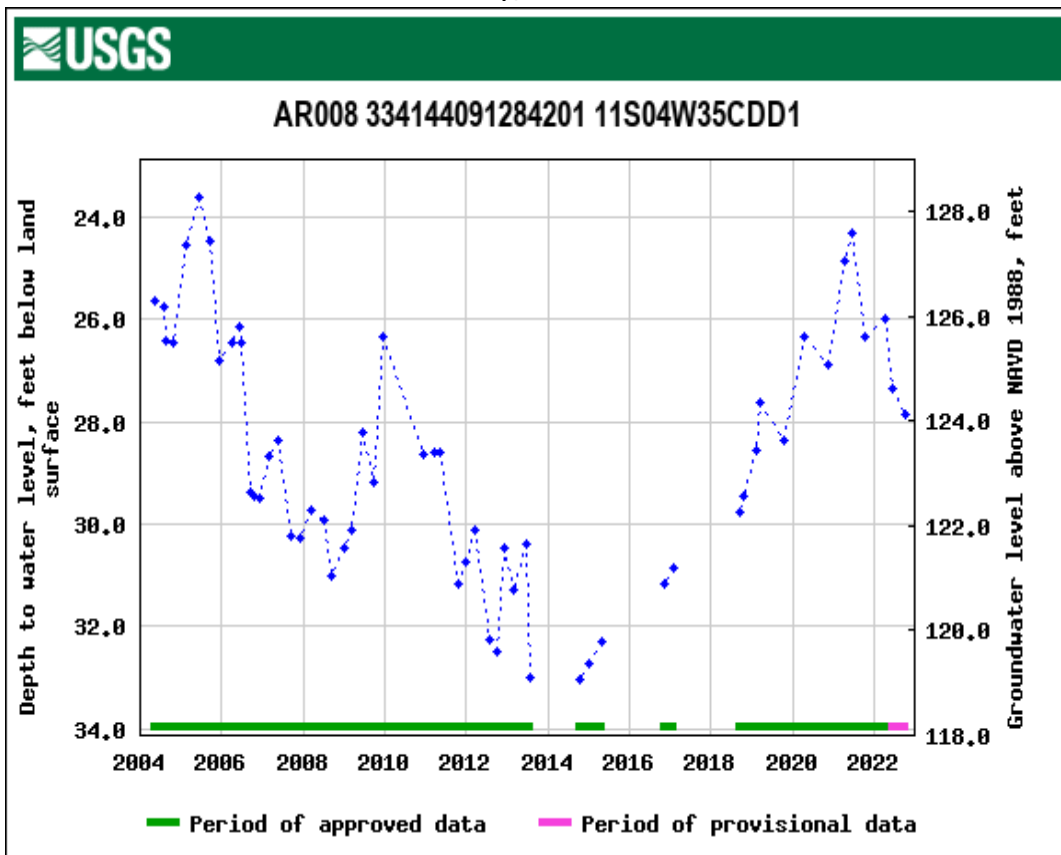


DD. Lincoln County, Well 10S05W05BCB1 LN1-SW21

**Figure 13.** Selected water level hydrographs from the Mississippi River Valley alluvial aquifer

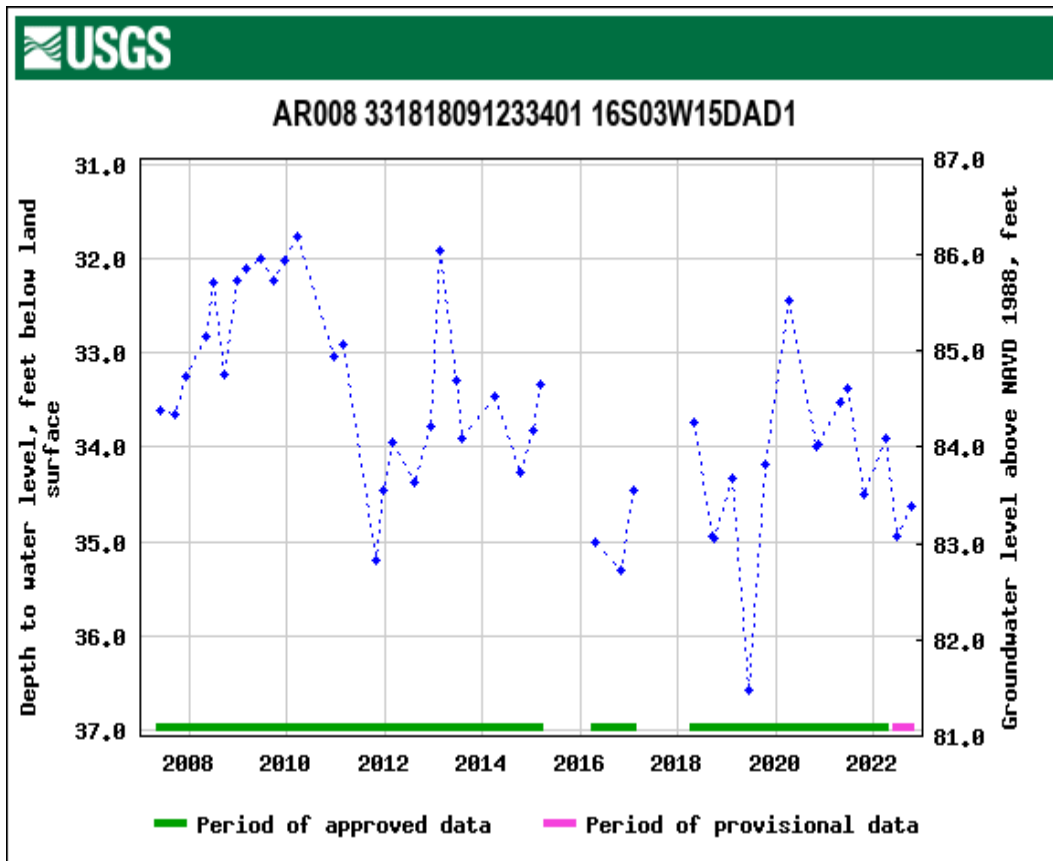


EE. Desha County, Well 10S02W20ADA1

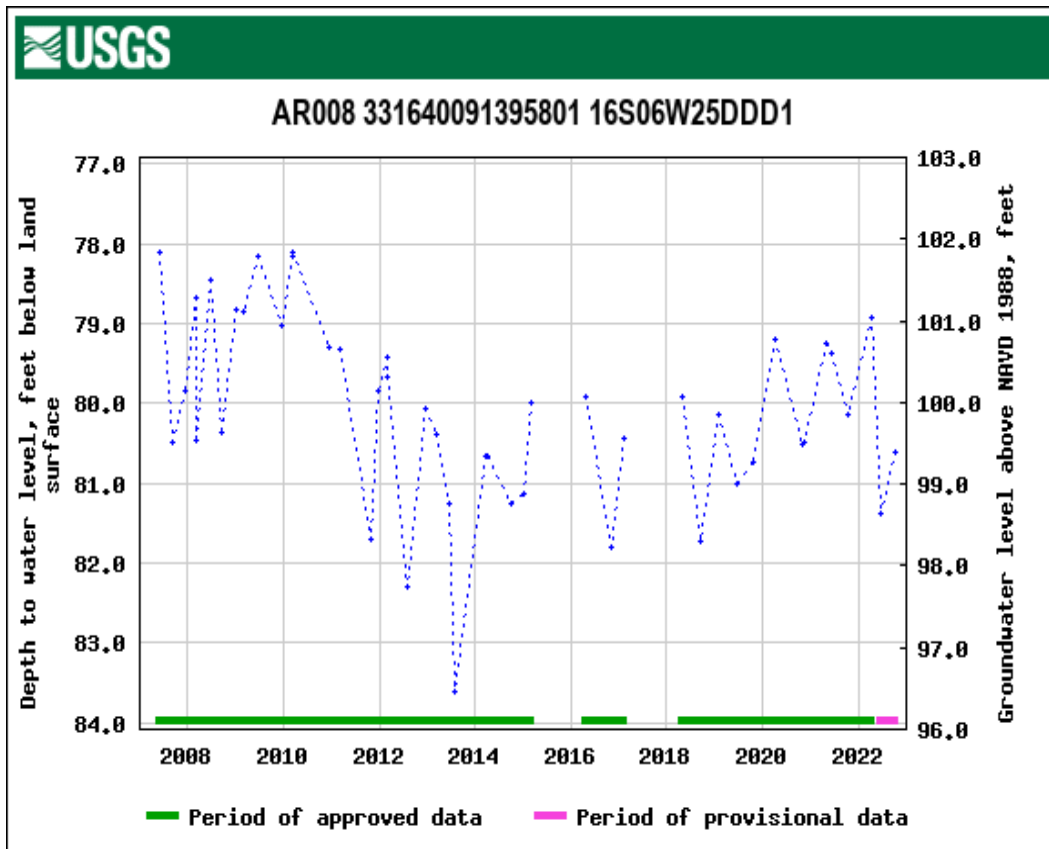


FF. Drew County, Well 11S04W35CDD1

**Figure 13.** Selected water level hydrographs from the Mississippi River Valley alluvial aquifer



GG. Chicot County, Well 16S03W15DAD1



HH. Ashley County, Well 16S06W25DDD1

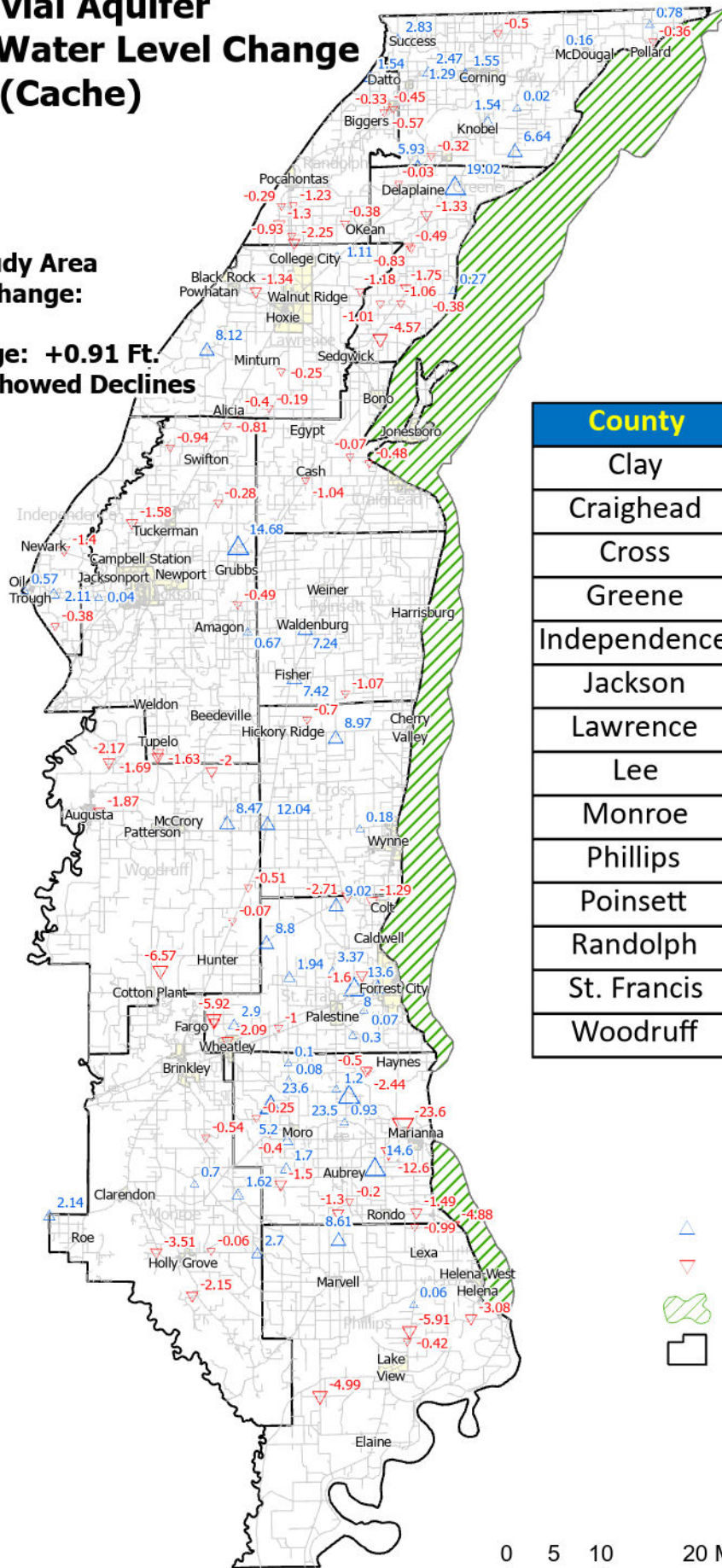
# Alluvial Aquifer 2021-2022 Water Level Change (Cache)



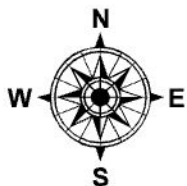
NATURAL RESOURCES  
DIVISION

Cache Study Area  
1 Year Change:

Average Change: **+0.91 Ft.**  
73 of 123 Wells Showed Declines



| County       | Avg. Change, ft. |
|--------------|------------------|
| Clay         | +1.34            |
| Craighead    | -0.53            |
| Cross        | +5.12            |
| Greene       | +1.15            |
| Independence | +0.23            |
| Jackson      | +0.80            |
| Lawrence     | +0.45            |
| Lee          | +1.40            |
| Monroe       | +0.11            |
| Phillips     | -1.45            |
| Poinsett     | +4.53            |
| Randolph     | -0.44            |
| St. Francis  | +1.85            |
| Woodruff     | -0.67            |



### Legend

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



Figure 14



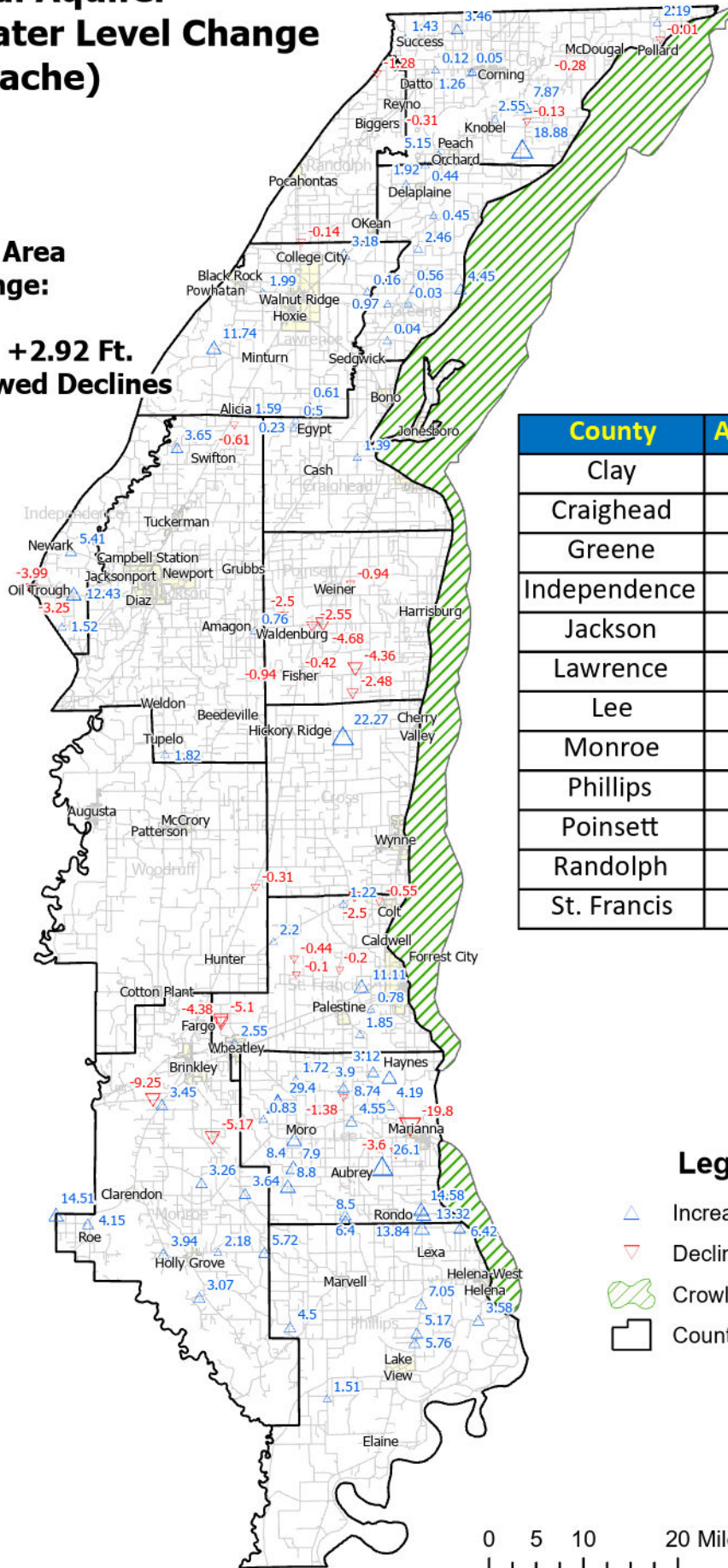
# Alluvial Aquifer 2017-2022 Water Level Change (Cache)



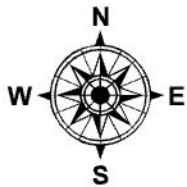
NATURAL RESOURCES  
DIVISION

**Cache Study Area  
5 Year Change:**

**Average Change: +2.92 Ft.  
30 of 104 Wells Showed Declines**



| County       | Avg. Change, ft. |
|--------------|------------------|
| Clay         | +3.27            |
| Craighead    | +0.71            |
| Greene       | +1.26            |
| Independence | +2.42            |
| Jackson      | +1.41            |
| Lawrence     | +2.73            |
| Lee          | +6.61            |
| Monroe       | +2.68            |
| Phillips     | +5.98            |
| Poinsett     | -2.36            |
| Randolph     | -0.80            |
| St. Francis  | +0.50            |



### Legend

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



Figure 15

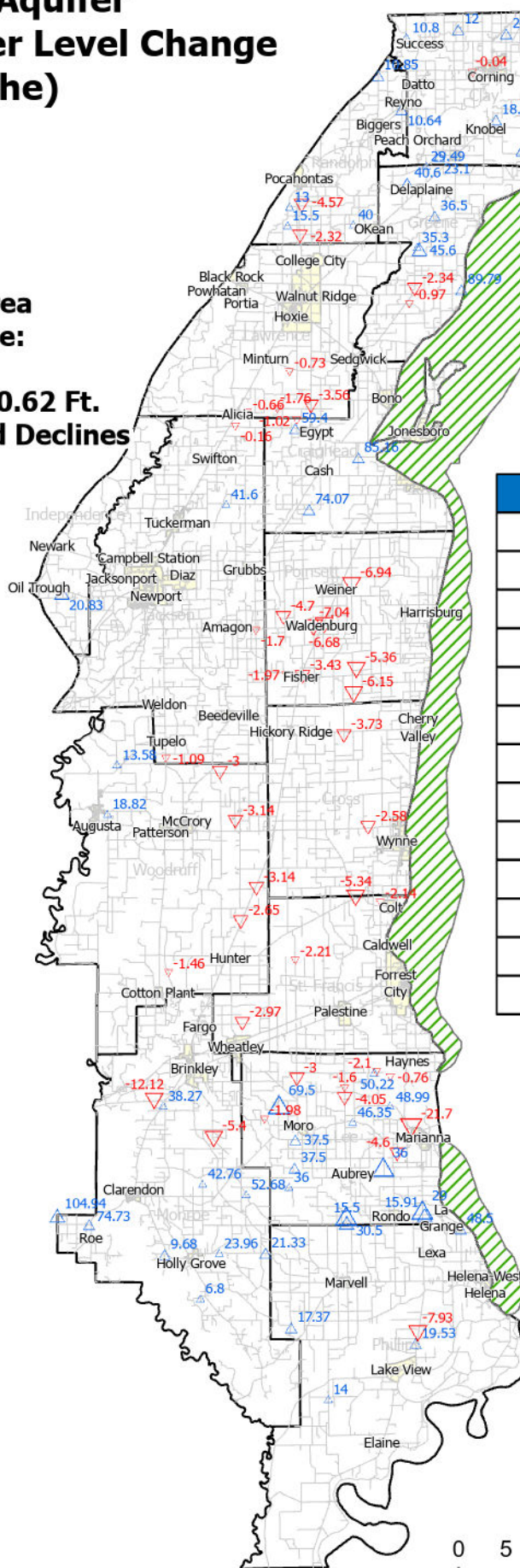
# Alluvial Aquifer 2012-2022 Water Level Change (Cache)



NATURAL RESOURCES  
DIVISION

**Cache Study Area  
10 Year Change:**

**Average Change: +0.62 Ft.  
45 of 97 Wells Showed Declines**



| County      | Avg. Change, ft. |
|-------------|------------------|
| Clay        | +2.91            |
| Craighead   | +1.26            |
| Cross       | -3.20            |
| Greene      | +2.44            |
| Jackson     | -0.54            |
| Lawrence    | -1.68            |
| Lee         | +3.49            |
| Monroe      | +0.36            |
| Phillips    | +0.26            |
| Poinsett    | -5.28            |
| Randolph    | -0.10            |
| St. Francis | -3.17            |
| Woodruff    | -1.80            |

## Legend

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

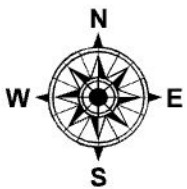


Figure 16



# Alluvial Aquifer 2021-2022 Water Level Change (St. Francis)

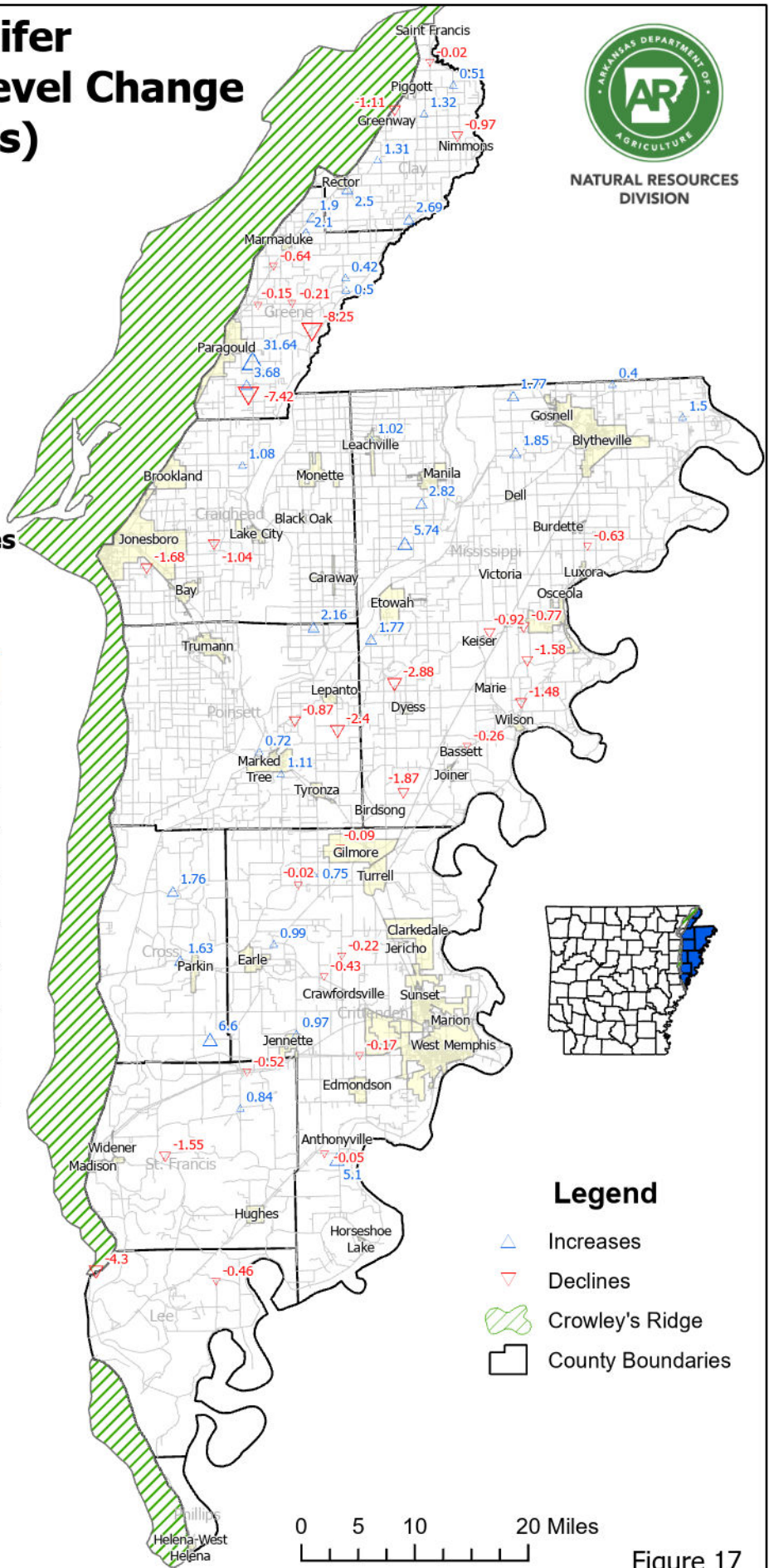


NATURAL RESOURCES  
DIVISION

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

**Average Change: +0.76 Ft.  
30 of 61 Wells Showed Declines**

| County      | Avg. Change, ft. |
|-------------|------------------|
| Clay        | +0.78            |
| Craighead   | -0.55            |
| Crittenden  | +0.68            |
| Cross       | +3.33            |
| Greene      | +2.14            |
| Lee         | -2.38            |
| Mississippi | +0.41            |
| Poinsett    | +0.14            |
| St. Francis | -0.41            |



### Legend

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

Figure 17

# Alluvial Aquifer 2017-2022 Water Level Change (St. Francis)

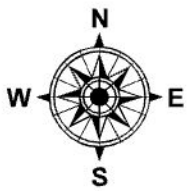
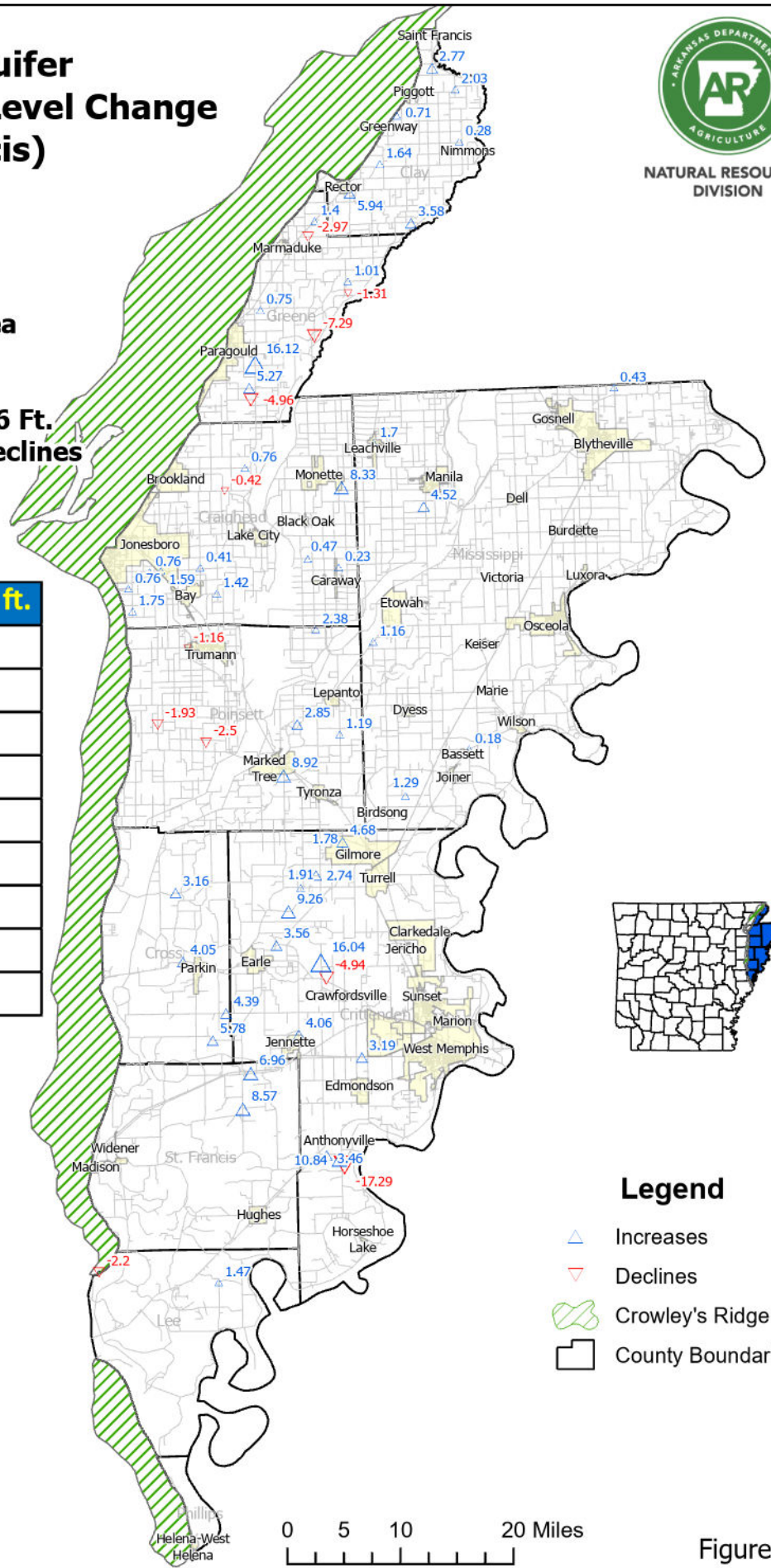


NATURAL RESOURCES  
DIVISION

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

**Average Change: +2.16 Ft.  
11 of 61 Wells Showed Declines**

| County      | Avg. Change, ft. |
|-------------|------------------|
| Clay        | +2.42            |
| Craighead   | +1.46            |
| Crittenden  | +3.02            |
| Cross       | +4.35            |
| Greene      | +0.89            |
| Lee         | -0.37            |
| Mississippi | +1.55            |
| Poinsett    | +1.39            |
| St. Francis | +7.77            |



### Legend

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

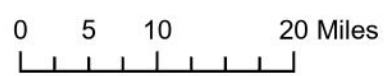


Figure 18



# Alluvial Aquifer 2012-2022 Water Level Change (St. Francis)

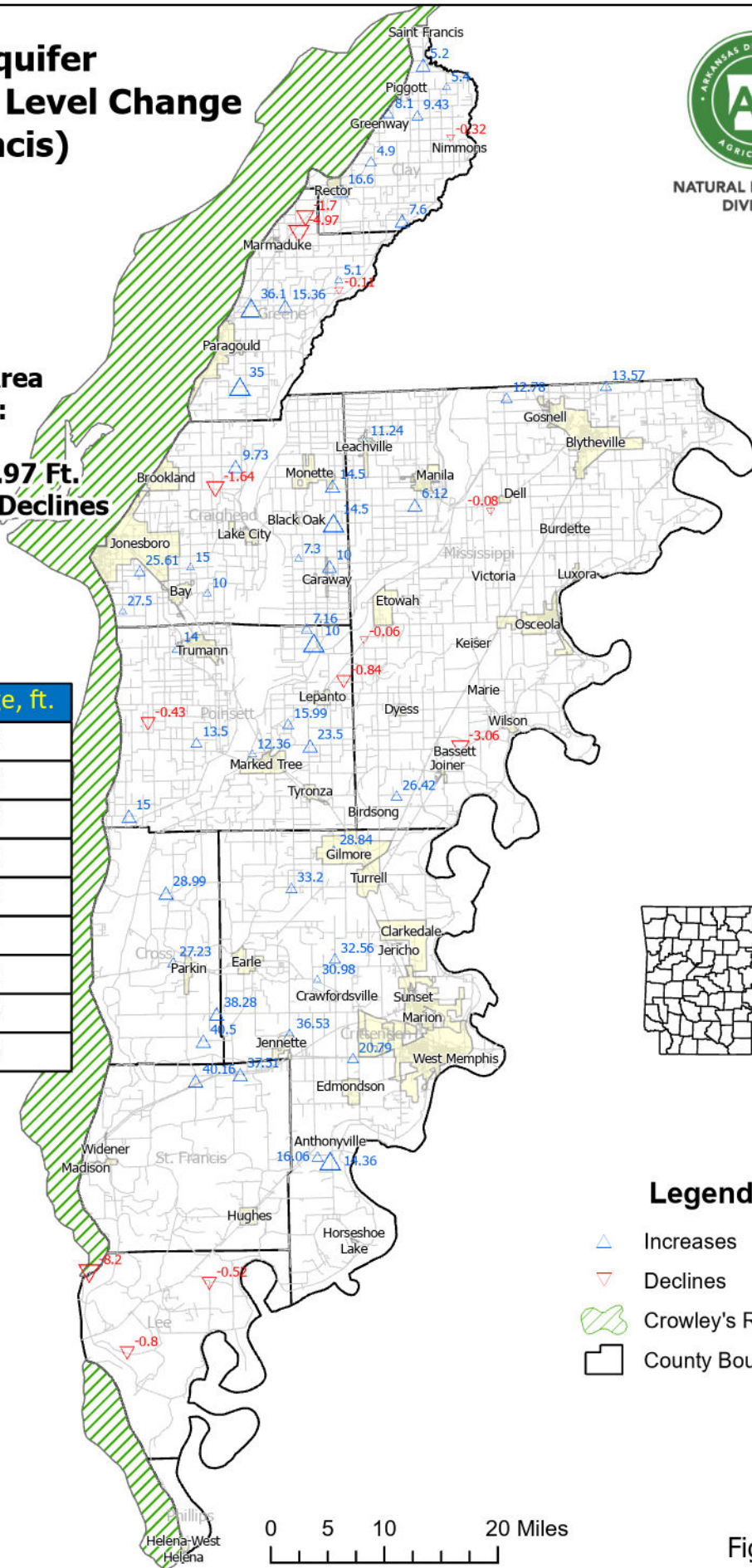


NATURAL RESOURCES  
DIVISION

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

**Average Change: +1.97 Ft.  
13 of 60 Wells Showed Declines**

| County      | Avg. Change, ft. |
|-------------|------------------|
| Clay        | +1.99            |
| Craighead   | +2.19            |
| Crittenden  | +2.72            |
| Cross       | +3.80            |
| Greene      | +2.06            |
| Lee         | -3.17            |
| Mississippi | +1.02            |
| Poinsett    | +2.24            |
| St. Francis | +3.84            |



### Legend

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

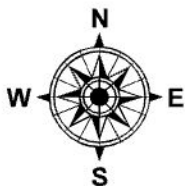


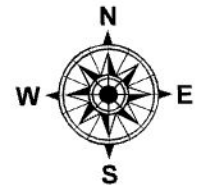
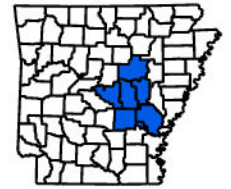
Figure 19



# Alluvial Aquifer 2021-2022 Water Level Change (Grand Prairie)

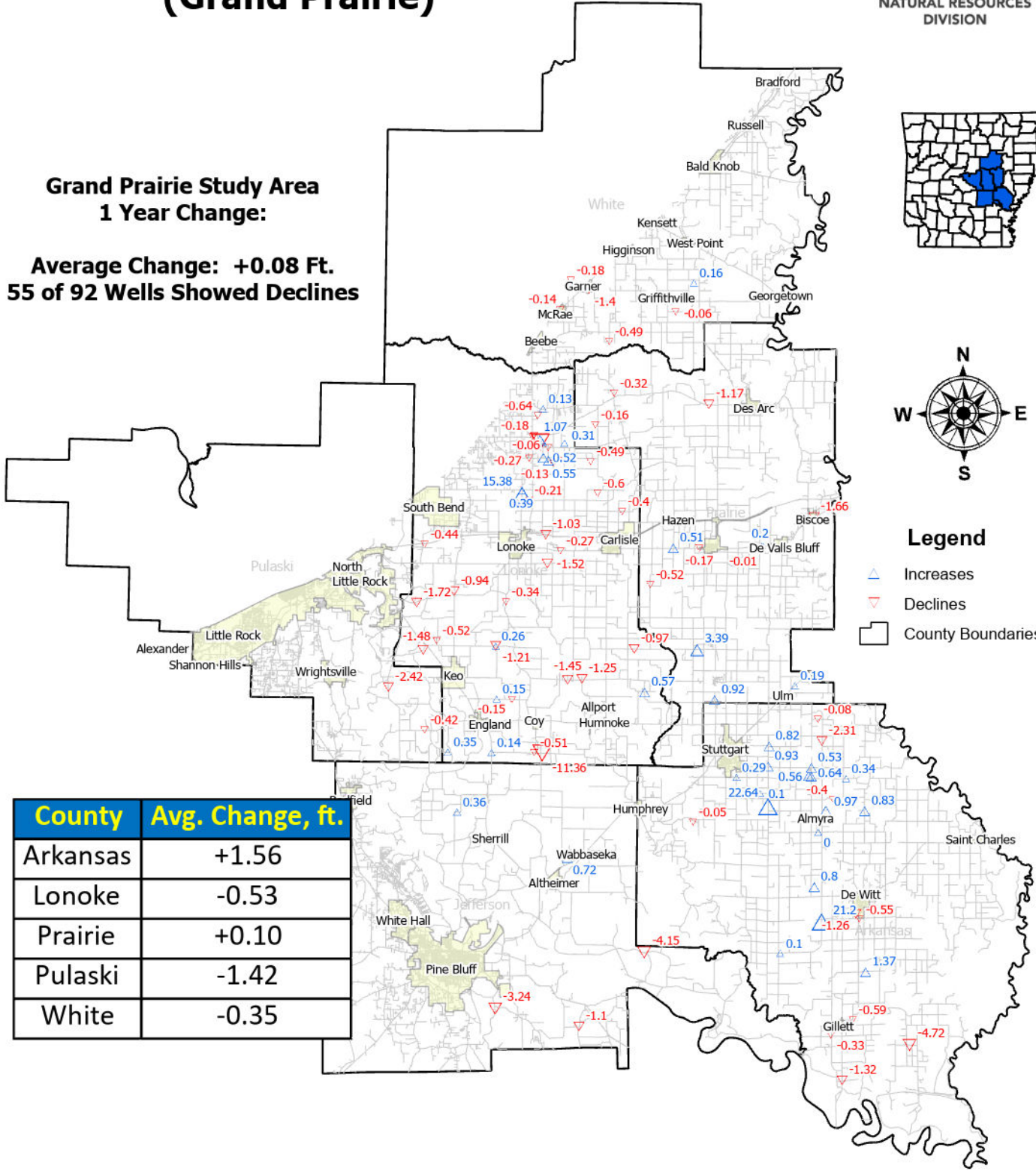


NATURAL RESOURCES  
DIVISION



### Legend

- ▲ Increases
- ▼ Declines
- County Boundaries



**Grand Prairie Study Area  
1 Year Change:**  
**Average Change: +0.08 Ft.**  
**55 of 92 Wells Showed Declines**

| County   | Avg. Change, ft. |
|----------|------------------|
| Arkansas | +1.56            |
| Lonoke   | -0.53            |
| Prairie  | +0.10            |
| Pulaski  | -1.42            |
| White    | -0.35            |

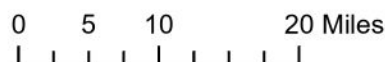
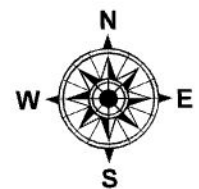


Figure 20

# Alluvial Aquifer 2017-2022 Water Level Change (Grand Prairie)



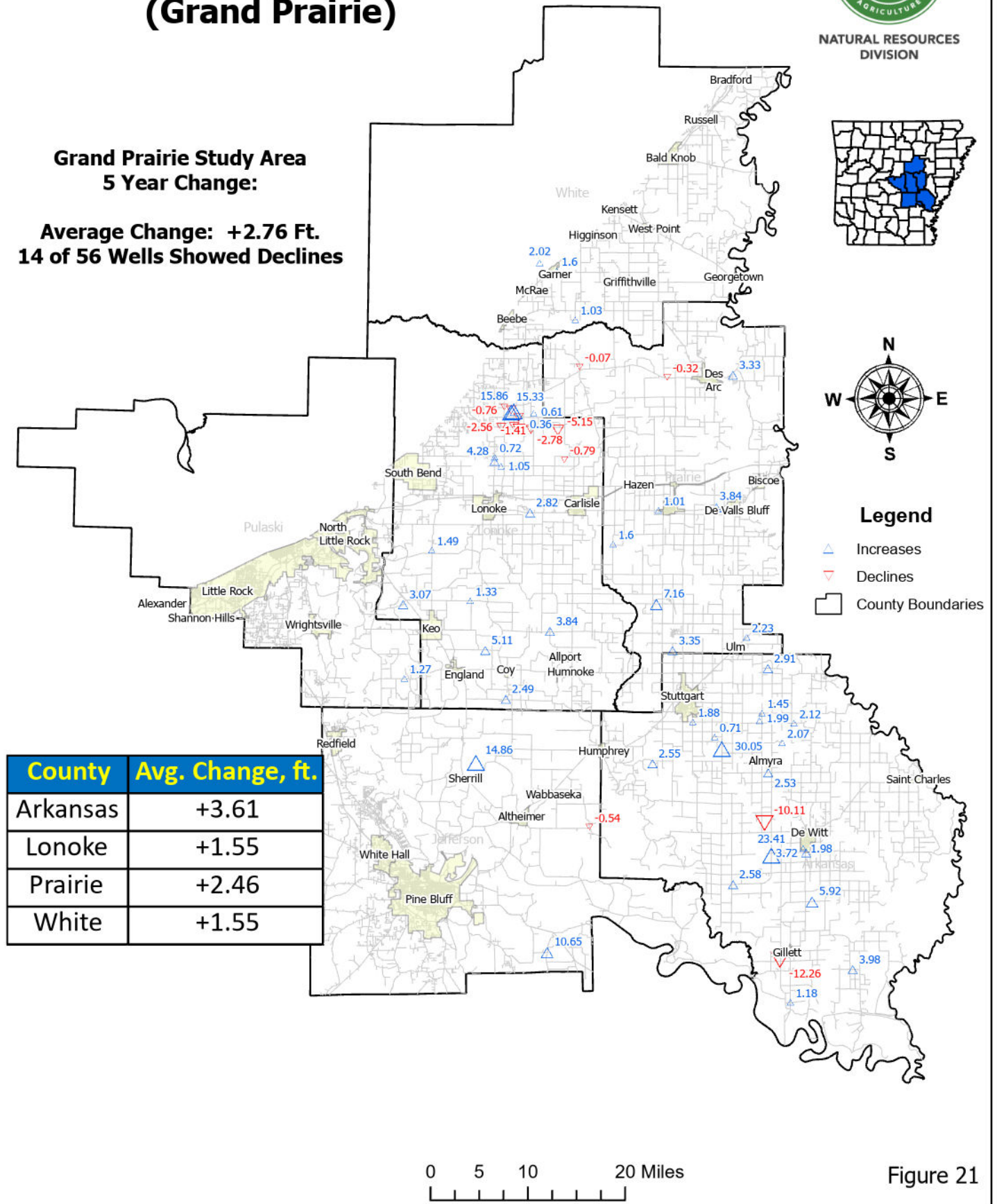
NATURAL RESOURCES  
DIVISION



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

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

**Average Change: +2.76 Ft.  
14 of 56 Wells Showed Declines**



| County   | Avg. Change, ft. |
|----------|------------------|
| Arkansas | +3.61            |
| Lonoke   | +1.55            |
| Prairie  | +2.46            |
| White    | +1.55            |

