Arkansas Ground Water Protection and Management Report for 2009

Ground Water Protection Mission:

To manage and protect ground water resources in Arkansas for human, environmental, and economic benefits.

STATE OF ARKANSAS

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ABSTRACT

The Arkansas Ground Water Protection and Management Report is produced annually by the Arkansas Natural Resources Commission (ANRC) pursuant to the Arkansas Ground Water Protection and Management Act of 1991, Arkansas Code Annotated 15-22-906. This report provides a summary of ground-water protection and conservation programs administered by the ANRC during the year 2009; including water-level monitoring, the development of water-quality standards, studies of water use trends, and administration of the Arkansas Water Well Construction Commission program. This report covers water level data from the spring of 2008 to the spring of 2009, as well as other ground-water activities through the end of 2009. The general trend in Arkansas' long-term water-level change is that the ground-water levels are declining in response to continued withdrawals at a rate which is not sustainable. Based on 2007 water use data, approximately 42.4 percent of the current alluvial aquifer withdrawal of 7,049 million gallons per day, and 46.5 percent of the Sparta/Memphis aquifer withdrawal of 186.91 million gallons per day, is sustainable. At these pumping rates, water-level declines and the adverse impacts on the state's ground water system will continue to be observed. As the competition for ground water becomes more intense, the challenge before Arkansas water resources users, scientists, and conservationists is to continue to work toward conservation, education, and the conjunctive use of ground water and excess surface water in a manner that brings about the wise and sustainable use of our valuable water resources.

INTRODUCTION

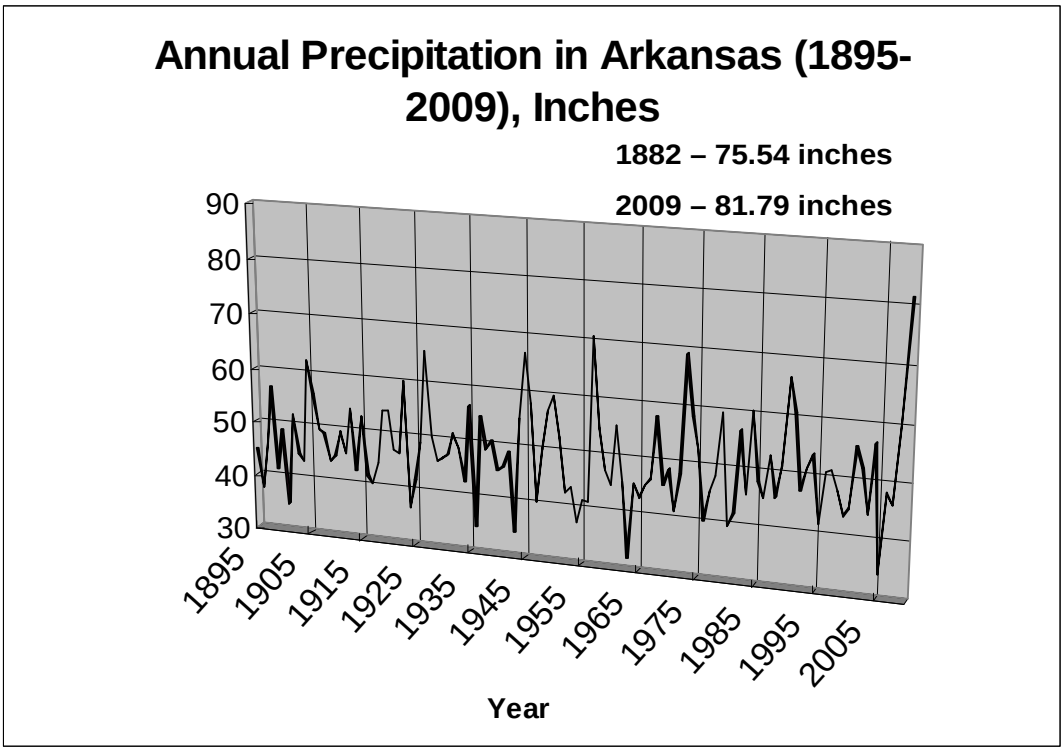
This annual ground-water report is prepared to provide the State of Arkansas with a comprehensive water-quantity and water-quality document to be utilized in accordance with the Arkansas Water Plan, as a guide for water resources conservation and protection programs. It includes data, analysis, and recommendations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

the Arkansas Water Well Construction Commission administrative program, and water use studies. This report and all programs described herein are built on a strong cooperative program with other appropriate State, Federal, and local water resources agencies. Some of the programs described in this report are partially funded through federal grants from Region VI of the Environmental Protection Agency.

Each spring approximately 700 wells are monitored in the alluvial aquifer resulting in the largest number of water level measurements for any one aquifer in the state. This number will vary from year to year depending on the resources available. There are approximately 350 wells that are monitored for water levels in the Sparta/Memphis aquifer. A monitoring schedule has been established to obtain data from the alluvial aquifer and the Sparta/Memphis aquifer on an annual basis. These measurements are taken each spring so as to be the least affected by seasonal pumping for irrigation. The drawdown that results from seasonal pumping is also determined by the NRCS and ANRC taking measurements of the alluvial aquifer in both the spring and fall. Hydrologic data is collected statewide; however resources are focused on study areas where water-level declines and water-quality degradation have been observed historically.

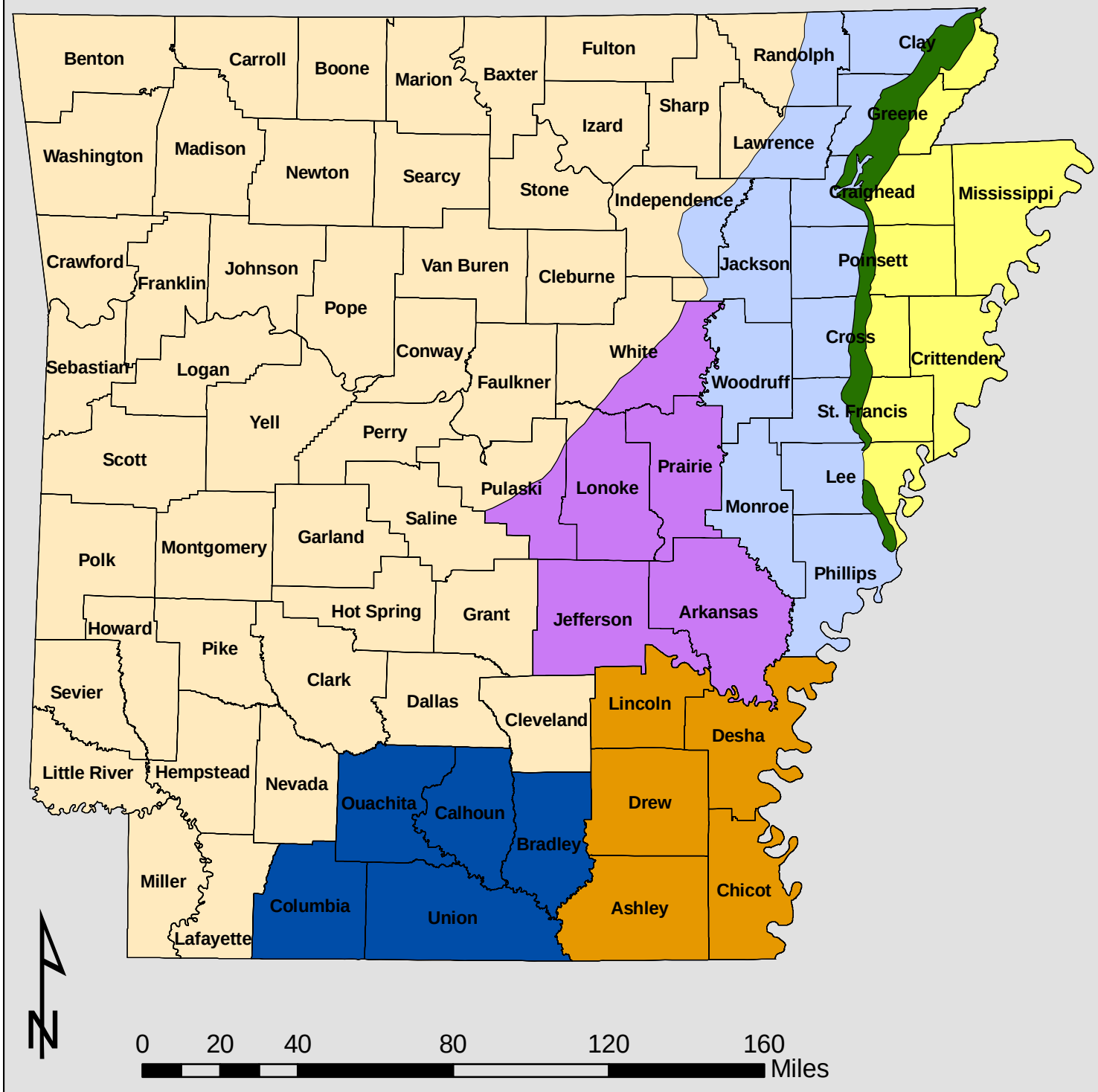
The amount of rainfall is taken into account each monitoring period to observe the change of water levels during times of drought or excess rainfall. The statewide rainfall total for this monitoring period was 60.69 inches, which is well above the yearly average of 49 inches. This trend of abnormally high precipitation continued throughout 2009 which finished as the all time record for precipitation in Arkansas at 81.79 inches. The monitoring period which covers the calendar year of 2009 for static water level change will be completed in the spring of 2010. However, a small subset of data was collected and these indicate an expected rise in the ground-water-levels of the alluvial aquifers within the state. This data indicates a rise in 27 of 33 wells, with a maximum rise of about 4 feet, and an average of about 1 foot (Appendix A). This water-level change value is conservative since the measurements were taken in December, well before the static water levels had time to recover completely. The effects of heavy rainfall should be more subtle in the deep confined aquifers such as

the Sparta or Wilcox aquifers, because of the greater depth and confined nature of the formation.



Long-term water-level data collected over a 25-year period indicate a statewide decline of 0.8 feet per year in the Sparta-Memphis aquifer (USGS, 2004-5055), and 0.3 feet per year in the alluvial aquifer over a 24 year period (USGS, 2006-5128). Such long-term data is valuable in revealing water-level change trends that can be masked by short-term climate variations and local pumping rates. There are areas of the state experiencing ground-water withdrawals of such magnitude that demand on the aquifer exceeds the sustainable yield, resulting in consistently falling ground-water levels, and the development of cones of depression. These areas are depressions in the

Arkansas Ground Water Study Areas

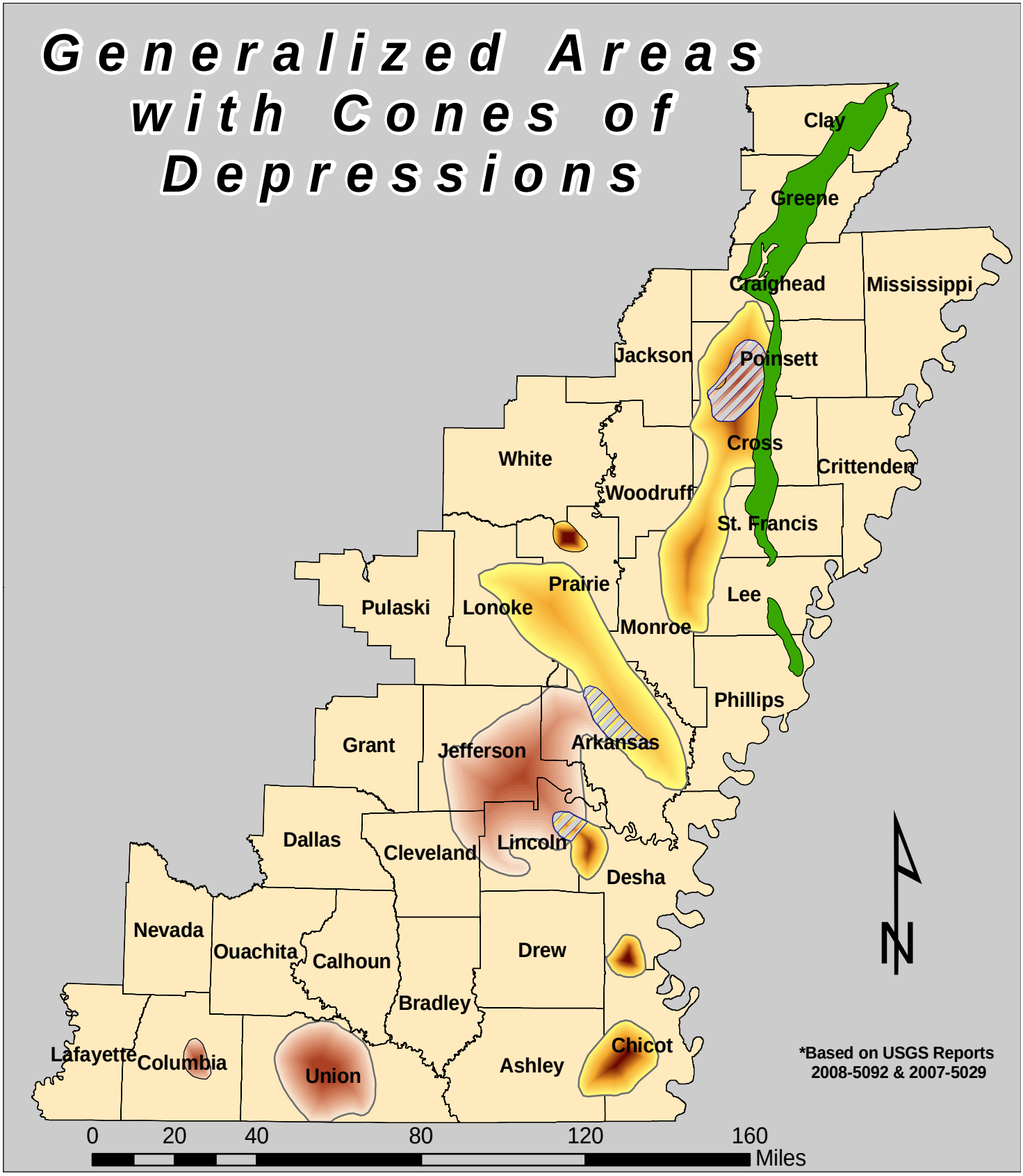


Legend

- South Arkansas
- Boeuf-Tensas
- Grand Prairie
- St. Francis
- Cache
- Crowleys Ridge
- County Boundaries

