Growing Arkansas's Largest Industry

ARKANSAS
Department of Agriculture

2022 | ARKANSAS GROUNDWATER PROTECTION AND MANAGEMENT REPORT

Arkansas Department of Agriculture

Natural Resources Division

10421 West Markham Street
Little Rock, AR 72205

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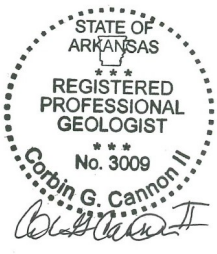

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Abstract

The Arkansas Groundwater Protection and Management Report is produced annually by the Arkansas Department of Agriculture's Natural Resources Division (NRD) pursuant to the Arkansas Groundwater Protection and Management Act of 1991, Arkansas Code Annotated 15-22-906. This report provides a summary of groundwater protection and conservation programs administered by the NRD during the years 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

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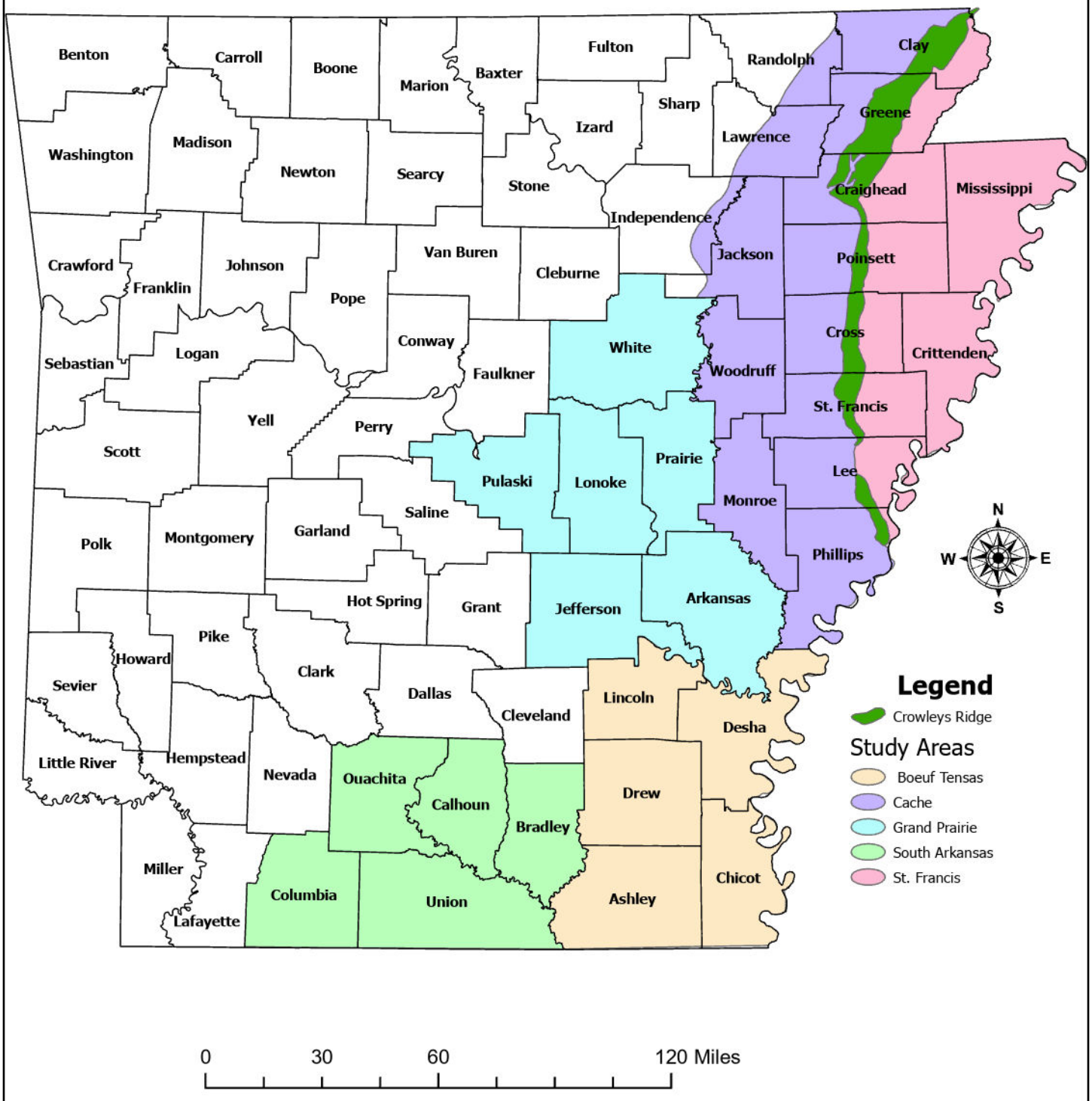

Figure 1

Critical Groundwater Areas

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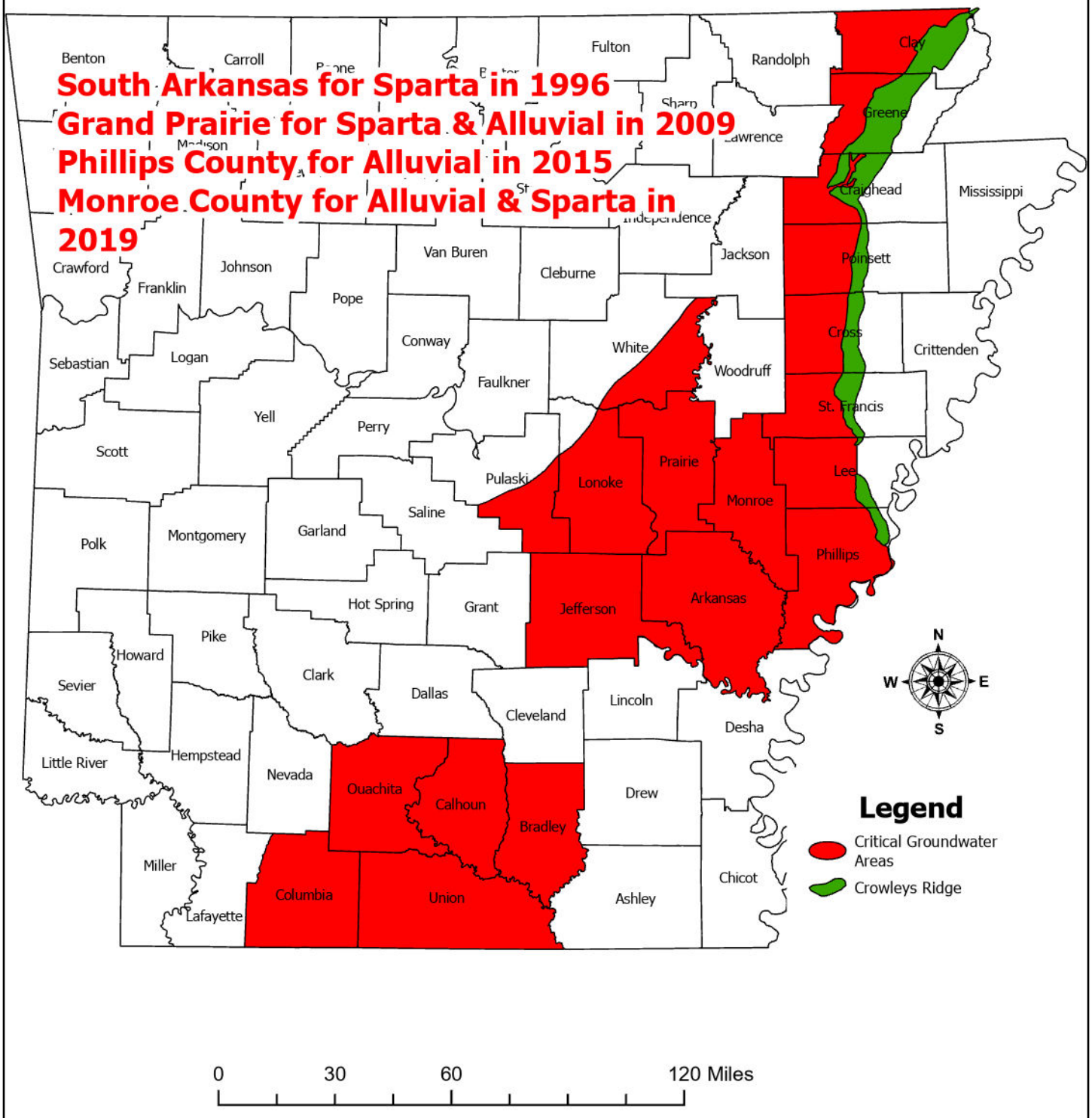

Figure 2

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

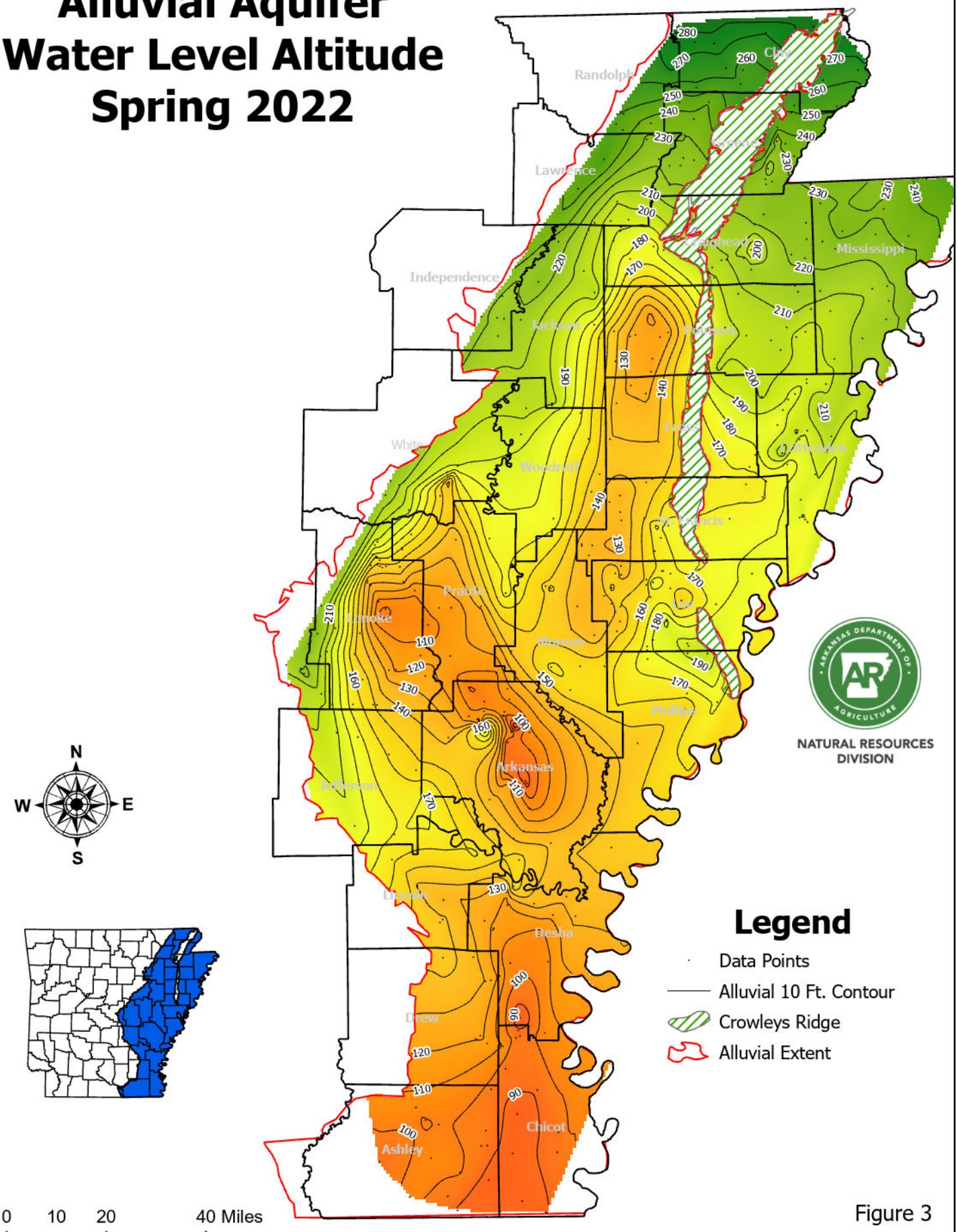

Figure 3

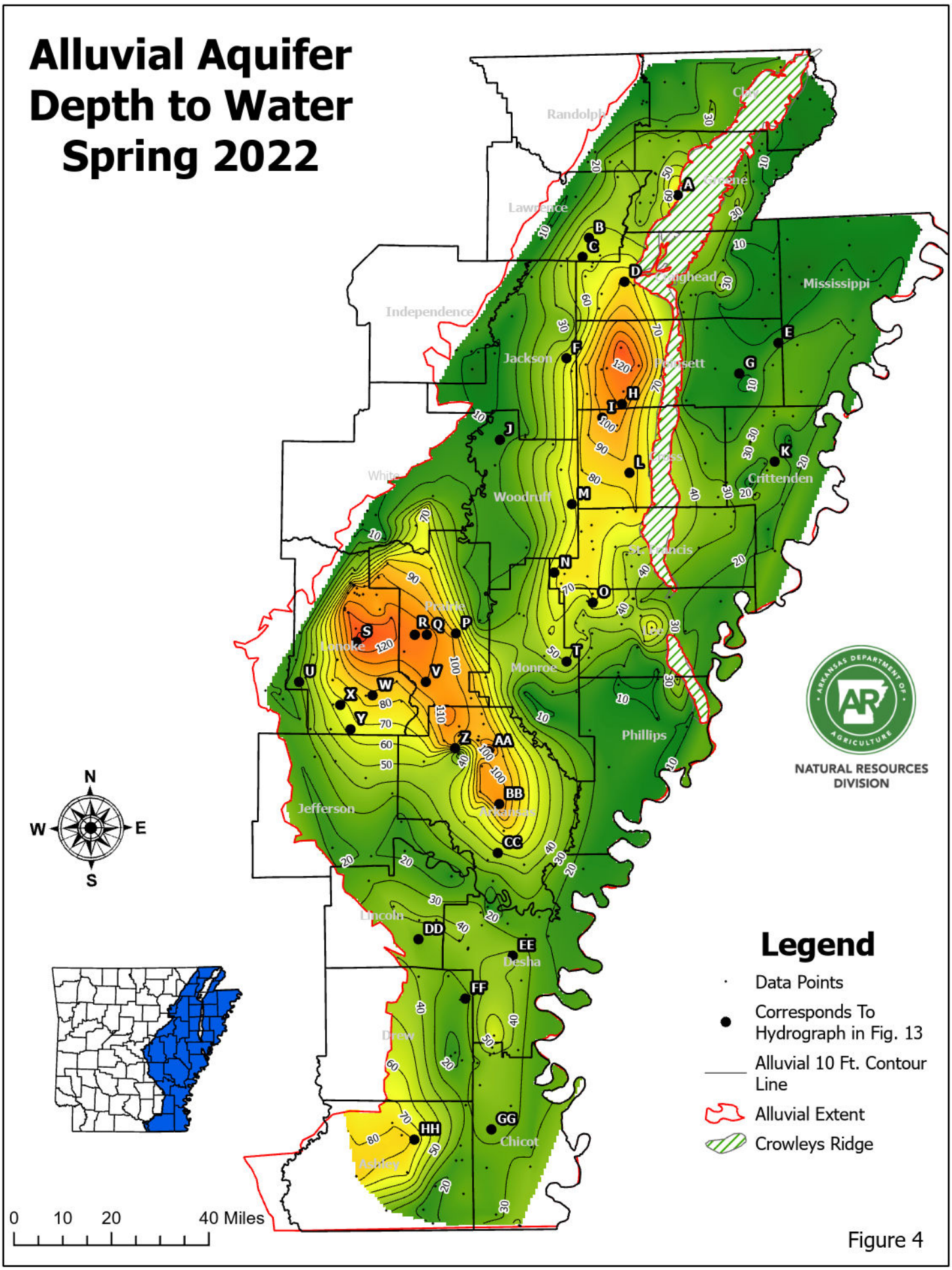
Alluvial Aquifer
Depth to Water
Spring 2022
Randolph
Clay
Greene
Lawrence
Craighead
Mississippi
Independence
Jackson
Poinsett
White
Woodruff
Cross
Crittenden
St. Francis
Prairie
Lonoke
Monroe
Phillips
Jefferson
Arkansas
Lincoln
Desha
Drew
Chicot
Ashley
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z
AA
BB
CC
DD
EE
FF
GG
HH
N
W
E
S
0 10 20 40 Miles
ARKANSAS DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES DIVISION
Legend
Data Points
Corresponds To Hydrograph in Fig. 13
Alluvial 10 Ft. Contour Line
Alluvial Extent
Crowleys Ridge

Figure 4

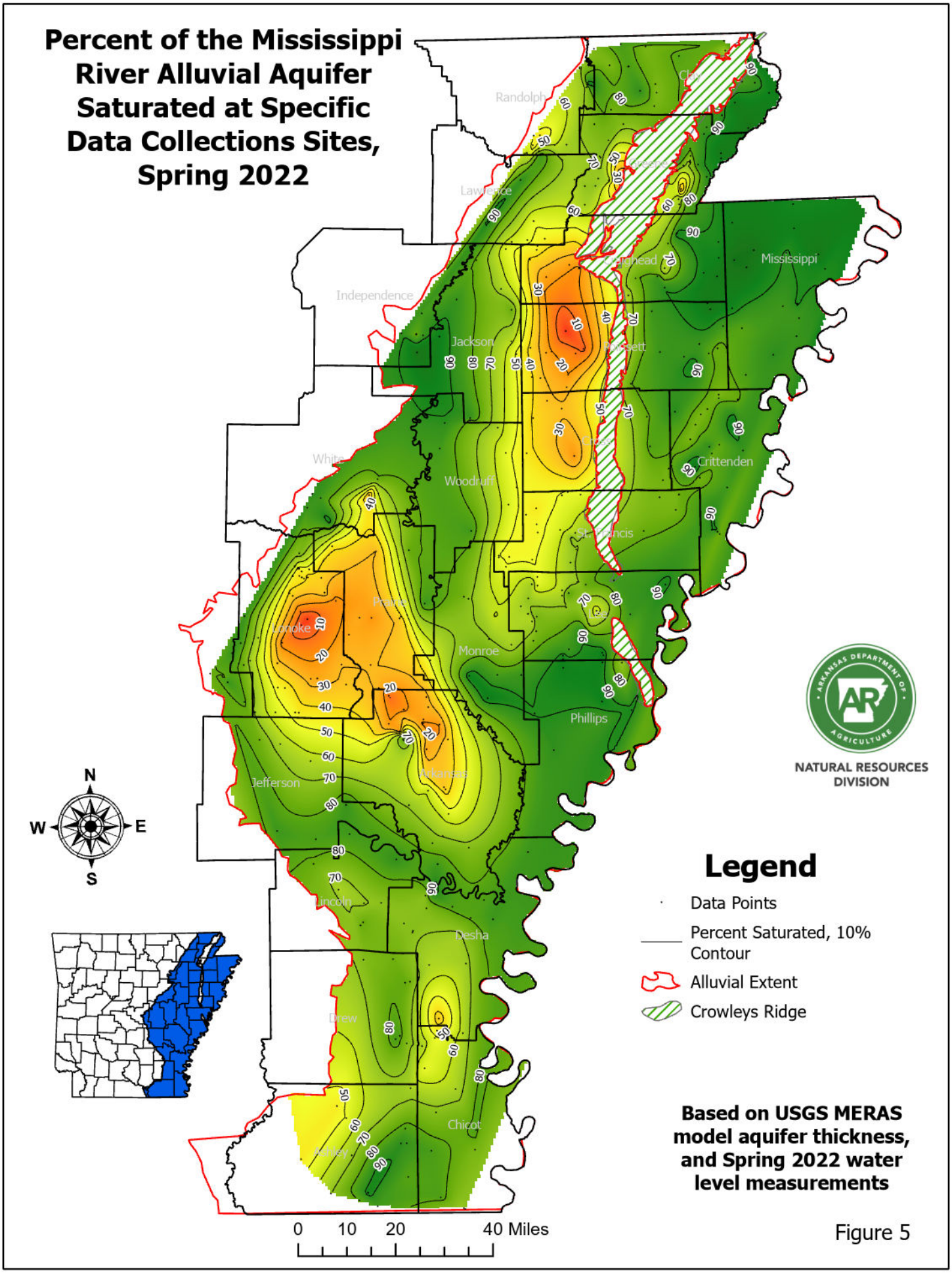
Percent of the Mississippi River Alluvial Aquifer Saturated at Specific Data Collections Sites, Spring 2022
Randolph
Clay
Lawrence
Greene
Craighead
Mississippi
Independence
Jackson
Poinsett
White
Woodruff
Crittenden
St. Francis
Prairie
Lonoke
Monroe
Phillips
Jefferson
Arkansas
Lincoln
Desha
Drew
Chicot
Ashley
N
W
E
S
0 10 20 40 Miles
NATURAL RESOURCES DIVISION
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).

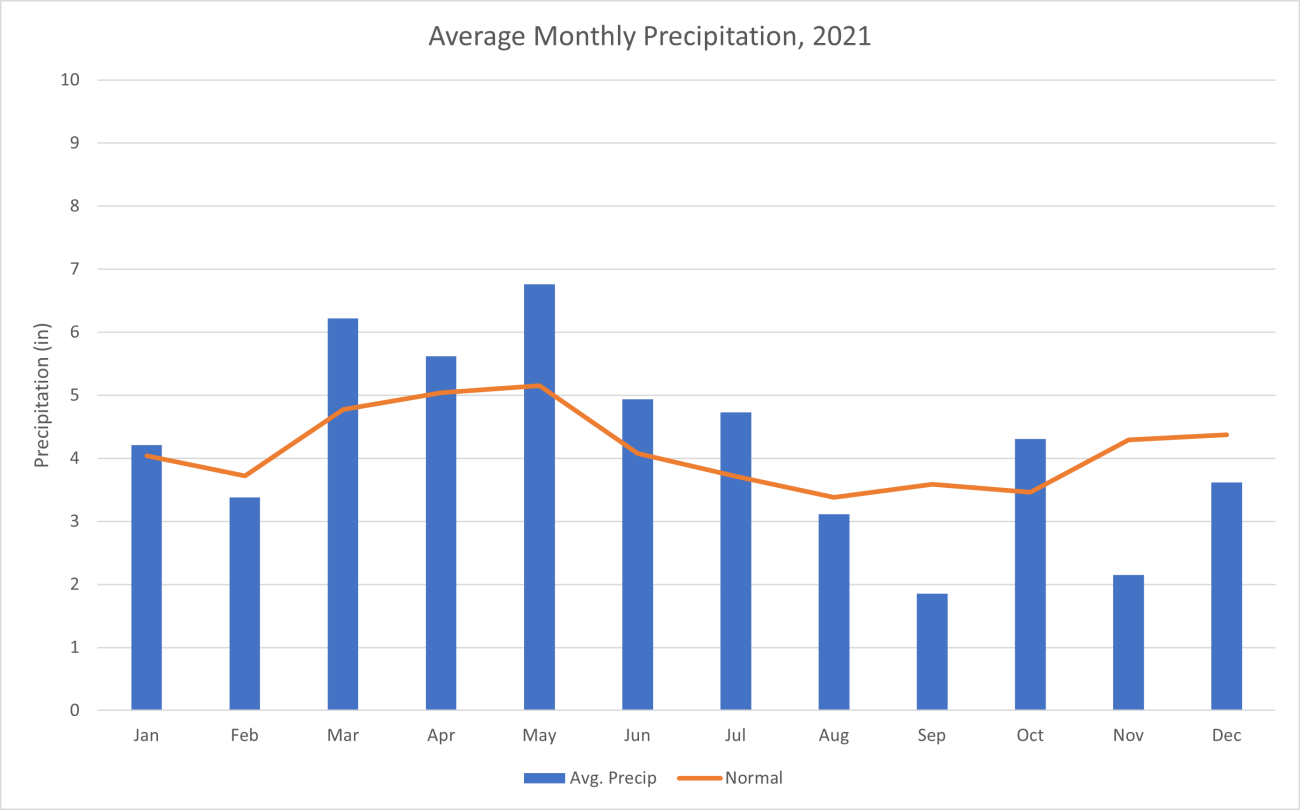

Figure 6: Average Monthly Precipitation, 2021

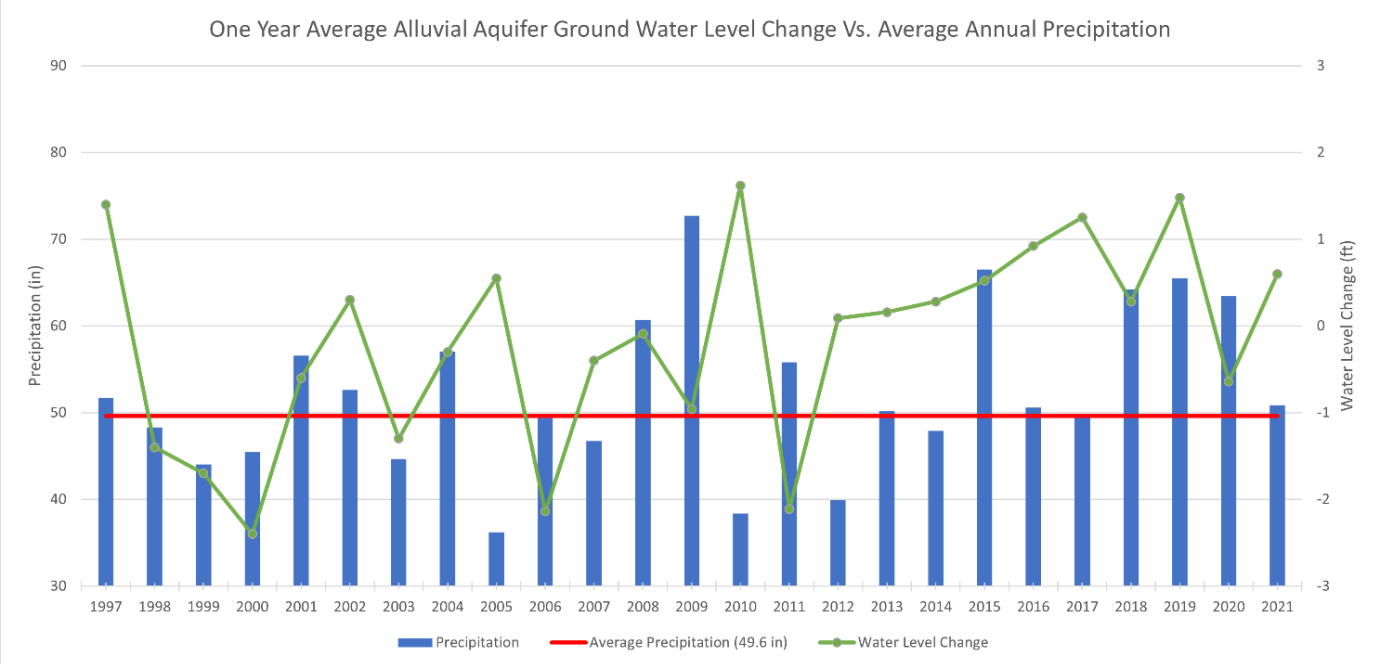

Figure 7: One Year Average Alluvial Aquifer Ground Water Change Vs. Average Annual Preciptation

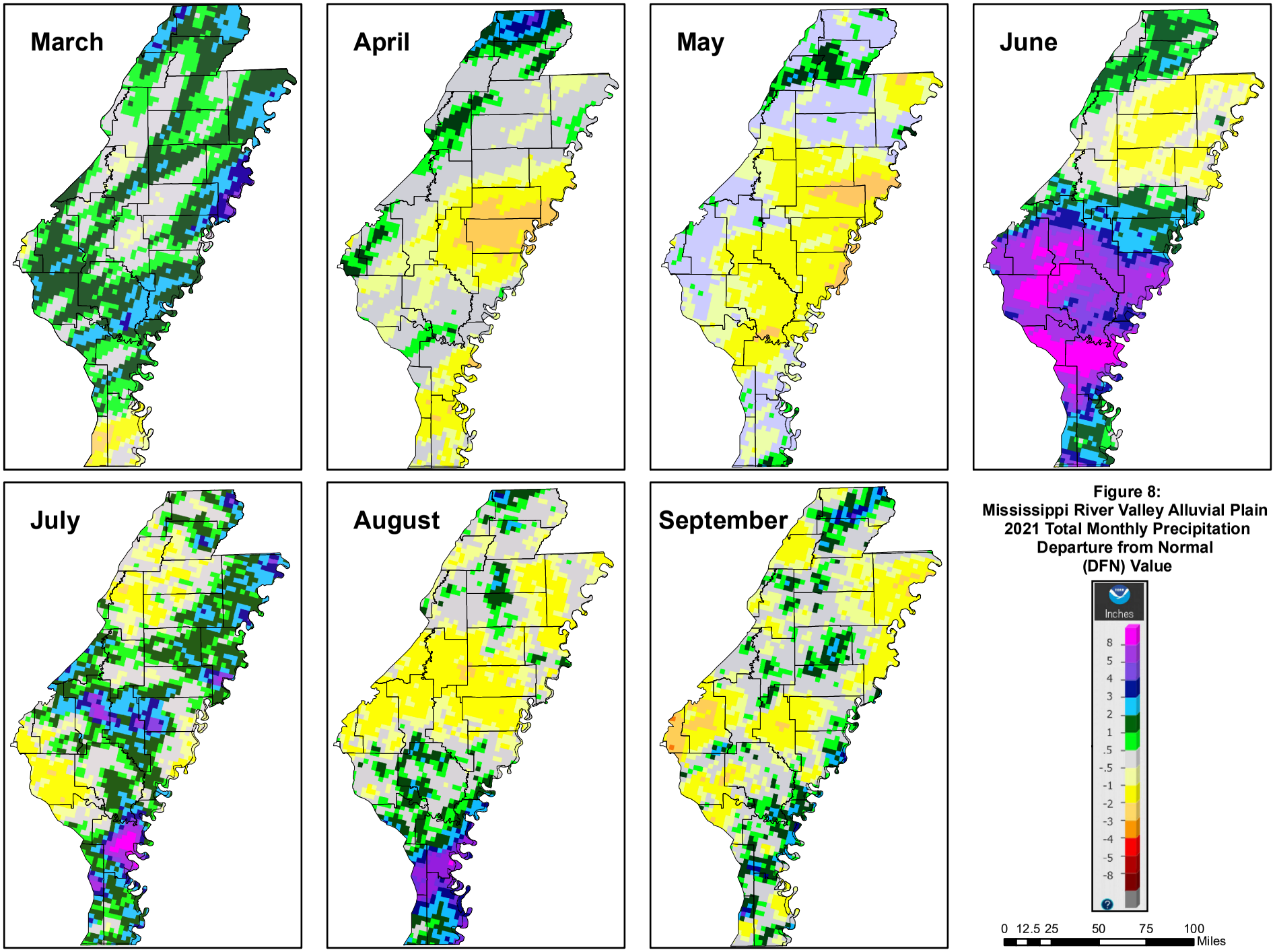

Figure 8:
Mississippi River Valley Alluvial Plain
2021 Total Monthly Precipitation
Departure from Normal
(DFN) Value

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

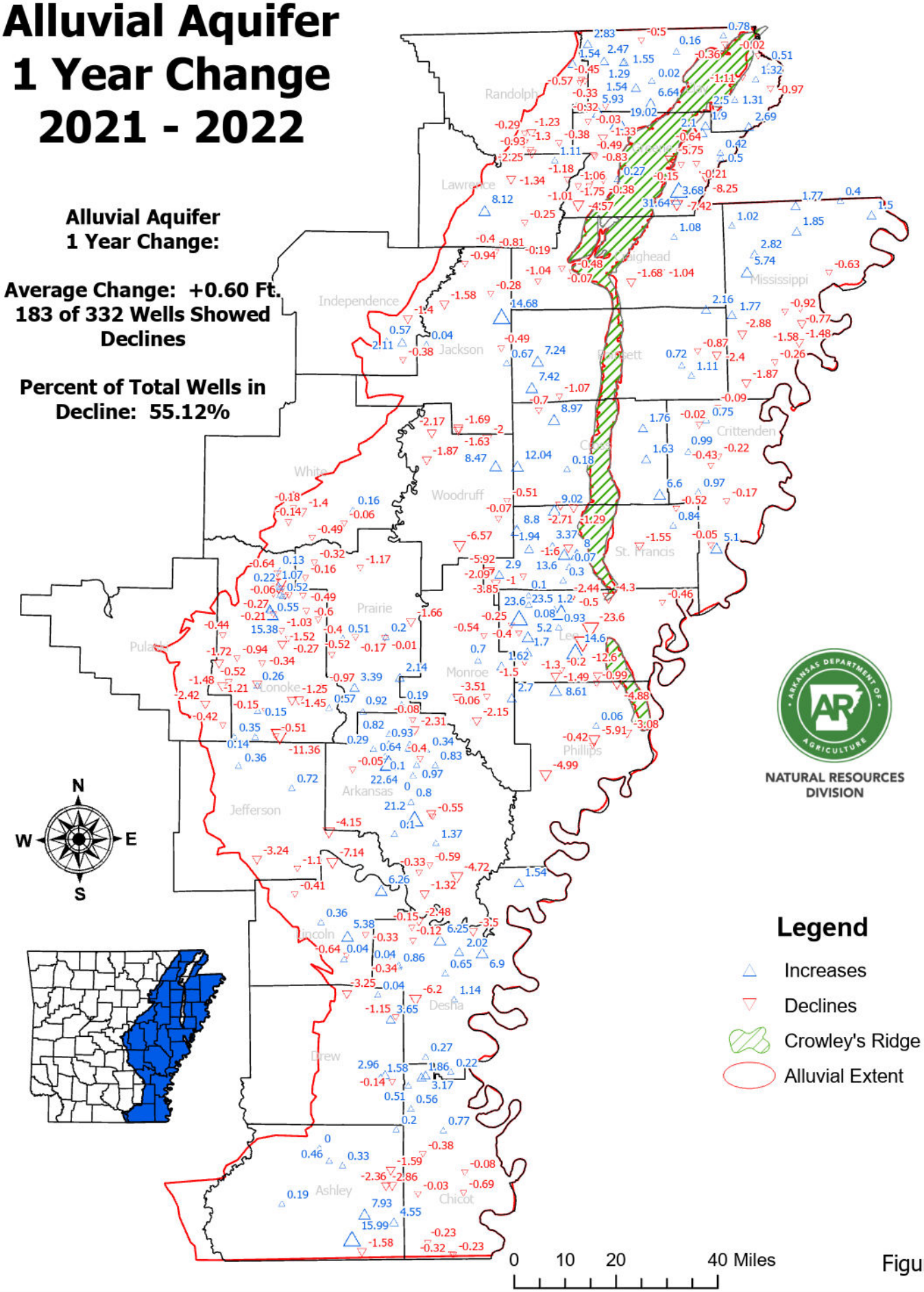

Figure 9

Alluvial Aquifer 5 Year Change 2017 - 2022

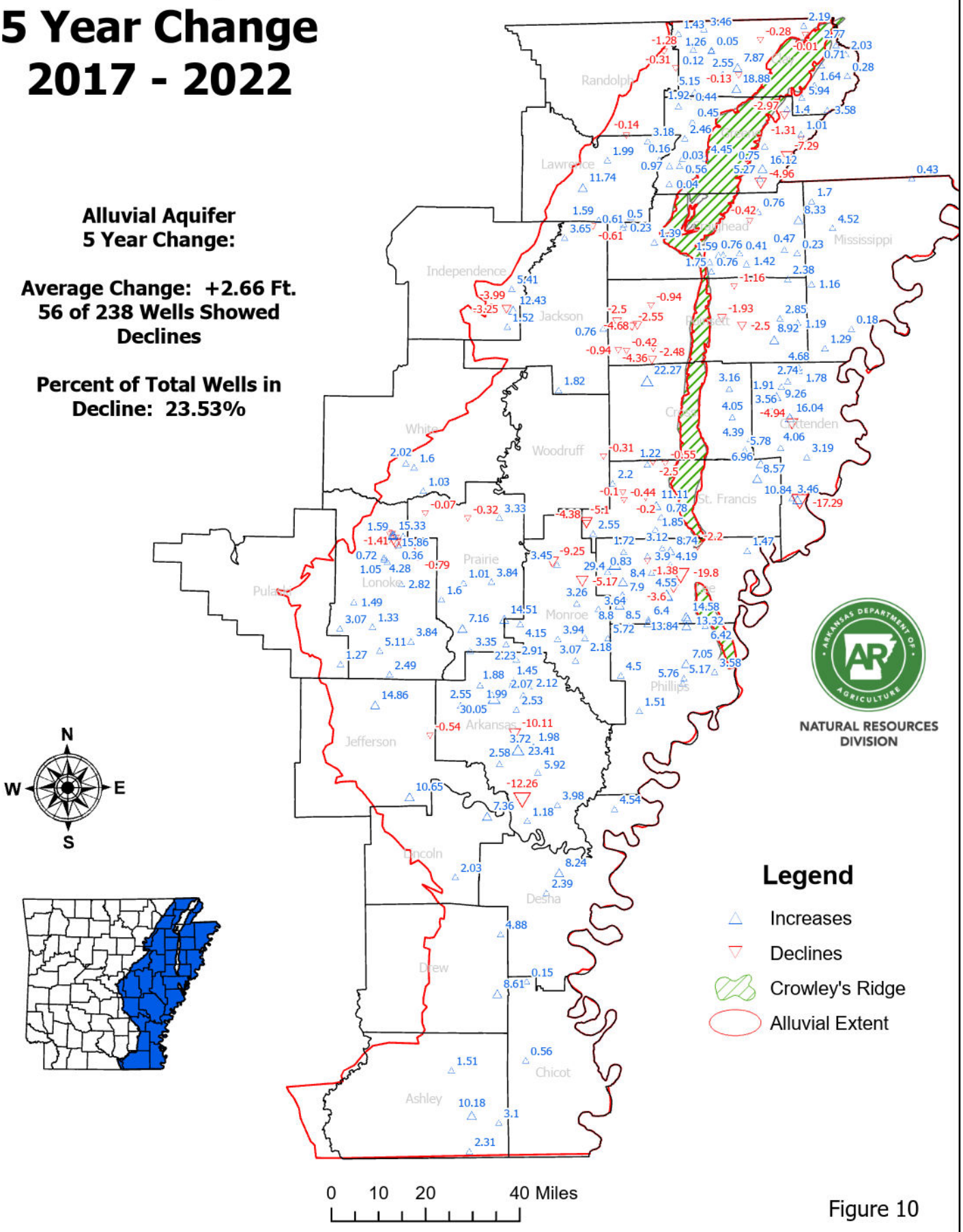

Figure 10

Alluvial Aquifer 10 Year Change 2012 - 2022

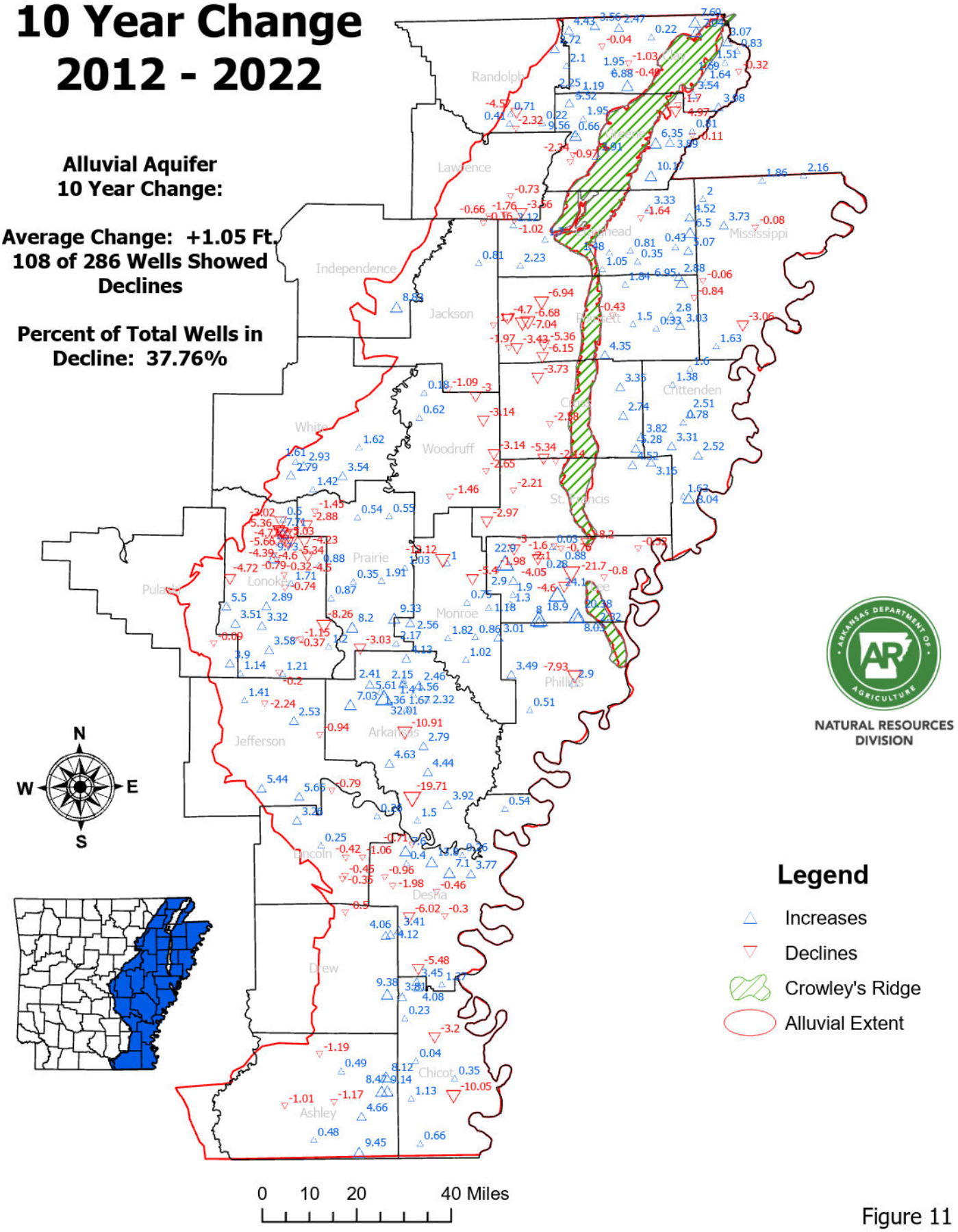

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Figure 11

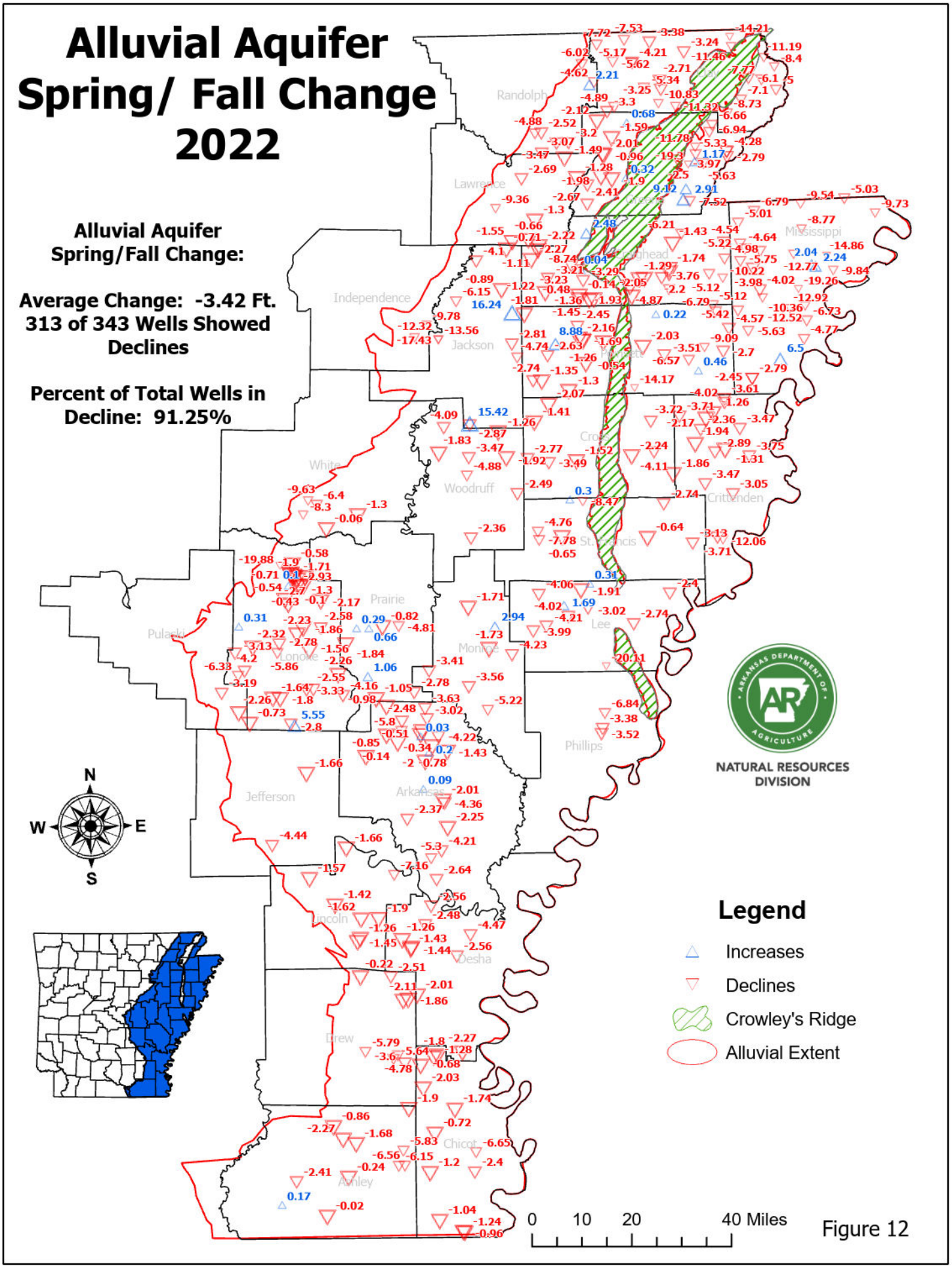

Alluvial Aquifer Spring/ Fall Change 2022
Alluvial Aquifer Spring/Fall Change:
Average Change: -3.42 Ft.
313 of 343 Wells Showed Declines
Percent of Total Wells in Decline: 91.25%
Randolph
Lawrence
Clay
Greene
Mississippi
Craighead
Poinsett
Independence
Jackson
Cross
White
Woodruff
Crittenden
St. Francis
Prairie
Pulaski
Lonoke
Monroe
Lee
Phillips
Jefferson
Arkansas
Lincoln
Desha
Drew
Chicot
Ashley
N
W
E
S
Legend
Increases
Declines
Crowley's Ridge
Alluvial Extent
0 10 20 40 Miles
NATURAL RESOURCES DIVISION

Figure 12

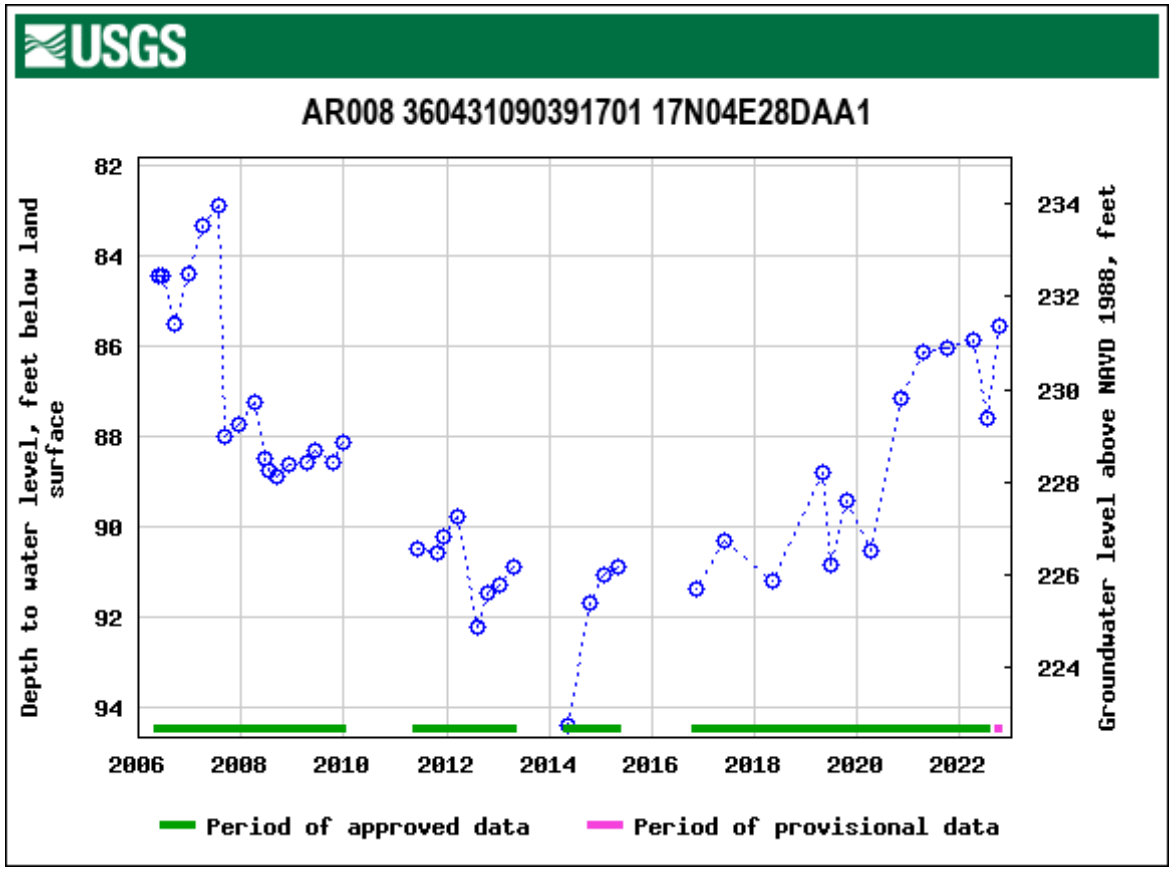
Water Level Trends, cont.