Figure 21



# Alluvial Aquifer 2012-2022 Water Level Change (Grand Prairie)

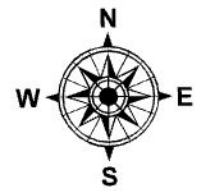
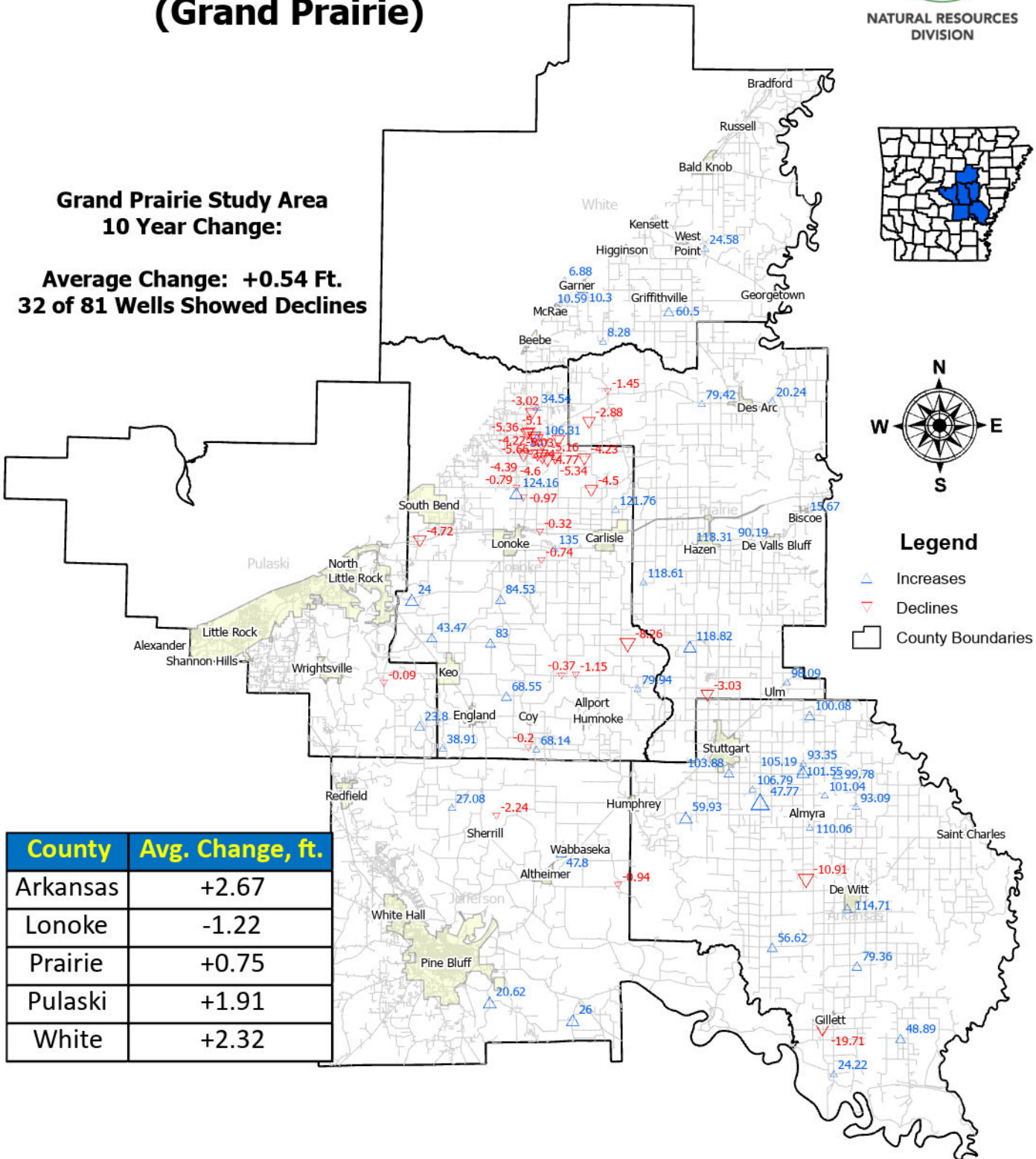


NATURAL RESOURCES  
DIVISION



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

**Average Change: +0.54 Ft.  
32 of 81 Wells Showed Declines**



**Legend**

- ▲ Increases
- ▼ Declines
- County Boundaries

| County   | Avg. Change, ft. |
|----------|------------------|
| Arkansas | +2.67            |
| Lonoke   | -1.22            |
| Prairie  | +0.75            |
| Pulaski  | +1.91            |
| White    | +2.32            |

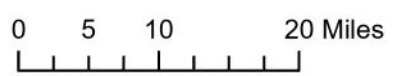


Figure 22

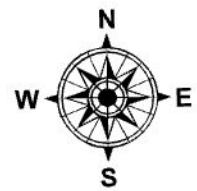
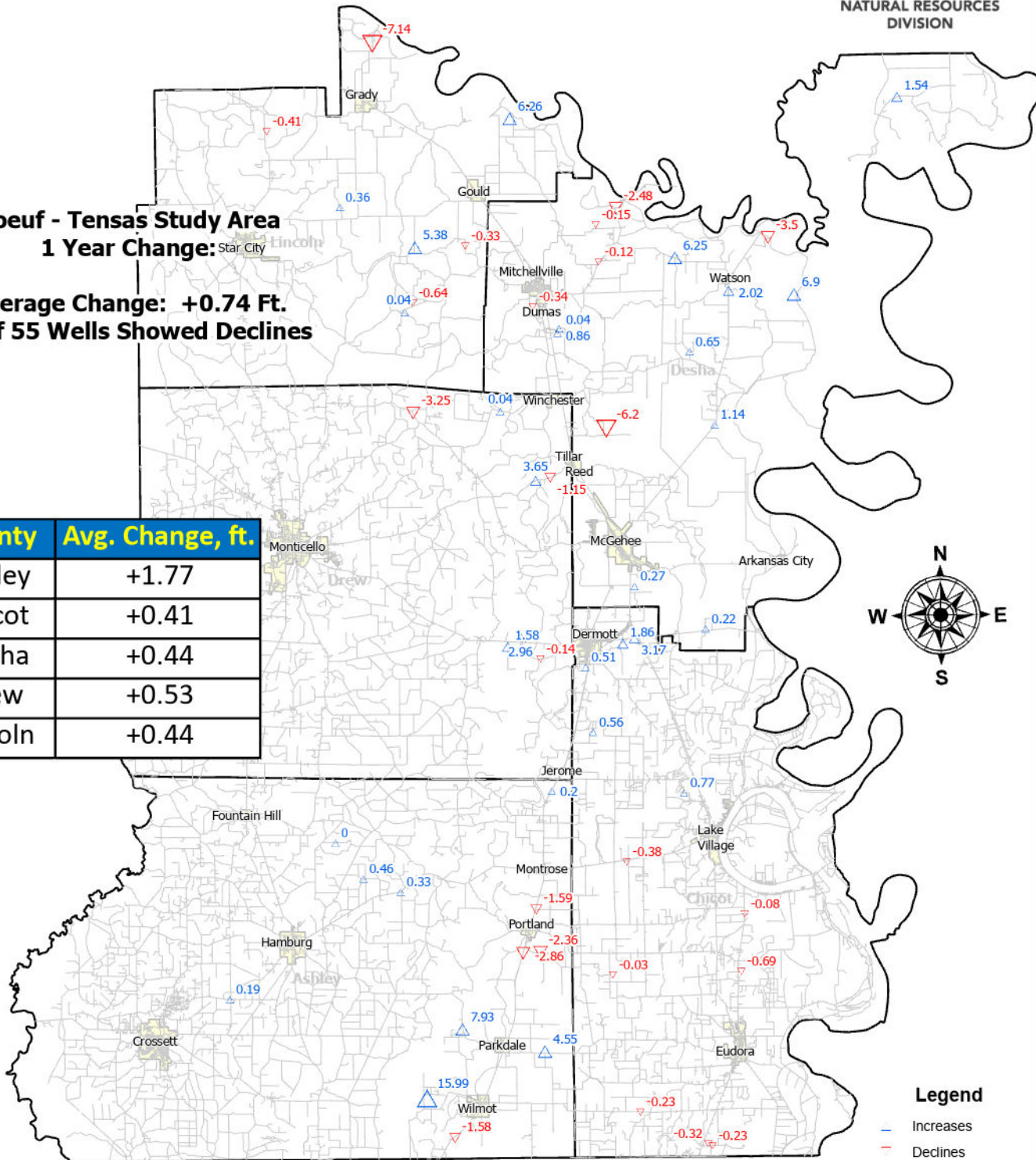
# Alluvial Aquifer 2021-2022 Water Level Change (Boeuf - Tensas)



NATURAL RESOURCES  
DIVISION

**Boeuf - Tensas Study Area**  
1 Year Change: **Star City**  
**Average Change: +0.74 Ft.**  
**24 of 55 Wells Showed Declines**

| County  | Avg. Change, ft. |
|---------|------------------|
| Ashley  | +1.77            |
| Chicot  | +0.41            |
| Desha   | +0.44            |
| Drew    | +0.53            |
| Lincoln | +0.44            |



**Legend**

- ▲ Increases
- ▼ Declines
- County Boundaries

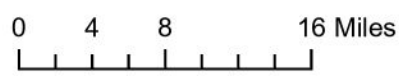


Figure 23



# Alluvial Aquifer 2017-2022 Water Level Change (Boeuf - Tensas)



NATURAL RESOURCES  
DIVISION

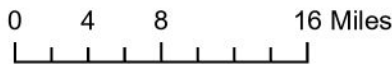
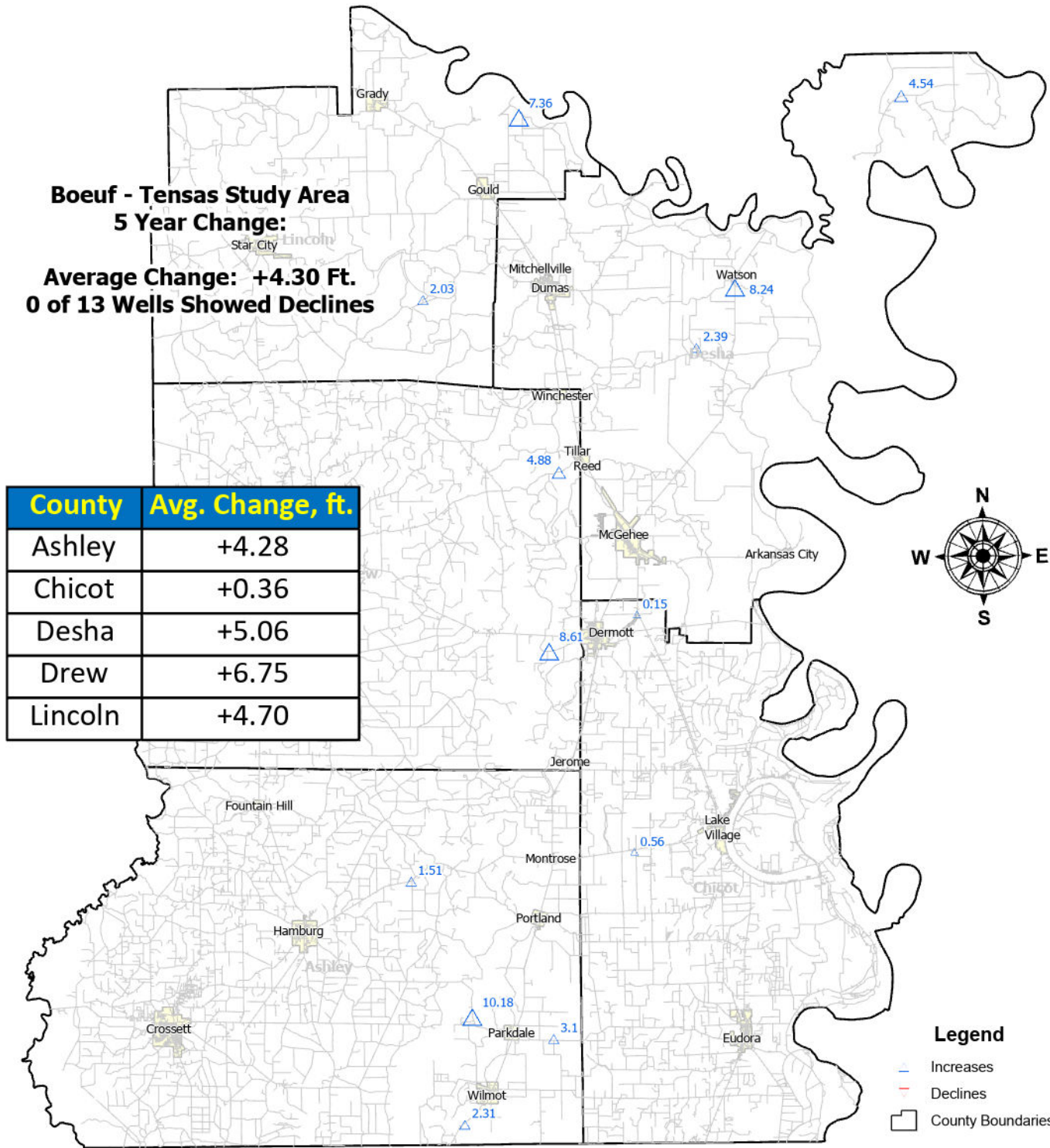


Figure 24



# Alluvial Aquifer 2012-2022 Water Level Change (Boeuf - Tensas)



NATURAL RESOURCES  
DIVISION

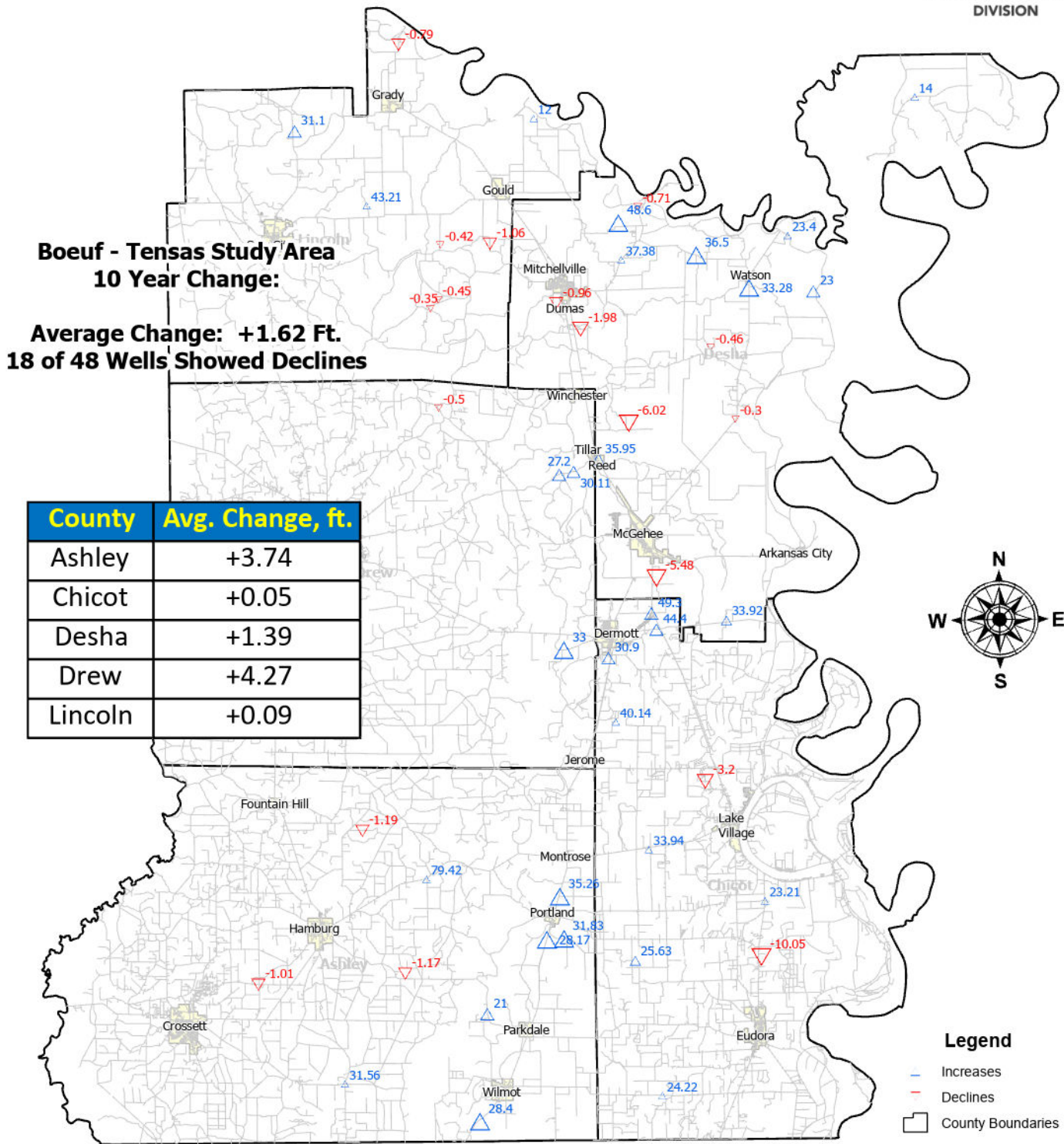


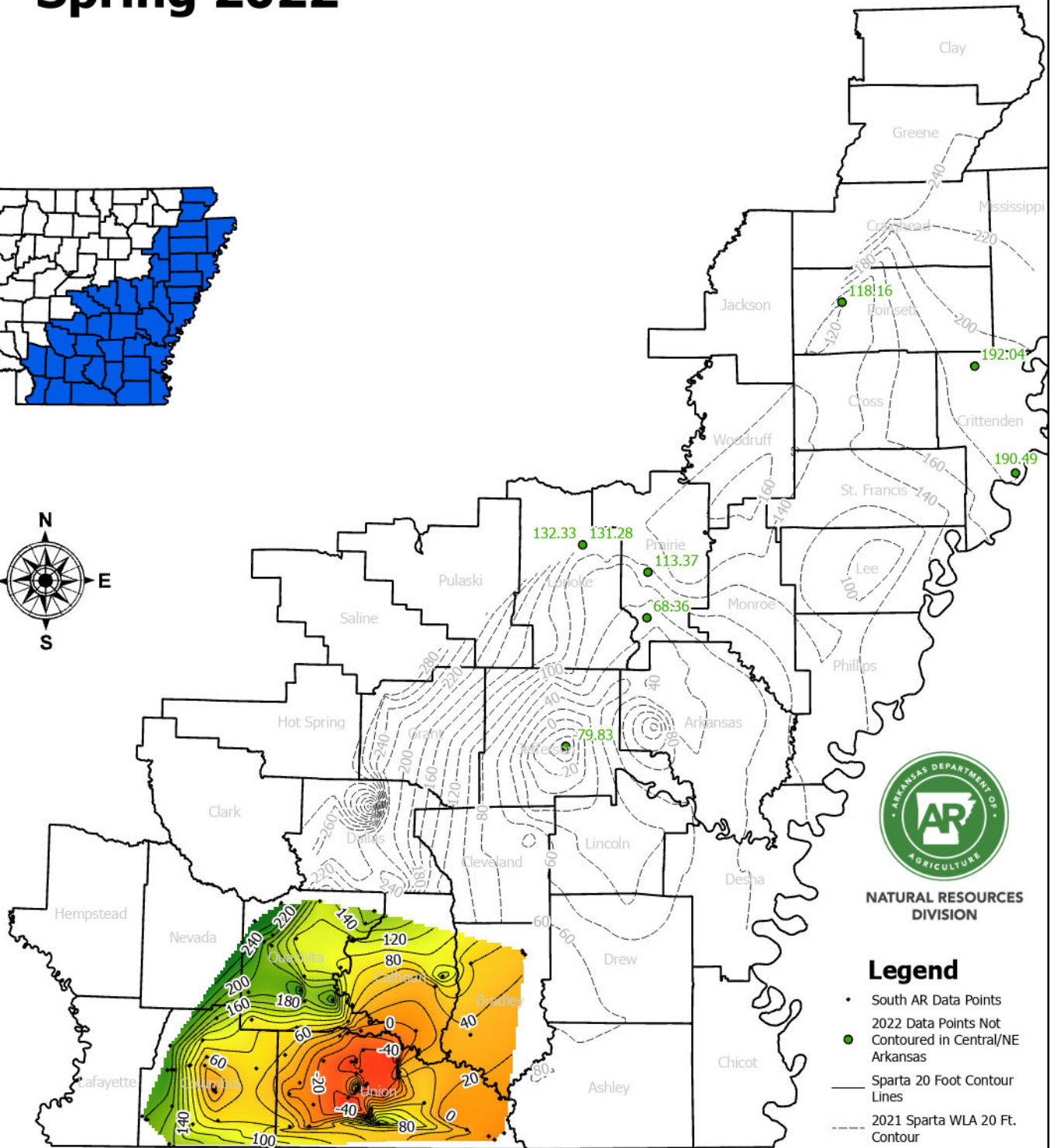
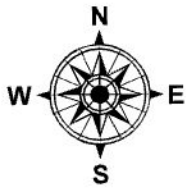
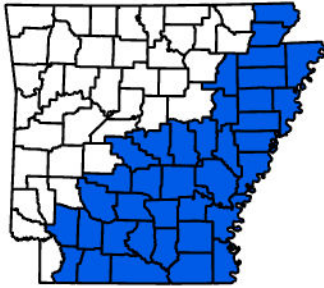
Figure 25

## 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 99 water wells in the Sparta aquifer during the spring of 2022, approximately one third of the dataset we expect to collect for the Sparta aquifer each spring. This data shortage is due in part to a lack of NRD Groundwater Section staff during that time and in part to a misunderstanding between NRD staff and our USGS partners as to what data was being collected, where, and by whom. Moving forward, roles and responsibilities have been clarified and future sample collection should meet and exceed expected numbers. Figure 26 depicts the spring 2022 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. In areas where data collection made interpretation difficult hashed contour lines from the 2021 report have been included for reference.

# Sparta Aquifer Water Level Altitude Spring 2022



NATURAL RESOURCES  
DIVISION

### Legend

- South AR Data Points
- 2022 Data Points Not Contoured in Central/NE Arkansas
- Sparta 20 Foot Contour Lines
- - - 2021 Sparta WLA 20 Ft. Contour

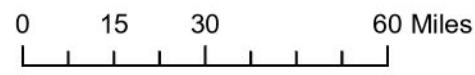


Figure 26



# Sparta Aquifer Depth to Water Spring 2022

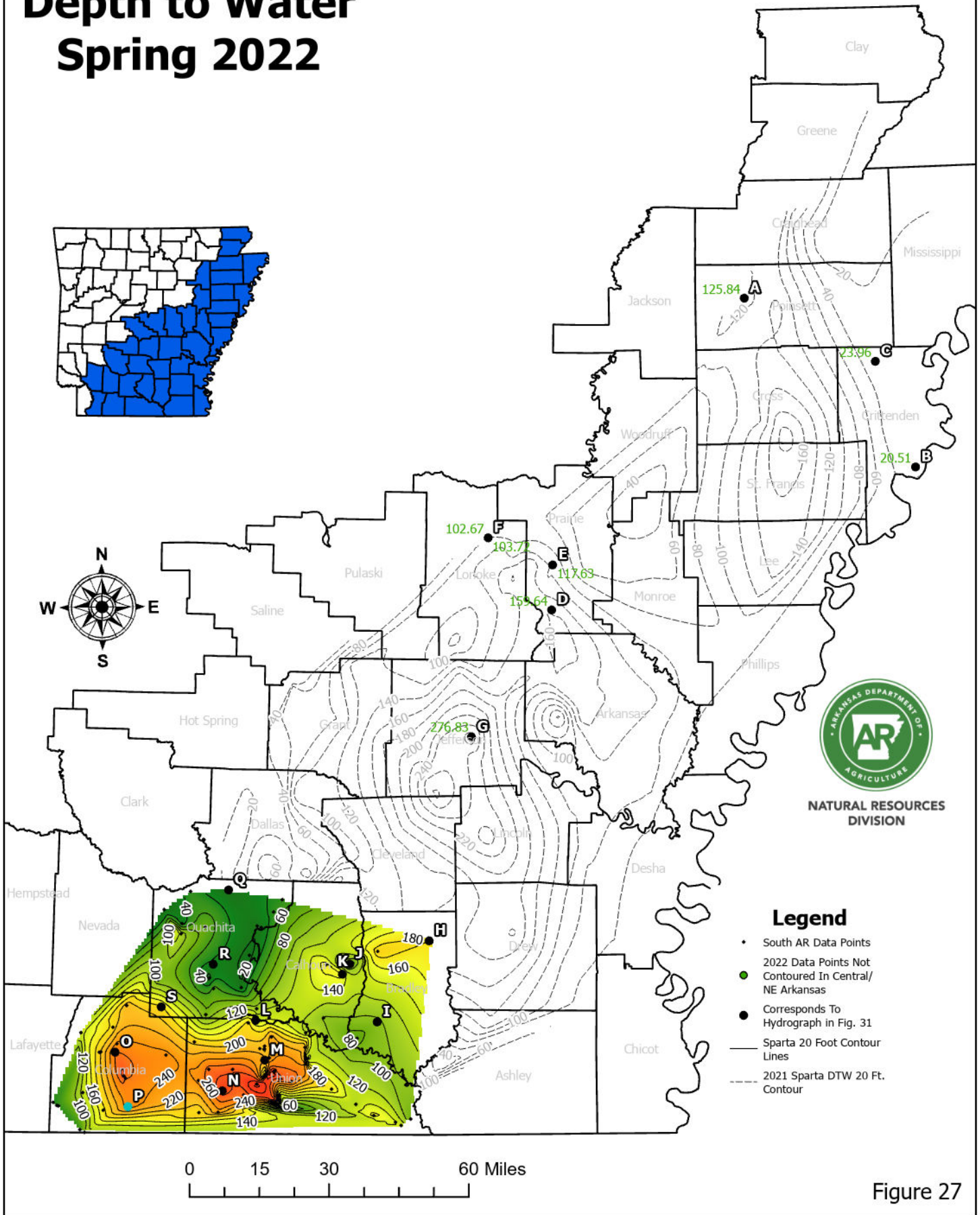


Figure 27

## Water Level Trends

Water level data from the 99 wells collected in spring 2022 were compared with historical data in one, five, and ten-year intervals. The one-year interval had 58 comparable wells giving a total average water level change of +0.87 feet with 25 (43.1 percent) of the wells in decline. The five-year change had data for 53 comparable wells with a total average change of +8.21 feet with 14 (26.4 percent) wells in decline. As for the ten-year interval, water level data was compared for 42 wells with total average water level change of +13.72 feet with 4 (9.52 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.

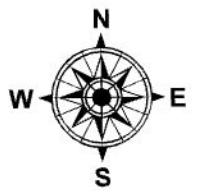
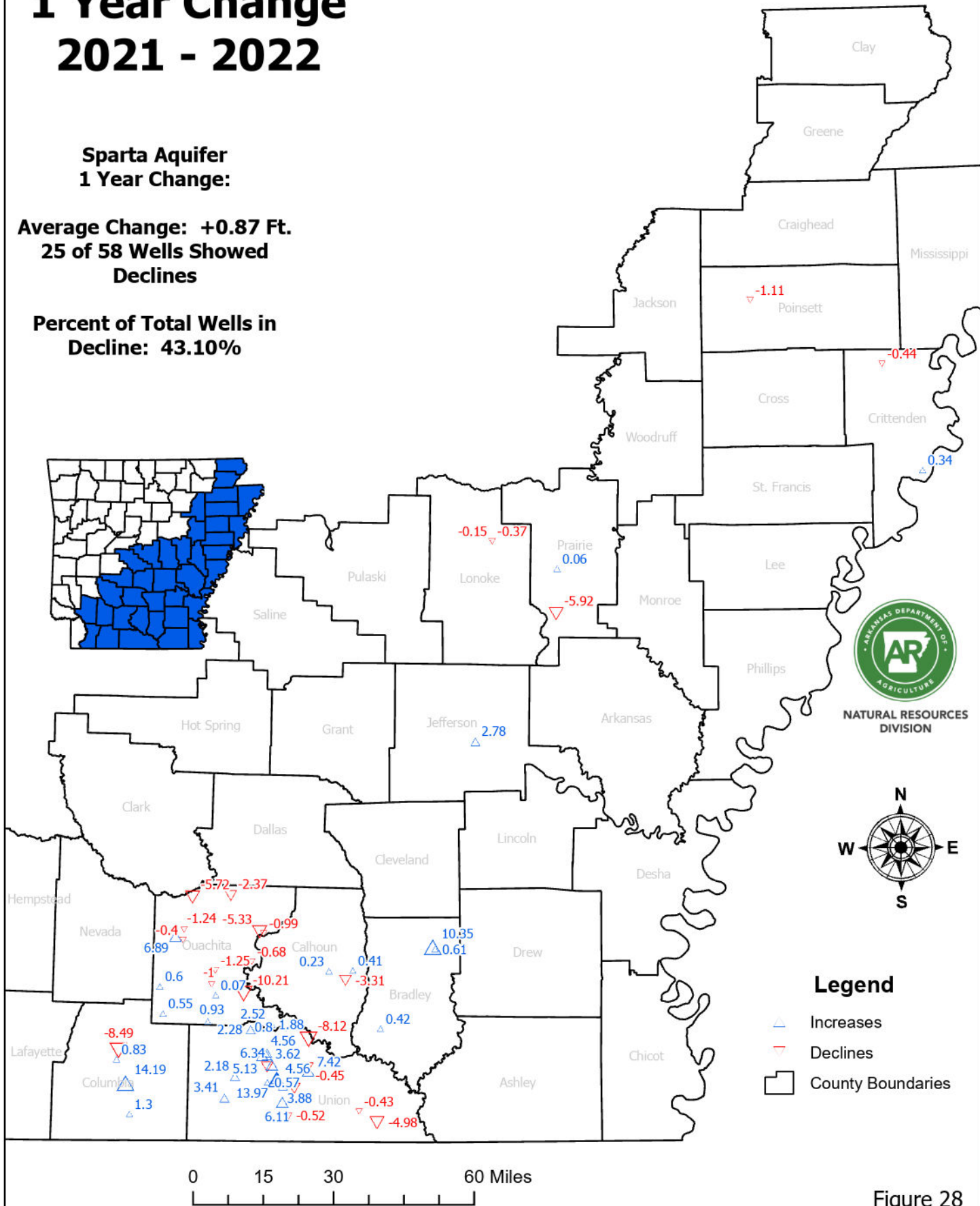


# Sparta Aquifer 1 Year Change 2021 - 2022

**Sparta Aquifer  
1 Year Change:**

**Average Change: +0.87 Ft.  
25 of 58 Wells Showed  
Declines**

**Percent of Total Wells in  
Decline: 43.10%**



**Legend**

- ▲ Increases
- ▼ Declines
- County Boundaries

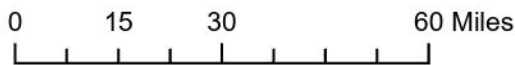


Figure 28

# Sparta Aquifer 5 Year Change 2017 - 2022

**Sparta Aquifer  
5 Year Change:**

**Average Change: +8.21 Ft.  
14 of 53 Wells Showed  
Declines**

**Percent of Total Wells in  
Decline: 26.42%**

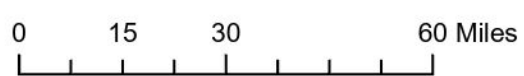
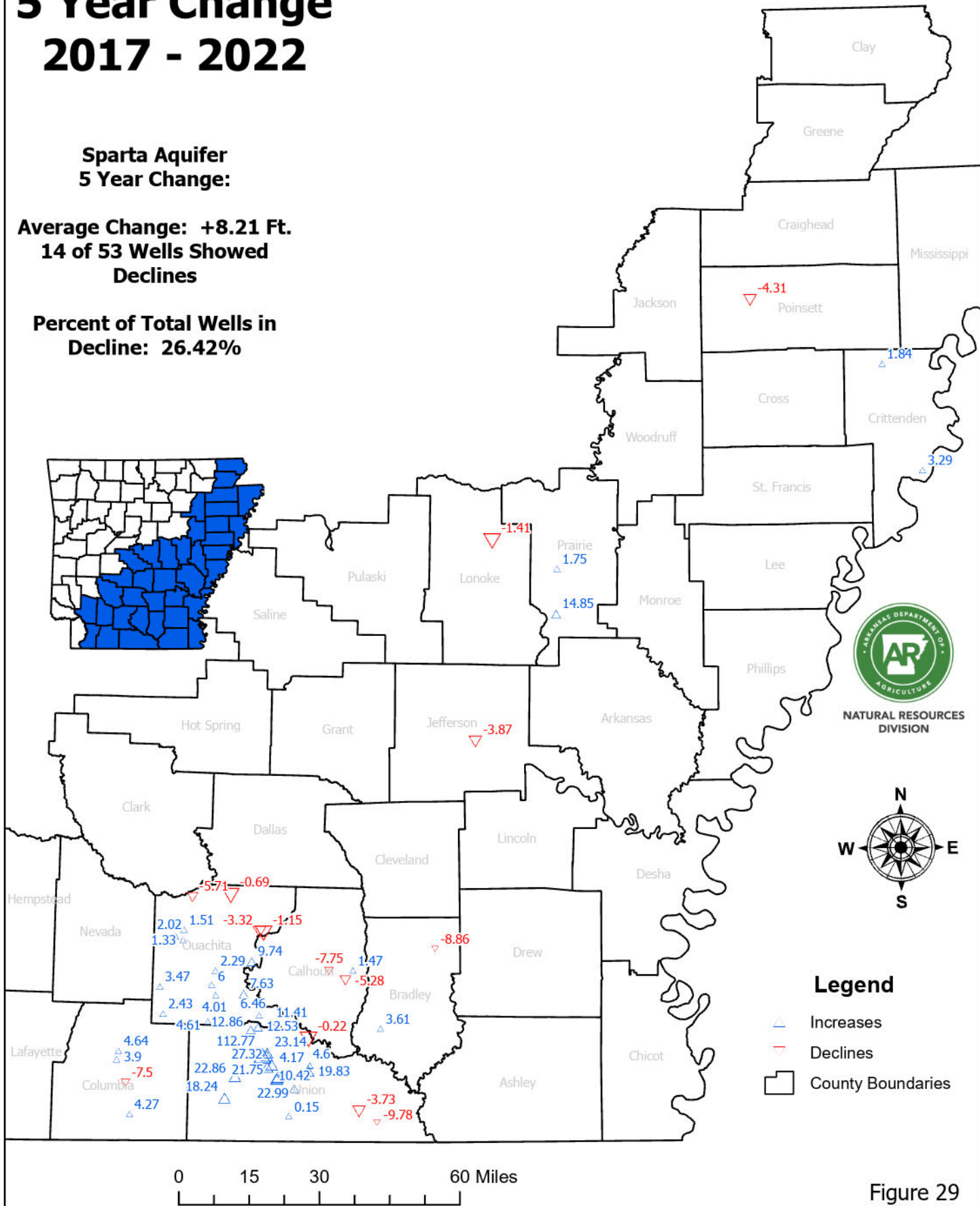


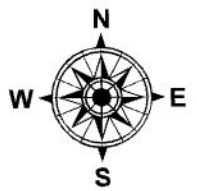
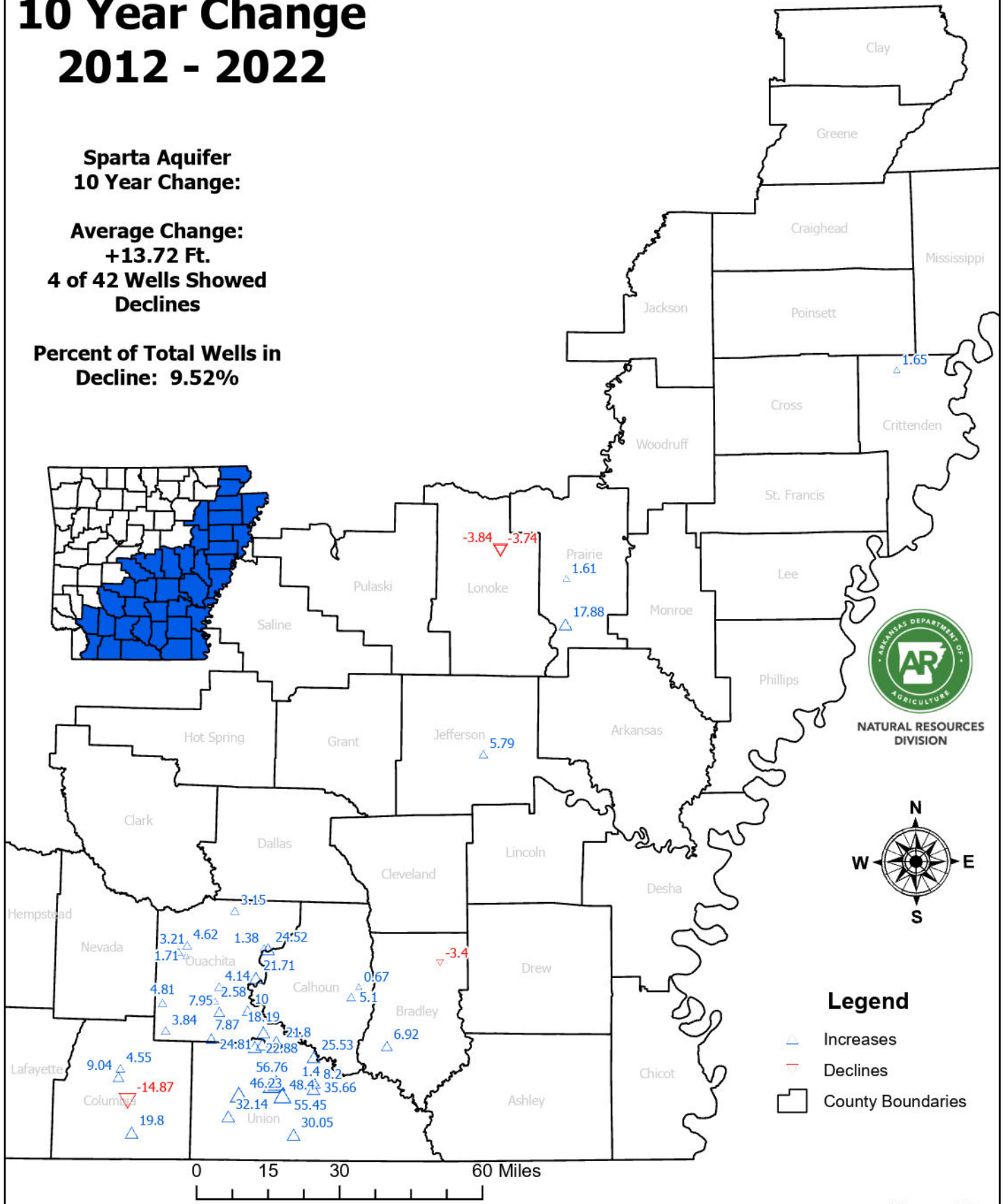
Figure 29

# Sparta Aquifer 10 Year Change 2012 - 2022

**Sparta Aquifer  
10 Year Change:**

**Average Change:  
+13.72 Ft.  
4 of 42 Wells Showed  
Declines**

**Percent of Total Wells in  
Decline: 9.52%**



**Legend**

- ▲ Increases
- ▼ Declines
- County Boundaries

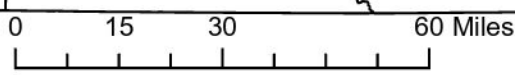
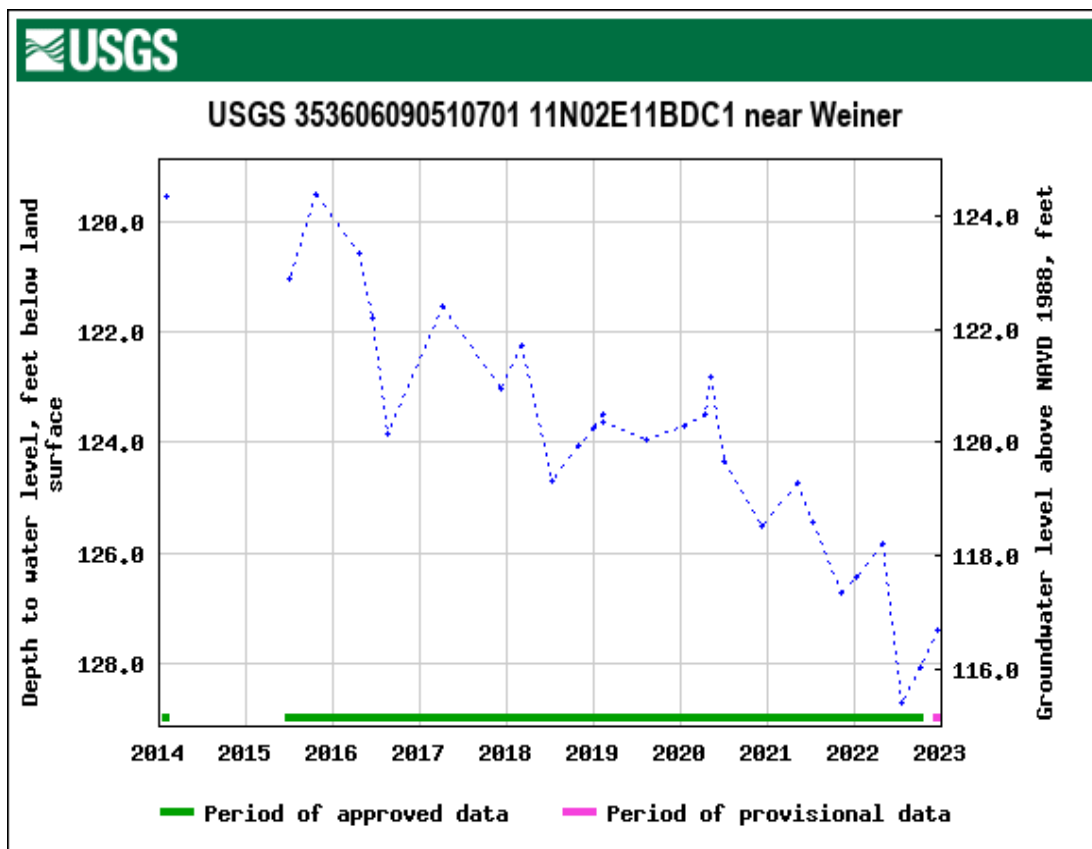


Figure 30

### Water Level Trends, cont.

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 NRD, the Union County Water Conservation Board, 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.