Fig. 1

Generalized Areas with Cones of Depressions



*Based on USGS Reports 2008-5092 & 2007-5029

Legend

- Crowleys Ridge
- Intersection of the two cones
- Cones of Depression in the Alluvial Aquifer
- Cones of Depression in the Sparta Aquifer
- County Boundaries

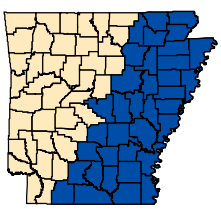


Fig. 2

potentiometric surface, and occur in both the alluvial and Sparta/Memphis aquifers. (Fig. 2) Water- level declines are consistently observed in areas where water use is highest, such as portions of the Grand Prairie area, and in the Cache study area west of Crowley's Ridge.

Other programs are focused on the core Nonpoint Source Water-Quality Program, the Section 106 water-quality data management and GIS activities, and the administration of the Arkansas Water Well Construction Commission Program.

The most recent water quality data collected by the USGS showed wells with an increased specific conductance (>/= 1,000 microsiemens/cm) in the alluvial aquifer in Arkansas, Prairie, Craighead, and Chicot Counties. (Schrader, T.P., 2006) An increase in the level of specific conductance indicates an increased level of dissolved solids in the ground water. In certain areas these dissolved solids are chlorides leading to the ground-water becoming unsuitable for particular irrigation purposes. This trend may indicate saline water encroachment associated with the development of cones of depression.

During 2008, the ANRC staff continued to work on statewide water quality standards. This task will build on the State's existing water resources programs and agency infrastructure of Federal and State agencies. Early emphasis is on coordination between agencies and programs concerning data as well as agency infrastructure, considerations on the variability of water-quality within aquifers over distance, and aquifer classification and water use trends.

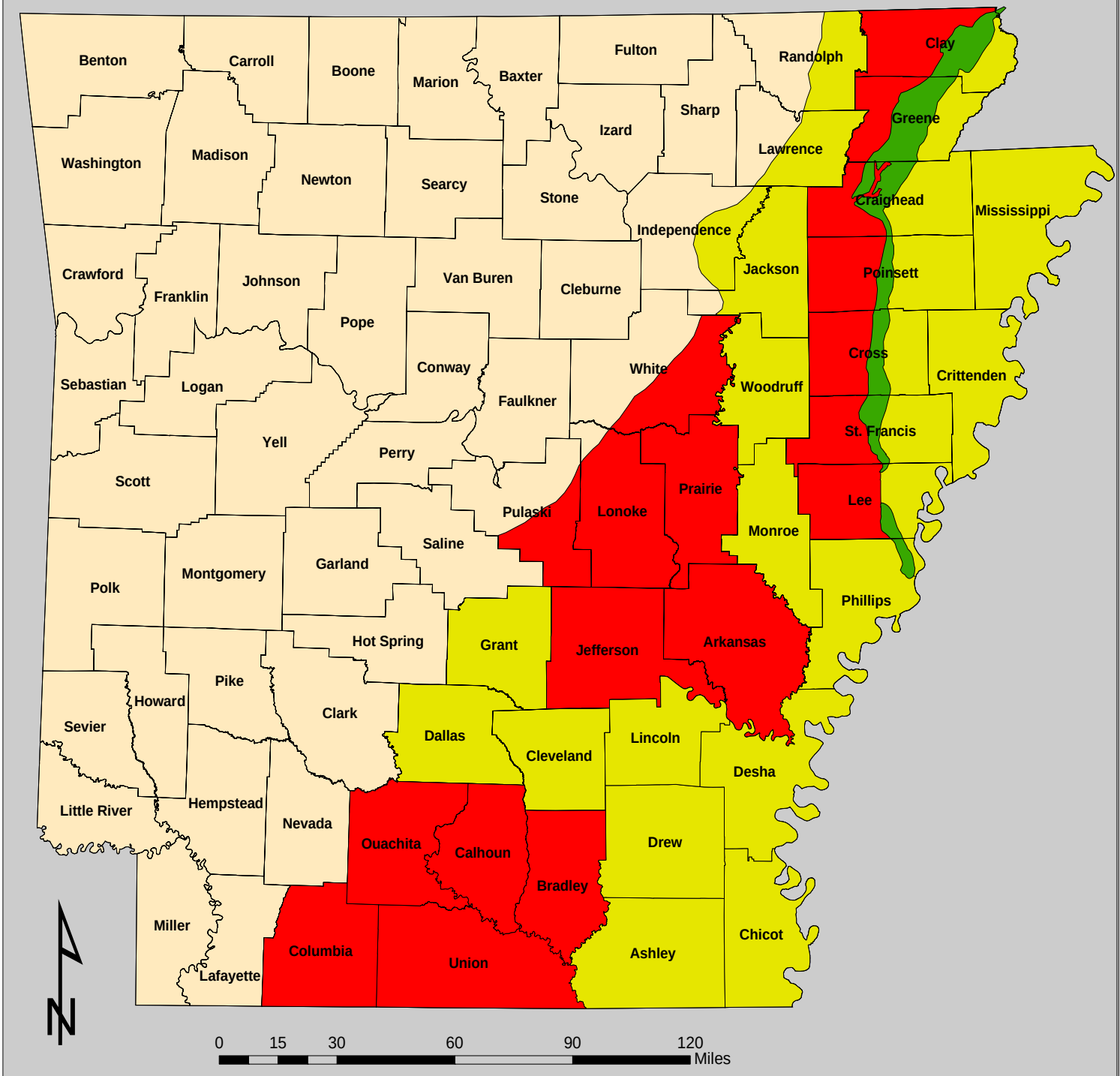
In December of 2009, the ANRC officially designated the alluvial and Sparta/Memphis aquifers in the Cache Study Area as a Critical Ground Water Area. This designation included parts of 7 counties in the area west of Crowley's Ridge. The designation process was initiated based on the petitions from each county. Though most counties in eastern Arkansas have some water level data that meets critical area designation criteria, these counties also had significant declines as well as a large cone of depression in the potentiometric surface, indicating ground water withdrawal that exceeds a sustainable level.

WATER POLICY

Water-resources policy in Arkansas was established in the Arkansas Water Plan, 1991, in which the ANRC advocates conservation, education, and the conjunctive use of ground and surface water, along with the development of excess surface water to meet future water use needs. It is hoped that protection of the State's ground-water 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 very near future, the State will have to consider regulatory alternatives to preserve the aquifers at a sustainable level.

All water-use strategies must consider the wise use of our State's water resources while protecting the sustainable yield of the State's aquifers as well as the stream flow needs of the State's surface-water flow system if our water resources are to be protected for future generations to utilize and enjoy. The ANRC advocates that the State move toward a sustainable yield pumping strategy through conservation utilizing critical ground water area designation wherever needed to focus resources and minimize water-level declines. Designation as a Critical Ground Water Area brings about enhanced tax credits for conservation activities, focuses educational programs, and sets the area as a priority for possible federal programs and funding.

Critical Ground Water Designations



Legend

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

South Arkansas Study Area for Sparta in 1996

Grand Prairie Study Area for Sparta & Alluvial in 1998

Cache Study Area for Sparta/Memphis Sand & Alluvial in 2009

Fig. 3

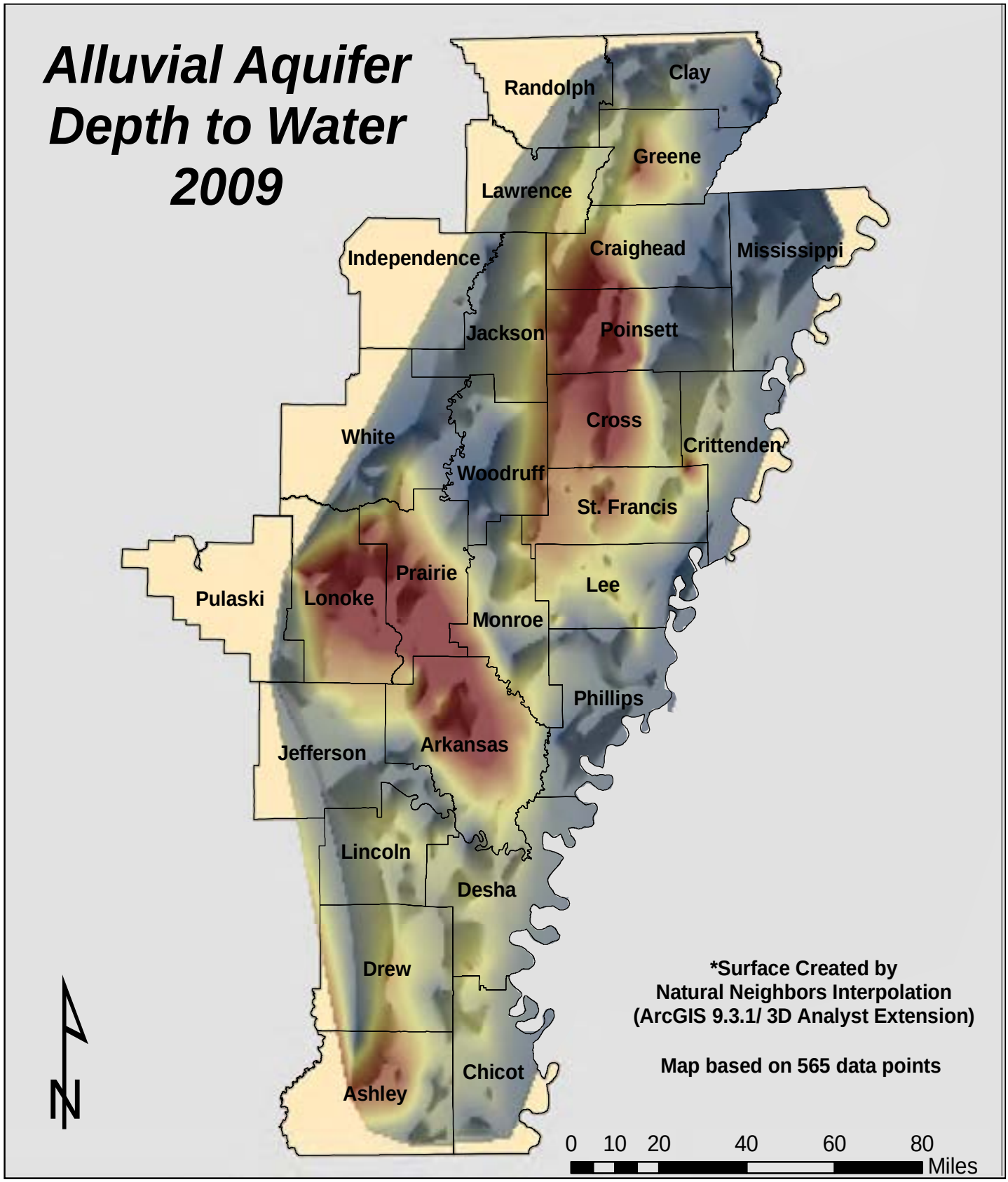
Hydrogeology

Alluvial Aquifer

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

Mostly due to the use of ground water for agriculture in the region, the aquifer has been pumped in ever-increasing amounts since records were kept from the early 1900's. In 2007 Arkansas had ground water withdrawals estimated to be 7,049.33 million gallons per day (Mgal/d). That is approximately a 473% increase from the amount used in 1965. (Holland, T.W. 2005, 2007).