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.

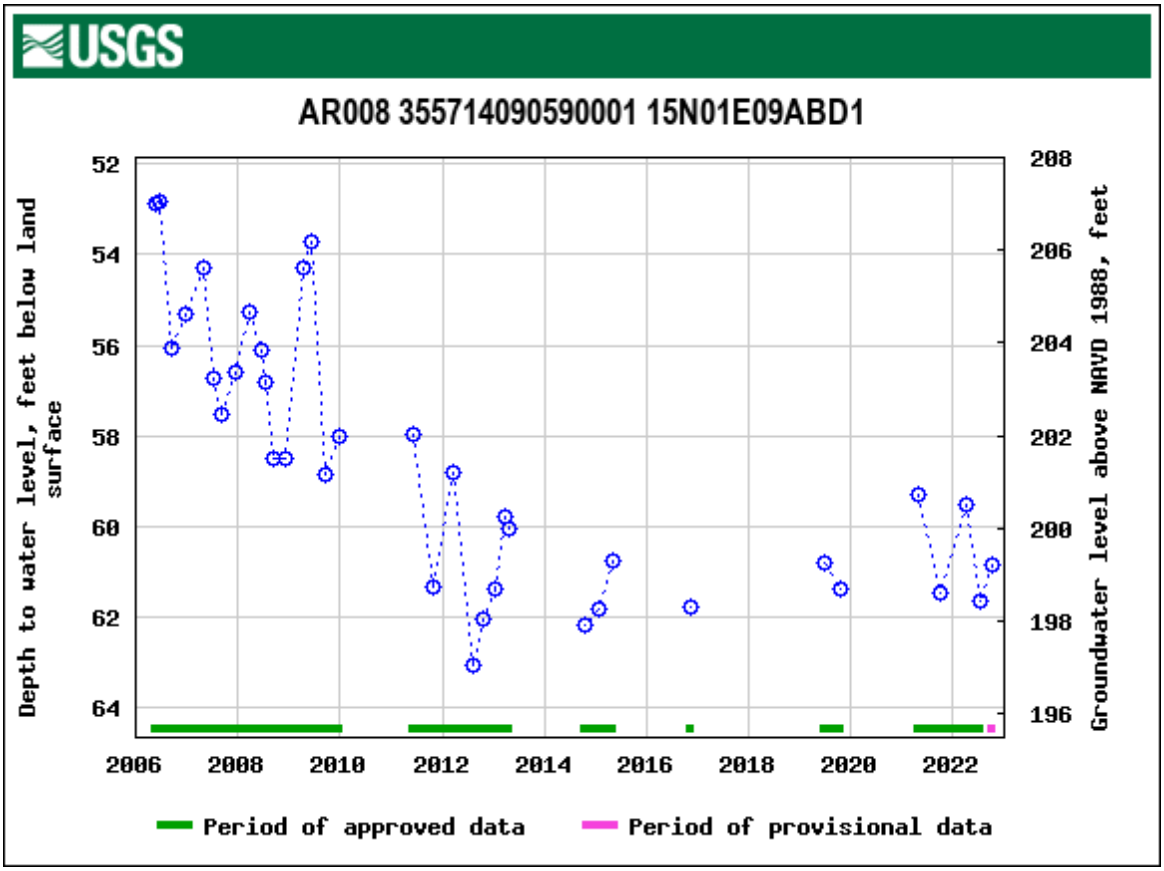
As previously mentioned, the spring 2022 water level change values showed a positive average change of +0.60 feet for the entire alluvial aquifer in the one-year period, while the five and ten-year periods had positive average values of +2.66 and +0.81, respectively. The aquifer-wide data has been focused 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