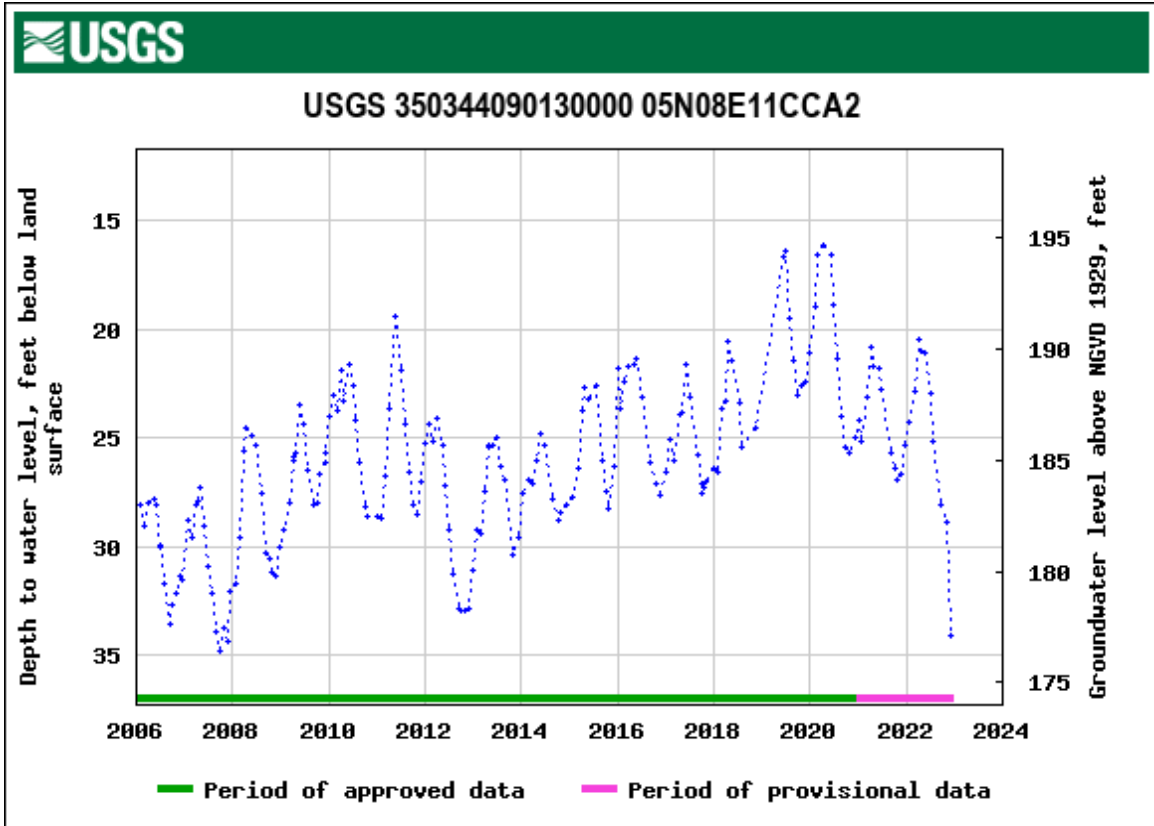
**Figure 31.** Selected water level hydrographs from the Sparta aquifer