In 2007 there was 7,049.33 Mgal/d pumped from the alluvial aquifer. The estimated sustainable yield for the alluvial aquifer is 2,987 Mgal/d, leaving an unmet demand of 4,062 Mgal/d (57.6%). Ground water furnishes 63% of the state's total water use, and 95% of the ground water used comes from the alluvial aquifer. Agriculture accounts for 96% of the total water that is pumped from the alluvial aquifer. Figures 4 and 5 are illustrations of the 2008 depth to water, and 10-year water level change map. Increased pumping from this aquifer has resulted in decreased outflow to rivers, increased inflow from rivers, increased inflow from the



Legend

Depth to Water, Below Land Surface

- 1ft. - 21ft.
- 22ft. - 37ft.
- 38ft. - 55ft.
- 55ft. - 76ft.
- 77ft. - 100ft.
- 101ft. - 143ft
- County Boundaries

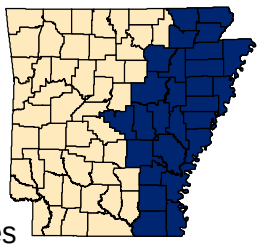


Fig. 4

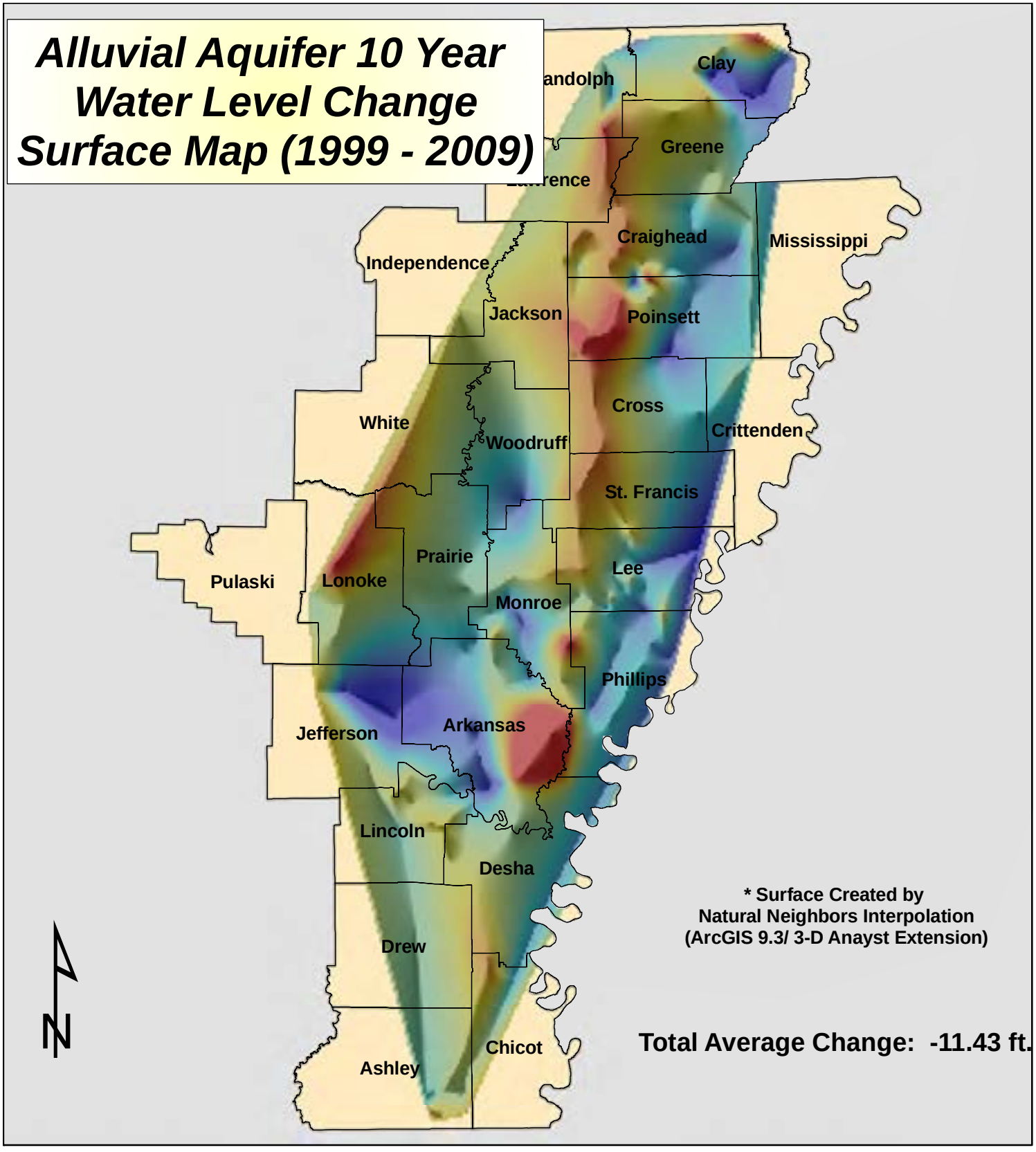

Alluvial Aquifer 10 Year Water Level Change Surface Map (1999 - 2009)
Clay
Greene
Craighead
Mississippi
Independence
Jackson
Poinsett
White
Woodruff
Cross
Crittenden
St. Francis
Prairie
Lee
Pulaski
Lonoke
Monroe
Phillips
Jefferson
Arkansas
Lincoln
Desha
Drew
Chicot
Ashley
* Surface Created by
Natural Neighbors Interpolation
(ArcGIS 9.3/ 3-D Anayst Extension)
Total Average Change: -11.43 ft.
N
Legend
0 10 20 40 60 80
Miles
Water Level Change, feet
1 to 9
-3 to 0
-6 to -4
-9 to -7
-12 to -10
-18 to -11
-43 to -19
County Boundaries

Fig. 5

overlying confining unit, regional changes in ground-water flow, regional water level declines, reduction of aquifer storage, and decreases in well yields (Ackerman, 1996).

There were 453 alluvial aquifer wells monitored for water-level change in both 2008 and 2009, 224 (49.4%) of these had a decline in the static water level. The overall water-level change was -0.96 ft. The 2008 precipitation for Arkansas was approximately 60.69 inches, which is above the statewide average of 49.19 inches. Of 426 alluvial aquifer wells monitored in both 2004 and 2009, 294 (69.0%) of these had declining static water levels. Over a 10-year period of time from 1999 to 2009, 116 of 145 wells (80.0%) monitored showed declines in the alluvial aquifer. The average change over the entire aquifer during the 2008-2009 monitoring period was -0.96 feet, the 5-year average change was -4.71 feet, and the 10-year average change was -11.43 feet respectively. As in last year's report, the greatest 10-year declines were observed in the Cache Study Area (-6.85 feet) and the Boeuf-Tensas Study Area (-6.54 feet). Appendix A is a table of specific water level monitoring data for the alluvial aquifer. Appendix B is a series of selected hydrographs for alluvial aquifer wells.

Sparta/Memphis Aquifer

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

The Sparta aquifer in south Arkansas consists of two units, separated by the confining unit located between them: the upper Greensand aquifer and the lower El

Dorado aquifer. The Sparta is composed mainly of sand with considerable amounts of silt, clay, shale, and lignite, which are found in lenses throughout the unit. Lithologically, it varies considerably both vertically and laterally. Glauconite, a green hydrous potassium iron silicate mineral, is sometimes found in sand lenses in the upper levels of the aquifer, hence the name "Greensand".

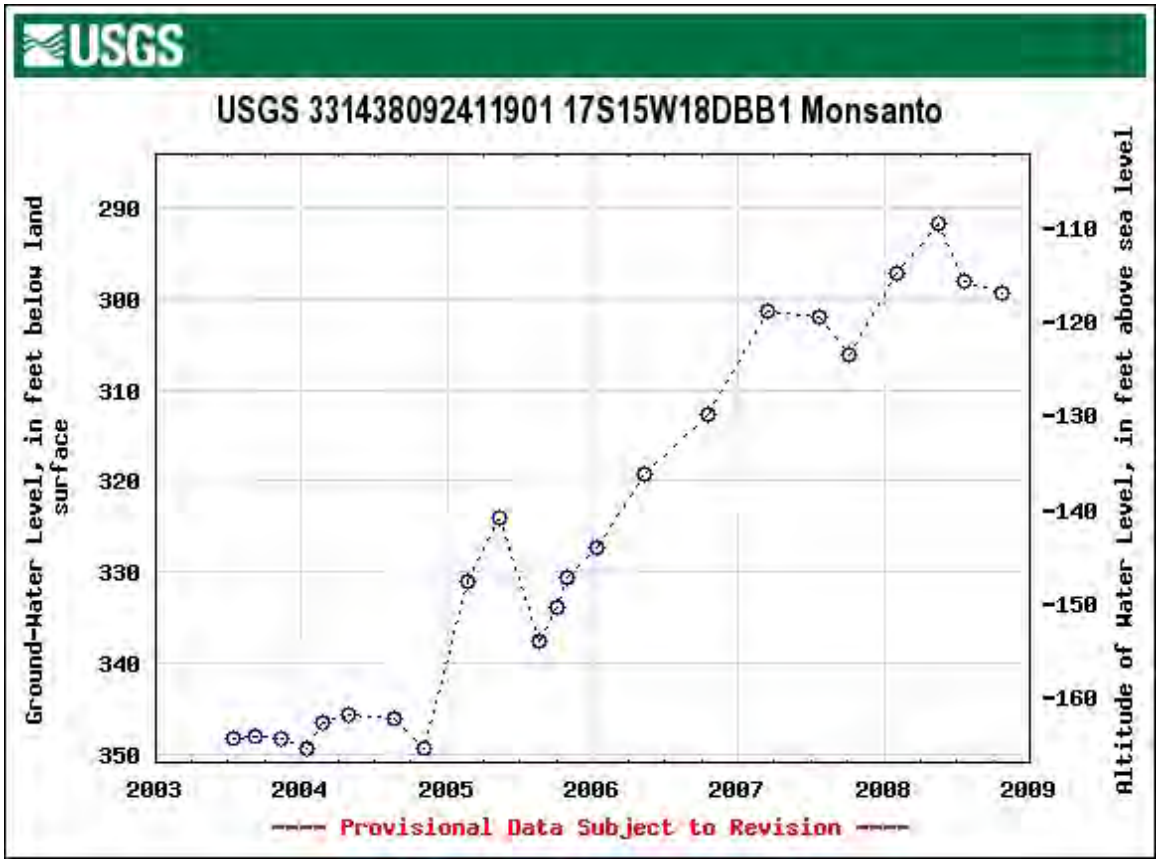
The Memphis Sand aquifer in eastern Arkansas is part of a thick sand section in the middle and lower portions of the Claiborne Group. It includes the Sparta Sand, the predominantly sandy facies of the Cane River, and the Carrizo Sand. The Memphis aquifer is the major source of quality drinking water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

Ground-water levels were collected from 279 water wells in the Sparta/Memphis aquifer throughout the south and east portions of Arkansas in 2008 and 2009. One hundred and forty-six of those wells (52.3%) showed declines in the static water level. The average change over the entire aquifer during the 2008-2009 monitoring period was -0.08 feet. During the monitoring period from 2004 to 2009, 248 wells were monitored for water-level change, with 145 of these wells (58.5%) showed a decline in static water levels during this time. During the 10-year monitoring period 277 wells were monitored, with 167 (60.3%) of these wells showing declines. Appendix C is a table of specific water level monitoring data for the Sparta/Memphis aquifer. For the Sparta/Memphis aquifer the USGS Conjunctive Use Optimization Model estimates that only 46.5 percent of the 2007 withdrawal of 186.91 Mgal/d is sustainable.