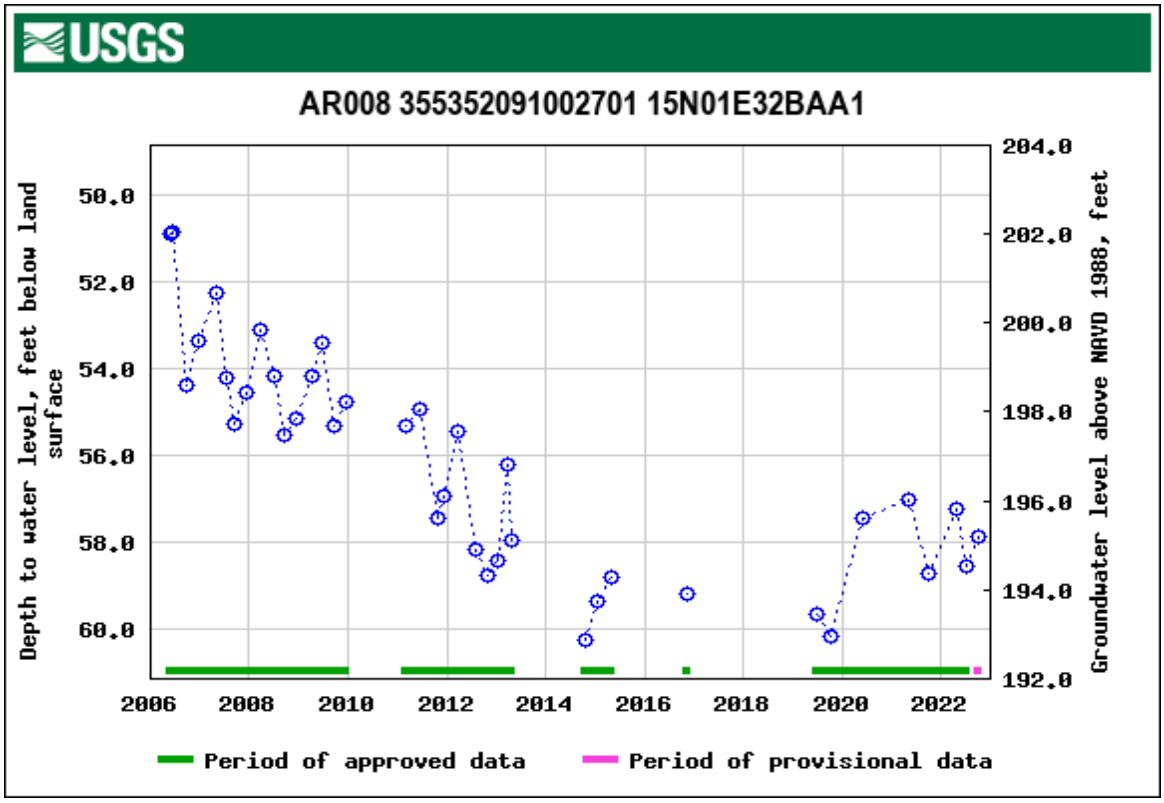


A. Greene County, Well 17N04E28DAA1

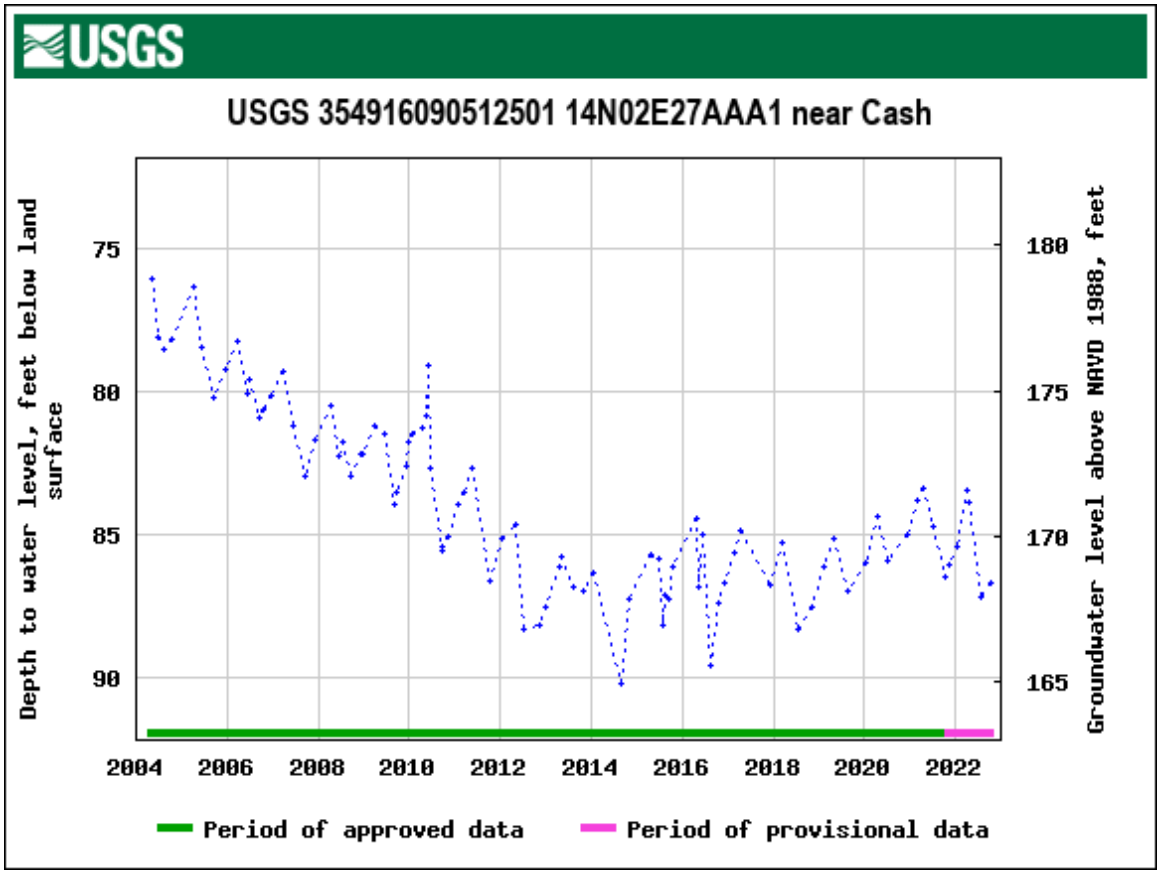


B. Lawrence County, Well 15N01E9ABD1

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

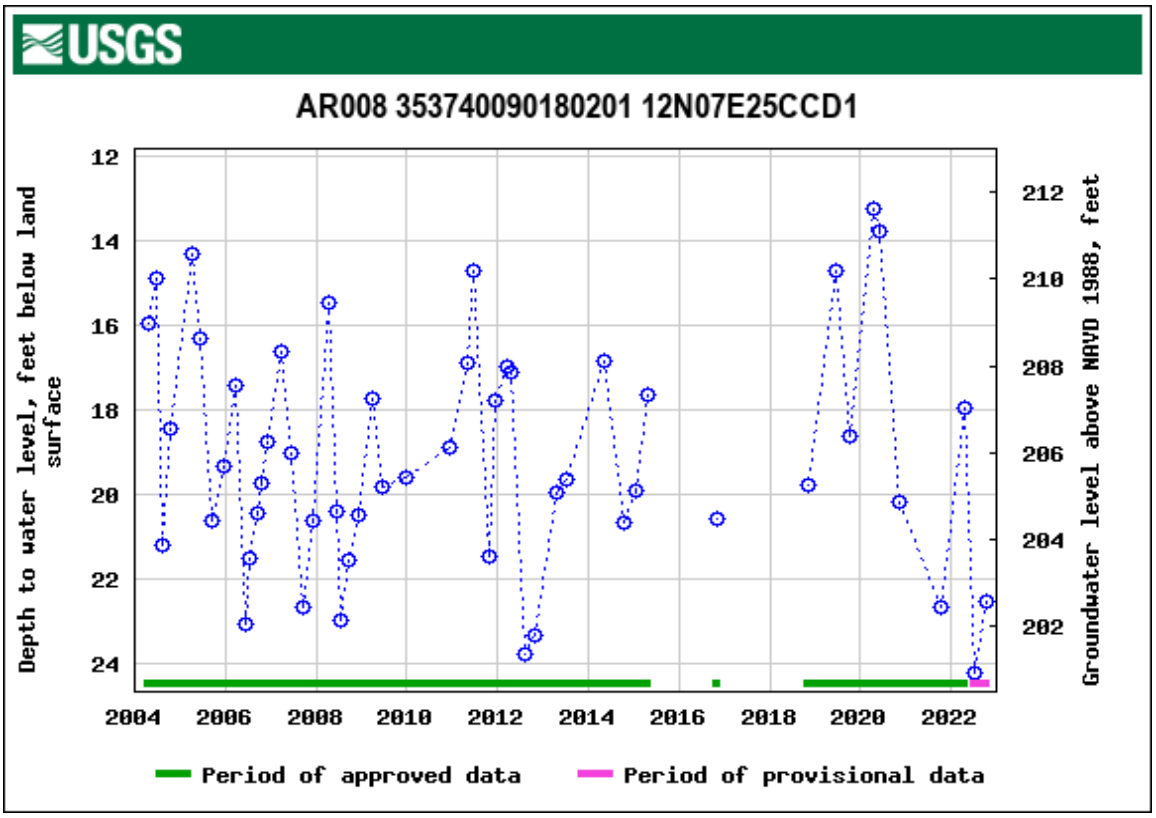


C. Lawrence County, Well 15N01E32BAA1

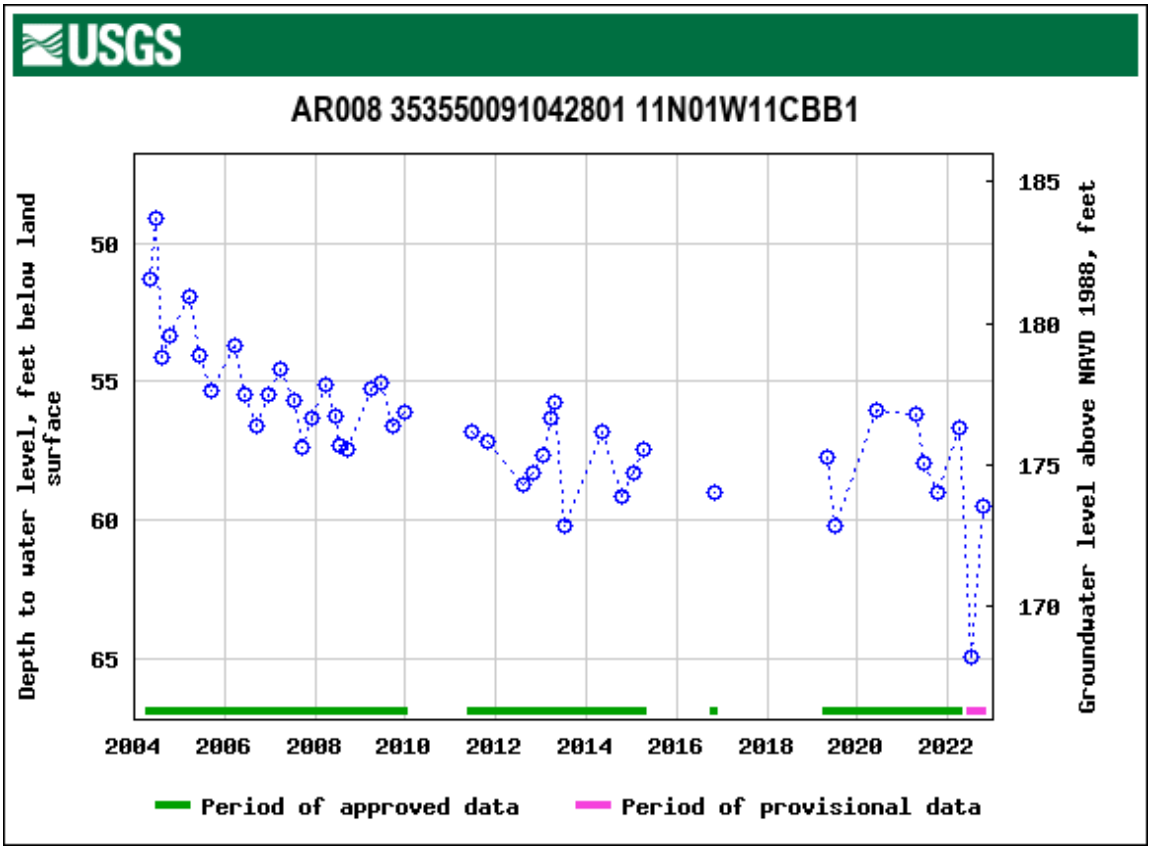


D. Craighead County, Well 14N02E27AAA1

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

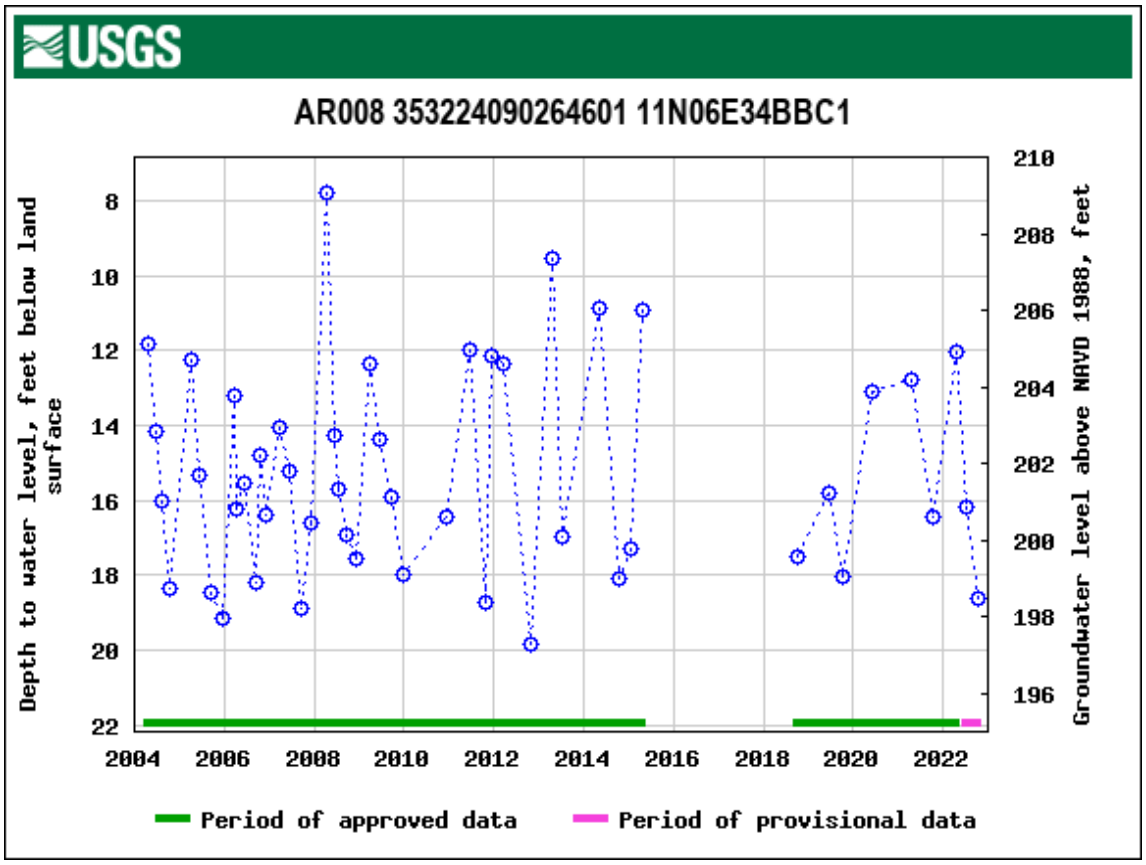


E. Poinsett County, Well 12N07E25CCD1

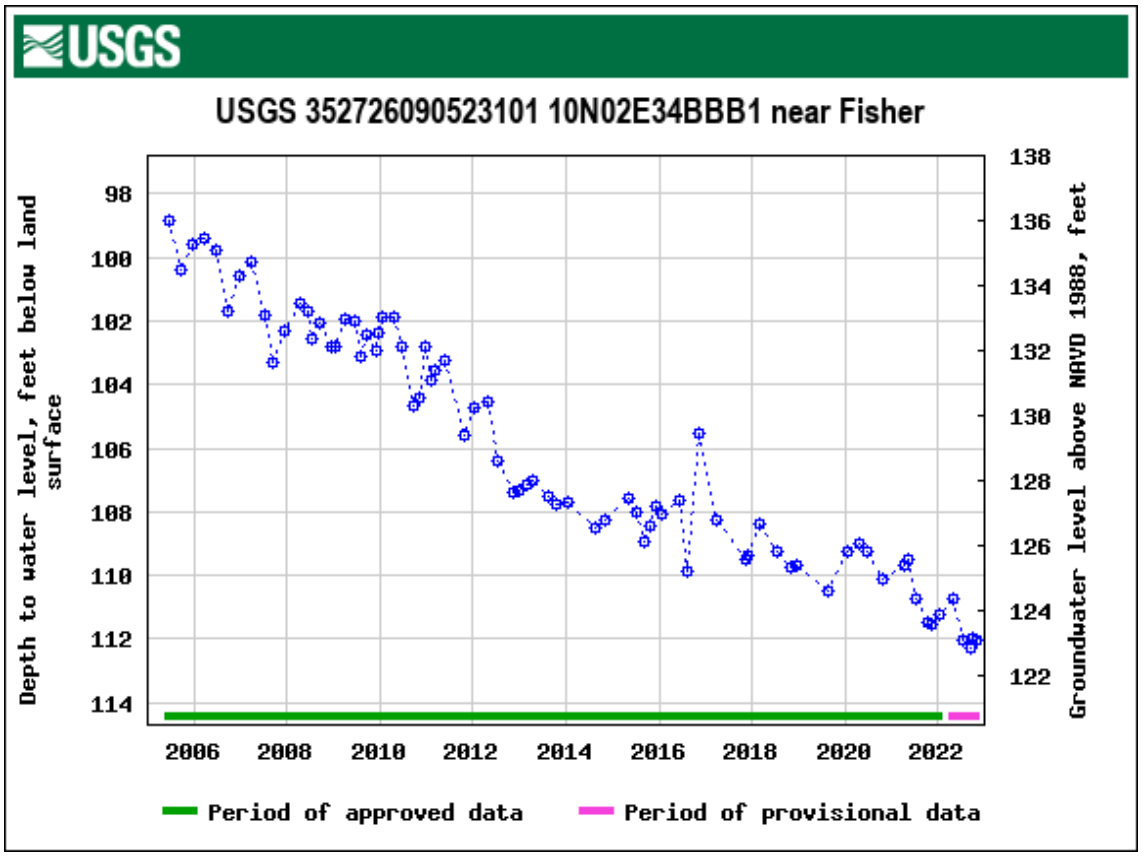


F. Jackson County, Well 11N01W11CCB1

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

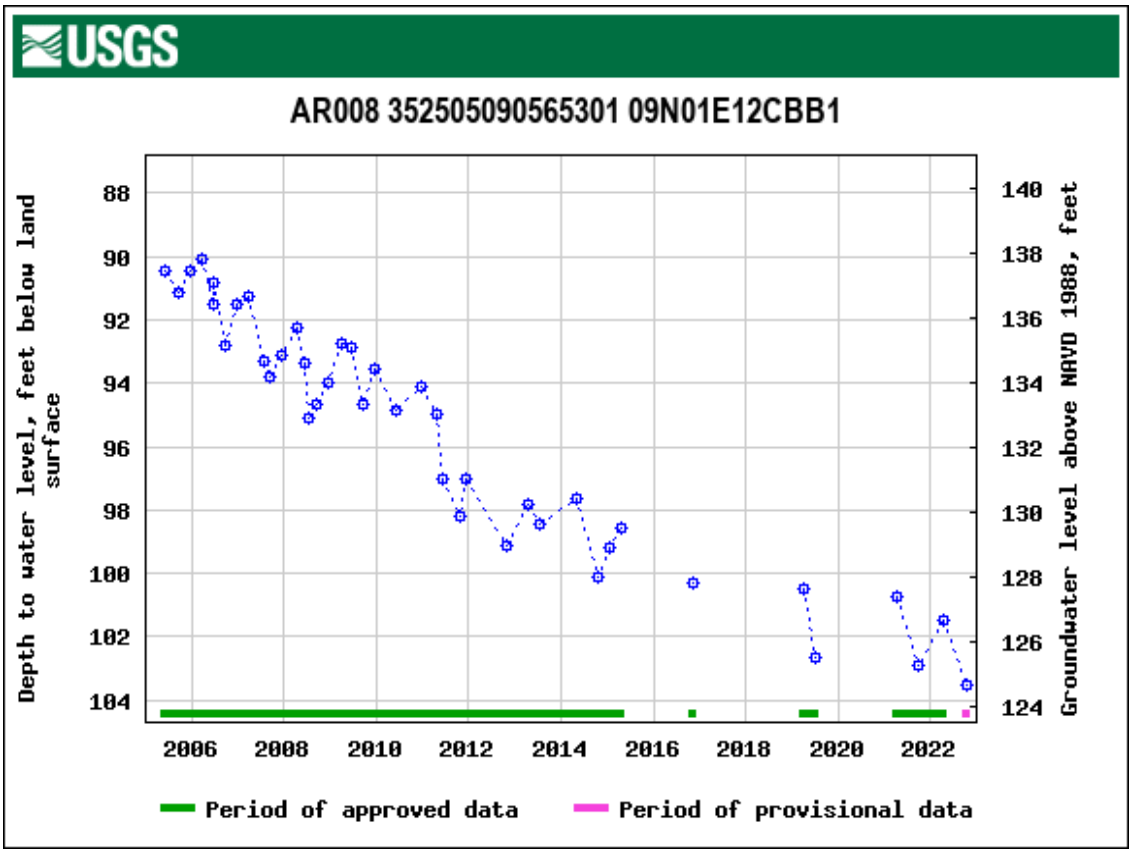


G. Poinsett County, Well 11N06E34BBC1

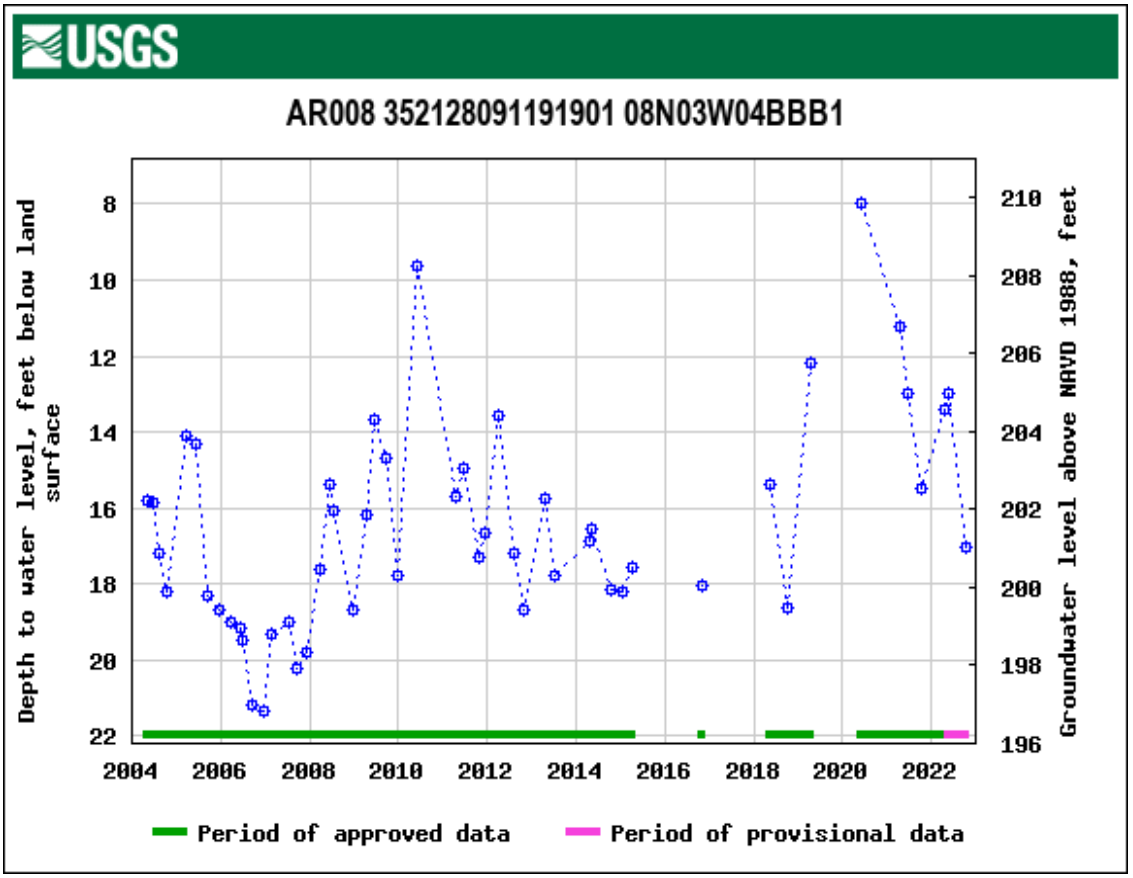


H. Poinsett County, Well 10N02E34BBB1

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

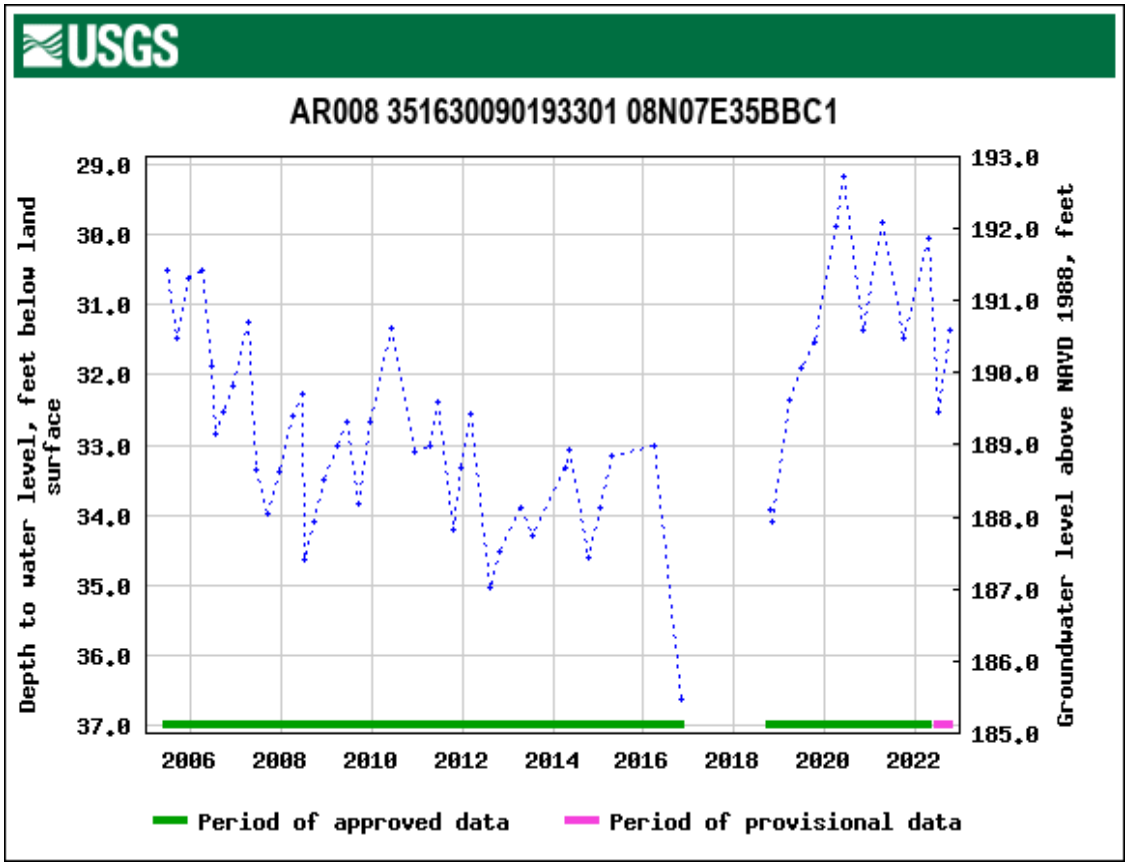


I. Cross County, Well 09N01E12CBB1

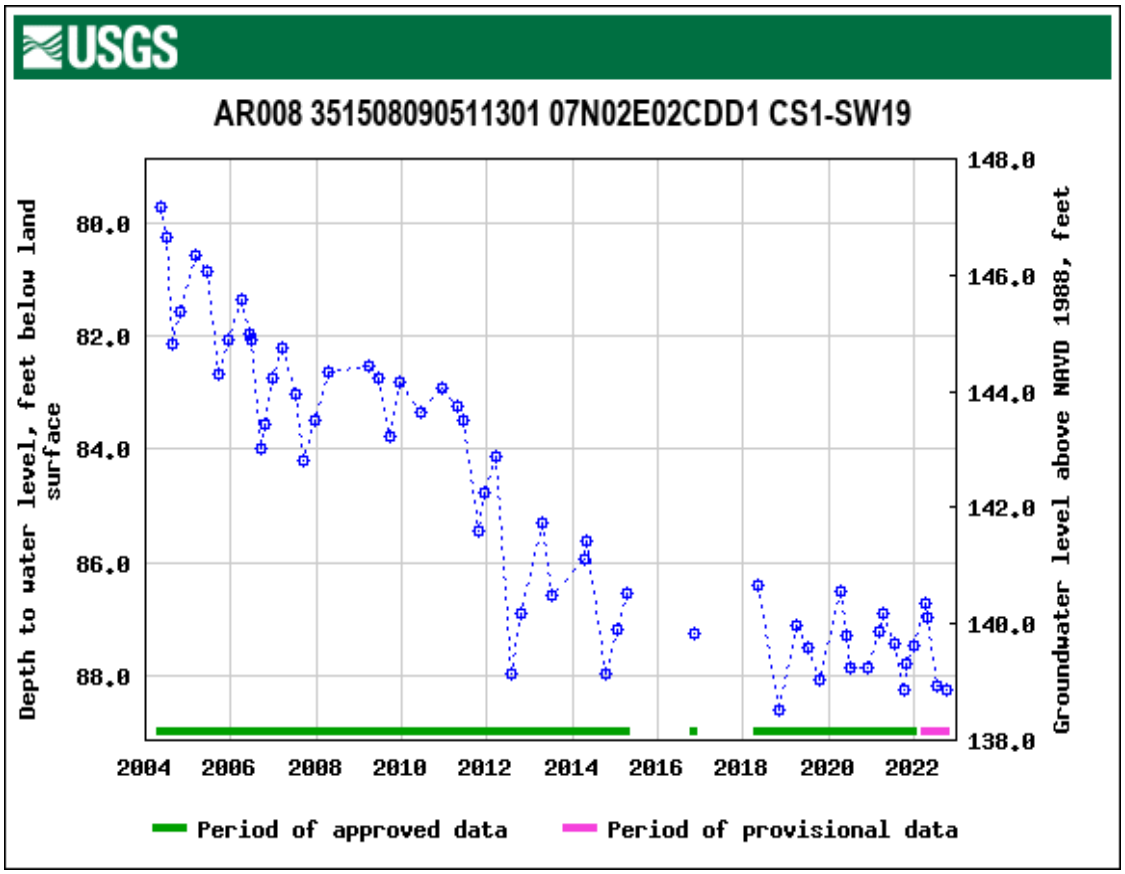


J. Woodruff County, Well 08N03W04BBB1

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

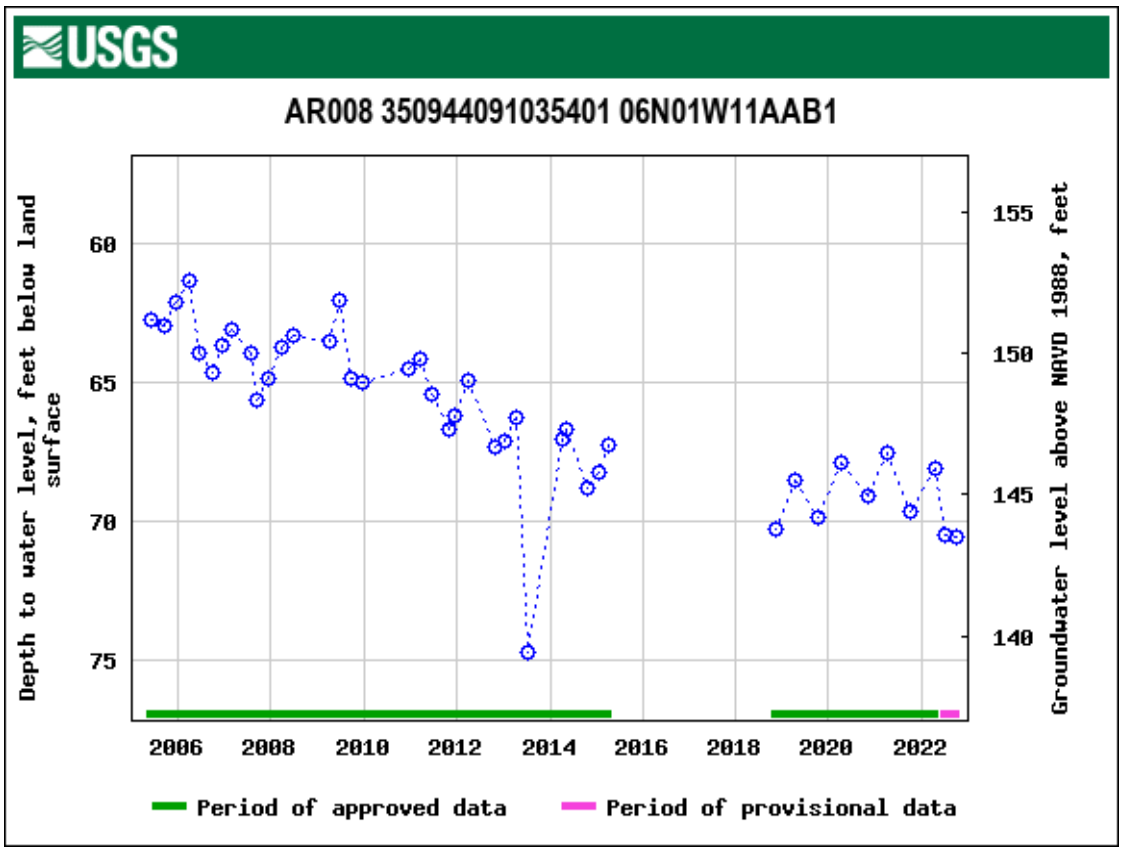


K. Crittenden County, Well 08N07E35BBC1

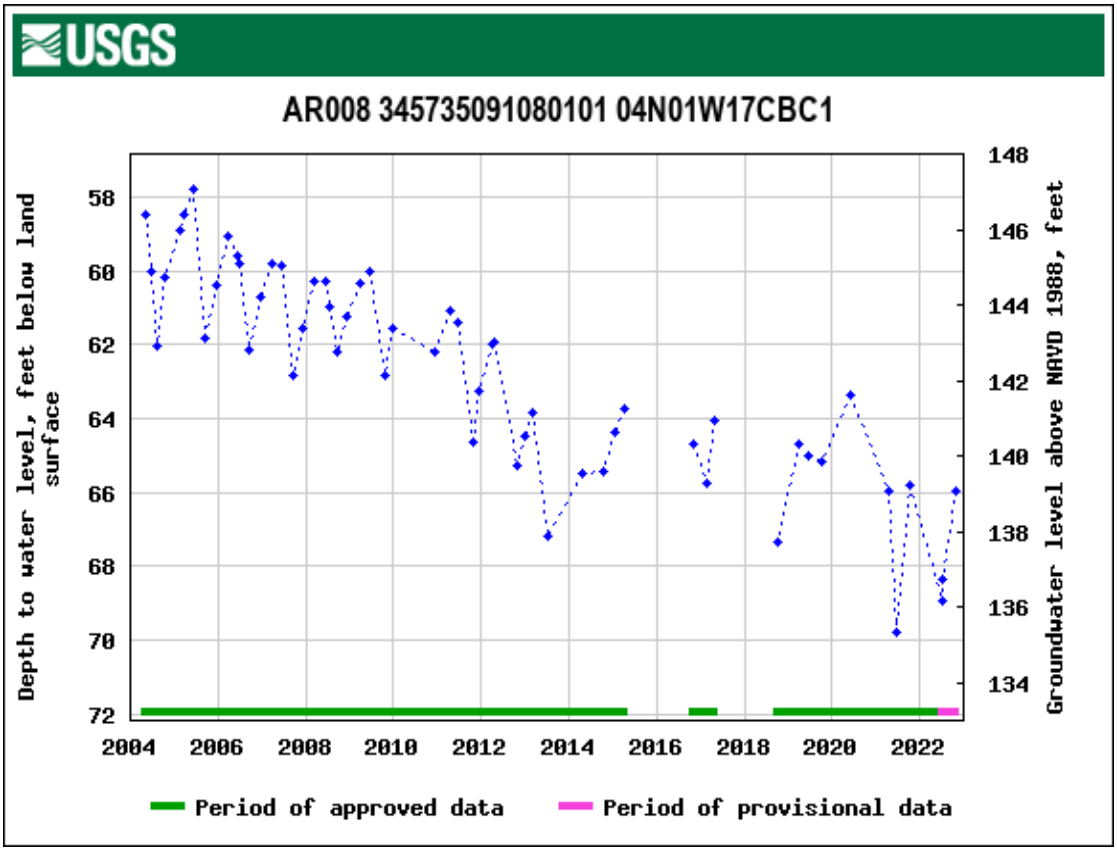


L. Cross County, Well 07N02E02CDD1 CS1-SW19

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

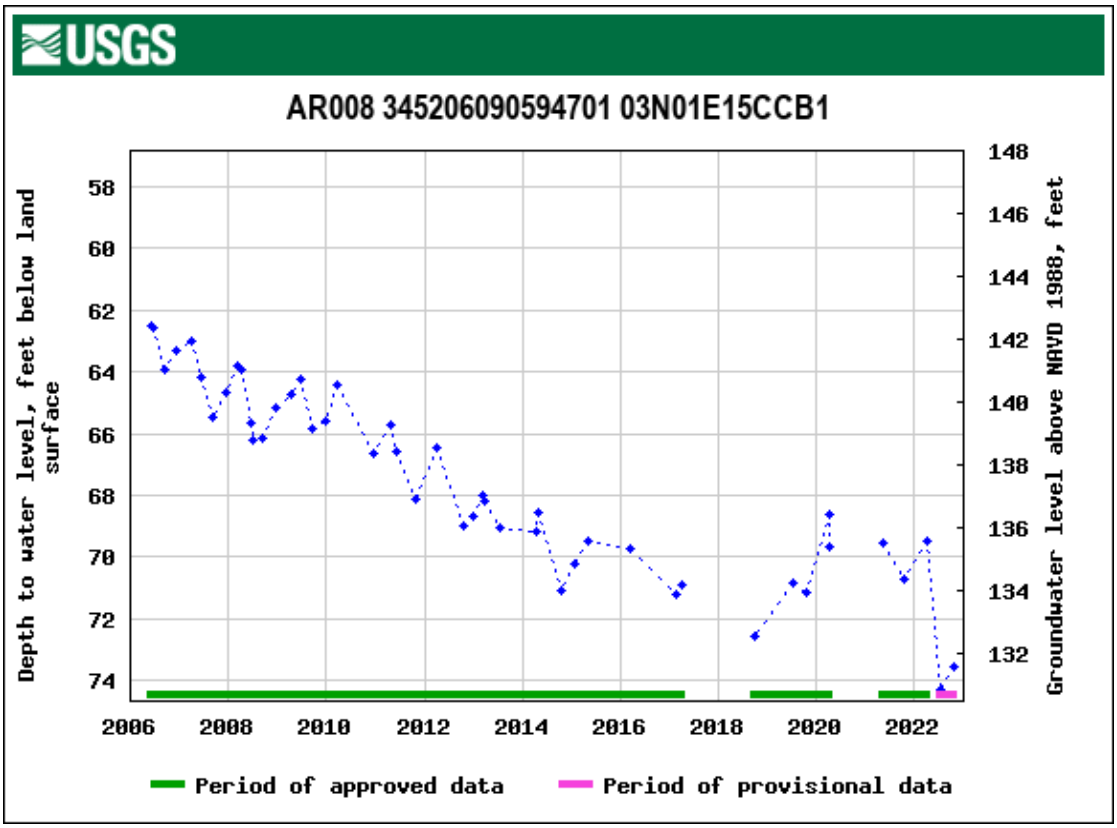


M. Woodruff County, Well 06N01W11AAB1

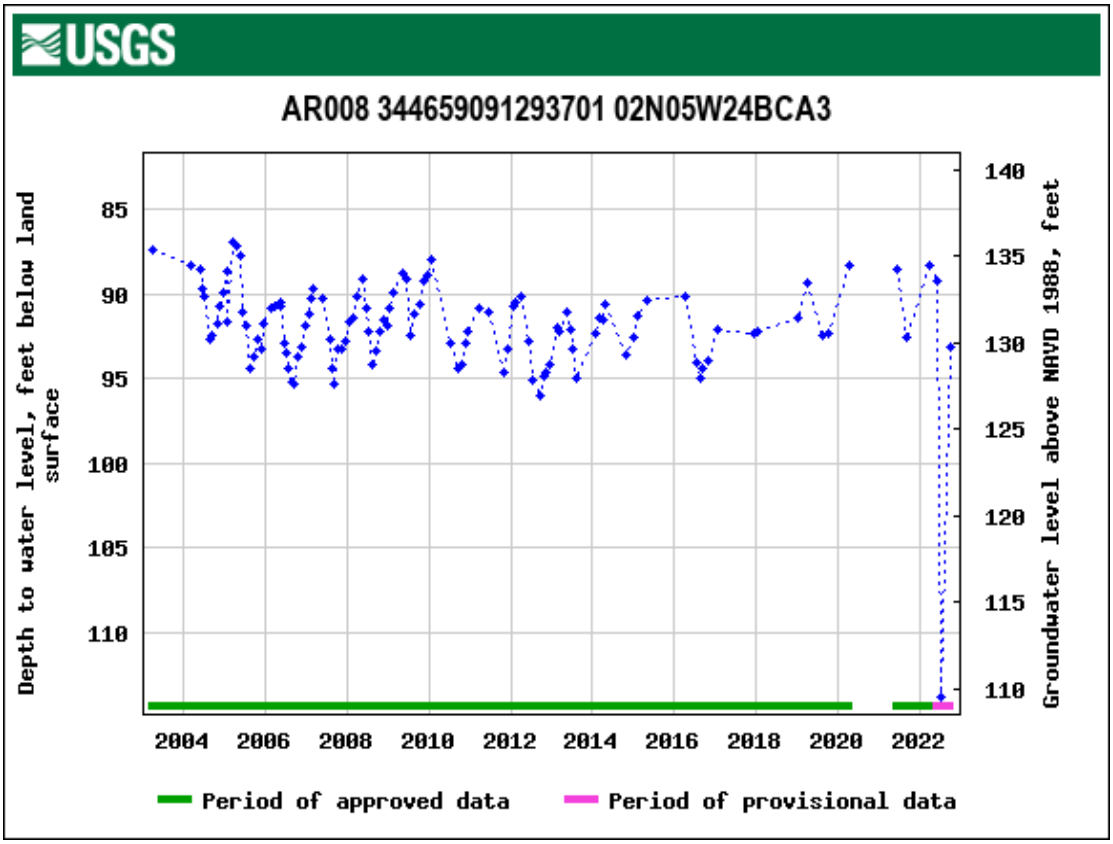


N. St. Francis County, Well 04N01W17CBC1

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

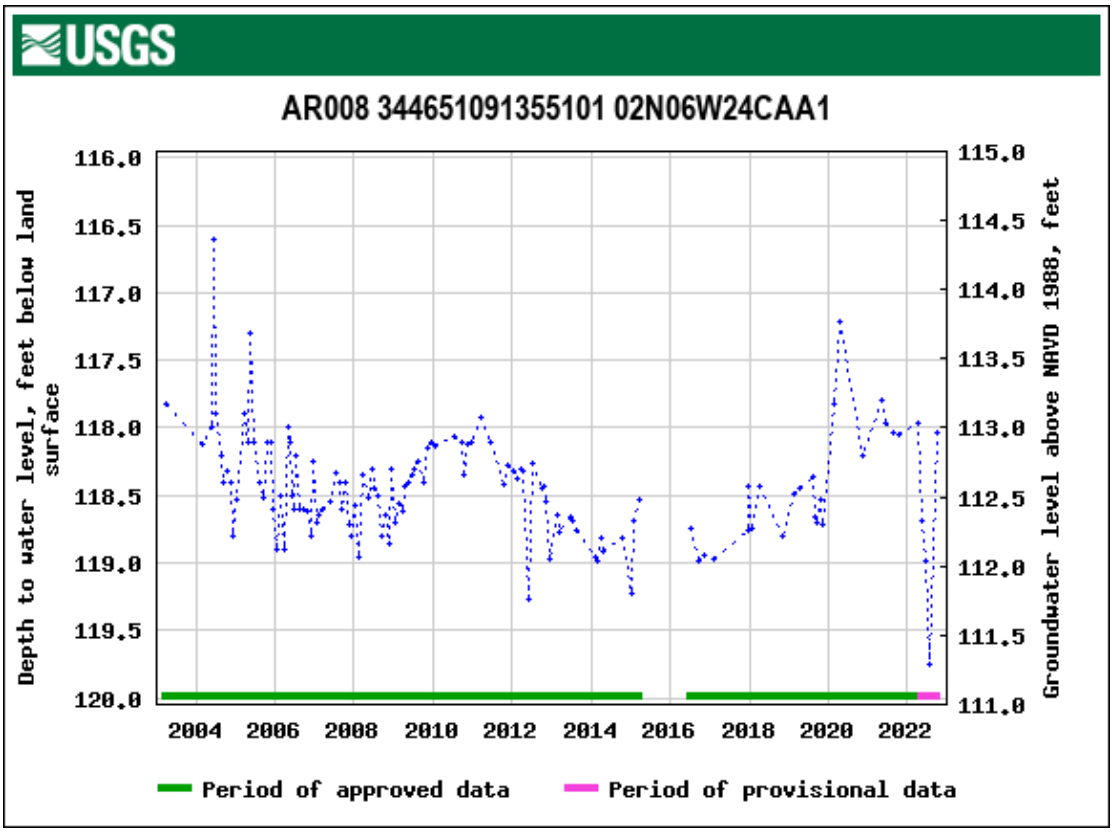


O. Lee County, Well 03N01E15CCB1

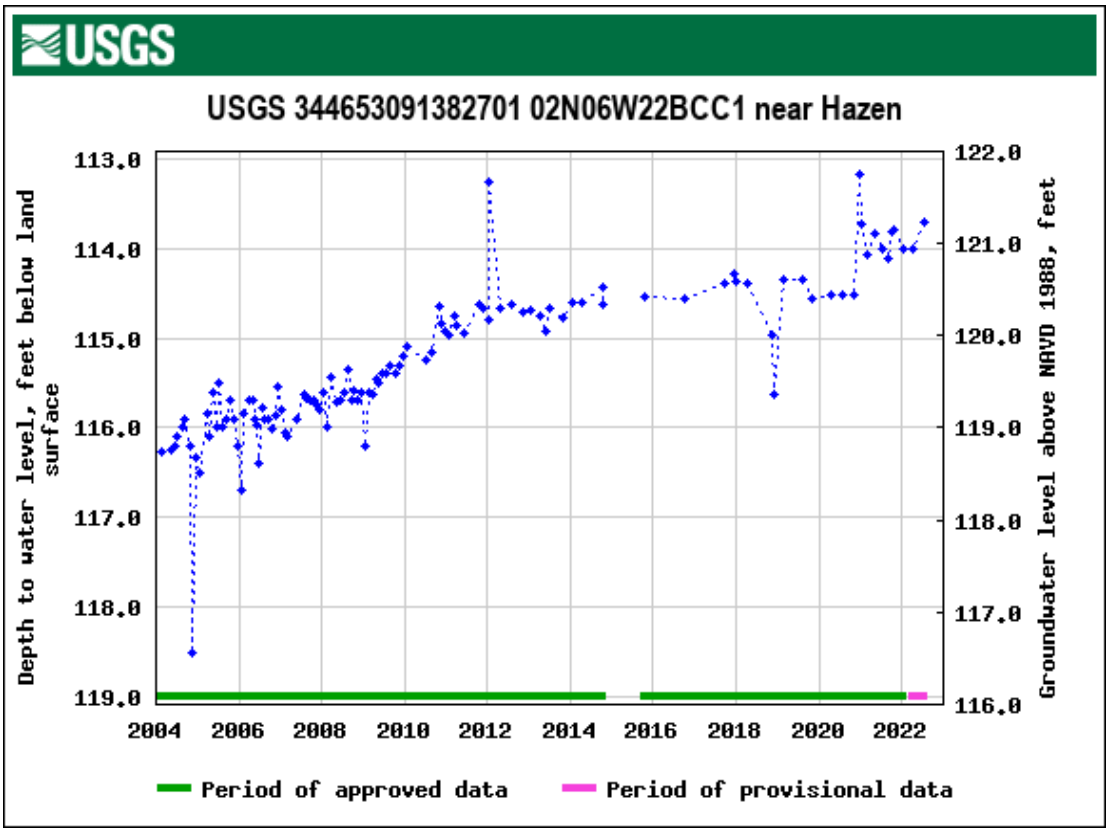


P. Prairie County, Well 02N05W24BCA3

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

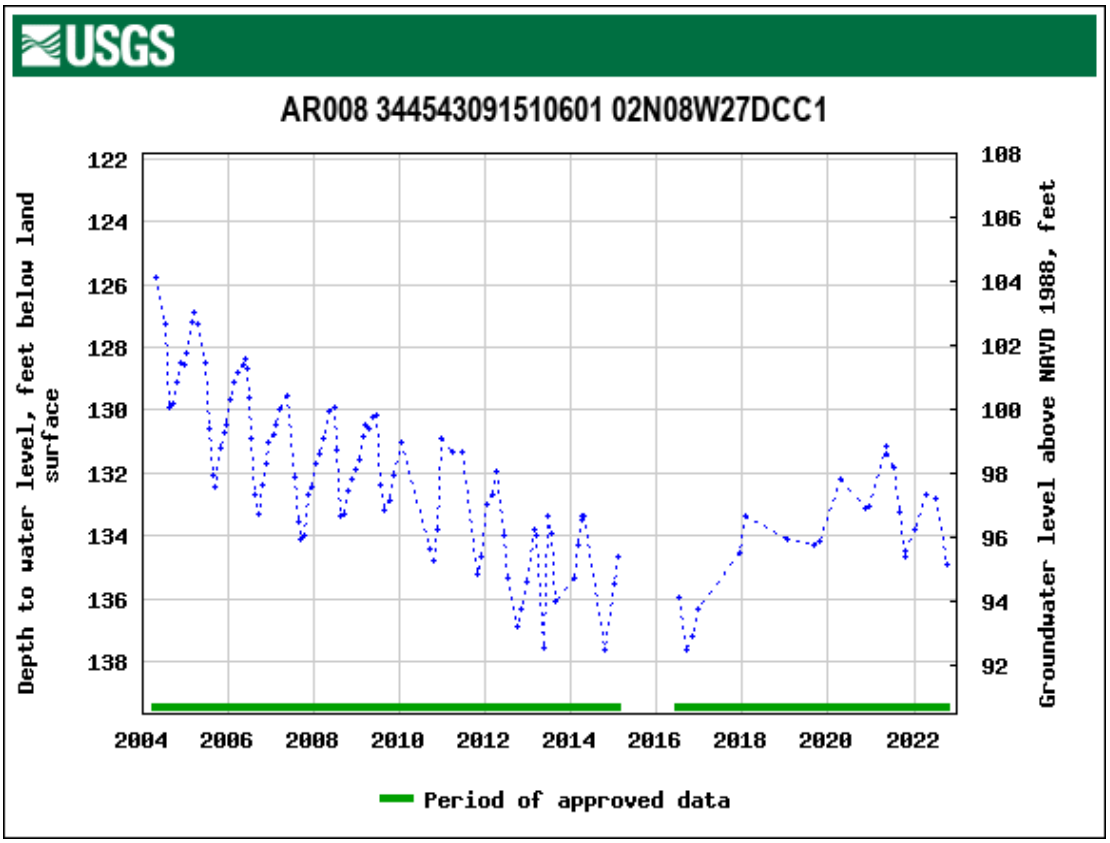


Q. Prairie County, Well 02N06W24CAA1

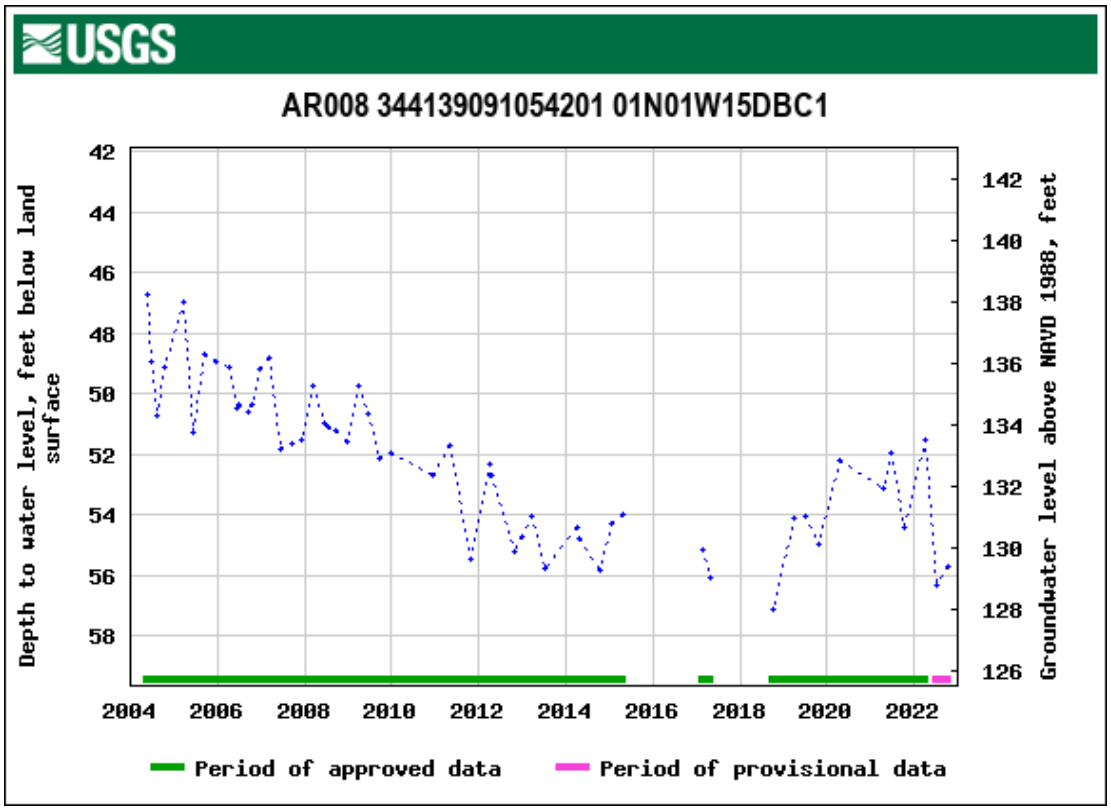


R. Prairie County, Well 02N06W22BCC1

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

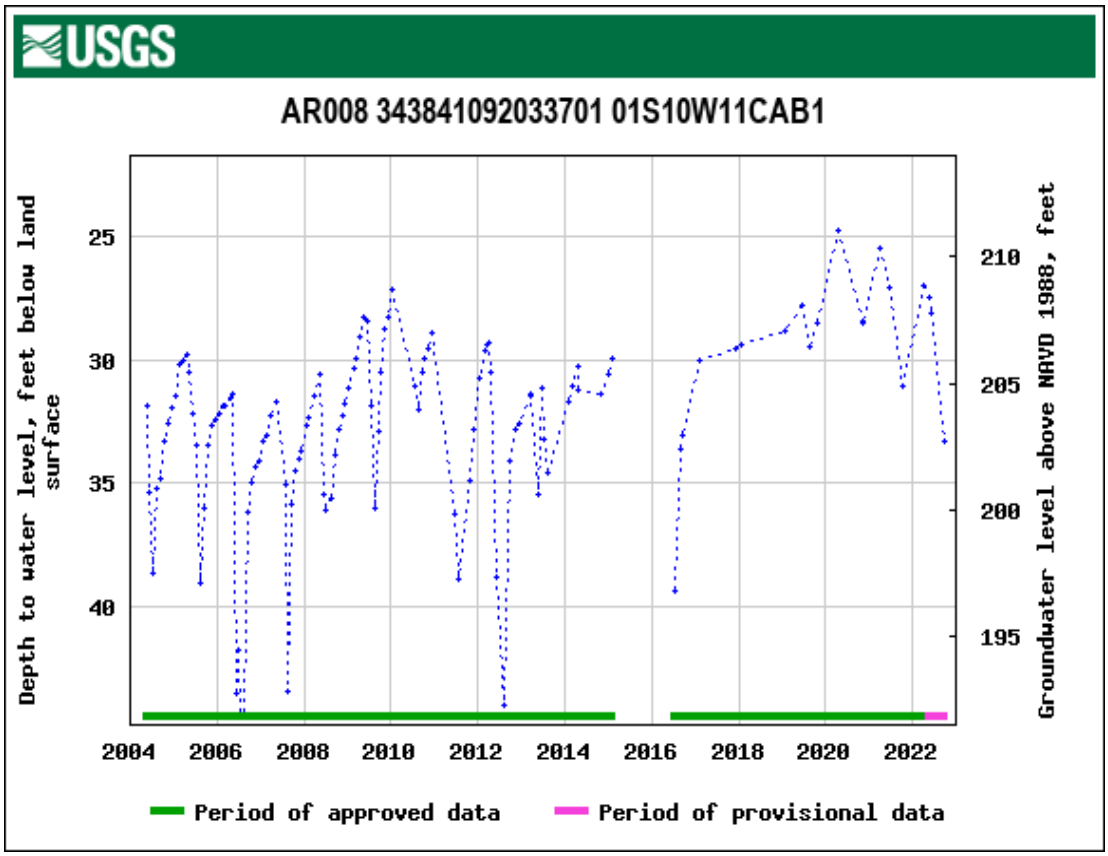


S. Lonoke County, Well 02N08W27DCC1

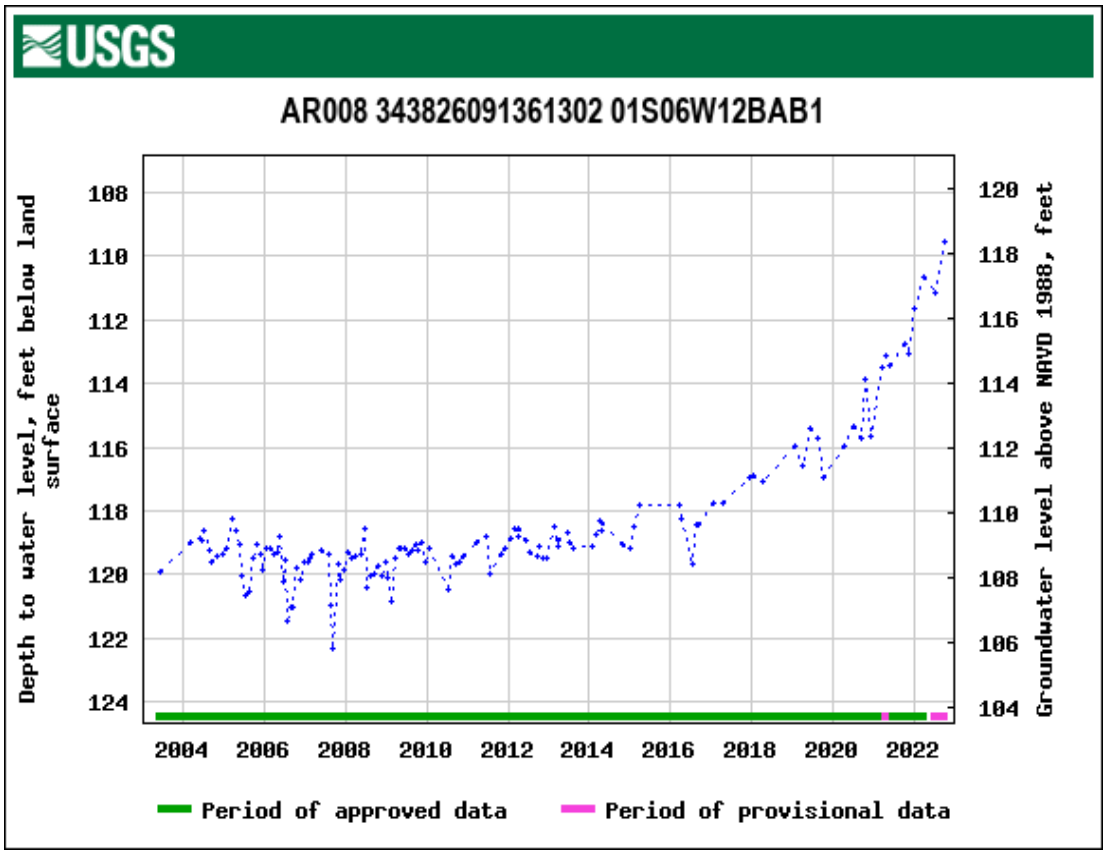


T. Monroe County, Well 01N01W15DBC1

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

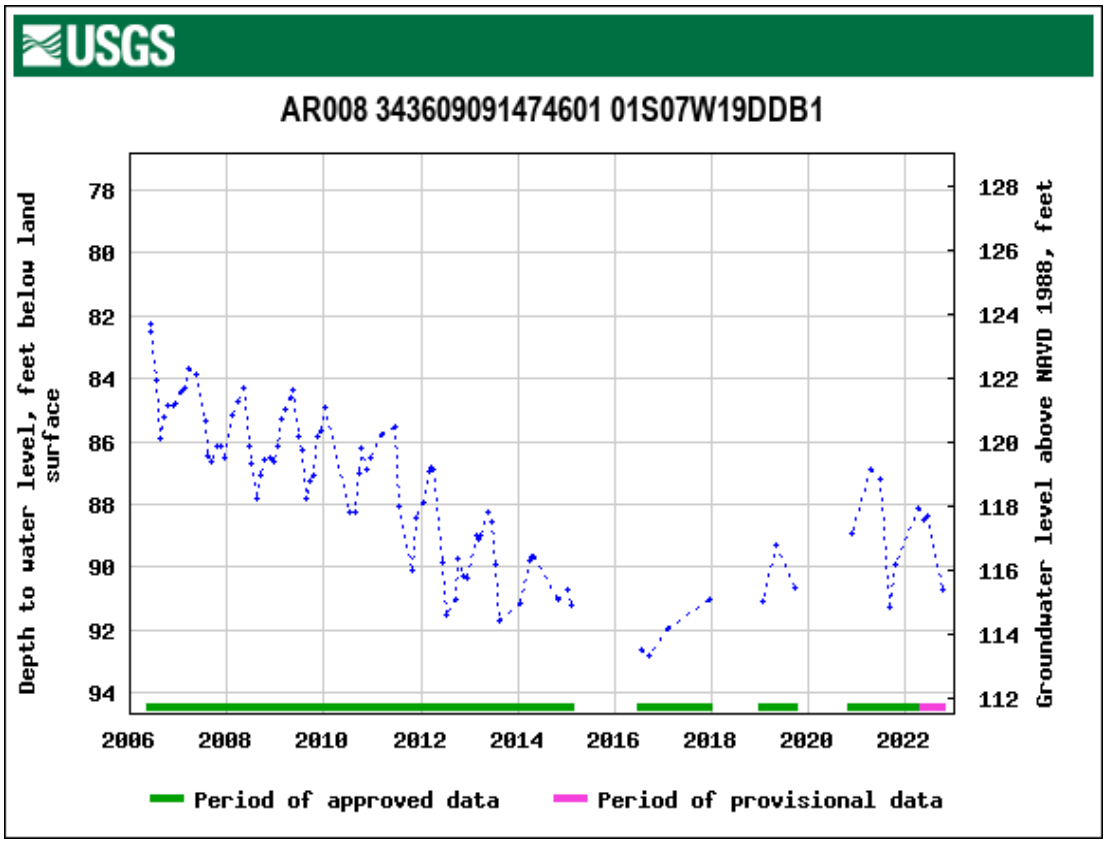


U. Lonoke County, Well 01S10W11CAB1

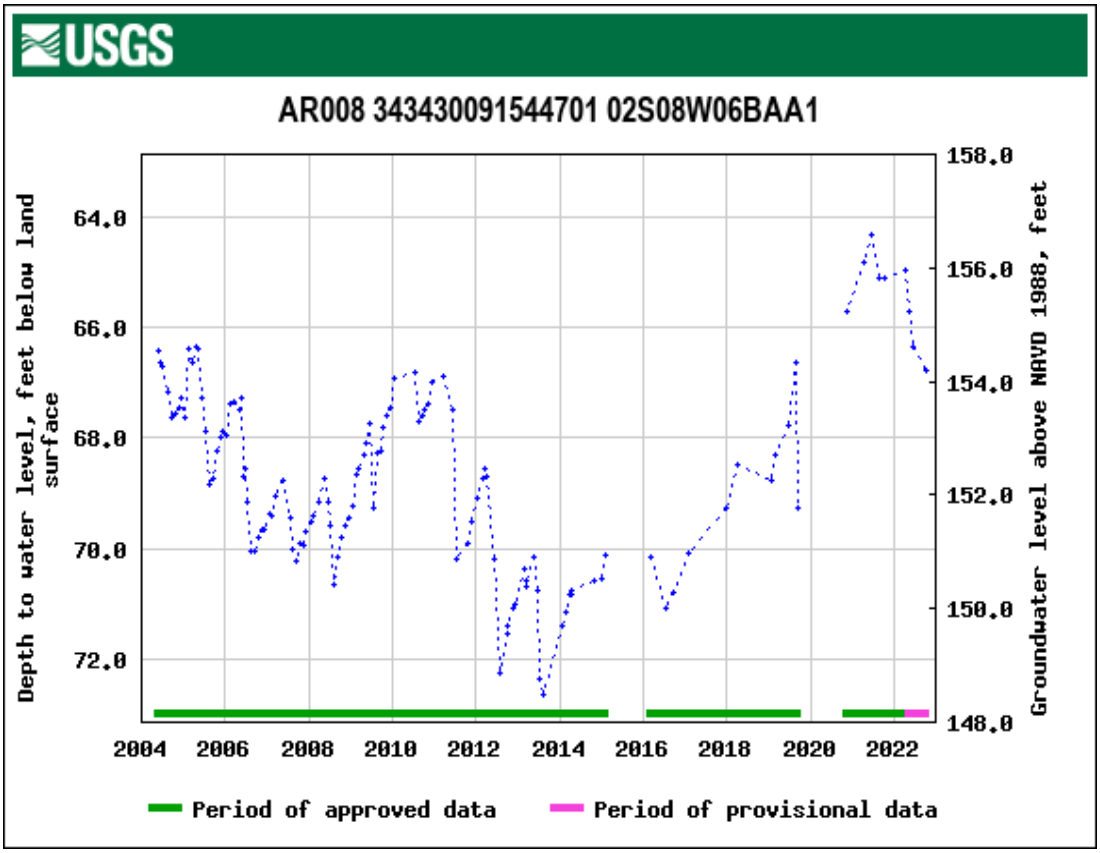


V. Prairie County, Well 01S06W12BAB1

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

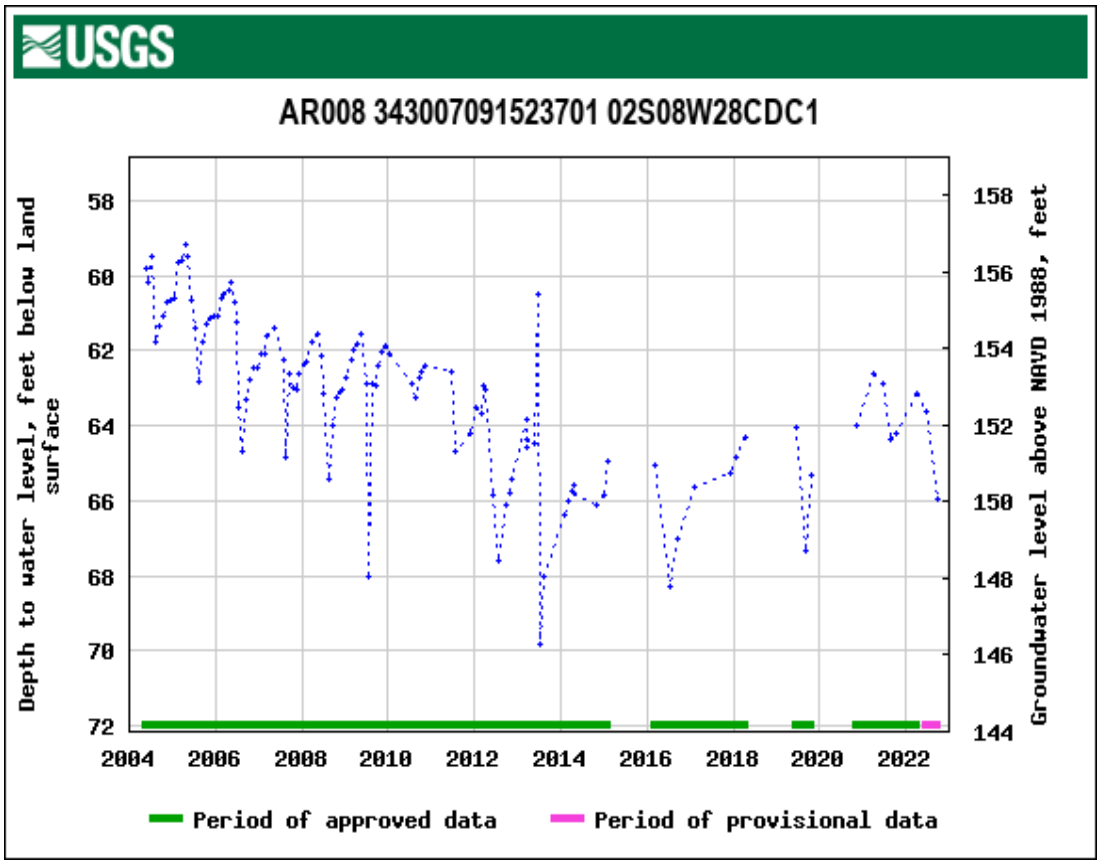


W. Lonoke County, Well 01S07W19DDB1

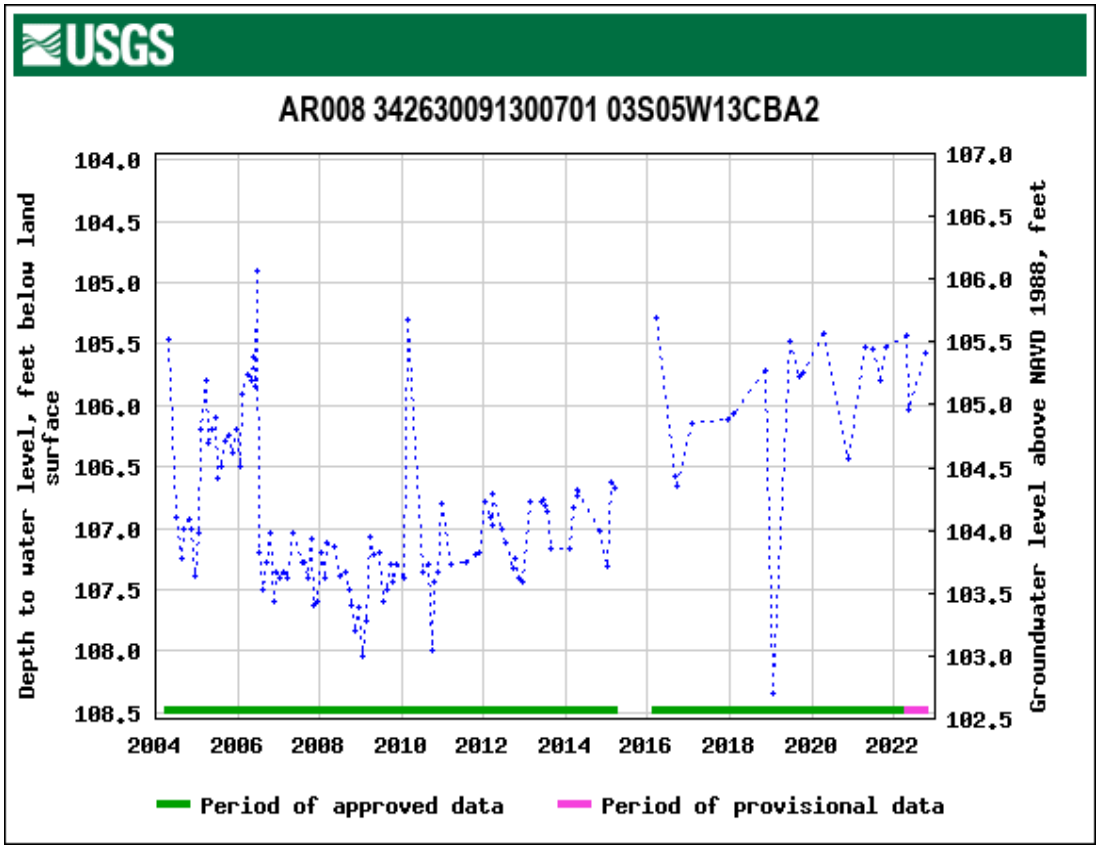


X. Lonoke County, Well 02S08W06BAA1