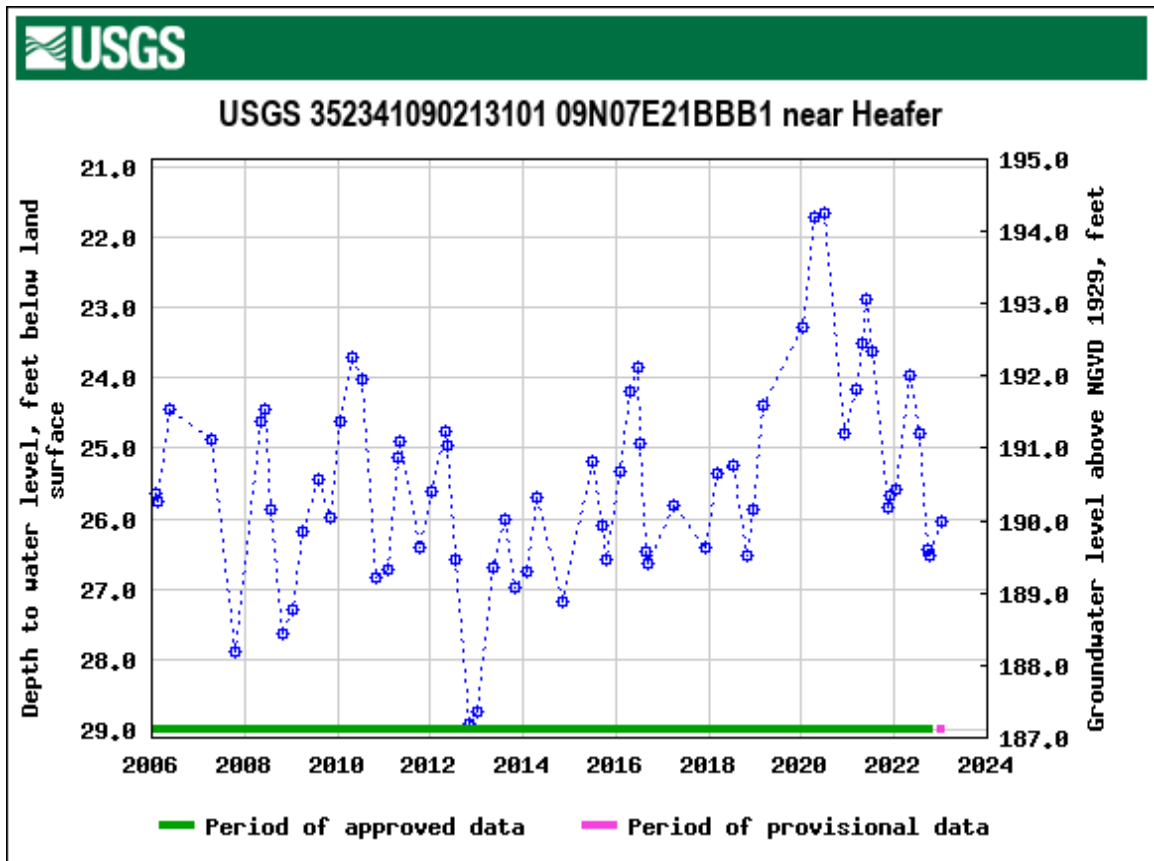
A. Poinsett County, Well 11N02E11BDC1



**Figure 31.** Selected water level hydrographs from the Sparta aquifer

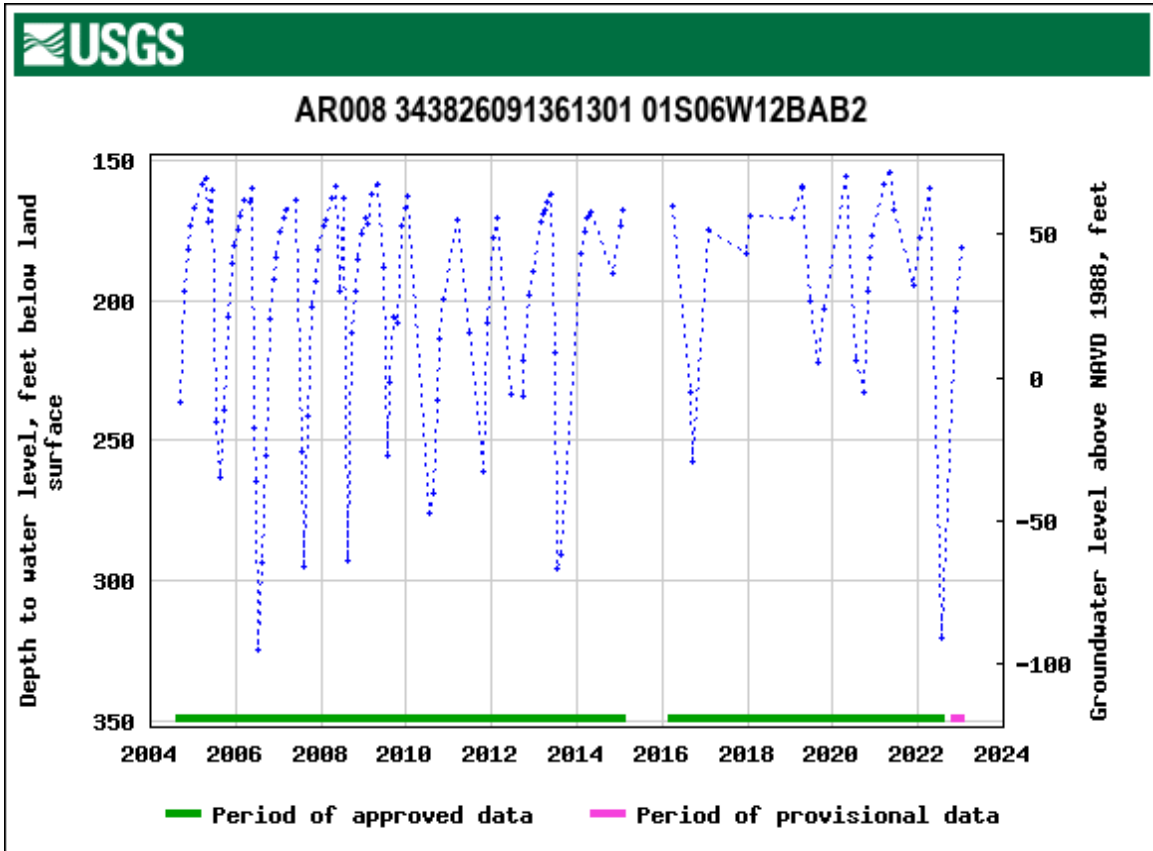


B. Crittenden County, Well 05N08E11CCA2

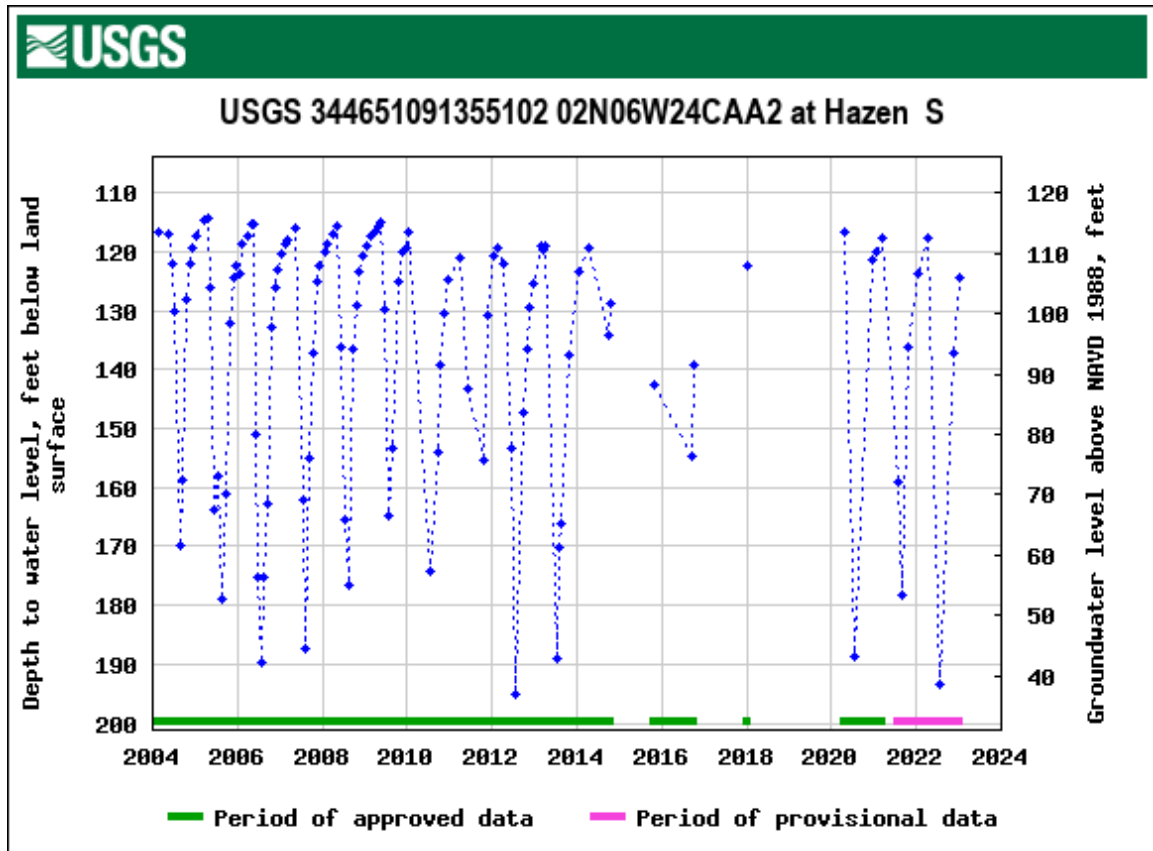


C. Crittenden County, Well 09N07E21BBB1

**Figure 31.** Selected water level hydrographs from the Sparta aquifer

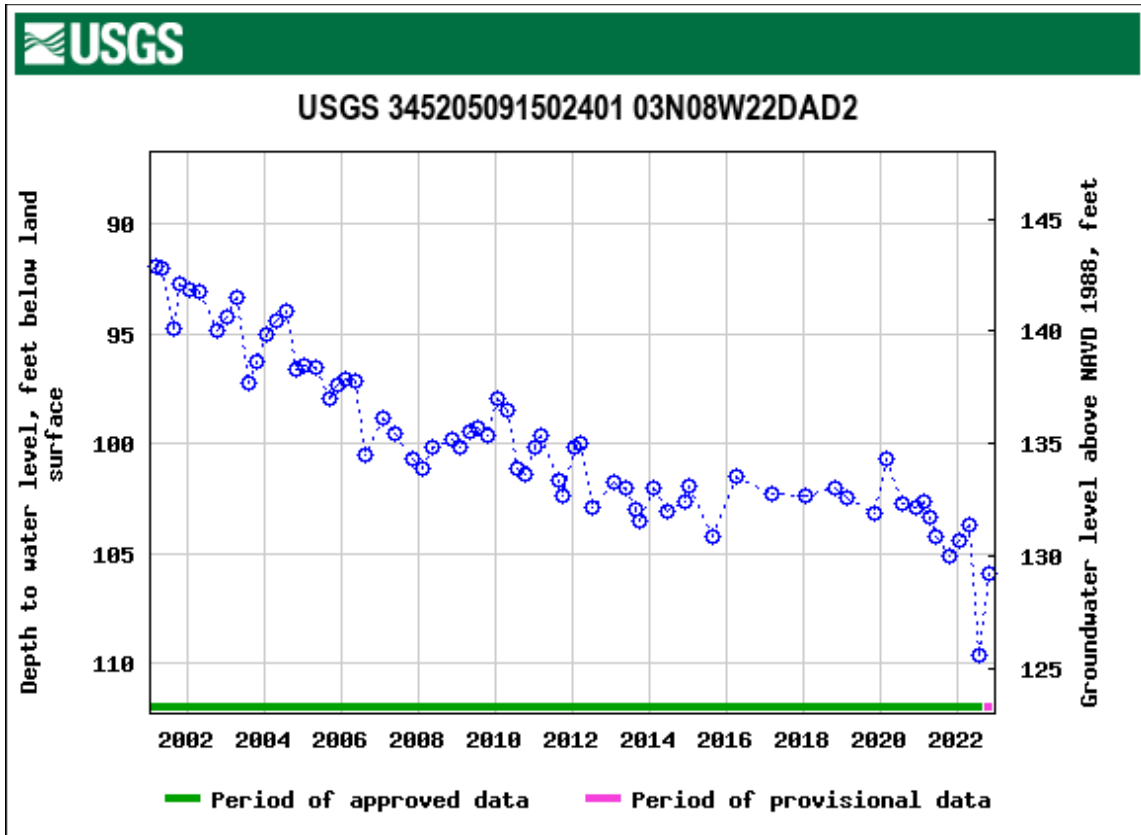


D. Prairie County, Well 01S06W12BAB2

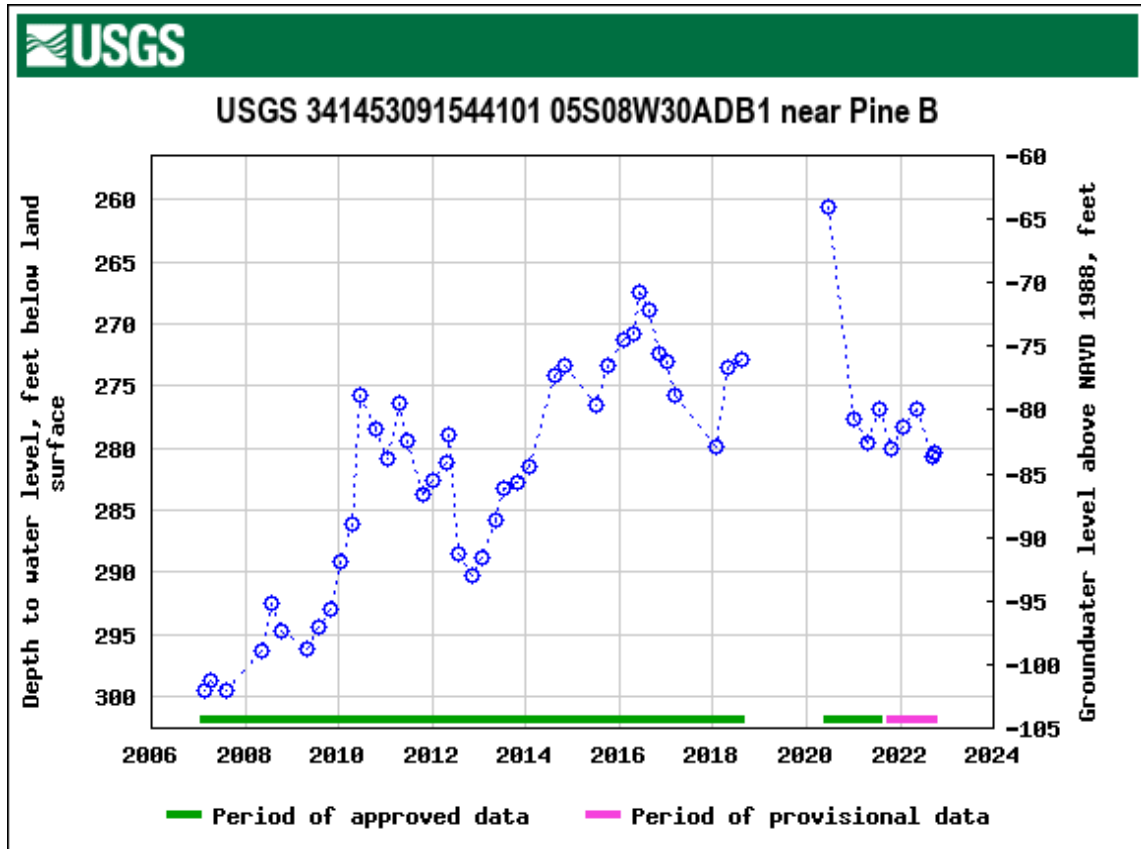


E. Prairie County, Well 02N06W24CAA2

**Figure 31.** Selected water level hydrographs from the Sparta aquifer

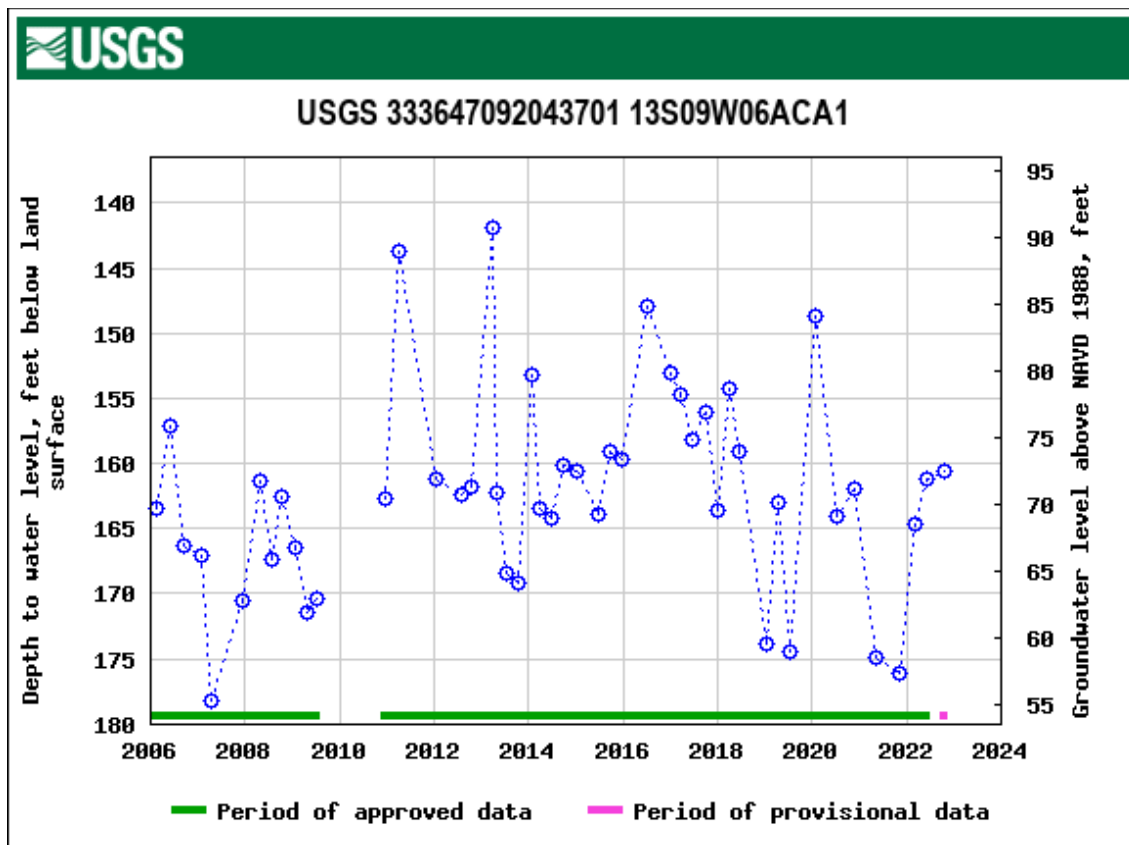


F. Lonoke County, Well 03N08W22DAD2

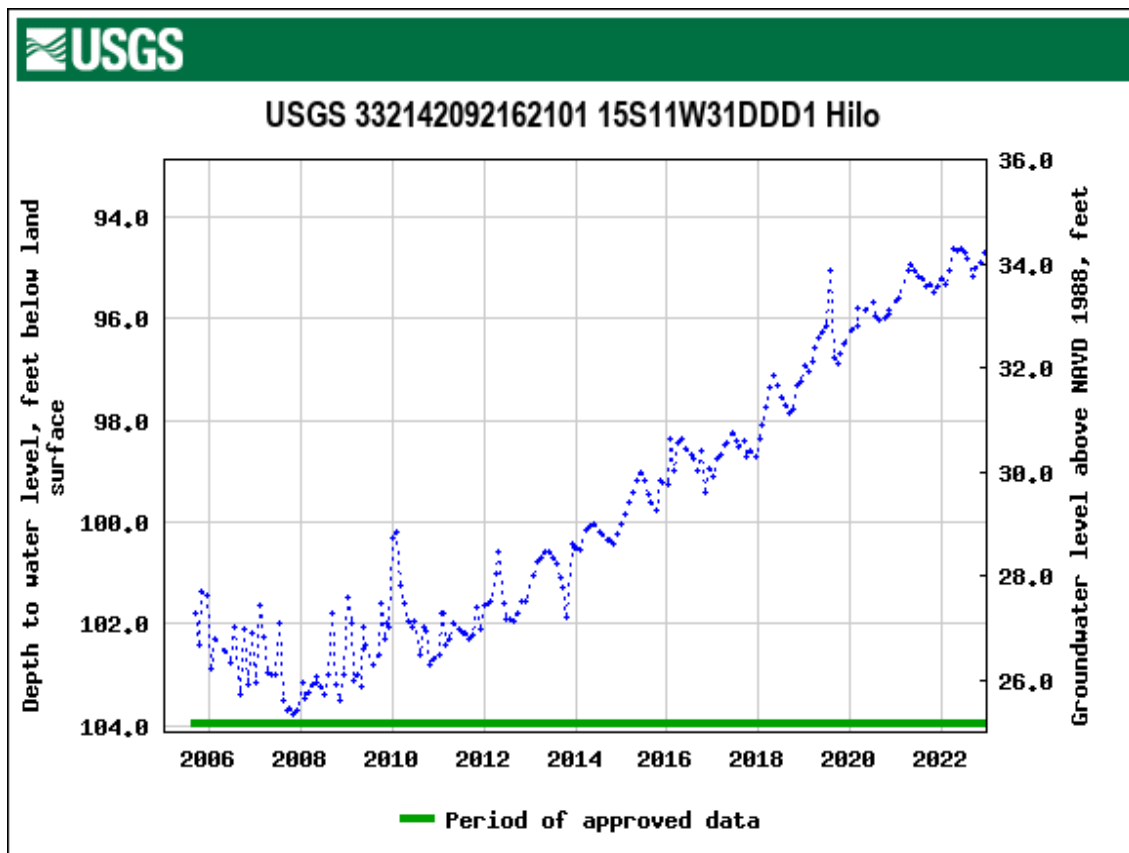


G. Jefferson County, Well 05S08W30ADB1

**Figure 31.** Selected water level hydrographs from the Sparta aquifer



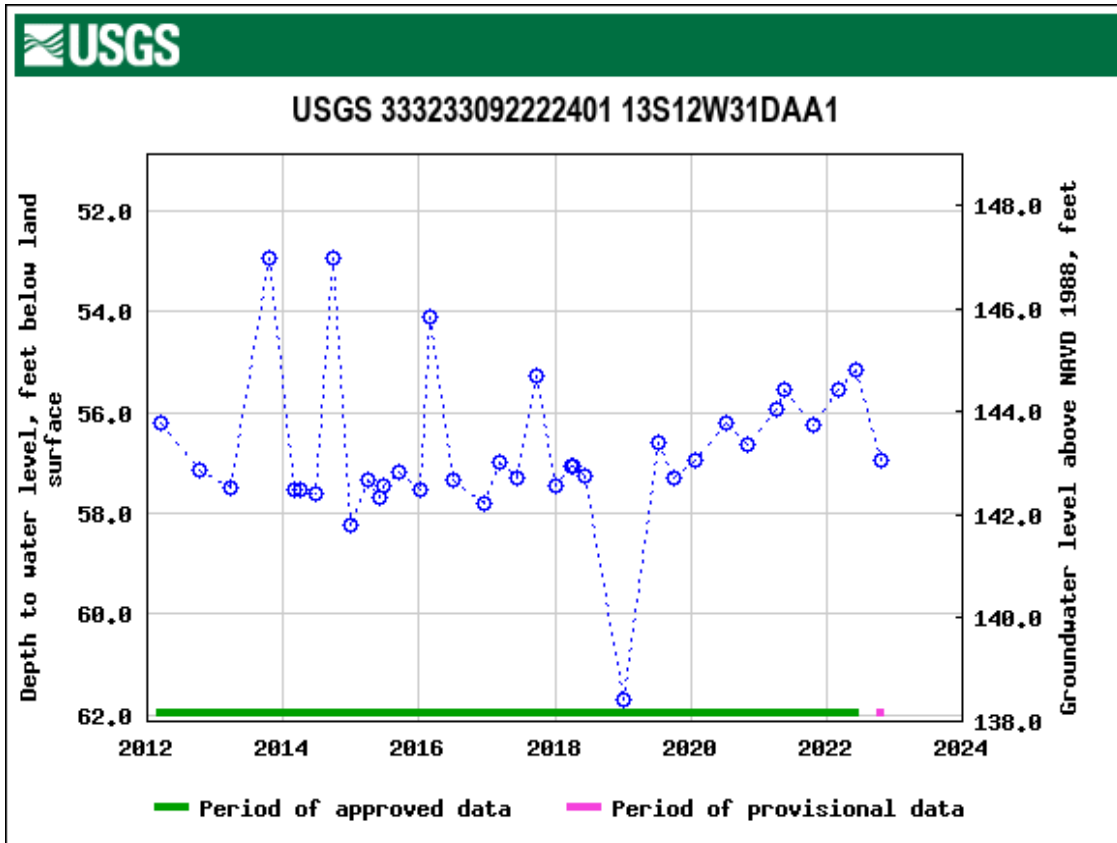
H. Bradley County, Well 13S09W06ACA1



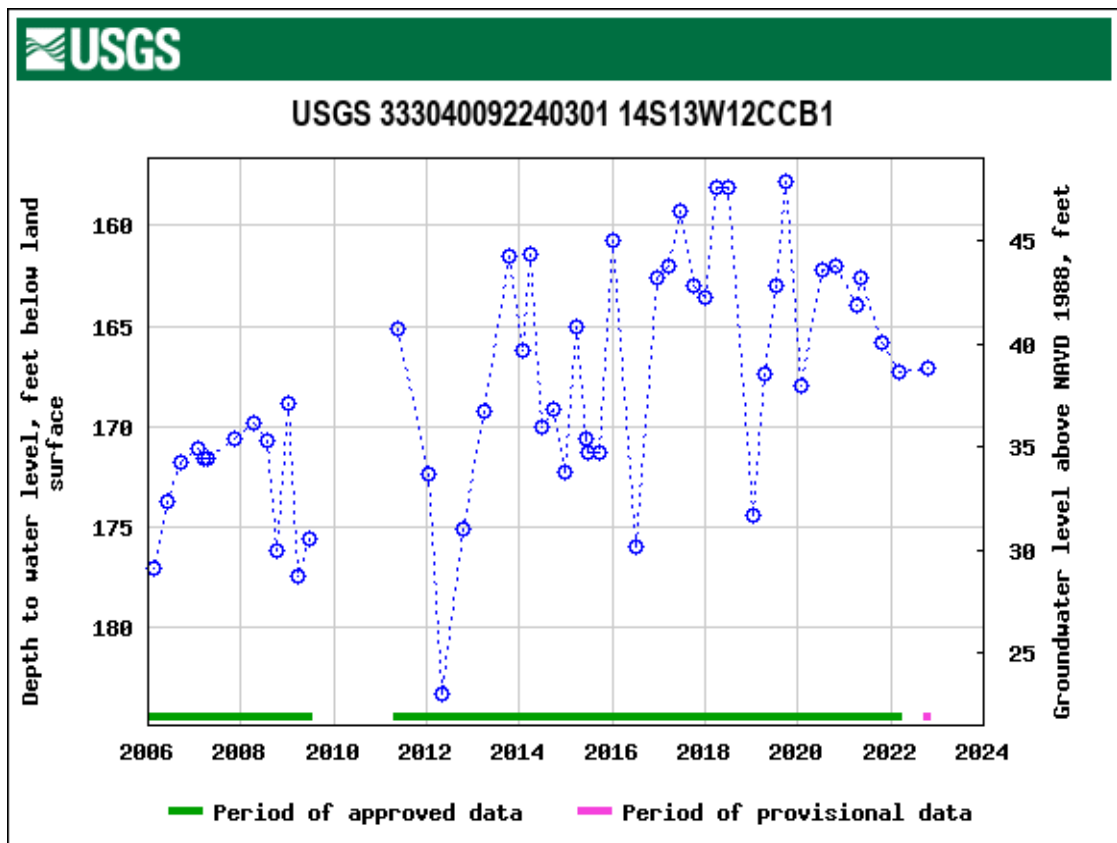
I. Bradley County, Well 15S11W31DDD1



**Figure 31.** Selected water level hydrographs from the Sparta aquifer

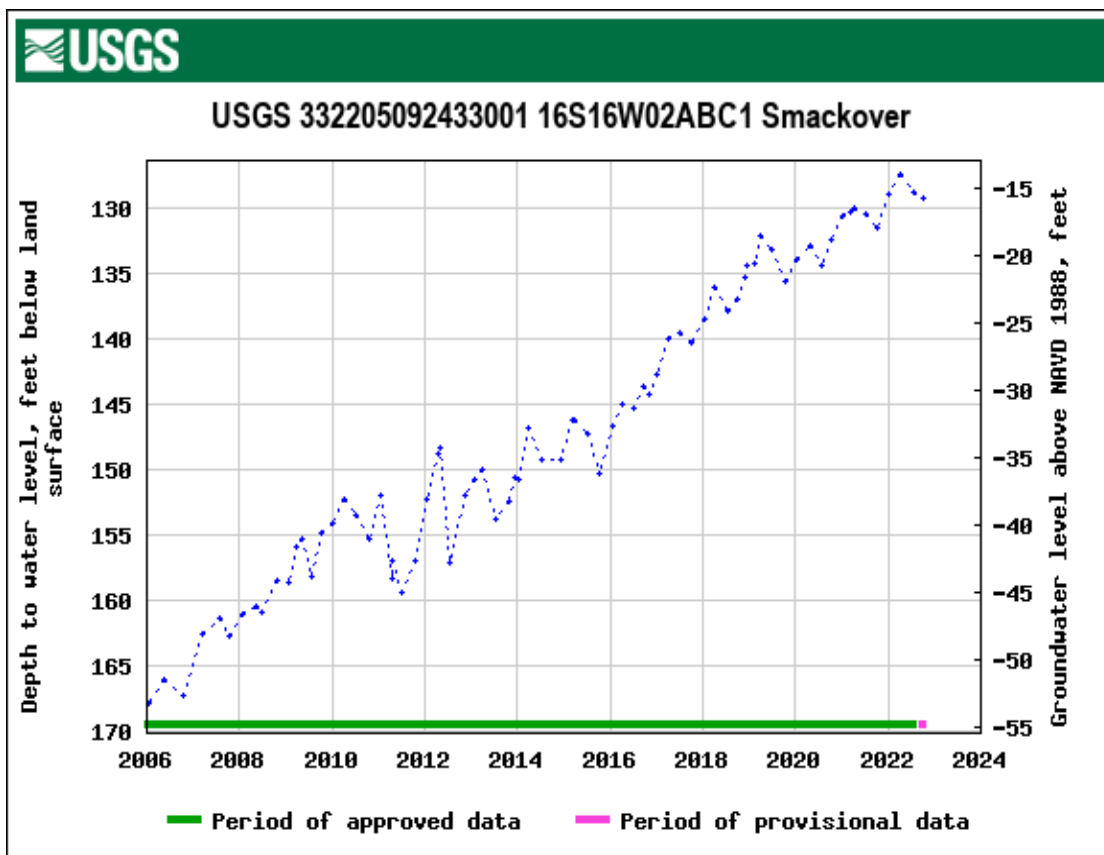


J. Calhoun County, Well 13S12W31DAA1

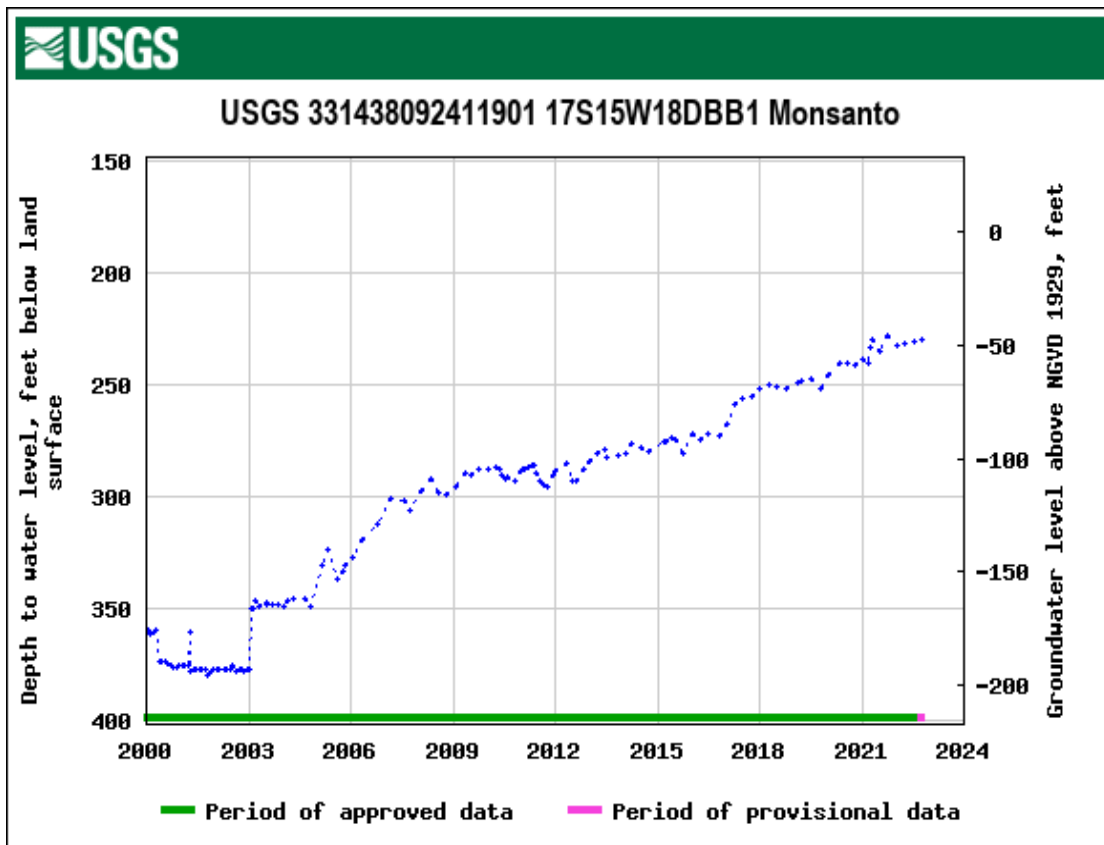


K. Calhoun County, Well 14S13W12CCB1

**Figure 31.** Selected water level hydrographs from the Sparta aquifer

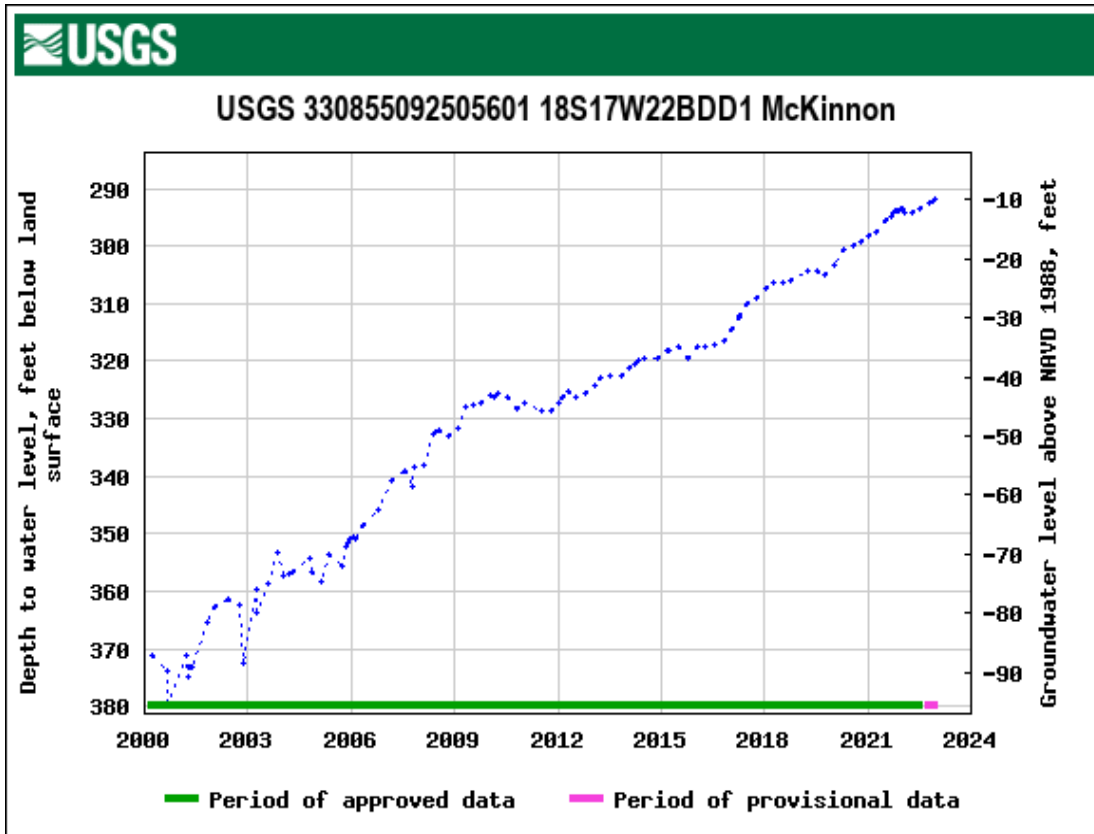


L. Union County, Well 16S16W02ABC1

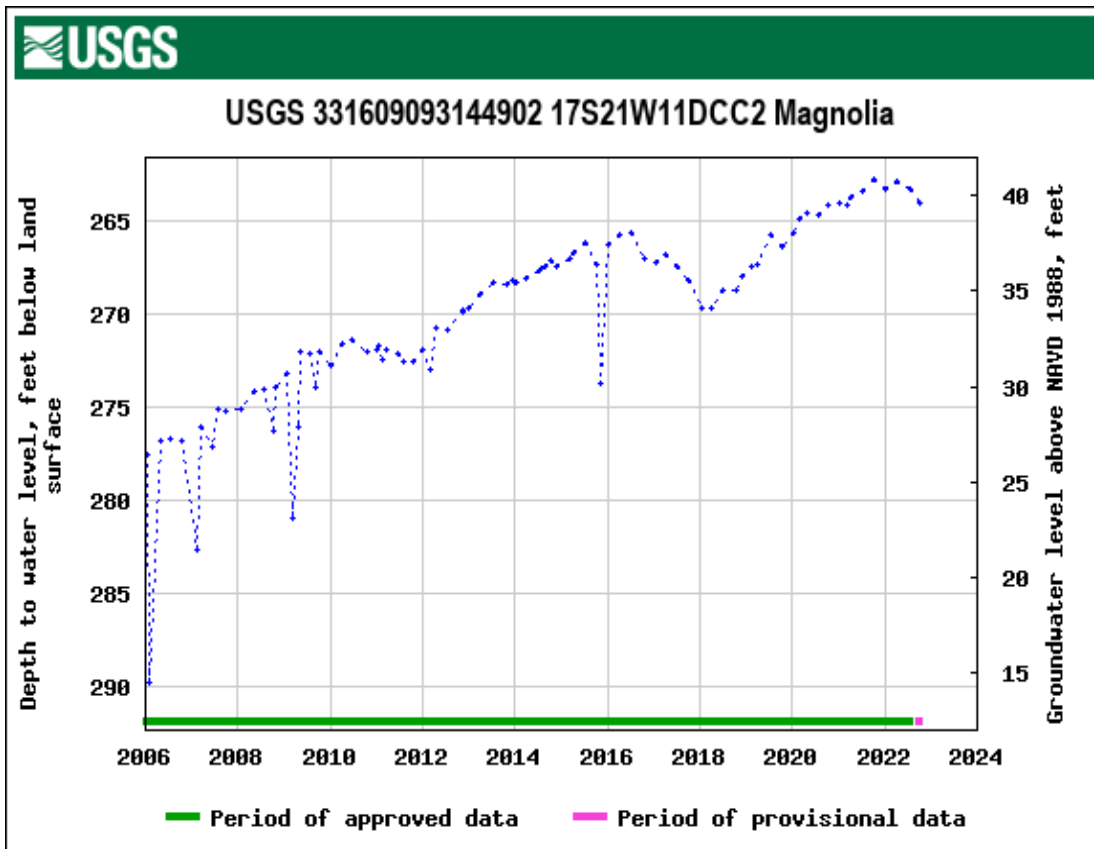


M. Union County, Well 17S15W18DBB1

**Figure 31.** Selected water level hydrographs from the Sparta aquifer

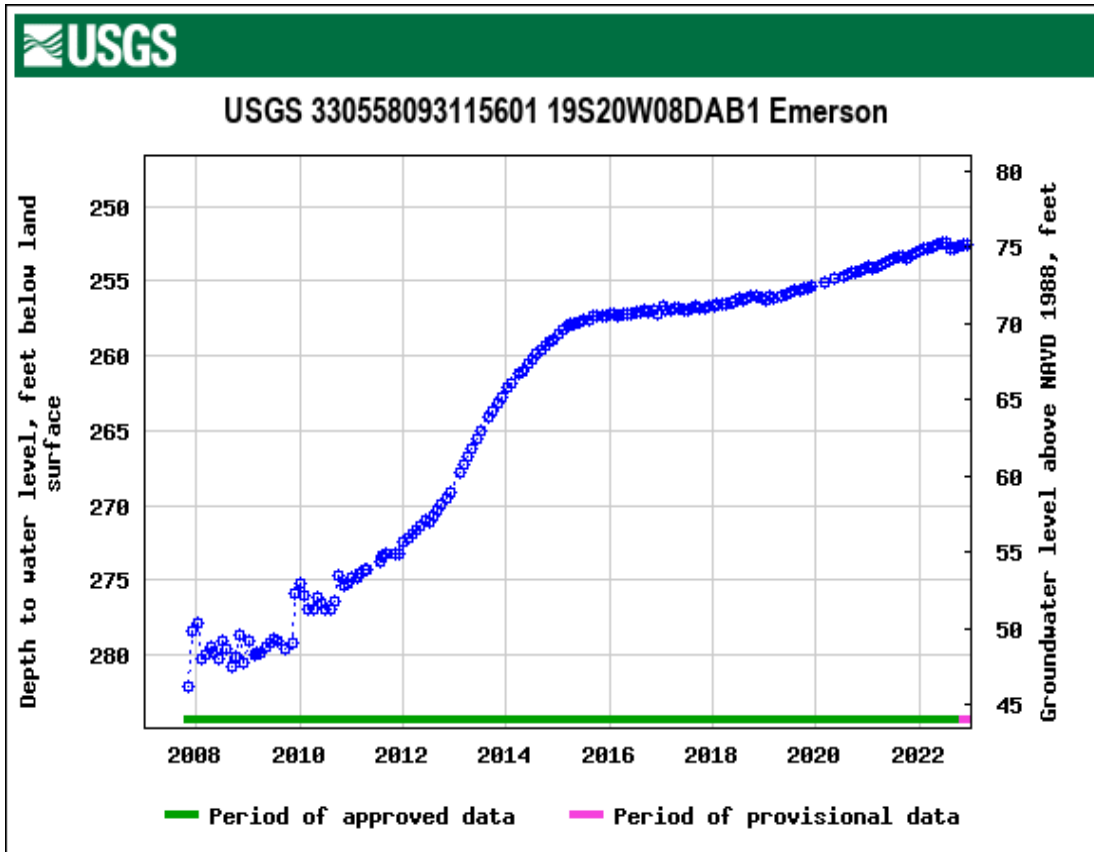


N. Union County, Well 18S17W22BDD1

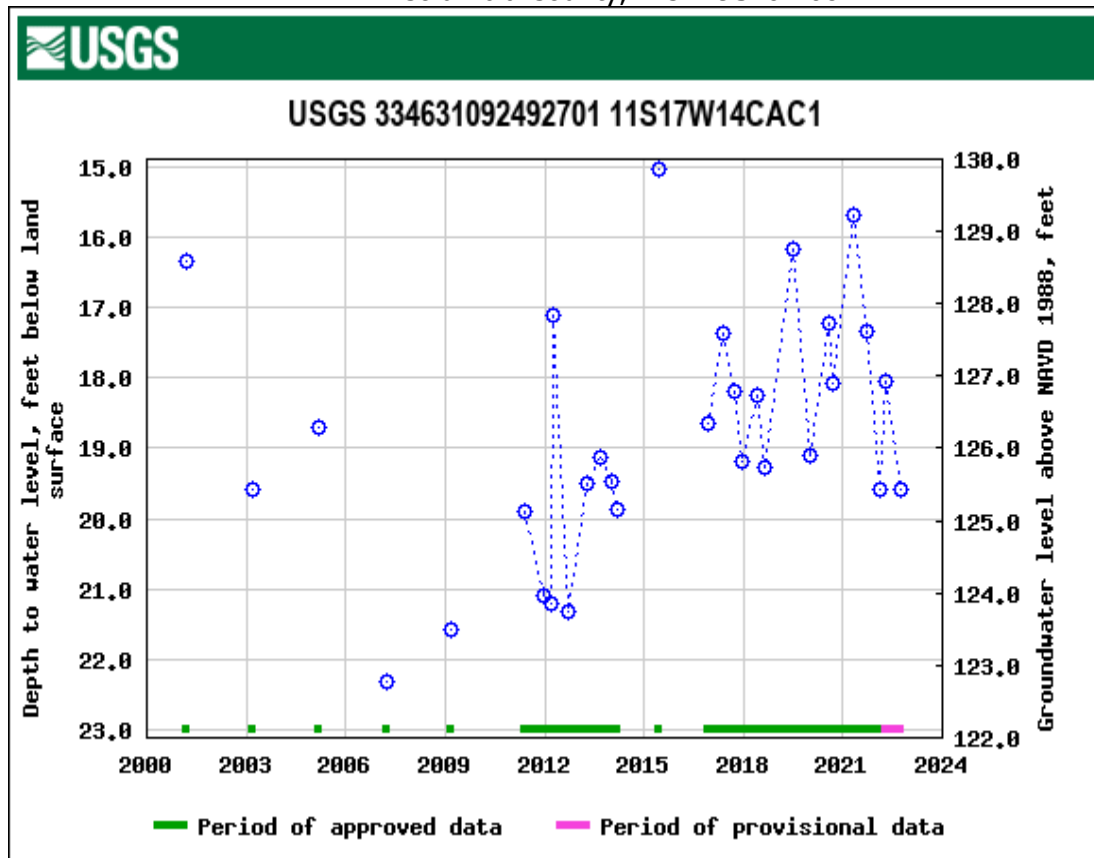


O. Columbia County, Well 17S21W11DCC2

**Figure 31.** Selected water level hydrographs from the Sparta aquifer



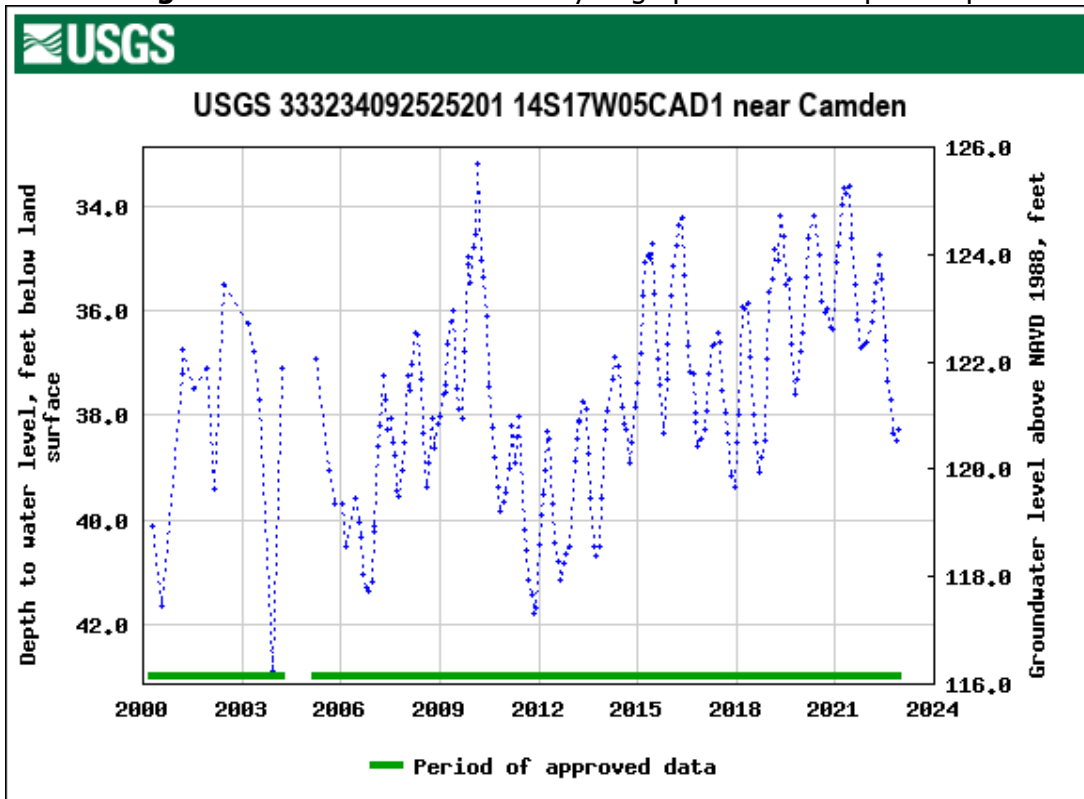
P. Columbia County, Well 19S20W08DAB1



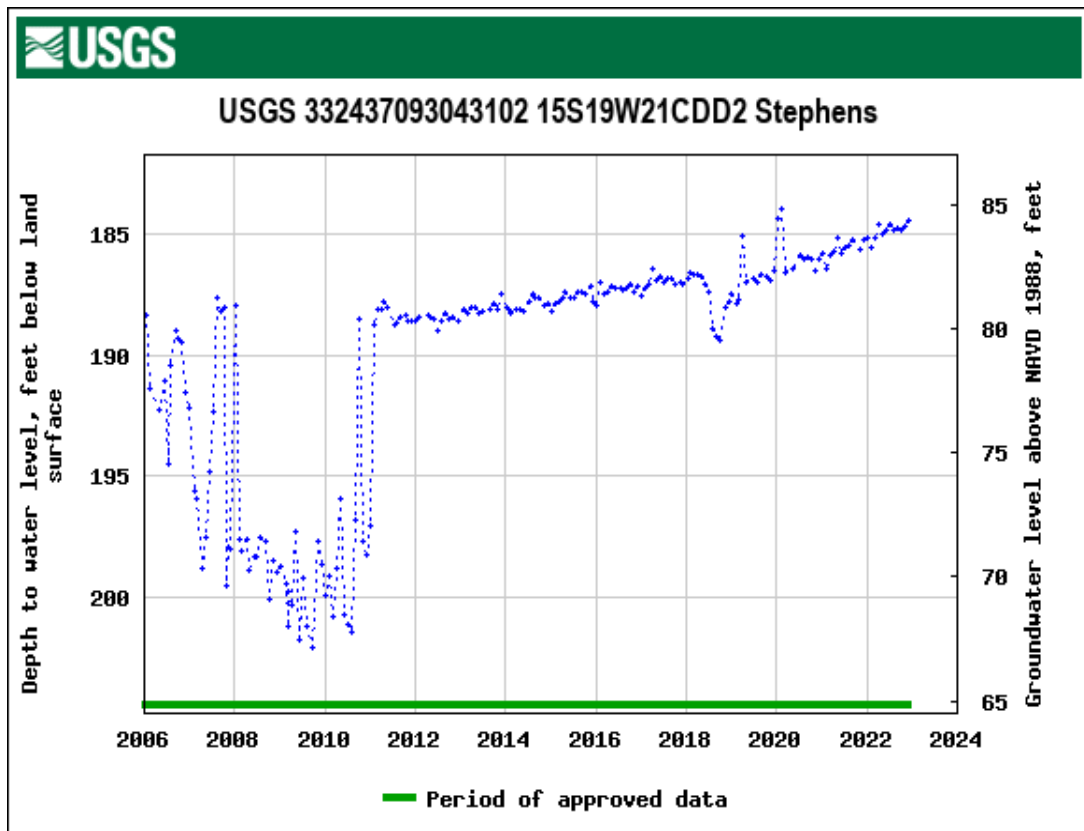
Q. Ouachita County, Well 11S17W14CAC1



Figure 31. Selected water level hydrographs from the Sparta aquifer



R. Ouachita County, Well14S17W05CAD1



S. Ouachita County, Well 15S19W21CDD2

## Water Level Trends, cont.

Due to the scarcity of data across the aquifer in 2022, study area specific water level change maps were only created for the South Arkansas study area. 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 +1.11, +6.97, and +15.47 feet in the one, five, and ten-year intervals, respectively (Figures 38, 39, and 40). These values are very consistent with those presented in last year's report (NRD, 2021). The area of most significant recovery continues to be Union County where several wells have positive water level change values as much as 56 feet over the 10-year period. Figures 38, 39, and 40 present the South Arkansas water level change data.

Aquifer-wide data trend analysis cannot be done using the 2022 dataset. However, according to the water use information that we have for the Sparta aquifer, and the estimated sustainable yield calculated in the past, it is expected that aquifer depletion is still a concern for the Sparta aquifer in Arkansas. There has been a statewide increase in water use in the Sparta aquifer from 139 million gallons per day (Mgal/d) in 1970 to approximately 160 Mgal/d in 2015. The estimated sustainable yield for the aquifer is 87 Mgal/d leaving an unmet demand of approximately 73 Mgal/d (McKee, 2003). The most recent significant increase in water use from the Sparta aquifer has been for agricultural irrigation in the Grand Prairie and Cache River study areas. In 2018, it is estimated that 68 Mgal/d, 78 percent of the estimated yield, was used from the Sparta aquifer for irrigation. Groundwater use will be further discussed in the Groundwater Use section of this report.

Appendix B presents a table of specific water-level monitoring data for the Sparta aquifer from the 2022 monitoring period, as well as the one, five, and ten- year water level change data.

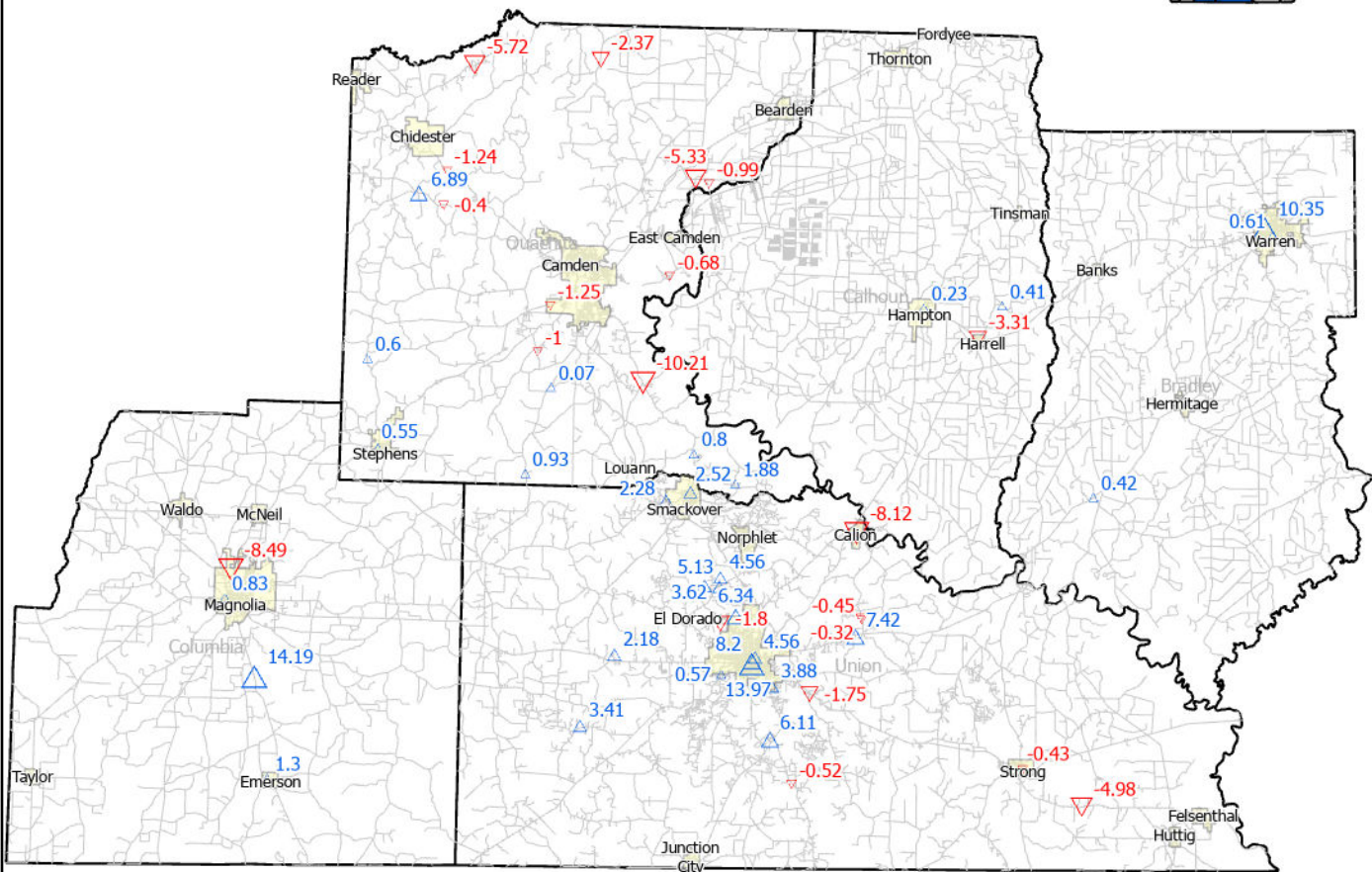
# Sparta Aquifer 2021-2022 Water Level Change (South Arkansas)



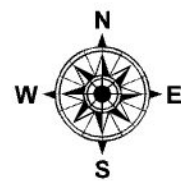
NATURAL RESOURCES  
DIVISION

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

**Average Change: +1.11 Ft.  
20 of 50 Wells Showed Declines**



| County   | Avg. Change, ft. |
|----------|------------------|
| Bradley  | +3.79            |
| Calhoun  | -0.89            |
| Columbia | +1.96            |
| Ouachita | -1.03            |
| Union    | +2.45            |



### Legend

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

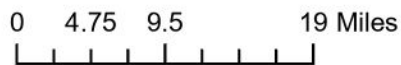


Figure 32

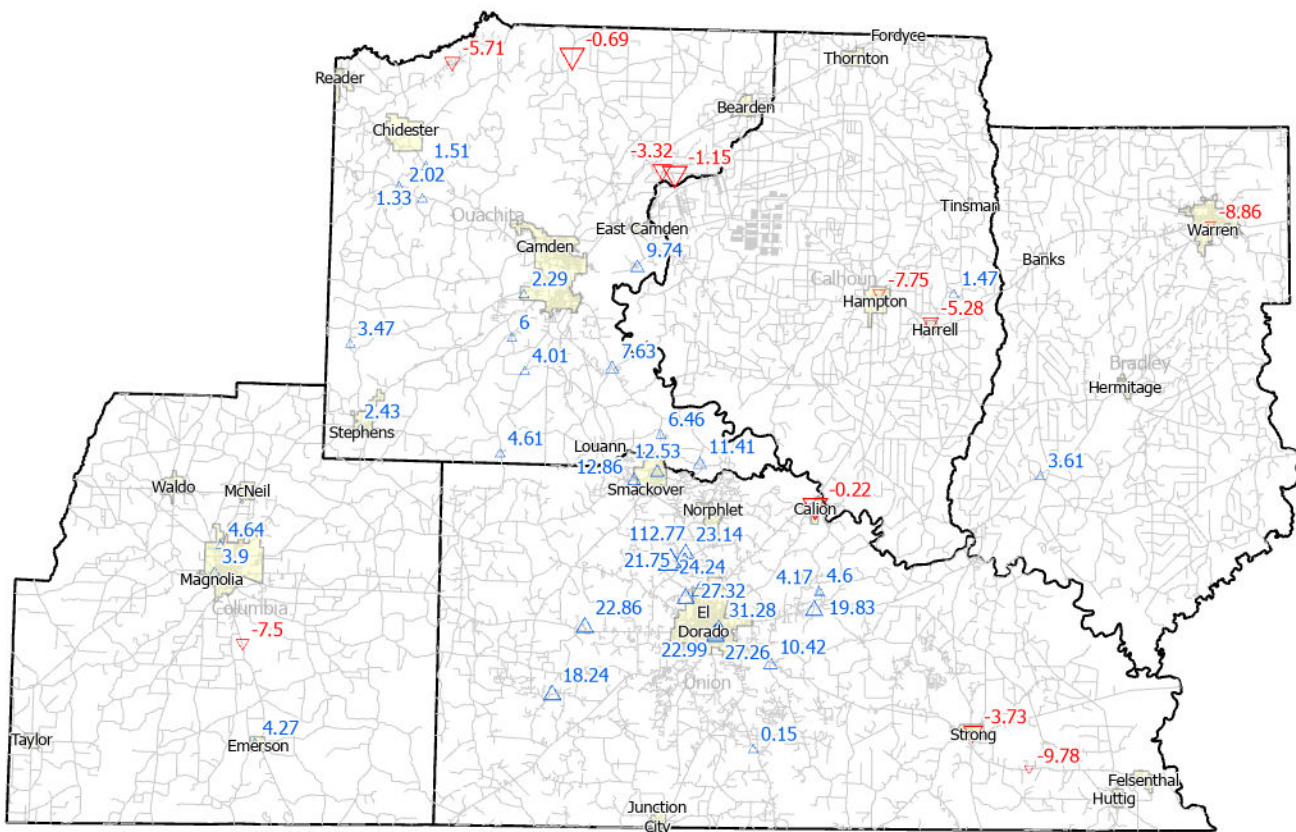
# Sparta Aquifer 2017-2022 Water Level Change (South Arkansas)



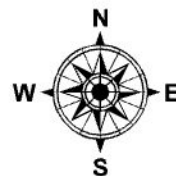
NATURAL RESOURCES  
DIVISION

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

**Average Change: +9.20 Ft.  
11 of 46 Wells Showed Declines**



| County   | Avg. Change, ft. |
|----------|------------------|
| Bradley  | -2.63            |
| Calhoun  | -3.85            |
| Columbia | +1.33            |
| Ouachita | +3.06            |
| Union    | +19.13           |



- Legend**
- △ Increases
  - ▽ Declines
  - Crowley's Ridge
  - County Boundaries

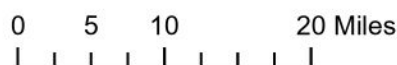


Figure 33



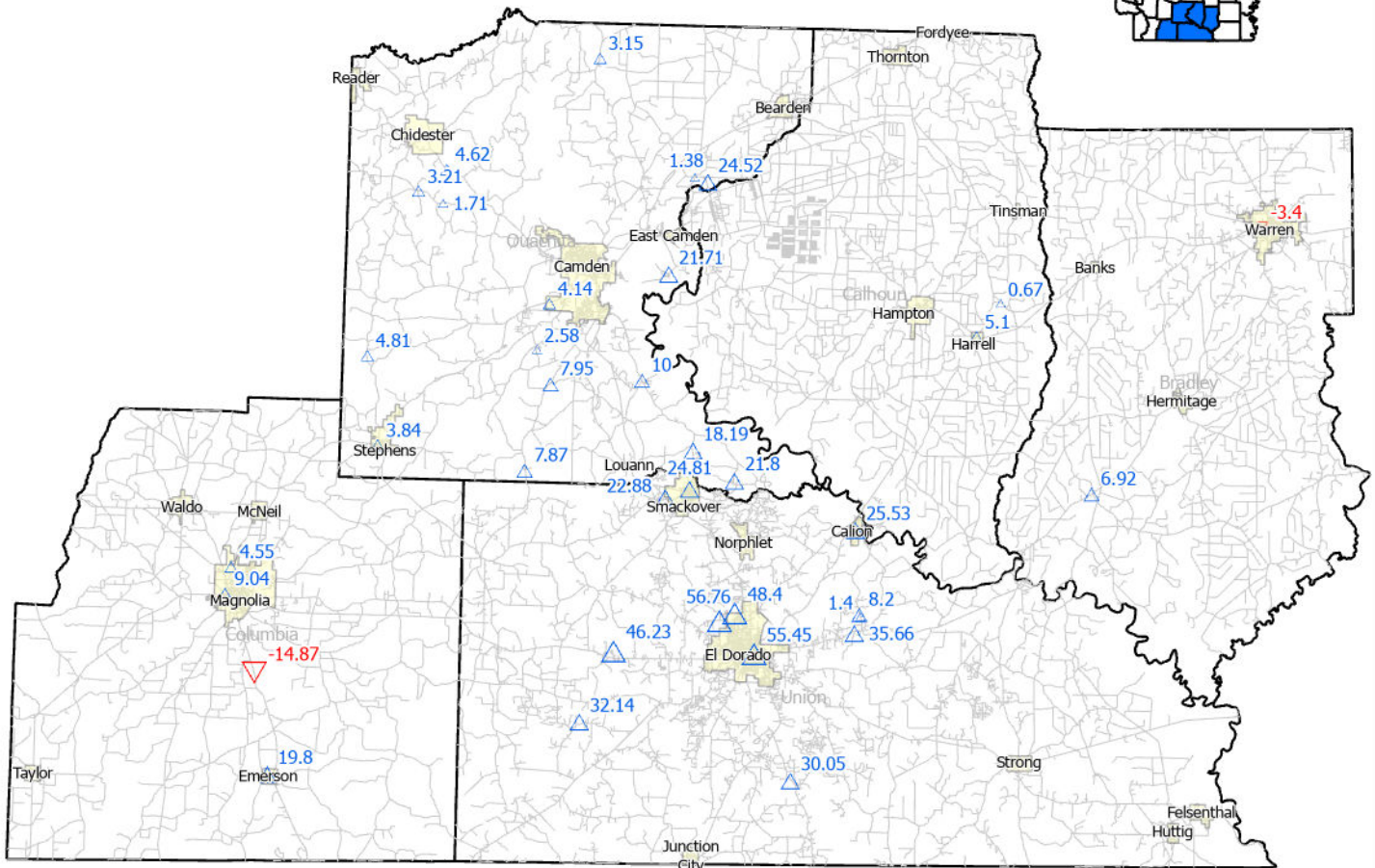
# Sparta Aquifer 2012-2022 Water Level Change (South Arkansas)



NATURAL RESOURCES  
DIVISION

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

**Average Change: +15.47 Ft.  
2 of 36 Wells Showed Declines**



| County   | Avg. Change, ft. |
|----------|------------------|
| Bradley  | +1.76            |
| Calhoun  | +2.89            |
| Columbia | +4.63            |
| Ouachita | +8.84            |
| Union    | +32.29           |

### Legend

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

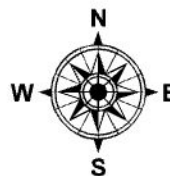


Figure 34

## 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 United States Geological Survey (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).

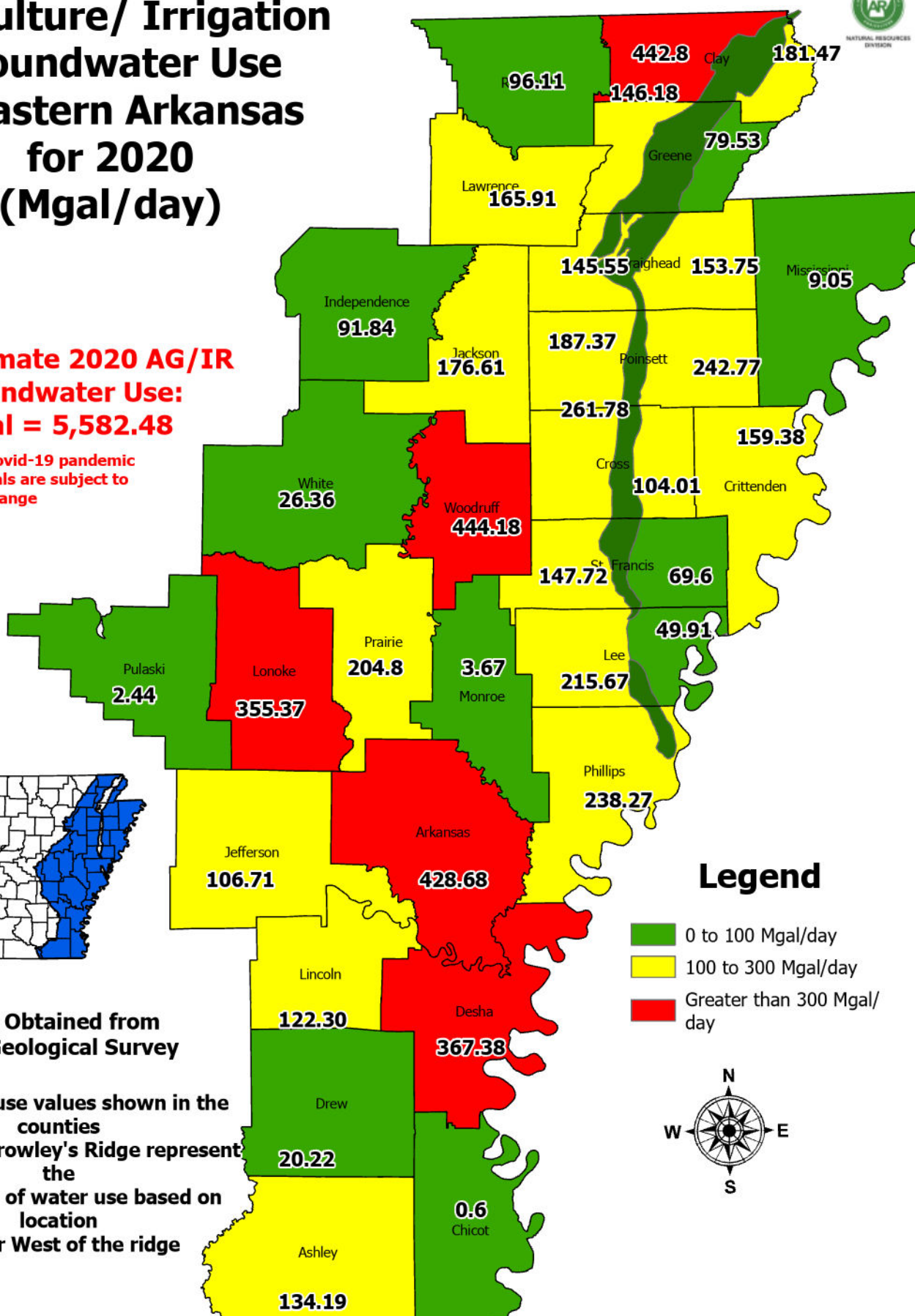
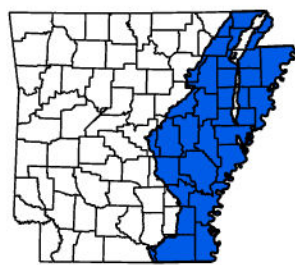
Historically, counties that report the largest groundwater withdrawals from the alluvial aquifer are the same counties with groundwater depletion issues. Arkansas, Lonoke, Poinsett, Woodruff, Clay, Desha, and Cross counties used the most groundwater for irrigation, based on 2020 reported water use numbers. This is mostly consistent with the areas of significant drawdown in the alluvial aquifer. Figure 35 presents the 2020 agricultural irrigation water use as reported at the time of this report.



# 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**



## Legend

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

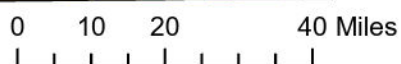
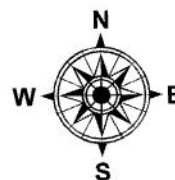


Figure 35

**\* 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

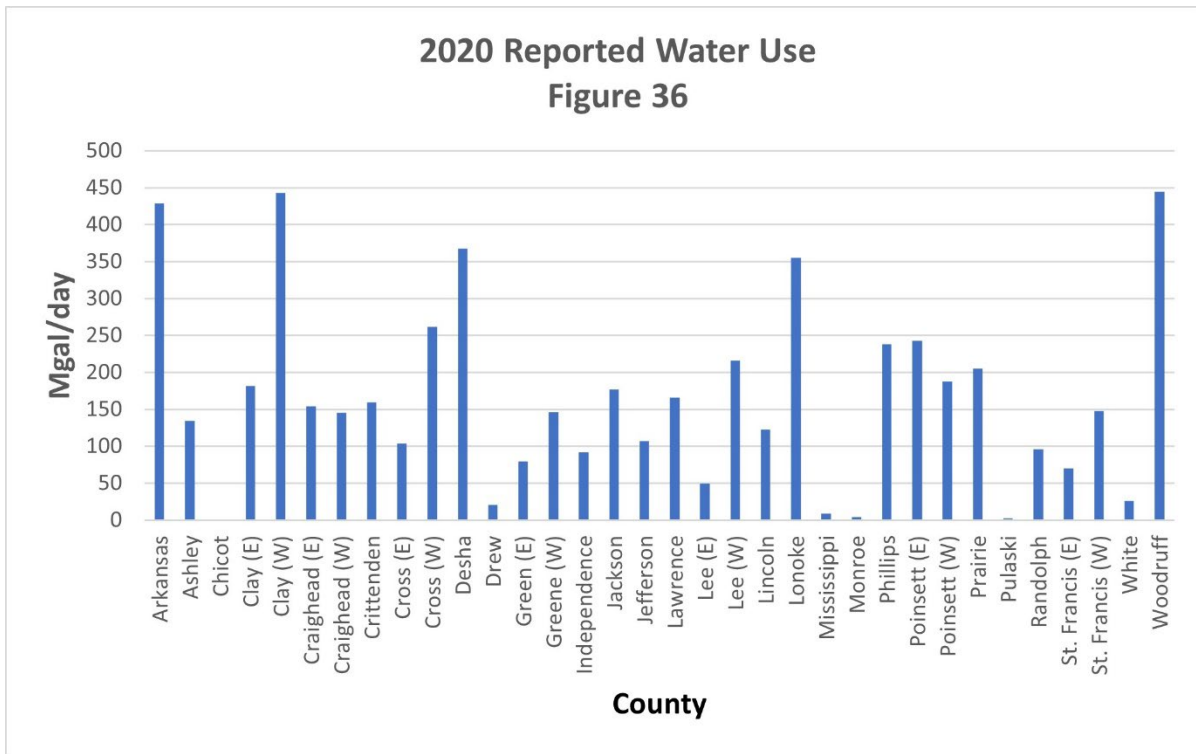


## Reported Water Use, cont.

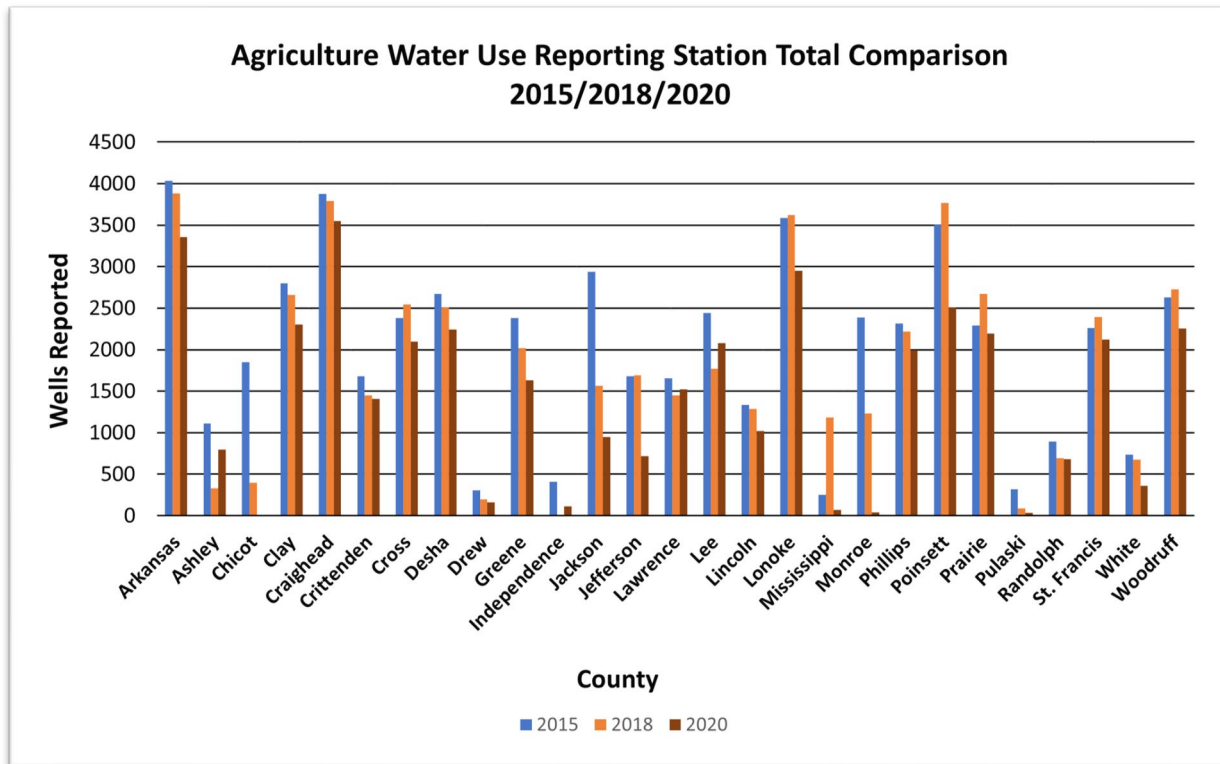
In consideration of the significant reduction in stations reporting in 2020 when compared to 2015, an effort was made to estimate the change in usage if reporting numbers were similar. Figure 36 shows the 2020 reported usage per county in Mgal/day. A graph comparing the number of stations reporting water use data from 2015, 2018, and 2020 can be seen in Figure 37.

Using this information, Figure 38 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 39 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 36: 2020 Reported Water Use**



**Figure 37: 2015-2018-2020 Agricultural Water Use Reporting Stations Comparison**

Figure 38  
2020 Estimated Usage Table

| County       | 2015            | 2018            | 2020            | Range of use per station |                | Avg yrly use/station | Change in # Stations | Estimated Usage | Low end   | High end  |
|--------------|-----------------|-----------------|-----------------|--------------------------|----------------|----------------------|----------------------|-----------------|-----------|-----------|
|              | Avg use/station | Avg use/station | Avg use/station | 2015-2018-2020           | 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    |
| Totals       |                 |                 |                 |                          |                |                      |                      | 2443.61         | 1953.55   | 3068.26   |

Figure 38: 2020 Estimated Usage Table

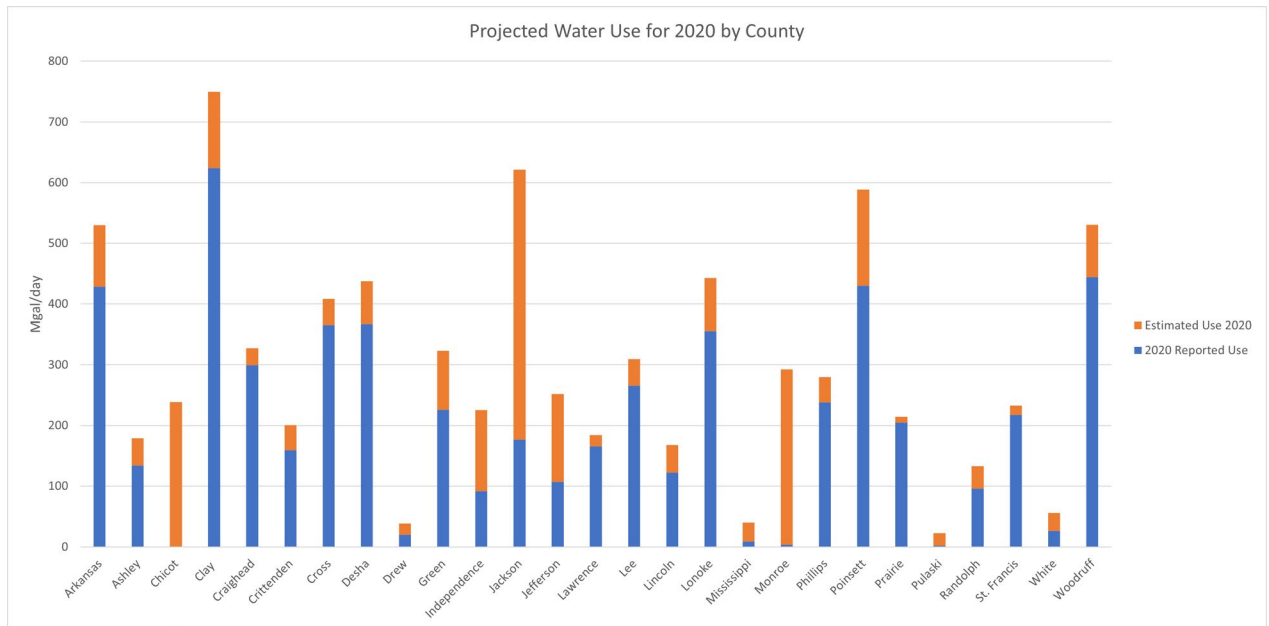
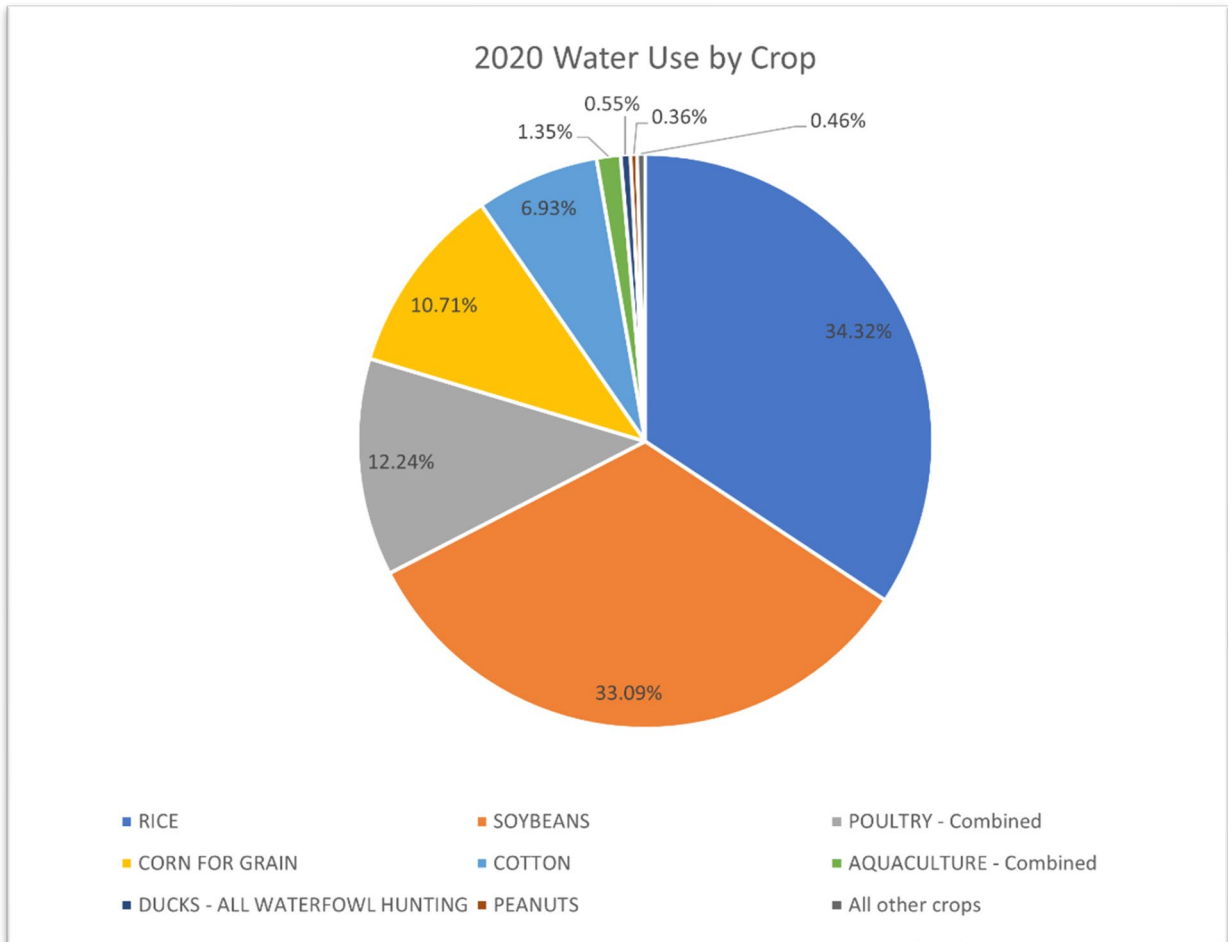


Figure 39: Estimated 2020 Water Use by County



**Figure 40: 2020 Water Use by Crop**

Figure 40 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.



## 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;
- The installation of water meters to monitor groundwater usage.

Figure 41 shows the locations of the water conservation projects that were approved for a tax credit for the years 2016 through 2022. 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     |

In 2022, 17 of the 79 approved projects provided an estimate of groundwater conserved, for a total estimated 1,971 acre feet per year. Surface water conversion projects and impoundments accounted for the majority of the estimated conservation with 1,695 acre feet per year. The remaining amount of 276 acre feet per year are attributable to land levelling projects. All of these projects are critically important parts of the effort to sustainably manage groundwater resources.

# Water Conservation Tax Credits Approved from 2016 to 2022

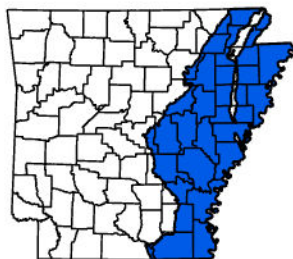
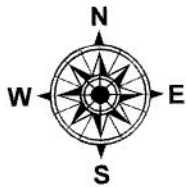
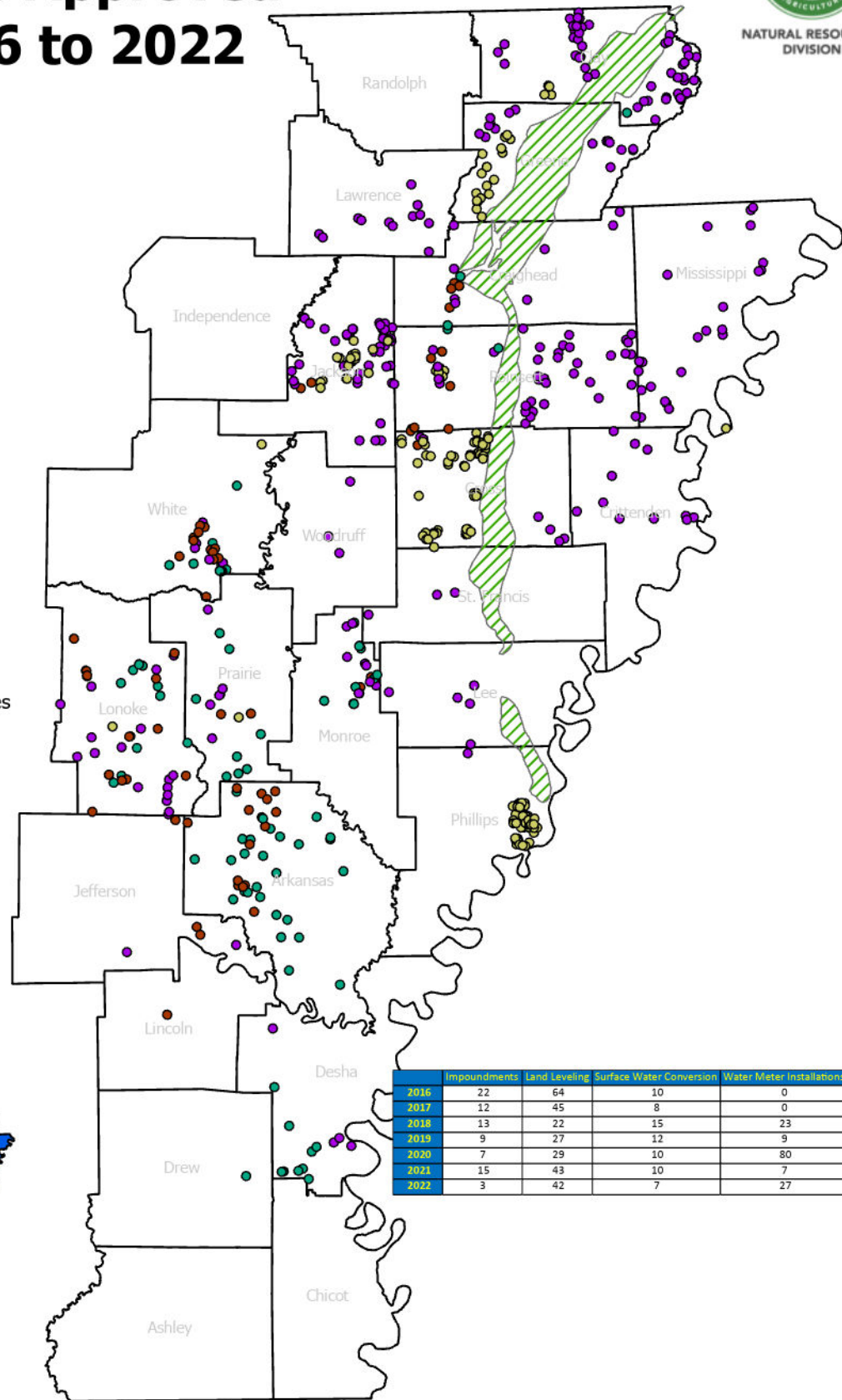


NATURAL RESOURCES DIVISION

## Legend

### Project Type

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



|      | Impoundments | Land Leveling | Surface Water Conversion | Water Meter Installations | Total |
|------|--------------|---------------|--------------------------|---------------------------|-------|
| 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    |



Figure 41

## Summary

The 2022 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, 414 water wells were measured in the spring of 2022, most of which were collected during the month of April prior to irrigation stresses during the growing season. As in previous reports, the spring 2022 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, 2021 to 2022, an average water level increase of 0.6 feet was calculated. For the five-year comparison, 2017 to 2022, and the ten-year comparison, 2012 to 2022, average water level changes of +2.66 feet (five year) and +1.05 feet (ten year) were calculated. The spring to fall 2022 data comparison resulted in an average water level change of -3.42 feet, which is 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 one, five, and ten-year trends representative of an overall rebound in aquifer water level. 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, dynamic system.