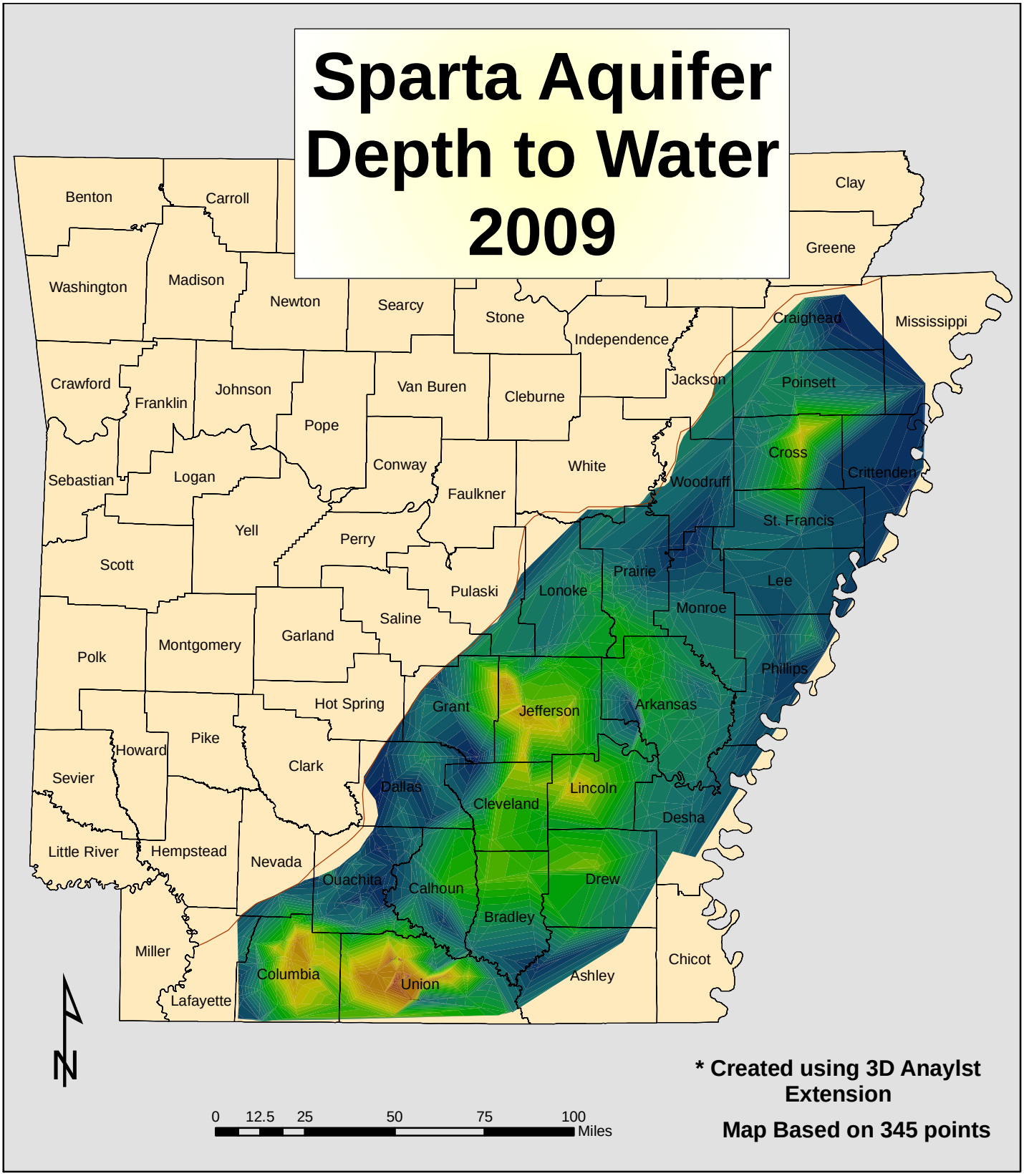
Data from as far back as 1965 has been plotted as hydrographs for selected wells throughout the study area. Trend line analysis indicates that the general trend for most wells included in this study is that of a lowered potentiometric surface (Fig. 6). This decline in potentiometric surface in the aquifer can be attributed to a statewide increase in water use from 139 million gallons per day (Mgal/d) in 1970 to 186.91 Mgal/d in 2007, an increase of 34.5 percent. The estimated sustainable yield for the aquifer is 87 Mgal/d leaving an unmet demand of 99.9 Mgal/d, or 114.8%. The most recent significant increase in water use from the Sparta has been for agricultural supply in the Grand Prairie and Cache Study Areas.

The exception to this rule is the data from the South Arkansas Study Area, where local education, conservation, and the use of excess surface water has led to significantly fewer declines, as well as some rebound in water levels in some areas. The potentiometric surface in five wells has actually risen over 90 feet respectively, over a 10-year period from 1999 to 2009. The figure below shows a graph of a well in the USGS Sparta Recovery Project. Appendix D is a series of hydrographs for Sparta/Memphis aquifer wells in Arkansas.

On April 21, 2008 the U.S. Department of the Interior awarded the Union County Water Conservation Board's Sparta Aquifer Recovery Project in southern Arkansas, with the 2008 Cooperative Conservation Award, which recognizes the cooperative efforts of the board, along with many other contributors to this effort including the Arkansas Natural Resources Commission and the U.S. Geological Survey, Arkansas District. This project continues to be recognized across the nation as a success story in the field of natural resources conservation and protection.



Sparta Aquifer Depth to Water 2009



*** Created using 3D Anaylst Extension**

Map Based on 345 points

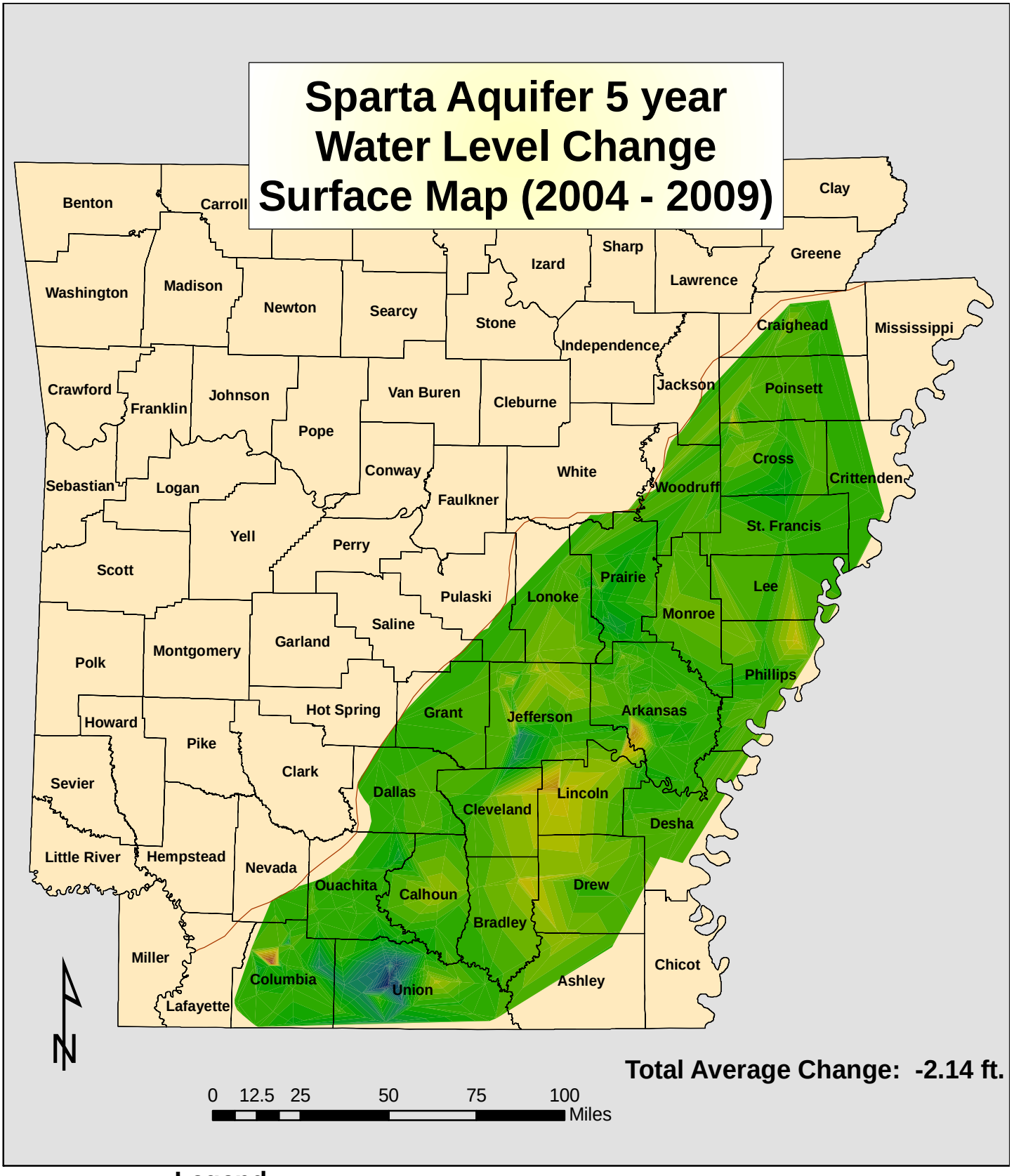
Legend

Sparta DTW, Feet

- 2 - 49
- 49 - 96
- 96 - 143
- 143 - 190
- 190 - 237
- 237 - 284
- 284 - 331
- 331 - 379
- 379 - 426
- Sparta Boundary
- County Boundaries

Fig. 6

Sparta Aquifer 5 year Water Level Change Surface Map (2004 - 2009)



Total Average Change: -2.14 ft.

Legend

- Sparta Boundary
- **5 Year Change, feet**
  - 47 to 65
  - 29 to 47
  - 11 to 29
  - -6 to 11
  - -24 to -6
  - -42 to -24
  - -60 to -42
  - -78 to -60
- County Boundary

*** Created using 3D Analyst Extension**

Map based on 248 points

Fig. 7

GROUND-WATER LEVELS AND WATER-LEVEL CHANGE

MONITORING PROTOCOL

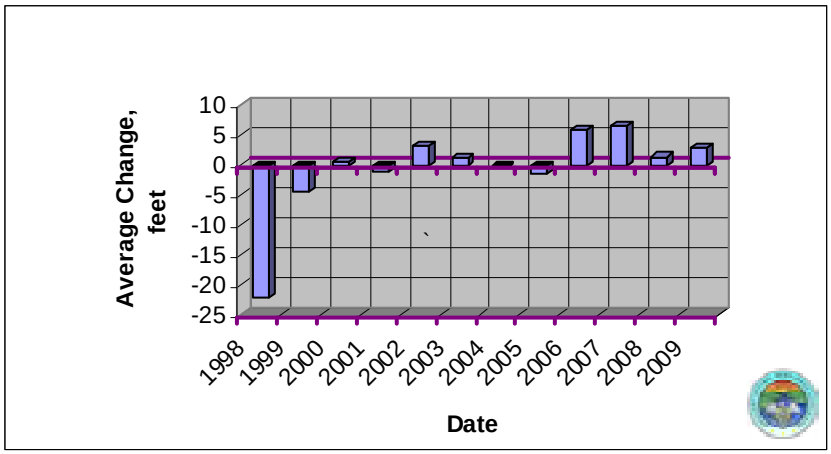
The United States Geological Survey (USGS), in cooperation with the Arkansas Natural Resources Commission (ANRC), the Arkansas Geological Commission (AGC), and the Natural Resource Conservation Service (NRCS), monitor wells throughout the entire state for general ground water quality as well as to record water levels. In addition, several agencies continually monitor wells throughout the state in an effort to detect significant changes and/or trends in ground-water levels and ground-water quality. The ANRC has recently added to this monitoring network by constructing 50 wells primarily in the eastern part of the state used exclusively for monitoring purposes, with more to be added in the near future. (Fig.37) All water level data collected by the USGS and ANRC is collected in accordance with USGS data collection protocol.

Water-level measurements are made each spring for a designated portion of the monitoring network of approximately 1,200 wells statewide. A schedule of monitoring has been established based upon existing funding and the ANRC's management and protection responsibilities as mandated by the Arkansas General Assembly. The monitoring schedule has been set up to obtain data annually from the alluvial and Sparta/Memphis aquifers. Other aquifers with less usage are measured at least once every five years. Measurements of water levels in the alluvial and Sparta/Memphis aquifers are taken each spring to obtain as close to true static water level data as possible. This allows the water level data to be the least affected by summer pumping. Measurements in the alluvial aquifer are obtained each spring and fall by the NRCS and are helpful in evaluating the zones of drawdown that result from seasonal pumping for irrigation of crops.

SOUTH ARKANSAS CRITICAL GROUND-WATER AREA

The South Arkansas Critical Ground-Water Area is composed of the Sparta Aquifer in Bradley, Calhoun, Columbia, Ouachita, and Union Counties. In 1996 this area was the first to be designated as a critical ground water area for the Sparta aquifer pursuant to the Arkansas Groundwater Protection and Management Act of 1991.

Continued monitoring of Sparta aquifer ground-water levels show that some ground-water levels in this region have stabilized or risen, while others continue to decline. The South Arkansas Study Area as a whole had an average change of +1.66 feet during the 2008-2009 monitoring period, with only 41 of the 93 wells monitored showing declines (Fig.9). The diminishing declines in average change seem to indicate that the education, conservation, and development of surface water from the Ouachita River in Union County have made an impact on ground-water levels.



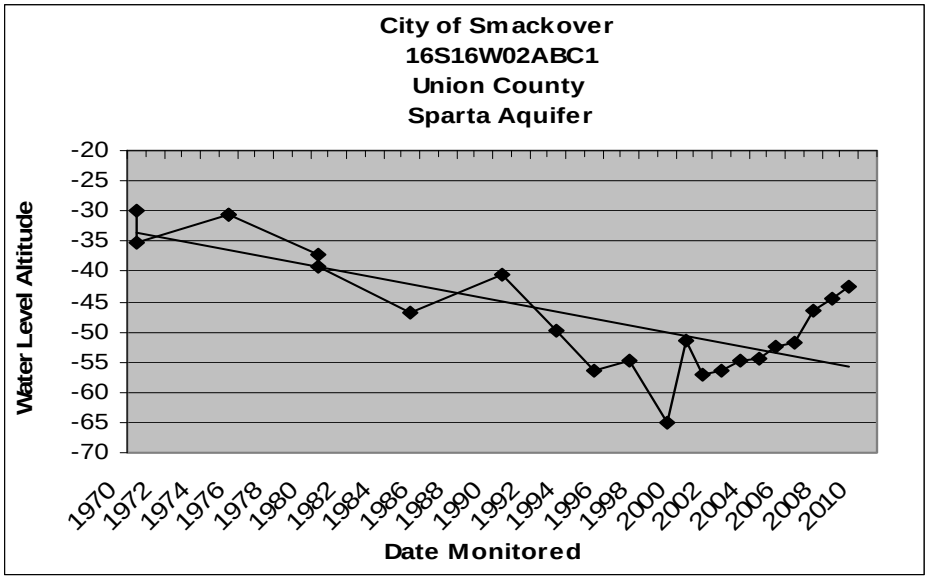
The USGS reports that the water levels have risen in all eight of the Sparta Recovery wells since the summer of 2003. The “Monsanto” well is a good example of the recovery because it is located near the center of the cone of depression in this area. A graph of this well can be seen on page 22.