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

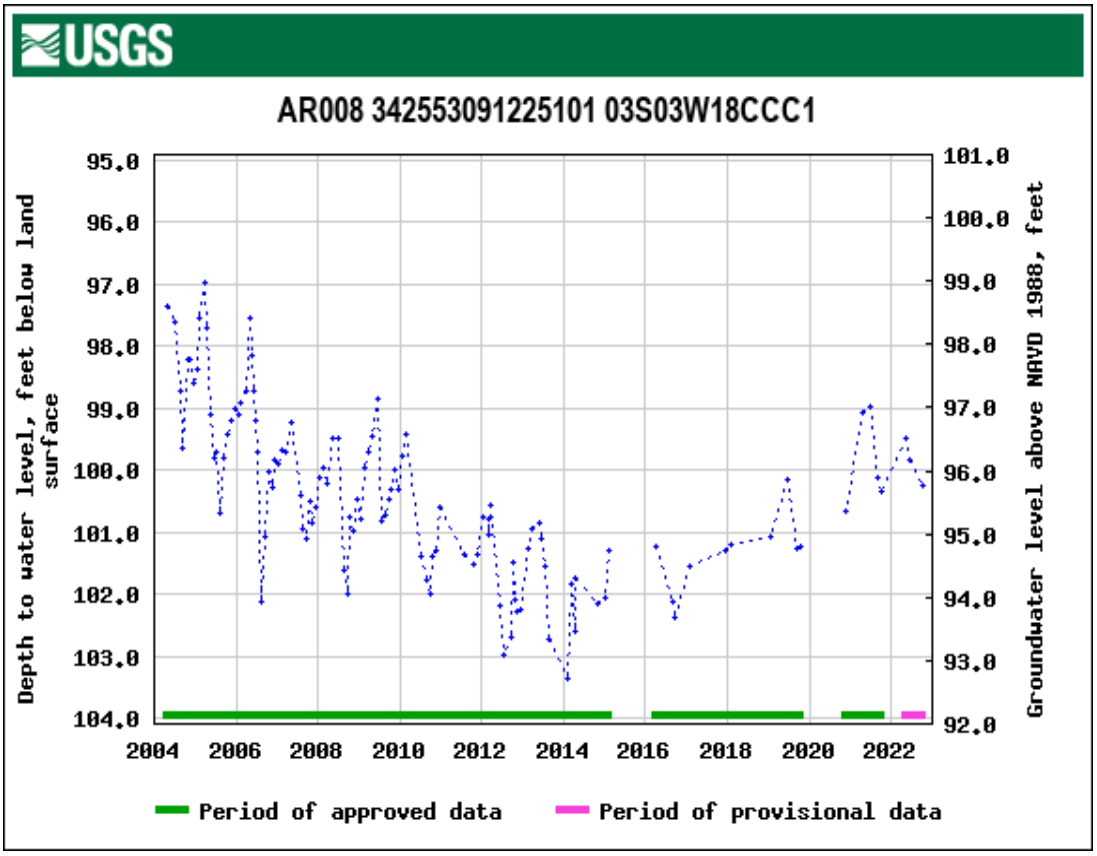


Y. Lonoke County, Well 02S08W28CDC1

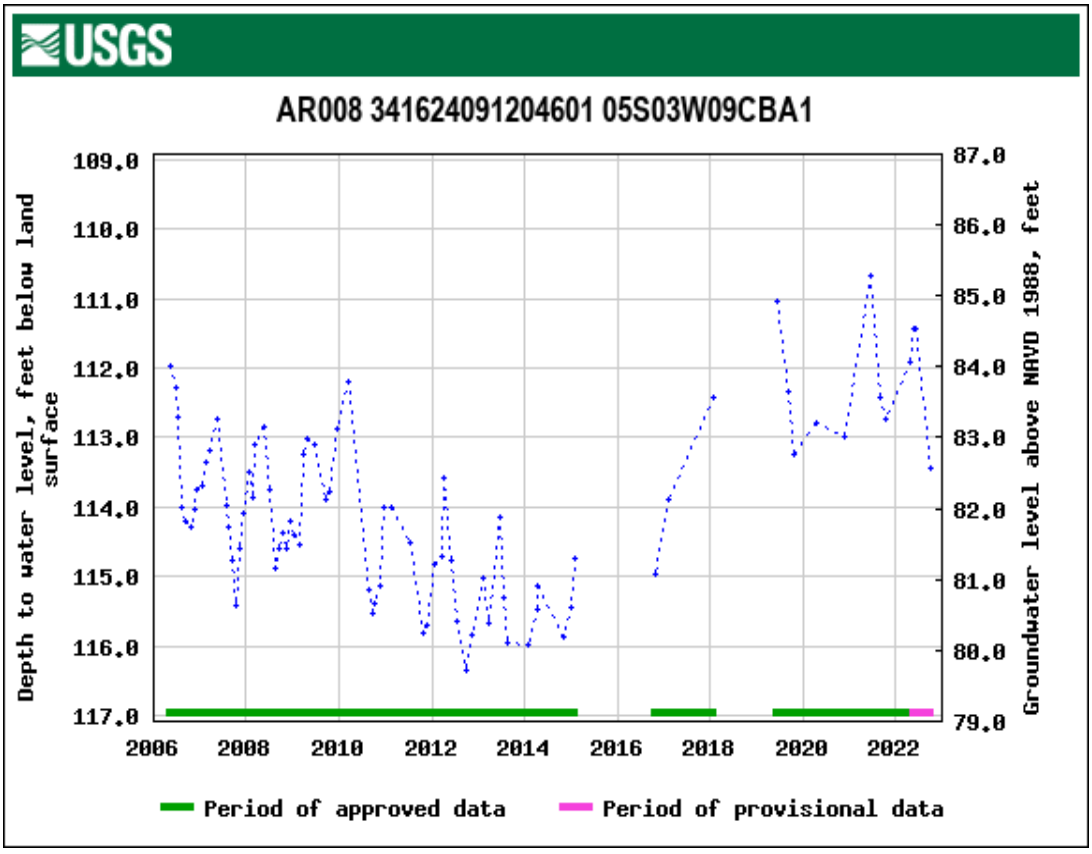


Z. Arkansas County, Well 03S05W13CBA2

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

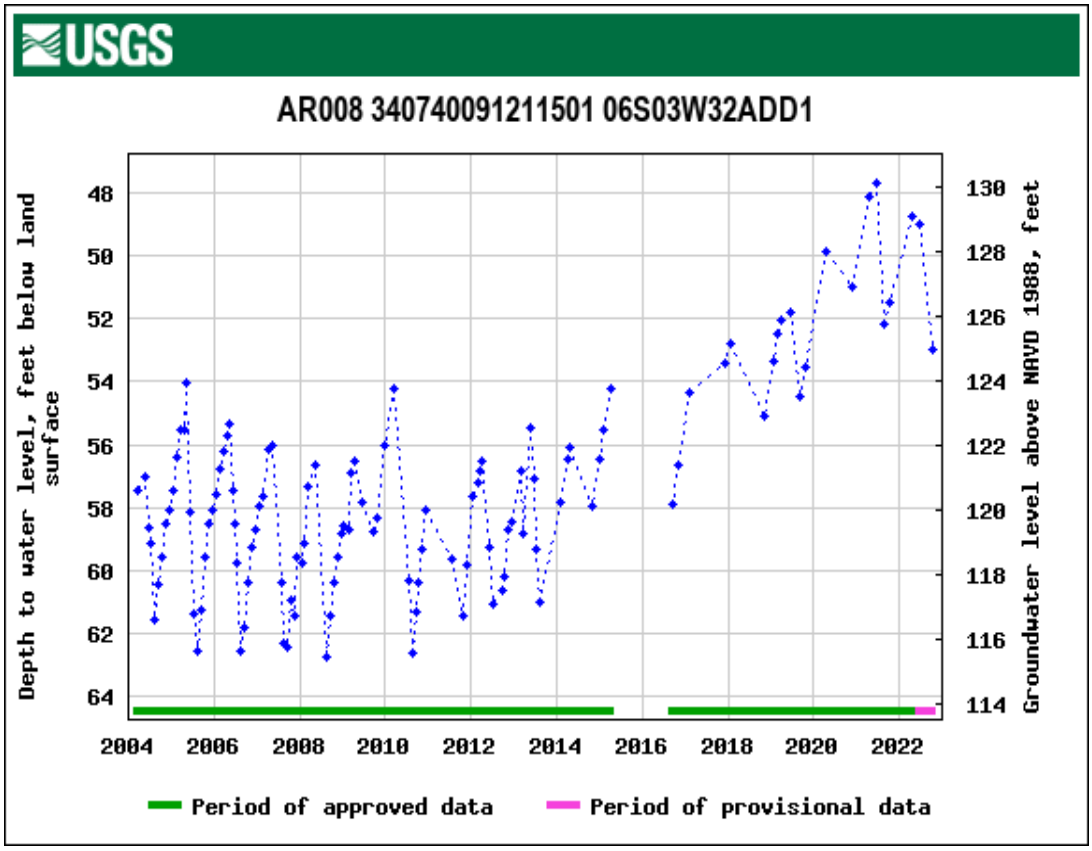


AA. Arkansas County, Well 03S03W18CCC1

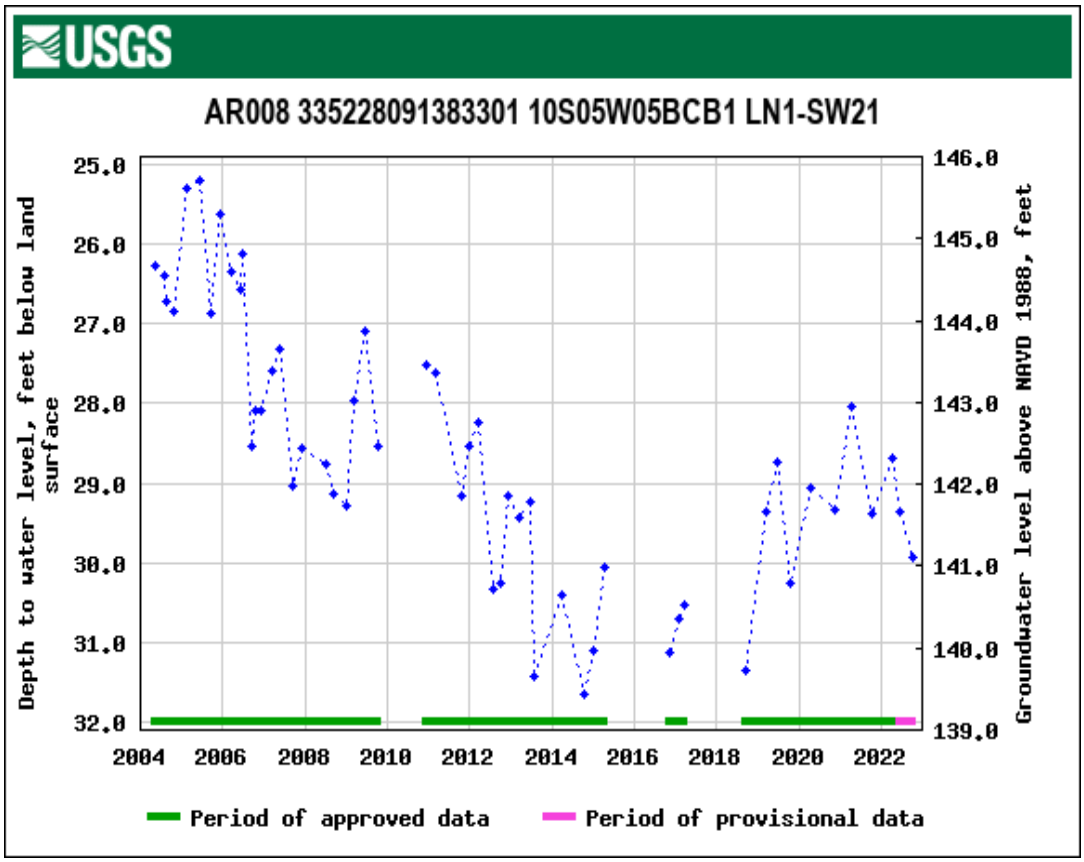


BB. Arkansas County, Well 05S03W09CBA1

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

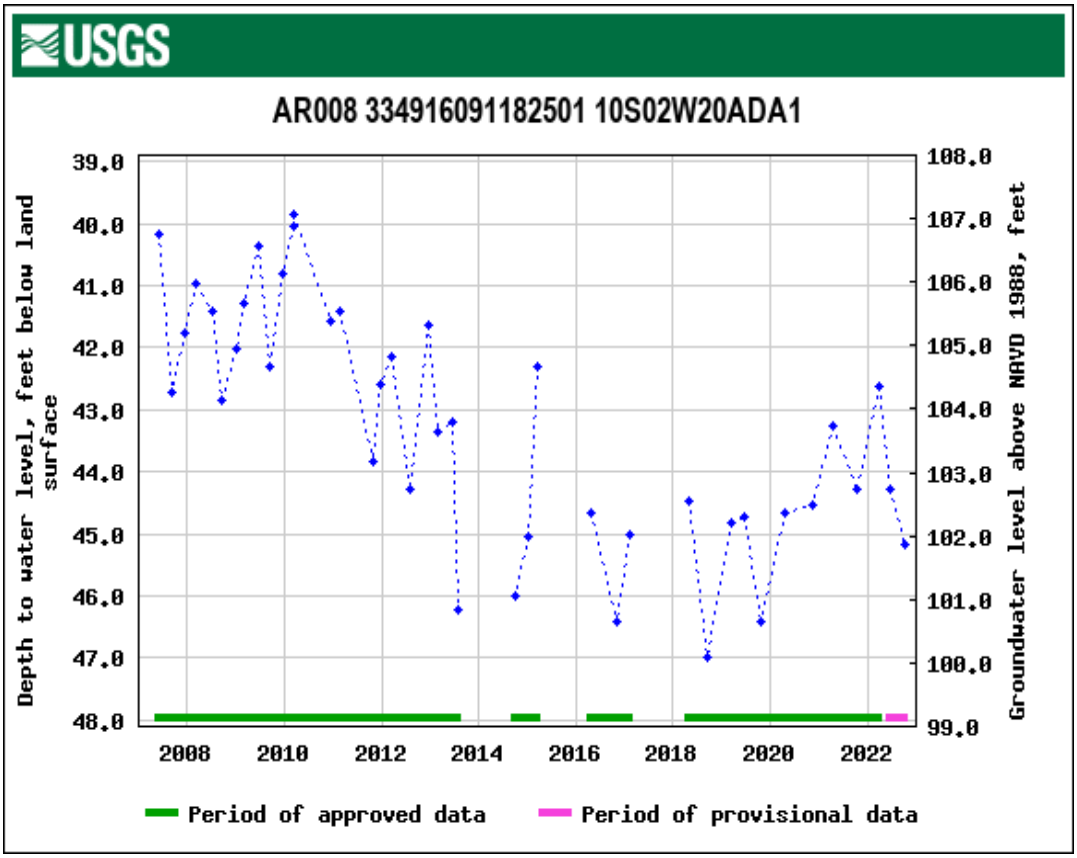


CC. Arkansas County, Well 06S03W32ADD1

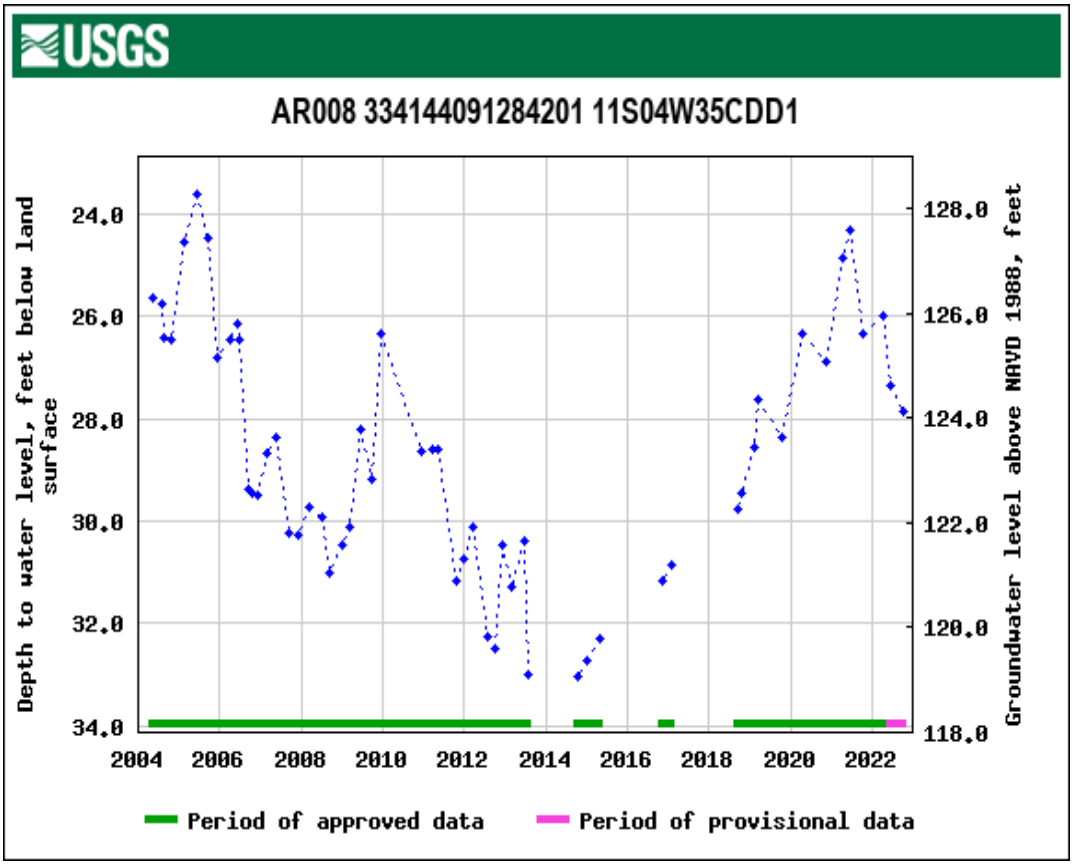


DD. Lincoln County, Well 10S05W05BCB1 LN1-SW21

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

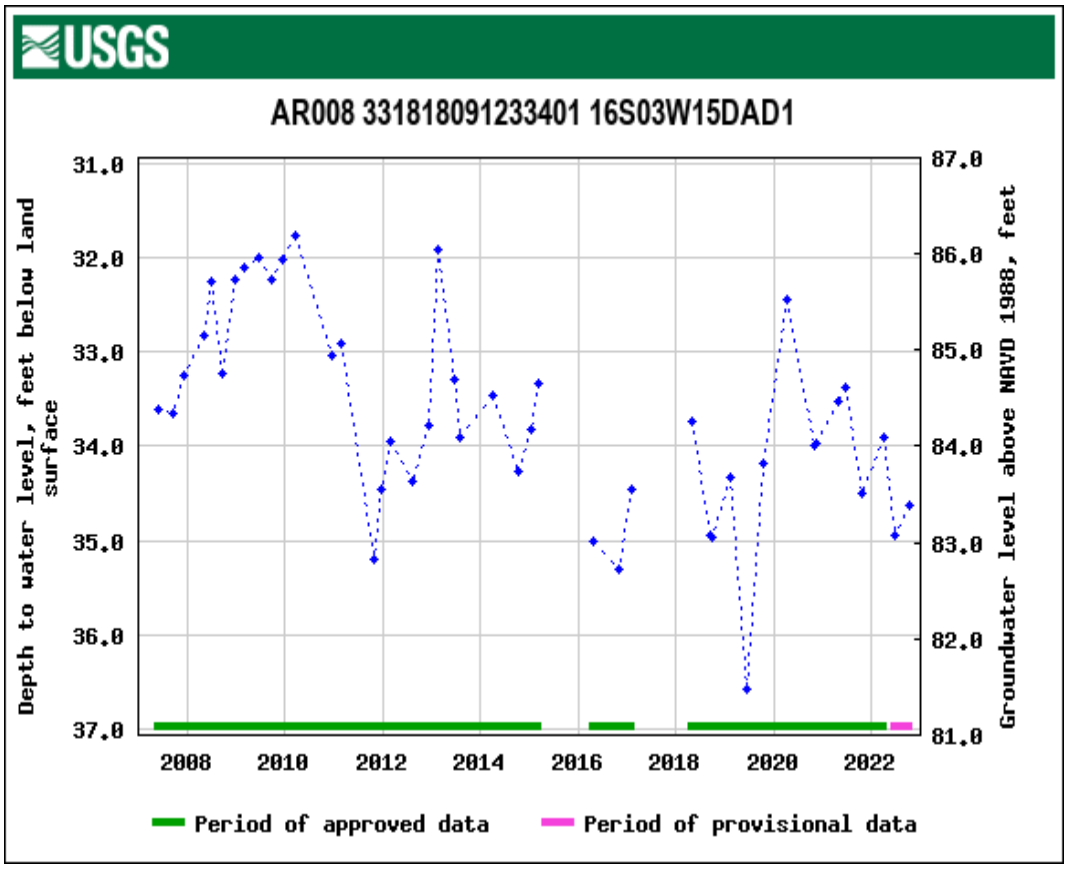


EE. Desha County, Well 10S02W20ADA1

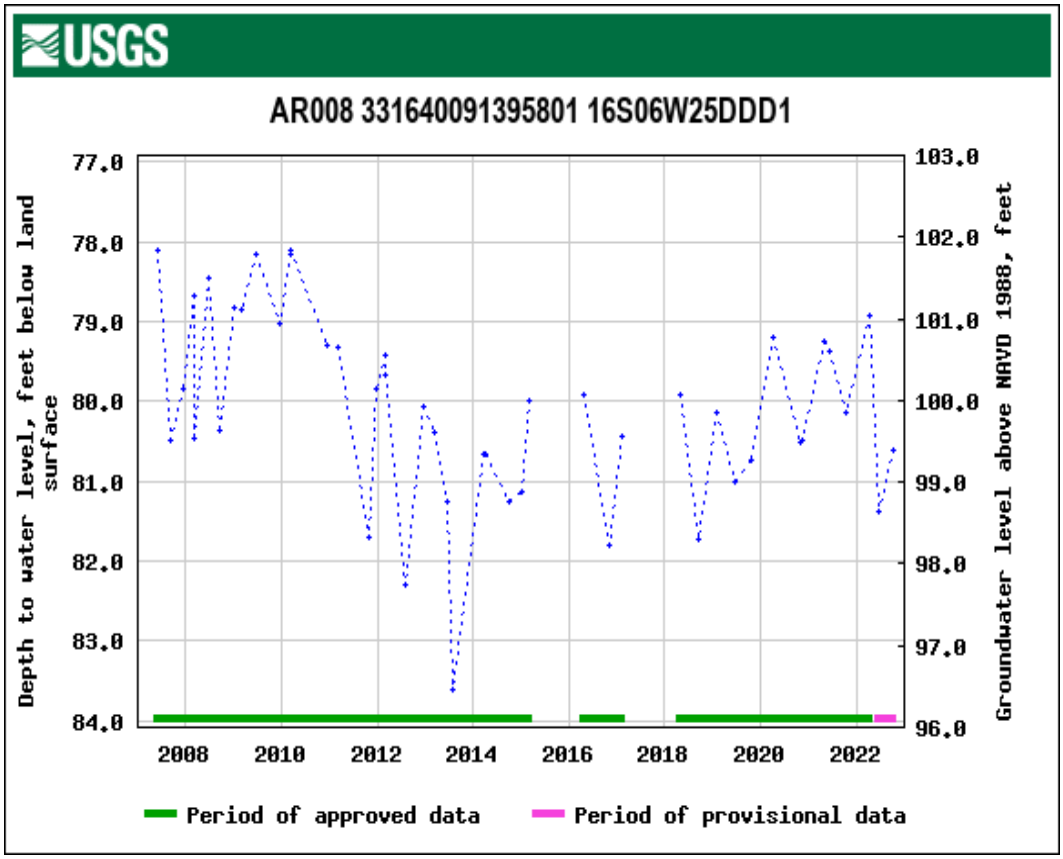


FF. Drew County, Well 11S04W35CDD1

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



GG. Chicot County, Well 16S03W15DAD1



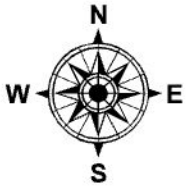
HH. Ashley County, Well 16S06W25DDD1

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

0 5 10 20 Miles

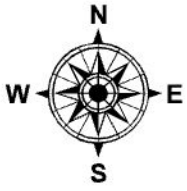
Figure 14

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

0 5 10 20 Miles

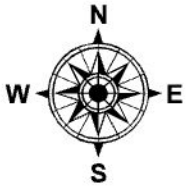
Figure 15

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

0 5 10 20 Miles

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

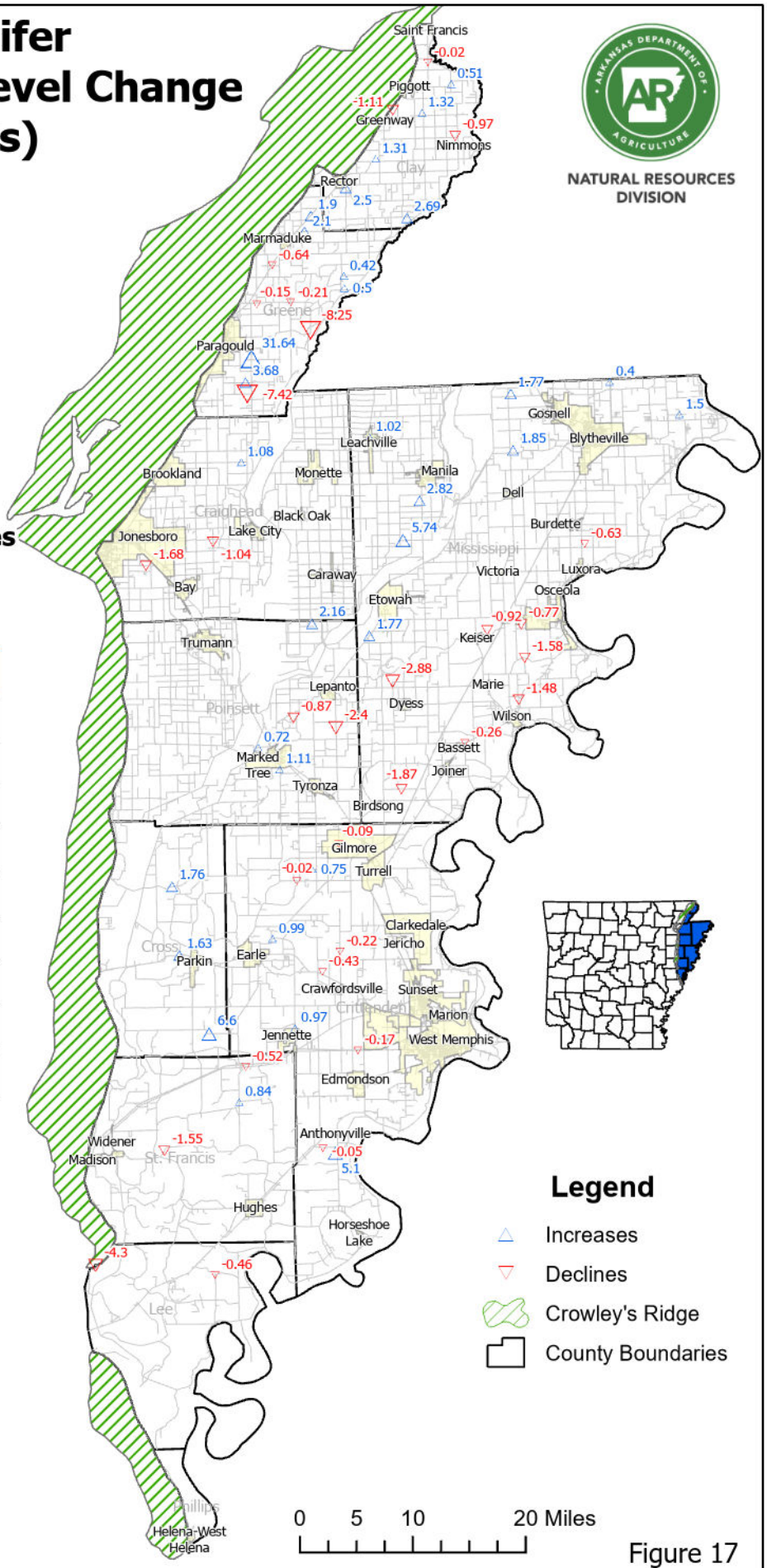


Figure 17

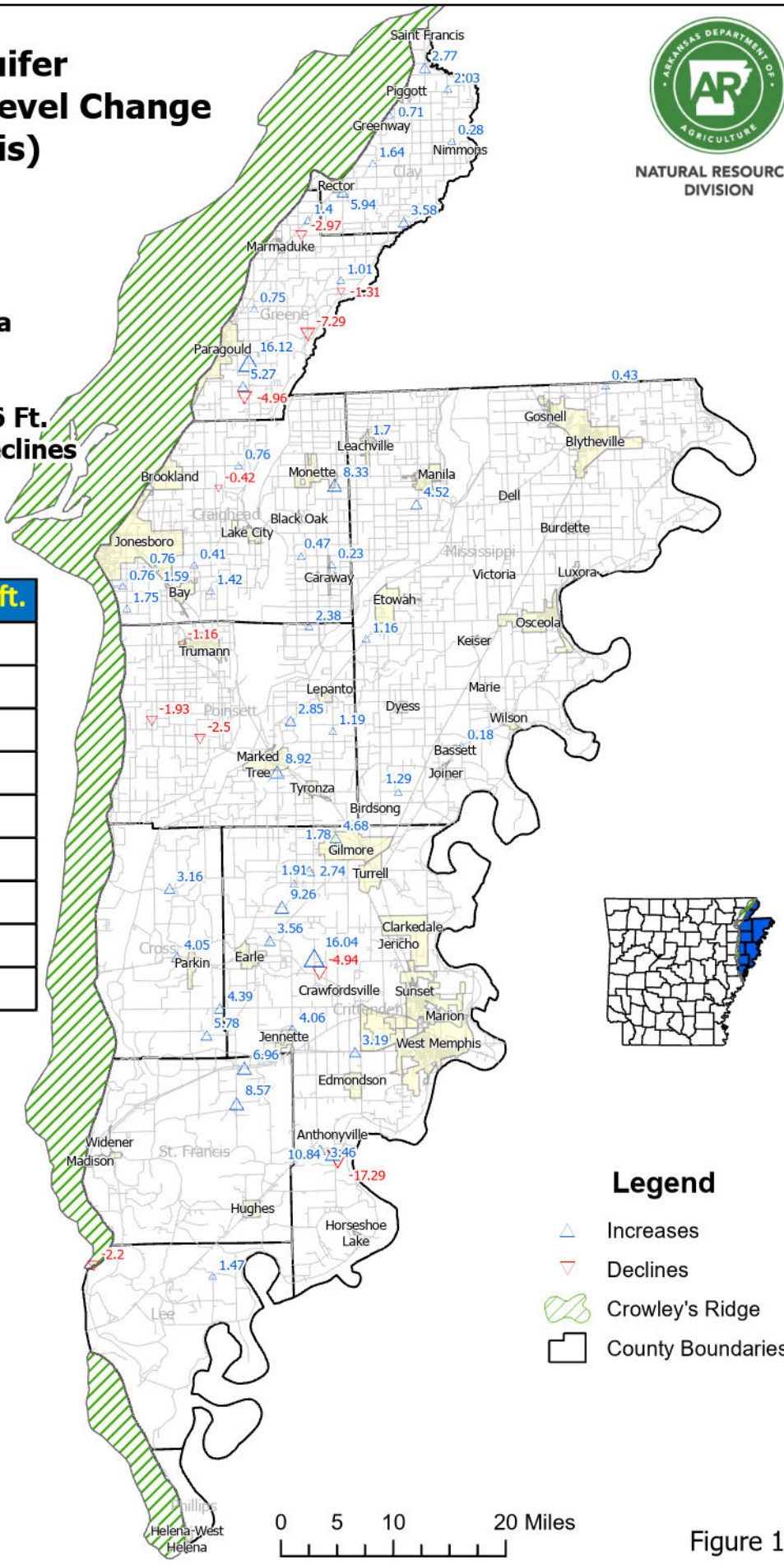
Alluvial Aquifer
2017-2022 Water Level Change
(St. Francis)

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



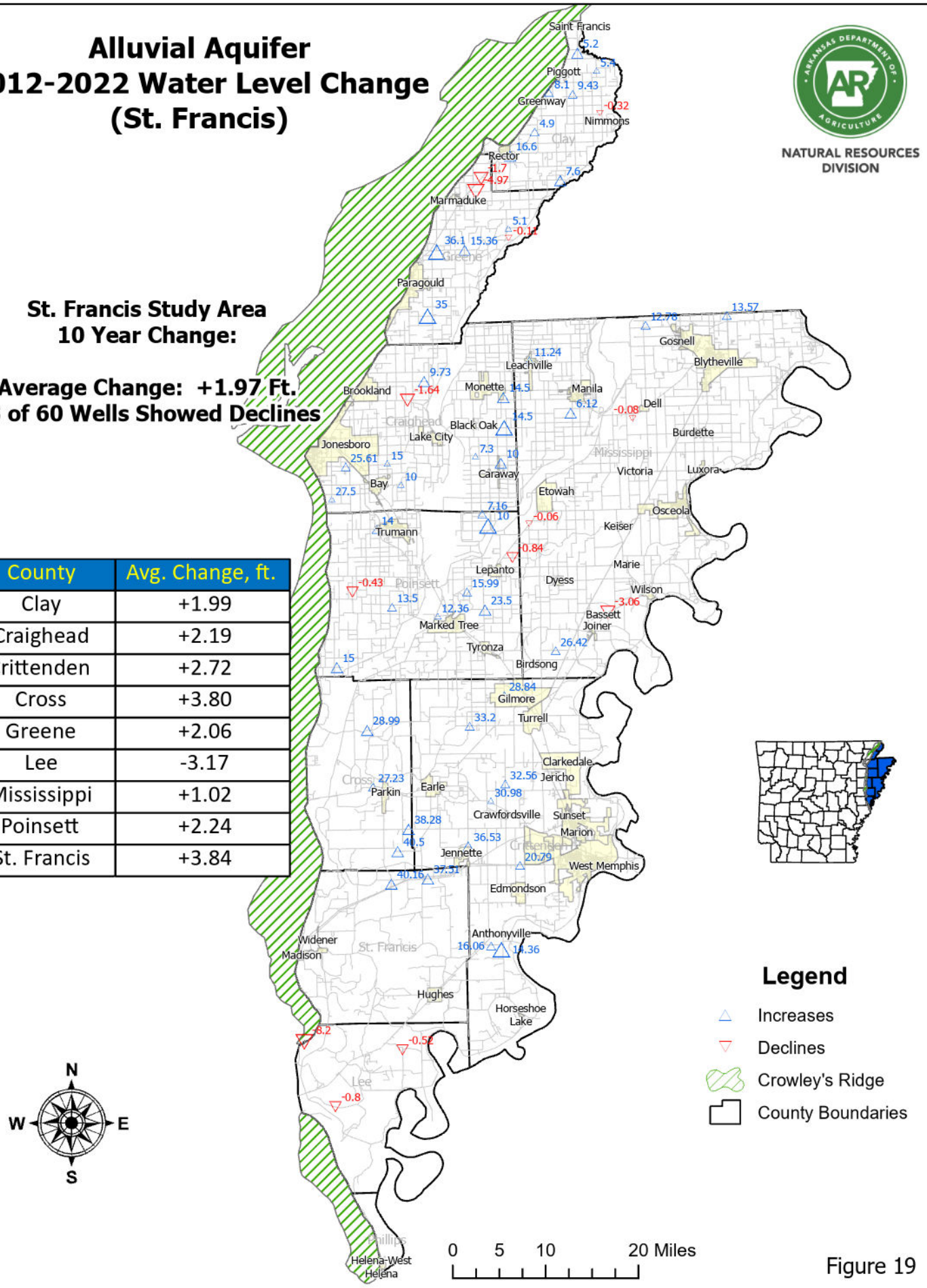
Legend

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

N
W
E
S

Figure 18

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



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

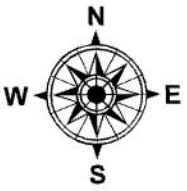
Figure 19

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

NATURAL RESOURCES DIVISION

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

0 5 10 20 Miles

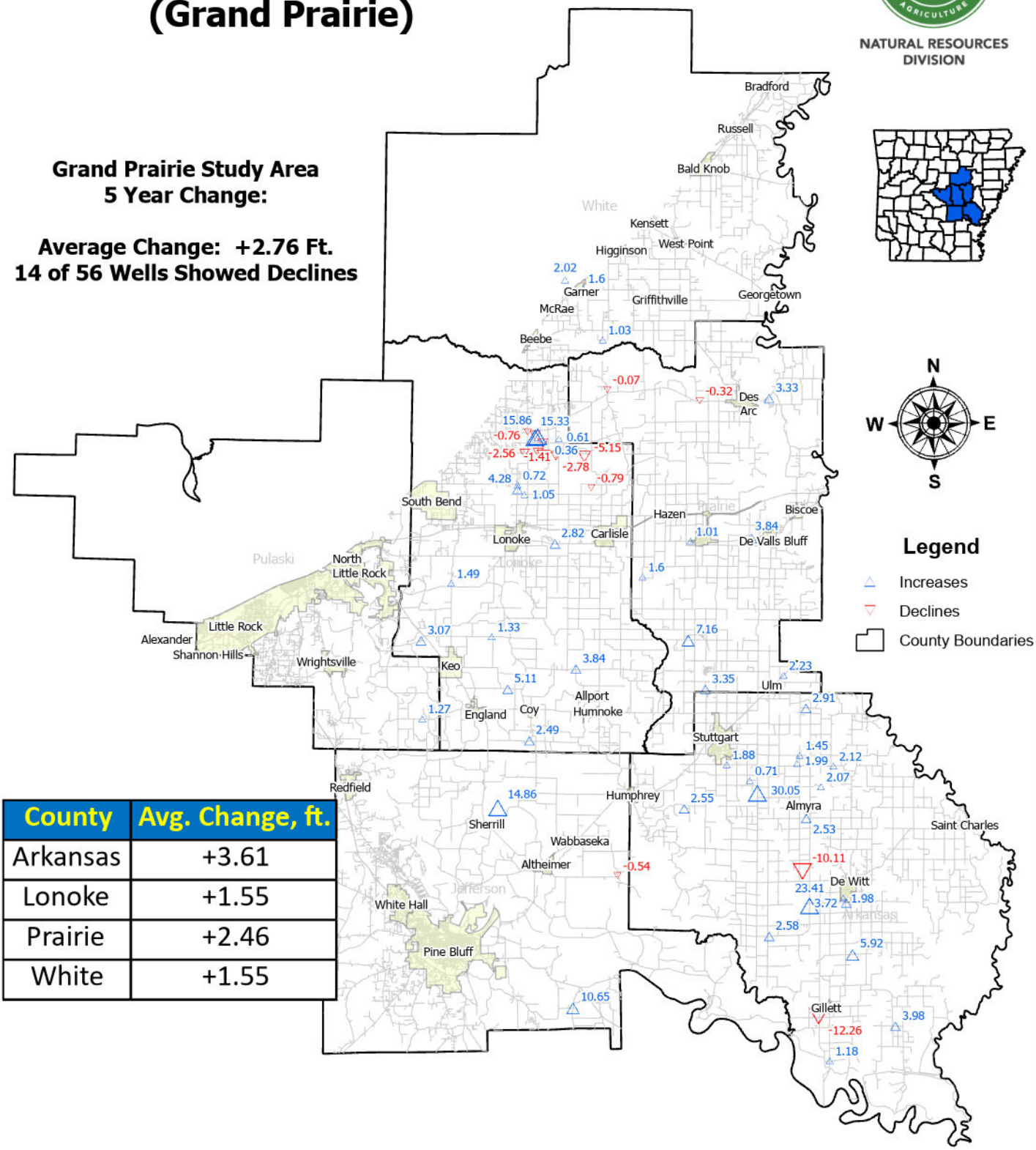
Figure 20

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

NATURAL RESOURCES DIVISION

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

0 5 10 20 Miles

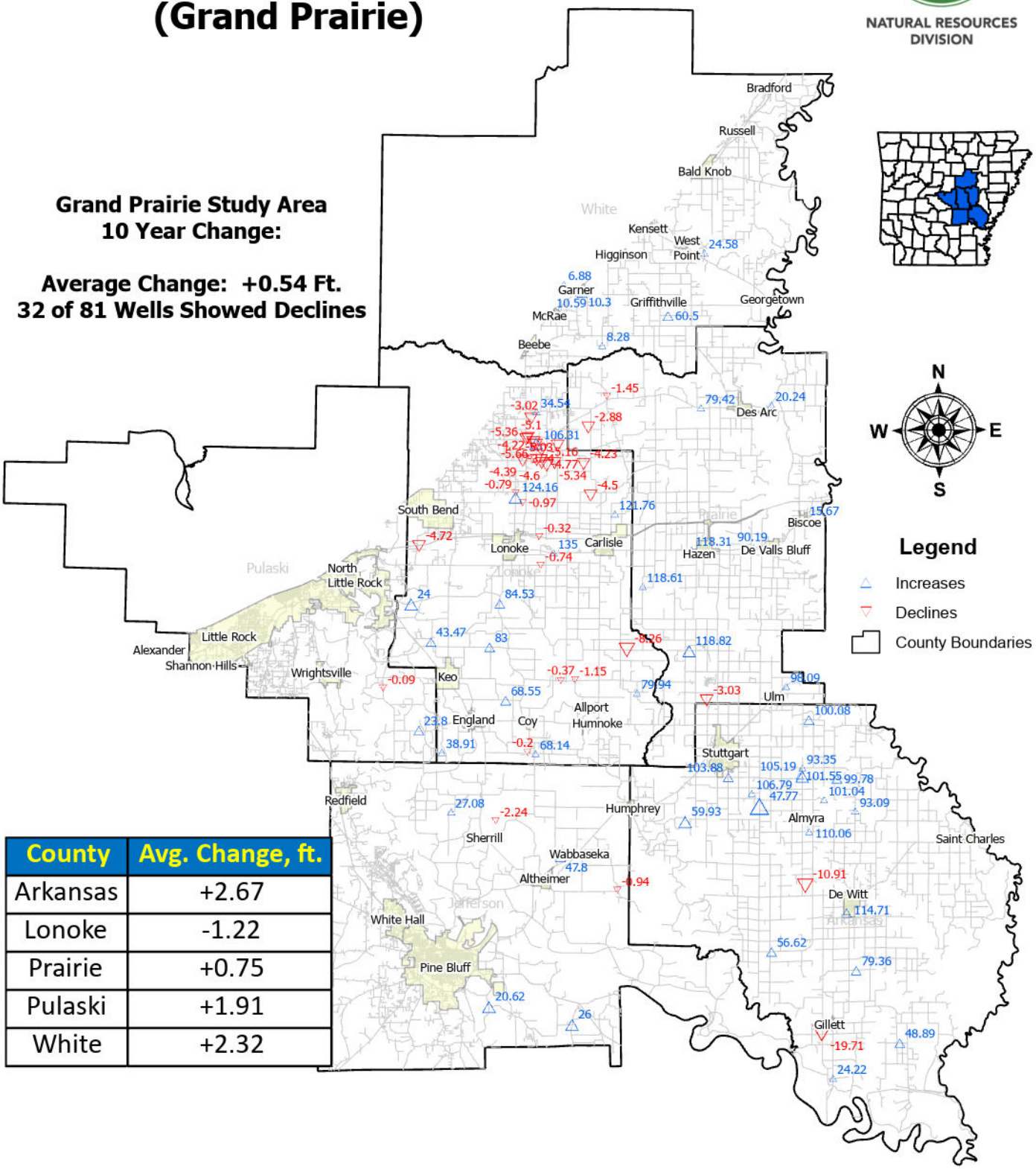
Figure 21

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



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:

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

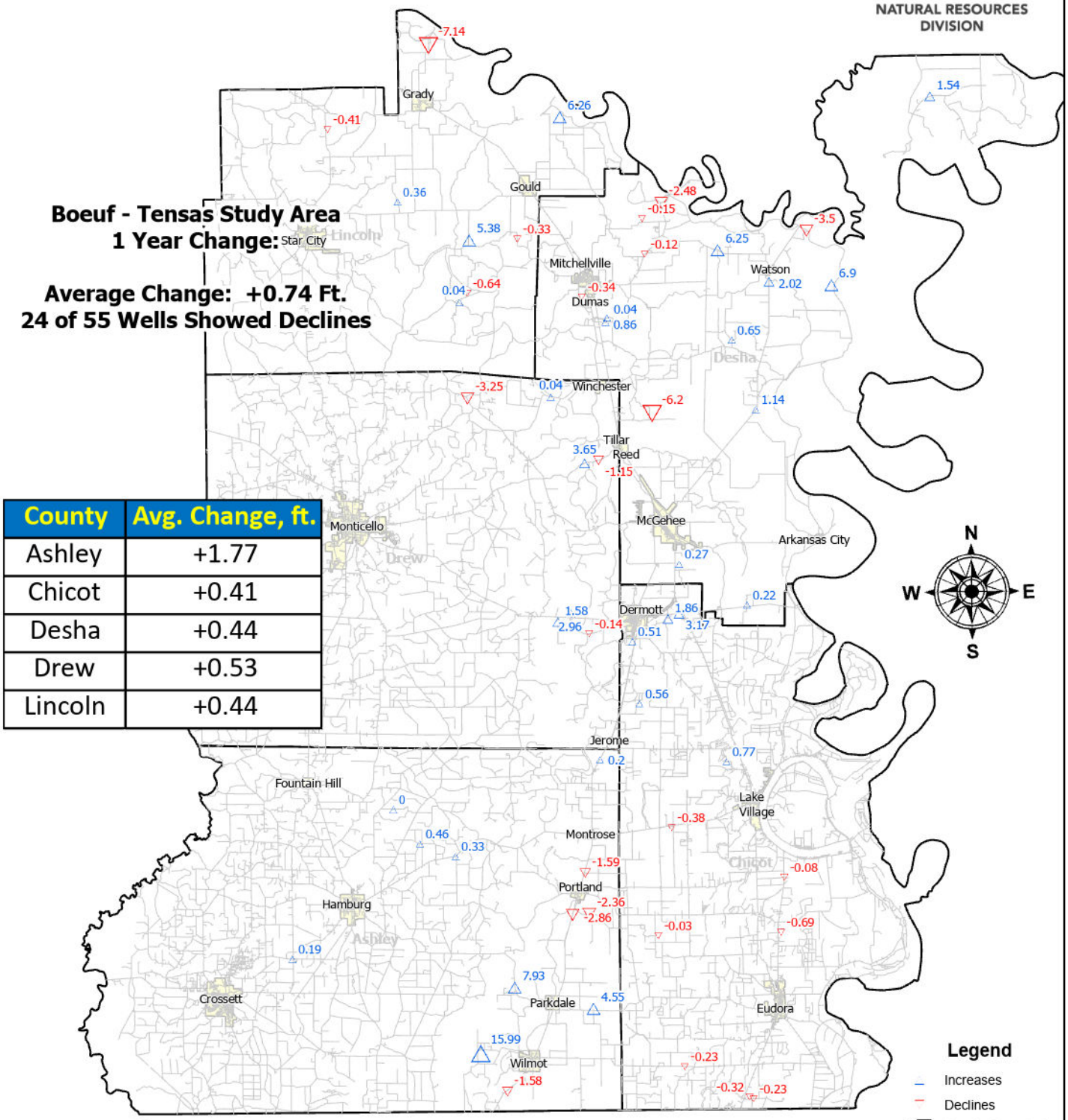
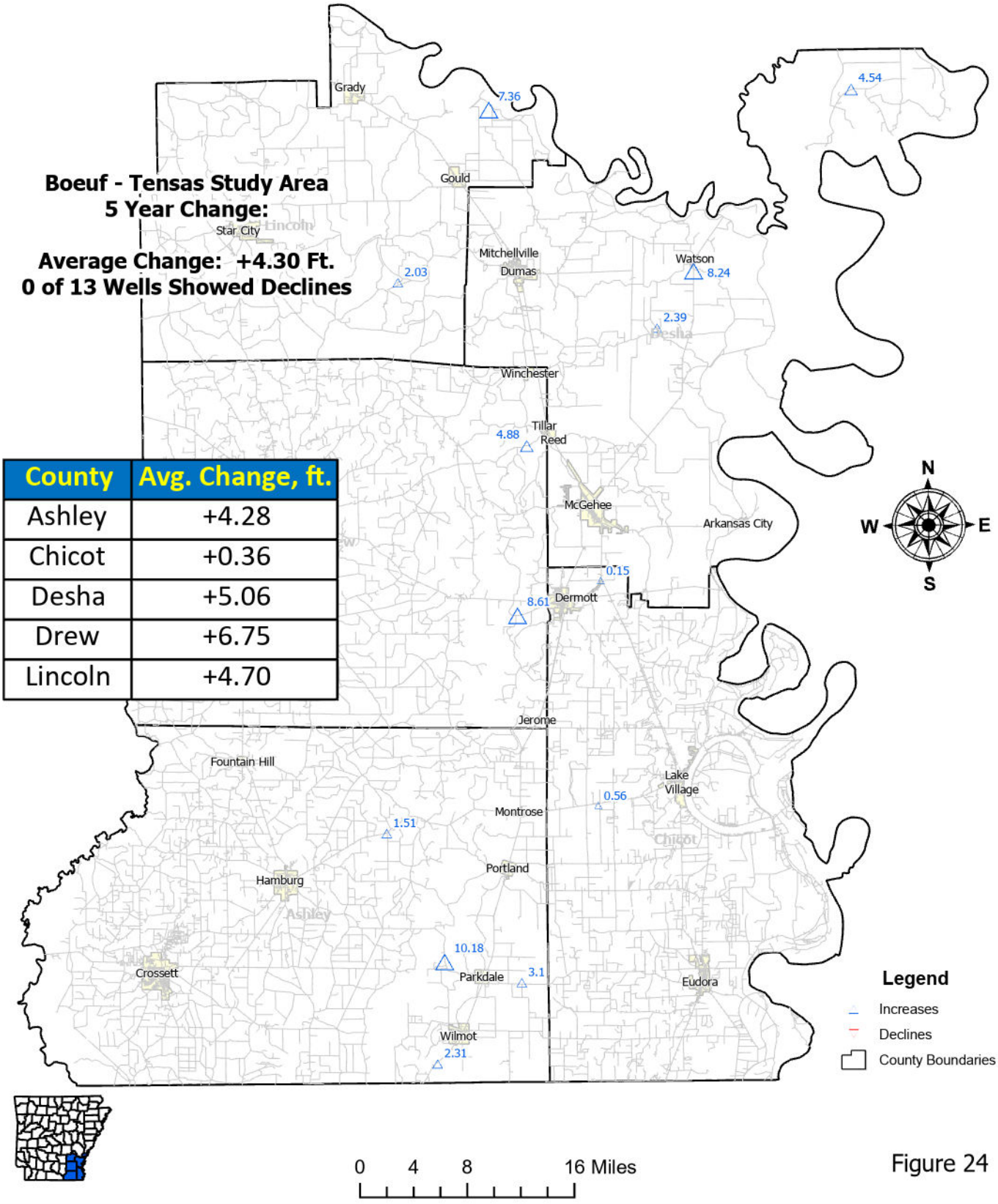