In the Sparta/Memphis (Sparta) aquifer, 99 synoptic water level measurements were collected for the spring 2022 dataset. When compared with historical spring data, the 2022 data shows average water level change values of +0.87, +8.21, and +13.72 feet in the one, five, and ten-year intervals, respectively. It should be noted that the spring 2021 to spring 2022 change value is only based on 58 wells due to poor coverage in the dataset. Positive average water level change values are consistent with previous, similar data comparisons. Data coverage for 2022 is concentrated mostly in the South Arkansas study area where historical declines have been the greatest. In 2022, there was a lack of data in the Beouf-Tensas, Cache, and St. Francis study areas.

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.

While we are seeing positive average change values in the one, five and even the 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 far above that which is estimated to be sustainable. So long as water use from these aquifers continues to exceed sustainable yield, the resource will continue to be depleted. 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.

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- USGS, 2022, Direct correspondence with USGS Staff regarding 2020 water use, November 2022.





**Appendix A**  
**Alluvial Aquifer Water Level Monitoring Data**



**Mississippi River Alluvial Aquifer  
Hydrologic Data 2012,2017,2021,2022**

| County   | Station ID Number | Latitude    | Longitude   | Land Surface Altitude | Aquifer Thickness | Saturated Thickness | Percent Saturated       | 2012 Depth to Water (ft.) | 2017 Depth to Water (ft.) | 2021 Depth to Water (ft.) | 2022 Depth to Water (ft.) | 1 Year Change (21 to 22) | 5 Year Change (17 to 22) | 10 Year Change (12 to 22) |
|----------|-------------------|-------------|-------------|-----------------------|-------------------|---------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|--------------------------|--------------------------|---------------------------|
| Arkansas | 02S04W110DB1      | 34.54246944 | -91.404225  | 213.04                | 130.64            | 34.69               | 26.55%                  | 100.08                    | 98.86                     | 95.87                     | 95.95                     | 0.08                     | 2.91                     | 4.13                      |
| Arkansas | 02S04W199AA1      | 34.50635    | -91.4860306 | 205                   | 127               | 22.03               | 17.35%                  |                           |                           | 105.79                    | 104.97                    | 0.82                     |                          |                           |
| Arkansas | 02S04W230DA1      | 34.51231944 | -91.3981194 | 207                   | 133               | 37.14               | 27.9%                   |                           |                           | 93.55                     | 95.86                     | 2.31                     |                          |                           |
| Arkansas | 02S05W09AA1       | 34.54833889 | -91.5396194 | 220                   | 133               | 11.57               | 8.70%                   |                           |                           | 121.43                    | 121.43                    |                          |                          |                           |
| Arkansas | 02S05W360DD1      | 34.47851944 | -91.4881194 | 212                   | 143               | 46.32               | 32.39%                  |                           |                           | 97.61                     | 96.68                     | 0.93                     |                          |                           |
| Arkansas | 03S03W05CC1       | 34.4602833  | -91.3588417 | 203                   | 122.47            | 25.15               | 20.54%                  | 99.78                     | 99.44                     | 97.66                     | 97.32                     | 0.34                     | 2.12                     | 2.46                      |
| Arkansas | 03S03W18CC1       | 34.43138889 | -91.3808333 | 196                   | 112               | 12.52               | 11.18%                  | 101.04                    | 101.55                    | 99.08                     | 99.48                     | 0.40                     | 2.07                     | 1.56                      |
| Arkansas | 03S03W278BC1      | 34.41520278 | -91.3289111 | 198                   | 137               | 46.23               | 33.74%                  | 93.09                     | 93.09                     | 91.6                      | 90.77                     | 0.83                     |                          | 2.32                      |
| Arkansas | 03S04W028BB1      | 34.4759756  | -91.4161748 | 197.63                | 121.4             | 29.45               | 24.26%                  | 93.35                     | 93.40                     | 92.48                     | 91.95                     | 0.53                     | 1.45                     | 1.40                      |
| Arkansas | 03S04W030CA16     | 34.4647333  | -91.4209361 | 200                   | 120               | 20.6                | 17.17%                  | 101.55                    | 101.39                    | 99.4                      | 99.4                      | 1.99                     |                          | 2.15                      |
| Arkansas | 03S04W030CA6      | 34.4648083  | -91.4210667 | 204                   | 120               | 20.92               | 17.43%                  |                           |                           | 99.72                     | 99.08                     | 0.64                     |                          |                           |
| Arkansas | 03S04W030DDA1     | 34.46391389 | -91.4167333 | 200                   | 120               | 20.42               | 17.07%                  | 105.19                    | 105.19                    | 100.14                    | 99.58                     | 0.56                     |                          | 5.61                      |
| Arkansas | 03S04W24CC1       | 34.41693056 | -91.3934    | 193                   | 113               | 31.81               | 28.15%                  |                           |                           | 82.16                     | 81.19                     | 0.97                     |                          |                           |
| Arkansas | 03S05W030CC1      | 34.4644861  | -91.5409528 | 215                   | 127.76            | 26.29               | 20.58%                  | 103.88                    | 103.35                    | 101.76                    | 101.47                    | 0.29                     | 1.88                     | 2.41                      |
| Arkansas | 03S05W13CBA2      | 34.44166667 | -91.5019444 | 211                   | 129               | 23.57               | 18.27%                  | 106.79                    | 106.14                    | 105.53                    | 105.43                    | 0.10                     | 0.71                     | 1.36                      |
| Arkansas | 03S05W24DAA1      | 34.4236583  | -91.4894389 | 207                   | 127.07            | 111.31              | 87.60%                  | 47.77                     | 45.81                     | 38.4                      | 15.76                     | 22.64                    | 30.05                    | 32.01                     |
| Arkansas | 04S04W035ADD1     | 34.40316667 | -91.6143528 | 190                   | 105               | 52.1                | 49.62%                  | 59.93                     | 55.45                     | 52.85                     | 52.9                      | 0.05                     | 2.55                     | 7.03                      |
| Arkansas | 04S04W02A8B1      | 34.387      | -91.4065806 | 200                   | 140.58            | 32.19               | 22.90%                  | 110.06                    | 110.92                    | 108.39                    | 110.06                    | 0.00                     | 2.53                     | 1.67                      |
| Arkansas | 04S04W35A8C1      | 34.31168889 | -91.4145194 | 193                   | 166.7             | 64.59               | 38.75%                  | 91.20                     | 92.00                     | 102.91                    | 102.11                    | 0.80                     | 10.11                    | 10.91                     |
| Arkansas | 05S03W09CBA1      | 34.2733333  | -91.3461111 | 196                   | 163               | 51.08               | 31.34%                  | 114.71                    | 113.90                    | 110.66                    | 111.92                    | 1.26                     | 1.98                     | 2.79                      |
| Arkansas | 05S03W16A8B1      | 34.2666667  | -91.3408333 | 197                   | 172.5             | 60.82               | 35.26%                  | 115.4                     | 115.4                     | 111.13                    | 111.68                    | 0.55                     | 3.72                     |                           |
| Arkansas | 05S04W14A4D1      | 34.26365    | -91.4034417 | 189                   | 162.6             | 95.71               | 58.86%                  | 90.30                     | 90.30                     | 88.09                     | 66.89                     | 21.20                    | 23.41                    |                           |
| Arkansas | 05S04W328BA1      | 34.22110278 | -91.3416167 | 187                   | 168.31            | 116.32              | 69.11%                  | 56.62                     | 54.57                     | 52.09                     | 51.92                     | 0.10                     | 2.58                     | 4.63                      |
| Arkansas | 06S03W10B8A1      | 34.193325   | -91.3316167 | 184                   | 164.03            | 89.11               | 54.33%                  | 79.36                     | 80.84                     | 76.29                     | 74.92                     | 1.37                     | 5.92                     | 4.44                      |
| Arkansas | 06S03W32ADD1      | 34.12777778 | -91.3541667 | 178                   | 161               | 112.24              | 69.71%                  | 48.89                     | 48.95                     | 48.17                     | 48.76                     | 0.59                     |                          |                           |
| Arkansas | 07S02W178BA1      | 34.0916222  | -91.2607278 | 184                   | 164.3             | 119.33              | 72.63%                  | 48.89                     | 48.95                     | 40.25                     | 44.97                     | 4.72                     | 3.98                     | 3.92                      |
| Arkansas | 07S03W328BC1      | 34.0437778  | -91.3732194 | 176.92                | 152.99            | 130.27              | 85.15%                  | 24.22                     | 23.90                     | 21.4                      | 22.72                     | 1.32                     | 1.18                     | 1.50                      |
| Arkansas | 07S04W01DD1       | 34.10701389 | -91.390875  | 181                   | 163.4             | 121.78              | 74.53%                  | 21.91                     | 29.36                     | 41.29                     | 41.62                     | 0.33                     | 12.26                    | 19.71                     |
|          |                   |             |             |                       |                   |                     | <b>Avg % Saturated:</b> |                           |                           |                           |                           | <b>10</b>                | <b>2</b>                 | <b>2</b>                  |
|          |                   |             |             |                       |                   |                     | <b>Min % Saturated:</b> |                           |                           |                           |                           | <b>26</b>                | <b>19</b>                | <b>19</b>                 |
|          |                   |             |             |                       |                   |                     | <b>Max % Saturated:</b> |                           |                           |                           |                           | <b>1.56</b>              | <b>3.61</b>              | <b>2.67</b>               |
|          |                   |             |             |                       |                   |                     |                         |                           |                           |                           |                           |                          |                          |                           |
|          |                   |             |             |                       |                   |                     |                         |                           |                           |                           |                           |                          |                          |                           |
| Ashley   | 15S04W238AA1      | 33.37813056 | -91.4821    | 125                   | 83.00             | 54.61               | 65.80%                  |                           |                           | 28.59                     | 28.59                     | 0.20                     |                          |                           |
| Ashley   | 16S06W08CA1       | 33.32815    | -91.7439611 | 184                   | 141.00            | 62.48               | 44.31%                  | 77.33                     | 77.33                     | 78.52                     | 78.52                     | 0.00                     |                          | 1.19                      |
| Ashley   | 16S06W250DD1      | 33.27777778 | -91.6661111 | 180                   | 212.00            | 133.07              | 62.77%                  | 79.42                     | 80.44                     | 79.26                     | 78.93                     | 0.33                     | 1.51                     | 0.49                      |
| Ashley   | 16S06W278BA1      | 33.2915722  | -91.7111694 | 183                   | 172.00            | 86.84               | 50.49%                  | 35.26                     | 35.26                     | 25.55                     | 25.55                     | 1.59                     |                          | 8.12                      |
| Ashley   | 17S04W03A8B1      | 33.25808056 | -91.50275   | 124                   | 158.00            | 130.86              | 82.82%                  | 31.83                     | 31.83                     | 20.33                     | 22.69                     | 2.36                     |                          | 9.14                      |
| Ashley   | 17S04W150DD1      | 33.21457778 | -91.4985583 | 116                   | 185.00            | 162.31              | 87.74%                  | 28.17                     | 28.17                     | 16.84                     | 19.7                      | 2.86                     |                          | 8.47                      |
| Ashley   | 17S06W35CAC1      | 33.1803861  | -91.6935528 | 179                   | 232.00            | 158.41              | 68.28%                  | 72.42                     | 72.42                     | 73.59                     | 73.59                     |                          |                          | 1.17                      |
| Ashley   | 18S04W230DD1      | 33.11427778 | -91.4947778 | 115                   | 155.20            | 126.29              | 81.37%                  | 32.01                     | 32.01                     | 33.46                     | 28.91                     | 4.55                     | 3.10                     |                           |
| Ashley   | 18S05W11CCD1      | 33.13794444 | -91.5936944 | 117                   | 240.00            | 223.66              | 93.19%                  | 21.00                     | 26.52                     | 16.34                     | 16.34                     | 7.93                     | 10.18                    | 4.66                      |
| Ashley   | 18S08W01AAB1      | 33.170825   | -91.8736444 | 178                   | 152.00            | 65.77               | 43.27%                  | 85.22                     | 85.22                     | 86.42                     | 86.23                     | 0.19                     |                          | 1.01                      |
| Ashley   | 19S05W08CA1       | 33.0685278  | -91.6375278 | 109                   | 179.00            | 165.58              | 92.50%                  | 28.40                     | 21.26                     | 29.41                     | 13.42                     | 15.99                    | 2.31                     | 9.45                      |
| Ashley   | 19S05W220CD1      | 33.02744444 | -91.6044444 | 108                   | 126.60            | 107.65              | 85.03%                  | 31.56                     | 31.56                     | 17.37                     | 18.95                     | 1.58                     |                          | 0.48                      |
| Ashley   | 19S06W078CC1      | 33.06765556 | -91.7688667 | 134.7                 | 103.00            | 71.92               | 69.83%                  |                           |                           |                           | 31.08                     |                          |                          |                           |
|          |                   |             |             |                       |                   |                     | <b>Avg % Saturated:</b> |                           |                           |                           |                           | <b>4</b>                 | <b>0</b>                 | <b>3</b>                  |
|          |                   |             |             |                       |                   |                     | <b>Min % Saturated:</b> |                           |                           |                           |                           | <b>12</b>                | <b>4</b>                 | <b>10</b>                 |
|          |                   |             |             |                       |                   |                     | <b>Max % Saturated:</b> |                           |                           |                           |                           | <b>1.77</b>              | <b>4.28</b>              | <b>3.74</b>               |
|          |                   |             |             |                       |                   |                     |                         |                           |                           |                           |                           |                          |                          |                           |
|          |                   |             |             |                       |                   |                     |                         |                           |                           |                           |                           |                          |                          |                           |
| Chicot   | 13S03W27AAA1      | 33.54855    | -91.3851222 | 138                   | 85.00             | 39.15               | 46.06%                  | 49.30                     | 46.00                     | 45.85                     | 45.85                     | 0.15                     |                          | 3.45                      |
| Chicot   | 13S03W34CAA1      | 33.5265333  | -91.3932778 | 134                   | 79.00             | 40.55               | 51.33%                  |                           |                           | 40.31                     | 38.45                     | 1.86                     |                          |                           |
| Chicot   | 13S03W35BAC1      | 33.53168056 | -91.3791319 | 133                   | 79.00             | 38.68               | 48.96%                  | 44.40                     | 43.49                     | 43.49                     | 40.32                     | 3.17                     |                          | 4.08                      |
| Chicot   | 14S03W078DD1      | 33.50308056 | -91.4388889 | 137                   | 81.00             | 53.91               | 66.56%                  | 30.90                     | 30.90                     | 27.6                      | 27.6                      | 0.51                     |                          | 3.81                      |
| Chicot   | 14S03W32CDB2      | 33.437075   | -91.4309583 | 134                   | 82.00             | 42.09               | 51.33%                  | 40.14                     | 40.14                     | 40.47                     | 39.91                     | 0.56                     |                          | 0.23                      |
| Chicot   | 15S02W20DDC1      | 33.37405278 | -91.322175  | 126                   | 100.00            | 65.05               | 65.05%                  | 31.75                     | 31.75                     | 35.72                     | 34.95                     | 0.77                     |                          | 3.20                      |
| Chicot   | 16S03W150AD1      | 33.305      | -91.3927778 | 118                   | 121.23            | 87.33               | 72.04%                  | 33.94                     | 34.46                     | 33.52                     | 33.95                     | 0.38                     | 0.56                     | 0.04                      |





**Mississippi River Alluvial Aquifer  
Hydrologic Data 2012,2017,2021,2022**

| County     | Station ID Number | Latitude    | Longitude   | Land Surface Altitude | Aquifer Thickness | Saturated Thickness                                      | Percent Saturated | 2012 Depth to Water (ft.) | 2017 Depth to Water (ft.) | 2021 Depth to Water (ft.) | 2022 Depth to Water (ft.)                            | 1 Year Change (21 to 22) | 5 Year Change (17 to 22) | 10 Year Change (12 to 22) |                 |
|------------|-------------------|-------------|-------------|-----------------------|-------------------|--|-------------------|---------------------------|---------------------------|---------------------------|--|--------------------------|--------------------------|---------------------------|-----------------|
| Craighead  | 15N07E35DCB1      | 35.8786     | -90.3096306 | 234                   | 113.00            | 103.02   | 91.17%            | 14.50                     | 18.31                     |                           | 9.98   |                          | 8.33                     | 4.52                      |                 |
|            |                   |             |             |                       |                   | Avg % Saturated:<br>Min % Saturated:<br>Max % Saturated: |                   |                           |                           |                           | Wells in Decline:<br>Total Wells:<br>Average Change: |                          | 5<br>6<br>0.54           | 1<br>14<br>1.30           | 2<br>14<br>1.92 |
| Crittenden | 05N07E04CC1       | 35.0744361  | -90.3557833 | 200                   | 115.00            | 105.10   | 91.39%            |                           |                           |                           | 9.9  |                          |                          |                           |                 |
| Crittenden | 05N07E28CB1       | 35.02258889 | -90.3610694 | 201                   | 133.78            | 119.35   | 89.21%            | 16.06                     | 17.89                     | 14.38                     | 14.43  | 0.05                     | 3.46                     | 1.63                      |                 |
| Crittenden | 05N07E34BA1       | 35.0164972  | -90.3416278 | 203                   | 136.18            | 129.86   | 95.36%            | 14.36                     | 17.16                     | 11.42                     | 14.42  | 5.10                     | 10.84                    | 8.04                      |                 |
| Crittenden | 05N07E34DD1       | 35.00906944 | -90.3335917 | 205                   | 135.00            | 104.41   | 77.34%            |                           | 13.30                     |                           | 30.59  |                          | 17.29                    |                           |                 |
| Crittenden | 06N07E13BA1       | 35.14710556 | -90.3021028 | 207                   | 125.00            | 106.73   | 85.38%            | 20.79                     | 21.46                     | 18.1                      | 18.27  | 0.17                     | 3.19                     | 2.52                      |                 |
| Crittenden | 07N06E19CC1       | 35.2160972  | -90.5014722 | 210                   | 141.00            | 113.50   | 80.50%            |                           |                           |                           | 27.5   |                          |                          |                           |                 |
| Crittenden | 07N06E24DC1       | 35.21045    | -90.4169472 | 210                   | 136.00            | 134.65   | 99.01%            |                           |                           |                           | 1.35   |                          |                          |                           |                 |
| Crittenden | 07N07E05DAD1      | 35.2495111  | -90.3542611 | 215                   | 143.00            | 112.80   | 78.88%            | 30.98                     | 25.26                     | 29.77                     | 30.2   | 0.43                     | 4.94                     | 0.78                      |                 |
| Crittenden | 07N07E31CC1       | 35.17830556 | -90.3997139 | 207                   | 136.61            | 103.39   | 75.68%            | 36.53                     | 37.28                     | 34.19                     | 33.22  | 0.97                     | 4.06                     | 3.31                      |                 |
| Crittenden | 07N08E04BB1       | 35.25596944 | -90.2409278 | 224                   | 138.00            | 121.10   | 87.75%            |                           |                           |                           | 16.9   |                          | 9.26                     |                           |                 |
| Crittenden | 08N06E01DCC1      | 35.336425   | -90.4107361 | 217                   | 122.00            | 91.26  | 74.80%            |                           | 40.00                     |                           | 30.74  |                          | 9.26                     |                           |                 |
| Crittenden | 08N06E26BB1       | 35.2936111  | -90.4311111 | 211                   | 124.00            | 92.09  | 74.27%            |                           | 35.47                     |                           | 31.91  |                          | 3.56                     |                           |                 |
| Crittenden | 08N07E32DAA1      | 35.27009167 | -90.366215  | 217                   | 129.00            | 115.54   | 89.57%            |                           | 29.50                     |                           | 13.46  |                          | 16.04                    |                           |                 |
| Crittenden | 08N07E34BD1       | 35.33633649 | -90.2716524 | 220                   | 133.00            | 128.99   | 96.98%            |                           |                           |                           | 4.01   |                          |                          |                           |                 |
| Crittenden | 08N07E35BBC1      | 35.275      | -90.3258333 | 222                   | 145.00            | 114.95   | 79.28%            | 32.56                     |                           | 29.83                     | 30.05  | 0.22                     |                          | 2.51                      |                 |
| Crittenden | 09N05E29DA1       | 35.37665    | -90.4842583 | 213.18                | 118.00            | 106.15   | 89.96%            |                           |                           |                           | 11.85  |                          |                          |                           |                 |
| Crittenden | 09N07E02CDB1      | 35.4241222  | -90.3233806 | 225                   | 119.00            | 88.48  | 74.35%            |                           | 35.20                     |                           | 30.52  |                          | 4.68                     |                           |                 |
| Crittenden | 09N07E10DD1       | 35.41321667 | -90.3235111 | 219                   | 124.88            | 97.64  | 78.19%            | 28.84                     | 29.02                     | 27.15                     | 27.24  | 0.09                     | 1.78                     | 1.60                      |                 |
| Crittenden | 09N07E20DCC1      | 35.3822222  | -90.3661111 | 213                   | 118.00            | 90.50  | 76.69%            |                           | 30.24                     |                           | 28.25  |                          | 2.74                     |                           |                 |
| Crittenden | 09N07E31BA1       | 35.366625   | -90.3907139 | 221                   | 124.70            | 92.88  | 74.48%            | 33.20                     | 33.73                     | 31.8                      | 31.82  | 0.02                     | 1.91                     | 1.38                      |                 |
| Crittenden | 09N08E17AB1       | 35.40879444 | -90.2549667 | 223                   | 139.00            | 108.81   | 78.28%            |                           |                           |                           | 30.19  |                          |                          |                           |                 |
|            |                   |             |             |                       |                   | Avg % Saturated:<br>Min % Saturated:<br>Max % Saturated: |                   |                           |                           |                           | Wells in Decline:<br>Total Wells:<br>Average Change: |                          | 6<br>10<br>0.68          | 2<br>8<br>3.02            | 0<br>8<br>2.72  |
| Cross      | 06N05E05AAA1      | 35.1736861  | -90.5342083 | 207                   | 148.00            | 112.78   | 76.20%            | 40.50                     | 41.00                     | 41.82                     | 35.22  | 6.60                     | 5.78                     | 5.28                      |                 |
| Cross      | 07N01E06ACC1      | 35.26319444 | -91.02625   | 221                   | 141.00            | 60.54  | 42.94%            |                           |                           | 92.5                      | 80.46  | 12.04                    |                          |                           |                 |
| Cross      | 07N02E02CDD1      | 35.2522222  | -90.8536111 | 227                   | 109.00            | 22.28  | 20.44%            | 84.14                     | 86.9                      | 86.9                      | 86.72  | 0.18                     |                          | 2.58                      |                 |
| Cross      | 07N05E25ABA1      | 35.20801944 | -90.5124417 | 205                   | 143.00            | 108.54   | 75.90%            | 38.28                     | 38.85                     | 38.85                     | 34.46  | 4.39                     | 3.82                     |                           |                 |
| Cross      | 08N05E32ADD1      | 35.2754583  | -90.5779028 | 206                   | 138.00            | 113.51   | 82.25%            | 27.23                     | 28.54                     | 26.12                     | 24.49  | 1.63                     | 4.05                     | 2.74                      |                 |
| Cross      | 09N01E12CBB1      | 35.41805556 | -90.9480556 | 228                   | 148.00            | 46.55  | 31.45%            |                           |                           | 100.75                    | 101.45   | 0.70                     |                          |                           |                 |
| Cross      | 09N01E33BB1       | 35.3674333  | -91.0001667 | 225                   | 148.00            | 57.60  | 38.95%            |                           |                           | 90.4                      | 90.4   |                          |                          |                           |                 |
| Cross      | 09N02E20AAA1      | 35.3937278  | -90.8952472 | 230                   | 150.00            | 47.27  | 31.51%            | 99.00                     | 125.00                    | 111.7                     | 102.73   | 8.97                     | 22.27                    | 3.73                      |                 |
| Cross      | 09N05E32BDB1      | 35.3640361  | -90.5866972 | 213                   | 121.00            | 95.36  | 78.81%            | 28.99                     | 28.80                     | 27.4                      | 25.64  | 1.76                     | 3.16                     | 3.35                      |                 |
|            |                   |             |             |                       |                   | Avg % Saturated:<br>Min % Saturated:<br>Max % Saturated: |                   |                           |                           |                           | Wells in Decline:<br>Total Wells:<br>Average Change: |                          | 1<br>7<br>4.35           | 0<br>5<br>7.93            | 2<br>6<br>1.48  |
| Desha      | 07S01E19ABA1      | 34.0758611  | -91.04925   | 158                   | 96.40             | 82.94  | 86.04%            | 14.00                     | 18.00                     | 15                        | 13.46  | 1.54                     | 4.54                     | 0.54                      |                 |
| Desha      | 08S03W33ABD1      | 33.96747778 | -91.3939389 | 165.04                | 147.00            | 139.72   | 95.05%            | 6.57                      | 6.57                      | 4.8                       | 7.28   | 2.48                     |                          | 0.71                      |                 |
| Desha      | 09S01W08BDA1      | 33.9543889  | -91.2094806 | 156                   | 137.00            | 113.86   | 83.11%            | 23.40                     | 19.64                     | 19.64                     | 23.14  | 3.50                     |                          | 0.26                      |                 |
| Desha      | 09S02W26DDC1      | 33.88238056 | -91.2582333 | 149                   | 138.00            | 111.82   | 81.03%            | 33.28                     | 34.42                     | 28.2                      | 26.18  | 2.02                     | 8.24                     | 7.10                      |                 |
| Desha      | 09S03W05BAC1      | 33.9512133  | -91.4184544 | 161                   | 144.00            | 103.00   | 71.53%            | 48.60                     | 40.85                     | 40.85                     | 41   | 0.15                     | 7.60                     | 7.60                      |                 |
| Desha      | 09S03W13BAB1      | 33.9168     | -91.328722  | 157                   | 130.00            | 107.30   | 82.54%            | 36.50                     | 36.50                     | 28.95                     | 27.7   | 6.25                     | 13.80                    |                           |                 |
| Desha      | 09S03W17DCB1      | 33.9133972  | -91.4157389 | 155.08                | 137.00            | 100.02   | 73.01%            | 37.38                     | 37.38                     | 36.86                     | 36.98  | 0.12                     | 0.40                     |                           |                 |
| Desha      | 10S01W23CDA1      | 33.875861   | -91.1789806 | 152                   | 140.00            | 120.77   | 86.26%            | 23.00                     | 26.13                     | 23.00                     | 26.13  | 6.90                     | 3.77                     |                           |                 |
| Desha      | 10S02W20ADA1      | 33.8211111  | -91.3069444 | 147                   | 126.26            | 83.64  | 66.24%            | 42.16                     | 45.01                     | 43.27                     | 42.62  | 0.65                     | 2.39                     | 0.46                      |                 |
| Desha      | 10S04W03BAB1      | 33.8690583  | -91.4965722 | 164                   | 143.00            | 102.49   | 71.67%            | 39.55                     | 39.55                     | 40.17                     | 40.51  | 0.34                     | 0.86                     | 0.96                      |                 |
| Desha      | 10S04W11DDA1      | 33.8420361  | -91.4671333 | 156                   | 133.00            | 95.50  | 71.80%            | 35.52                     | 35.52                     | 38.36                     | 37.5   | 0.86                     | 1.98                     |                           |                 |
| Desha      | 10S04W12CCB1      | 33.84666667 | -91.465     | 156                   | 136.00            | 98.60  | 72.50%            |                           |                           | 37.44                     | 37.4   | 0.04                     |                          |                           |                 |

Mississippi River Alluvial Aquifer  
Hydrologic Data 2012, 2017, 2021, 2022

| County       | Station ID Number | Latitude    | Longitude   | Land Surface Altitude | Aquifer Thickness | Saturated Thickness | Percent Saturated | 2012 Depth to Water (ft.) | 2017 Depth to Water (ft.) | 2021 Depth to Water (ft.) | 2022 Depth to Water (ft.) | 1 Year Change ('21 to '22) | 5 Year Change ('17 to '22) | 10 Year Change ('12 to '22) |
|--------------|-------------------|-------------|-------------|-----------------------|-------------------|---------------------|-------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------------------------|----------------------------|-----------------------------|
| Desha        | 11S02W15ADD1      | 33.74691667 | -91.2778333 | 144                   | 112.00            | 75.80               | 67.68%            | 35.90                     | 37.34                     | 36.2                      | 36.2                      | 1.14                       |                            | 0.30                        |
| Desha        | 11S03W16CBA1      | 33.74427778 | -91.4093889 | 143                   | 117.00            | 74.98               | 64.09%            | 36.00                     | 35.82                     | 35.82                     | 42.02                     | 6.20                       |                            | 6.02                        |
| Desha        | 11S03W18BA1       | 33.70783889 | -91.4475278 | 151                   | 113.00            | 80.46               | 71.20%            | 35.95                     | 32.54                     | 32.54                     | 32.54                     | 0.22                       |                            | 3.41                        |
| Desha        | 13S02W22CAC1      | 33.5399972  | -91.2929889 | 138                   | 89.00             | 56.35               | 63.31%            | 33.92                     | 32.87                     | 32.87                     | 61.88                     | 0.27                       |                            | 1.27                        |
| Desha        | 13S03W11CAB1      | 33.58427754 | -91.3781742 | 142                   | 93.00             | 31.12               | 33.46%            | 56.40                     | 62.15                     | 62.15                     | 61.88                     | 0.27                       |                            | 5.48                        |
|              |                   |             |             |                       |                   |                     | 72.97%            |                           |                           |                           |                           | 6                          | 0                          | 7                           |
|              |                   |             |             |                       |                   |                     | 33.46%            |                           |                           |                           |                           | 16                         | 3                          | 16                          |
|              |                   |             |             |                       |                   |                     | 95.05%            |                           |                           |                           |                           | 0.44                       | 5.06                       | 1.39                        |
|              |                   |             |             |                       |                   |                     |                   |                           |                           |                           |                           |                            |                            |                             |
| Drew         | 11S04W08DBA1      | 33.7634611  | -91.5377806 | 161                   | 124.00            | 95.69               | 77.17%            | 30.11                     | 30.87                     | 28.35                     | 28.35                     | 0.04                       |                            | 4.12                        |
| Drew         | 11S04W09CDD1      | 33.69555556 | -91.4783333 | 152                   | 114.00            | 88.01               | 77.20%            | 30.11                     | 30.87                     | 24.84                     | 25.99                     | 1.15                       | 4.88                       | 4.12                        |
| Drew         | 11S05W08CC1       | 33.7629111  | -91.6436556 | 185                   | 143.00            | 103.98              | 72.71%            | 38.52                     | 35.77                     | 35.77                     | 39.02                     | 3.25                       | 4.88                       | 0.50                        |
| Drew         | 12S04W03ABA1      | 33.69275556 | -91.4961472 | 153                   | 114.00            | 90.86               | 79.70%            | 27.20                     | 26.79                     | 26.79                     | 23.14                     | 3.65                       |                            | 4.06                        |
| Drew         | 13S04W03BAA1      | 33.53508889 | -91.5327722 | 134                   | 87.00             | 73.40               | 84.37%            |                           | 15.18                     | 15.18                     | 13.6                      | 1.58                       |                            |                             |
| Drew         | 13S04W03BAA1      | 33.53491389 | -91.5173472 | 138                   | 89.00             | 73.33               | 82.39%            |                           | 18.63                     | 18.63                     | 15.67                     | 2.96                       |                            |                             |
| Drew         | 14S04W03ADD1      | 33.51190278 | -91.4934861 | 142                   | 88.00             | 64.38               | 73.16%            | 33.00                     | 32.23                     | 23.48                     | 23.62                     | 0.14                       | 8.61                       | 9.38                        |
|              |                   |             |             |                       |                   |                     | 78.10%            |                           |                           |                           |                           | 3                          | 0                          | 1                           |
|              |                   |             |             |                       |                   |                     | 72.71%            |                           |                           |                           |                           | 7                          | 2                          | 4                           |
|              |                   |             |             |                       |                   |                     | 84.37%            |                           |                           |                           |                           | 0.53                       | 6.75                       | 4.27                        |
| Greene       | 16N03E03BA1       | 36.0544083  | -90.7544028 | 262                   | 124.36            | 87.01               | 69.97%            | 36.38                     | 37.38                     | 36.29                     | 37.35                     | 1.06                       | 0.03                       | 0.97                        |
| Greene       | 16N03E20DA1       | 35.99916667 | -90.795     | 257                   | 109.32            | 72.36               | 66.19%            |                           | 37.00                     | 32.39                     | 36.96                     | 4.57                       | 0.04                       |                             |
| Greene       | 16N06E03CC1       | 36.0396083  | -90.44055   | 258                   | 65.00             | 16.75               | 25.77%            |                           | 64.37                     | 79.89                     | 48.25                     | 31.64                      | 16.12                      |                             |
| Greene       | 16N06E21BA1       | 36.00908056 | -90.4508694 | 250                   | 80.35             | 55.52               | 69.10%            | 35.00                     | 30.10                     | 28.51                     | 24.83                     | 3.68                       | 5.27                       | 10.17                       |
| Greene       | 16N06E22DA1       | 36.00125    | -90.4279694 | 243                   | 74.00             | 60.19               | 81.34%            |                           |                           |                           | 13.81                     |                            |                            |                             |
| Greene       | 16N06E28AB1       | 35.99376944 | -90.4487611 | 250                   | 83.00             | 50.85               | 61.27%            |                           | 27.19                     | 24.73                     | 32.15                     | 7.42                       | 4.96                       |                             |
| Greene       | 17N03E02DB1       | 36.14230556 | -90.7363389 | 267                   | 122.00            | 87.36               | 71.61%            | 35.30                     | 34.15                     | 34.15                     | 34.64                     | 0.49                       | 0.66                       | 0.56                        |
| Greene       | 17N03E02DC1       | 36.1386611  | -90.7324917 | 265                   | 135.60            | 99.56               | 73.42%            | 45.60                     | 38.50                     | 35.21                     | 36.04                     | 0.83                       | 2.46                       | 9.56                        |
| Greene       | 17N03E32DC1       | 36.05473889 | -90.7930556 | 259                   | 118.47            | 83.44               | 70.43%            |                           | 36.00                     | 34.02                     | 35.03                     | 1.01                       | 0.97                       |                             |
| Greene       | 17N03E35CB1       | 36.07658056 | -90.7434472 | 265                   | 121.87            | 83.03               | 68.13%            | 36.50                     | 39.40                     | 37.09                     | 38.84                     | 1.75                       | 0.56                       | 2.34                        |
| Greene       | 17N04E28DA1       | 36.07527778 | -90.6547222 | 317                   | 97.10             | 11.22               | 11.56%            | 89.79                     | 90.33                     | 86.15                     | 85.88                     | 0.27                       | 4.45                       | 3.91                        |
| Greene       | 17N04E30DC1       | 36.0694083  | -90.7048583 | 267                   | 127.00            | 83.49               | 65.74%            |                           | 43.13                     | 43.13                     | 43.51                     | 0.38                       |                            |                             |
| Greene       | 17N06E02AD1       | 36.13695278 | -90.4026028 | 258                   | 110.00            | 82.23               | 74.75%            |                           |                           |                           | 27.77                     |                            |                            |                             |
| Greene       | 17N06E08AC1       | 36.1208087  | -90.4653193 | 284                   | 134.00            | 124.00              | 92.54%            |                           | 4.25                      | 4.25                      | 10                        | 5.75                       |                            |                             |
| Greene       | 17N06E11DA1       | 36.118175   | -90.4065389 | 255                   | 106.31            | 69.31               | 65.39%            |                           |                           |                           | 36.69                     |                            |                            |                             |
| Greene       | 17N06E15AB1       | 36.10886944 | -90.4239306 | 269                   | 106.31            | 76.56               | 72.02%            | 36.10                     | 30.50                     | 29.75                     | 29.75                     | 0.15                       | 0.75                       | 6.35                        |
| Greene       | 17N07E01BBA1      | 36.1425     | -90.29075   | 247                   | 125.17            | 120.88              | 96.57%            | 5.10                      | 5.30                      | 4.71                      | 4.29                      | 0.42                       | 1.01                       | 0.81                        |
| Greene       | 17N07E03CC1       | 36.1271083  | -90.29075   | 245.35                | 116.00            | 109.59              | 94.47%            | 6.30                      | 5.10                      | 6.91                      | 6.41                      | 0.50                       | 1.31                       | 0.11                        |
| Greene       | 17N07E18AB1       | 36.1103     | -90.3761389 | 248                   | 101.00            | 89.53               | 88.64%            | 15.36                     |                           | 11.26                     | 11.47                     | 0.21                       | 3.89                       |                             |
| Greene       | 17N07E28CBA1      | 36.0733333  | -90.3458333 | 246                   | 113.59            | 100.70              | 88.65%            |                           | 5.60                      | 4.64                      | 12.89                     | 8.25                       | 7.29                       |                             |
| Greene       | 18N03E24AA1       | 36.18900778 | -90.7022306 | 271                   | 135.13            | 100.58              | 74.43%            | 36.50                     | 35.00                     | 33.22                     | 34.55                     | 1.33                       | 0.45                       | 1.95                        |
| Greene       | 18N04E04AC1       | 36.23661944 | -90.6465889 | 275                   | 128.00            | 92.98               | 72.64%            |                           | 54.04                     | 19.02                     | 19.02                     | 19.02                      |                            |                             |
| Greene       | 18N06E26CD2       | 36.1584     | -90.4036889 | 266                   | 119.00            | 96.38               | 80.99%            |                           | 21.98                     | 22.62                     | 22.62                     | 0.64                       |                            |                             |
| Greene       | 18N07E06E67       | 36.22096667 | -90.3406333 | 270                   | 114.02            | 98.22               | 86.14%            | 14.10                     | 17.20                     | 17.7                      | 15.8                      | 1.90                       | 1.40                       | 1.70                        |
| Greene       | 18N07E17BA1       | 36.20076944 | -90.3513472 | 261                   | 111.02            | 99.05               | 89.22%            | 7.00                      | 9.00                      | 14.07                     | 11.97                     | 2.10                       | 2.97                       | 4.97                        |
| Greene       | 19N03E26AD1       | 36.26686667 | -90.7162306 | 281                   | 143.03            | 114.73              | 80.21%            | 29.49                     | 28.74                     | 34.23                     | 28.3                      | 5.93                       | 0.44                       | 1.19                        |
| Greene       | 19N03E33DD1       | 36.23841944 | -90.7531472 | 278                   | 143.34            | 108.26              | 75.53%            | 40.60                     | 37.00                     | 35.05                     | 35.08                     | 0.03                       | 1.92                       | 5.52                        |
|              |                   |             |             |                       |                   |                     | 72.84%            |                           |                           |                           |                           | 15                         | 4                          | 5                           |
|              |                   |             |             |                       |                   |                     | 11.56%            |                           |                           |                           |                           | 24                         | 18                         | 15                          |
|              |                   |             |             |                       |                   |                     | 96.57%            |                           |                           |                           |                           | 1.32                       | 1.07                       | 2.26                        |
| Independence | 11N04W22BBA       | 35.56916667 | -91.4183333 | 216                   | 121.23            | 119.65              | 98.70%            |                           | 3.10                      | 1.2                       | 1.58                      | 0.38                       | 1.52                       |                             |
| Independence | 12N04W10B8C       | 35.68527778 | -91.3991667 | 235                   | 124.27            | 104.76              | 84.30%            |                           | 24.92                     | 18.11                     | 19.51                     | 1.40                       | 5.41                       |                             |
| Independence | 12N04W34CBB1      | 35.62225    | -91.4201389 | 226                   | 57.00             | 45.00               | 78.95%            | 20.83                     | 8.75                      | 14.11                     | 12                        | 2.11                       | 3.25                       | 8.83                        |
| Independence | 12N04W35CCB       | 35.61950278 | -91.3954    | 228                   | 57.00             | 49.43               | 86.72%            |                           | 20.00                     | 7.57                      | 7.57                      |                            | 12.43                      |                             |