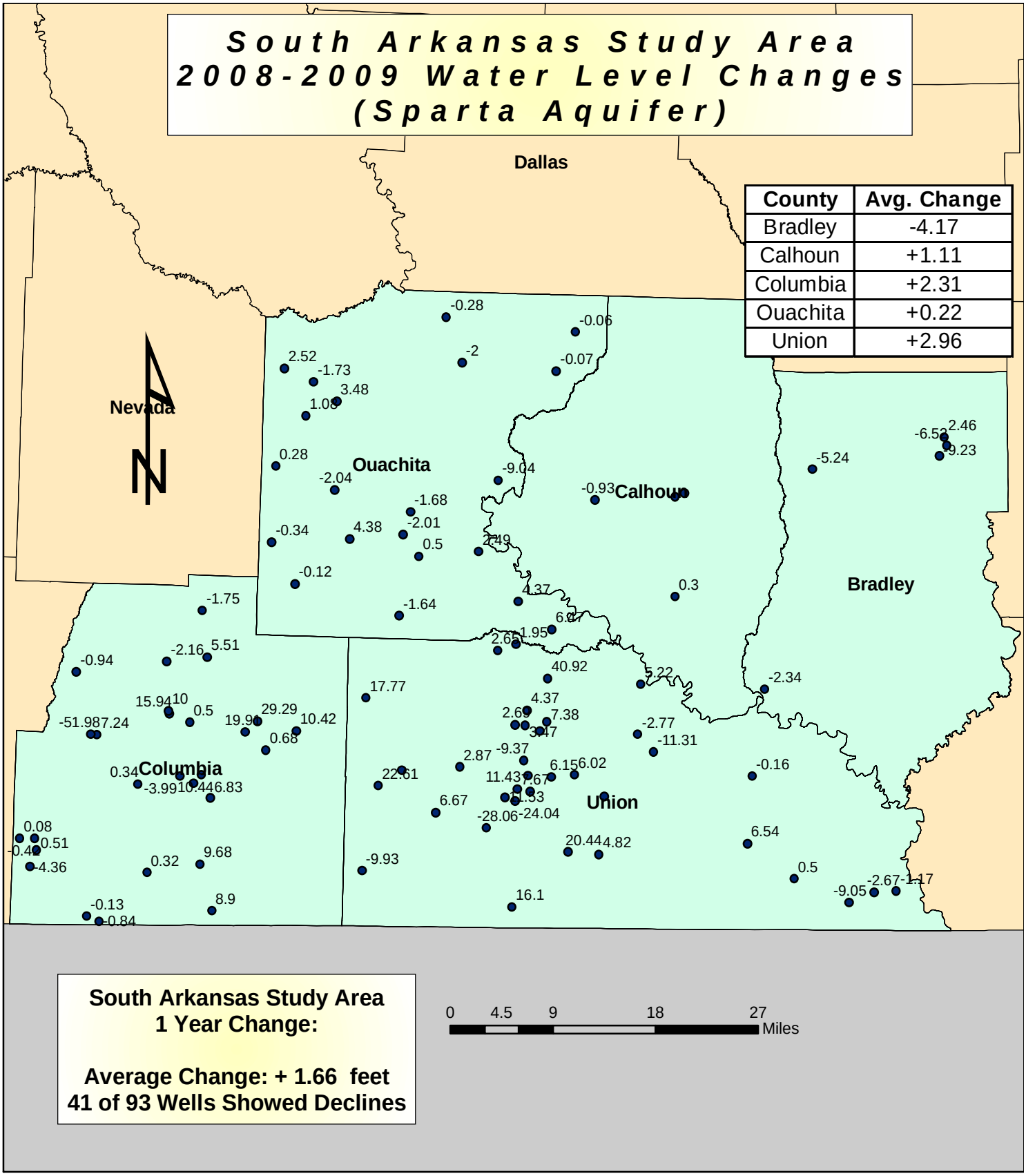
Since the lowest water level recorded in this well in October 1999 (-196.81 msl) to the level recorded in October of 2008 (116.54 msl) the cone of depression in this study

area has rebounded 80.27 feet, or approximately 26% of the total drawdown since 1922. (Schrader, 2008)

During the 5-year monitoring period, from 2004 to 2009, the South Arkansas Study Area had an average change of +7.23 feet. Eighty-two wells were monitored over this time, with 40 of them showing a decline in static water levels. Union county had an average change of +20.36 feet during this time. (Fig. 10)

Though the trend of water level increases in the South Arkansas Study Area have been encouraging, many of the wells in the area still show the potentiometric surface below the top of the formation. This criteria alone is enough for the study area to keep the designation of a Critical Ground-Water Area. The USGS ground-water flow models indicate that the withdrawals in Union County must be reduced to 28 percent of the 1997 pumping rate (4.84 Mgal/d) to maintain water levels at or above the top of the Sparta Sand. (Hays, 2000) Union county's use of 8.72 Mgal/d in 2007 is still 3.88 Mgal/d (44.5%) unmet demand.





Legend

- Wells
- South Arkansas Study Area

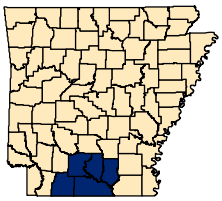
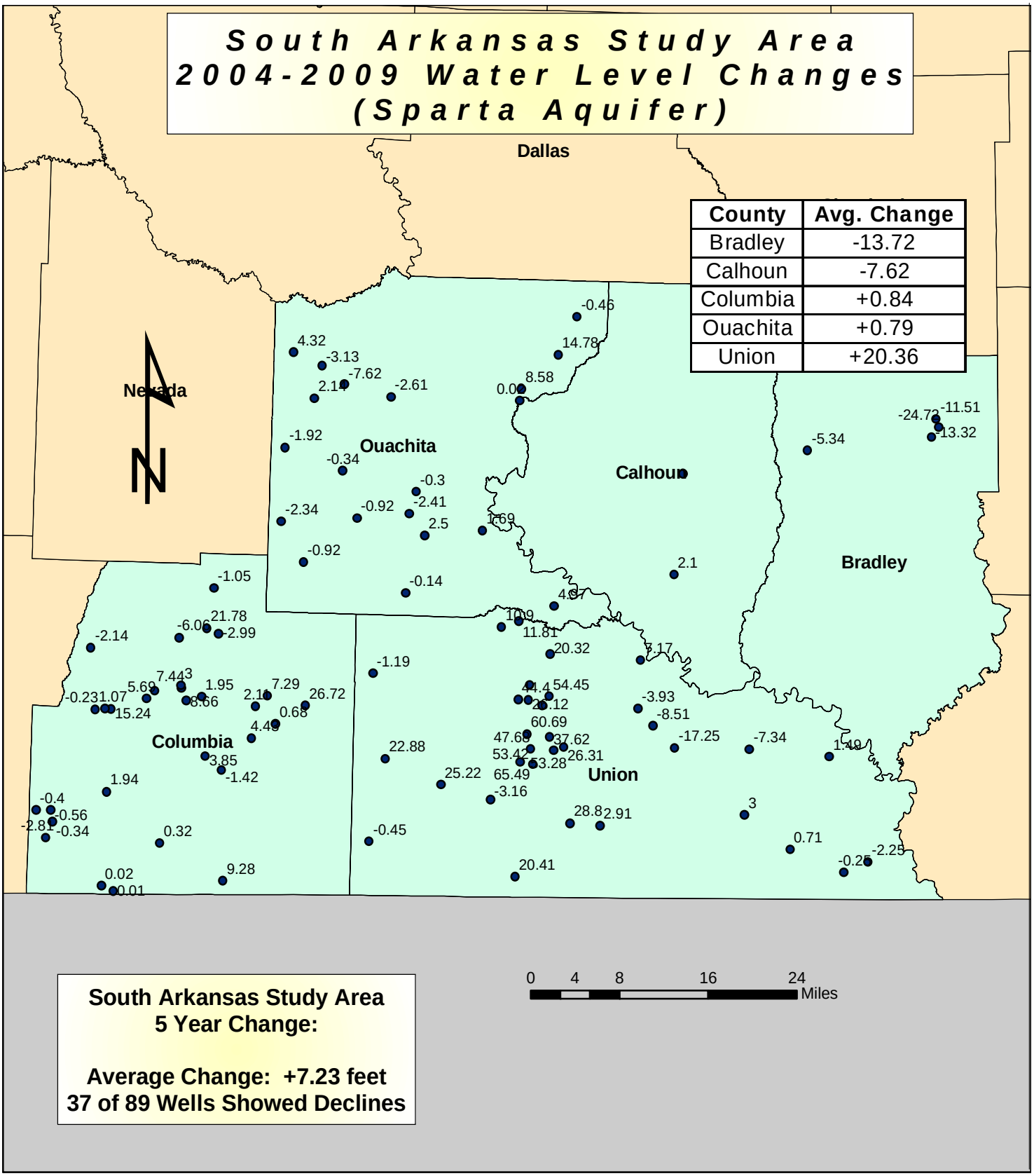


Fig. 9



Legend

- Wells
- South Arkansas Study Area

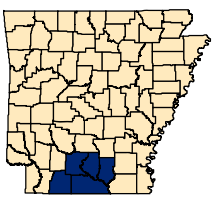
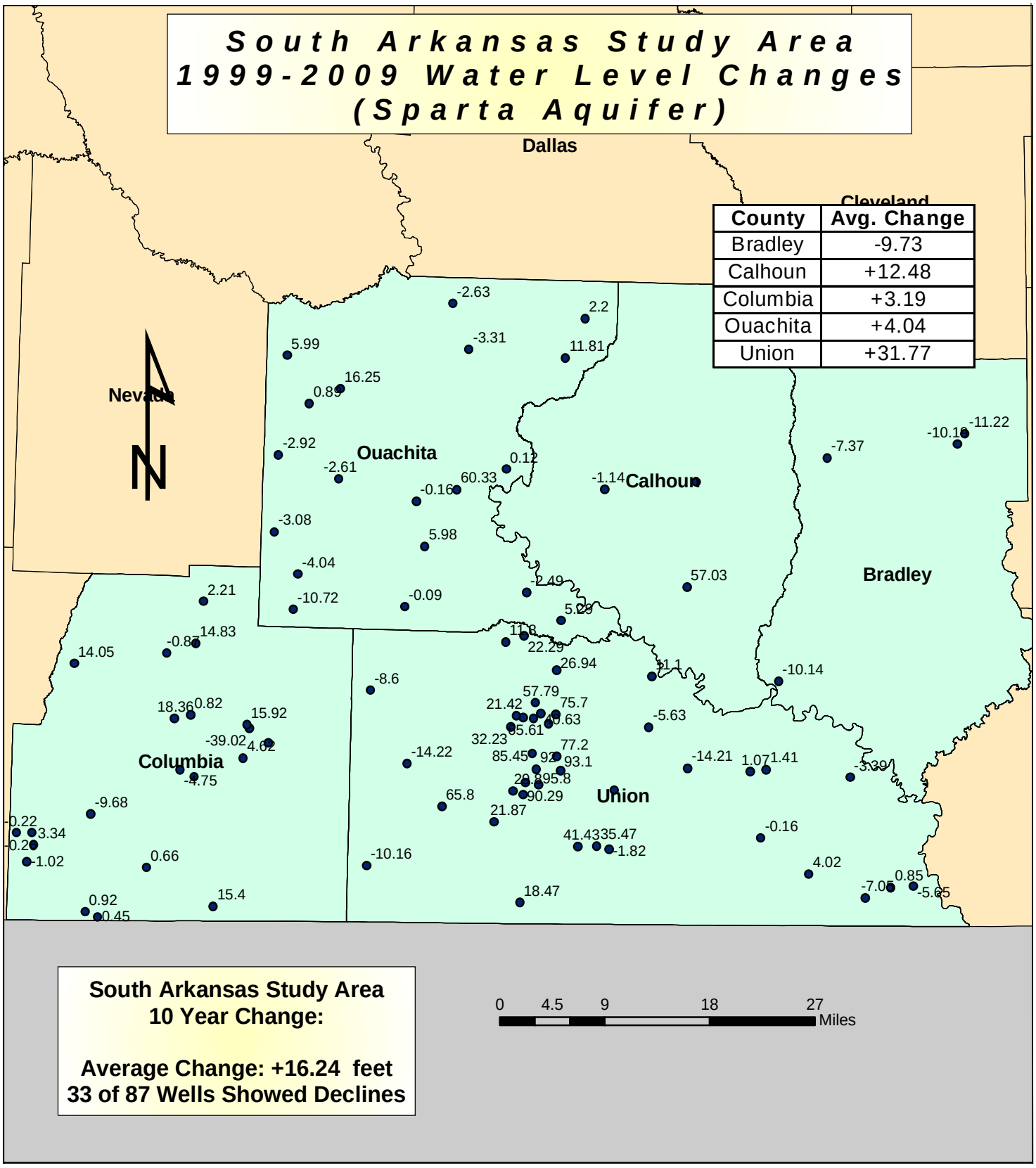