Figure 23

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

NATURAL RESOURCES DIVISION

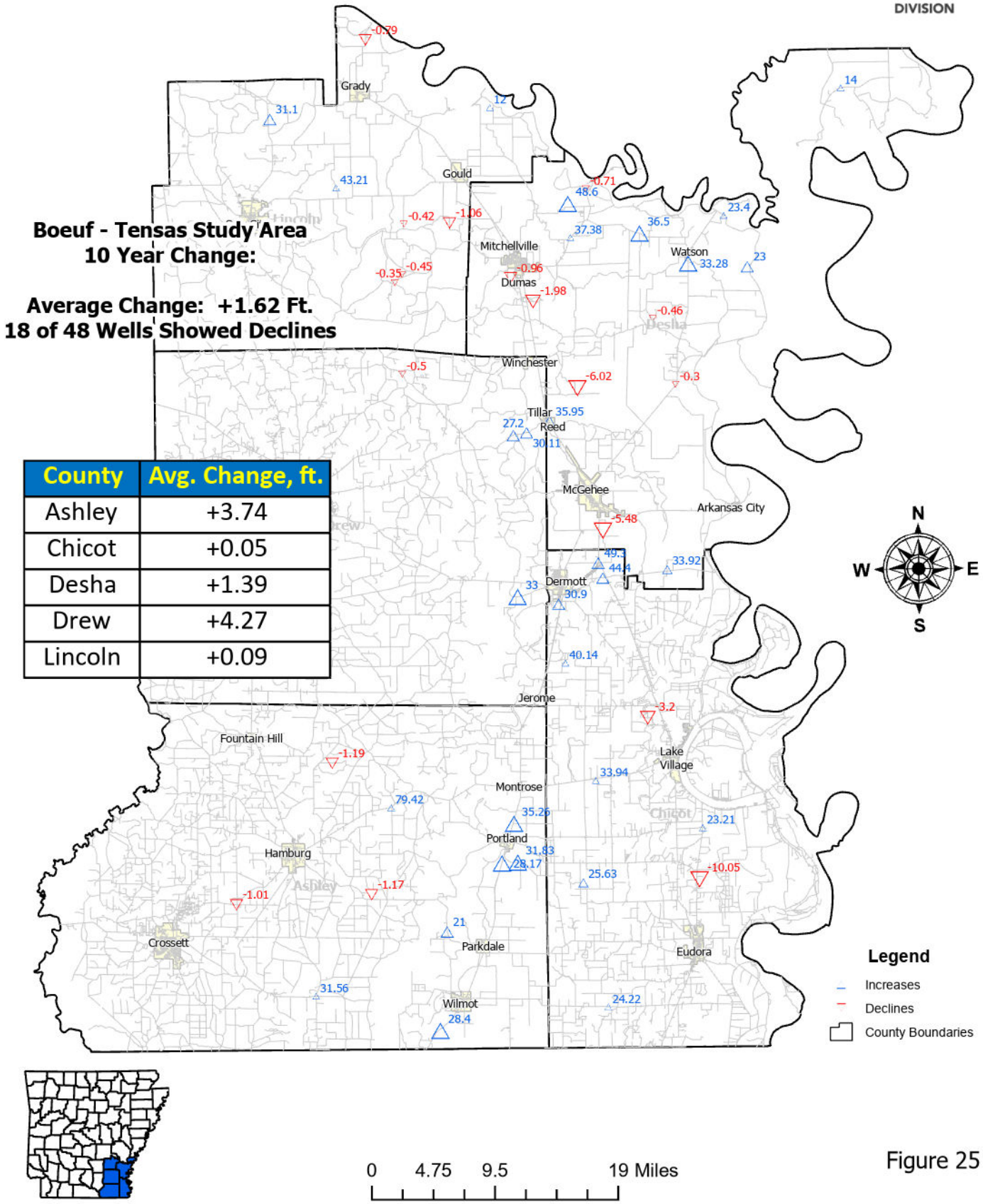


County	Avg. Change, ft.
Ashley	+4.28
Chicot	+0.36
Desha	+5.06
Drew	+6.75
Lincoln	+4.70

Figure 24

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

NATURAL RESOURCES DIVISION



County	Avg. Change, ft.
Ashley	+3.74
Chicot	+0.05
Desha	+1.39
Drew	+4.27
Lincoln	+0.09

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

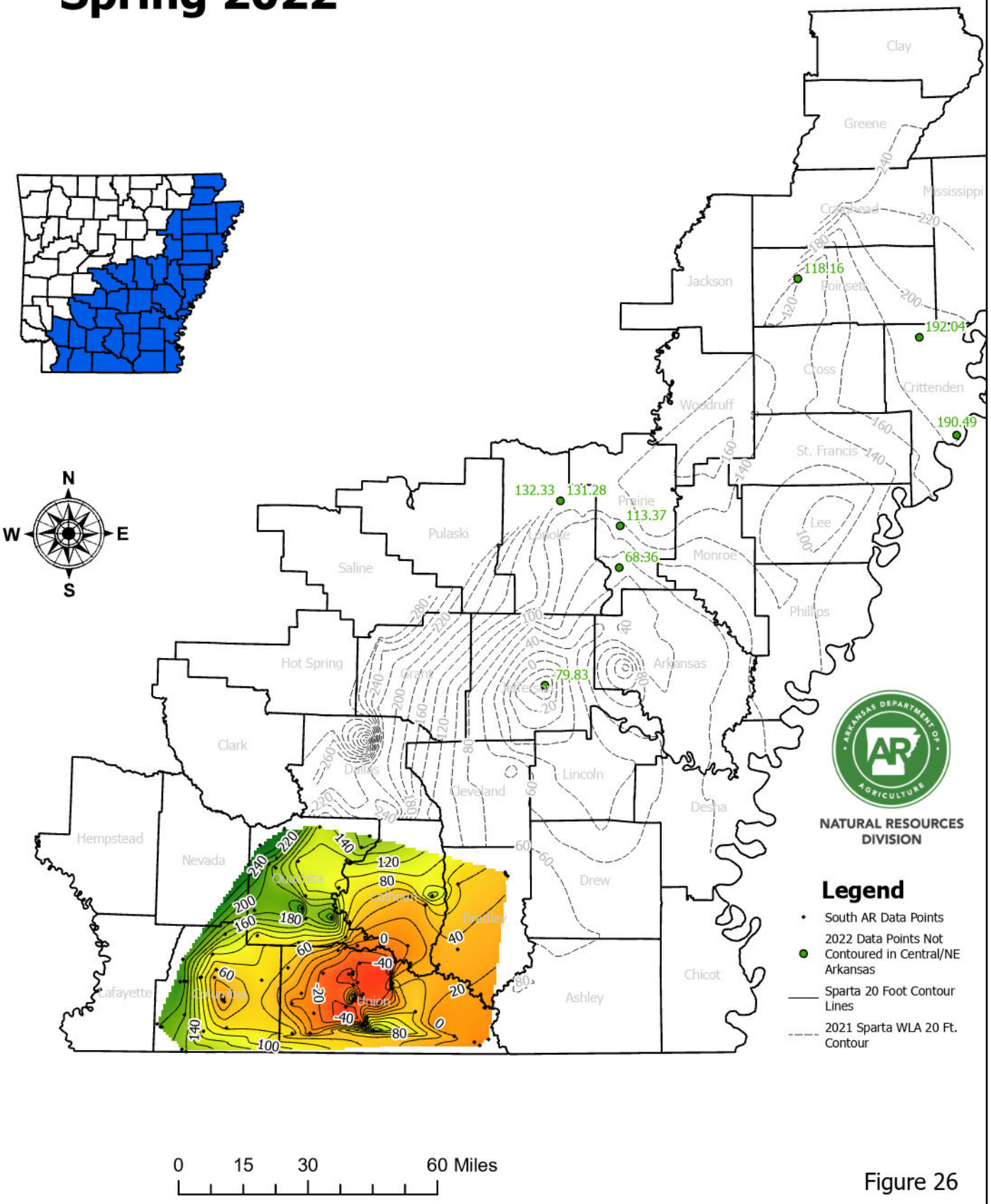


Figure 26

Sparta Aquifer Depth to Water Spring 2022

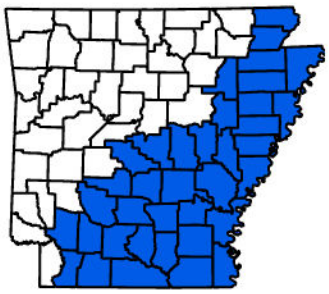


Figure 27

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

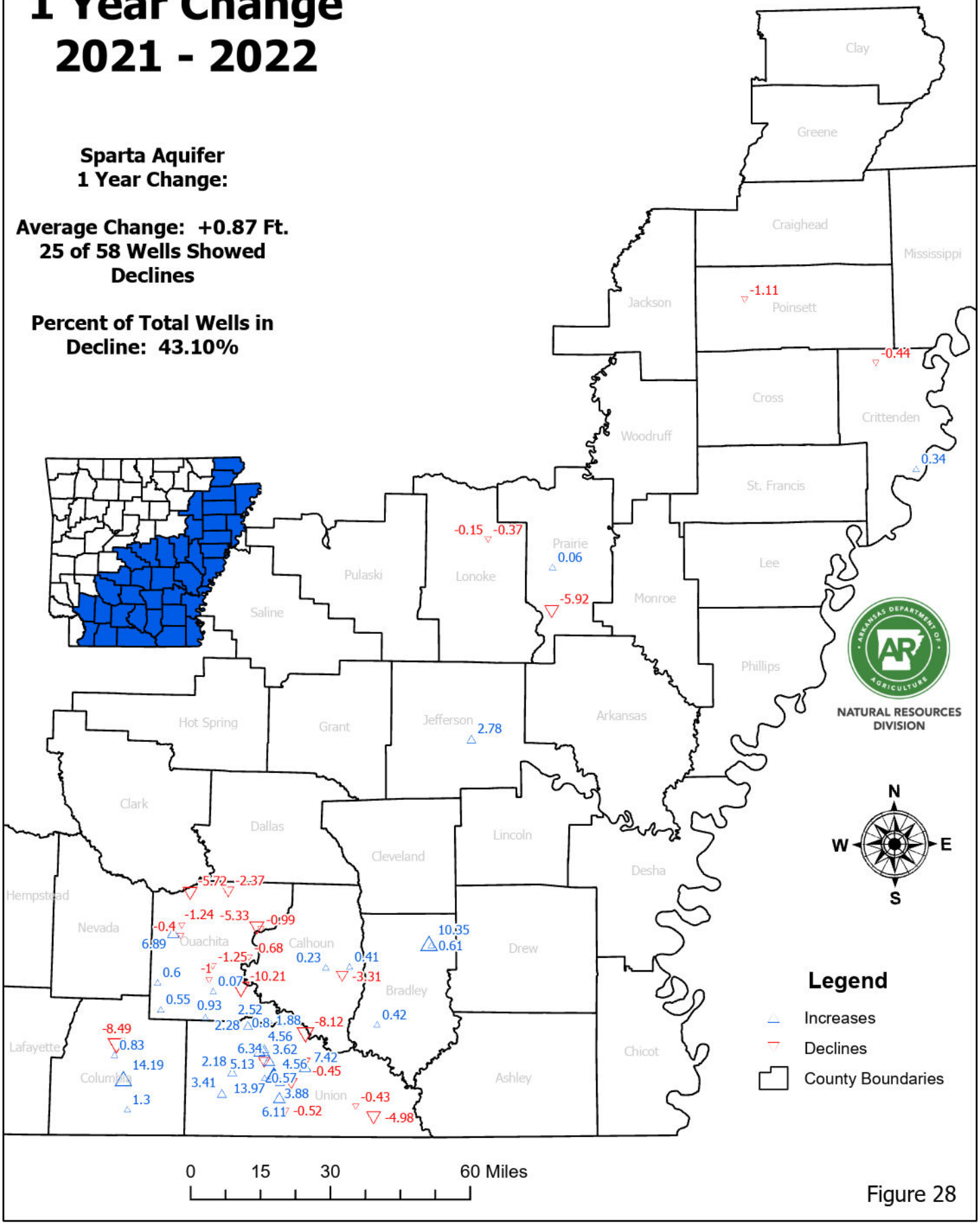


Figure 28

Sparta Aquifer
5 Year Change
2017 - 2022

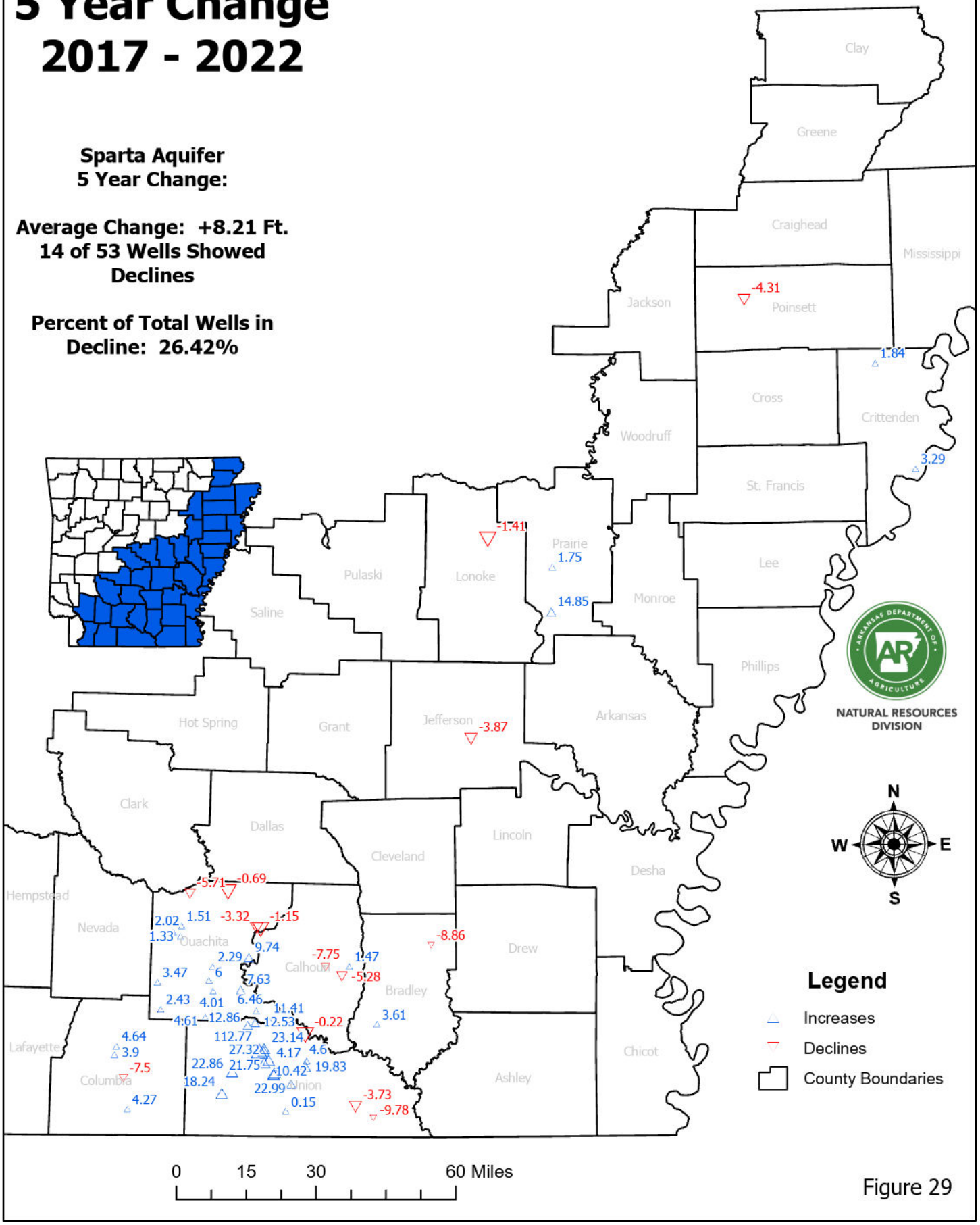


Figure 29

Sparta Aquifer
10 Year Change
2012 - 2022

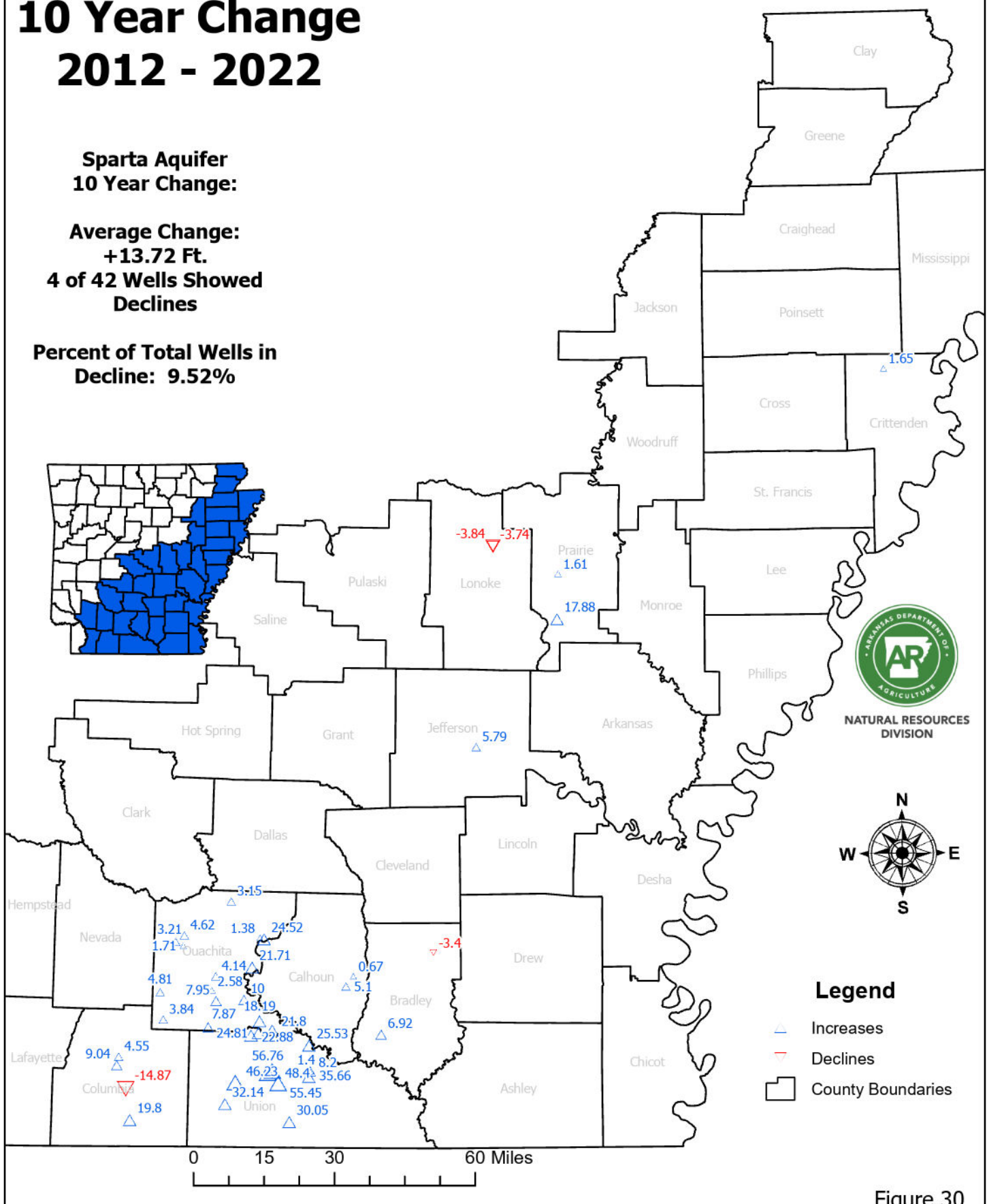
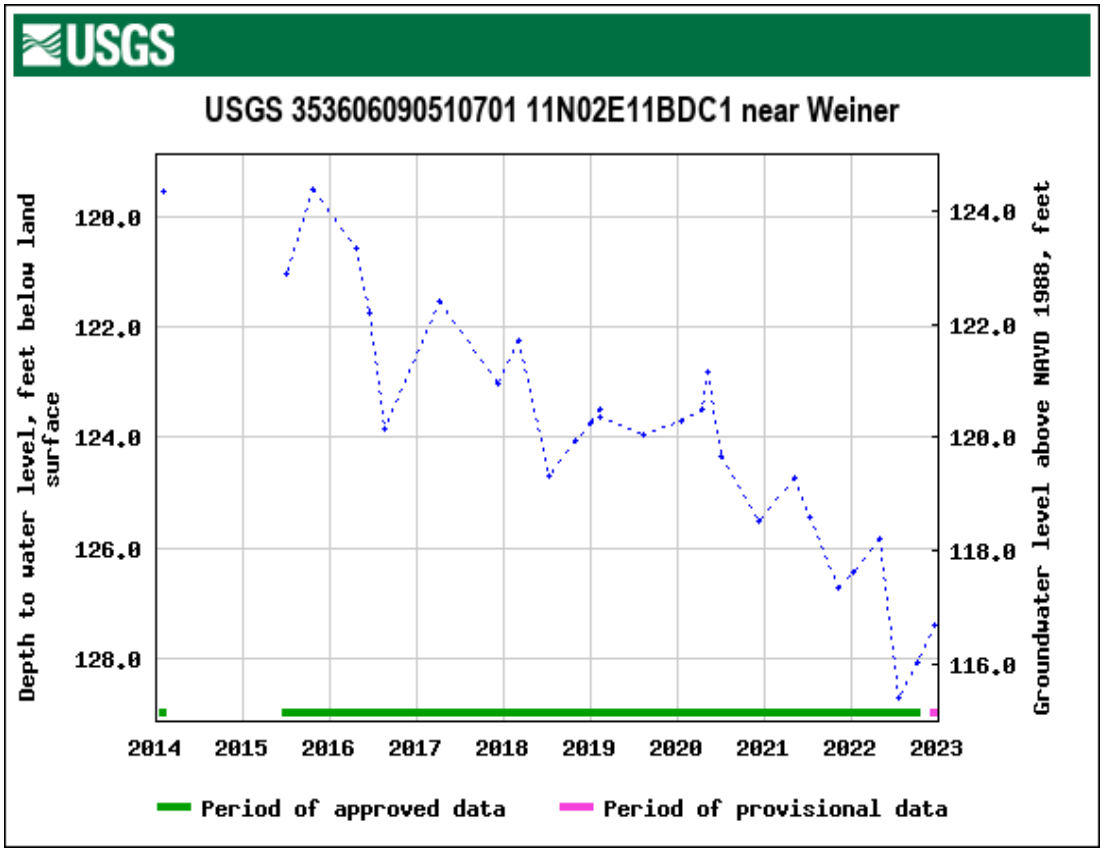


Figure 30

Water Level Trends, cont.

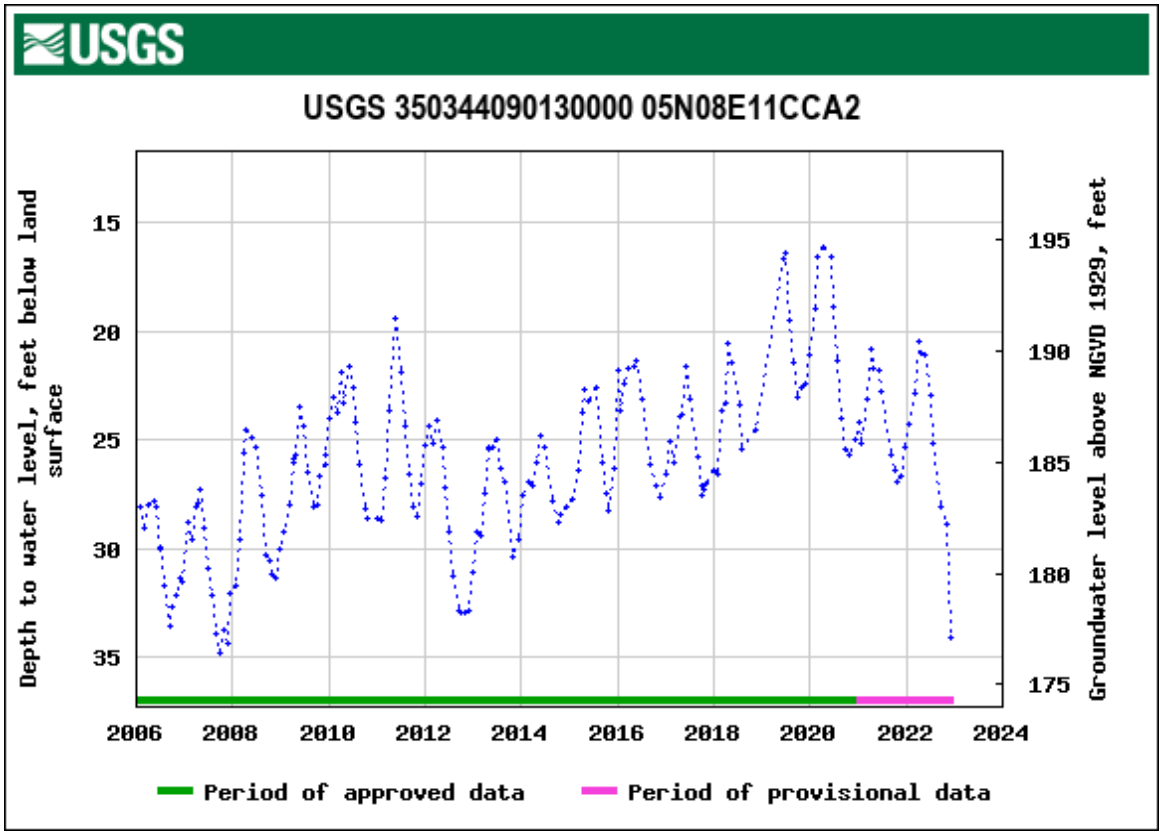
Selected water level hydrographs from the Sparta aquifer are presented in Figure 31 and illustrate the changes in water level overtime back to the early 2000s. These hydrographs correspond with the wells shown on Figure 27. All of the hydrographs in this figure are from monitoring wells maintained by 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