**Mississippi River Alluvial Aquifer  
Hydrologic Data 2012,2017,2021,2022**

| County       | Station ID Number | Latitude    | Longitude   | Land Surface Altitude | Aquifer Thickness | Saturated Thickness | Percent Saturated | 2012 Depth to Water (ft.) | 2017 Depth to Water (ft.) | 2021 Depth to Water (ft.) | 2022 Depth to Water (ft.) | 1 Year Change (21 to 22) | 5 Year Change (17 to 22) | 10 Year Change (12 to 22) |
|--------------|-------------------|-------------|-------------|-----------------------|-------------------|---------------------|-------------------|---------------------------|---------------------------|---------------------------|---------------------------|--------------------------|--------------------------|---------------------------|
| Independence | 12N05W36AAA1      | 35.6272333  | -91.4742278 | 239                   | 132.91            | 117.66              | 88.53%            |                           | 11.26                     | 15.82                     | 15.25                     | 0.57                     | 3.99                     |                           |
|              |                   |             |             |                       |                   | Avg % Saturated:    | 87.4%             |                           |                           |                           |                           | 2                        | 2                        | 0                         |
|              |                   |             |             |                       |                   | Min % Saturated:    | 78.95%            |                           |                           |                           |                           | 4                        | 5                        | 1                         |
|              |                   |             |             |                       |                   | Max % Saturated:    | 98.70%            |                           |                           |                           |                           | 0.22                     | 2.42                     | 8.83                      |
| Jackson      | 09N02W32BBB1      | 35.3709177  | -91.2290147 | 220                   | 135.00            | 104.61              | 77.49%            |                           | 32.21                     | 28.7                      | 30.39                     | 1.69                     | 1.82                     |                           |
| Jackson      | 09N02W32CBB1      | 35.3643861  | -91.2299417 | 225                   | 135.00            | 104.96              | 77.75%            | 28.95                     | 28.41                     | 30.04                     | 30.04                     | 1.63                     | 1.09                     |                           |
| Jackson      | 11N01W11CBB1      | 35.5972222  | -91.0744444 | 233                   | 150.00            | 93.29               | 62.19%            |                           | 73.05                     | 56.22                     | 56.71                     | 0.49                     | 0.76                     |                           |
| Jackson      | 11N01W26AAD1      | 35.55826944 | -91.0564472 | 230                   | 138.36            | 66.07               | 47.75%            | 70.59                     | 73.05                     | 72.96                     | 72.96                     | 0.67                     | 0.76                     | 1.70                      |
| Jackson      | 11N03W05CAB1      | 35.61535705 | -91.3558684 | 225                   | 128.83            | 121.34              | 94.19%            |                           |                           | 7.53                      | 7.49                      | 0.04                     |                          |                           |
| Jackson      | 12N01W11CBB1      | 35.6909112  | -91.0712334 | 233                   | 121.00            | 95.52               | 78.94%            |                           |                           | 40.16                     | 25.48                     | 14.68                    |                          |                           |
| Jackson      | 13N01W20AAA1      | 35.75392778 | -91.1076306 | 244                   | 119.00            | 78.21               | 65.72%            | 41.60                     | 40.51                     | 40.79                     | 40.79                     | 0.28                     | 0.81                     |                           |
| Jackson      | 13N03E35AAA1      | 35.72481667 | -91.270375  | 237                   | 84.00             | 73.63               | 87.65%            |                           |                           | 10.37                     | 10.37                     | 1.58                     |                          |                           |
| Jackson      | 14N01W09AAA1      | 35.8723222  | -91.0875444 | 257                   | 97.00             | 51.49               | 53.08%            | 45.35                     | 44.90                     | 44.7                      | 45.51                     | 0.61                     | 0.16                     |                           |
| Jackson      | 14N02W22BB1       | 35.84063056 | -91.1959606 | 250                   | 114.11            | 89.78               | 78.68%            |                           | 27.98                     | 23.39                     | 24.33                     | 0.94                     | 3.65                     |                           |
|              |                   |             |             |                       |                   | Avg % Saturated:    | 72.34%            |                           |                           |                           |                           | 7                        | 1                        | 3                         |
|              |                   |             |             |                       |                   | Min % Saturated:    | 47.75%            |                           |                           |                           |                           | 10                       | 4                        | 4                         |
|              |                   |             |             |                       |                   | Max % Saturated:    | 94.19%            |                           |                           |                           |                           | 0.80                     | 1.41                     | 0.53                      |
| Jefferson    | 03S09W29CBB1      | 34.4213361  | -92.0064778 | 217                   | 111.00            | 85.33               | 76.87%            | 27.08                     |                           | 26.03                     | 25.67                     | 0.36                     |                          | 1.41                      |
| Jefferson    | 03S09W36ACC1      | 34.4078738  | -91.9320823 | 214                   | 118.00            | 76.86               | 65.14%            | 38.90                     | 56.00                     | 41.14                     | 38.90                     | 14.86                    | 2.24                     |                           |
| Jefferson    | 04S07W35DDB1      | 34.3095611  | -91.7294806 | 184                   | 104.00            | 72.46               | 69.67%            | 30.60                     | 31.00                     | 31.54                     | 31.54                     | 0.54                     | 0.94                     |                           |
| Jefferson    | 04S08W13DCB1      | 34.3563472  | -91.8240139 | 204                   | 124.00            | 78.73               | 63.49%            | 47.80                     | 45.99                     | 45.27                     | 45.27                     | 0.72                     | 2.53                     |                           |
| Jefferson    | 05S06W31BAA1      | 34.2247222  | -91.6983333 | 188                   | 112.00            | 97.60               | 87.14%            |                           |                           | 10.25                     | 10.25                     | 4.15                     |                          |                           |
| Jefferson    | 07S07W16BAA1      | 34.1235111  | -91.8078889 | 190                   | 126.50            | 106.15              | 83.91%            | 26.00                     | 31.00                     | 19.25                     | 20.35                     | 1.10                     | 10.65                    | 5.65                      |
| Jefferson    | 07S08W06BAA1      | 34.14959167 | -91.9464611 | 202.31                | 111.00            | 95.82               | 86.32%            | 20.62                     |                           | 11.94                     | 15.18                     | 3.24                     |                          | 5.44                      |
|              |                   |             |             |                       |                   | Avg % Saturated:    | 76.08%            |                           |                           |                           |                           | 3                        | 1                        | 2                         |
|              |                   |             |             |                       |                   | Min % Saturated:    | 63.49%            |                           |                           |                           |                           | 5                        | 3                        | 6                         |
|              |                   |             |             |                       |                   | Max % Saturated:    | 87.14%            |                           |                           |                           |                           | 1.48                     | 8.32                     | 1.98                      |
| Lawrence     | 15N01E09ABD1      | 35.95388889 | -90.9833333 | 260                   | 123.00            | 63.47               | 51.60%            | 58.80                     |                           | 59.28                     | 59.53                     | 0.25                     | 0.73                     |                           |
| Lawrence     | 15N01E26DDA1      | 35.90053056 | -90.9442611 | 253                   | 108.00            | 49.68               | 46.00%            | 54.76                     | 58.93                     | 58.32                     | 58.32                     | 0.61                     | 3.56                     |                           |
| Lawrence     | 15N01E32BAA1      | 35.89788056 | -91.0081    | 253                   | 120.00            | 62.79               | 52.33%            | 55.45                     | 57.02                     | 57.02                     | 57.21                     | 0.19                     | 1.76                     |                           |
| Lawrence     | 15N01W35CBB1      | 35.893375   | -91.0656472 | 255                   | 113.34            | 63.64               | 56.15%            | 49.04                     | 51.29                     | 49.3                      | 49.7                      | 0.40                     | 0.66                     |                           |
| Lawrence     | 16N01W30DDC1      | 35.99359167 | -91.1231278 | 253.77                | 113.59            | 106.12              | 93.42%            |                           | 19.21                     | 15.59                     | 7.47                      | 8.12                     | 11.74                    |                           |
| Lawrence     | 17N01E02BBA1      | 36.15036389 | -90.9537972 | 261                   | 133.74            | 116.51              | 87.12%            |                           | 17.09                     | 14.98                     | 17.23                     | 2.25                     | 0.14                     |                           |
| Lawrence     | 17N01W36AAB1      | 36.07694444 | -91.0283333 | 265.07                | 125.40            | 113.07              | 90.17%            | 14.32                     | 14.32                     | 10.99                     | 12.33                     | 1.34                     | 1.99                     |                           |
| Lawrence     | 17N02E04DCA1      | 36.13308889 | -90.8732389 | 272                   | 145.12            | 101.15              | 69.70%            | 47.15                     | 47.15                     | 45.08                     | 43.97                     | 1.11                     | 3.18                     |                           |
| Lawrence     | 17N02E25CBB1      | 36.0747222  | -90.8308333 | 267                   | 132.21            | 86.37               | 65.33%            | 46.00                     | 46.00                     | 44.66                     | 45.84                     | 1.18                     | 0.16                     |                           |
|              |                   |             |             |                       |                   | Avg % Saturated:    | 67.98%            |                           |                           |                           |                           | 6                        | 1                        | 4                         |
|              |                   |             |             |                       |                   | Min % Saturated:    | 46.00%            |                           |                           |                           |                           | 8                        | 7                        | 4                         |
|              |                   |             |             |                       |                   | Max % Saturated:    | 93.42%            |                           |                           |                           |                           | 0.45                     | 2.73                     | 1.68                      |
| Lee          | 01N01E04AAC1      | 34.73287537 | -91.0042853 | 175                   | 141.00            | 105.40              | 74.75%            | 37.50                     | 43.50                     | 37.3                      | 35.6                      | 1.70                     | 7.90                     | 1.90                      |
| Lee          | 01N01E09CC1       | 34.7042645  | -91.0151186 | 182                   | 141.00            | 106.30              | 75.39%            | 36.00                     | 43.50                     | 33.2                      | 34.7                      | 1.50                     | 8.80                     | 1.30                      |
| Lee          | 01N02E22CA1       | 34.67707065 | -90.8880871 | 202                   | 143.00            | 122.60              | 85.73%            |                           |                           | 20.2                      | 20.4                      | 0.20                     |                          |                           |
| Lee          | 01N02E33CBB1      | 34.65825    | -90.9096667 | 184                   | 142.00            | 130.40              | 91.83%            | 30.50                     | 18.00                     | 10.3                      | 11.6                      | 1.30                     | 6.40                     | 18.90                     |
| Lee          | 01N02E33CCB1      | 34.64759876 | -90.909282  | 185                   | 142.00            | 134.50              | 94.77%            | 15.50                     | 16.00                     | 16.00                     | 7.5                       | 8.50                     | 8.00                     |                           |
| Lee          | 01N03E27ADD1      | 34.66463056 | -90.7681889 | 202                   | 148.00            | 139.38              | 94.18%            | 29.00                     | 23.20                     | 8.62                      | 7.88                      | 14.58                    | 14.58                    | 20.38                     |
| Lee          | 01N03E35BBA1      | 34.65701944 | -90.7640167 | 202                   | 138.00            | 130.12              | 94.29%            | 15.91                     | 21.20                     | 6.39                      | 7.88                      | 1.49                     | 13.32                    | 8.03                      |
| Lee          | 02N01E18AD1       | 34.78465219 | -91.0326752 | 185                   | 142.00            | 93.10               | 65.56%            |                           |                           | 48.5                      | 48.9                      | 0.40                     | 8.40                     | 2.90                      |
| Lee          | 02N01E21BAA1      | 34.77593029 | -91.0015076 | 185                   | 142.00            | 107.40              | 75.63%            | 37.50                     | 43.00                     | 39.8                      | 34.6                      | 5.20                     | 8.40                     |                           |
| Lee          | 02N01E29AA1       | 34.76205    | -91.0186917 | 194                   | 142.00            | 88.52               | 62.34%            |                           |                           | 53.48                     | 53.48                     |                          |                          |                           |
| Lee          | 02N01W12BAA1      | 34.80785    | -91.0582083 | 185                   | 143.00            | 94.18               | 65.86%            | 46.84                     | 49.65                     | 48.57                     | 48.82                     | 0.25                     | 0.83                     | 1.98                      |



**Mississippi River Alluvial Aquifer  
Hydrologic Data 2012, 2017, 2021, 2022**

| County      | Station ID Number | Latitude    | Longitude    | Land Surface Altitude | Aquifer Thickness | Saturated Thickness | Percent Saturated | 2012 Depth to Water (ft.) | 2017 Depth to Water (ft.) | 2021 Depth to Water (ft.) | 2022 Depth to Water (ft.) | 1 Year Change (21 to 22) | 5 Year Change (17 to 22) | 10 Year Change (12 to 22) |
|-------------|-------------------|-------------|--------------|-----------------------|-------------------|---------------------|-------------------|---------------------------|---------------------------|---------------------------|---------------------------|--------------------------|--------------------------|---------------------------|
| Lonoke      | 03N07W29ADA1      | 34.857925   | -91.7662222  | 232                   | 152.70            | 53.98               | 35.35%            | 94.22                     | 97.93                     | 98.12                     | 98.72                     | 0.60                     | 0.79                     | 4.50                      |
| Lonoke      | 03N07W35DCD1      | 34.83254444 | -91.7255861  | 232                   | 145.00            | 24.12               | 16.63%            | 121.76                    | 121.76                    | 120.48                    | 120.88                    | 0.40                     | 0.88                     | 0.50                      |
| Lonoke      | 03N08W03B8A1      | 34.92181667 | -91.84882    | 260                   | 194.00            | 87.74               | 45.2%             | 101.10                    | 104.85                    | 106.2                     | 106.26                    | 0.06                     | 1.41                     | 5.16                      |
| Lonoke      | 03N08W30CC1       | 34.90829444 | -91.87781    | 260                   | 180.00            | 67.45               | 37.47%            | 110.91                    | 110.91                    | 107.57                    | 113.03                    | 0.52                     | 1.64                     | 5.03                      |
| Lonoke      | 03N08W08ABA1      | 34.90749444 | -91.8799639  | 248                   | 194.00            | 90.80               | 46.80%            | 98.81                     | 100.64                    | 102.93                    | 103.2                     | 0.27                     | 2.56                     | 4.39                      |
| Lonoke      | 03N08W10ACB1      | 34.90406944 | -91.8479833  | 248                   | 180.00            | 79.90               | 44.39%            | 95.33                     | 94.04                     | 100.65                    | 100.1                     | 0.55                     | 6.06                     | 4.77                      |
| Lonoke      | 03N08W10ADD1      | 34.90294444 | -91.83966611 | 248                   | 182.00            | 80.26               | 44.10%            | 97.14                     | 102.10                    | 101.61                    | 101.74                    | 0.13                     | 0.36                     | 4.60                      |
| Lonoke      | 03N08W11ACA1      | 34.90353333 | -91.82618333 | 257                   | 172.00            | 61.94               | 36.01%            | 104.72                    | 107.28                    | 110.01                    | 110.06                    | 0.05                     | 2.78                     | 5.34                      |
| Lonoke      | 03N08W29BBB1      | 34.86308333 | -91.8924472  | 249                   | 188.00            | 73.63               | 39.13%            | 124.16                    | 118.71                    | 113.58                    | 114.76                    | 0.39                     | 0.72                     | 0.79                      |
| Lonoke      | 03N08W29BCC1      | 34.8569472  | -91.8926111  | 249                   | 188.00            | 73.57               | 39.13%            | 124.16                    | 118.71                    | 129.81                    | 114.43                    | 15.38                    | 4.28                     | 9.73                      |
| Lonoke      | 03N08W32ABB1      | 34.849475   | -91.8851167  | 250                   | 189.20            | 67.45               | 35.65%            | 120.78                    | 122.80                    | 121.54                    | 121.75                    | 0.21                     | 1.05                     | 0.97                      |
| Lonoke      | 04N08W15BCC1      | 34.9758111  | -91.5959028  | 224                   | 144.00            | 109.96              | 76.36%            | 34.54                     | 34.54                     | 34.17                     | 34.04                     | 0.13                     | 0.30                     | 0.13                      |
| Lonoke      | 04N08W16DCC1      | 34.96590556 | -91.8650056  | 234                   | 163.00            | 112.18              | 68.2%             | 47.80                     | 68.2%                     | 50.82                     | 50.82                     | 0.64                     | 0.64                     | 3.02                      |
| Lonoke      | 04N08W28CAC1      | 34.93896389 | -91.87105    | 234                   | 164.00            | 102.11              | 62.2%             | 56.79                     | 61.71                     | 61.71                     | 61.89                     | 0.18                     | 0.52                     | 5.10                      |
| Lonoke      | 04N08W28CC1       | 34.93738056 | -91.8736972  | 237                   | 178.00            | 110.06              | 61.83%            | 62.58                     | 67.18                     | 67.42                     | 67.94                     | 0.52                     | 0.76                     | 5.36                      |
| Lonoke      | 04N08W33ABD1      | 34.93294444 | -91.8614722  | 258                   | 184.00            | 87.91               | 47.78%            | 90.43                     | 94.54                     | 97.16                     | 96.09                     | 1.07                     | 1.55                     | 5.66                      |
| Lonoke      | 04N08W33ADC1      | 34.92969444 | -91.8613611  | 256                   | 184.00            | 85.60               | 46.52%            | 94.18                     | 113.73                    | 85.29                     | 98.4                      | 13.11                    | 15.33                    | 4.22                      |
| Lonoke      | 04N08W33ADB1      | 34.93127778 | -91.8569444  | 263                   | 184.00            | 85.40               | 46.41%            | 106.31                    | 114.46                    | 98.6                      | 98.6                      | 0.22                     | 15.86                    | 7.71                      |
| Lonoke      | 04N08W33ADD1      | 34.92952778 | -91.85708833 | 267                   | 184.00            | 75.56               | 41.07%            | 103.06                    | 110.03                    | 108.66                    | 108.44                    | 0.22                     | 1.59                     | 5.38                      |
| Lonoke      | 04N08W36DBB1      | 34.927925   | -91.8207622  | 259                   | 184.00            | 85.20               | 46.30%            | 95.06                     | 99.41                     | 99.11                     | 98.8                      | 0.31                     | 0.61                     | 3.74                      |
| Mississippi | 10N08E22ABA2      | 35.48085    | -90.2726889  | 228.12                | 153.00            | 128.21              | 83.80%            | 26.42                     | 26.08                     | 22.92                     | 24.79                     | 1.87                     | 1.29                     | 1.63                      |
| Mississippi | 11N09E34BBB1      | 35.5382583  | -90.1208806  | 235                   | 190.78            | 170.73              | 89.49%            | 16.99                     | 20.23                     | 19.79                     | 20.05                     | 0.26                     | 0.18                     | 3.06                      |
| Mississippi | 11N10E09BCC1      | 35.5914583  | -90.03435    | 236.14                | 149.00            | 130.09              | 87.31%            | 17.43                     | 17.43                     | 17.43                     | 17.43                     | 1.48                     | 0.18                     | 0.06                      |
| Mississippi | 12N08E08BCC1      | 35.67973889 | -90.264583   | 225                   | 134.35            | 124.65              | 92.78%            | 9.64                      | 10.86                     | 11.47                     | 9.7                       | 1.77                     | 1.16                     | 0.06                      |
| Mississippi | 12N08E28DBB1      | 35.62005    | -90.2318     | 227                   | 138.00            | 112.31              | 81.38%            | 12.81                     | 22.81                     | 22.81                     | 25.69                     | 2.88                     | 0.92                     | 0.86                      |
| Mississippi | 12N09E12ABC1      | 35.68195    | -90.0806306  | 232                   | 151.00            | 129.27              | 85.61%            | 20.81                     | 21.73                     | 13.09                     | 13.86                     | 0.77                     | 1.58                     | 2.29                      |
| Mississippi | 12N10E04CAA1      | 35.6882111  | -90.0268389  | 233                   | 150.00            | 136.14              | 90.76%            | 13.614                    | 13.09                     | 18.71                     | 20.29                     | 1.58                     | 2.82                     | 3.73                      |
| Mississippi | 12N10E21D8A1      | 35.64507899 | -90.022867   | 236                   | 146.00            | 125.71              | 86.10%            | 6.12                      | 6.91                      | 5.21                      | 2.39                      | 2.82                     | 4.52                     | 3.73                      |
| Mississippi | 14N08E12DAB1      | 35.8511583  | -90.1810944  | 236                   | 166.00            | 163.61              | 98.56%            | 105.96                    | 99.41%                    | 8.43                      | 2.69                      | 5.74                     | 0.08                     | 0.08                      |
| Mississippi | 14N08E20DAA1      | 35.82313889 | -90.2533389  | 225                   | 134.00            | 133.21              | 99.41%            | 133.21                    | 133.21                    | 8.43                      | 2.69                      | 5.74                     | 0.08                     | 0.08                      |
| Mississippi | 14N08E26CC1       | 35.80076944 | -90.2092194  | 228                   | 150.00            | 147.31              | 98.21%            | 11.24                     | 10.94                     | 12.86                     | 13.49                     | 0.63                     | 1.70                     | 2.00                      |
| Mississippi | 14N10E18ABC1      | 35.83935    | -90.0626694  | 239                   | 119.00            | 105.96              | 89.04%            | 12.96                     | 9.12                      | 7.27                      | 7.27                      | 1.85                     | 1.50                     | 1.86                      |
| Mississippi | 14N11E17CB1       | 35.8324111  | -89.945      | 240                   | 151.00            | 146.57              | 97.07%            | 13.57                     | 11.84                     | 8.6                       | 11.81                     | 0.40                     | 0.43                     | 2.16                      |
| Mississippi | 14N11E33CAA1      | 35.78911667 | -89.9227889  | 243                   | 150.00            | 136.51              | 91.01%            | 10.94                     | 10.94                     | 12.69                     | 10.92                     | 1.77                     | 1.77                     | 1.86                      |
| Mississippi | 15N08E08BCC1      | 35.9346111  | -90.2573111  | 238                   | 179.00            | 169.76              | 94.84%            | 11.24                     | 10.94                     | 8.6                       | 7.1                       | 1.50                     | 1.50                     | 1.86                      |
| Mississippi | 15N10E21BBB1      | 35.91234444 | -90.031325   | 239                   | 122.00            | 114.73              | 94.04%            | 132.90                    | 127.8                     | 12.69                     | 10.92                     | 1.77                     | 1.77                     | 1.86                      |
| Mississippi | 15N12E01BCD1      | 35.95148889 | -89.7669889  | 235                   | 140.00            | 132.90              | 92.09%            | 12.78                     | 12.78                     | 11.81                     | 11.41                     | 0.40                     | 0.43                     | 2.16                      |
| Mississippi | 16N10E28BBD1      | 35.9850361  | -90.0322306  | 238                   | 138.00            | 127.08              | 92.44%            | 139.59                    | 139.59                    | 11.81                     | 11.41                     | 0.40                     | 0.43                     | 2.16                      |
| Mississippi | 16N11E23AAD1      | 35.996325   | -89.8753778  | 256                   | 151.00            | 139.59              | 92.44%            | 11.81                     | 11.81                     | 11.81                     | 11.41                     | 0.40                     | 0.43                     | 2.16                      |
| Monroe      | 01N01W15D8C1      | 34.69416667 | -91.095      | 185                   | 149.00            | 97.50               | 65.44%            | 52.68                     | 55.14                     | 53.12                     | 51.5                      | 1.62                     | 3.64                     | 1.18                      |
| Monroe      | 01N02W12CBC1      | 34.71175    | -91.4755278  | 182                   | 144.00            | 99.99               | 70.47%            | 42.76                     | 42.71                     | 42.71                     | 42.71                     | 0.70                     | 3.26                     | 0.75                      |
| Monroe      | 01N04W33BBB1      | 34.6665333  | -91.4468111  | 220                   | 154.16            | 58.55               | 37.98%            | 104.94                    | 110.12                    | 97.75                     | 95.61                     | 2.14                     | 14.51                    | 9.33                      |
| Monroe      | 01S01W13CDD1      | 34.60303889 | -91.0612611  | 175                   | 144.00            | 125.68              | 87.28%            | 21.33                     | 24.04                     | 21.02                     | 18.32                     | 2.70                     | 5.72                     | 3.01                      |
| Monroe      | 01S01W18DCC1      | 34.6049333  | -91.147      | 179                   | 147.00            | 123.90              | 84.29%            | 23.96                     | 25.28                     | 23.04                     | 23.1                      | 0.06                     | 2.18                     | 0.86                      |
| Monroe      | 01S02W20BBB1      | 34.60332778 | -91.2489167  | 171                   | 138.87            | 131.01              | 94.34%            | 74.83                     | 11.80                     | 4.35                      | 7.86                      | 3.51                     | 3.94                     | 1.82                      |
| Monroe      | 01S04W01BAB1      | 34.65162778 | -91.3879889  | 214                   | 147.00            | 74.83               | 50.90%            | 56.34                     | 76.32                     | 72.17                     | 61.2                      | 0.54                     | 4.15                     | 2.56                      |
| Monroe      | 02N01W19BBA1      | 34.779225   | -91.1534611  | 192                   | 152.00            | 90.26               | 59.38%            | 6.80                      | 56.57                     | 61.2                      | 61.74                     | 0.54                     | 5.17                     | 5.40                      |
| Monroe      | 02S02W11DAC1      | 34.535825   | -91.1834944  | 164                   | 128.00            | 122.22              | 95.48%            | 8.85                      | 8.85                      | 3.63                      | 5.78                      | 2.15                     | 3.07                     | 1.02                      |



**Mississippi River Alluvial Aquifer  
Hydrologic Data 2012, 2017, 2021, 2022**

| County   | Station ID      | Latitude    | Longitude    | Land Surface Altitude | Aquifer Thickness | Saturated Thickness | Percent Saturated | 2012 Depth to Water (ft.) | 2017 Depth to Water (ft.) | 2021 Depth to Water (ft.) | 2022 Depth to Water (ft.) | 1 Year Change (21 to 22) | 5 Year Change (17 to 22) | 10 Year Change (12 to 22) |
|----------|-----------------|-------------|--------------|-----------------------|-------------------|---------------------|-------------------|---------------------------|---------------------------|---------------------------|---------------------------|--------------------------|--------------------------|---------------------------|
| Monroe   | 03N02W31AD01    | 34.83285556 | -91.2464444  | 190                   | 131.00            | 93.73               | 71.55%            | 38.27                     | 40.72                     | 37.27                     | 37.27                     |                          | 3.45                     | 1.00                      |
| Monroe   | 03N03W36AAA1    | 34.83930278 | -91.2630583  | 178                   | 131.00            | 99.90               | 76.26%            | 18.98                     | 21.85                     | 31.1                      | 31.1                      |                          | 9.25                     | 12.12                     |
|          |                 |             |              |                       |                   |                     | 72.12%            |                           |                           |                           |                           | 4                        | 2                        | 2                         |
|          |                 |             |              |                       |                   |                     | 37.98%            |                           |                           |                           |                           | 8                        | 11                       | 11                        |
|          |                 |             |              |                       |                   |                     | 95.48%            |                           |                           |                           |                           | 0.11                     | 2.68                     | 0.36                      |
|          |                 |             |              |                       |                   |                     |                   |                           |                           |                           |                           |                          |                          |                           |
|          |                 |             |              |                       |                   |                     |                   |                           |                           |                           |                           |                          |                          |                           |
| Phillips | 01S02E09CB81    | 34.62186944 | -90.9094611  | 185                   | 142.79            | 134.20              | 93.98%            |                           |                           | 17.2                      | 8.59                      | 8.61                     |                          |                           |
| Phillips | 01S03E02CB81    | 34.63598333 | -90.7677778  | 202                   | 139.00            | 129.41              | 93.10%            |                           |                           | 23.43                     | 9.59                      | 0.99                     | 13.84                    |                           |
| Phillips | 01S04E05DC01    | 34.63998865 | -90.6976094  | 246                   | 146.90            | 100.72              | 68.56%            |                           |                           | 52.60                     | 41.3                      | 4.88                     | 6.42                     | 2.32                      |
| Phillips | 02S01E28CC81    | 34.48788056 | -91.0161611  | 174                   | 141.00            | 127.12              | 90.16%            |                           |                           | 18.38                     | 13.88                     |                          | 4.50                     | 3.49                      |
| Phillips | 02S03E15AC01    | 34.5194333  | -90.7726333  | 174                   | 150.65            | 141.58              | 93.98%            |                           |                           | 16.12                     | 9.13                      | 0.06                     | 7.05                     |                           |
| Phillips | 02S03E48CD1     | 34.47454594 | -90.7815004  | 165                   | 122.44            | 106.01              | 86.58%            |                           |                           | 21.60                     | 10.52                     | 5.91                     | 5.17                     | 7.93                      |
| Phillips | 02S04E27AA01    | 34.49210278 | -90.6669694  | 180                   | 85.78             | 78.50               | 91.51%            |                           |                           | 10.86                     | 4.2                       | 3.08                     | 3.58                     |                           |
| Phillips | 02S03E04DA1     | 34.45958889 | -90.7860917  | 171                   | 116.00            | 99.37               | 85.66%            |                           |                           | 22.39                     | 16.21                     | 0.42                     | 5.76                     | 2.90                      |
| Phillips | 04S01E01AA01    | 34.37732429 | -90.9501129  | 156                   | 121.49            | 108.00              | 88.90%            |                           |                           | 15.00                     | 8.5                       | 4.99                     | 1.51                     | 0.51                      |
|          |                 |             |              |                       |                   |                     | 88.05%            |                           |                           |                           |                           | 6                        | 0                        | 1                         |
|          |                 |             |              |                       |                   |                     | 68.56%            |                           |                           |                           |                           | 8                        | 8                        | 5                         |
|          |                 |             |              |                       |                   |                     | 93.98%            |                           |                           |                           |                           | 1.45                     | 5.98                     | 0.26                      |
|          |                 |             |              |                       |                   |                     |                   |                           |                           |                           |                           |                          |                          |                           |
|          |                 |             |              |                       |                   |                     |                   |                           |                           |                           |                           |                          |                          |                           |
| Poinsett | 10N01E14CC1     | 35.48612936 | -90.9705023  | 231                   | 150.00            | 47.73               | 31.82%            | 98.84                     | 101.85                    | 109.69                    | 102.27                    | 7.42                     | 0.42                     | 3.43                      |
| Poinsett | 10N01E16CB1     | 35.4894083  | -91.0014861  | 225                   | 141.00            | 58.04               | 41.16%            | 80.99                     | 82.02                     | 82.96                     | 82.96                     |                          | 0.94                     | 1.97                      |
| Poinsett | 10N02E15CA1     | 35.49452635 | -90.8692828  | 237                   | 147.00            | 29.64               | 20.16%            | 112.00                    | 113.00                    | 117.36                    | 117.36                    |                          | 4.36                     | 5.36                      |
| Poinsett | 10N02E48BB1     | 35.45716667 | -90.8753611  | 235                   | 149.59            | 38.87               | 25.98%            | 104.57                    | 108.24                    | 109.65                    | 110.72                    | 1.07                     | 2.48                     | 6.15                      |
| Poinsett | 10N04E35BA1     | 35.46355    | -90.6415389  | 212                   | 53.00             | 42.35               | 79.91%            | 15.00                     |                           | 10.65                     | 10.65                     |                          | 4.35                     |                           |
| Poinsett | 10N06E11AA1     | 35.51096944 | -90.4129611  | 213                   | 98.00             | 91.65               | 93.52%            |                           |                           | 7.46                      | 6.35                      | 1.11                     | 8.92                     |                           |
| Poinsett | 11N01E17DD1     | 35.5702468  | -91.00428709 | 232                   | 141.00            | 53.00               | 37.59%            | 83.30                     | 85.50                     | 88                        | 88                        |                          | 2.50                     | 4.70                      |
| Poinsett | 11N01E26AA1     | 35.56120278 | -90.9481444  | 236                   | 143.00            | 35.04               | 24.50%            | 100.92                    | 105.41                    | 115.2                     | 107.96                    | 7.24                     | 2.55                     | 7.04                      |
| Poinsett | 11N02E30BB1     | 35.5645249  | -90.9278959  | 239                   | 144.00            | 29.32               | 20.36%            | 108.00                    | 110.00                    | 114.68                    | 114.68                    |                          | 4.68                     | 6.68                      |
| Poinsett | 11N03E19CD1 A-1 | 35.570175   | -90.8115694  | 243                   | 127.00            | 8.90                | 7.01%             |                           |                           | 118.1                     | 118.1                     |                          |                          |                           |
| Poinsett | 11N03E26DA1 A-1 | 35.55703889 | -90.84035    | 240                   | 140.00            | 20.28               | 14.49%            |                           |                           | 119.72                    | 119.72                    |                          |                          |                           |
| Poinsett | 11N04E13DDA1    | 35.5803583  | -90.6083     | 213                   | 69.00             | 53.07               | 76.91%            | 15.50                     | 14.00                     | 15.93                     | 15.93                     |                          | 1.93                     | 0.43                      |
| Poinsett | 11N05E26BD1     | 35.5563889  | -90.5331611  | 213                   | 91.00             | 79.00               | 86.81%            | 13.50                     | 9.50                      | 12                        | 12                        |                          | 2.50                     | 1.50                      |
| Poinsett | 11N06E48BB1     | 35.54       | -90.4461111  | 217                   | 93.00             | 80.97               | 87.06%            | 12.36                     | 12.75                     | 12.03                     | 12.03                     | 0.72                     | 2.85                     | 0.33                      |
| Poinsett | 11N07E18CA1     | 35.5763111  | -90.3892111  | 220                   | 102.40            | 89.21               | 87.12%            | 15.99                     | 16.04                     | 12.32                     | 13.19                     | 0.87                     | 2.85                     | 2.80                      |
| Poinsett | 11N07E22ADD1    | 35.5621611  | -90.3291111  | 221                   | 115.90            | 90.55               | 78.13%            |                           |                           | 22.95                     | 25.35                     | 2.40                     | 1.19                     |                           |
| Poinsett | 11N07E28CB1     | 35.5475     | -90.3555556  | 217                   | 109.00            | 88.53               | 81.22%            | 23.50                     | 23.50                     | 20.47                     | 20.47                     |                          |                          | 3.03                      |
| Poinsett | 12N02E34CC1     | 35.62457778 | -90.8747833  | 247                   | 121               | 7.94                | 6.56%             | 122                       | 128                       | 128.94                    | 128.94                    |                          | 0.94                     | 6.94                      |
| Poinsett | 12N05E16ABA1    | 35.67775    | -90.5589694  | 220                   | 88.00             | 75.84               | 86.18%            | 14.00                     | 11.00                     | 12.16                     | 12.16                     |                          | 1.16                     | 1.84                      |
| Poinsett | 12N07E04BA1     | 35.6970611  | -90.35605    | 220                   | 113.00            | 108.72              | 96.21%            | 7.16                      | 6.66                      | 6.44                      | 6.44                      | 2.16                     | 2.38                     | 2.88                      |
| Poinsett | 12N07E10CB1     | 35.67891944 | -90.3455389  | 221                   | 116.00            | 112.95              | 97.37%            | 10.00                     | 10.00                     | 3.05                      | 3.05                      |                          | 6.95                     |                           |
| Poinsett | 12N07E25CC1     | 35.62781944 | -90.30055    | 225                   | 124.00            | 106.05              | 85.52%            | 17.11                     |                           |                           |                           |                          |                          | 0.84                      |
|          |                 |             |              |                       |                   |                     | 56.93%            |                           |                           |                           |                           | 3                        | 11                       | 10                        |
|          |                 |             |              |                       |                   |                     | 6.56%             |                           |                           |                           |                           | 8                        | 15                       | 18                        |
|          |                 |             |              |                       |                   |                     | 97.37%            |                           |                           |                           |                           | 1.79                     | 0.61                     | 1.10                      |
|          |                 |             |              |                       |                   |                     |                   |                           |                           |                           |                           |                          |                          |                           |
|          |                 |             |              |                       |                   |                     |                   |                           |                           |                           |                           |                          |                          |                           |
|          |                 |             |              |                       |                   |                     |                   |                           |                           |                           |                           |                          |                          |                           |
| Prairie  | 01N06W05CC1     | 34.73138056 | -91.6803     | 220                   | 157.04            | 39.30               | 25.03%            | 118.61                    | 119.34                    | 117.22                    | 117.22                    | 0.52                     | 1.60                     | 0.87                      |
| Prairie  | 01S04W28DD1     | 34.5896333  | -91.4415917  | 205                   | 137.33            | 41.41               | 30.15%            | 98.09                     | 98.15                     | 96.11                     | 95.92                     | 0.19                     | 2.23                     | 2.17                      |
| Prairie  | 01S05W31DDA1    | 34.57133889 | -91.5754694  | 206                   | 137.31            | 40.18               | 29.26%            | 94.10                     | 100.48                    | 98.05                     | 97.13                     | 0.92                     | 3.35                     | 3.03                      |
| Prairie  | 01S06W12BA1     | 34.64055556 | -91.6036111  | 228                   | 156.88            | 46.26               | 29.49%            | 118.82                    | 117.78                    | 114.01                    | 110.62                    | 3.39                     | 7.16                     | 8.20                      |
| Prairie  | 02N04W02CB1     | 34.8211972  | -91.4051694  | 189                   | 109.00            | 94.36               | 86.57%            | 15.67                     | 12.98                     | 14.64                     | 15.67                     | 1.66                     | 1.03                     | 1.03                      |
| Prairie  | 02N05W24BC3     | 34.78340278 | -91.492625   | 223                   | 144.00            | 55.72               | 38.69%            | 90.19                     | 92.12                     | 88.48                     | 88.28                     | 0.20                     | 3.84                     | 1.91                      |
| Prairie  | 02N05W24CB1     | 34.7779111  | -91.4956594  | 225                   | 144.00            | 45.54               | 31.63%            |                           |                           | 98.45                     | 98.45                     | 0.01                     |                          |                           |
| Prairie  | 02N06W22CC1 ne  | 34.7813333  | -91.6409444  | 235                   | 153.00            | 39.28               | 25.67%            |                           |                           | 114.23                    | 114.23                    | 0.51                     |                          |                           |
| Prairie  | 02N06W24CA1     | 34.7808333  | -91.5975     | 231                   | 148.00            | 30.04               | 20.30%            | 118.31                    | 118.97                    | 117.79                    | 117.96                    | 0.17                     | 1.01                     | 0.35                      |
| Prairie  | 04N04W07AD1     | 34.98064167 | -91.4591861  | 195                   | 92.00             | 72.31               | 78.60%            | 20.24                     | 23.02                     | 19.69                     | 19.69                     |                          | 3.33                     | 0.55                      |

**Mississippi River Alluvial Aquifer  
Hydrologic Data 2012, 2017, 2021, 2022**

| County      | Station ID Number | Latitude    | Longitude    | Land Surface Altitude | Aquifer Thickness | Saturated Thickness | Percent Saturated | 2012 Depth to Water (ft.) | 2017 Depth to Water (ft.) | 2021 Depth to Water (ft.) | 2022 Depth to Water (ft.) | 1 Year Change (21 to 22) | 5 Year Change (17 to 22) | 10 Year Change (12 to 22) |
|-------------|-------------------|-------------|--------------|-----------------------|-------------------|---------------------|-------------------|---------------------------|---------------------------|---------------------------|---------------------------|--------------------------|--------------------------|---------------------------|
| Prairie     | 04N05W07D0C1      | 34.97850556 | -91.57803333 | 211                   | 112.00            | 33.12               | 29.57%            | 79.42                     | 78.56                     | 77.71                     | 78.88                     | 1.17                     | 0.32                     | 0.54                      |
| Prairie     | 04N07W03D0B1      | 34.956472   | -91.7366194  | 256                   | 155.00            | 64.96               | 41.91%            | 88.59                     | 89.97                     | 89.72                     | 90.04                     | 0.32                     | 0.07                     | 1.45                      |
| Prairie     | 04N07W20D0B1      | 34.95256389 | -91.7688661  | 264                   | 174.50            | 68.75               | 39.40%            | 102.87                    |                           | 105.59                    | 105.75                    | 0.16                     |                          | 2.88                      |
|             |                   |             |              |                       |                   |                     | <b>38.94%</b>     |                           |                           |                           |                           | <b>7</b>                 | <b>2</b>                 | <b>3</b>                  |
|             |                   |             |              |                       |                   |                     | <b>20.30%</b>     |                           |                           |                           |                           | <b>12</b>                | <b>9</b>                 | <b>11</b>                 |
|             |                   |             |              |                       |                   |                     | <b>86.57%</b>     |                           |                           |                           |                           | <b>0.10</b>              | <b>2.46</b>              | <b>0.75</b>               |
| Pulaski     | 01N10W29D0C1      | 34.68033889 | -92.10205    | 246                   | 121.00            | 105.13              | 86.88%            |                           |                           |                           | 15.87                     |                          |                          |                           |
| Pulaski     | 01S10W19D0C1      | 34.60848889 | -92.1307389  | 239                   | 102.00            | 80.95               | 79.36%            |                           |                           |                           | 21.05                     |                          |                          |                           |
| Pulaski     | 01S10W29C0C1      | 34.59382778 | -92.1187944  | 239                   | 102.00            | 88.65               | 86.91%            | 13.26                     |                           | 10.93                     | 13.35                     | 2.42                     |                          | 0.09                      |
| Pulaski     | 01S11W22A0B1      | 34.61998889 | -92.1816083  | 233                   | 97.00             | 75.78               |                   | 23.80                     | 21.17                     | 19.48                     | 19.9                      | 0.42                     | 1.27                     | 3.90                      |
| Pulaski     | 02S10W14D0C1      | 34.53464167 | -92.059375   | 225                   | 109.20            | 89.30               | 81.78%            |                           |                           |                           |                           |                          |                          |                           |
|             |                   |             |              |                       |                   |                     | <b>82.61%</b>     |                           |                           |                           |                           | <b>2</b>                 | <b>0</b>                 | <b>1</b>                  |
|             |                   |             |              |                       |                   |                     | <b>78.12%</b>     |                           |                           |                           |                           | <b>2</b>                 | <b>1</b>                 | <b>2</b>                  |
|             |                   |             |              |                       |                   |                     | <b>86.91%</b>     |                           |                           |                           |                           | <b>1.42</b>              | <b>1.27</b>              | <b>1.91</b>               |
|             |                   |             |              |                       |                   |                     |                   |                           |                           |                           |                           |                          |                          |                           |
|             |                   |             |              |                       |                   |                     |                   |                           |                           |                           |                           |                          |                          |                           |
| Randolph    | 18N01E11C0C1      | 36.2088972  | -90.953825   | 266.03                | 29.00             | 11.43               | 39.41%            | 13.00                     | 6.85                      | 16.34                     | 17.57                     | 1.23                     |                          | 4.57                      |
| Randolph    | 18N01E16A0B1      | 36.2084111  | -90.9766833  | 263                   | 25.00             | 12.71               | 50.84%            | 13.00                     | 12.29                     | 12.29                     | 12.29                     | 0.29                     |                          | 0.71                      |
| Randolph    | 18N01E12D01       | 36.17975    | -90.9812306  | 264.31                | 25.00             | 9.91                | 39.64%            | 15.50                     | 13.79                     | 13.79                     | 15.09                     | 1.30                     |                          | 0.41                      |
| Randolph    | 18N01E34A0C1      | 36.1618583  | -90.9580917  | 264                   | 54.00             | 35.52               | 65.78%            | 16.16                     | 17.55                     | 17.55                     | 18.48                     | 0.93                     |                          | 2.32                      |
| Randolph    | 18N02E7B0A1       | 36.1791611  | -90.85675    | 274.02                | 116.00            | 72.22               | 74.02             | 40.00                     | 39.78                     | 39.4                      | 39.78                     | 0.38                     |                          | 0.22                      |
| Randolph    | 18N02E90B0A1      | 36.17867896 | -90.904385   | 276.33                | 93.00             | 56.49               | 60.74%            |                           |                           |                           | 36.51                     |                          |                          |                           |
| Randolph    | 20N02E01A0D1      | 36.406725   | -90.8031639  | 280                   | 25.00             | 16.87               | 67.48%            | 10.85                     | 9.67                      | 9.67                      | 8.13                      | 1.54                     | 1.28                     | 2.72                      |
| Randolph    | 20N03E20D0C1      | 36.35776355 | -90.7730059  | 278                   | 141.05            | 133.64              | 94.75%            |                           | 6.96                      | 6.96                      | 7.41                      | 0.45                     |                          | 0.74                      |
| Randolph    | 20N03E28B0A1      | 36.3537583  | -90.7605472  | 279                   | 137.24            | 128.70              | 93.78%            | 10.64                     | 8.23                      | 8.21                      | 8.54                      | 0.33                     | 0.31                     | 2.10                      |
| Randolph    | 20N03E29B0C1      | 36.34898889 | -90.7778472  | 287                   | 41.00             | 29.03               | 70.80%            |                           |                           | 11.4                      | 11.97                     | 0.57                     |                          |                           |
|             |                   |             |              |                       |                   |                     | <b>64.89%</b>     |                           |                           |                           |                           | <b>8</b>                 | <b>2</b>                 | <b>2</b>                  |
|             |                   |             |              |                       |                   |                     | <b>39.41%</b>     |                           |                           |                           |                           | <b>9</b>                 | <b>2</b>                 | <b>7</b>                  |
|             |                   |             |              |                       |                   |                     | <b>94.75%</b>     |                           |                           |                           |                           | <b>0.44</b>              | <b>0.80</b>              | <b>0.10</b>               |
|             |                   |             |              |                       |                   |                     |                   |                           |                           |                           |                           |                          |                          |                           |
|             |                   |             |              |                       |                   |                     |                   |                           |                           |                           |                           |                          |                          |                           |
| St. Francis | 04N01W17C0C1      | 34.9597222  | -91.1336111  | 205                   | 140.00            | 69.13               | 49.38%            |                           | 65.77                     | 64.95                     | 70.87                     | 5.92                     | 5.10                     |                           |
| St. Francis | 04N01W20B0B1      | 34.95476944 | -91.1337028  | 202                   | 140.00            | 73.50               | 52.50%            |                           | 62.12                     | 62.65                     | 66.5                      | 3.85                     | 4.38                     |                           |
| St. Francis | 04N01W22B0B1      | 34.9552472  | -91.0962444  | 208                   | 146.00            | 69.20               | 47.40%            | 73.83                     | 79.7                      | 79.7                      | 76.8                      | 2.90                     |                          | 2.97                      |
| St. Francis | 04N01W28C0D1      | 34.9264611  | -91.1093194  | 208                   | 154.00            | 78.07               | 50.69%            |                           | 78.48                     | 73.84                     | 75.93                     | 2.09                     | 2.55                     |                           |
| St. Francis | 04N02E11A01       | 34.9733722  | -90.8535333  | 213                   | 154.00            | 106.60              | 69.22%            |                           | 48.18                     | 47.47                     | 47.4                      | 0.07                     | 0.78                     |                           |
| St. Francis | 04N02E27A0A1      | 34.93520278 | -90.8755278  | 211                   | 155.00            | 105.40              | 68.00%            |                           | 51.45                     | 49.9                      | 49.6                      | 0.30                     | 1.85                     |                           |
| St. Francis | 04N10E20D0A1      | 34.9461972  | -91.0135833  | 204                   | 149.00            | 72.20               | 48.46%            |                           | 72.20                     | 75.8                      | 76.8                      | 1.00                     |                          |                           |
| St. Francis | 05N01E06D0A1      | 35.08030278 | -91.0327444  | 211                   | 140.00            | 65.00               | 46.43%            |                           | 77.20                     | 83.8                      | 75                        | 8.80                     | 2.20                     |                           |
| St. Francis | 05N01E15B0B1      | 35.05071389 | -90.9951139  | 209                   | 142.00            | 67.69               | 47.67%            | 72.10                     | 73.87                     | 74.31                     | 74.31                     | 0.44                     | 0.44                     | 2.21                      |
| St. Francis | 05N01E27B0A1      | 35.02659167 | -90.9913278  | 209                   | 144.55            | 68.14               | 47.14%            |                           | 76.31                     | 78.35                     | 76.41                     | 1.94                     | 0.10                     |                           |
| St. Francis | 05N02E20A0C1      | 35.0242722  | -90.9103222  | 211                   | 140.00            | 77.97               | 55.69%            |                           | 61.83                     | 65.4                      | 62.03                     | 3.37                     | 0.20                     |                           |
| St. Francis | 05N02E26A0B1      | 35.02315    | -90.8557917  | 218                   | 157.00            | 99.00               | 63.00%            |                           | 53.11                     | 56.4                      | 58                        | 1.60                     |                          |                           |
| St. Francis | 05N02E26D01       | 35.0088861  | -90.8703389  | 215                   | 154.00            | 112.00              | 72.73%            |                           | 53.11                     | 55.6                      | 42                        | 13.60                    | 11.11                    |                           |
| St. Francis | 05N03E31A0B2      | 35.0083861  | -90.8263167  | 221                   | 159.00            | 113.40              | 71.33%            |                           |                           | 53.6                      | 45.6                      | 8.00                     |                          |                           |
| St. Francis | 05N05E19D0C1      | 35.024325   | -90.6084306  | 205                   | 140.00            | 109.72              | 78.37%            |                           | 40.87                     | 33.14                     | 30.28                     | 1.55                     | 8.57                     |                           |
| St. Francis | 05N06D05B0B1      | 35.08486667 | -90.489925   | 201                   | 133.00            | 100.70              | 75.71%            |                           |                           |                           | 32.3                      | 0.84                     |                          |                           |
| St. Francis | 06N01E33A0D1      | 35.09869167 | -90.9952583  | 210                   | 140.00            | 61.00               | 43.57%            |                           |                           |                           | 79                        |                          |                          |                           |
| St. Francis | 06N02E13D0C1      | 35.13684444 | -90.8340861  | 232                   | 173.00            | 91.96               | 53.16%            | 78.90                     | 80.49                     | 79.75                     | 81.04                     | 1.29                     | 0.55                     | 2.14                      |
| St. Francis | 06N02E15B0D1      | 35.144875   | -90.8798083  | 214.64                | 143.00            | 73.71               | 51.55%            | 63.95                     | 66.79                     | 66.58                     | 69.29                     | 2.71                     | 2.50                     | 5.34                      |
| St. Francis | 06N02E16C0C1      | 35.13591389 | -90.900995   | 218                   | 150.00            | 77.00               | 51.33%            |                           | 74.22                     | 82.02                     | 73                        | 9.02                     | 1.22                     |                           |
| St. Francis | 06N05E22A0C1      | 35.12315556 | -90.5478361  | 200                   | 141.00            | 105.36              | 74.72%            | 40.16                     |                           |                           | 35.64                     |                          |                          | 4.52                      |
| St. Francis | 06N06E17D0C1      | 35.13035556 | -90.4761556  | 202                   | 136.00            | 106.50              | 78.31%            |                           | 36.46                     |                           | 29.5                      | 6.96                     |                          |                           |
| St. Francis | 06N06E20A0B2      | 35.12973889 | -90.4781111  | 202                   | 136.00            | 101.65              | 74.74%            | 37.51                     |                           | 33.83                     | 34.35                     | 0.52                     | 7                        | 3.16                      |
|             |                   |             |              |                       |                   |                     | <b>43.57%</b>     |                           |                           |                           |                           | <b>9</b>                 | <b>15</b>                | <b>6</b>                  |
|             |                   |             |              |                       |                   |                     | <b>59.62%</b>     |                           |                           |                           |                           | <b>1.49</b>              | <b>1.46</b>              | <b>0.83</b>               |
|             |                   |             |              |                       |                   |                     | <b>78.37%</b>     |                           |                           |                           |                           |                          |                          |                           |
|             |                   |             |              |                       |                   |                     |                   |                           |                           |                           |                           |                          |                          |                           |
|             |                   |             |              |                       |                   |                     |                   |                           |                           |                           |                           |                          |                          |                           |