Fig. 10



Legend

- Wells
- South Arkansas Study Area

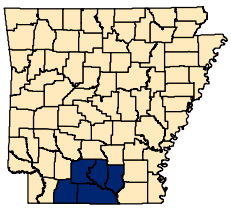


Fig. 11

GRAND PRAIRIE CRITICAL GROUND-WATER AREA

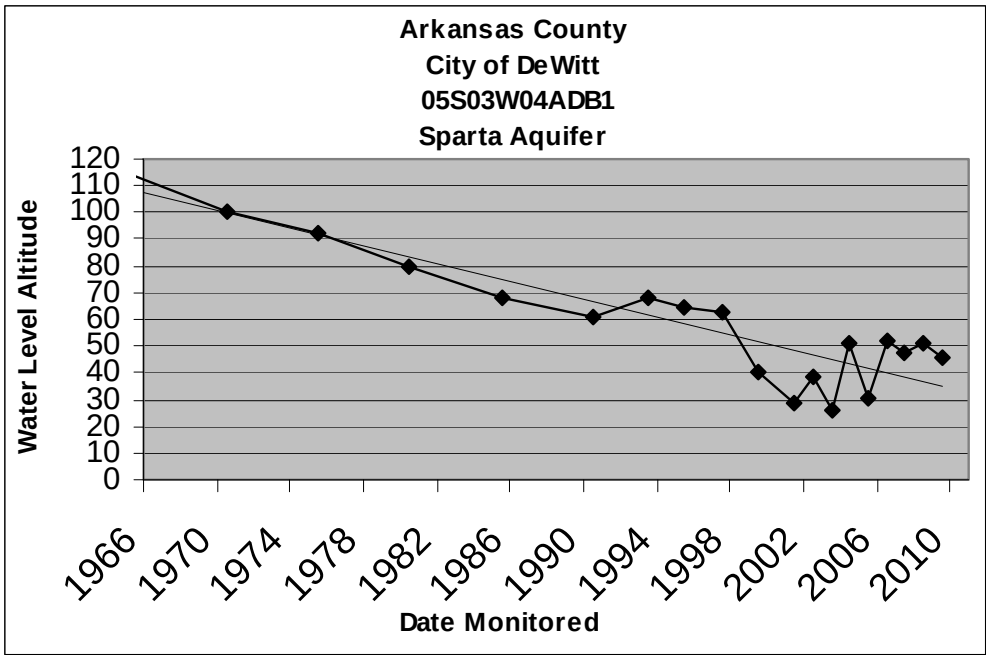
The designation “Grand Prairie” varies according to authors, but is commonly used to designate the area bounded on the south and west by the Arkansas River and on the north and east by the White and Little Red Rivers. (Ackerman, 1996) (Fig.1) This area was designated as a critical ground-water area for the alluvial aquifer and for the Sparta/Memphis aquifer in July 1998. Since designation, water levels have continued to decline throughout much of the Grand Prairie in both the alluvial and Sparta/Memphis aquifers.

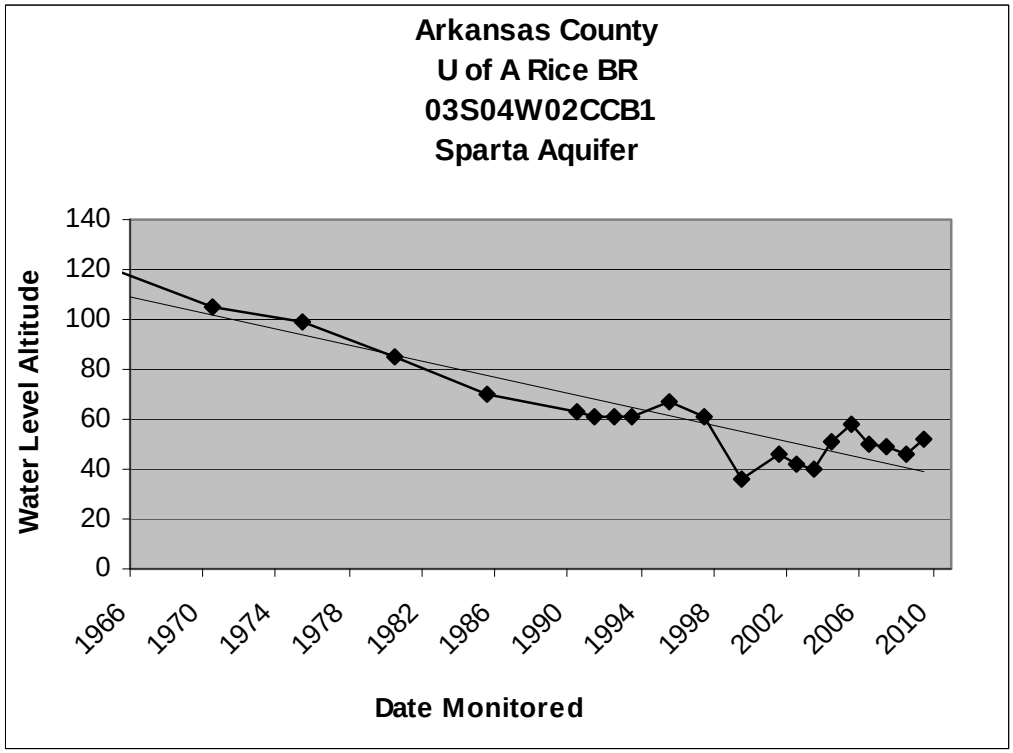
During the 2008-2009 monitoring period there 79 wells monitored with 40 (50.6%) showing average declines in the Sparta/Memphis aquifer throughout the counties in this study area. (Fig.12)

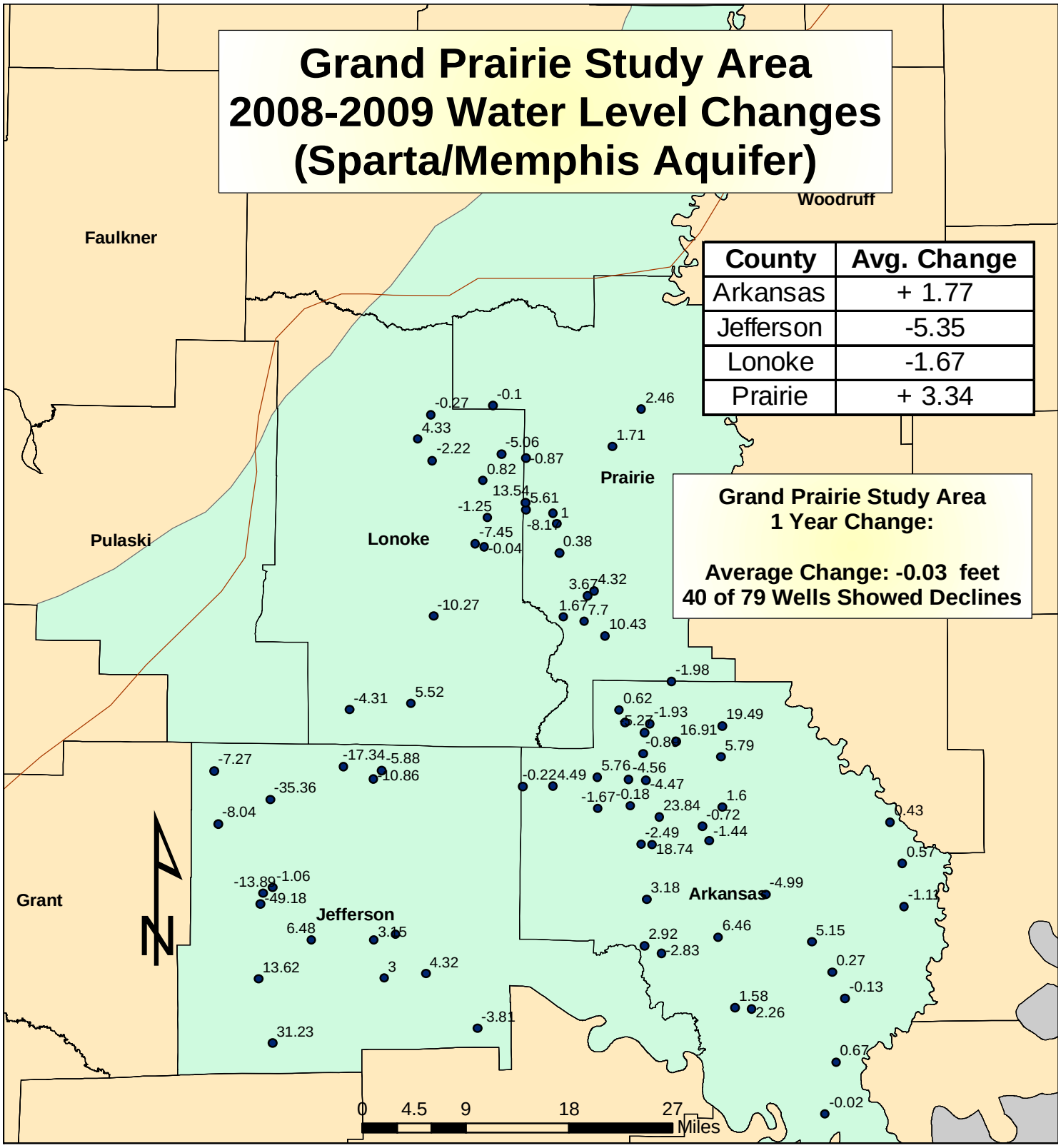
The entire Grand Prairie Study Area averaged a -1.70 foot change during this 5-year period from 2004 to 2009 in the Sparta/Memphis aquifer, with 47 of 80 (58.8%) of the wells monitored showing declines. (Fig.13)

Over the 10-year period from 1999 to 2009 the Sparta/Memphis aquifer has shown an average decline of -7.63 feet. There were 84 wells monitored during this time, with 56 (66.7%) showing declines in water level. (Fig. 14)

Withdrawals form the Sparta Aquifer in Arkansas County have increased from an estimated 20.3 mgd in 1970 (Halburg, 1972) to a reported water use of 63.88 Mgal/d in 2007, an increase of 214.7% over this time period.


Arkansas County
City of DeWitt
05S03W04ADB1
Sparta Aquifer
Water Level Altitude
120
110
100
90
80
70
60
50
40
30
20
10
0
1966
1970
1974
1978
1982
1986
1990
1994
1998
2002
2006
2010
Date Monitored


Arkansas County
U of A Rice BR
03S04W02CCB1
Sparta Aquifer
Water Level Altitude
140
120
100
80
60
40
20
0
1966
1970
1974
1978
1982
1986
1990
1994
1998
2002
2006
2010
Date Monitored