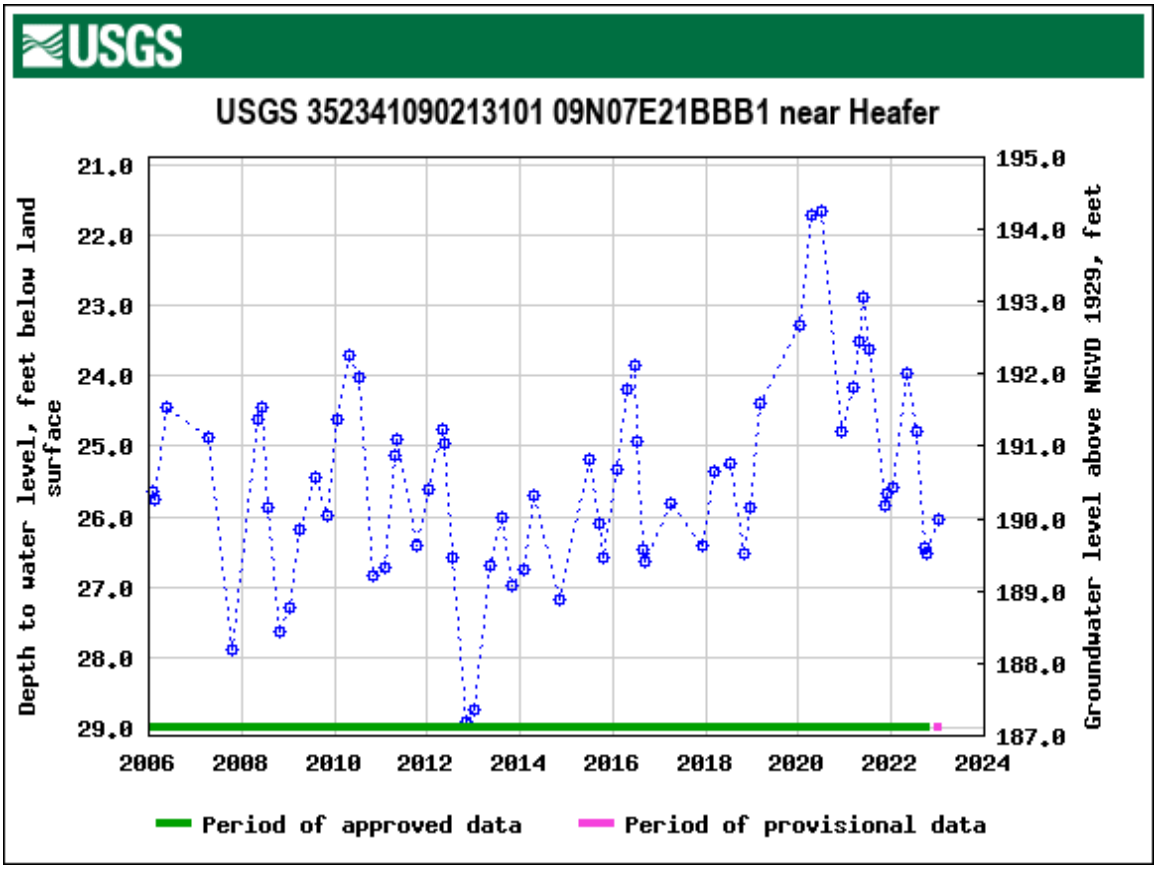


A. Poinsett County, Well 11N02E11BDC1

Figure 31. Selected water level hydrographs from the Sparta aquifer

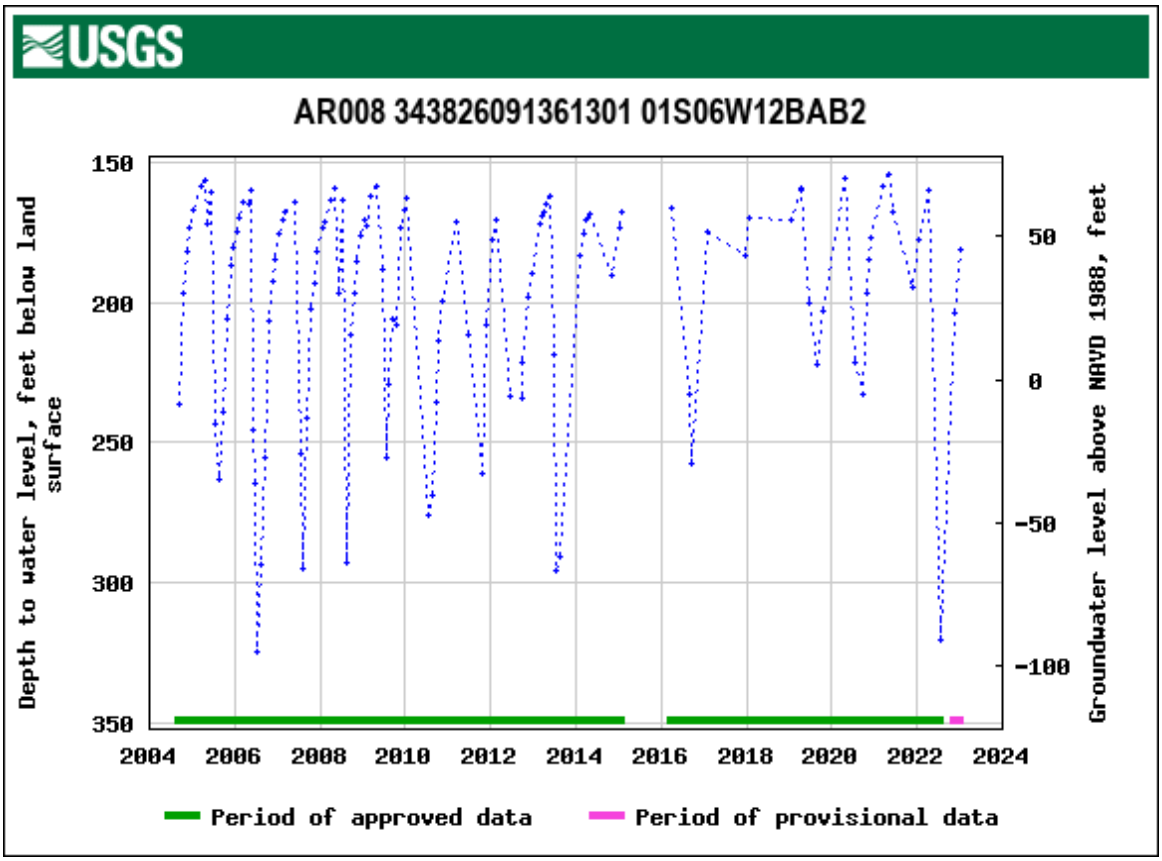


B. Crittenden County, Well 05N08E11CCA2

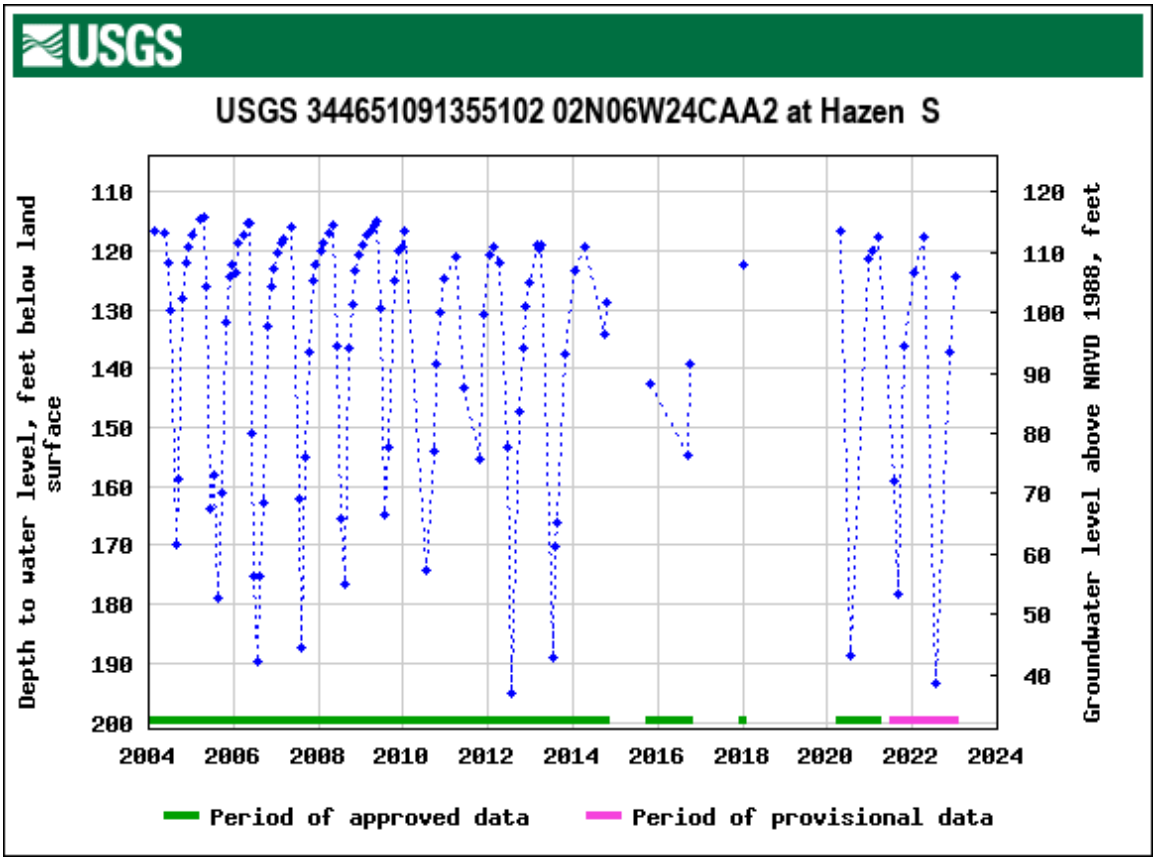


C. Crittenden County, Well 09N07E21BBB1

Figure 31. Selected water level hydrographs from the Sparta aquifer

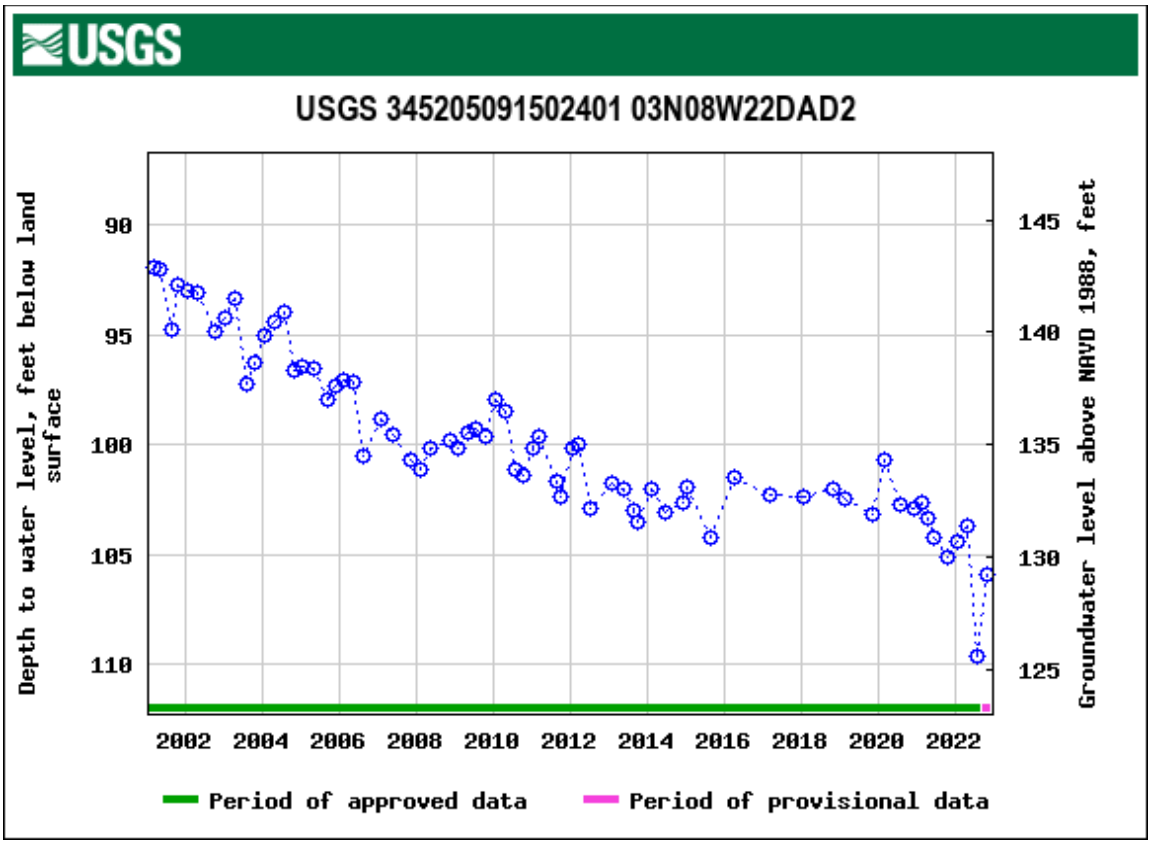


D. Prairie County, Well 01S06W12BAB2

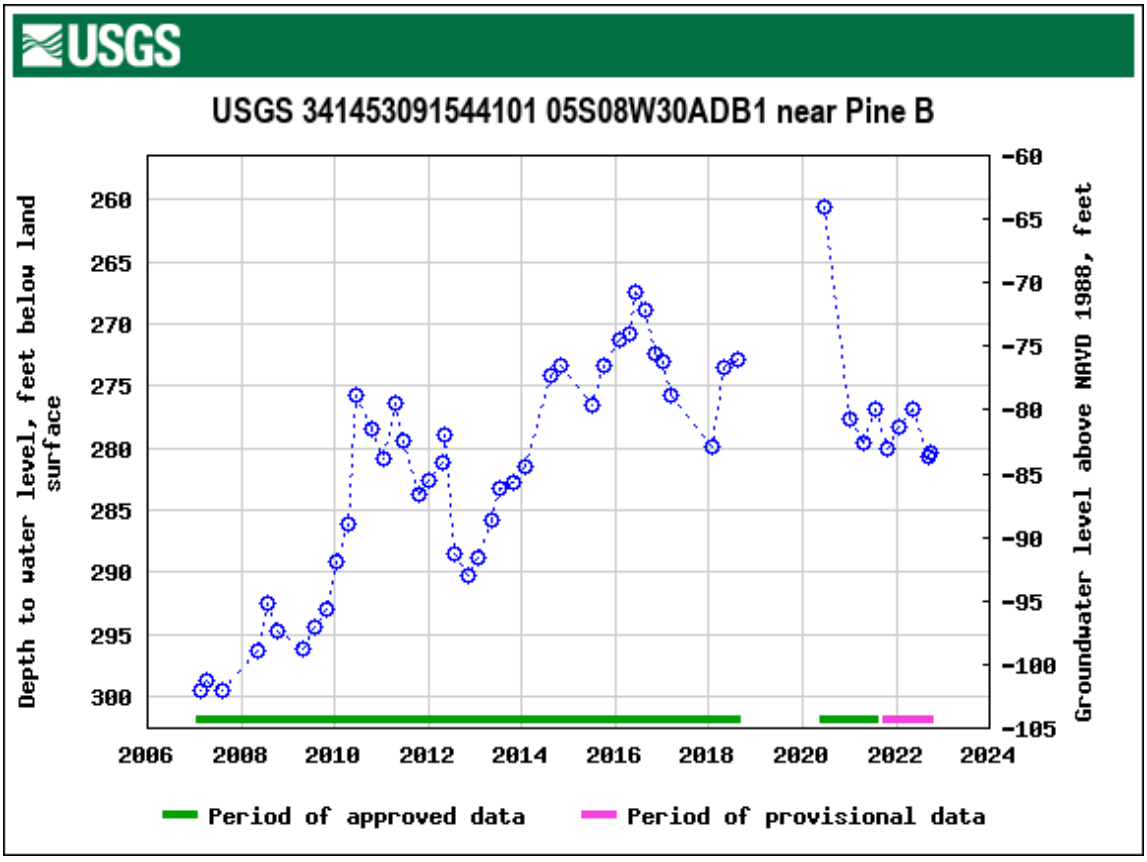


E. Prairie County, Well 02N06W24CAA2

Figure 31. Selected water level hydrographs from the Sparta aquifer

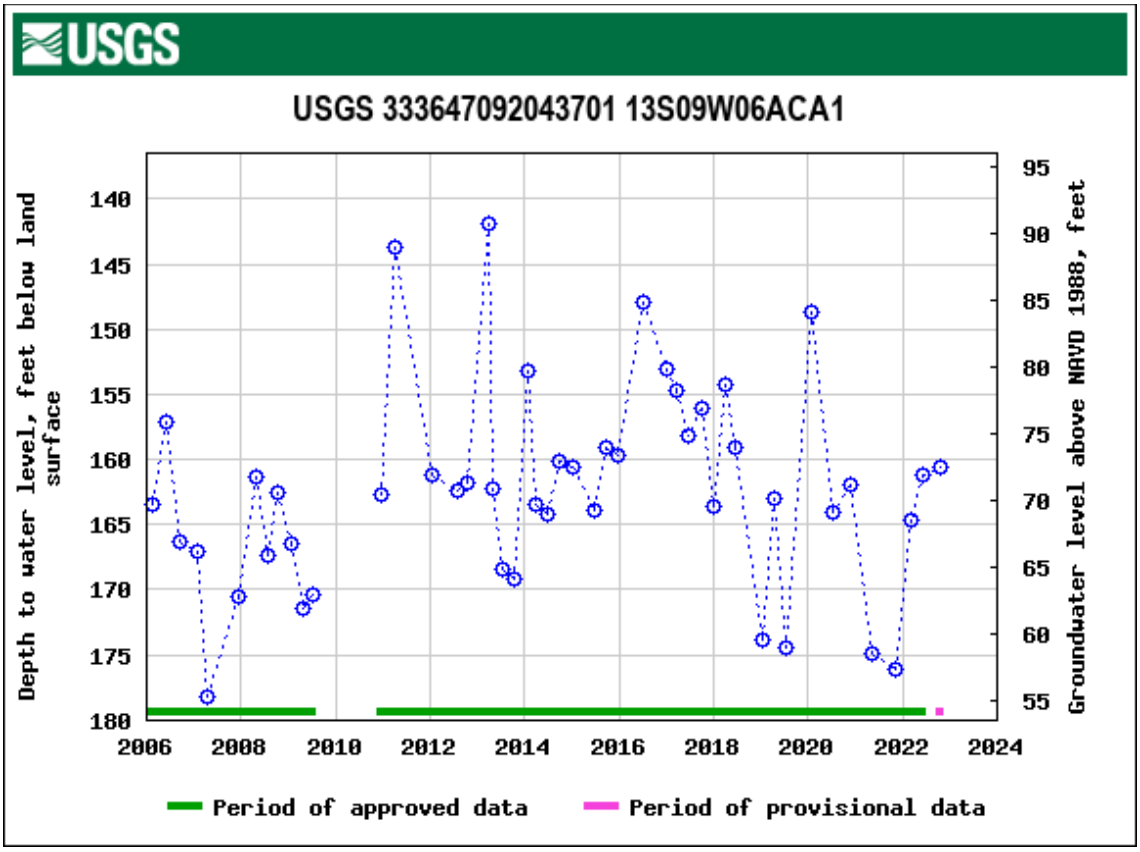


F. Lonoke County, Well 03N08W22DAD2

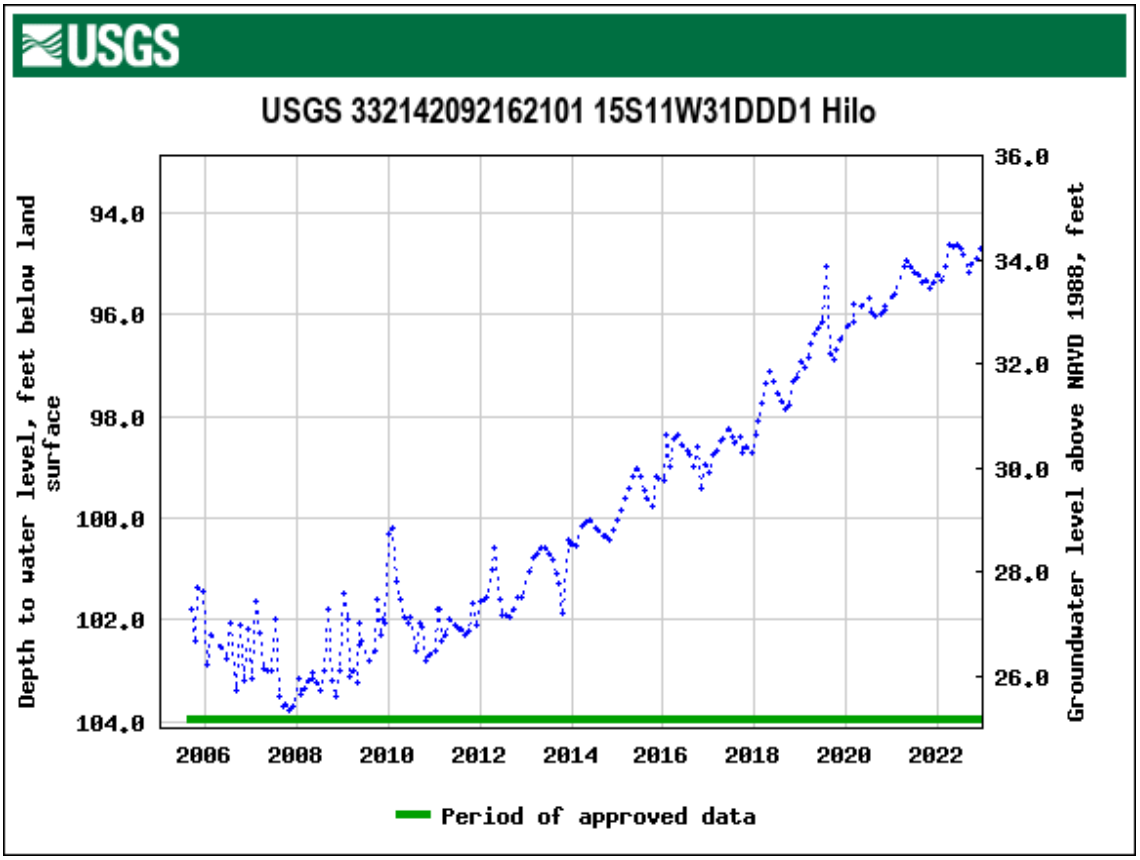


G. Jefferson County, Well 05S08W30ADB1

Figure 31. Selected water level hydrographs from the Sparta aquifer

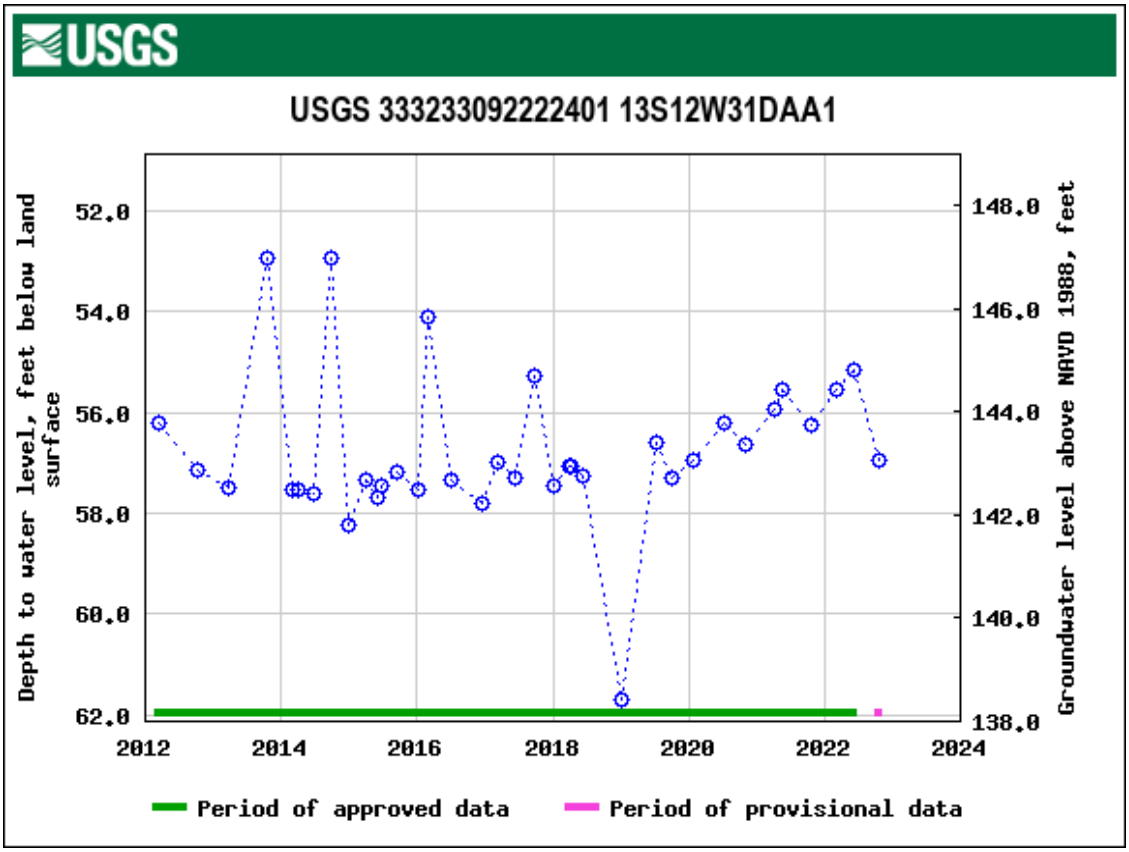


H. Bradley County, Well 13S09W06ACA1

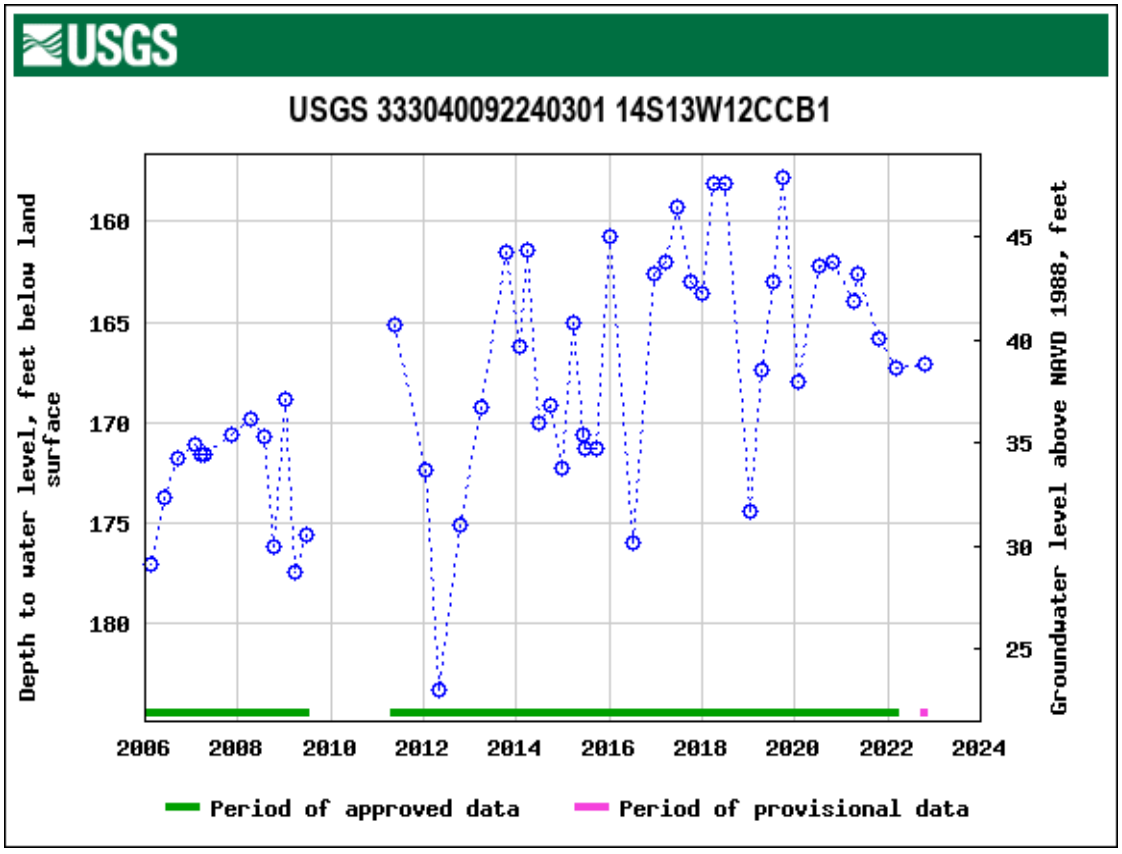


I. Bradley County, Well 15S11W31DDD1

Figure 31. Selected water level hydrographs from the Sparta aquifer

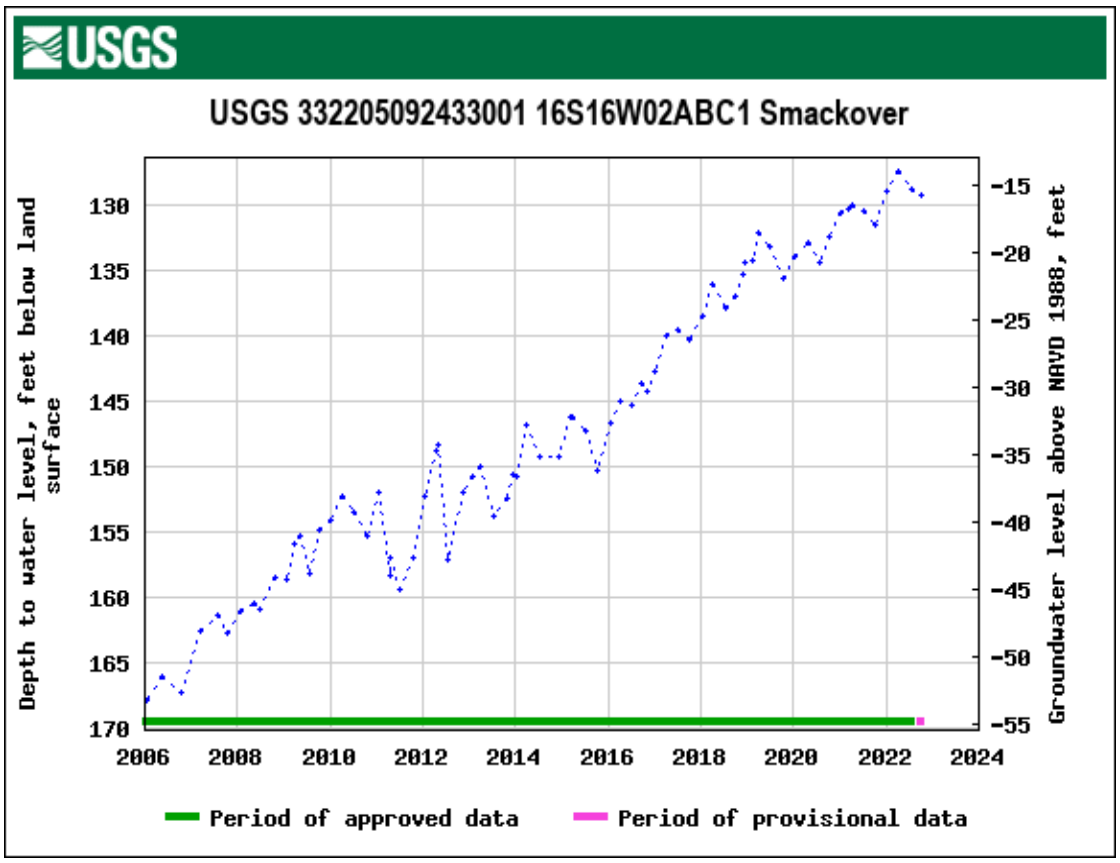


J. Calhoun County, Well 13S12W31DAA1

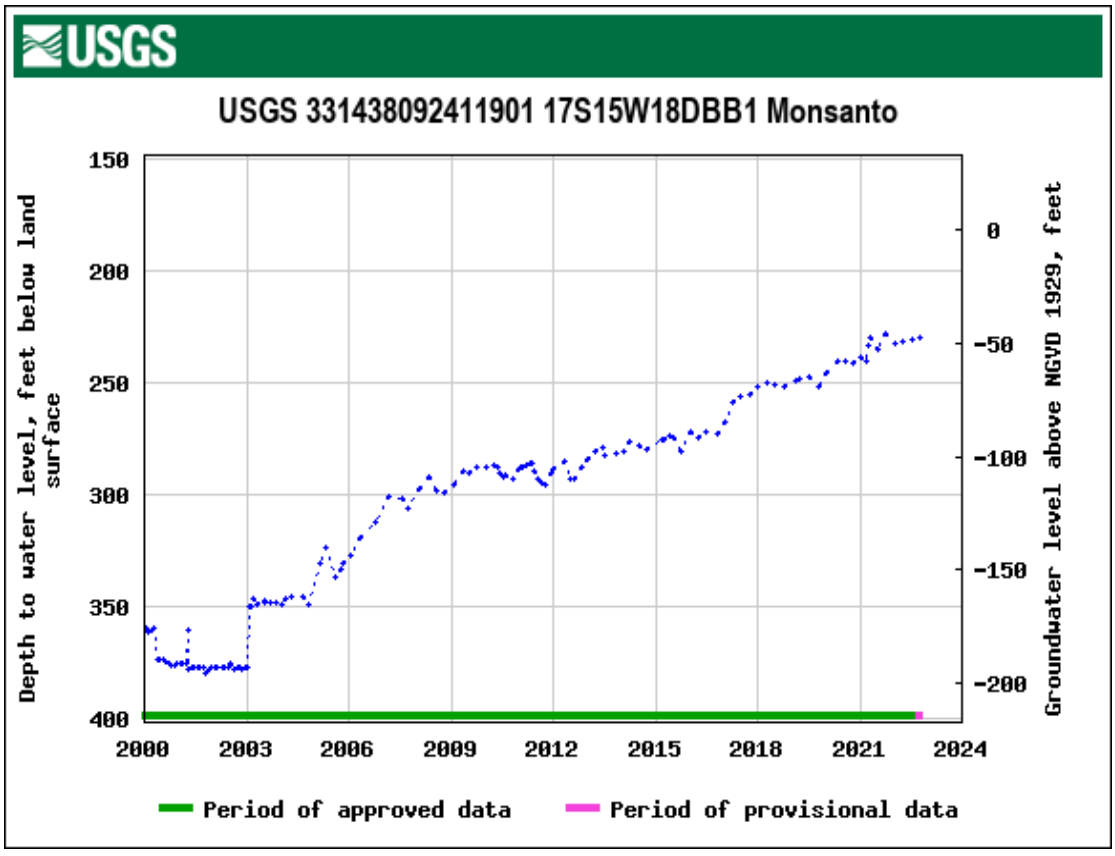


K. Calhoun County, Well 14S13W12CCB1

Figure 31. Selected water level hydrographs from the Sparta aquifer

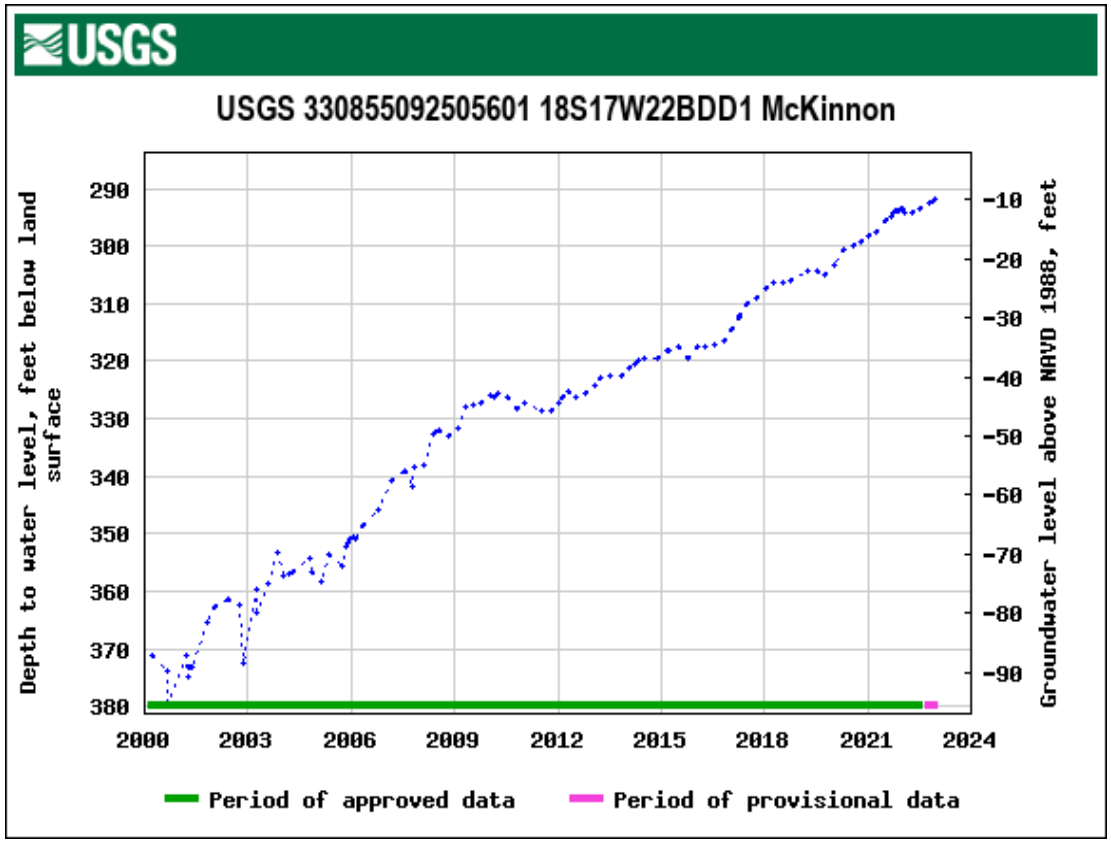


L. Union County, Well 16S16W02ABC1

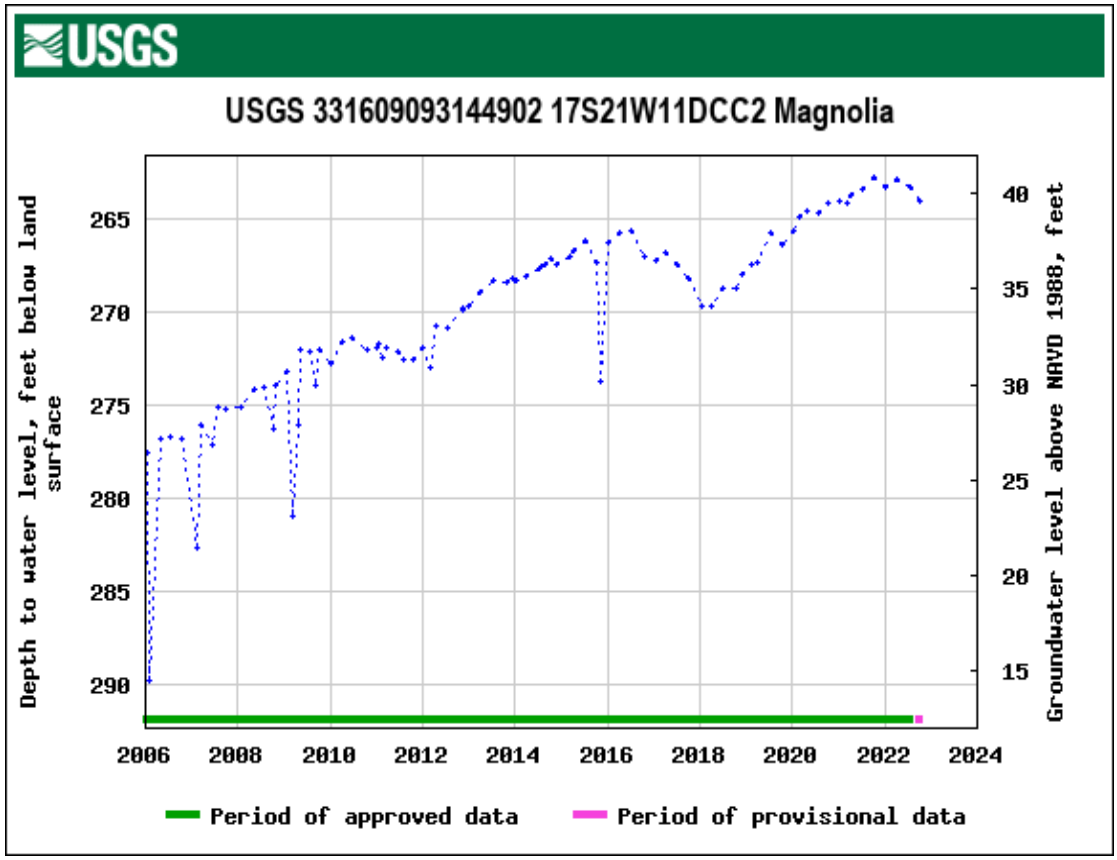


M. Union County, Well 17S15W18DBB1

Figure 31. Selected water level hydrographs from the Sparta aquifer

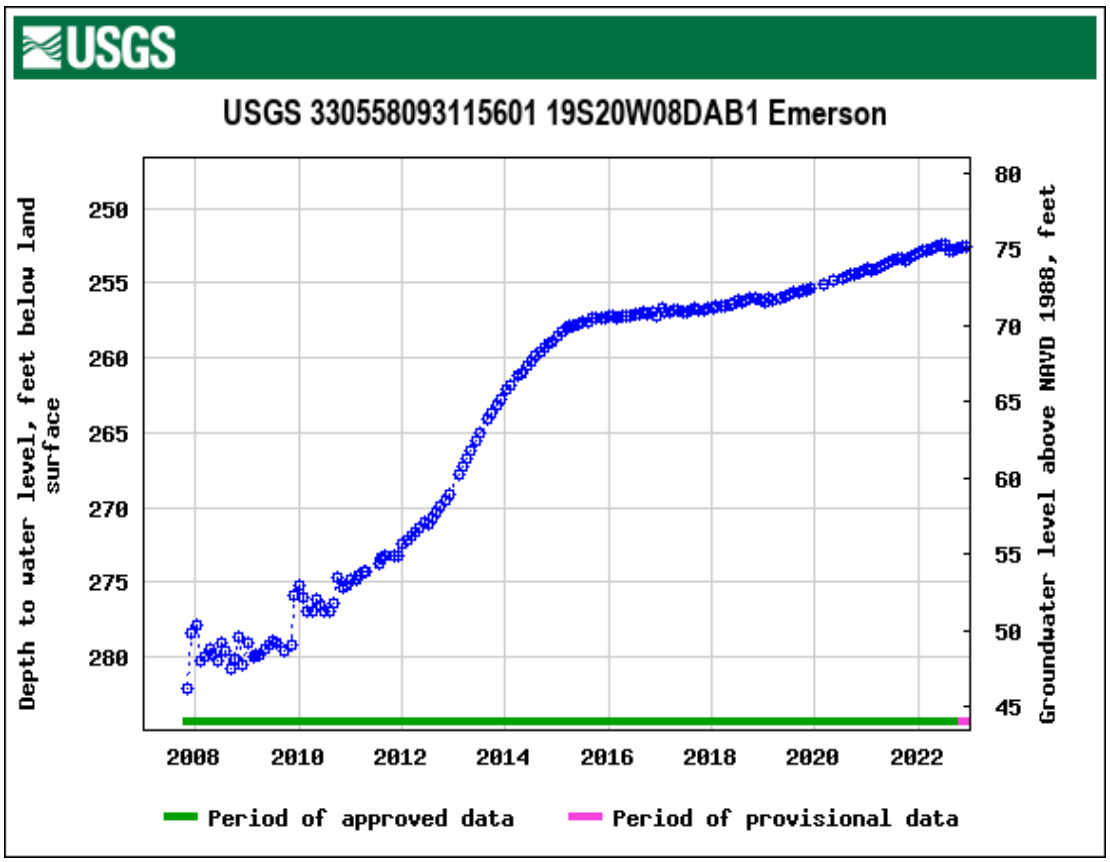


N. Union County, Well 18S17W22BDD1

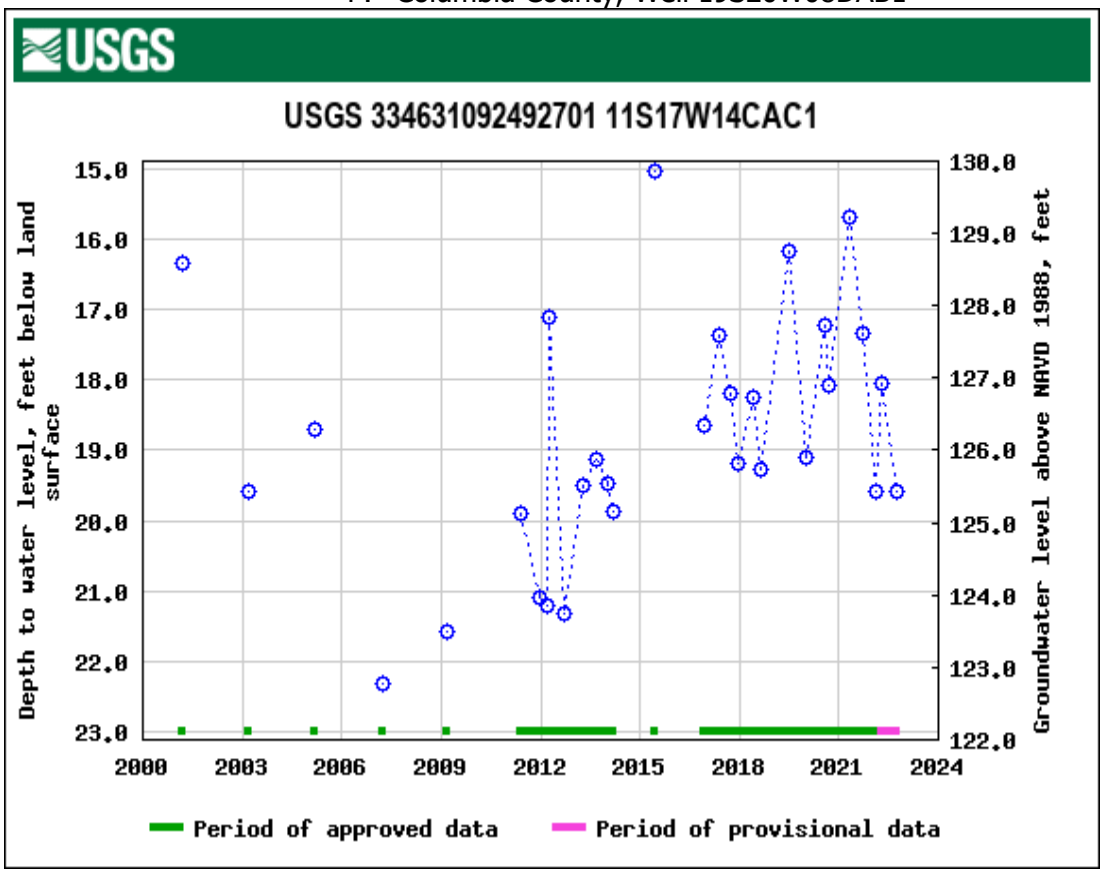


O. Columbia County, Well 17S21W11DCC2

Figure 31. Selected water level hydrographs from the Sparta aquifer

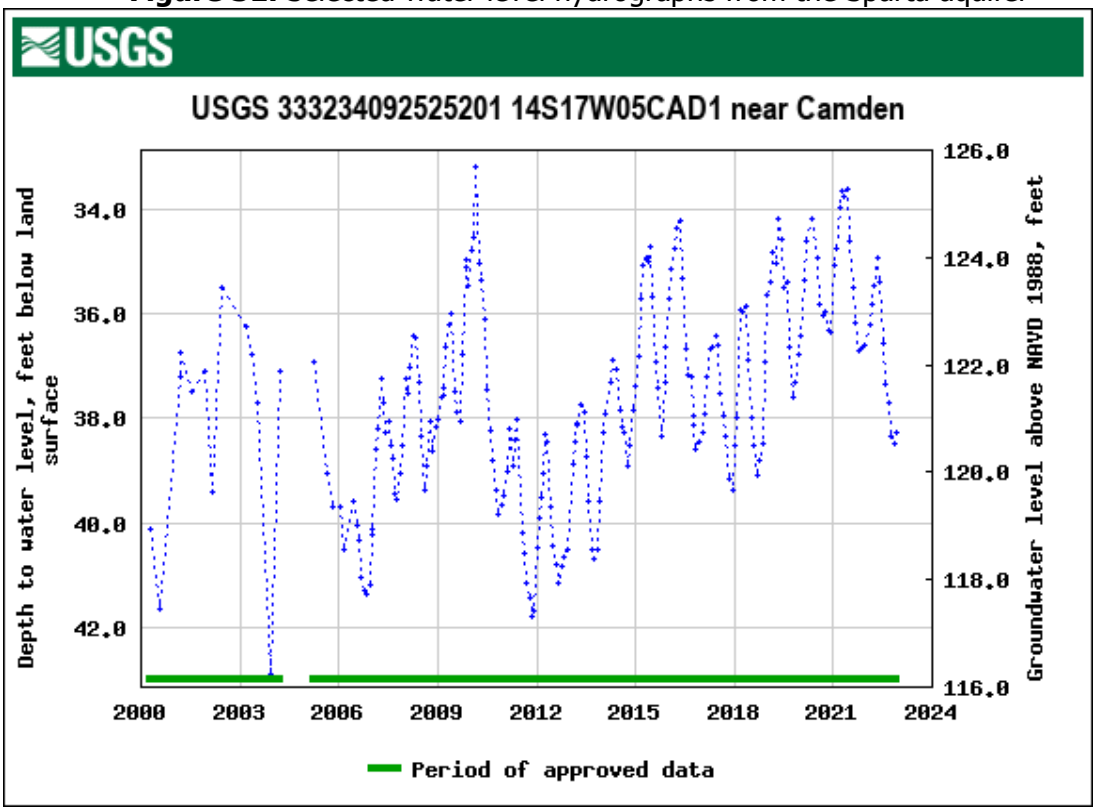


P. Columbia County, Well 19S20W08DAB1

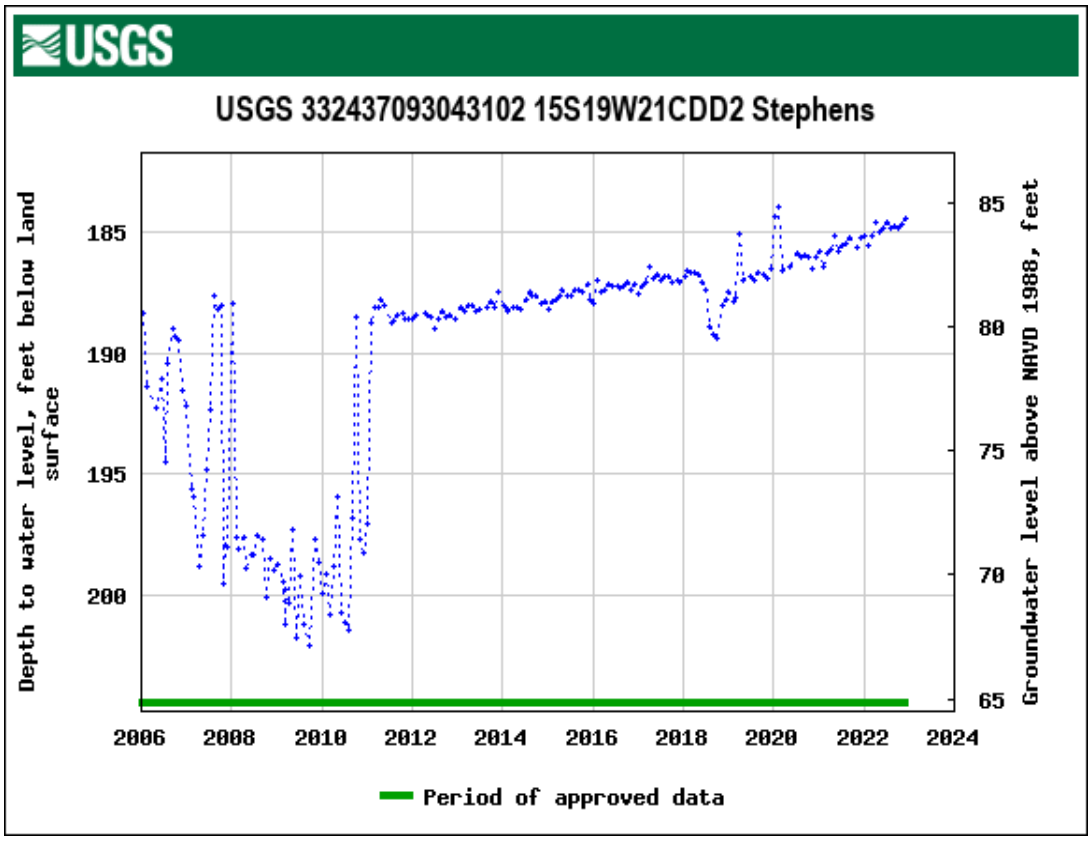


Q. Ouachita County, Well 11S17W14CAC1

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.

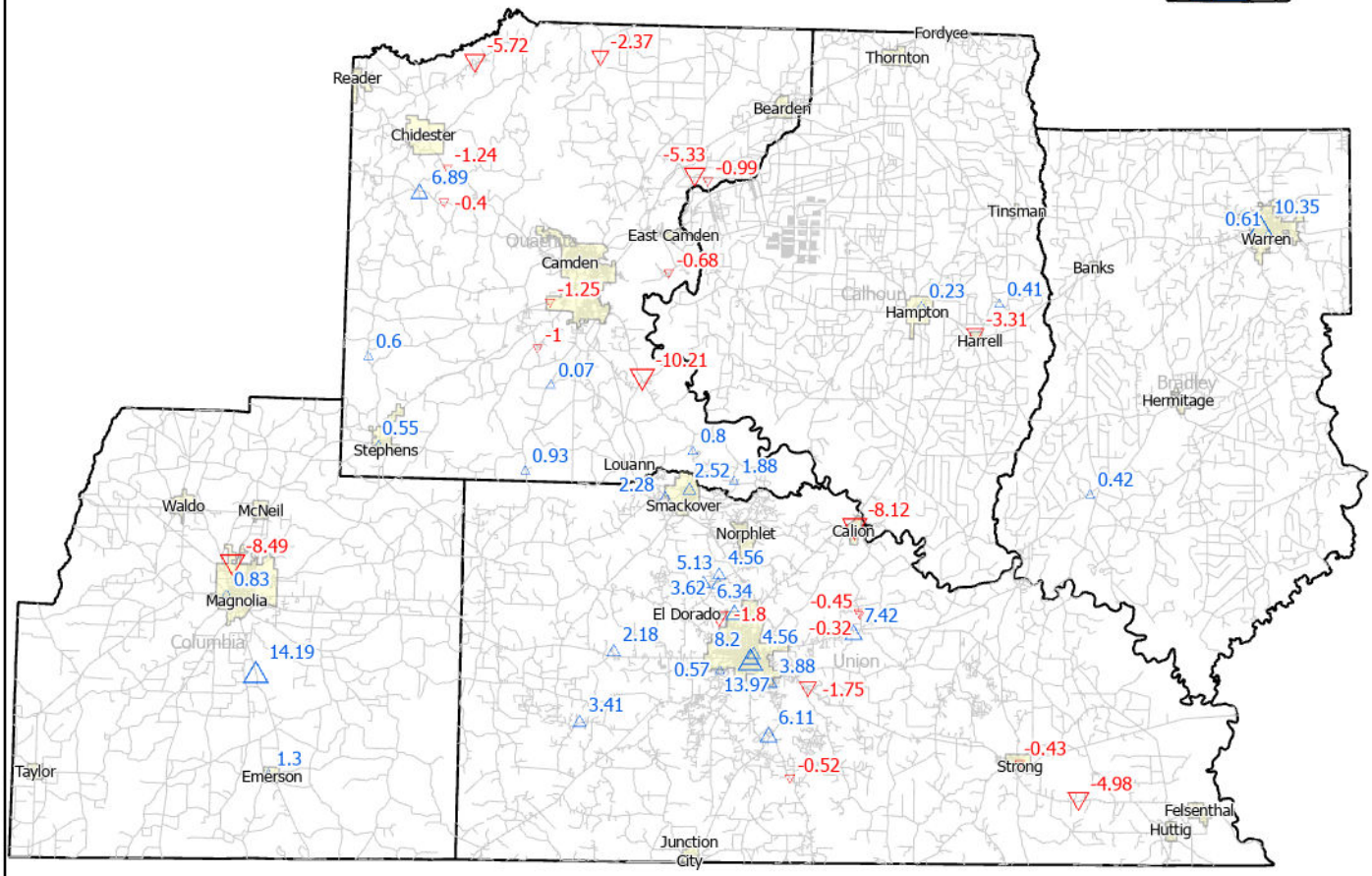
Appendix B presents a table of specific water-level monitoring data for the Sparta aquifer from the 2022 monitoring period, as well as the one, five, and ten- year water level change data.

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

0 4.75 9.5 19 Miles

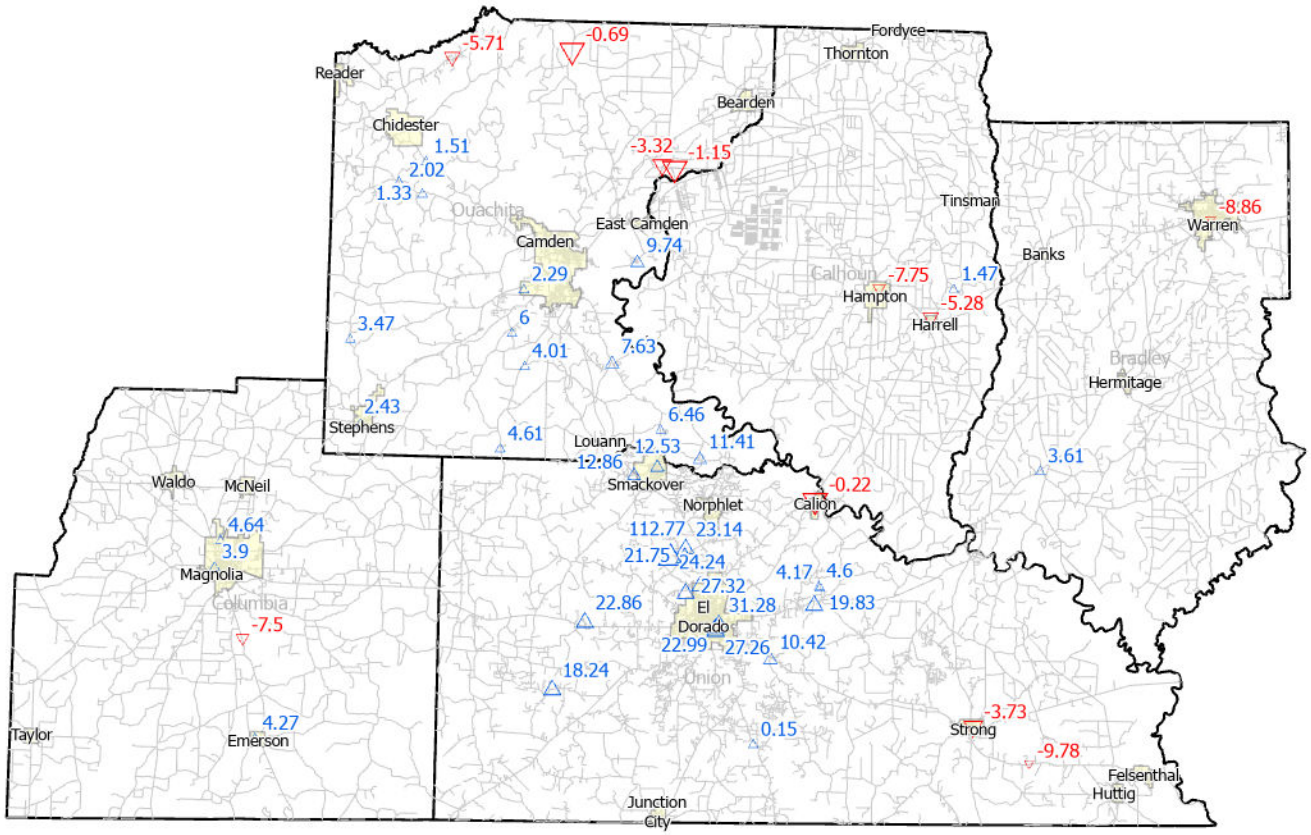
Figure 32

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

0 5 10 20 Miles

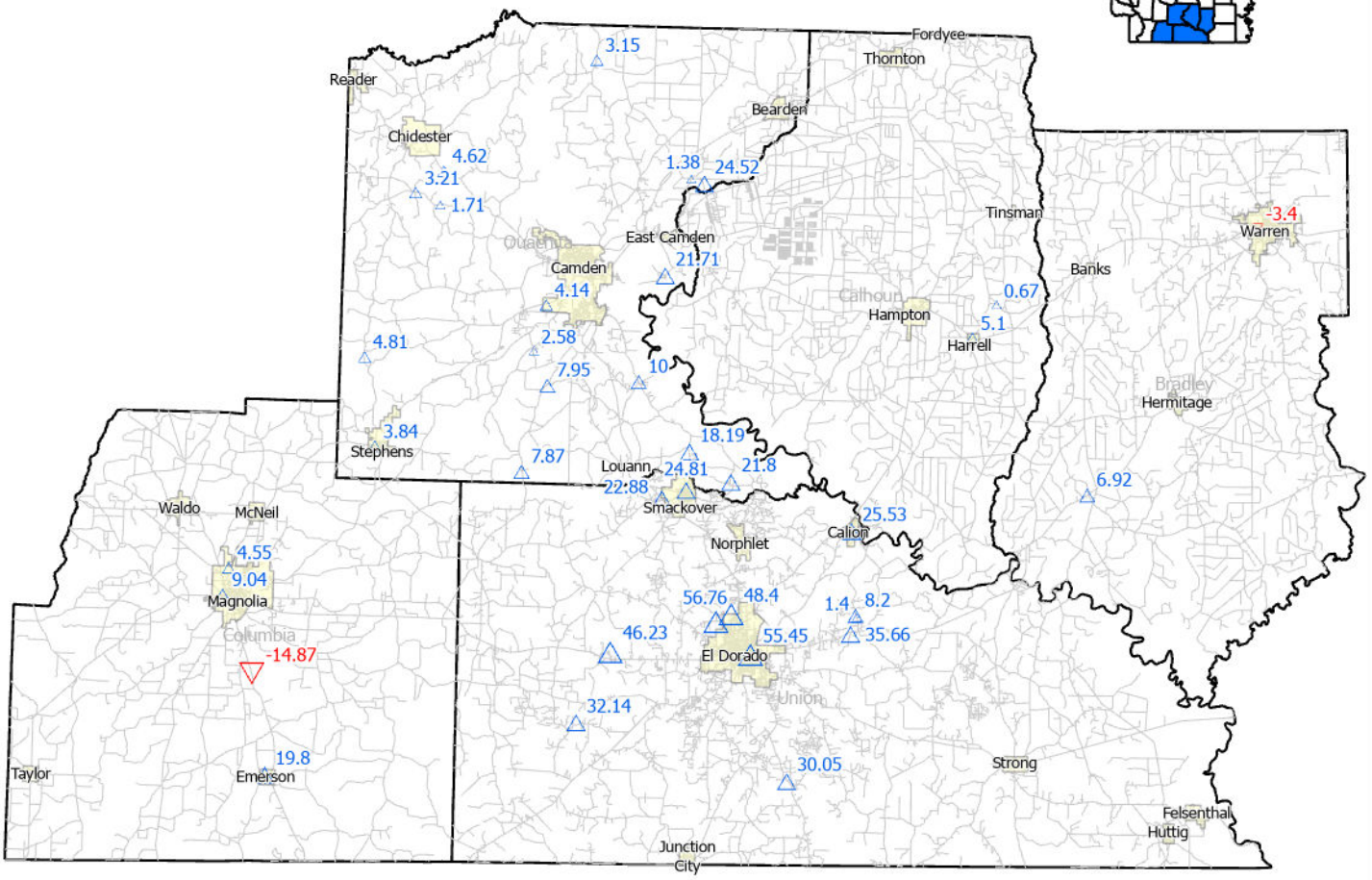
Figure 33

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

N W E S

0 4.75 9.5 19 Miles

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

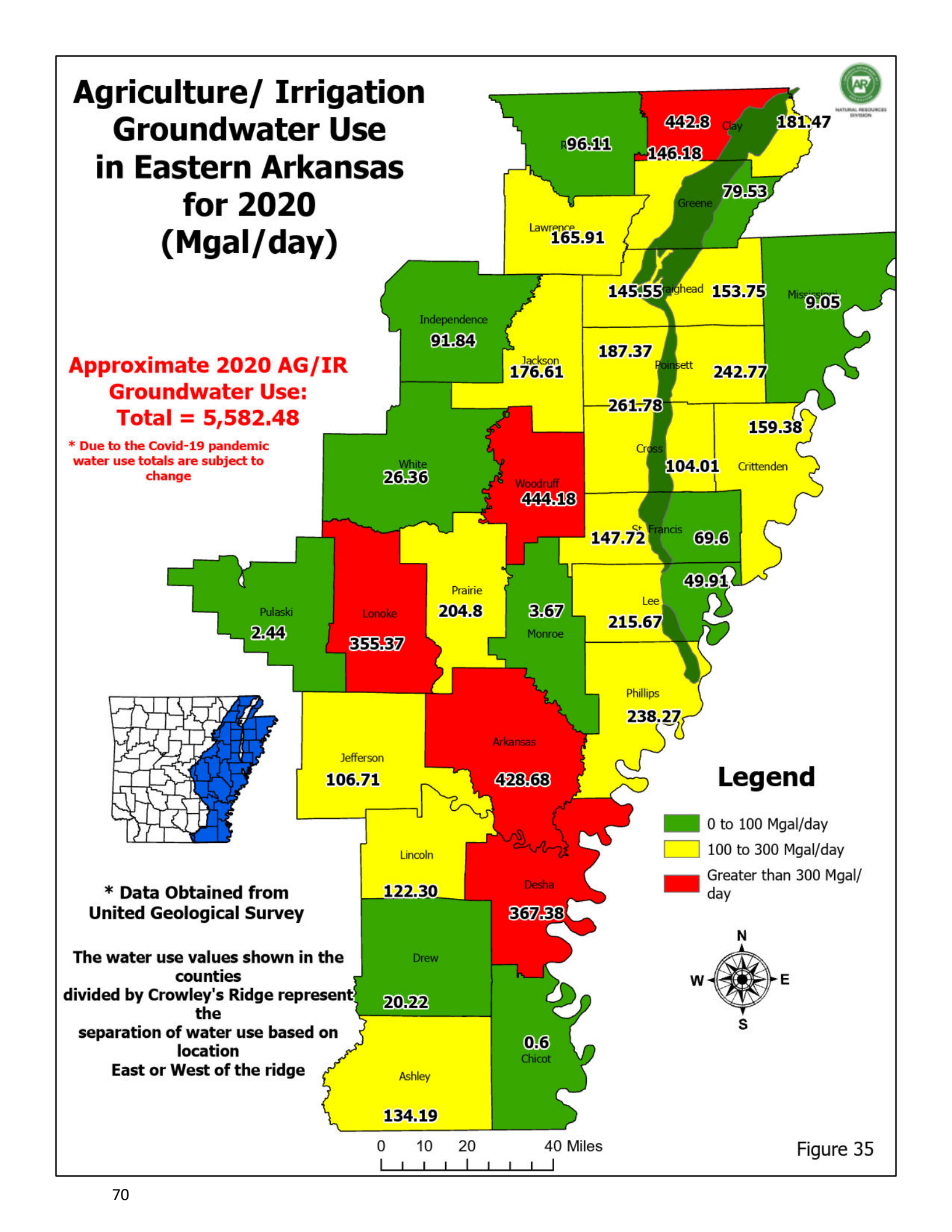
In 2015, an estimated total of 8,254.60 million gallons per day (Mgal/d) of water were reportedly withdrawn from all of the state's aquifers. The greatest reported volumes are from the Mississippi River Valley alluvial (alluvial) aquifer and the Sparta/Memphis (Sparta) aquifer, with approximately 7,636.08 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

*** 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

Figure 35

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.