**Mississippi River Alluvial Aquifer  
Hydrologic Data 2012,2017,2021,2022**

| County   | Station ID Number | Latitude    | Longitude    | Land Surface Altitude | Aquifer Thickness | Saturated Thickness | Percent Saturated | 2012 Depth to Water (ft.) | 2017 Depth to Water (ft.) | 2021 Depth to Water (ft.) | 2022 Depth to Water (ft.) | 1 Year Change ('21 to '22) | 5 Year Change ('17 to '22) | 10 Year Change ('12 to '22) |  |
|----------|-------------------|-------------|--------------|-----------------------|-------------------|---------------------|-------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------------------------|----------------------------|-----------------------------|--|
| White    | 05N07W10CCC1      | 35.06672778 | -91.74333333 | 200                   | 97.00             | 90.14               | 92.93%            | 8.28                      | 7.89                      | 6.37                      | 6.86                      | 0.49                       | 1.03                       | 1.42                        |  |
| White    | 06N06W13BA1       | 35.1465011  | -91.6005392  | 215                   | 112.00            | 31.07               | 27.74%            |                           |                           | 81.09                     | 80.93                     | 0.16                       |                            |                             |  |
| White    | 06N06W34AAB1      | 35.1065472  | -91.6315417  | 212                   | 117.00            | 60.04               | 51.32%            | 60.50                     |                           | 56.9                      | 56.96                     | 0.06                       |                            | 3.54                        |  |
| White    | 06N07W17DCC1      | 35.139575   | -91.7763139  | 218                   | 51.00             | 43.63               | 85.55%            | 10.30                     | 8.97                      | 5.97                      | 7.37                      | 1.40                       | 1.60                       | 2.93                        |  |
| White    | 06N08W13BA1       | 35.1521472  | -91.8067694  | 228                   | 50.00             | 44.73               | 89.46%            | 6.88                      | 7.29                      | 5.09                      | 5.27                      | 0.18                       | 2.02                       | 1.61                        |  |
| White    | 06N08W26DDB1      | 35.11119167 | -91.8246778  | 226                   | 53.00             | 45.20               | 85.28%            | 10.59                     |                           | 7.66                      | 7.8                       | 0.14                       |                            | 2.79                        |  |
| White    | 07N05W32BAB1      | 35.1935083  | -91.5683861  | 213.7                 | 112.00            | 89.04               | 79.50%            | 24.58                     |                           |                           | 22.96                     |                            |                            | 1.62                        |  |
|          |                   |             |              |                       |                   | Avg % Saturated:    |                   |                           |                           |                           |                           |                            |                            | Wells in Decline:           |  |
|          |                   |             |              |                       |                   | Min % Saturated:    |                   |                           |                           |                           |                           |                            |                            | Total Wells:                |  |
|          |                   |             |              |                       |                   | Max % Saturated:    |                   |                           |                           |                           |                           |                            |                            | Average Change:             |  |
| Woodruff | 05N02W20DCB1      | 35.0355     | -91.232275   | 192                   | 96.00             | 81.66               | 85.06%            | 12.88                     |                           | 7.77                      | 14.34                     | 6.57                       |                            | 1.46                        |  |
| Woodruff | 06N01W11AAB1      | 35.1622222  | -91.065      | 214                   | 137.00            | 68.94               | 50.32%            | 64.92                     | 67.75                     | 67.55                     | 68.06                     | 0.51                       | 0.31                       | 3.14                        |  |
| Woodruff | 06N01W27BCC1      | 35.11138889 | -91.0955556  | 202                   | 127.00            | 69.68               | 54.87%            | 54.67                     |                           | 57.25                     | 57.32                     | 0.07                       |                            | 2.65                        |  |
| Woodruff | 07N01W04AAB1      | 35.26538889 | -91.102      | 226                   | 136.00            | 71.42               | 52.51%            | 61.44                     |                           | 73.05                     | 64.58                     | 8.47                       |                            | 3.14                        |  |
| Woodruff | 08N01W06DD1       | 35.341125   | -91.1290778  | 218                   | 131.00            | 84.51               | 64.51%            | 43.49                     |                           | 44.49                     | 46.49                     | 2.00                       |                            | 3.00                        |  |
| Woodruff | 08N03W04BB1       | 35.35777778 | -91.3219444  | 218                   | 125.00            | 111.60              | 89.28%            | 13.58                     |                           | 11.23                     | 13.4                      | 2.17                       |                            | 0.18                        |  |
| Woodruff | 08N03W31AAD1      | 35.28203025 | -91.3412391  | 211                   | 122.00            | 103.80              | 85.08%            | 18.82                     |                           | 16.33                     | 18.2                      | 1.87                       |                            | 0.62                        |  |
|          |                   |             |              |                       |                   | Avg % Saturated:    |                   |                           |                           |                           |                           |                            |                            | Wells in Decline:           |  |
|          |                   |             |              |                       |                   | Min % Saturated:    |                   |                           |                           |                           |                           |                            |                            | Total Wells:                |  |
|          |                   |             |              |                       |                   | Max % Saturated:    |                   |                           |                           |                           |                           |                            |                            | Average Change:             |  |
|          |                   |             |              |                       |                   | Min % Saturated:    |                   |                           |                           |                           |                           |                            |                            | Wells in Decline:           |  |
|          |                   |             |              |                       |                   | Max % Saturated:    |                   |                           |                           |                           |                           |                            |                            | Total Wells:                |  |
|          |                   |             |              |                       |                   |                     |                   |                           |                           |                           |                           |                            |                            | Average Change:             |  |
|          |                   |             |              |                       |                   |                     |                   |                           |                           |                           |                           |                            |                            | Wells in Decline:           |  |
|          |                   |             |              |                       |                   |                     |                   |                           |                           |                           |                           |                            |                            | Total Wells:                |  |
|          |                   |             |              |                       |                   |                     |                   |                           |                           |                           |                           |                            |                            | Average Change:             |  |
|          |                   |             |              |                       |                   |                     |                   |                           |                           |                           |                           |                            |                            | Wells in Decline:           |  |
|          |                   |             |              |                       |                   |                     |                   |                           |                           |                           |                           |                            |                            | Total Wells:                |  |
|          |                   |             |              |                       |                   |                     |                   |                           |                           |                           |                           |                            |                            | Average Change:             |  |

Min % Saturated: -6.56%  
 Max % Saturated: 99.41%  
 Average % Saturated: 66.46%  
 Wells below 50%: 103  
 Wells below 25%: 30  
 % of Wells below 50%: 25.18%  
 % of Wells below 25%: 7.33%  
 Below 50%:  
 Below 25%:

**Total Wells:** 332  
**Total Wells in Decline:** 183  
**Percent of Total Wells in Decline:** 55.12%  
**Total Average Change (ft):** 0.60  
 238  
 56  
 23.53%  
 2.66  
 1.05  
**1.80**

Mississippi River Alluvial Aquifer  
Hydrologic Data Spring/Fall 2022

| County   | Station ID Number      | Latitude | Longitude | Land Surface Altitude | Well Depth | Spring Depth to Water (ft.) | Spring Water Level Altitude (ft.) | Fall Depth to Water (ft.) | Fall Water Level Altitude (ft.) | Spring/Fall Water Level Change (ft.) |
|----------|------------------------|----------|-----------|-----------------------|------------|-----------------------------|-----------------------------------|---------------------------|---------------------------------|--------------------------------------|
| Arkansas | 02S04W11DBB1           | 34.5425  | -91.40423 | 213.04                | 152        | 95.95                       | 117.09                            | 99.58                     | 113.46                          | 3.63                                 |
| Arkansas | 02S04W19AA1            | 34.5064  | -91.48603 | 205                   | 155        | 104.97                      | 100.03                            | 107.45                    | 97.55                           | 2.48                                 |
| Arkansas | 02S04W23DA1            | 34.5123  | -91.39812 | 207                   | 140        | 95.86                       | 111.14                            | 98.88                     | 108.12                          | 3.02                                 |
| Arkansas | 02S05W09AA1            | 34.5483  | -91.53962 | 220                   | 162        | 121.43                      | 98.57                             | 122.41                    | 97.59                           | 0.98                                 |
| Arkansas | 02S05W36DD1            | 34.4785  | -91.48812 | 212                   | 140        | 96.68                       | 115.32                            | 102.48                    | 109.52                          | 5.80                                 |
| Arkansas | 03S03W05CC1            | 34.4603  | -91.35884 | 203                   | 160        | 97.32                       | 105.68                            | 101.54                    | 101.46                          | 4.22                                 |
| Arkansas | 03S03W18CC1            | 34.4314  | -91.38083 | 196                   | 152.5      | 99.48                       | 96.52                             | 100.26                    | 95.74                           | 0.78                                 |
| Arkansas | 03S03W27BB1            | 34.4152  | -91.32891 | 198                   | 120        | 90.77                       | 107.23                            | 92.2                      | 105.8                           | 1.43                                 |
| Arkansas | 03S04W02BB1            | 34.4761  | -91.4163  | 197.46                | 116        | 91.95                       | 105.51                            | 92.29                     | 105.17                          | 0.34                                 |
| Arkansas | 3S04W03DCA16 Rice Rese | 34.4647  | -91.42094 | 200                   | 126        | 100.18                      | 99.82                             | 100.15                    | 99.85                           | 0.03                                 |
| Arkansas | 03S04W03DCA6           | 34.4648  | -91.42107 | 204                   | 122.3      | 99.08                       | 104.92                            | 99.59                     | 104.41                          | 0.51                                 |
| Arkansas | 03S04W24CC1            | 34.4169  | -91.3934  | 193                   | 146        | 81.19                       | 111.81                            | 80.99                     | 112.01                          | 0.20                                 |
| Arkansas | 03S05W03CC1            | 34.4645  | -91.54095 | 215                   | 110        | 101.47                      | 113.53                            | 103.45                    | 111.55                          | 1.98                                 |
| Arkansas | 03S05W13CBA2           | 34.4417  | -91.50194 | 211                   | 136.3      | 105.43                      | 105.57                            | 105.57                    | 105.43                          | 0.14                                 |
| Arkansas | 03S06W35ADD1           | 34.4032  | -91.61435 | 190                   | 110        | 52.9                        | 137.1                             | 53.75                     | 136.25                          | 0.85                                 |
| Arkansas | 04S04W02ABB1           | 34.387   | -91.40658 | 200                   | 155        | 108.39                      | 91.61                             | 110.39                    | 89.61                           | 2.00                                 |
| Arkansas | 04S04W35ABC1           | 34.3117  | -91.41452 | 193                   | 131        | 102.11                      | 90.89                             | 102.02                    | 90.98                           | 0.09                                 |
| Arkansas | 05S03W09CBA1           | 34.2733  | -91.34611 | 196                   | 180.5      | 111.44                      | 84.56                             | 113.45                    | 82.55                           | 2.01                                 |
| Arkansas | 05S03W16ABB1           | 34.2667  | -91.34083 | 197                   | 201        | 111.68                      | 85.32                             | 116.04                    | 80.96                           | 4.36                                 |
| Arkansas | 05S04W32BBA1           | 34.2211  | -91.47273 | 187                   | 115        | 51.99                       | 135.01                            | 54.36                     | 132.64                          | 2.37                                 |
| Arkansas | 06S03W10BBA1           | 34.1933  | -91.33162 | 184                   | 155        | 74.92                       | 109.08                            | 77.17                     | 106.83                          | 2.25                                 |
| Arkansas | 06S03W32ADD1           | 34.1278  | -91.35417 | 178                   | 135.5      | 48.76                       | 129.24                            | 52.97                     | 125.03                          | 4.21                                 |
| Arkansas | 07S03W32BBA1           | 34.0444  | -91.37322 | 176.92                | 128        | 22.72                       | 154.2                             | 25.36                     | 151.56                          | 2.64                                 |
| Arkansas | 07S04W01DDD1           | 34.107   | -91.39088 | 181                   | 155        | 41.62                       | 139.38                            | 46.92                     | 134.08                          | 5.30                                 |
|          |                        |          |           |                       |            |                             |                                   |                           |                                 |                                      |
|          |                        |          |           |                       |            |                             |                                   |                           | <b>Wells in Decline:</b>        | <b>21</b>                            |
|          |                        |          |           |                       |            |                             |                                   |                           | <b>Total Wells:</b>             | <b>24</b>                            |
|          |                        |          |           |                       |            |                             |                                   |                           | <b>Average Change:</b>          | <b>2.12</b>                          |
|          |                        |          |           |                       |            |                             |                                   |                           |                                 |                                      |
| Ashley   | 15S04W23DB1            | 33.3781  | -91.4821  | 125                   | 90         | 28.39                       | 96.61                             | 30.29                     | 94.71                           | 1.90                                 |
| Ashley   | 16S06W08CAA1           | 33.3282  | -91.74396 | 184                   | 105        | 78.52                       | 105.48                            | 79.38                     | 104.62                          | 0.86                                 |
| Ashley   | 16S06W25DDD1           | 33.2778  | -91.66611 | 180                   | 130        | 78.93                       | 101.07                            | 80.61                     | 99.39                           | 1.68                                 |
| Ashley   | 16S06W27BAB1           | 33.2916  | -91.71117 | 183                   | 115        | 85.16                       | 97.84                             | 87.43                     | 95.57                           | 2.27                                 |
| Ashley   | 17S04W03ABB1           | 33.2581  | -91.50275 | 124                   | 105        | 27.14                       | 96.86                             | 32.97                     | 91.03                           | 5.83                                 |
| Ashley   | 17S04W15DDC1           | 33.2146  | -91.49836 | 116                   | 57         | 22.69                       | 93.31                             | 29.25                     | 86.75                           | 6.56                                 |
| Ashley   | 17S04W21ABA1           | 33.2139  | -91.51945 | 118                   | NA         | 19.7                        | 98.3                              | 25.85                     | 92.15                           | 6.15                                 |
| Ashley   | 17S06W35CAC1           | 33.1804  | -91.69355 | 179                   | 140        | 73.59                       | 105.41                            | 73.83                     | 105.17                          | 0.24                                 |
| Ashley   | 18S08W01AAB1           | 33.1708  | -91.87364 | 178                   | 128        | 86.23                       | 91.77                             | 88.64                     | 89.36                           | 2.41                                 |
| Ashley   | 8S08W28DDD2 near Cross | 33.1069  | -91.92457 | 163.26                | 156        | 84.26                       | 79                                | 84.09                     | 79.17                           | 0.17                                 |
| Ashley   | 19S06W07BCC1           | 33.0677  | -91.76887 | 134.7                 | 152        | 31.08                       | 103.62                            | 31.1                      | 103.6                           | 0.02                                 |

**Mississippi River Alluvial Aquifer  
Hydrologic Data Spring/Fall 2022**

| County | Station ID Number | Latitude | Longitude | Land Surface Altitude | Well Depth | Spring Depth to Water (ft.) | Spring Water Level Altitude (ft.) | Fall Depth to Water (ft.) | Fall Water Level Altitude (ft.) | Spring/Fall Water Level Change (ft.) |
|--------|-------------------|----------|-----------|-----------------------|------------|-----------------------------|-----------------------------------|---------------------------|---------------------------------|--------------------------------------|
|        |                   |          |           |                       |            |                             |                                   |                           | Wells in Decline:               | 10                                   |
|        |                   |          |           |                       |            |                             |                                   |                           | Total Wells:                    | 11                                   |
|        |                   |          |           |                       |            |                             |                                   |                           | Average Change:                 | 2.52                                 |
| Chicot | 13503W34CAA1      | 33.5265  | -91.39328 | 134                   | 75         | 38.45                       | 95.55                             | 39.73                     | 94.27                           | 1.28                                 |
| Chicot | 13503W35BAC1      | 33.5317  | -91.37931 | 133                   | 90         | 40.32                       | 92.68                             | 42.12                     | 90.88                           | 1.80                                 |
| Chicot | 14503W07BBB1      | 33.5031  | -91.43889 | 137                   | 77         | 27.09                       | 109.91                            | 27.77                     | 109.23                          | 0.68                                 |
| Chicot | 14503W32CDB2      | 33.4371  | -91.43096 | 134                   | 100        | 39.91                       | 94.09                             | 41.94                     | 92.06                           | 2.03                                 |
| Chicot | 15502W20DDC1      | 33.3741  | -91.32218 | 126                   | 85         | 34.95                       | 91.05                             | 36.69                     | 89.31                           | 1.74                                 |
| Chicot | 16503W15DAD1      | 33.305   | -91.39278 | 118                   | 97.6       | 33.9                        | 84.1                              | 34.62                     | 83.38                           | 0.72                                 |
| Chicot | 17501W06BCC1      | 33.2503  | -91.25145 | 117                   | 100        | 22.86                       | 94.14                             | 29.51                     | 87.49                           | 6.65                                 |
| Chicot | 17502W25CBA1      | 33.1921  | -91.25681 | 131                   | NA         | 36.91                       | 94.09                             | 39.31                     | 91.69                           | 2.40                                 |
| Chicot | 17503W28DBA1      | 33.1907  | -91.41151 | 110                   | 95         | 24.5                        | 85.5                              | 25.7                      | 84.3                            | 1.20                                 |
| Chicot | 19502W27ACC1      | 33.016   | -91.29495 | 129                   | 80         | 39.43                       | 89.57                             | 40.67                     | 88.33                           | 1.24                                 |
| Chicot | 19502W27BDB1      | 33.0181  | -91.29981 | 132                   | 90         | 45.34                       | 86.66                             | 46.3                      | 85.7                            | 0.96                                 |
| Chicot | 19503W14ABB1      | 33.0512  | -91.38075 | 110                   | 95         | 23.56                       | 86.44                             | 24.6                      | 85.4                            | 1.04                                 |
|        |                   |          |           |                       |            |                             |                                   |                           | Wells in Decline:               | 12                                   |
|        |                   |          |           |                       |            |                             |                                   |                           | Total Wells:                    | 12                                   |
|        |                   |          |           |                       |            |                             |                                   |                           | Average Change:                 | 1.81                                 |
| Clay   | 19N04E19BAA1      | 36.2803  | -90.69039 | 279                   | 100        | 20.85                       | 258.15                            | 25.74                     | 253.26                          | 4.89                                 |
| Clay   | 19N05E15BBD1      | 36.2878  | -90.53122 | 289                   | 110        | 30.42                       | 258.58                            | 41.25                     | 247.75                          | 10.83                                |
| Clay   | 19N06E18DBC1      | 36.2784  | -90.4708  | 291                   | NA         | 40.96                       | 250.04                            | 52.28                     | 238.72                          | 11.32                                |
| Clay   | 19N07E25BCB1      | 36.2553  | -90.28363 | 273                   | NA         | 13.06                       | 259.94                            | 21.79                     | 251.21                          | 8.73                                 |
| Clay   | 19N08E08DCA1      | 36.292   | -90.23481 | 266                   | NA         | 3.26                        | 262.74                            | 10.36                     | 255.64                          | 7.10                                 |
| Clay   | 20N04E02BB1       | 36.4079  | -90.62161 | 288                   | 100        | 14                          | 274                               | 18.21                     | 269.79                          | 4.21                                 |
| Clay   | 20N04E03ADA1      | 36.407   | -90.62372 | 287                   | NA         | 13.94                       | 273.06                            | 19.11                     | 267.89                          | 5.17                                 |
| Clay   | 20N04E06BB1       | 36.4123  | -90.69201 | 290                   | 110        | 17.29                       | 272.71                            | 22.91                     | 267.09                          | 5.62                                 |
| Clay   | 20N05E22CAD1      | 36.3533  | -90.52519 | 289                   | NA         | 30.03                       | 258.97                            | 32.74                     | 256.26                          | 2.71                                 |
| Clay   | 20N05E30CAC1      | 36.3342  | -90.58178 | 283                   | NA         | 16.55                       | 266.45                            | 21.89                     | 261.11                          | 5.34                                 |
| Clay   | 20N05E34DBA1      | 36.3276  | -90.52144 | 285                   | 110        | 32.18                       | 252.82                            | 35.43                     | 249.57                          | 3.25                                 |
| Clay   | 20N08E22BDC1      | 36.3532  | -90.20561 | 276                   | NA         | 6.59                        | 269.41                            | 12.69                     | 263.31                          | 6.10                                 |
| Clay   | 20N08E24DDA1      | 36.3491  | -90.15929 | 276                   | 110        | 7.74                        | 268.26                            | 15.51                     | 260.49                          | 7.77                                 |
| Clay   | 20N09E09ABC1      | 36.3851  | -90.11176 | 279                   | NA         | 4.57                        | 274.43                            | 12.97                     | 266.03                          | 8.40                                 |
| Clay   | 20N09E33DDC1      | 36.3178  | -90.10787 | 270                   | NA         | 6.72                        | 263.28                            | 11.72                     | 258.28                          | 5.00                                 |
| Clay   | 21N03E15CBC1      | 36.4625  | -90.74806 | 291                   | 90         | 6.37                        | 284.63                            | 14.09                     | 276.91                          | 7.72                                 |
| Clay   | 21N04E09DBC1      | 36.4743  | -90.64919 | 297                   | 95         | 8.44                        | 288.56                            | 15.97                     | 281.03                          | 7.53                                 |
| Clay   | 21N05E17ABB1      | 36.466   | -90.55811 | 300                   | 105        | 21.89                       | 278.11                            | 25.27                     | 274.73                          | 3.38                                 |
| Clay   | 21N06E28BB1       | 36.4347  | -90.43555 | 290                   | 130        | 19.68                       | 270.32                            | 22.92                     | 267.08                          | 3.24                                 |
| Clay   | 21N07E01DDC1      | 36.4764  | -90.26871 | 303                   | 90         | 17.81                       | 285.19                            | 32.02                     | 270.98                          | 14.21                                |



**Mississippi River Alluvial Aquifer  
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| County     | Station ID Number        | Latitude | Longitude | Land Surface Altitude | Well Depth | Spring Depth to Water (ft.) | Spring Water Level Altitude (ft.) | Fall Depth to Water (ft.) | Fall Water Level Altitude (ft.) | Spring/Fall Water Level Change (ft.) |
|------------|--------------------------|----------|-----------|-----------------------|------------|-----------------------------|-----------------------------------|---------------------------|---------------------------------|--------------------------------------|
| Clay       | 21N08E18CCC1             | 36.4475  | -90.26422 | 325                   | 110        | 35.99                       | 289.01                            | 47.45                     | 277.55                          | 11.46                                |
| Clay       | 21N09E31BDA1             | 36.4131  | -90.14784 | 283                   | 100        | 2.13                        | 280.87                            | 13.32                     | 269.68                          | 11.19                                |
|            |                          |          |           |                       |            |                             |                                   |                           |                                 |                                      |
|            |                          |          |           |                       |            |                             |                                   |                           |                                 |                                      |
|            |                          |          |           |                       |            |                             |                                   |                           | <b>Wells in Decline:</b>        | <b>22</b>                            |
|            |                          |          |           |                       |            |                             |                                   |                           | <b>Total Wells:</b>             | <b>22</b>                            |
|            |                          |          |           |                       |            |                             |                                   |                           | <b>Average Change:</b>          | <b>7.05</b>                          |
|            |                          |          |           |                       |            |                             |                                   |                           |                                 |                                      |
| Craighead  | 13N01E01BDC1             | 35.7864  | -90.9415  | 250                   | 133        | 72.05                       | 177.95                            | 75.26                     | 174.74                          | 3.21                                 |
| Craighead  | 13N01E23DAA1             | 35.743   | -90.95169 | 240                   | 118        | 71.84                       | 168.16                            | 73.06                     | 166.94                          | 1.22                                 |
| Craighead  | 13N02E25AB1              | 35.7337  | -90.83101 | 252                   | 203        | 113.14                      | 138.86                            | 113.28                    | 138.72                          | 0.14                                 |
| Craighead  | 13N02E25DC1              | 35.7224  | -90.83095 | 252                   | 140        | 117.69                      | 134.31                            | 118.17                    | 133.83                          | 0.48                                 |
| Craighead  | 13N03E07BA1              | 35.7774  | -90.81582 | 250                   | 127        | 93.37                       | 156.63                            | 96.66                     | 153.34                          | 3.29                                 |
| Craighead  | 13N03E28CDB1             | 35.7213  | -90.77933 | 251                   | 135        | 118.31                      | 132.69                            | 119.67                    | 131.33                          | 1.36                                 |
| Craighead  | 13N03E32BA1              | 35.7195  | -90.79561 | 251                   | 165        | 120.3                       | 130.7                             | 121.75                    | 129.25                          | 1.45                                 |
| Craighead  | 13N04E12ABB1             | 35.7767  | -90.61537 | 233                   | 110        | 24.13                       | 208.87                            | 25.42                     | 207.58                          | 1.29                                 |
| Craighead  | 13N04E15DBA1             | 35.7559  | -90.64928 | 231                   | 130        | 24.45                       | 206.55                            | 26.38                     | 204.62                          | 1.93                                 |
| Craighead  | 13N04E26BCC1             | 35.7266  | -90.64344 | 225                   | 100        | 26.47                       | 198.53                            | 28.52                     | 196.48                          | 2.05                                 |
| Craighead  | 13N05E02CCC1             | 35.7806  | -90.53545 | 229                   | 120        | 14.19                       | 214.81                            | 17.95                     | 211.05                          | 3.76                                 |
| Craighead  | 13N05E06DCC1             | 35.7777  | -90.59753 | 231                   | 110        | 21.04                       | 209.96                            | 23.02                     | 207.98                          | 1.98                                 |
| Craighead  | 13N05E24BAC1             | 35.747   | -90.51025 | 226                   | 120        | 9.65                        | 216.35                            | 14.52                     | 211.48                          | 4.87                                 |
| Craighead  | 13N07E02CAB1             | 35.7762  | -90.3177  | 227                   | 120        | 5.11                        | 221.89                            | 15.33                     | 211.67                          | 10.22                                |
| Craighead  | 13N07E05ABB1             | 35.7881  | -90.36582 | 229                   | 100        | 6.87                        | 222.13                            | 11.99                     | 217.01                          | 5.12                                 |
| Craighead  | 14N01E03ACB1             | 35.8795  | -90.97123 | 249                   | 96         | 55.57                       | 193.43                            | 57.79                     | 191.21                          | 2.22                                 |
| Craighead  | 14N01E10BAB1             | 35.8679  | -90.97456 | 246                   | 96         | 57.28                       | 188.72                            | 58.39                     | 187.61                          | 1.11                                 |
| Craighead  | 14N01E21BB2              | 35.8395  | -90.99935 | 252                   | 131        | 62.14                       | 189.86                            | 64.41                     | 187.59                          | 2.27                                 |
| Craighead  | 14N02E25DD1              | 35.8101  | -90.82138 | 269                   | 110        | 79.63                       | 189.37                            | 79.59                     | 189.41                          | 0.04                                 |
| Craighead  | 14N02E27AAA1 near Cash   | 35.821   | -90.85681 | 255                   | 127.6      | 83.46                       | 171.54                            | 86.69                     | 168.31                          | 3.23                                 |
| Craighead  | 14N03E30CBC1             | 35.8128  | -90.82085 | 276                   | 125        | 77.6                        | 198.4                             | 86.34                     | 189.66                          | 8.74                                 |
| Craighead  | 05E36BAD1 near Jonesboro | 35.8049  | -90.50861 | 230                   | 150        | 42.91                       | 187.09                            | 44.65                     | 185.35                          | 1.74                                 |
| Craighead  | 14N05E36DC1              | 35.7943  | -90.50847 | 228                   | 120        | 41.44                       | 186.56                            | 43.64                     | 184.36                          | 2.20                                 |
| Craighead  | 14N06E06BAA1             | 35.8778  | -90.49371 | 243                   | 120        | 21.85                       | 221.15                            | 23.28                     | 219.72                          | 1.43                                 |
| Craighead  | 14N07E14DDC1             | 35.8314  | -90.30955 | 232                   | 120        | 8                           | 224                               | 12.98                     | 219.02                          | 4.98                                 |
| Craighead  | 15N03E19ADA1             | 35.9173  | -90.80057 | 262                   | 116        | 57.15                       | 204.85                            | 54.67                     | 207.33                          | 2.48                                 |
| Craighead  | 15N06E20DDD1             | 35.907   | -90.46088 | 235                   | NA         | 6.4                         | 228.6                             | 12.61                     | 222.39                          | 6.21                                 |
| Craighead  | 15N07E35DCB1             | 35.8786  | -90.30963 | 234                   | 120        | 11                          | 223                               | 15.54                     | 218.46                          | 4.54                                 |
|            |                          |          |           |                       |            |                             |                                   |                           |                                 |                                      |
|            |                          |          |           |                       |            |                             |                                   |                           | <b>Wells in Decline:</b>        | <b>26</b>                            |
|            |                          |          |           |                       |            |                             |                                   |                           | <b>Total Wells:</b>             | <b>28</b>                            |
|            |                          |          |           |                       |            |                             |                                   |                           | <b>Average Change:</b>          | <b>2.80</b>                          |
|            |                          |          |           |                       |            |                             |                                   |                           |                                 |                                      |
| Crittenden | 05N07E28CBA1             | 35.0226  | -90.36107 | 201                   | 120        | 14.43                       | 186.57                            | 18.14                     | 182.86                          | 3.71                                 |



**Mississippi River Alluvial Aquifer  
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|--------|-------------------|----------|-----------|-----------------------|------------|-----------------------------|-----------------------------------|---------------------------|---------------------------------|--------------------------------------|
| Desha  | 13S02W27CAC1      | 33.54    | -91.29299 | 138                   | 120        | 32.65                       | 105.35                            | 34.92                     | 103.08                          | 2.27                                 |
|        |                   |          |           |                       |            |                             |                                   |                           |                                 |                                      |
|        |                   |          |           |                       |            |                             |                                   |                           | <b>Wells in Decline:</b>        | <b>9</b>                             |
|        |                   |          |           |                       |            |                             |                                   |                           | <b>Total Wells:</b>             | <b>9</b>                             |
|        |                   |          |           |                       |            |                             |                                   |                           | <b>Average Change:</b>          | <b>2.28</b>                          |
|        |                   |          |           |                       |            |                             |                                   |                           |                                 |                                      |
| Drew   | 11S04W08DD1       | 33.7635  | -91.53778 | 161                   | 120        | 28.31                       | 132.69                            | 30.82                     | 130.18                          | 2.51                                 |
| Drew   | 11S04W35CDD1      | 33.6956  | -91.47833 | 152                   | 93.7       | 25.99                       | 126.01                            | 27.85                     | 124.15                          | 1.86                                 |
| Drew   | 11S05W08CCC1      | 33.7629  | -91.64366 | 185                   | 153        | 39.02                       | 145.98                            | 39.24                     | 145.76                          | 0.22                                 |
| Drew   | 12S04W03ABB1      | 33.6928  | -91.49615 | 153                   | NA         | 23.14                       | 129.86                            | 25.25                     | 127.75                          | 2.11                                 |
| Drew   | 13S04W32BAD1      | 33.5251  | -91.53277 | 134                   | 90         | 13.6                        | 120.4                             | 19.24                     | 114.76                          | 5.64                                 |
| Drew   | 13S04W33BAA1      | 33.5352  | -91.51669 | 138                   | 130        | 15.67                       | 122.33                            | 20.45                     | 117.55                          | 4.78                                 |
| Drew   | 13S05W29ADA1      | 33.5467  | -91.62981 | 185                   | 50.55      | 40.74                       | 144.26                            | 46.53                     | 138.47                          | 5.79                                 |
| Drew   | 14S04W03DA1       | 33.5119  | -91.49349 | 142                   | 100        | 23.62                       | 118.38                            | 27.22                     | 114.78                          | 3.60                                 |
|        |                   |          |           |                       |            |                             |                                   |                           |                                 |                                      |
|        |                   |          |           |                       |            |                             |                                   |                           | <b>Wells in Decline:</b>        | <b>8</b>                             |
|        |                   |          |           |                       |            |                             |                                   |                           | <b>Total Wells:</b>             | <b>8</b>                             |
|        |                   |          |           |                       |            |                             |                                   |                           | <b>Average Change:</b>          | <b>3.31</b>                          |
|        |                   |          |           |                       |            |                             |                                   |                           |                                 |                                      |
| Greene | 16N03E20CDA1      | 35.9992  | -90.795   | 257                   | 150        | 36.96                       | 220.04                            | 39.37                     | 217.63                          | 2.41                                 |
| Greene | 16N06E03CCC1      | 36.0396  | -90.44055 | 258                   | 194        | 48.25                       | 209.75                            | 45.34                     | 212.66                          | 2.91                                 |
| Greene | 16N06E21BAA1      | 36.0091  | -90.45087 | 250                   | 130        | 24.83                       | 225.17                            | 15.71                     | 234.29                          | 9.12                                 |
| Greene | 16N06E22DA1       | 36.0013  | -90.42797 | 243                   | 180        | 13.81                       | 229.19                            | 21.33                     | 221.67                          | 7.52                                 |
| Greene | 17N03E02BDB1      | 36.1423  | -90.73634 | 267                   | 115        | 34.64                       | 232.36                            | 36.65                     | 230.35                          | 2.01                                 |
| Greene | 17N03E02DCC1      | 36.1387  | -90.73249 | 265                   | 100        | 36.04                       | 228.96                            | 37                        | 228                             | 0.96                                 |
| Greene | 17N03E32CDC1      | 36.0547  | -90.79306 | 259                   | 100        | 35.03                       | 223.97                            | 37.7                      | 221.3                           | 2.67                                 |
| Greene | 17N03E35CB1       | 36.0766  | -90.74345 | 265                   | 100        | 38.84                       | 226.16                            | 40.82                     | 224.18                          | 1.98                                 |
| Greene | 17N04E28DAA1      | 36.0753  | -90.65472 | 317                   | 121.2      | 85.88                       | 231.12                            | 85.56                     | 231.44                          | 0.32                                 |
| Greene | 17N04E30CDC1      | 36.0694  | -90.70486 | 267                   | 100        | 43.51                       | 223.49                            | 45.41                     | 221.59                          | 1.90                                 |
| Greene | 17N06E02AD1       | 36.137   | -90.4026  | 258                   | 165        | 27.77                       | 230.23                            | 33.1                      | 224.9                           | 5.33                                 |
| Greene | 17N06E08AC1       | 36.1208  | -90.46532 | 284                   | 104        | 10                          | 274                               | 12.5                      | 271.5                           | 2.50                                 |
| Greene | 17N06E11DA1       | 36.1182  | -90.40654 | 255                   | 185        | 36.69                       | 218.31                            | 35.52                     | 219.48                          | 1.17                                 |
| Greene | 17N06E15ABC1      | 36.1089  | -90.42993 | 269                   | 168        | 29.75                       | 239.25                            | 49.05                     | 219.95                          | 19.30                                |
| Greene | 17N07E01BBA1      | 36.1425  | -90.29075 | 247                   | 100        | 4.29                        | 242.71                            | 8.57                      | 238.43                          | 4.28                                 |
| Greene | 17N07E03CCC1      | 36.1271  | -90.29078 | 245.35                | 87         | 6.41                        | 238.94                            | 9.2                       | 236.15                          | 2.79                                 |
| Greene | 17N07E18ABB1      | 36.1103  | -90.37614 | 248                   | NA         | 11.47                       | 236.53                            | 17.1                      | 230.9                           | 5.63                                 |
| Greene | 18N03E24ACA1      | 36.189   | -90.70223 | 271                   | 120        | 34.55                       | 236.45                            | 36.14                     | 234.86                          | 1.59                                 |
| Greene | 18N04E04AAC1      | 36.2366  | -90.64659 | 275                   | 127        | 35.02                       | 239.98                            | 34.34                     | 240.66                          | 0.68                                 |
| Greene | 18N06E26CDD1      | 36.1584  | -90.40369 | 266                   | NA         | 22.62                       | 243.38                            | 34.4                      | 231.6                           | 11.78                                |
| Greene | 18N07E05DAB1      | 36.221   | -90.34063 | 270                   | 180        | 15.8                        | 254.2                             | 22.46                     | 247.54                          | 6.66                                 |
| Greene | 18N07E17BAB1      | 36.2008  | -90.35135 | 261                   | 100        | 11.97                       | 249.03                            | 18.91                     | 242.09                          | 6.94                                 |

**Mississippi River Alluvial Aquifer  
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|--------------|-------------------|----------|-----------|-----------------------|------------|-----------------------------|-----------------------------------|---------------------------|---------------------------------|--------------------------------------|
| Greene       | 18N07E35DCD1      | 36.1426  | -90.29117 | 248                   | 100        | 4.76                        | 243.24                            | 8.73                      | 239.27                          | 3.97                                 |
| Greene       | 19N03E26AD1       | 36.2669  | -90.71623 | 281.1                 | 100        | 28.3                        | 252.8                             | 31.6                      | 249.5                           | 3.30                                 |
| Greene       | 19N03E33DDD1      | 36.2384  | -90.75315 | 278                   | 100        | 35.08                       | 242.92                            | 37.2                      | 240.8                           | 2.12                                 |
|              |                   |          |           |                       |            |                             |                                   |                           |                                 |                                      |
|              |                   |          |           |                       |            |                             |                                   |                           | <b>Wells in Decline:</b>        | <b>20</b>                            |
|              |                   |          |           |                       |            |                             |                                   |                           | <b>Total Wells:</b>             | <b>25</b>                            |
|              |                   |          |           |                       |            |                             |                                   |                           | <b>Average Change:</b>          | <b>3.26</b>                          |
|              |                   |          |           |                       |            |                             |                                   |                           |                                 |                                      |
| Independence | 12N04W14DD1       | 35.6582  | -91.37674 | 233                   | 60         | 16.98                       | 216.02                            | 26.76                     | 206.24                          | 9.78                                 |
| Independence | 12N04W34CBB1      | 35.6223  | -91.42014 | 226                   | NA         | 12                          | 214                               | 24.32                     | 201.68                          | 12.32                                |
|              |                   |          |           |                       |            |                             |                                   |                           |                                 |                                      |
|              |                   |          |           |                       |            |                             |                                   |                           | <b>Wells in Decline:</b>        | <b>2</b>                             |
|              |                   |          |           |                       |            |                             |                                   |                           | <b>Total Wells:</b>             | <b>2</b>                             |
|              |                   |          |           |                       |            |                             |                                   |                           | <b>Average Change:</b>          | <b>11.05</b>                         |
|              |                   |          |           |                       |            |                             |                                   |                           |                                 |                                      |
| Jackson      | 09N02W32BBB1      | 35.3709  | -91.22901 | 220                   | 134        | 30.39                       | 189.61                            | 14.97                     | 205.03                          | 15.42                                |
| Jackson      | 09N02W32CBB1      | 35.3644  | -91.22994 | 222                   | 117        | 30.04                       | 191.96                            | 32.91                     | 189.09                          | 2.87                                 |
| Jackson      | 11N01W11CBB1      | 35.5972  | -91.07444 | 233                   | 129.4      | 56.71                       | 176.29                            | 59.52                     | 173.48                          | 2.81                                 |
| Jackson      | 11N01W26AAD1      | 35.5583  | -91.05645 | 230                   | 100        | 72.29                       | 157.71                            | 77.03                     | 152.97                          | 4.74                                 |
| Jackson      | 11N03W05CAB1      | 35.6154  | -91.33569 | 225                   | 95         | 7.49                        | 217.51                            | 21.05                     | 203.95                          | 13.56                                |
| Jackson      | 11N03W06DAB1      | 35.6153  | -91.33569 | 224                   | 100        | 3.77                        | 220.23                            | 21.2                      | 202.8                           | 17.43                                |
| Jackson      | 12N01W11BCB1      | 35.6909  | -91.07123 | 233                   | 110        | 41.56                       | 191.44                            | 25.32                     | 207.68                          | 16.24                                |
| Jackson      | 13N01W20AAA1      | 35.7539  | -91.10763 | 244                   | 147        | 40.79                       | 203.21                            | 41.68                     | 202.32                          | 0.89                                 |
| Jackson      | 13N03W35AA1       | 35.7248  | -91.27038 | 237                   | 110        | 10.56                       | 226.44                            | 16.71                     | 220.29                          | 6.15                                 |
| Jackson      | 14N01W09AAA1      | 35.8723  | -91.08754 | 255                   | 125        | 45.51                       | 209.49                            | 46.22                     | 208.78                          | 0.71                                 |
| Jackson      | 14N02W22BBC1      | 35.8406  | -91.19596 | 250                   | 94         | 24.33                       | 225.67                            | 28.43                     | 221.57                          | 4.10                                 |
|              |                   |          |           |                       |            |                             |                                   |                           |                                 |                                      |
|              |                   |          |           |                       |            |                             |                                   |                           | <b>Wells in Decline:</b>        | <b>9</b>                             |
|              |                   |          |           |                       |            |                             |                                   |                           | <b>Total Wells:</b>             | <b>11</b>                            |
|              |                   |          |           |                       |            |                             |                                   |                           | <b>Average Change:</b>          | <b>1.96</b>                          |
|              |                   |          |           |                       |            |                             |                                   |                           |                                 |                                      |
| Jefferson    | 04S08W13DCB1      | 34.3563  | -91.82401 | 204                   | 110        | 45.27                       | 158.73                            | 46.93                     | 157.07                          | 1.66                                 |
| Jefferson    | 07S08W06BAA1      | 34.1496  | -91.94646 | 202                   | 100        | 15.18                       | 186.82                            | 19.62                     | 182.38                          | 4.44                                 |
|              |                   |          |           |                       |            |                             |                                   |                           |                                 |                                      |
|              |                   |          |           |                       |            |                             |                                   |                           | <b>Wells in Decline:</b>        | <b>2</b>                             |
|              |                   |          |           |                       |            |                             |                                   |                           | <b>Total Wells:</b>             | <b>2</b>                             |
|              |                   |          |           |                       |            |                             |                                   |                           | <b>Average Change:</b>          | <b>3.05</b>                          |
|              |                   |          |           |                       |            |                             |                                   |                           |                                 |                                      |
| Lawrence     | 15N01E09ABD1      | 35.9539  | -90.98333 | 260                   | 130.6      | 59.53                       | 200.47                            | 60.83                     | 199.17                          | 1.30                                 |
| Lawrence     | 15N01E32BAA1      | 35.8979  | -91.0081  | 253                   | 133.5      | 57.21                       | 195.79                            | 57.87                     | 195.13                          | 0.66                                 |
| Lawrence     | 15N01W35CBB1      | 35.8934  | -91.06565 | 255                   | NA         | 49.7                        | 205.3                             | 51.25                     | 203.75                          | 1.55                                 |