Legend

- Wells
- Sparta Boundary
- Grand Prairie Study Area

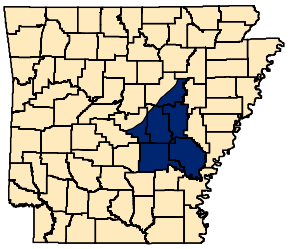
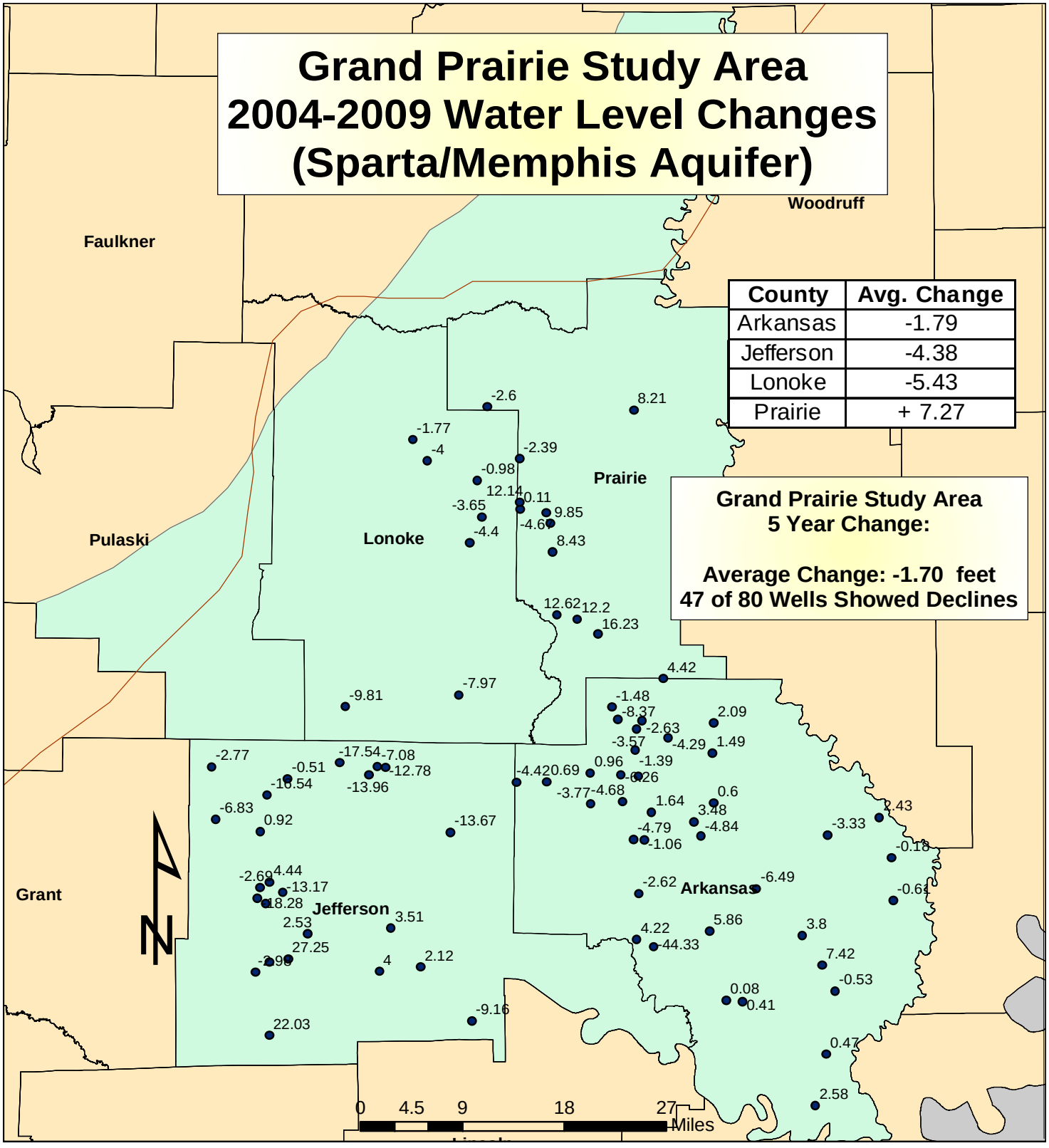


Fig. 12

Grand Prairie Study Area
2004-2009 Water Level Changes
(Sparta/Memphis Aquifer)



County	Avg. Change
Arkansas	-1.79
Jefferson	-4.38
Lonoke	-5.43
Prairie	+ 7.27

Grand Prairie Study Area
5 Year Change:

Average Change: -1.70 feet
47 of 80 Wells Showed Declines

Legend

- Wells
- Sparta Boundary
- Grand Prairie Study Area

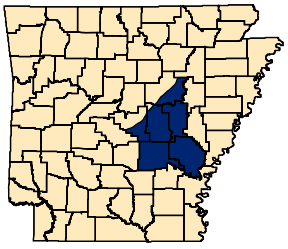


Fig. 13

Grand Prairie Study Area
1999-2009 Water Level Changes
(Sparta/Memphis Aquifer)

County	Avg. Change
Arkansas	+1.43
Jefferson	-11.56
Lonoke	-9.87
Prairie	-2.03

Grand Prairie Study Area
10 Year Change:

Average Change: -7.63 feet
56 of 84 Wells Showed Declines

Faulkner
Woodruff
Pulaski
Lonoke
Prairie
Grant
Jefferson
Arkansas

-13.94 -6.71 -6.49 -3.31 -1.18 0.43 -12.1 5.21 -14.43 -0.76 -21.08 -5.35 -4.49 -10.98 -2.06 4.55 -4.71 -6.71 0.76 3.88 8.49 -12.91 1.31 -14.08 10.71 5.4 10.34 21.47 -1.75 -1.41 -12.22 -26.33 -7.54 -5.27 -17.14 -16.24 -23.81 3.46 -19.12 3.94 -1.51 -5.15 4.55 -0.99 -12.09 -19.18 -14 23.4 3.06 2.18 0.78 3.04 -2.95 -16.72 -9.38 4.97 -53.08 28.73 -0.9 3.89 3.51 -11.72 35.85 4.4 -5.59 0.42 12.85 0.1 -8.19 -5.23 -7.18 -6.6 -6.58 -4.09 -1.77 -6.03 -3.7 -18.38 26.45 -3.58 -4.4

0 4.5 9 18 27 Miles

N

Legend

- Wells
- Sparta Boundary
- Grand Prairie Study Area

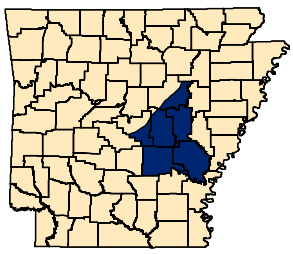


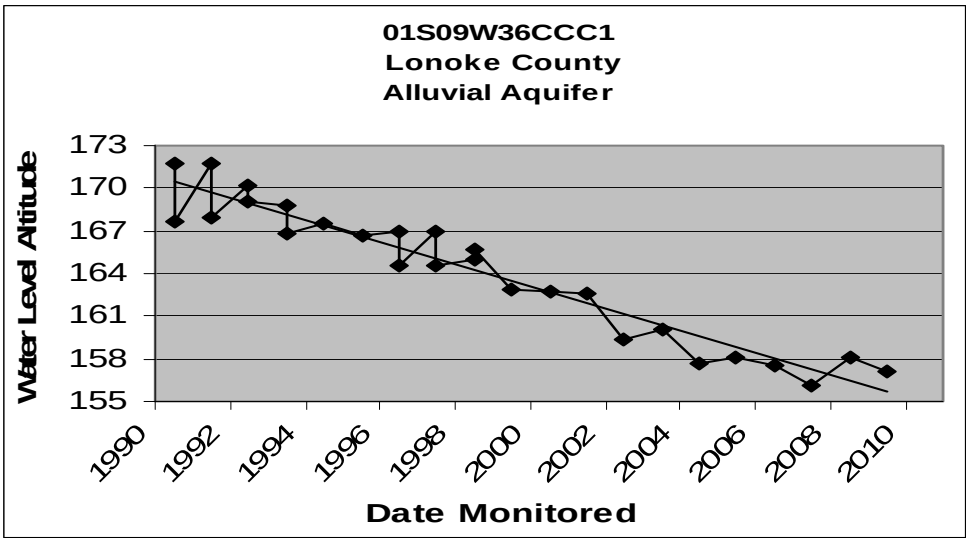
Fig. 14

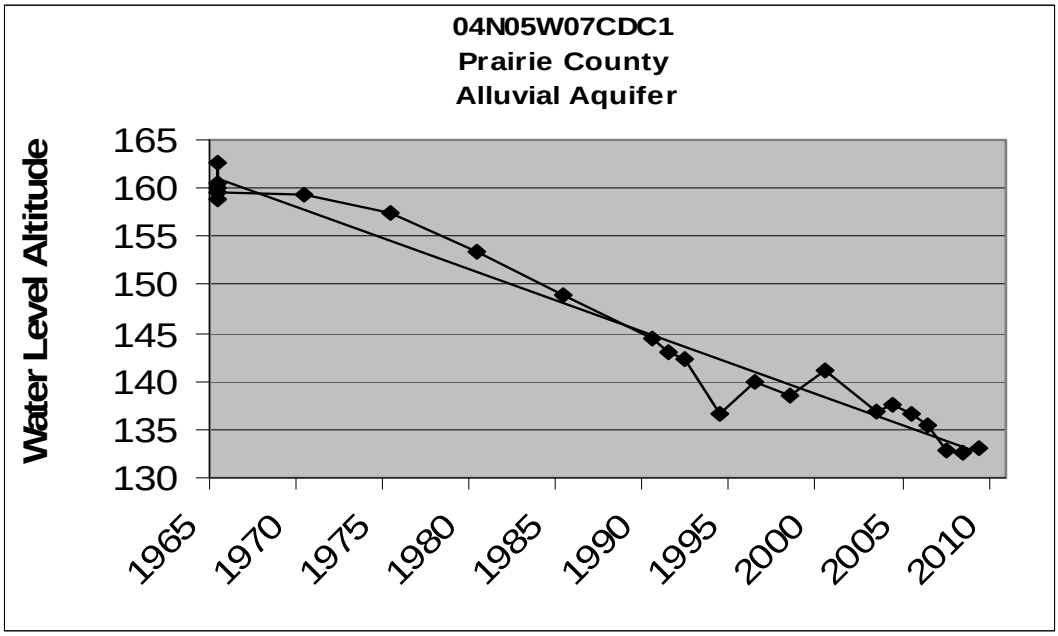
In the alluvial aquifer the Grand Prairie Critical Ground Water Area there were 98 wells monitored with 33 showing declines from 2008 to 2009. The average change for the entire study area was +0.28 feet. (Fig.15)

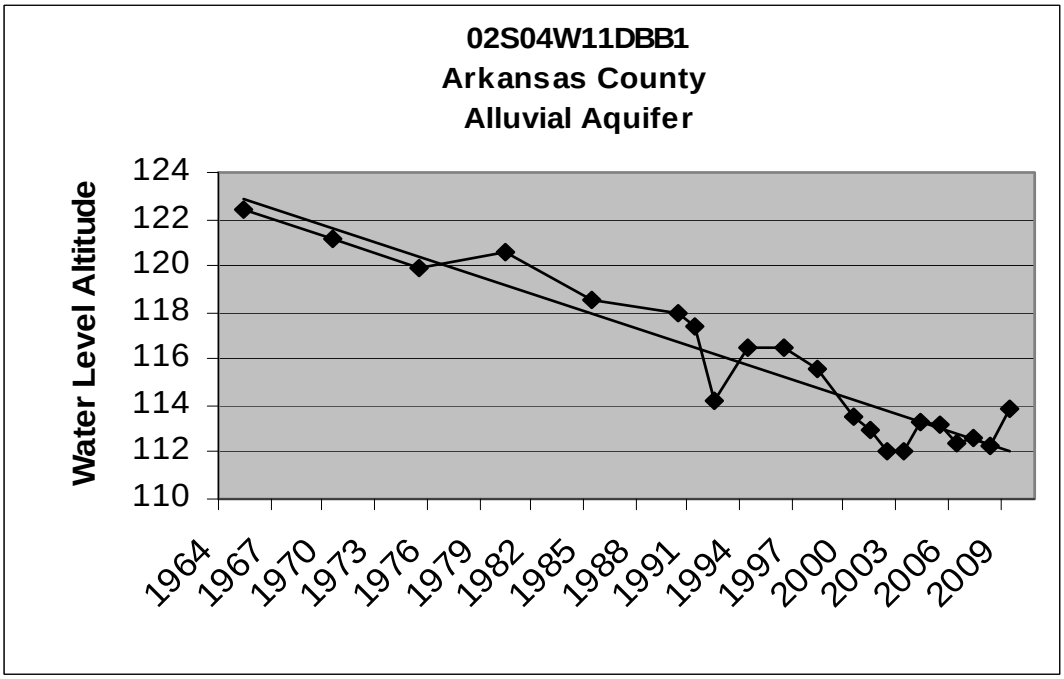
During the 5-year monitoring period from 2004 to 2009 the Grand Prairie Study Area had an average decline -0.24 feet with 52 of the 98 wells (53.1%) monitored showing declines. (Fig.16)