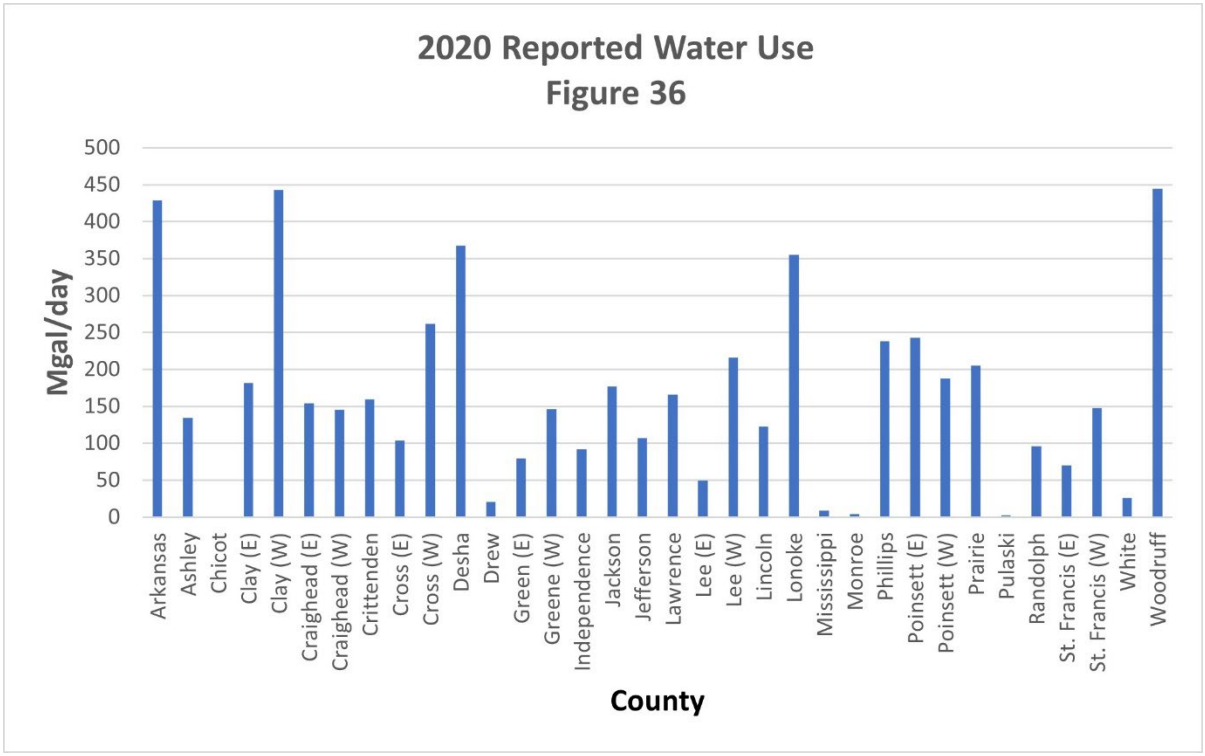


Figure 36: 2020 Reported Water Use

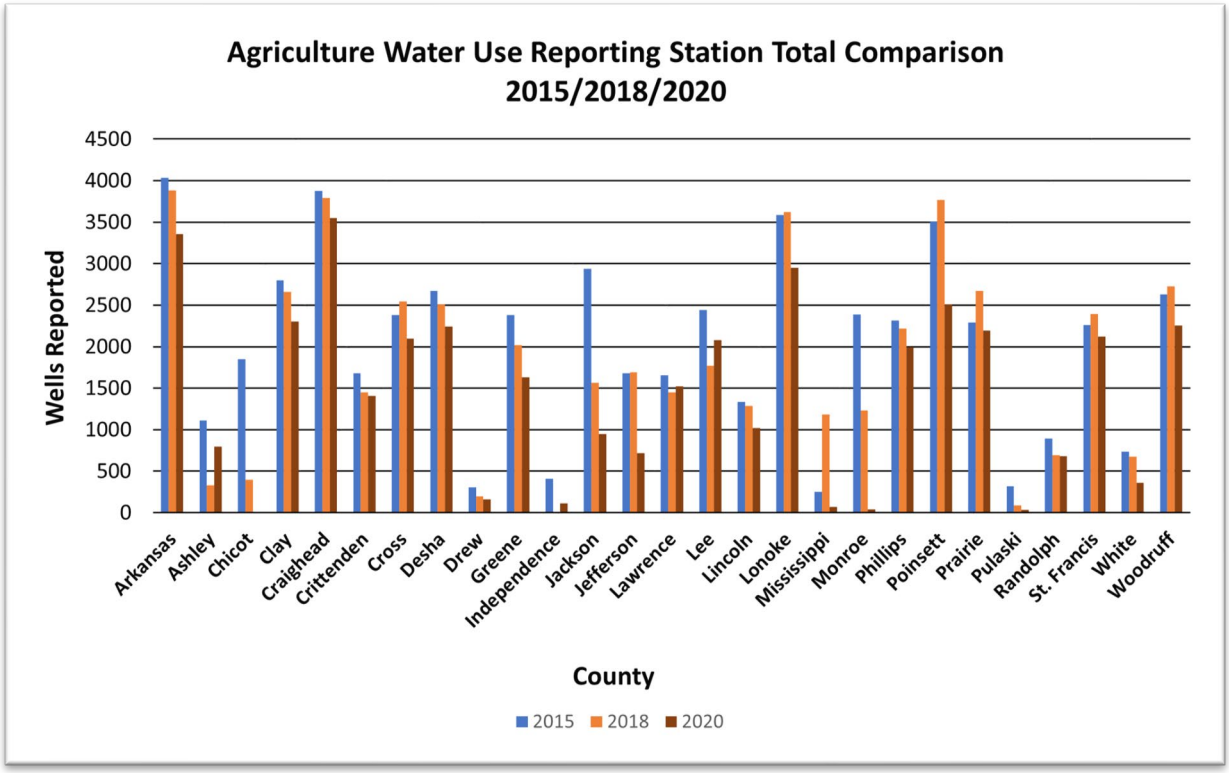


Figure 37: 2015-2018-2020 Agricultural Water Use Reporting Stations Comparison

Figure 38
2020 Estimated Usage Table

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

Figure 38: 2020 Estimated Usage Table

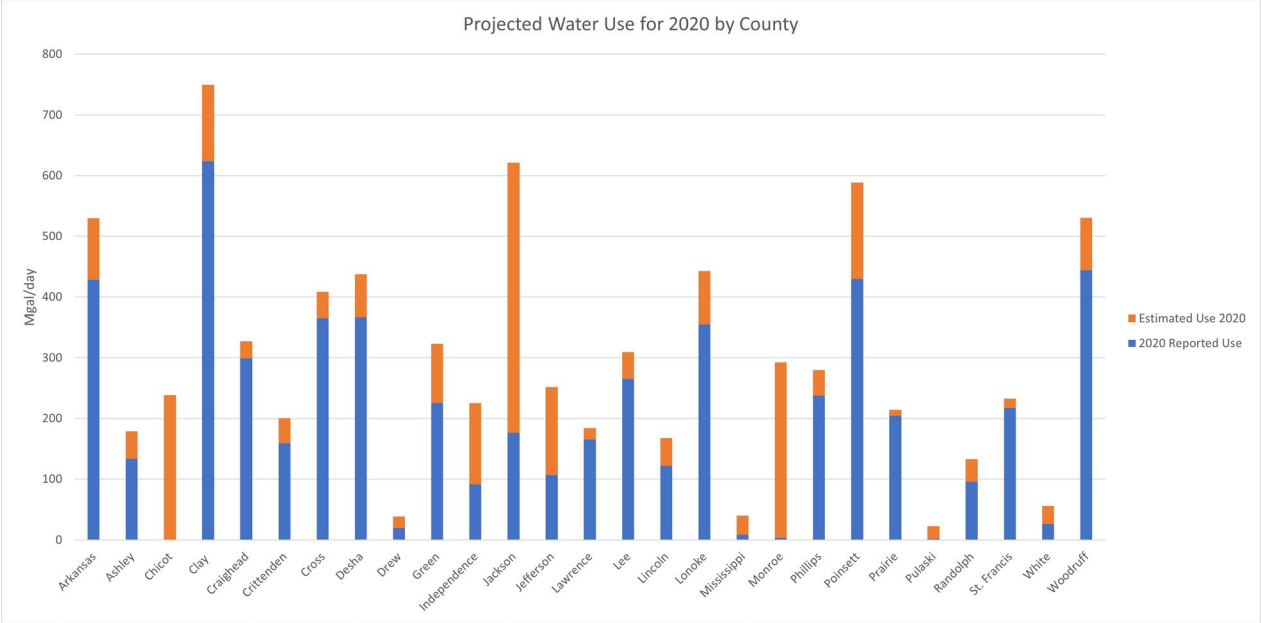


Figure 39: Estimated 2020 Water Use by County

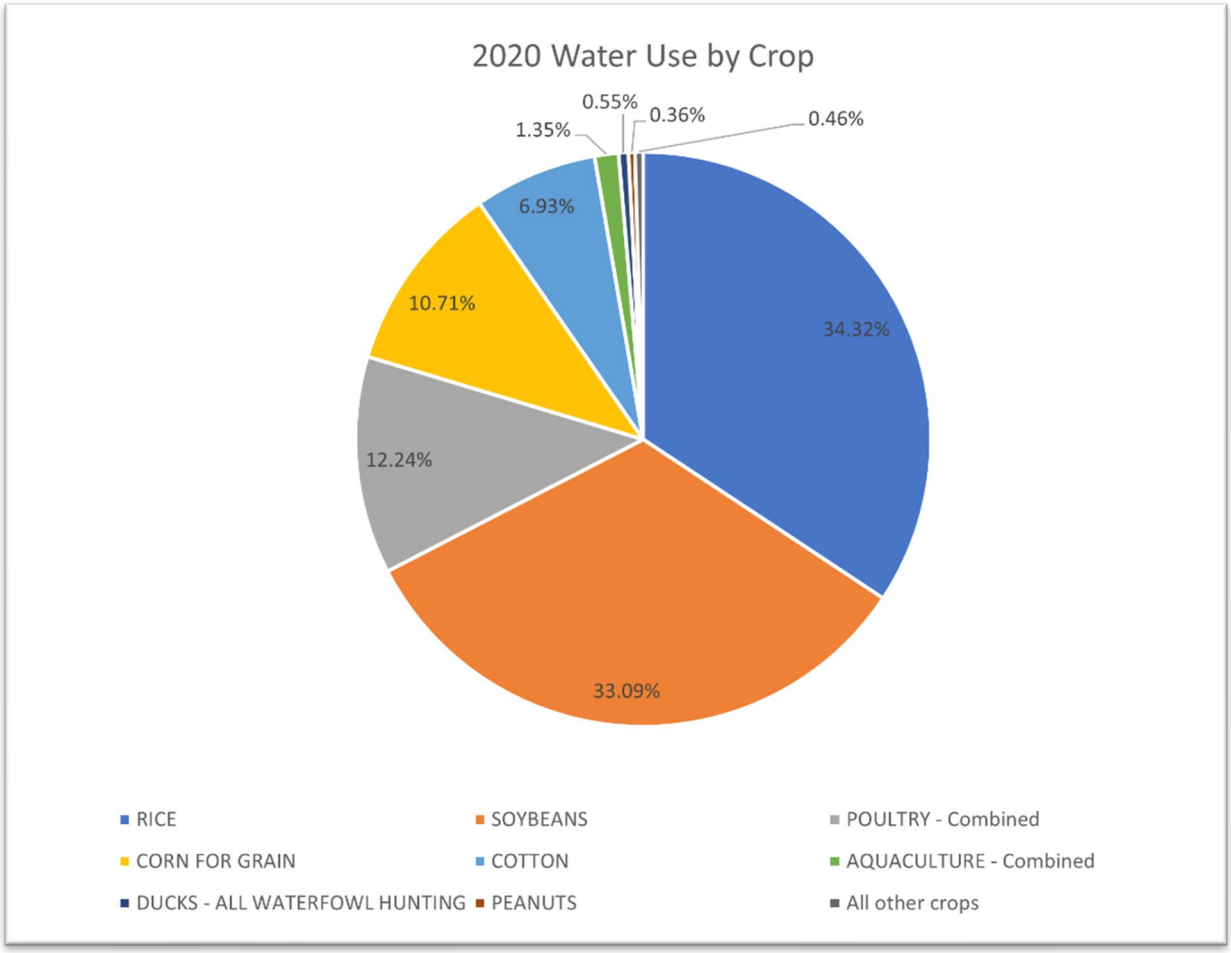


Figure 40: 2020 Water Use by Crop

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.

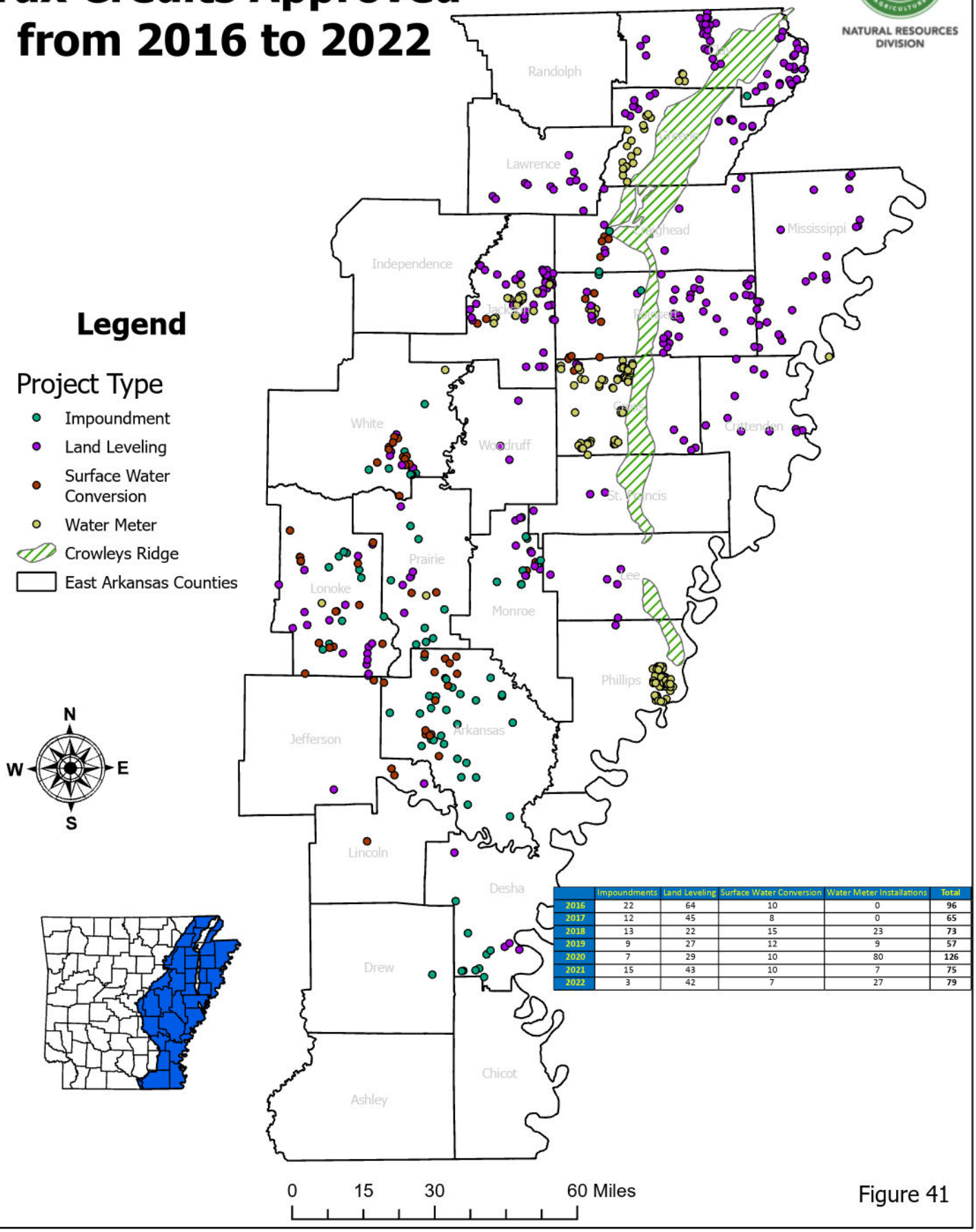
Figure 41 shows the locations of the water conservation projects that were approved for a tax credit for the years 2016 through 2022. A summary table of the number and types of conservation practices approved for a tax credit can be found below.

	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



	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 Boeuf-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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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	02S04W11DBB1	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	02S04W19AA1	34.50635	-91.4860306	205	127	22.03	17.35%			105.79	104.97	0.82		
Arkansas	02S04W23DA1	34.51231944	-91.3981194	207	133	37.14	27.92%			93.55	95.86	2.31		
Arkansas	02S05W09AA1	34.54833889	-91.5396194	220	133	11.57	8.70%				121.43			
Arkansas	02S05W36DDD1	34.47851944	-91.4881194	212	143	46.32	32.39%			97.61	96.68	0.93		
Arkansas	03S03W05CCD1	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	03S03W18CCC1	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	03S03W27BBC1	34.41520278	-91.3289111	198	137	46.23	33.74%	93.09		91.6	90.77	0.83		2.32
Arkansas	03S04W02BBB1	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	03S04W03DCA16	34.4647333	-91.4209361	200	120	20.6	17.17%	101.55	101.39		99.4		1.99	2.15
Arkansas	03S04W03DCA6	34.4648083	-91.4210667	204	120	20.92	17.43%			99.72	99.08	0.64		
Arkansas	03S04W03DDA1	34.46391389	-91.4167333	200	120	20.42	17.02%	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	03S05W03CCC1	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	03S06W35ADD1	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	04S04W02ABB1	34.387	-91.4065806	200	140.58	32.19	22.90%	110.06	110.92	108.39	108.39	0.00	2.53	1.67
Arkansas	04S04W35ABC1	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	05S03W16ABB1	34.26666667	-91.3408333	197	172.5	60.82	35.26%		115.4	111.13	111.68	0.55	3.72	
Arkansas	05S04W14AAD1	34.26365	-91.4034417	189	162.6	95.71	58.86%		90.30	88.09	66.89	21.20	23.41	
Arkansas	05S04W32BBA1	34.22110278	-91.472725	187	168.31	116.32	69.11%	56.62	54.57	52.09	51.99	0.10	2.58	4.63
Arkansas	06S03W10BBA1	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%			48.17	48.76	0.59		
Arkansas	07S02W17BBA1	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	07S03W32BBC1	34.04437778	-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	07S04W01DDD1	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
						Avg % Saturated:	**38.25%**				**Wells in Decline:**	**10**	**2**	**2**
						Min % Saturated:	**17.02%**				**Total Wells:**	**26**	**19**	**19**
						Max % Saturated:	**87.60%**				**Average Change:**	**1.56**	**3.61**	**2.67**
Ashley	15S04W23BAA1	33.37813056	-91.4821	125	83.00	54.61	65.80%			28.59	28.39	0.20		
Ashley	16S06W08CAA1	33.32815	-91.7439611	184	141.00	62.48	44.31%	77.33		78.52	78.52	0.00		1.19
Ashley	16S06W25DDD1	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	16S06W27BAB1	33.2915722	-91.7111694	183	172.00	86.84	50.49%			85.62	85.16	0.46		
Ashley	17S04W03ABB1	33.25808056	-91.50275	124	158.00	130.86	82.82%	35.26		25.55	27.14	1.59		8.12
Ashley	17S04W15DDC1	33.21457778	-91.4983583	116	185.00	162.31	87.74%	31.83		20.33	22.69	2.36		9.14
Ashley	17S04W21ABA1	33.21391389	-91.51945	118	190.00	170.30	89.63%	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			73.59			1.17
Ashley	18S04W23DDD1	33.11427778	-91.4947778	115	155.20	126.29	81.37%		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	24.27	16.34	7.93	10.18	4.66
Ashley	18S08W01AAB1	33.170825	-91.8736444	178	152.00	65.77	43.27%	85.22		86.42	86.23	0.19		1.01
Ashley	19S05W08CA1	33.06852778	-91.6375278	109	179.00	165.58	92.50%			29.41	13.42	15.99		
Ashley	19S05W22DCD1	33.02744444	-91.6044444	108	126.60	107.65	85.03%	28.40	21.26	17.37	18.95	1.58	2.31	9.45
Ashley	19S06W07BCC1	33.06765556	-91.7688667	134.7	103.00	71.92	69.83%	31.56			31.08			0.48
						Avg % Saturated:	**72.64%**				**Wells in Decline:**	**4**	**0**	**3**
						Min % Saturated:	**43.27%**				**Total Wells:**	**12**	**4**	**10**
						Max % Saturated:	**93.19%**				**Average Change:**	**1.77**	**4.28**	**3.74**
Chicot	13S03W27AAA1	33.54855	-91.3851222	138	85.00	39.15	46.06%	49.30	46.00		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	-91.3793139	133	79.00	38.68	48.96%	44.40		43.49	40.32	3.17		4.08
Chicot	14S03W07BBD1	33.50308056	-91.4388889	137	81.00	53.91	66.56%	30.90		27.6	27.09	0.51		3.81
Chicot	14S03W32CDB2	33.437075	-91.4309583	134	82.00	42.09	51.33%	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		35.72	34.95	0.77		3.20
Chicot	16S03W15DAD1	33.305	-91.3927778	118	121.23	87.33	72.04%	33.94	34.46	33.52	33.9	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)
Chicot	17S01W06BCC1	33.25032778	-91.25145	117	139.00	116.14	83.55%	23.21		22.78	22.86	0.08		0.35
Chicot	17S02W10AAA1	33.19208889	-91.2568111	131	146.00	109.09	74.72%	26.86		36.22	36.91	0.69		10.05
Chicot	17S03W28DBA1	33.19071944	-91.4115056	110	154.00	129.50	84.09%	25.63		24.47	24.5	0.03		1.13
Chicot	19S01W21AAA1	33.01598056	-91.29495	129	136.00	96.57	71.01%			39.2	39.43	0.23		
Chicot	19S02W28DAC1	33.01808889	-91.2998111	132	136.00	90.66	66.66%			45.02	45.34	0.32		
Chicot	19S03W14ABB1	33.05124167	-91.3807472	110	141.00	117.44	83.29%	24.22		23.33	23.56	0.23		0.66
						Avg % Saturated:	**66.51%**				**Wells in Decline:**	**7**	**0**	**2**
						Min % Saturated:	**46.06%**				**Total Wells:**	**12**	**2**	**10**
						Max % Saturated:	**84.09%**				**Average Change:**	**0.41**	**0.36**	**0.05**
Clay	18N08E11BAA1	36.2147868	-90.188153	256	135.00	131.38	97.32%	7.60	7.20	6.31	3.62	2.69	3.58	3.98
Clay	19N04E19BAA1	36.2803423	-90.6903906	279	90.00	69.15	76.83%	23.10	26.00	20.53	20.85	0.32	5.15	2.25
Clay	19N05E15BBD1	36.28784086	-90.5312189	289	126.00	95.58	75.86%	37.30	49.30	37.06	30.42	6.64	18.88	6.88
Clay	19N07E25BCB1	36.25533889	-90.2836306	273	114.00	100.94	88.54%	16.60	19.00	15.56	13.06	2.50	5.94	3.54
Clay	19N08E08DCA1	36.29196389	-90.2348083	266	90.00	86.74	96.38%	4.90	4.90	4.57	3.26	1.31	1.64	1.64
Clay	20N04E02BBC1	36.4079361	-90.6216111	288	84.00	70.00	83.33%		14.05	15.55	14	1.55	0.05	
Clay	20N04E03ADA1	36.4070058	-90.623724	287	84.00	70.06	83.40%	13.90	15.20	15.23	13.94	1.29	1.26	0.04
Clay	20N04E06BB1	36.41231667	-90.6920139	290	66.00	48.71	73.80%		17.41	19.76	17.29	2.47	0.12	
Clay	20N05E22CAD1	36.35331667	-90.5251889	289	122.00	91.97	75.39%	29.00	37.90	30.05	30.03	0.02	7.87	1.03
Clay	20N05E30CAC1	36.3342292	-90.5817769	283	145.00	128.45	88.59%	18.50	19.10	18.09	16.55	1.54	2.55	1.95
Clay	20N05E34DBA1	36.3275861	-90.5214361	285	121.00	88.82	73.40%	31.69	32.05		32.18		0.13	0.49
Clay	20N08E22BDC1	36.35316389	-90.2056139	276	38.00	31.41	82.66%	8.10	7.30	5.48	6.59	1.11	0.71	1.51
Clay	20N08E24DDA1	36.34919444	-90.1593278	276	56.00	48.26	86.18%	9.43		9.06	7.74	1.32		1.69
Clay	20N09E09ABC1	36.38506156	-90.1117626	279	86.00	81.43	94.69%	5.40	6.60	5.08	4.57	0.51	2.03	0.83
Clay	20N09E33DDC1	36.31784075	-90.1078734	270	105.00	98.28	93.60%	6.40	7.00	5.75	6.72	0.97	0.28	0.32
Clay	21N03E15CBC1	36.4625	-90.7480556	291	25.00	18.63	74.52%	10.80	7.80	9.2	6.37	2.83	1.43	4.43
Clay	21N04E09DBC1	36.47425	-90.6491889	297	55.00	46.56	84.65%	12.00	11.90		8.44		3.46	3.56
Clay	21N05E17ABB1	36.46595	-90.5581111	300	88.00	66.11	75.13%	24.36		21.39	21.89	0.50		2.47
Clay	21N06E28BB1	36.4347	-90.4355472	290	107.49	87.81	81.69%	19.90	19.40	19.84	19.68	0.16	0.28	0.22
Clay	21N07E01DDC1	36.4764481	-90.268713	303	97.00	79.19	81.64%	25.50	20.00	18.59	17.81	0.78	2.19	7.69
Clay	21N08E18CCC1	36.44745	-90.2642194	325	111.90	75.91	67.84%	43.03	35.98	35.63	35.99	0.36	0.01	7.04
Clay	21N09E31BDA1	36.4130611	-90.1478417	283	71.00	68.87	97.00%	5.20	4.90	2.11	2.13	0.02	2.77	3.07
						Avg % Saturated:	**83.29%**				**Wells in Decline:**	**6**	**3**	**4**
						Min % Saturated:	**73.40%**				**Total Wells:**	**20**	**20**	**20**
						Max % Saturated:	**97.32%**				**Average Change:**	**1.12**	**2.97**	**2.54**
Craighead	13N01E01BDC1	35.7863611	-90.9415	250	93.00	20.95	22.53%			71.01	72.05	1.04		
Craighead	13N01E23DAA1	35.74298889	-90.9516889	240	90.00	18.16	20.18%	74.07			71.84			2.23
Craighead	13N04E12ABB1	35.77658056	-90.6153889	232	106.00	81.87	77.24%	25.61	24.89	22.45	24.13	1.68	0.76	1.48
Craighead	13N04E15DBA1	35.7559099	-90.6492775	231	84.00	59.55	70.89%		25.21		24.45		0.76	
Craighead	13N04E26BCC1	35.7266	-90.6434389	225	78.00	51.55	66.09%	27.50	28.20		26.45		1.75	1.05
Craighead	13N05E02CCC1	35.78063056	-90.53545	229	105.00	90.81	86.49%	15.00	14.60		14.19		0.41	0.81
Craighead	13N05E06DCC1	35.7777	-90.5975306	231	108.00	86.98	80.54%		22.61		21.02		1.59	
Craighead	13N05E24BAC1	35.7469611	-90.51025	226	99.00	89.35	90.25%	10.00	11.07		9.65		1.42	0.35
Craighead	13N07E02CAB1	35.77623889	-90.3177	227	121.00	116.07	95.93%	10.00	5.16		4.93		0.23	5.07
Craighead	13N07E05ABB1	35.78808889	-90.3658194	229	108.00	101.13	93.64%	7.30	7.34		6.87		0.47	0.43
Craighead	14N01E03ACB1	35.87951846	-90.9712313	249	104.00	47.48	45.65%	55.50	57.02		56.52		0.50	1.02
Craighead	14N01E10BAB1	35.86785204	-90.9745648	246	104.00	46.72	44.92%	59.40	57.51		57.28		0.23	2.12
Craighead	14N01E21BB2	35.8395361	-90.9993528	252	102.00	39.47	38.70%				62.53			
Craighead	14N02E16BCD1	35.81005556	-90.821375	269	97.00	17.37	17.91%			79.15	79.63	0.48		
Craighead	14N02E27AAA1	35.82102778	-90.8568056	255	108.00	24.54	22.72%	85.16	84.85	83.39	83.46	0.07	1.39	1.70
Craighead	14N05E36BAD1	35.80489167	-90.5086056	230	105.00	62.09	59.13%			41.87	42.91	1.04		
Craighead	14N06E06BAA1	35.8777611	-90.4937111	243	96.00	73.36	76.42%	21.00	22.22		22.64		0.42	1.64
Craighead	14N07E14DDC1	35.83143056	-90.30955	232	117.00	109.00	93.16%	14.50			8			6.50
Craighead	15N06E20DDD1	35.9070083	-90.460875	235	87.20	80.80	92.66%	9.73	7.16	7.48	6.4	1.08	0.76	3.33

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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:	**64.31%**				**Wells in Decline:**	**5**	**1**	**2**
						Min % Saturated:	**17.91%**				**Total Wells:**	**6**	**14**	**14**
						Max % Saturated:	**95.93%**				**Average Change:**	**0.54**	**1.30**	**1.92**
Crittenden	05N07E04CC1	35.0744361	-90.3557833	200	115.00	105.10	91.39%				9.9			
Crittenden	05N07E28CBA1	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	05N07E34BAB1	35.0164972	-90.3416278	203	136.18	129.86	95.36%	14.36	17.16	11.42	6.32	5.10	10.84	8.04
Crittenden	05N07E34CDD1	35.00906944	-90.3335917	205	135.00	104.41	77.34%		13.30		30.59		17.29	
Crittenden	06N07E13BAA1	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	07N06E24DCC1	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	07N07E31CCC1	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	07N08E04BBD1	35.25596944	-90.2409278	224	138.00	121.10	87.75%				16.9			
Crittenden	08N06E01DCC1	35.336425	-90.4107361	217	122.00	91.26	74.80%		40.00		30.74		9.26	
Crittenden	08N06E26BBA1	35.2936111	-90.4311111	211	124.00	92.09	74.27%		35.47	32.9	31.91	0.99	3.56	
Crittenden	08N07E32DAA1	35.27009167	-90.36215	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	09N07E10DDA1	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	27.5	0.75	2.74	
Crittenden	09N07E31BAB1	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	09N08E17ABA1	35.40879444	-90.2549667	223	139.00	108.81	78.28%				30.19			
						Avg % Saturated:	**83.21%**				**Wells in Decline:**	**6**	**2**	**0**
						Min % Saturated:	**74.27%**				**Total Wells:**	**10**	**13**	**8**
						Max % Saturated:	**99.01%**				**Average Change:**	**0.68**	**3.02**	**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	86.72	0.18		2.58
Cross	07N05E25ABA1	35.20801944	-90.5124417	205	143.00	108.54	75.90%	38.28	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	09N01E33BBA2	35.3674333	-91.0001667	225	148.00	57.60	38.92%				90.4			
Cross	09N02E20AAA1	35.39372778	-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:	**53.16%**				**Wells in Decline:**	**1**	**0**	**2**
						Min % Saturated:	**20.44%**				**Total Wells:**	**7**	**5**	**6**
						Max % Saturated:	**82.25%**				**Average Change:**	**4.35**	**7.93**	**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		4.8	7.28	2.48		0.71
Desha	09S01W08BDA1	33.93543889	-91.2094806	156	137.00	113.86	83.11%	23.40		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	41	0.15		7.60
Desha	09S03W13BAB1	33.9168	-91.3228722	157	130.00	107.30	82.54%	36.50		28.95	22.7	6.25		13.80
Desha	09S03W17DCB1	33.9133972	-91.4157389	155.08	137.00	100.02	73.01%	37.38		36.86	36.98	0.12		0.40
Desha	10S01W23CDA1	33.8775861	-91.1789806	152	140.00	120.77	86.26%	23.00		26.13	19.23	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		40.17	40.51	0.34		0.96
Desha	10S04W11DDA1	33.8420361	-91.4671333	156	133.00	95.50	71.80%	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		

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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	1.14		0.30
Desha	11S03W16CBA1	33.74427778	-91.4093889	143	117.00	74.98	64.09%	36.00		35.82	42.02	6.20		6.02
Desha	11S03W31BBA1	33.70783889	-91.4475278	151	113.00	80.46	71.20%	35.95			32.54			3.41
Desha	13S02W27CAC1	33.5399972	-91.2929889	138	89.00	56.35	63.31%	33.92		32.87	32.65	0.22		1.27
Desha	13S03W11CAB1	33.58427754	-91.3781742	142	93.00	31.12	33.46%	56.40		62.15	61.88	0.27		5.48
						Avg % Saturated:	**72.97%**				**Wells in Decline:**	**6**	**0**	**7**
						Min % Saturated:	**33.46%**				**Total Wells:**	**16**	**3**	**16**
						Max % Saturated:	**95.05%**				**Average Change:**	**0.44**	**5.06**	**1.39**
Drew	11S04W08DBA1	33.7634611	-91.5377806	161	124.00	95.69	77.17%			28.35	28.31	0.04		
Drew	11S04W35CDD1	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	11S05W08CCC1	33.7629111	-91.6436556	185	143.00	103.98	72.71%	38.52		35.77	39.02	3.25		0.50
Drew	12S04W03ABB1	33.69275556	-91.4961472	153	114.00	90.86	79.70%	27.20		26.79	23.14	3.65		4.06
Drew	13S04W32BAD1	33.52508889	-91.5327722	134	87.00	73.40	84.37%			15.18	13.6	1.58		
Drew	13S04W33BAA1	33.53491389	-91.5173472	138	89.00	73.33	82.39%			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
						Avg % Saturated:	**78.10%**				**Wells in Decline:**	**3**	**0**	**1**
						Min % Saturated:	**72.71%**				**Total Wells:**	**7**	**2**	**4**
						Max % Saturated:	**84.37%**				**Average Change:**	**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	16N03E20CDA1	35.99916667	-90.795	257	109.32	72.36	66.19%		37.00	32.39	36.96	4.57	0.04	
Greene	16N06E03CCC1	36.0396083	-90.44055	258	65.00	16.75	25.77%		64.37	79.89	48.25	31.64	16.12	
Greene	16N06E21BAA1	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	16N06E28ABB1	35.99376944	-90.4487611	250	83.00	50.85	61.27%		27.19	24.73	32.15	7.42	4.96	
Greene	17N03E02BDB1	36.14233056	-90.7363389	267	122.00	87.36	71.61%	35.30		34.15	34.64	0.49		0.66
Greene	17N03E02DCC1	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	17N03E32CDC1	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	17N04E28DAA1	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	17N04E30CDC1	36.0694083	-90.7048583	267	127.00	83.49	65.74%			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	10	5.75		
Greene	17N06E11DA1	36.118175	-90.4065389	255	106.00	69.31	65.39%				36.69			
Greene	17N06E15ABC1	36.10886944	-90.4299306	269	106.31	76.56	72.02%	36.10	30.50	29.6	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	17N07E03CCC1	36.1271083	-90.290775	245.35	116.00	109.59	94.47%	6.30	5.10	6.91	6.41	0.50	1.31	0.11
Greene	17N07E18ABB1	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	18N03E24ACA1	36.18900278	-90.7022306	271	135.13	100.58	74.43%	36.50	35.00	33.22	34.55	1.33	0.45	1.95
Greene	18N04E04AAC1	36.23661944	-90.6465889	275	128.00	92.98	72.64%			54.04	35.02	19.02		
Greene	18N06E26CD2	36.1584	-90.4036889	266	119.00	96.38	80.99%			21.98	22.62	0.64		
Greene	18N07E05DAB1	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	18N07E17BAB1	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	19N03E33DDD1	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
						Avg % Saturated:	**72.84%**				**Wells in Decline:**	**15**	**4**	**5**
						Min % Saturated:	**11.56%**				**Total Wells:**	**24**	**18**	**15**
						Max % Saturated:	**96.57%**				**Average Change:**	**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	12N04W10BBC	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		12.43	

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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:	**87.44%**				**Wells in Decline:**	**2**	**2**	**0**
						Min % Saturated:	**78.95%**				**Total Wells:**	**4**	**5**	**1**
						Max % Saturated:	**98.70%**				**Average Change:**	**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	1.63		1.09
Jackson	11N01W11CBB1	35.5972222	-91.0744444	233	150.00	93.29	62.19%			56.22	56.71	0.49		
Jackson	11N01W26AAD1	35.55826944	-91.0564472	230	138.36	66.07	47.75%	70.59	73.05	72.96	72.29	0.67	0.76	1.70
Jackson	11N03W05CAB1	35.61535705	-91.3356854	225	128.83	121.34	94.19%			7.53	7.49	0.04		
Jackson	12N01W11CBB1	35.6909112	-91.071234	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	0.28		0.81
Jackson	13N03E35AAA1	35.72481667	-91.270375	237	84.00	73.63	87.65%			8.79	10.37	1.58		
Jackson	14N01W09AAA1	35.8723222	-91.0875444	255	97.00	51.49	53.08%	45.35	44.90	44.7	45.51	0.81	0.61	0.16
Jackson	14N02W22BBC1	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%**				**Wells in Decline:**	**7**	**1**	**3**
						Min % Saturated:	**47.75%**				**Total Wells:**	**10**	**4**	**4**
						Max % Saturated:	**94.19%**				**Average Change:**	**0.80**	**1.41**	**0.53**
Jefferson	03S09W29CBD1	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		14.86	2.24
Jefferson	04S07W35DDB1	34.3095611	-91.7294806	184	104.00	72.46	69.67%	30.60	31.00		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	0.72		2.53
Jefferson	05S06W31BAD1	34.2247222	-91.6983333	188	112.00	97.60	87.14%			10.25	14.4	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%**				**Wells in Decline:**	**3**	**1**	**2**
						Min % Saturated:	**63.49%**				**Total Wells:**	**5**	**3**	**6**
						Max % Saturated:	**87.14%**				**Average Change:**	**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		0.61	3.56
Lawrence	15N01E32BAA1	35.89788056	-91.0081	253	120.00	62.79	52.33%	55.45		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	1.59	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	10.99	12.33	1.34	1.99	
Lawrence	17N02E04DCA1	36.13308889	-90.8732389	272	145.12	101.15	69.70%		47.15	45.08	43.97	1.11	3.18	
Lawrence	17N02E25CBD1	36.0747222	-90.8308333	267	132.21	86.37	65.33%		46.00	44.66	45.84	1.18	0.16	
						Avg % Saturated:	**67.98%**				**Wells in Decline:**	**6**	**1**	**4**
						Min % Saturated:	**46.00%**				**Total Wells:**	**8**	**7**	**4**
						Max % Saturated:	**93.42%**				**Average Change:**	**0.45**	**2.73**	**1.68**
Lee	01N01E04AAB1	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	01N01E09CCC1	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	94.72%	15.50	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		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		
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	2.90
Lee	02N01E29AA1	34.76205	-91.0186917	194	142.00	88.52	62.34%				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
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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)
Lee	02N02E08ADC1	34.80203889	-90.8940972	207	154.00	107.93	70.08%	46.35	50.62	47	46.07	0.93	4.55	0.28
Lee	02N02E36DDC1	34.7320422	-90.8390026	205	149.00	137.10	92.01%	36.00	38.00	26.5	11.9	14.60	26.10	24.10
Lee	02N03E09DDD1	34.7898189	-90.7853898	220	157.00	85.70	54.59%	49.60	51.50	47.7	71.3	23.60	19.80	21.70
Lee	02N03E29CAD1	34.75009757	-90.8128907	220	158.00	106.40	67.34%	47.00	48.00	39	51.6	12.60	3.60	4.60
Lee	02N04E15DAC1	34.77686944	-90.6639972	192	132.00	114.06	86.41%	17.14			17.94			0.80
Lee	03N01E10BBB1	34.89423377	-90.9963688	208	153.00	77.50	50.65%			75.6	75.5	0.10		
Lee	03N01E15CCB1	34.8683333	-90.9963889	205	150.00	80.52	53.68%	66.48	71.20	69.56	69.48	0.08	1.72	3.00
Lee	03N01E17ADC1	34.87287296	-91.016786	200	153.00	102.15	66.76%				50.85			
Lee	03N01E32BCC1	34.83092918	-91.0306752	200	157.00	110.40	70.32%	69.50	76.00	70.2	46.6	23.60	29.40	22.90
Lee	03N02E12CDC1	34.87703927	-90.8476139	213	156.00	108.90	69.81%	45.00		46.6	47.1	0.50		2.10
Lee	03N02E13BBA1	34.87705556	-90.8520333	212	156.00	105.81	67.83%	50.22	53.31	47.75	50.19	2.44	3.12	0.03
Lee	03N02E21CBC1	34.853151	-90.9078937	209	153.00	94.90	62.03%	56.50	62.00	59.3	58.1	1.20	3.90	1.60
Lee	03N02E27BA3	34.84440114	-90.884504	208	151.00	124.20	82.25%			50.3	26.8	23.50		
Lee	03N02E29DAD1	34.83711667	-90.9082722	205	149.00	98.44	66.07%	46.51	49.18		50.56		1.38	4.05
Lee	03N03E18DAB1	34.86842829	-90.8220576	196	135.00	107.24	79.44%	27.00	36.50		27.76		8.74	0.76
Lee	03N03E32CAB1	34.8257361	-90.8239528	214	159.00	110.89	69.74%	48.99	52.30		48.11		4.19	0.88
Lee	03N04E07CBB1	34.8792614	-90.7201098	200	169.00	144.80	85.68%	16.00	22.00	19.9	24.2	4.30	2.20	8.20
Lee	03N05E14DDA1	34.86335556	-90.5342361	195	142.00	129.91	91.49%	11.57	13.56	11.63	12.09	0.46	1.47	0.52
						Avg % Saturated:	**74.71%**				**Wells in Decline:**	**12**	**4**	**11**
						Min % Saturated:	**50.65%**				**Total Wells:**	**21**	**21**	**23**
						Max % Saturated:	**94.72%**				**Average Change:**	**1.04**	**5.95**	**2.62**
Lincoln	07S06W03CCA2	34.13763056	-91.6874111	187	114.30	97.51	85.31%	16.00		9.65	16.79	7.14		0.79
Lincoln	08S04W06ABD1	34.0602972	-91.5212278	173	101.50	89.76	88.43%	12.00	19.10	18	11.74	6.26	7.36	0.26
Lincoln	08S07W05DDD1	34.050225	-91.8174222	190	130.00	102.16	78.58%	31.10		27.43	27.84	0.41		3.26
Lincoln	09S05W14ABC1	33.93139444	-91.5775222	172.5	148.00	104.99	70.94%	41.95		42.68	43.01	0.33		1.06
Lincoln	09S05W17BCB1	33.9309972	-91.638875	172	133.00	91.62	68.89%	40.96		46.76	41.38	5.38		0.42
Lincoln	09S06W04BCD1	33.97260556	-91.7293972	181	119.00	76.04	63.90%	43.21		43.32	42.96	0.36		0.25
Lincoln	10S05W05BCB1	33.87444444	-91.6425	171	133.00	104.32	78.44%	28.23	30.71	28.04	28.68	0.64	2.03	0.45
Lincoln	10S05W06DCC1	33.8653611	-91.6522111	173	133.00	102.83	77.32%	29.82		30.21	30.17	0.04		0.35
						Avg % Saturated:	**76.48%**				**Wells in Decline:**	**4**	**0**	**5**
						Min % Saturated:	**63.90%**				**Total Wells:**	**8**	**2**	**8**
						Max % Saturated:	**88.43%**				**Average Change:**	**0.44**	**4.70**	**0.09**
Lonoke	01N09W07DAA1	34.72539107	-92.0076414	240.47	123.00	79.72	64.81%		44.77	42.34	43.28	0.94	1.49	
Lonoke	01N09W13DAB1	34.70976944	-91.9213917	226	98.00	16.36	16.69%	84.53		81.3	81.64	0.34		2.89
Lonoke	01N10W15CDA1	34.7099833	-92.0704306	244.89	124.00	105.50	85.08%	24.00		16.78	18.5	1.72		5.50
Lonoke	01S06W31ABB1	34.58316389	-91.6920778	203	117.00	38.26	32.70%	79.94		79.31	78.74	0.57		1.20
Lonoke	01S07W12ABA1	34.64286389	-91.7082889	207	128.00	37.92	29.63%	81.82		89.11	90.08	0.97		8.26
Lonoke	01S07W19DDB1	34.6025	-91.7961111	206	116.00	27.87	24.03%	86.98	91.97	86.88	88.13	1.25	3.84	1.15
Lonoke	01S08W24CDD1	34.60156667	-91.8201028	210	115.00	30.99	26.95%	83.64		82.56	84.01	1.45		0.37
Lonoke	01S09W02DDD1	34.6493111	-91.9392	230	118.00	38.32	32.47%	83.00	81.01	79.94	79.68	0.26	1.33	3.32
Lonoke	01S09W03CDC2	34.6493111	-91.9393111	230	118.00	37.40	31.69%			79.39	80.6	1.21		
Lonoke	01S09W36CCC1	34.576475	-91.9386056	220	115.00	53.84	46.82%			61.31	61.16	0.15		
Lonoke	01S10W01ACB1	34.65745556	-92.0374889	236	120.00	80.04	66.70%	43.47		39.44	39.96	0.52		3.51
Lonoke	01S10W11CAB1	34.6447222	-92.0602778	236	117.00	90.05	76.97%		30.02	25.47	26.95	1.48	3.07	
Lonoke	02N08W16ABC1	34.8018	-91.8537806	234	143.00	15.81	11.06%	126.87		126.16	127.19	1.03		0.32
Lonoke	02N08W23CAB1	34.77952778	-91.8294167	231	130	3.29	-2.53%	135	136.11	133.02	133.29	0.27	2.82	1.71
Lonoke	02N08W27DCC1	34.76194444	-91.8516667	230	135.00	2.30	1.70%	131.96		131.18	132.7	1.52		0.74
Lonoke	02N10W23BCA1	34.7903472	-92.0561528	241	132.00	115.82	87.74%	11.46		15.74	16.18	0.44		4.72
Lonoke	02S08W06AAB1	34.575	-91.9130556	221	118.00	53.03	44.94%	68.55	70.08	64.82	64.97	0.15	5.11	3.58
Lonoke	02S08W28CDC	34.50194444	-91.8769444	216	119.00	55.87	46.95%	62.93	65.62	62.62	63.13	0.51	2.49	0.20
Lonoke	02S08W34DBB1	34.5008222	-91.8638194	214	119.00	52.07	43.76%	68.14		55.57	66.93	11.36		1.21
Lonoke	02S09W30CDD1	34.5039833	-92.0211139	228	115.00	77.23	67.16%	38.91		38.12	37.77	0.35		1.14
Lonoke	02S09W35AB1	34.50288056	-91.9482	217.69	116.00	63.33	54.59%			52.81	52.67	0.14		
Lonoke	03N07W08BDB1	34.90183889	-91.7773	250	162.00	58.08	35.85%	99.69	98.77	103.43	103.92	0.49	5.15	4.23