**Mississippi River Alluvial Aquifer  
Hydrologic Data Spring/Fall 2022**

| County   | Station ID Number       | Latitude | Longitude | Land Surface Altitude | Well Depth | Spring Depth to Water (ft.) | Spring Water Level Altitude (ft.) | Fall Depth to Water (ft.) | Fall Water Level Altitude (ft.) | Spring/Fall Water Level Change (ft.) |
|----------|-------------------------|----------|-----------|-----------------------|------------|-----------------------------|-----------------------------------|---------------------------|---------------------------------|--------------------------------------|
| Lawrence | 16N01W30DDC1            | 35.9936  | -91.12313 | 253.77                | 105        | 14.97                       | 238.8                             | 24.33                     | 229.44                          | 9.36                                 |
| Lawrence | 17N01E02BBA1            | 36.1504  | -90.9538  | 261                   | 90         | 17.23                       | 243.77                            | 20.3                      | 240.7                           | 3.07                                 |
| Lawrence | 17N01W36AAB1            | 36.0769  | -91.02833 | 265.07                | 85         | 12.33                       | 252.74                            | 15.02                     | 250.05                          | 2.69                                 |
| Lawrence | 17N02E04DCA1            | 36.1331  | -90.87324 | 272                   | 110        | 43.97                       | 228.03                            | 45.46                     | 226.54                          | 1.49                                 |
| Lawrence | 17N02E25CBD1            | 36.0747  | -90.83083 | 267                   | 100        | 45.84                       | 221.16                            | 47.12                     | 219.88                          | 1.28                                 |
|          |                         |          |           |                       |            |                             |                                   |                           |                                 |                                      |
|          |                         |          |           |                       |            |                             |                                   |                           | <b>Wells in Decline:</b>        | <b>8</b>                             |
|          |                         |          |           |                       |            |                             |                                   |                           | <b>Total Wells:</b>             | <b>8</b>                             |
|          |                         |          |           |                       |            |                             |                                   |                           | <b>Average Change:</b>          | <b>2.68</b>                          |
|          |                         |          |           |                       |            |                             |                                   |                           |                                 |                                      |
| Lee      | 01N03E35BBA1            | 34.657   | -90.76402 | 202                   | 120        | 7.88                        | 194.12                            | 27.99                     | 174.01                          | 20.11                                |
| Lee      | 02N01E23BA1             | 34.7756  | -90.97202 | 201                   | 147        | 54.94                       | 146.06                            | 59.15                     | 141.85                          | 4.21                                 |
| Lee      | 02N01E29AA1             | 34.7621  | -91.01869 | 194                   | 130        | 53.48                       | 140.52                            | 57.47                     | 136.53                          | 3.99                                 |
| Lee      | 02N02E08ADC1            | 34.802   | -90.8941  | 207                   | 120        | 46.07                       | 160.93                            | 50.09                     | 156.91                          | 4.02                                 |
| Lee      | 02N04E15DAC1            | 34.7769  | -90.664   | 192                   | 60         | 17.94                       | 174.06                            | 20.68                     | 171.32                          | 2.74                                 |
| Lee      | 03N01E15CCB1            | 34.8683  | -90.99639 | 205                   | 152.3      | 69.48                       | 135.52                            | 73.54                     | 131.46                          | 4.06                                 |
| Lee      | 03N02E12CD1             | 34.877   | -90.84761 | 213                   | 130        | 47.1                        | 165.9                             | 49.01                     | 163.99                          | 1.91                                 |
| Lee      | 03N02E29DAD1            | 34.8371  | -90.90827 | 205                   | 135        | 50.56                       | 154.44                            | 48.87                     | 156.13                          | 1.69                                 |
| Lee      | 03N03E05BC1             | 34.899   | -90.81567 | 220                   | 110        | 52.6                        | 167.4                             | 52.29                     | 167.71                          | 0.31                                 |
| Lee      | 03N03E32CAB1            | 34.8257  | -90.82395 | 214                   | 116        | 48.11                       | 165.89                            | 51.13                     | 162.87                          | 3.02                                 |
| Lee      | 03N05E14DDA1            | 34.8634  | -90.53424 | 195                   | 120        | 12.09                       | 182.91                            | 14.49                     | 180.51                          | 2.40                                 |
|          |                         |          |           |                       |            |                             |                                   |                           |                                 |                                      |
|          |                         |          |           |                       |            |                             |                                   |                           | <b>Wells in Decline:</b>        | <b>9</b>                             |
|          |                         |          |           |                       |            |                             |                                   |                           | <b>Total Wells:</b>             | <b>11</b>                            |
|          |                         |          |           |                       |            |                             |                                   |                           | <b>Average Change:</b>          | <b>4.04</b>                          |
|          |                         |          |           |                       |            |                             |                                   |                           |                                 |                                      |
| Lincoln  | 07S06W03CCA2            | 34.1376  | -91.68741 | 187                   | 110        | 16.79                       | 170.21                            | 18.45                     | 168.55                          | 1.66                                 |
| Lincoln  | 08S04W06ABD1            | 34.0603  | -91.52123 | 173                   | 95         | 11.74                       | 161.26                            | 18.9                      | 154.1                           | 7.16                                 |
| Lincoln  | 08S07W05DDD1            | 34.0502  | -91.81742 | 190                   | 97         | 27.84                       | 162.16                            | 29.41                     | 160.59                          | 1.57                                 |
| Lincoln  | 09S05W14ABC1            | 33.9314  | -91.57752 | 172.5                 | 98         | 43.01                       | 129.49                            | 44.91                     | 127.59                          | 1.90                                 |
| Lincoln  | 09S05W17BCB1            | 33.931   | -91.63888 | 172                   | 97         | 41.38                       | 130.62                            | 43                        | 129                             | 1.62                                 |
| Lincoln  | 09S06W04BCD1            | 33.9726  | -91.7294  | 181                   | 62.6       | 42.96                       | 138.04                            | 44.38                     | 136.62                          | 1.42                                 |
| Lincoln  | 10S05W05BCB1 LN1-SW21   | 33.8744  | -91.6425  | 171                   | 127        | 28.68                       | 142.32                            | 29.94                     | 141.06                          | 1.26                                 |
| Lincoln  | 10S05W06DCC1            | 33.8654  | -91.65221 | 173                   | 65         | 30.17                       | 142.83                            | 31.62                     | 141.38                          | 1.45                                 |
|          |                         |          |           |                       |            |                             |                                   |                           |                                 |                                      |
|          |                         |          |           |                       |            |                             |                                   |                           | <b>Wells in Decline:</b>        | <b>8</b>                             |
|          |                         |          |           |                       |            |                             |                                   |                           | <b>Total Wells:</b>             | <b>8</b>                             |
|          |                         |          |           |                       |            |                             |                                   |                           | <b>Average Change:</b>          | <b>2.26</b>                          |
|          |                         |          |           |                       |            |                             |                                   |                           |                                 |                                      |
| Lonoke   | 01N08W06 Lonoke Shallow | 34.7354  | -91.91429 | 223                   | 27         | 12.6                        | 210.4                             | 15.38                     | 207.62                          | 2.78                                 |
| Lonoke   | 01N08W13AAD1            | 34.7146  | -91.80873 | 225                   | NA         | 141.71                      | 83.29                             | 143.27                    | 81.73                           | 1.56                                 |



**Mississippi River Alluvial Aquifer  
Hydrologic Data Spring/Fall 2022**

| County | Station ID Number       | Latitude | Longitude | Land Surface Altitude | Well Depth | Spring Depth to Water (ft.) | Spring Water Level Altitude (ft.) | Fall Depth to Water (ft.) | Fall Water Level Altitude (ft.) | Spring/Fall Water Level Change (ft.) |
|--------|-------------------------|----------|-----------|-----------------------|------------|-----------------------------|-----------------------------------|---------------------------|---------------------------------|--------------------------------------|
| Lonoke | 01N09W07DAA1            | 34.7254  | -92.00764 | 240.47                | 100        | 43.28                       | 197.19                            | 45.6                      | 194.87                          | 2.32                                 |
| Lonoke | 01N09W13DAB1            | 34.7098  | -91.92139 | 226                   | 150        | 81.64                       | 144.36                            | 87.5                      | 138.5                           | 5.86                                 |
| Lonoke | 01N10W15CDA1            | 34.71    | -92.07043 | 244.89                | 100        | 18.5                        | 226.39                            | 21.63                     | 223.26                          | 3.13                                 |
| Lonoke | 01S06W31ABB1            | 34.5832  | -91.69208 | 203                   | 120        | 78.74                       | 124.26                            | 82.9                      | 120.1                           | 4.16                                 |
| Lonoke | 01S07W12ABA1            | 34.6429  | -91.70829 | 207                   | 140        | 90.08                       | 116.92                            | 92.34                     | 114.66                          | 2.26                                 |
| Lonoke | 01S07W19DDB1            | 34.6025  | -91.79611 | 206                   | 151.9      | 88.13                       | 117.87                            | 90.68                     | 115.32                          | 2.55                                 |
| Lonoke | 01S08W24CDD1            | 34.6016  | -91.8201  | 210                   | 127        | 84.01                       | 125.99                            | 87.34                     | 122.66                          | 3.33                                 |
| Lonoke | 01S09W36CCC1            | 34.5765  | -91.93861 | 220                   | 95         | 61.16                       | 158.84                            | 62.8                      | 157.2                           | 1.64                                 |
| Lonoke | 01S10W01ACB1            | 34.6575  | -92.03749 | 236                   | 98         | 39.96                       | 196.04                            | 44.16                     | 191.84                          | 4.20                                 |
| Lonoke | 01S10W11CAB1            | 34.6447  | -92.06028 | 236                   | 105.5      | 26.95                       | 209.05                            | 33.28                     | 202.72                          | 6.33                                 |
| Lonoke | 07W21 Bayou Two Prairie | 34.7808  | -91.76756 | 215                   | 26.5       | 5.37                        | 209.63                            | 7.95                      | 207.05                          | 2.58                                 |
| Lonoke | 02N08W23DCA1            | 34.7795  | -91.82942 | 231                   | 176        | 133.29                      | 97.71                             | 135.15                    | 95.85                           | 1.86                                 |
| Lonoke | 02N08W27DCC1            | 34.7619  | -91.85167 | 230                   | 176.6      | 132.7                       | 97.3                              | 134.93                    | 95.07                           | 2.23                                 |
| Lonoke | 02N10W23BCA1            | 34.7903  | -92.05615 | 241                   | 95         | 16.18                       | 224.82                            | 15.87                     | 225.13                          | 0.31                                 |
| Lonoke | 02S08W06BAA1            | 34.575   | -91.91306 | 221                   | 145.5      | 64.97                       | 156.03                            | 66.77                     | 154.23                          | 1.80                                 |
| Lonoke | 02S08W28CDC1            | 34.5019  | -91.87694 | 216                   | 114.5      | 63.13                       | 152.87                            | 65.93                     | 150.07                          | 2.80                                 |
| Lonoke | 02S08W34BBB1            | 34.5008  | -91.86382 | 214                   | 150        | 66.93                       | 147.07                            | 61.38                     | 152.62                          | 5.55                                 |
| Lonoke | 02S09W30CDD1            | 34.504   | -92.02111 | 228                   | 80         | 37.77                       | 190.23                            | 38.5                      | 189.5                           | 0.73                                 |
| Lonoke | 03N07W29ADA1            | 34.8579  | -91.76622 | 232                   | 120        | 98.72                       | 133.28                            | 100.89                    | 131.11                          | 2.17                                 |
| Lonoke | 03N08W03BAA1            | 34.9218  | -91.8482  | 260                   | 162        | 106.55                      | 153.45                            | 108.26                    | 151.74                          | 1.71                                 |
| Lonoke | 03N08W03CCC1            | 34.9083  | -91.85644 | 260                   | 162        | 112.55                      | 147.45                            | 115.48                    | 144.52                          | 2.93                                 |
| Lonoke | 03N08W08ABA1            | 34.9075  | -91.87996 | 258                   | 150        | 103.4                       | 154.6                             | 103.3                     | 154.7                           | 0.10                                 |
| Lonoke | 03N08W10ACB1            | 34.9041  | -91.84798 | 248                   | 150        | 100.2                       | 147.8                             | 100.3                     | 147.7                           | 0.10                                 |
| Lonoke | 03N08W10ADD1            | 34.9003  | -91.83966 | 248                   | 165        | 101.99                      | 146.01                            | 103.29                    | 144.71                          | 1.30                                 |
| Lonoke | 03N08W11ACA1            | 34.9035  | -91.82618 | 257                   | 144        | 111.56                      | 145.44                            | 111.99                    | 145.01                          | 0.43                                 |
| Lonoke | 03N08W29BBB1            | 34.8631  | -91.89245 | 249                   | 152.2      | 114.37                      | 134.63                            | 116.47                    | 132.53                          | 2.10                                 |
| Lonoke | 03N08W29BCC1            | 34.8569  | -91.89261 | 249                   | 150        | 114.43                      | 134.57                            | 132.21                    | 116.79                          | 17.78                                |
| Lonoke | 03N08W32ABB1 UAPB Lono  | 34.8495  | -91.88112 | 250                   | 154        | 121.75                      | 128.25                            | 122.94                    | 127.06                          | 1.19                                 |
| Lonoke | 04N08W16DCC1            | 34.9659  | -91.85501 | 234                   | 155        | 50.82                       | 183.18                            | 51.4                      | 182.6                           | 0.58                                 |
| Lonoke | 04N08W19BBB1            | 34.9648  | -91.90883 | 300                   | 34         | 1.89                        | 298.11                            | 21.77                     | 278.23                          | 19.88                                |
| Lonoke | 04N08W28CAC1            | 34.939   | -91.87105 | 234                   | 140.5      | 61.97                       | 172.03                            | 62.68                     | 171.32                          | 0.71                                 |
| Lonoke | 04N08W28CCC1            | 34.9374  | -91.8737  | 237                   | 137        | 68.25                       | 168.75                            | 68.79                     | 168.21                          | 0.54                                 |
| Lonoke | 04N08W33ABD1            | 34.9329  | -91.86147 | 258                   | 138        | 96.82                       | 161.18                            | 97.63                     | 160.37                          | 0.81                                 |
| Lonoke | 04N08W33ACD1            | 34.9297  | -91.86136 | 256                   | 152        | 98.4                        | 157.6                             | 100.3                     | 155.7                           | 1.90                                 |
| Lonoke | 04N08W33ADB1            | 34.9313  | -91.85694 | 263                   | 170        | 98.6                        | 164.4                             | 101.3                     | 161.7                           | 2.70                                 |
| Lonoke | 04N08W33ADD1            | 34.9295  | -91.85708 | 267                   | 180        | 108.44                      | 158.56                            | 110.37                    | 156.63                          | 1.93                                 |
| Lonoke | 04N08W36DBB1            | 34.9279  | -91.82067 | 259                   | 130        | 98.9                        | 160.1                             | 99                        | 160                             | 0.10                                 |
|        |                         |          |           |                       |            |                             |                                   |                           |                                 |                                      |
|        |                         |          |           |                       |            |                             |                                   |                           | <b>Wells in Decline:</b>        | <b>36</b>                            |
|        |                         |          |           |                       |            |                             |                                   |                           | <b>Total Wells:</b>             | <b>39</b>                            |
|        |                         |          |           |                       |            |                             |                                   |                           | <b>Average Change:</b>          | <b>2.69</b>                          |



**Mississippi River Alluvial Aquifer  
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| County   | Station ID Number        | Latitude | Longitude | Land Surface Altitude | Well Depth | Spring Depth to Water (ft.) | Spring Water Level Altitude (ft.) | Fall Depth to Water (ft.) | Fall Water Level Altitude (ft.) | Spring/Fall Water Level Change (ft.) |
|----------|--------------------------|----------|-----------|-----------------------|------------|-----------------------------|-----------------------------------|---------------------------|---------------------------------|--------------------------------------|
|          |                          |          |           |                       |            |                             |                                   |                           | Wells in Decline:               | 6                                    |
|          |                          |          |           |                       |            |                             |                                   |                           | Total Wells:                    | 7                                    |
|          |                          |          |           |                       |            |                             |                                   |                           | Average Change:                 | 2.42                                 |
| Phillips | 02S03E15ACD1 near Bartol | 34.5194  | -90.77263 | 174                   | 112        | 9.07                        | 164.93                            | 15.91                     | 158.09                          | 6.84                                 |
| Phillips | 02S03E34BCD1             | 34.4745  | -90.7815  | 165                   | 120        | 17.26                       | 147.74                            | 20.64                     | 144.36                          | 3.38                                 |
| Phillips | 03S03E04DAA1             | 34.4596  | -90.78609 | 171                   | 36         | 16.63                       | 154.37                            | 20.15                     | 150.85                          | 3.52                                 |
|          |                          |          |           |                       |            |                             |                                   |                           |                                 |                                      |
|          |                          |          |           |                       |            |                             |                                   |                           | Wells in Decline:               | 3                                    |
|          |                          |          |           |                       |            |                             |                                   |                           | Total Wells:                    | 3                                    |
|          |                          |          |           |                       |            |                             |                                   |                           | Average Change:                 | 4.58                                 |
| Poinsett | 10N01E14CC1              | 35.4861  | -90.9705  | 231                   | 150        | 102.27                      | 128.73                            | 103.62                    | 127.38                          | 1.35                                 |
| Poinsett | 10N01E16CCB1             | 35.4894  | -91.00149 | 225                   | 120        | 82.96                       | 142.04                            | 85.7                      | 139.3                           | 2.74                                 |
| Poinsett | 10N02E34BBB1 near Fishel | 35.4572  | -90.87536 | 235                   | 155.9      | 110.72                      | 124.28                            | 112.02                    | 122.98                          | 1.30                                 |
| Poinsett | 10N03E05BA1              | 35.5343  | -90.8126  | 241                   | 140        | 115.78                      | 125.22                            | 116.32                    | 124.68                          | 0.54                                 |
| Poinsett | 10N04E35BBA1             | 35.4636  | -90.64154 | 212                   | 100        | 10.65                       | 201.35                            | 24.82                     | 187.18                          | 14.17                                |
| Poinsett | 10N06E11AAA1             | 35.511   | -90.41296 | 213                   | 108        | 6.35                        | 206.65                            | 5.89                      | 207.11                          | 0.46                                 |
| Poinsett | 11N01E26AA1              | 35.5612  | -90.94814 | 236                   | 140        | 107.96                      | 128.04                            | 110.59                    | 125.41                          | 2.63                                 |
| Poinsett | 11N02E01CC1              | 35.6086  | -90.8354  | 242                   | 140        | 121.84                      | 120.16                            | 124                       | 118                             | 2.16                                 |
| Poinsett | 11N02E07CA1              | 35.5975  | -90.91939 | 241                   | 140        | 122.16                      | 118.84                            | 113.28                    | 127.72                          | 8.88                                 |
| Poinsett | 11N02E12ADA1             | 35.6038  | -90.82314 | 244                   | NA         | 122.95                      | 121.05                            | 124.64                    | 119.36                          | 1.69                                 |
| Poinsett | 11N03E07CBB1             | 35.601   | -90.82164 | 243                   | 157        | 121.79                      | 121.21                            | 123.05                    | 119.95                          | 1.26                                 |
| Poinsett | 11N03E10DDA1             | 35.596   | -90.74904 | 251                   | 145        | 114.05                      | 136.95                            | 116.04                    | 134.96                          | 1.99                                 |
| Poinsett | 11N04E13DDA1             | 35.5804  | -90.6083  | 213                   | 112        | 15.93                       | 197.07                            | 17.96                     | 195.04                          | 2.03                                 |
| Poinsett | 11N05E26BDB1             | 35.5556  | -90.53316 | 213                   | NA         | 12                          | 201                               | 15.51                     | 197.49                          | 3.51                                 |
| Poinsett | 11N06E34BBC1             | 35.54    | -90.44611 | 217                   | 115.2      | 12.03                       | 204.97                            | 18.6                      | 198.4                           | 6.57                                 |
| Poinsett | 11N07E18CAB1             | 35.5763  | -90.38921 | 220                   | 125        | 13.19                       | 206.81                            | 22.28                     | 197.72                          | 9.09                                 |
| Poinsett | 11N07E22ADD1             | 35.5622  | -90.32291 | 221                   | 127        | 25.35                       | 195.65                            | 28.05                     | 192.95                          | 2.70                                 |
| Poinsett | 12N01E07CDA1             | 35.6816  | -91.02813 | 241                   | 120        | 56.08                       | 184.92                            | 57.89                     | 183.11                          | 1.81                                 |
| Poinsett | 12N02E26DAD1 PN3-SW26    | 35.6448  | -90.8397  | 245                   | 138.1      | 125.34                      | 119.66                            | 127.79                    | 117.21                          | 2.45                                 |
| Poinsett | 12N05E16ABA1             | 35.6778  | -90.55897 | 220                   | 140        | 12.16                       | 207.84                            | 11.94                     | 208.06                          | 0.22                                 |
| Poinsett | 12N07E04BAA1             | 35.6971  | -90.35605 | 220                   | NA         | 4.28                        | 215.72                            | 9.4                       | 210.6                           | 5.12                                 |
| Poinsett | 12N07E10CBB1             | 35.6789  | -90.34554 | 221                   | 100        | 3.05                        | 217.95                            | 9.84                      | 211.16                          | 6.79                                 |
| Poinsett | 12N07E25CCD1             | 35.6278  | -90.30055 | 225                   | 107.2      | 17.95                       | 207.05                            | 22.52                     | 202.48                          | 4.57                                 |
|          |                          |          |           |                       |            |                             |                                   |                           | Wells in Decline:               | 20                                   |
|          |                          |          |           |                       |            |                             |                                   |                           | Total Wells:                    | 23                                   |
|          |                          |          |           |                       |            |                             |                                   |                           | Average Change:                 | 2.82                                 |
| Prairie  | 01N06W05CCB1             | 34.7314  | -91.6803  | 220                   | 148        | 117.74                      | 102.26                            | 119.58                    | 100.42                          | 1.84                                 |

**Mississippi River Alluvial Aquifer  
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| County      | Station ID Number     | Latitude | Longitude | Land Surface Altitude | Well Depth | Spring Depth to Water (ft.) | Spring Water Level Altitude (ft.) | Fall Depth to Water (ft.) | Fall Water Level Altitude (ft.) | Springs/Fall Water Level Change (ft.) |
|-------------|-----------------------|----------|-----------|-----------------------|------------|-----------------------------|-----------------------------------|---------------------------|---------------------------------|---------------------------------------|
| Prairie     | 01S04W28BDB1          | 34.5896  | -91.44159 | 205                   | 112        | 95.92                       | 109.08                            | 98.7                      | 106.3                           | 2.78                                  |
| Prairie     | 01S05W31DDA1          | 34.5713  | -91.57547 | 205.92                | 120        | 97.13                       | 108.79                            | 98.18                     | 107.74                          | 1.05                                  |
| Prairie     | 01S06W12BAB1          | 34.6406  | -91.60361 | 228                   | 139.5      | 110.62                      | 117.38                            | 109.56                    | 118.44                          | 1.06                                  |
| Prairie     | 02N05W21CBB2          | 34.7803  | -91.55    | 227                   | 160        | 110.88                      | 116.12                            | 111.7                     | 115.3                           | 0.82                                  |
| Prairie     | 02N05W24BCA3          | 34.7834  | -91.49263 | 223                   | 130        | 88.28                       | 134.72                            | 93.09                     | 129.91                          | 4.81                                  |
| Prairie     | 2N06W22BCC1 near Haze | 34.7813  | -91.64094 | 235                   | 126        | 114.01                      | 120.99                            | 113.72                    | 121.28                          | 0.29                                  |
| Prairie     | 02N06W24CAA1          | 34.7808  | -91.59775 | 231                   | 136        | 118.69                      | 112.31                            | 118.03                    | 112.97                          | 0.66                                  |
|             |                       |          |           |                       |            |                             |                                   |                           |                                 |                                       |
|             |                       |          |           |                       |            |                             |                                   |                           | <b>Wells in Decline:</b>        | <b>5</b>                              |
|             |                       |          |           |                       |            |                             |                                   |                           | <b>Total Wells:</b>             | <b>8</b>                              |
|             |                       |          |           |                       |            |                             |                                   |                           | <b>Average Change:</b>          | <b>1.16</b>                           |
| Pulaski     | 01S10W29CC1           | 34.5938  | -92.11879 | 239                   | 100        | 13.35                       | 225.65                            | 16.54                     | 222.46                          | 3.19                                  |
| Pulaski     | 02S10W14DC1           | 34.5346  | -92.05938 | 225                   | 60         | 19.9                        | 205.1                             | 22.16                     | 202.84                          | 2.26                                  |
|             |                       |          |           |                       |            |                             |                                   |                           |                                 |                                       |
|             |                       |          |           |                       |            |                             |                                   |                           | <b>Wells in Decline:</b>        | <b>2</b>                              |
|             |                       |          |           |                       |            |                             |                                   |                           | <b>Total Wells:</b>             | <b>2</b>                              |
|             |                       |          |           |                       |            |                             |                                   |                           | <b>Average Change:</b>          | <b>2.73</b>                           |
| Randolph    | 18N01E11CCC1          | 36.2089  | -90.95383 | 266.03                | 120        | 17.57                       | 248.46                            | 20.09                     | 245.94                          | 2.52                                  |
| Randolph    | 18N01E16ABA1          | 36.2084  | -90.97668 | 263                   | 100        | 12.29                       | 250.71                            | 17.17                     | 245.83                          | 4.88                                  |
| Randolph    | 18N02E27BA1           | 36.1792  | -90.85675 | 274.02                | 110        | 39.78                       | 234.24                            | 42.98                     | 231.04                          | 3.20                                  |
| Randolph    | 18N02E30BA1           | 36.1787  | -90.90044 | 276.33                | 100        | 36.51                       | 239.82                            | 39.98                     | 236.35                          | 3.47                                  |
| Randolph    | 20N02E01ADD1          | 36.4067  | -90.80316 | 280                   | 58         | 8.13                        | 271.87                            | 14.15                     | 265.85                          | 6.02                                  |
| Randolph    | 20N03E28BA1           | 36.3538  | -90.76055 | 279                   | 99         | 8.54                        | 270.46                            | 13.16                     | 265.84                          | 4.62                                  |
| Randolph    | 20N03E29AD1           | 36.349   | -90.77785 | 287                   | 100        | 11.97                       | 275.03                            | 9.76                      | 277.24                          | 2.21                                  |
|             |                       |          |           |                       |            |                             |                                   |                           |                                 |                                       |
|             |                       |          |           |                       |            |                             |                                   |                           | <b>Wells in Decline:</b>        | <b>6</b>                              |
|             |                       |          |           |                       |            |                             |                                   |                           | <b>Total Wells:</b>             | <b>7</b>                              |
|             |                       |          |           |                       |            |                             |                                   |                           | <b>Average Change:</b>          | <b>3.21</b>                           |
| St. Francis | 05N01E15BCB1          | 35.0507  | -90.99511 | 209                   | 94.1       | 74.31                       | 134.69                            | 79.07                     | 129.93                          | 4.76                                  |
| St. Francis | 05N01E27BBA1          | 35.0266  | -90.99133 | 209                   | 153        | 76.41                       | 132.59                            | 84.19                     | 124.81                          | 7.78                                  |
| St. Francis | 05N02E20ADC1          | 35.0325  | -90.91032 | 211                   | 79         | 62.03                       | 148.97                            | 62.68                     | 148.32                          | 0.65                                  |
| St. Francis | 05N05E19DCA1          | 35.0243  | -90.60843 | 205                   | 110        | 30.28                       | 174.72                            | 30.92                     | 174.08                          | 0.64                                  |
| St. Francis | 05N06E34CAB1          | 35.0071  | -90.44913 | 200                   | 110        | 23.47                       | 176.53                            | 26.6                      | 173.4                           | 3.13                                  |
| St. Francis | 06N02E13DCA1          | 35.1368  | -90.83409 | 232                   | NA         | 81.04                       | 150.96                            | 89.51                     | 142.49                          | 8.47                                  |
| St. Francis | 06N02E15BDD1          | 35.145   | -90.87981 | 214.64                | 75         | 69.29                       | 145.35                            | 68.99                     | 145.65                          | 0.30                                  |
| St. Francis | 06N05E22ACC1          | 35.1232  | -90.54784 | 200                   | NA         | 35.64                       | 164.36                            | 38.38                     | 161.62                          | 2.74                                  |
|             |                       |          |           |                       |            |                             |                                   |                           | <b>Wells in Decline:</b>        | <b>7</b>                              |

**Mississippi River Alluvial Aquifer  
Hydrologic Data Spring/Fall 2022**

| County   | Station ID Number     | Latitude | Longitude | Land Surface Altitude | Well Depth | Spring Depth to Water (ft.) | Spring Water Level Altitude (ft.) | Fall Depth to Water (ft.) | Fall Water Level Altitude (ft.)           | Spring/Fall Water Level Change (ft.) |
|----------|-----------------------|----------|-----------|-----------------------|------------|-----------------------------|-----------------------------------|---------------------------|---|--------------------------------------|
|          |                       |          |           |                       |            |                             |                                   |                           | <b>Total Wells:</b>                       | <b>8</b>                             |
|          |                       |          |           |                       |            |                             |                                   |                           | <b>Average Change:</b>                    | <b>3.48</b>                          |
| White    | 05N07W10CCC1          | 35.0667  | -91.74333 | 200                   | 80         | 6.86                        | 193.14                            | 6.92                      | 193.08                                    | <b>0.06</b>                          |
| White    | 06N06W34AAB1          | 35.1065  | -91.63154 | 212.08                | 117        | 56.96                       | 155.12                            | 58.26                     | 153.82                                    | <b>1.30</b>                          |
| White    | 06N07W17DCC1          | 35.1396  | -91.77631 | 218                   | 90         | 7.37                        | 210.63                            | 13.77                     | 204.23                                    | <b>6.40</b>                          |
| White    | 06N08W13ABA1          | 35.1521  | -91.80677 | 228                   | 60         | 5.27                        | 222.73                            | 14.9                      | 213.1                                     | <b>9.63</b>                          |
| White    | 06N08W26DDB1          | 35.1112  | -91.82468 | 226                   | 89         | 7.8                         | 218.2                             | 16.1                      | 209.9                                     | <b>8.30</b>                          |
|          |                       |          |           |                       |            |                             |                                   |                           | <b>Wells in Decline:</b>                  | <b>5</b>                             |
|          |                       |          |           |                       |            |                             |                                   |                           | <b>Total Wells:</b>                       | <b>5</b>                             |
|          |                       |          |           |                       |            |                             |                                   |                           | <b>Average Change:</b>                    | <b>5.14</b>                          |
| Woodruff | 05N02W20DCB1          | 35.0355  | -91.23228 | 192                   | 108        | 14.34                       | 177.66                            | 16.7                      | 175.3                                     | <b>2.36</b>                          |
| Woodruff | 06N01W11AAB1          | 35.1622  | -91.065   | 214                   | 150        | 68.06                       | 145.94                            | 70.55                     | 143.45                                    | <b>2.49</b>                          |
| Woodruff | 07N01W04ABB1          | 35.2654  | -91.102   | 226.13                | 120        | 64.58                       | 161.55                            | 66.5                      | 159.63                                    | <b>1.92</b>                          |
| Woodruff | 07N02W19CCA1 CR-03a-E | 35.2181  | -91.24274 | 191                   | 87.5       | 2.87                        | 188.13                            | 7.75                      | 183.25                                    | <b>4.88</b>                          |
| Woodruff | 08N01W06DDD1          | 35.3411  | -91.12908 | 218                   | 142        | 46.49                       | 171.51                            | 47.75                     | 170.25                                    | <b>1.26</b>                          |
| Woodruff | 08N02W31 Patterson    | 35.2696  | -91.23503 | 195                   | 48.5       | 3.15                        | 191.85                            | 6.62                      | 188.38                                    | <b>3.47</b>                          |
| Woodruff | 08N03W04BBB1          | 35.3578  | -91.32194 | 218                   | 110.2      | 12.96                       | 205.04                            | 17.05                     | 200.95                                    | <b>4.09</b>                          |
| Woodruff | 08N03W31AAD1          | 35.2821  | -91.34137 | 213                   | 110        | 17.8                        | 195.2                             | 19.63                     | 193.37                                    | <b>1.83</b>                          |
|          |                       |          |           |                       |            |                             |                                   |                           | <b>Wells in Decline:</b>                  | <b>8</b>                             |
|          |                       |          |           |                       |            |                             |                                   |                           | <b>Total Wells:</b>                       | <b>8</b>                             |
|          |                       |          |           |                       |            |                             |                                   |                           | <b>Average Change:</b>                    | <b>2.79</b>                          |
|          |                       |          |           |                       |            |                             |                                   |                           | <b>Total Wells:</b>                       | <b>343</b>                           |
|          |                       |          |           |                       |            |                             |                                   |                           | <b>Total Wells in Decline:</b>            | <b>313</b>                           |
|          |                       |          |           |                       |            |                             |                                   |                           | <b>Percent of Total Wells in Decline:</b> | <b>91.25%</b>                        |
|          |                       |          |           |                       |            |                             |                                   |                           | <b>Total Average Change (ft.):</b>        | <b>3.42</b>                          |



## **Appendix B**

### **Sparta/Memphis Aquifer Water Level Monitoring Data**



**Sparta/ Memphis Aquifer  
Hydrologic Data 2012,2017,2021,2022**

| County     | Station ID Number     | Latitude | Longitude | Land Surface Altitude | Well Depth | 2012 Depth to Water (ft.) | 2017 Depth to Water (ft.) | 2021 Depth to Water (ft.) | 2022 Depth to Water (ft.) | 1 Year Change ('21 to '22) | 5 Year Change ('17 to '22) | 10 Year Change ('12 to '22) |
|------------|-----------------------|----------|-----------|-----------------------|------------|---------------------------|---------------------------|---------------------------|---------------------------|----------------------------|----------------------------|-----------------------------|
| Columbia   | 18S20W08CBC1          | 33.18744 | -93.20751 | 275                   | 565        |                           |                           |                           | 254.6                     |                            |                            |                             |
| Columbia   | 18S22W27DDD1          | 33.14294 | -93.36628 | 312                   | 516        |                           |                           |                           | 128.7                     |                            |                            |                             |
| Columbia   | 19S20W08DAB1 Emerson  | 33.09944 | -93.19889 | 328                   | 680        | 272.39                    | 256.86                    | 253.89                    | 252.59                    | 1.30                       | 4.27                       | 19.80                       |
| Columbia   | 19S21W16DDB1          | 33.08811 | -93.29006 | 283                   | 383        |                           |                           |                           | 173.8                     |                            |                            |                             |
| Columbia   | 19S23W10ABD1          | 33.1122  | -93.47593 | 243                   | 400        |                           |                           |                           | 40.02                     |                            |                            |                             |
| Columbia   | 19S23W11CDA2          | 33.10261 | -93.46223 | 249                   | 385        |                           |                           |                           | 48.7                      |                            |                            |                             |
| Columbia   | 19S23W11DDB1          | 33.10137 | -93.45614 | 246                   | 361        |                           |                           |                           | 48.54                     |                            |                            |                             |
| Columbia   | 20S22W03DCC1          | 33.02734 | -93.37674 | 216                   | 230        |                           |                           |                           | 49.66                     |                            |                            |                             |
| Columbia   | 20S22W11ACD1          | 33.01922 | -93.35922 | 269                   | 275        |                           |                           |                           | 104.95                    |                            |                            |                             |
|            |                       |          |           |                       |            |                           |                           |                           |                           |                            |                            |                             |
|            |                       |          |           |                       |            |                           |                           |                           | <b>Wells in Decline:</b>  | <b>1</b>                   | <b>1</b>                   | <b>1</b>                    |
|            |                       |          |           |                       |            |                           |                           |                           | <b>Total Wells:</b>       | <b>4</b>                   | <b>4</b>                   | <b>4</b>                    |
|            |                       |          |           |                       |            |                           |                           |                           | <b>Average Change:</b>    | <b>1.96</b>                | <b>1.33</b>                | <b>4.63</b>                 |
| Crittenden | 05N08E11CCA2          | 35.06241 | -90.21673 | 211                   | 500        |                           | 23.8                      | 20.85                     | 20.51                     | 0.34                       | 3.29                       |                             |
| Crittenden | 9N07E21BBB1 near Heaf | 35.39478 | -90.35851 | 216                   | 604        | 25.61                     | 25.8                      | 23.52                     | 23.96                     | <b>0.44</b>                | 1.84                       | 1.65                        |
|            |                       |          |           |                       |            |                           |                           |                           |                           |                            |                            |                             |
|            |                       |          |           |                       |            |                           |                           |                           | <b>Wells in Decline:</b>  | <b>1</b>                   | <b>0</b>                   | <b>0</b>                    |
|            |                       |          |           |                       |            |                           |                           |                           | <b>Total Wells:</b>       | <b>2</b>                   | <b>2</b>                   | <b>1</b>                    |
|            |                       |          |           |                       |            |                           |                           |                           | <b>Average Change:</b>    | <b>0.05</b>                | <b>2.57</b>                | <b>1.65</b>                 |
|            |                       |          |           |                       |            |                           |                           |                           |                           |                            |                            |                             |
| Jefferson  | 5S08W30ADB1 near Pine | 34.24787 | -91.91117 | 197                   | 753        | 282.62                    | 272.96                    | 279.61                    | 276.83                    | 2.78                       | <b>3.87</b>                | 5.79                        |
|            |                       |          |           |                       |            |                           |                           |                           |                           |                            |                            |                             |
| Lonoke     | 03N08W22DAD2          | 34.86794 | -91.83996 | 235                   | 310        | 99.98                     | 102.31                    | 103.35                    | 103.72                    | <b>0.37</b>                | <b>1.41</b>                | <b>3.74</b>                 |
| Lonoke     | 03N08W22DAD3          | 34.86778 | -91.84    | 235                   | 209        | 98.83                     |                           | 102.52                    | 102.67                    | <b>0.15</b>                |                            | <b>3.84</b>                 |
|            |                       |          |           |                       |            |                           |                           |                           |                           |                            |                            |                             |
|            |                       |          |           |                       |            |                           |                           |                           | <b>Wells in Decline:</b>  | <b>2</b>                   |                            | <b>2</b>                    |
|            |                       |          |           |                       |            |                           |                           |                           | <b>Total Wells:</b>       | <b>2</b>                   |                            | <b>2</b>                    |
|            |                       |          |           |                       |            |                           |                           |                           | <b>Average Change:</b>    | <b>0.26</b>                |                            | <b>3.79</b>                 |
|            |                       |          |           |                       |            |                           |                           |                           |                           |                            |                            |                             |
| Ouachita   | 11S15W27ABD1          | 33.74469 | -92.62377 | 222                   | 318        |                           |                           |                           | 48.39                     |                            |                            |                             |
| Ouachita   | 11S17W14CAC1          | 33.77538 | -92.82429 | 145                   | 71         | 21.2                      | 17.36                     | 15.68                     | 18.05                     | <b>2.37</b>                | <b>0.69</b>                | 3.15                        |



**Sparta/ Memphis Aquifer  
Hydrologic Data 2012,2017,2021,2022**

| County | Station ID Number    | Latitude | Longitude | Land Surface Altitude | Well Depth | 2012 Depth to Water (ft.) | 2017 Depth to Water (ft.) | 2021 Depth to Water (ft.) | 2022 Depth to Water (ft.) | 1 Year Change ('21 to '22) | 5 Year Change ('17 to '22) | 10 Year Change ('12 to '22) |
|--------|----------------------|----------|-----------|-----------------------|------------|---------------------------|---------------------------|---------------------------|---------------------------|----------------------------|----------------------------|-----------------------------|
| Union  | 16S14W15CAB1         | 33.3289  | -92.53836 | 94                    | 466        | 141.65                    | 115.9                     | 108                       | 116.12                    | 8.12                       | 0.22                       | 25.53                       |
| Union  | 16S14W34CBC1         | 33.28361 | -92.54139 | 150                   | 620        |                           |                           |                           | 230.1                     |                            |                            |                             |
| Union  | 16S15W20DAA1         | 33.31664 | -92.6661  | 189                   | 603        |                           |                           |                           | 231.15                    |                            |                            |                             |
| Union  | 16S15W31ACC1         | 33.28808 | -92.69136 | 168                   | 630        |                           | 228.67                    | 210.09                    | 205.53                    | 4.56                       | 23.14                      |                             |
| Union  | 6S16W02ABC1 Smackov  | 33.3683  | -92.72461 | 114                   | 552        | 152.32                    | 140.04                    | 130.03                    | 127.51                    | 2.52                       | 12.53                      | 24.81                       |
| Union  | 16S16W03CBC1         | 33.36056 | -92.75194 | 202                   | 560        | 211.81                    | 201.79                    | 191.21                    | 188.93                    | 2.28                       | 12.86                      | 22.88                       |
| Union  | 16S17W36DCC1         | 33.28333 | -92.81167 | 174                   | 612        |                           |                           |                           | 203.5                     |                            |                            |                             |
| Union  | 16S18W34ABC2         | 33.30166 | -92.95248 | 250                   | 465        |                           |                           |                           | 193.89                    |                            |                            |                             |
| Union  | 17S14W10DCC1         | 33.24911 | -92.53424 | 182                   | 300        | 93.6                      | 90                        | 85.08                     | 85.4                      | 0.32                       | 4.60                       | 8.20                        |
| Union  | 17S14W15ABA1         | 33.24758 | -92.53328 | 169                   | 250        | 87.3                      | 90.07                     | 85.45                     | 85.9                      | 0.45                       | 4.17                       | 1.40                        |
| Union  | S14W22BAB1 Union Sch | 33.23177 | -92.54005 | 200                   | 607.2      | 278.56                    | 262.73                    | 250.32                    | 242.9                     | 7.42                       | 19.83                      | 35.66                       |
| Union  | 17S15W06BAA1         | 33.27933 | -92.6925  | 170                   | 630        |                           | 206.74                    | 188.61                    | 184.99                    | 3.62                       | 21.75                      |                             |
| Union  | 17S15W08CDD1         | 33.25133 | -92.67428 | 174.92                | 667        | 271                       | 246.84                    | 228.94                    | 222.6                     | 6.34                       | 24.24                      | 48.40                       |
| Union  | 7S15W18DBB1 Monsant  | 33.24416 | -92.69145 | 182.93                | 540        | 288.26                    | 258.82                    | 229.7                     | 231.5                     | 1.80                       | 27.32                      | 56.76                       |
| Union  | 17S15W28DBA1 Eld 8   | 33.2128  | -92.65272 | 231                   | 668        | 329.84                    | 305.67                    | 278.95                    | 274.39                    | 4.56                       | 31.28                      | 55.45                       |
| Union  | 17S15W28DCC1         | 33.20914 | -92.65659 | 274                   | 754        |                           | 351.82                    | 337.03                    | 328.83                    | 8.20                       | 22.99                      |                             |
| Union  | 17S15W31DCA1         | 33.19585 | -92.68798 | 270                   | 753        |                           |                           |                           | 321.37                    |                            |                            |                             |
| Union  | 17S15W31DCB1         | 33.19696 | -92.69084 | 258                   | 260        |                           |                           | 96.24                     | 95.67                     | 0.57                       |                            |                             |
| Union  | 17S15W33ABB1         | 33.20652 | -92.65654 | 267.7                 | 709        |                           | 343.29                    | 330                       | 316.03                    | 13.97                      | 27.26                      |                             |
| Union  | 17S16W01BAA1         | 33.28029 | -92.70916 | 157                   | 707        |                           | 323.43                    | 215.79                    | 210.66                    | 5.13                       | 112.77                     |                             |
| Union  | 17S17W25DBA2 Airport | 33.21569 | -92.81044 | 250                   | 648        | 324.56                    | 301.19                    | 280.51                    | 278.33                    | 2.18                       | 22.86                      | 46.23                       |
| Union  | 17S17W30DCD1         | 33.21595 | -92.89876 | 276                   | 690        |                           |                           |                           | 269.95                    |                            |                            |                             |
| Union  | 18S12W33CBC1 Strong  | 33.10513 | -92.35374 | 110                   | 730        |                           | 114.52                    | 117.82                    | 118.25                    | 0.43                       | 3.73                       |                             |
| Union  | 18S13W16ADD1         | 33.15291 | -92.44331 | 238                   | 354        |                           |                           |                           | 177.3                     |                            |                            |                             |
| Union  | 18S14W06CCD1         | 33.17756 | -92.59191 | 233                   | 783        |                           | 285.32                    | 273.15                    | 274.9                     | 1.75                       | 10.42                      |                             |
| Union  | S15W03DAB2 Welcome C | 33.18528 | -92.63389 | 240                   | 788        |                           |                           | 288.82                    | 284.94                    | 3.88                       |                            |                             |
| Union  | 18S15W22DCD1         | 33.13541 | -92.63627 | 188                   | 660        |                           |                           | 128.07                    | 121.96                    | 6.11                       |                            |                             |
| Union  | 18S15W33ADA1         | 33.11648 | -92.64958 | 253                   | 752        |                           |                           |                           | 300.64                    |                            |                            |                             |
| Union  | 18S16W11DAC1         | 33.16979 | -92.72121 | 273                   | 767        |                           |                           |                           | 333.6                     |                            |                            |                             |
| Union  | 18S16W28BBB1         | 33.13577 | -92.76988 | 225                   | 636        |                           |                           |                           | 264.72                    |                            |                            |                             |
| Union  | 8S17W22BDD1 McKinn   | 33.14886 | -92.84902 | 283                   | 705        | 326.2                     | 312.3                     | 297.47                    | 294.06                    | 3.41                       | 18.24                      | 32.14                       |
| Union  | 18S18W11ACD2         | 33.18081 | -92.93753 | 239                   | 634        |                           |                           |                           | 245.76                    |                            |                            |                             |







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