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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	03N07W35CDC2	34.83254444	-91.7255861	232	145.00	24.12	16.63%	121.76		120.48	120.88	0.40		0.88
Lonoke	03N08W03BAA1	34.92181667	-91.8482	260	194.00	87.74	45.23%	101.10	104.85	106.2	106.26	0.06	1.41	5.16
Lonoke	03N08W03CCC1	34.90829444	-91.8564444	260	180.00	67.45	37.47%	107.52	110.91	113.07	112.55	0.52	1.64	5.03
Lonoke	03N08W08ABA1	34.90749444	-91.8799639	258	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	34.90029444	-91.8396611	248	182.00	80.26	44.10%	97.14	102.10	101.61	101.74	0.13	0.36	4.60
Lonoke	03N08W11ACA1	34.9035333	-91.8261833	257	172.00	61.94	36.01%	104.72	107.28	110.01	110.06	0.05	2.78	5.34
Lonoke	03N08W29BBB1	34.8630833	-91.8924472	249	188.00	73.63	39.16%	113.58	115.09	114.76	114.37	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	-91.8811167	250	189.20	67.45	35.65%	120.78	122.80	121.54	121.75	0.21	1.05	0.97
Lonoke	04N08W15BCB2	34.9758111	-91.8559028	224	144.00	109.96	76.36%	34.54		34.17	34.04	0.13		0.50
Lonoke	04N08W16DCC1	34.96590556	-91.8650056	234	163.00	112.18	68.82%	47.80		50.18	50.82	0.64		3.02
Lonoke	04N08W28CAC1	34.93896389	-91.87105	234	164.00	102.11	62.26%	56.79		61.71	61.89	0.18		5.10
Lonoke	04N08W28CCC1	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	04N08W33ACD1	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		15.86	7.71
Lonoke	04N08W33ADD1	34.92952778	-91.8570833	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	-91.8206722	259	184.00	85.20	46.30%	95.06	99.41	99.11	98.8	0.31	0.61	3.74
						Avg % Saturated:	**43.88%**				**Wells in Decline:**	**28**	**9**	**24**
						Min % Saturated:	**-2.53%**				**Total Wells:**	**41**	**24**	**37**
						Max % Saturated:	**85.08%**				**Average Change:**	**0.53**	**1.55**	**1.22**
Mississippi	10N08E22ABA2	35.48085	-90.2226889	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	11N10E09BCB1	35.5914583	-90.03435	236.14	149.00	130.09	87.31%			17.43	18.91	1.48		
Mississippi	12N08E08BCB1	35.67973889	-90.2664583	225	134.35	124.65	92.78%	9.64	10.86	11.47	9.7	1.77	1.16	0.06
Mississippi	12N08E28DDB1	35.62005	-90.2318	227	138.00	112.31	81.38%			22.81	25.69	2.88		
Mississippi	12N09E12ABC1	35.68195	-90.0806306	232	151.00	129.27	85.61%			20.81	21.73	0.92		
Mississippi	12N10E04CAA1	35.6882111	-90.0268389	233	150.00	136.14	90.76%			13.09	13.86	0.77		
Mississippi	12N10E21DBA1	35.64507899	-90.022867	236	146.00	125.71	86.10%			18.71	20.29	1.58		
Mississippi	14N08E12DAB1	35.8511583	-90.1810944	236	166.00	163.61	98.56%	6.12	6.91	5.21	2.39	2.82	4.52	3.73
Mississippi	14N08E20DAA1	35.82313889	-90.2533389	225	134.00	133.21	99.41%				0.79			
Mississippi	14N08E26CC1	35.80076944	-90.2092194	228	150.00	147.31	98.21%			8.43	2.69	5.74		
Mississippi	14N10E18ABC1	35.83935	-90.0626694	239	119.00	105.96	89.04%	12.96			13.04			0.08
Mississippi	14N11E17CCB1	35.8324111	-89.945	240	151.00	146.57	97.07%				4.43			
Mississippi	14N11E33CAA1	35.78911667	-89.9227889	243	150.00	136.51	91.01%			12.86	13.49	0.63		
Mississippi	15N08E08DBC2	35.9346111	-90.2573111	238	179.00	169.76	94.84%	11.24	10.94	10.26	9.24	1.02	1.70	2.00
Mississippi	15N10E21BBD1	35.91234444	-90.031325	239	122.00	114.73	94.04%			9.12	7.27	1.85		
Mississippi	15N12E01BCD1	35.95148889	-89.7669889	255	140.00	132.90	94.93%			8.6	7.1	1.50		
Mississippi	16N10E28BBD1	35.9850361	-90.0322306	238	138.00	127.08	92.09%	12.78		12.69	10.92	1.77		1.86
Mississippi	16N11E23AAD1	35.996325	-89.8753778	256	151.00	139.59	92.44%	13.57	11.84	11.81	11.41	0.40	0.43	2.16
						Avg % Saturated:	**91.52%**				**Wells in Decline:**	**8**	**0**	**3**
						Min % Saturated:	**81.38%**				**Total Wells:**	**16**	**6**	**8**
						Max % Saturated:	**99.41%**				**Average Change:**	**0.41**	**1.55**	**1.02**
Monroe	01N01W15DBC1	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	-91.1755278	182	142.00	99.99	70.42%	42.76	45.27	42.71	42.01	0.70	3.26	0.75
Monroe	01N04W33BBB2	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	01S01W18DCD1	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	34.60352778	-91.2489167	171	138.87	131.01	94.34%	9.68	11.80	4.35	7.86	3.51	3.94	1.82
Monroe	01S04W01BAB1	34.65162778	-91.3879806	214	147.00	74.83	50.90%	74.73	76.32		72.17		4.15	2.56
Monroe	02N01W19BBA1	34.779225	-91.1534611	192	152.00	90.26	59.38%	56.34	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%	6.80	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 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)
Monroe	03N02W31ADC1	34.83285556	-91.2464444	190	131.00	93.73	71.55%	38.27	40.72		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		9.25	12.12
						Avg % Saturated:	**72.12%**				**Wells in Decline:**	**4**	**2**	**2**
						Min % Saturated:	**37.98%**				**Total Wells:**	**8**	**11**	**11**
						Max % Saturated:	**95.48%**				**Average Change:**	**0.11**	**2.68**	**0.36**
Phillips	01S02E09CBB1	34.62186944	-90.9094611	185	142.79	134.20	93.98%			17.2	8.59	8.61		
Phillips	01S03E02CBB1	34.6358333	-90.7677778	202	139.00	129.41	93.10%		23.43	8.6	9.59	0.99	13.84	
Phillips	01S04E05DCD1	34.63398865	-90.6976094	246	146.90	100.72	68.56%	48.50	52.60	41.3	46.18	4.88	6.42	2.32
Phillips	02S01E28CCB1	34.48788056	-91.0161611	174	141.00	127.12	90.16%	17.37	18.38		13.88		4.50	3.49
Phillips	02S03E15ACD1	34.5194333	-90.7726333	174	150.65	141.58	93.98%		16.12	9.13	9.07	0.06	7.05	
Phillips	02S03E34BCD1	34.47454594	-90.7815004	165	122.44	106.01	86.58%	8.50	21.60	10.52	16.43	5.91	5.17	7.93
Phillips	02S04E27AAC1	34.49210278	-90.6669694	180	85.78	78.50	91.51%		10.86	4.2	7.28	3.08	3.58	
Phillips	03S03E04DAA1	34.45958889	-90.7860917	171	116.00	99.37	85.66%	19.53	22.39	16.21	16.63	0.42	5.76	2.90
Phillips	04S01E01AAD1	34.37732429	-90.9501129	156	121.49	108.00	88.90%	14.00	15.00	8.5	13.49	4.99	1.51	0.51
						Avg % Saturated:	**88.05%**				**Wells in Decline:**	**6**	**0**	**1**
						Min % Saturated:	**68.56%**				**Total Wells:**	**8**	**8**	**5**
						Max % Saturated:	**93.98%**				**Average Change:**	**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	10N01E16CCB1	35.4894083	-91.0014861	225	141.00	58.04	41.16%	80.99	82.02		82.96		0.94	1.97
Poinsett	10N02E15CAA1	35.49452635	-90.8692828	237	147.00	29.64	20.16%	112.00	113.00		117.36		4.36	5.36
Poinsett	10N02E34BBB1	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	10N04E35BBA1	35.46355	-90.6415389	212	53.00	42.35	79.91%	15.00			10.65			4.35
Poinsett	10N06E11AAA1	35.51096944	-90.4129611	213	98.00	91.65	93.52%		15.27	7.46	6.35	1.11	8.92	
Poinsett	11N01E17DDC1	35.57702468	-91.00428709	232	141.00	53.00	37.59%	83.30	85.50		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	11N02E30BBB1	35.5645249	-90.9278959	239	144.00	29.32	20.36%	108.00	110.00		114.68		4.68	6.68
Poinsett	11N03E19CD1 A-11	35.570175	-90.8115694	243	127.00	8.90	7.01%				118.1			
Poinsett	11N03E26DA1 A-1	35.55703889	-90.84035	240	140.00	20.28	14.49%				119.72			
Poinsett	11N04E13DDA1	35.5803583	-90.6083	213	69.00	53.07	76.91%	15.50	14.00		15.93		1.93	0.43
Poinsett	11N05E26BDB1	35.55563889	-90.5331611	213	91.00	79.00	86.81%	13.50	9.50		12		2.50	1.50
Poinsett	11N06E34BBC1	35.54	-90.4461111	217	93.00	80.97	87.06%	12.36		12.75	12.03	0.72		0.33
Poinsett	11N07E18CAB1	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	-90.3229111	221	115.90	90.55	78.13%		26.54	22.95	25.35	2.40	1.19	
Poinsett	11N07E28CBB1	35.5475	-90.3555556	217	109.00	88.53	81.22%	23.50			20.47			3.03
Poinsett	12N02E34CCC1	35.62457778	-90.8747833	247	121	7.94	-6.56%	122	128		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		1.16	1.84
Poinsett	12N07E04BAA1	35.6970611	-90.35605	220	113.00	108.72	96.21%	7.16	6.66	6.44	4.28	2.16	2.38	2.88
Poinsett	12N07E10CBB1	35.67891944	-90.3455389	221	116.00	112.95	97.37%	10.00			3.05			6.95
Poinsett	12N07E25CCD1	35.62781944	-90.30055	225	124.00	106.05	85.52%	17.11			17.95			0.84
						Avg % Saturated:	**56.93%**				**Wells in Decline:**	**3**	**11**	**10**
						Min % Saturated:	**-6.56%**				**Total Wells:**	**8**	**15**	**18**
						Max % Saturated:	**97.37%**				**Average Change:**	**1.79**	**0.61**	**1.10**
Prairie	01N06W05CCB1	34.73138056	-91.6803	220	157.04	39.30	25.03%	118.61	119.34	117.22	117.74	0.52	1.60	0.87
Prairie	01S04W28BDB1	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	01S06W12BAB1	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	02N04W02BCB1	34.8211972	-91.4051694	189	109.00	94.36	86.57%	15.67		12.98	14.64	1.66		1.03
Prairie	02N05W24BCA3	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	02N05W24CBB1	34.7779111	-91.4965694	225	144.00	45.54	31.63%			98.45	98.46	0.01		
Prairie	02N06W22BCC1 ne	34.7813333	-91.6409444	235	153.00	39.28	25.67%			114.23	113.72	0.51		
Prairie	02N06W24CAA1	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	04N04W07ADC1	34.98064167	-91.4591861	195	92.00	72.31	78.60%	20.24	23.02		19.69		3.33	0.55

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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	04N05W07CDC1	34.97850556	-91.5780333	211	112.00	33.12	29.57%	79.42	78.56	77.71	78.88	1.17	0.32	0.54
Prairie	04N07W03DCB1	34.9956472	-91.7365194	256	155.00	64.96	41.91%	88.59	89.97	89.72	90.04	0.32	0.07	1.45
Prairie	04N07W20DDB1	34.95256389	-91.7686861	264	174.50	68.75	39.40%	102.87		105.59	105.75	0.16		2.88
						Avg % Saturated:	**38.94%**				**Wells in Decline:**	**7**	**2**	**3**
						Min % Saturated:	**20.30%**				**Total Wells:**	**12**	**9**	**11**
						Max % Saturated:	**86.57%**				**Average Change:**	**0.10**	**2.46**	**0.75**
Pulaski	01N10W29DC1	34.68033889	-92.10205	246	121.00	105.13	86.88%				15.87			
Pulaski	01S10W19CDC1	34.60848889	-92.1307389	239	102.00	80.95	79.36%				21.05			
Pulaski	01S10W29CC1	34.59382778	-92.1187944	239	102.00	88.65	86.91%	13.26		10.93	13.35	2.42		0.09
Pulaski	01S11W22AB1	34.61998889	-92.1816083	233	97.00	75.78	78.12%				21.22			
Pulaski	02S10W14DC1	34.53464167	-92.059375	225	109.20	89.30	81.78%	23.80	21.17	19.48	19.9	0.42	1.27	3.90
						Avg % Saturated:	**82.61%**				**Wells in Decline:**	**2**	**0**	**1**
						Min % Saturated:	**78.12%**				**Total Wells:**	**2**	**1**	**2**
						Max % Saturated:	**86.91%**				**Average Change:**	**1.42**	**1.27**	**1.91**
Randolph	18N01E11CCC1	36.2088972	-90.953825	266.03	29.00	11.43	39.41%	13.00		16.34	17.57	1.23		4.57
Randolph	18N01E16ABA1	36.2084111	-90.9766833	263	25.00	12.71	50.84%	13.00		12	12.29	0.29		0.71
Randolph	18N01E21CD1	36.17975	-90.9812306	264.31	25.00	9.91	39.64%	15.50		13.79	15.09	1.30		0.41
Randolph	18N01E34AAC1	36.1618583	-90.9580917	264	54.00	35.52	65.78%	16.16		17.55	18.48	0.93		2.32
Randolph	18N02E27BA1	36.1791611	-90.85675	274.02	116.00	76.22	65.71%	40.00		39.4	39.78	0.38		0.22
Randolph	18N02E30BA1	36.17867896	-90.9004385	276.33	93.00	56.49	60.74%				36.51			
Randolph	20N02E01ADD1	36.406725	-90.8031639	280	25.00	16.87	67.48%	10.85	6.85	9.67	8.13	1.54	1.28	2.72
Randolph	20N03E20DCD1	36.35776355	-90.7730059	278	141.05	133.64	94.75%			6.96	7.41	0.45		
Randolph	20N03E28BA1	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	20N03E29CBC1	36.34898889	-90.7778472	287	41.00	29.03	70.80%			11.4	11.97	0.57		
						Avg % Saturated:	**64.89%**				**Wells in Decline:**	**8**	**2**	**2**
						Min % Saturated:	**39.41%**				**Total Wells:**	**9**	**2**	**7**
						Max % Saturated:	**94.75%**				**Average Change:**	**0.44**	**0.80**	**0.10**
St. Francis	04N01W17CBC1	34.9597222	-91.1336111	205	140.00	69.13	49.38%		65.77	64.95	70.87	5.92	5.10	
St. Francis	04N01W20BBB1	34.95476944	-91.1337028	202	140.00	73.50	52.50%		62.12	62.65	66.5	3.85	4.38	
St. Francis	04N01W22BB1	34.9552472	-91.0962444	208	146.00	69.20	47.40%	73.83		79.7	76.8	2.90		2.97
St. Francis	04N01W28CDD1	34.9264611	-91.1093194	208	154.00	78.07	50.69%		78.48	73.84	75.93	2.09	2.55	
St. Francis	04N02E11AD1	34.9733722	-90.8535333	213	154.00	106.60	69.22%		48.18	47.47	47.4	0.07	0.78	
St. Francis	04N02E27AAA1	34.93520278	-90.8755278	211	155.00	105.40	68.00%		51.45	49.9	49.6	0.30	1.85	
St. Francis	04N10E20DA1	34.9461972	-91.0135833	204	149.00	72.20	48.46%			75.8	76.8	1.00		
St. Francis	05N01E06CDA1	35.08030278	-91.0327444	211	140.00	65.00	46.43%		77.20	83.8	75	8.80	2.20	
St. Francis	05N01E15BCB1	35.05071389	-90.9951139	209	142.00	67.69	47.67%	72.10	73.87		74.31		0.44	2.21
St. Francis	05N01E27BBA1	35.02659167	-90.9913278	209	144.55	68.14	47.14%		76.31	78.35	76.41	1.94	0.10	
St. Francis	05N02E20ADC1	35.0324722	-90.9103222	211	140.00	77.97	55.69%		61.83	65.4	62.03	3.37	0.20	
St. Francis	05N02E26AAB1	35.02315	-90.8557917	218	157.00	99.00	63.06%			56.4	58	1.60		
St. Francis	05N02E26CD1	35.0088861	-90.8703389	215	154.00	112.00	72.73%		53.11	55.6	42	13.60	11.11	
St. Francis	05N03E31AB2	35.0083861	-90.8263167	221	159.00	113.40	71.32%			53.6	45.6	8.00		
St. Francis	05N05E19DCA1	35.024325	-90.6084306	205	140.00	109.72	78.37%			28.73	30.28	1.55		
St. Francis	05N06E05BBB1	35.08486667	-90.489925	201	133.00	100.70	75.71%		40.87	33.14	32.3	0.84	8.57	
St. Francis	06N01E33AD1	35.09869167	-90.9952583	210	140.00	61.00	43.57%				79			
St. Francis	06N02E13DCA1	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	06N02E15BDD1	35.144975	-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	06N02E16CCC1	35.13591389	-90.90095	218	150.00	77.00	51.33%		74.22	82.02	73	9.02	1.22	
St. Francis	06N05E22ACC1	35.12315556	-90.5478361	200	141.00	105.36	74.72%	40.16			35.64			4.52
St. Francis	06N06E17DDC1	35.13035556	-90.4761556	202	136.00	106.50	78.31%		36.46		29.5		6.96	
St. Francis	06N06E20ABB2	35.12973889	-90.4781111	202	136.00	101.65	74.74%	37.51		33.83	34.35	0.52		3.16
						Avg % Saturated:	**59.62%**				**Wells in Decline:**	**9**	**7**	**4**
						Min % Saturated:	**43.57%**				**Total Wells:**	**19**	**15**	**6**
						Max % Saturated:	**78.37%**				**Average Change:**	**1.49**	**1.46**	**0.83**

Mississippi River Alluvial Aquifer
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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	-91.7433333	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	06N08W13ABA1	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:	**73.11%**				**Wells in Decline:**	**5**	**0**	**0**
						Min % Saturated:	**27.74%**				**Total Wells:**	**6**	**3**	**6**
						Max % Saturated:	**92.93%**				**Average Change:**	**0.35**	**1.55**	**2.32**
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	07N01W04ABB1	35.26538889	-91.102	226	136.00	71.42	52.51%	61.44		73.05	64.58	8.47		3.14
Woodruff	08N01W06DDD1	35.341125	-91.1290778	218	131.00	84.51	64.51%	43.49		44.49	46.49	2.00		3.00
Woodruff	08N03W04BBB1	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:	**68.81%**				**Wells in Decline:**	**6**	**1**	**5**
						Min % Saturated:	**50.32%**				**Total Wells:**	**7**	**1**	**7**
						Max % Saturated:	**89.28%**				**Average Change:**	**0.67**	**0.31**	**1.80**

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	238	286
Total Wells in Decline:	183	56	108
Percent of Total Wells in Decline:	55.12%	23.53%	37.76%
Total Average Change (ft):	0.60	2.66	1.05

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	02S05W36DDD1	34.4785	-91.48812	212	140	96.68	115.32	102.48	109.52	5.80
Arkansas	03S03W05CCD1	34.4603	-91.35884	203	160	97.32	105.68	101.54	101.46	4.22
Arkansas	03S03W18CCC1	34.4314	-91.38083	196	152.5	99.48	96.52	100.26	95.74	0.78
Arkansas	03S03W27BBC1	34.4152	-91.32891	198	120	90.77	107.23	92.2	105.8	1.43
Arkansas	03S04W02BBB1	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	03S05W03CCC1	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	07S03W32BBC1	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
									Wells in Decline:	**21**
									Total Wells:	**24**
									Average Change:	**2.12**
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
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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:	**10**
									Total Wells:	**11**
									Average Change:	**2.52**
Chicot	13S03W34CAA1	33.5265	-91.39328	134	75	38.45	95.55	39.73	94.27	1.28
Chicot	13S03W35BAC1	33.5317	-91.37931	133	90	40.32	92.68	42.12	90.88	1.80
Chicot	14S03W07BBD1	33.5031	-91.43889	137	77	27.09	109.91	27.77	109.23	0.68
Chicot	14S03W32CDB2	33.4371	-91.43096	134	100	39.91	94.09	41.94	92.06	2.03
Chicot	15S02W20DDC1	33.3741	-91.32218	126	85	34.95	91.05	36.69	89.31	1.74
Chicot	16S03W15DAD1	33.305	-91.39278	118	97.6	33.9	84.1	34.62	83.38	0.72
Chicot	17S01W06BCC1	33.2503	-91.25145	117	100	22.86	94.14	29.51	87.49	6.65
Chicot	17S02W25CBA1	33.1921	-91.25681	131	NA	36.91	94.09	39.31	91.69	2.40
Chicot	17S03W28DBA1	33.1907	-91.41151	110	95	24.5	85.5	25.7	84.3	1.20
Chicot	19S02W27ACC1	33.016	-91.29495	129	80	39.43	89.57	40.67	88.33	1.24
Chicot	19S02W27BDB1	33.0181	-91.29981	132	90	45.34	86.66	46.3	85.7	0.96
Chicot	19S03W14ABB1	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

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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
									Wells in Decline:	**22**
									Total Wells:	**22**
									Average Change:	**7.05**
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	)5E36BAD1 near Jonesbor	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
									Wells in Decline:	**26**
									Total Wells:	**28**
									Average Change:	**2.80**
Crittenden	05N07E28CBA1	35.0226	-90.36107	201	120	14.43	186.57	18.14	182.86	3.71

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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.)
Crittenden	05N07E34BAB1	35.0165	-90.34163	203	100	6.32	196.68	18.38	184.62	12.06
Crittenden	06N07E13BAA1	35.1471	-90.3021	207	130	18.27	188.73	21.32	185.68	3.05
Crittenden	07N07E31CCC1	35.1783	-90.39971	209	110	33.22	175.78	36.69	172.31	3.47
Crittenden	07N08E04BBD1	35.256	-90.24093	224	120	16.9	207.1	20.65	203.35	3.75
Crittenden	08N06E01DCC1	35.3364	-90.41074	217	120	30.74	186.26	33.1	183.9	2.36
Crittenden	08N06E26BB1	35.2936	-90.43111	211	120	31.91	179.09	33.85	177.15	1.94
Crittenden	08N07E32DAA1	35.2701	-90.36215	217	110	28.88	188.12	31.77	185.23	2.89
Crittenden	08N07E34BD1	35.3363	-90.27165	220	110	25.08	194.92	28.55	191.45	3.47
Crittenden	08N07E35BBC1	35.275	-90.32583	222	162	30.05	191.95	31.36	190.64	1.31
Crittenden	09N05E29DA1	35.3767	-90.48426	213.18	NA	28.71	184.47	32.42	180.76	3.71
Crittenden	09N07E02CDB1	35.4241	-90.32338	225	130	30.52	194.48	34.13	190.87	3.61
Crittenden	09N07E10DDA1	35.4132	-90.32351	219	60	27.24	191.76	31.26	187.74	4.02
Crittenden	09N07E20DCC1	35.3822	-90.36611	213	114	27.5	185.5	28.76	184.24	1.26
Crittenden	09N07E31BAB1	35.3666	-90.39071	221	110	31.82	189.18	33.99	187.01	2.17
									Wells in Decline:	**15**
									Total Wells:	**15**
									Average Change:	**3.52**
Cross	07N01E06ACC1	35.2632	-91.02625	221	NA	80.46	140.54	83.23	137.77	2.77
Cross	07N01E11AAA1	35.2503	-90.95147	217	120	84.61	132.39	88.1	128.9	3.49
Cross	07N02E02CDD1 CS1-SW19	35.2522	-90.85361	227	149.9	86.72	140.28	88.24	138.76	1.52
Cross	07N05E25ABA1	35.208	-90.51244	205	140	34.46	170.54	36.32	168.68	1.86
Cross	08N04E34DC1	35.263	-90.65735	207.05	NA	24.33	182.72	26.57	180.48	2.24
Cross	08N05E32ADD1	35.2755	-90.5779	206	NA	24.49	181.51	28.6	177.4	4.11
Cross	09N01E12CBB1	35.4181	-90.94806	228	147.8	101.45	126.55	103.52	124.48	2.07
Cross	09N01E33BBA2	35.3674	-91.00017	225	NA	90.4	134.6	91.81	133.19	1.41
Cross	09N05E32BDB1	35.364	-90.5867	213	NA	25.64	187.36	29.36	183.64	3.72
									Wells in Decline:	**9**
									Total Wells:	**9**
									Average Change:	**2.58**
Desha	08S03W33ABD1	33.9675	-91.39394	165.04	60	7.28	157.76	9.84	155.2	2.56
Desha	9S02W26DDC1 near Watsc	33.8824	-91.25823	149	97	26.18	122.82	30.65	118.35	4.47
Desha	09S03W17DCB1	33.9134	-91.41574	155.08	126	36.98	118.1	39.46	115.62	2.48
Desha	10S02W20ADA1	33.8211	-91.30694	147	93.8	42.62	104.38	45.18	101.82	2.56
Desha	10S04W03BAB1	33.8691	-91.49657	164	100	40.51	123.49	41.77	122.23	1.26
Desha	10S04W11DDA1	33.842	-91.46713	156	100	37.5	118.5	38.93	117.07	1.43
Desha	10S04W12CCB1	33.8467	-91.465	156	NA	37.4	118.6	38.84	117.16	1.44
Desha	11S03W31BBA1	33.7078	-91.44753	151	100	32.54	118.46	34.55	116.45	2.01

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Desha	13S02W27CAC1	33.54	-91.29299	138	120	32.65	105.35	34.92	103.08	2.27
									Wells in Decline:	**9**
									Total Wells:	**9**
									Average Change:	**2.28**
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
									Wells in Decline:	**8**
									Total Wells:	**8**
									Average Change:	**3.31**
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

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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.)
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
									Wells in Decline:	**20**
									Total Wells:	**25**
									Average Change:	**3.26**
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
									Wells in Decline:	**2**
									Total Wells:	**2**
									Average Change:	**11.05**
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
									Wells in Decline:	**9**
									Total Wells:	**11**
									Average Change:	**1.96**
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
									Wells in Decline:	**2**
									Total Wells:	**2**
									Average Change:	**3.05**
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

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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
									Wells in Decline:	**8**
									Total Wells:	**8**
									Average Change:	**2.68**
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
									Wells in Decline:	**9**
									Total Wells:	**11**
									Average Change:	**4.04**
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
									Wells in Decline:	**8**
									Total Wells:	**8**
									Average Change:	**2.26**
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

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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	02S08W34DBB1	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	3N08W32ABB1 UAPB Lono	34.8495	-91.88112	250	154	121.75	128.25	122.94	127.06	1.19
Lonoke	04N08W16DCC1	34.9659	-91.86501	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
									Wells in Decline:	**36**
									Total Wells:	**39**
									Average Change:	**2.69**

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Mississippi	10N08E22AB1	35.4808	-90.22254	228.12	NA	25.09	203.03	27.88	200.24	2.79
Mississippi	10N08E22AB2	35.4809	-90.22269	228.12	NA	24.79	203.33	27.24	200.88	2.45
Mississippi	11N09E34BBB1	35.5383	-90.12088	235	94	20.05	214.95	13.55	221.45	6.50
Mississippi	11N10E09BCB1	35.5915	-90.03435	236.14	110	18.91	217.23	23.68	212.46	4.77
Mississippi	12N08E08BCB1	35.6797	-90.26646	225	120	9.7	215.3	15.12	209.88	5.42
Mississippi	12N08E28DDB1	35.6201	-90.2318	227	120	25.69	201.31	31.32	195.68	5.63
Mississippi	12N09E12ABC1	35.682	-90.08063	232	120	21.73	210.27	34.65	197.35	12.92
Mississippi	12N10E04CAA1	35.6882	-90.02684	233	120	13.86	219.14	26.38	206.62	12.52
Mississippi	12N10E21DBA1	35.6451	-90.02287	236	110	20.29	215.71	27.02	208.98	6.73
Mississippi	13N08E24ABB1	35.7374	-90.18668	232	120	11.65	220.35	15.67	216.33	4.02
Mississippi	13N09E30CCC2	35.7154	-90.17756	223.12	110	13.04	210.08	23.4	199.72	10.36
Mississippi	13N10E20B 1	35.7383	-90.04882	229	120	7.68	221.32	26.94	202.06	19.26
Mississippi	14N08E04DD2	35.8589	-90.2351	231	110	3.98	227.02	8.62	222.38	4.64
Mississippi	14N08E12DAB1	35.8512	-90.18109	236	NA	2.39	233.61	10.22	225.78	7.83
Mississippi	14N08E20DAA1	35.8231	-90.25334	225	110	0.79	224.21	6.54	218.46	5.75
Mississippi	14N08E26CC1	35.8008	-90.20922	228	100	2.69	225.31	6.67	221.33	3.98
Mississippi	14N10E18ABC1	35.8394	-90.06267	239	101	13.04	225.96	25.81	213.19	12.77
Mississippi	14N10E26DC1	35.8042	-89.98544	234	120	6.48	227.52	4.24	229.76	2.24
Mississippi	14N10E27AD1	35.8093	-89.99922	233	120	5.27	227.73	3.23	229.77	2.04
Mississippi	14N11E17CCB1	35.8324	-89.945	240	120	4.43	235.57	19.29	220.71	14.86
Mississippi	14N11E33CAA1	35.7891	-89.92279	243	120	13.49	229.51	23.33	219.67	9.84
Mississippi	15N08E08DBC2	35.9346	-90.25731	238	120	9.24	228.76	14.25	223.75	5.01
Mississippi	15N08E32DD1	35.8739	-90.25279	228	110	2.97	225.03	8.19	219.81	5.22
Mississippi	15N10E21BBD1	35.9123	-90.03133	239	89	7.27	231.73	16.04	222.96	8.77
Mississippi	15N12E01BCD1	35.9515	-89.76699	255	100	7.1	247.9	16.83	238.17	9.73
Mississippi	16N08E35DA1	35.9674	-90.19906	239	100	6.13	232.87	12.92	226.08	6.79
Mississippi	16N10E28BBD1	35.985	-90.03223	238	120	10.92	227.08	20.46	217.54	9.54
Mississippi	16N11E23ADA1	35.9963	-89.87538	256	NA	11.41	244.59	16.44	239.56	5.03
									Wells in Decline:	**25**
									Total Wells:	**28**
									Average Change:	**6.64**
Monroe	01N01W15DBC1	34.6942	-91.095	185	126.5	51.5	133.5	55.73	129.27	4.23
Monroe	01N02W12CBC1	34.7118	-91.17553	182	110	42.01	139.99	43.74	138.26	1.73
Monroe	01S02W20BBB1	34.6035	-91.24892	171	100	7.86	163.14	11.42	159.58	3.56
Monroe	01S04W01BAB1	34.6516	-91.38798	214	160	72.17	141.83	75.58	138.42	3.41
Monroe	02N01W19BBA1	34.7792	-91.15346	192	75	61.74	130.26	58.8	133.2	2.94
Monroe	02S02W11DAC1	34.5358	-91.18349	164	110	5.78	158.22	11	153	5.22
Monroe	03N02W31ADC1	34.8329	-91.24644	190	95	37.27	152.73	38.98	151.02	1.71

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									Wells in Decline:	**6**
									Total Wells:	**7**
									Average Change:	**2.42**
Phillips	02S03E15ACD1 near Barto	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 Fishe	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-SW2	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
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.)
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	-91.5975	231	136	118.69	112.31	118.03	112.97	0.66
									Wells in Decline:	**5**
									Total Wells:	**8**
									Average Change:	**1.16**
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
									Wells in Decline:	**2**
									Total Wells:	**2**
									Average Change:	**2.73**
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
									Wells in Decline:	**6**
									Total Wells:	**7**
									Average Change:	**3.21**
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
									Wells in Decline:	**7**

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

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 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)
Bradley	12S09W31CCB1	33.61979	-92.07895	230	846				187.16			
Bradley	13S09W06ACA1	33.61331	-92.07708	233	963	161.2		174.95	164.6	10.35		3.40
Bradley	13S09W06DBD1	33.60694	-92.06861	227	1001		173.22	182.69	182.08	0.61	8.86	
Bradley	13S11W17BCD1	33.58157	-92.26868	254	680				194.58			
Bradley	15S11W31DDD1 Hilo	33.36167	-92.2725	129	900	101.55	98.24	95.05	94.63	0.42	3.61	6.92
Bradley	16S12W21CAA1	33.31092	-92.34788	98	457				68.08			
									Wells in Decline:	**0**	**1**	**1**
									Total Wells:	**3**	**2**	**2**
									Average Change:	**3.79**	**2.63**	**1.76**
Calhoun	13S12W31DAA1	33.54261	-92.37348	200	465	56.2	57	55.94	55.53	0.41	1.47	0.67
Calhoun	13S13W32CDA1	33.54078	-92.46157	208	450		164.25	172.23	172	0.23	7.75	
Calhoun	14S13W12CCB1	33.51113	-92.40098	206	613	172.34	161.96	163.93	167.24	3.31	5.28	5.10
Calhoun	15S13W32BCA1	33.375	-92.4725	98	485				97.2			
									Wells in Decline:	**1**	**2**	**0**
									Total Wells:	**3**	**3**	**2**
									Average Change:	**0.89**	**3.85**	**2.89**
Columbia	15S20W20CCB1	33.41483	-93.20417	371	320				213.68			
Columbia	16S21W14CBB1	33.34705	-93.2548	281	498				183.5			
Columbia	16S22W22CCD1	33.32989	-93.37358	347	260				133.02			
Columbia	17S19W15ABD1	33.26041	-93.05794	325	516				246.4			
Columbia	17S21W01BBC1	33.2953	-93.2399	304	548	250.3	250.39	237.26	245.75	8.49	4.64	4.55
Columbia	17S21W08DCA1	33.27039	-93.29953	300	325				202.2			
Columbia	17S21W11DCC2 Magnoli	33.26904	-93.24684	304	428	271.96	266.82	263.75	262.92	0.83	3.90	9.04
Columbia	17S21W17BAB1	33.26889	-93.30544	291	445				192.74			
Columbia	17S22W21ABD1	33.25461	-93.3845	294	463				62.58			
Columbia	17S22W22ABB1	33.25612	-93.36946	319	348				129.22			
Columbia	17S22W23BBB1	33.25576	-93.36019	340	376				142.4			
Columbia	18S20W06DDC1	33.19518	-93.21363	303	502	278.7	286.07	307.76	293.57	14.19	7.50	14.87

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 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	19S21W16DBB1	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			
									Wells in Decline:	**1**	**1**	**1**
									Total Wells:	**4**	**4**	**4**
									Average Change:	**1.96**	**1.33**	**4.63**
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	0.44	1.84	1.65
									Wells in Decline:	**1**	**0**	**0**
									Total Wells:	**2**	**2**	**1**
									Average Change:	**0.05**	**2.57**	**1.65**
Jefferson	5S08W30ADB1 near Pine	34.24787	-91.91117	197	753	282.62	272.96	279.61	276.83	2.78	3.87	5.79
Lonoke	03N08W22DAD2	34.86794	-91.83996	235	310	99.98	102.31	103.35	103.72	0.37	1.41	3.74
Lonoke	03N08W22DAD3	34.86778	-91.84	235	209	98.83		102.52	102.67	0.15		3.84
									Wells in Decline:	**2**		**2**
									Total Wells:	**2**		**2**
									Average Change:	**0.26**		**3.79**
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	2.37	0.69	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 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)
Ouachita	11S18W20AAA1	33.77063	-92.96648	333	55.8		43.58	43.57	49.29	5.72	5.71	
Ouachita	12S15W09BBA1	33.70648	-92.65623	213	290				47.82			
Ouachita	12S16W25BDC1	33.65817	-92.70301	140	182	48.7	23.03	23.19	24.18	0.99	1.15	24.52
Ouachita	12S16W26ABD1	33.66265	-92.71781	137	250	23.9	19.2	17.19	22.52	5.33	3.32	1.38
Ouachita	12S18W19CDC1	33.67055	-92.99759	235	155	32.76	29.65	26.9	28.14	1.24	1.51	4.62
Ouachita	12S18W25CAB1	33.66033	-92.91163	189	160				77.44			
Ouachita	12S19W09BAB1	33.71429	-93.06443	290	35				10.59			
Ouachita	12S19W35BDD1	33.65031	-93.02944	350	175	156.97	155.78	160.65	153.76	6.89	2.02	3.21
Ouachita	13S16W28ADD1	33.57117	-92.7474	106	190	33.87	21.9	11.48	12.16	0.68	9.74	21.71
Ouachita	13S18W06BBA1	33.63861	-93.00167	281	178.8	115.34	114.96	113.23	113.63	0.40	1.33	1.71
Ouachita	14S16W32BDB1	33.47101	-92.77764	239	69	28.5	26.13	8.29	18.5	10.21	7.63	10.00
Ouachita	S17W05CAD1 near Camd	33.54389	-92.88184	159	223	39.05	37.2	33.66	34.91	1.25	2.29	4.14
Ouachita	14S17W19DBB1	33.50061	-92.89596	259	99	12.15	15.57	8.57	9.57	1.00	6.00	2.58
Ouachita	14S17W32CAD1	33.46761	-92.88088	220	301	79.2	75.26	71.32	71.25	0.07	4.01	7.95
Ouachita	14S19W29ABB1	33.49485	-93.08706	280	250	89.51	88.17	85.3	84.7	0.60	3.47	4.81
Ouachita	15S15W32DBB2	33.37603	-92.6742	121	500	156.7	146.31	136.78	134.9	1.88	11.41	21.80
Ouachita	15S16W23DAC1	33.40466	-92.7206	170	493	126.49	114.76	109.1	108.3	0.80	6.46	18.19
Ouachita	15S18W36ADD1	33.38632	-92.91002	160	220	90.72	87.46	83.78	82.85	0.93	4.61	7.87
Ouachita	15S19W21CDD2 Stephen	33.41056	-93.07553	269	300	188.47	187.06	185.18	184.63	0.55	2.43	3.84
									Wells in Decline:	**10**	**4**	**0**
									Total Wells:	**17**	**17**	**16**
									Average Change:	**1.03**	**3.06**	**8.84**
Poinsett	1N02E11BDC1 near Wein	35.60153	-90.85194	244	478		121.53	124.73	125.84	1.11	4.31	
Prairie	01S06W12BAB2	34.64056	-91.60361	228	663.4	177.52	174.49	153.72	159.64	5.92	14.85	17.88
Prairie	2N06W24CAA2 at Hazen	34.78083	-91.5975	231	535.2	119.24	119.38	117.69	117.63	0.06	1.75	1.61
									Wells in Decline:	**1**	**0**	**0**
									Total Wells:	**2**	**2**	**2**
									Average Change:	**2.93**	**8.30**	**9.75**

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 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 Smackove	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	7S14W22BAB1 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	15W03DAB2 Welcome (	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 McKinno	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			

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 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	19S10W16CBC1	33.05806	-92.1511	82	652				82.24			
Union	19S11W23ACA1	33.04872	-92.208	142	500				145.62			
Union	19S11W25AAA1	33.03829	-92.18695	133	529				139.6			
Union	19S12W13AAA1	33.06979	-92.28799	191	339		160.96	165.76	170.74	4.98	9.78	
Union	19S15W01CCA1	33.09279	-92.61245	190	318	62.2	32.3	31.63	32.15	0.52	0.15	30.05
Union	19S17W16BAA1	33.08208	-92.8646	238	595				233.1			
Union	19S18W14ADA1	33.08103	-92.93553	259	380				183.3			
									Wells in Decline:	**8**	**3**	**0**
									Total Wells:	**23**	**20**	**12**
									Average Change:	**2.45**	**19.13**	**32.29**

Total Wells:	**58.00**	**53.00**	**42.00**
Total Wells in Decline:	**25.00**	**14.00**	**4.00**
% of Wells in Decline:	**43.10%**	**26.42%**	**9.52%**
Total Average Change:	**0.87**	**8.21**	**13.72**

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

NATURAL RESOURCES DIVISION

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