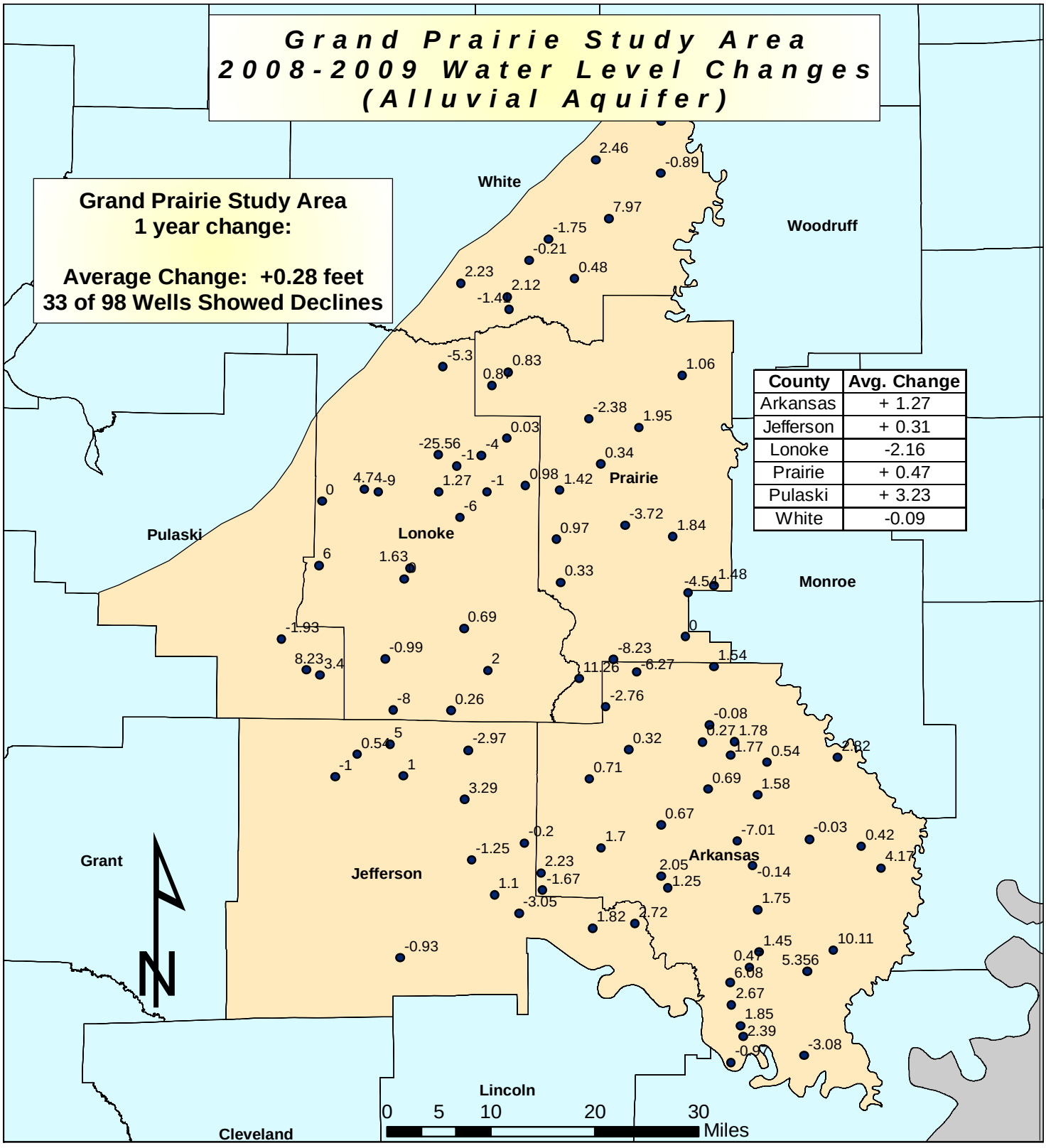
From 1999 to 2009 the alluvial aquifer in the Grand Prairie Study Area had an average change of -5.59 feet, with 15 of 20 (75.0%) wells monitored showing declines. (Fig.17)

For the alluvial aquifer in the Grand Prairie Study Area the USGS Conjunctive Use Optimization Model indicated that the ground-water use in this area is substantially more than is sustainable. Based on the 1997 pumping rates, Jefferson County could sustain 92.8% of the counties reported use for 2007, Prairie County 58.9%, Arkansas County 45.5%, and Lonoke County 42.3% respectively. (Fig.42) The Grand Prairie Irrigation Project, once in place, is expected to significantly help reduce these counties' unmet demands for irrigation.




04N05W07CDC1
Prairie County
Alluvial Aquifer
Water Level Altitude
165
160
155
150
145
140
135
130
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010


02S04W11DBB1
Arkansas County
Alluvial Aquifer
Water Level Altitude
124
122
120
118
116
114
112
110
1964
1967
1970
1973
1976
1979
1982
1985
1988
1991
1994
1997
2000
2003
2006
2009



Legend

- Wells
- Grand Prairie Study Area

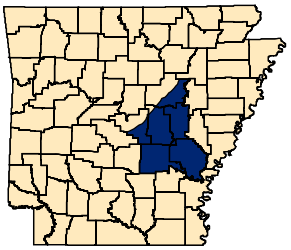
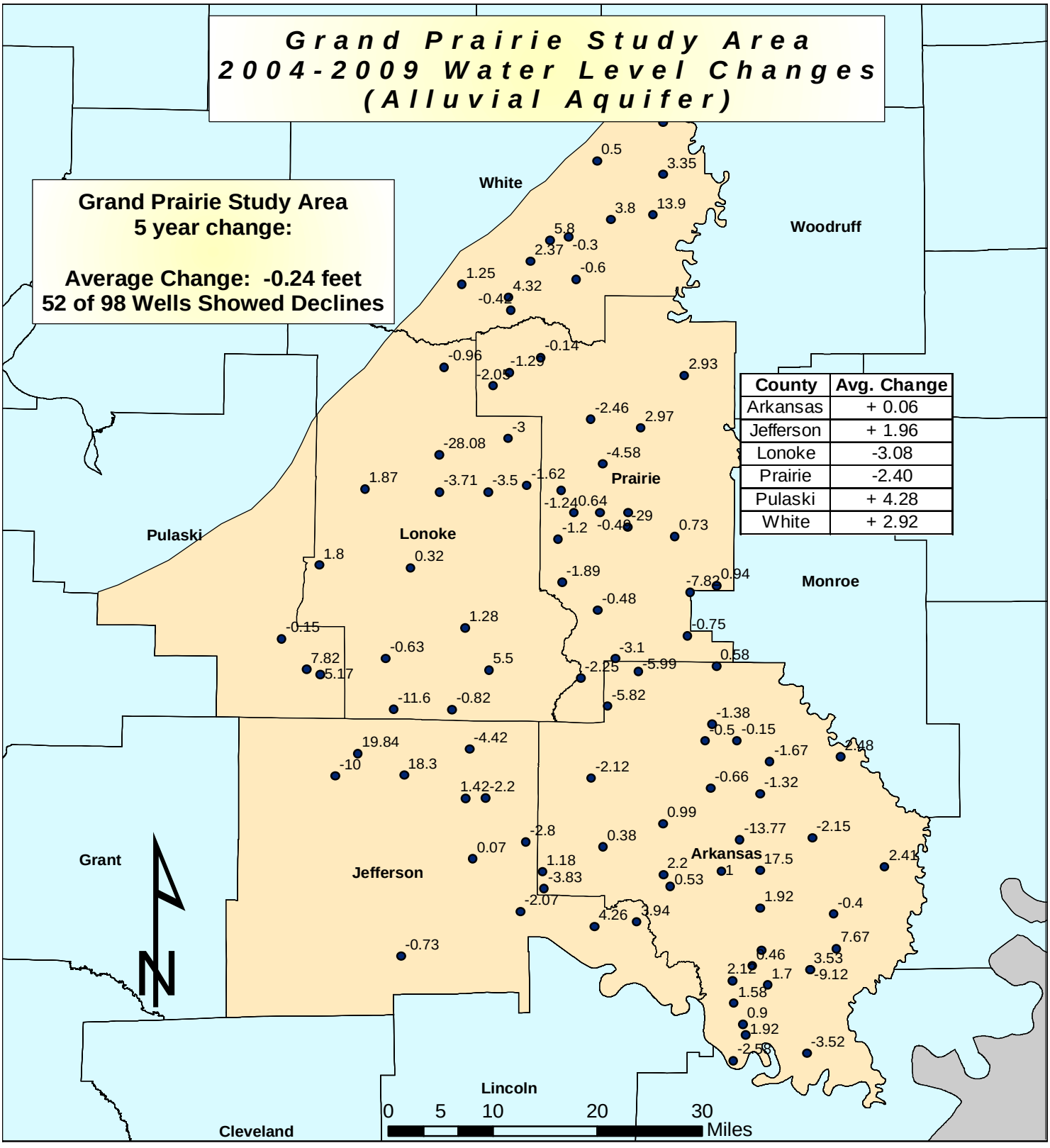


Fig. 15



County	Avg. Change
Arkansas	+ 0.06
Jefferson	+ 1.96
Lonoke	-3.08
Prairie	-2.40
Pulaski	+ 4.28
White	+ 2.92

Legend

- Wells
- Grand Prairie Study Area

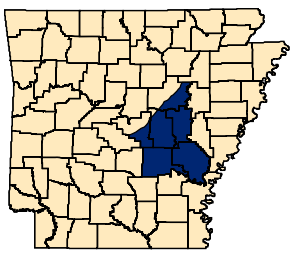
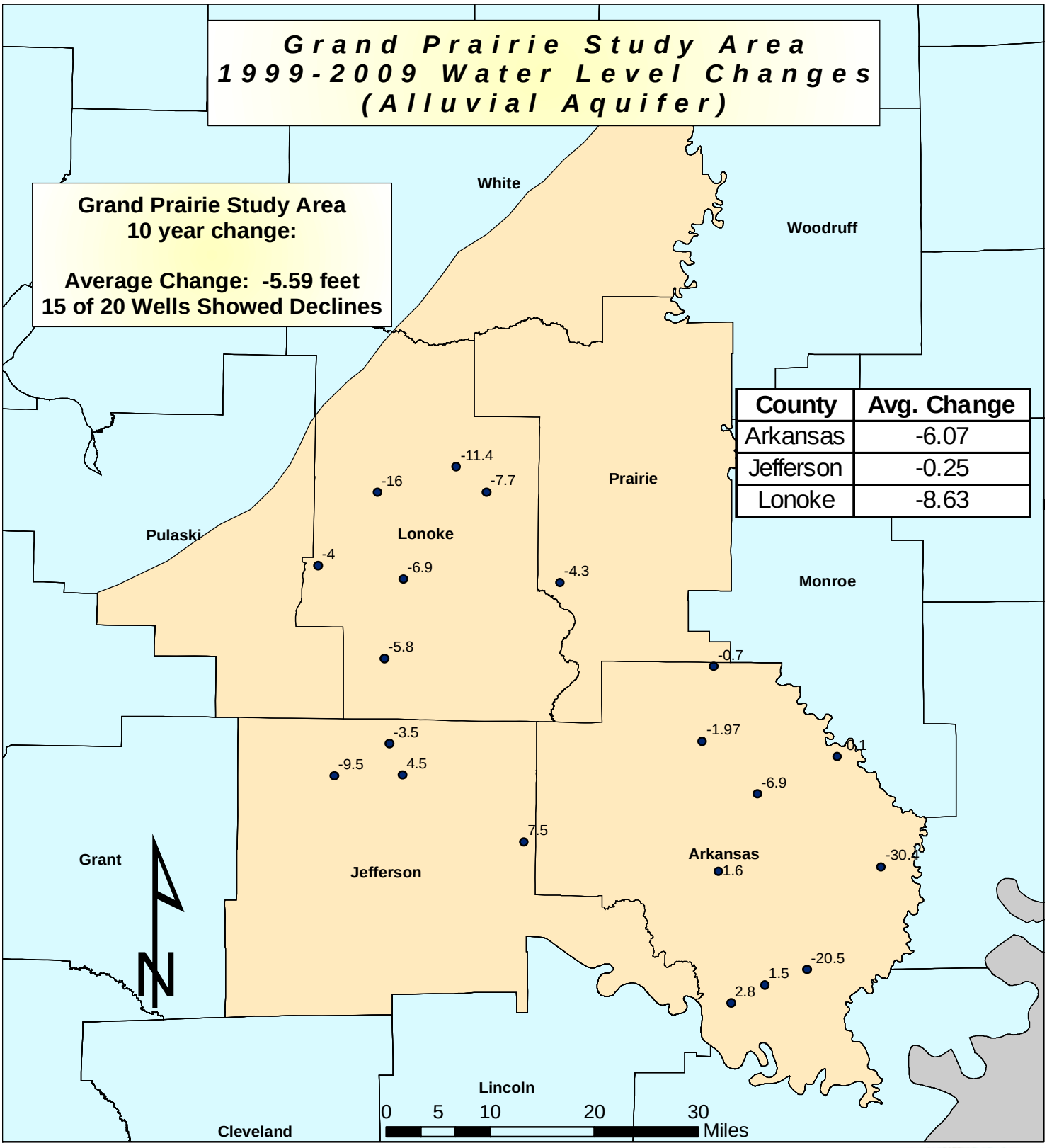


Fig. 16



County	Avg. Change
Arkansas	-6.07
Jefferson	-0.25
Lonoke	-8.63

Legend

- Wells
- Grand Prairie Study Area

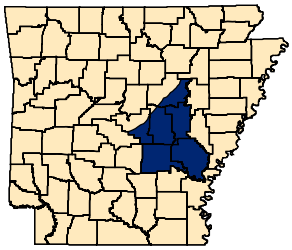


Fig. 17

CACHE CRITICAL GROUND WATER AREA

The Cache Study Area is defined as the 7300 square mile region between Crowley's Ridge to the east, the Fall Line to the west, the state line to the north, and the White River to the south. (Ackerman, 1996) This study area includes portions of Craighead, Poinsett, Cross, St. Francis, Lee, Phillips, Monroe, Woodruff, Jackson, Lawrence, Greene, and Clay Counties. (Fig.1) Areas west of Crowley's Ridge in the Cache Study Area have been designated a Critical Ground Water Area as of 2010. (Fig.3)

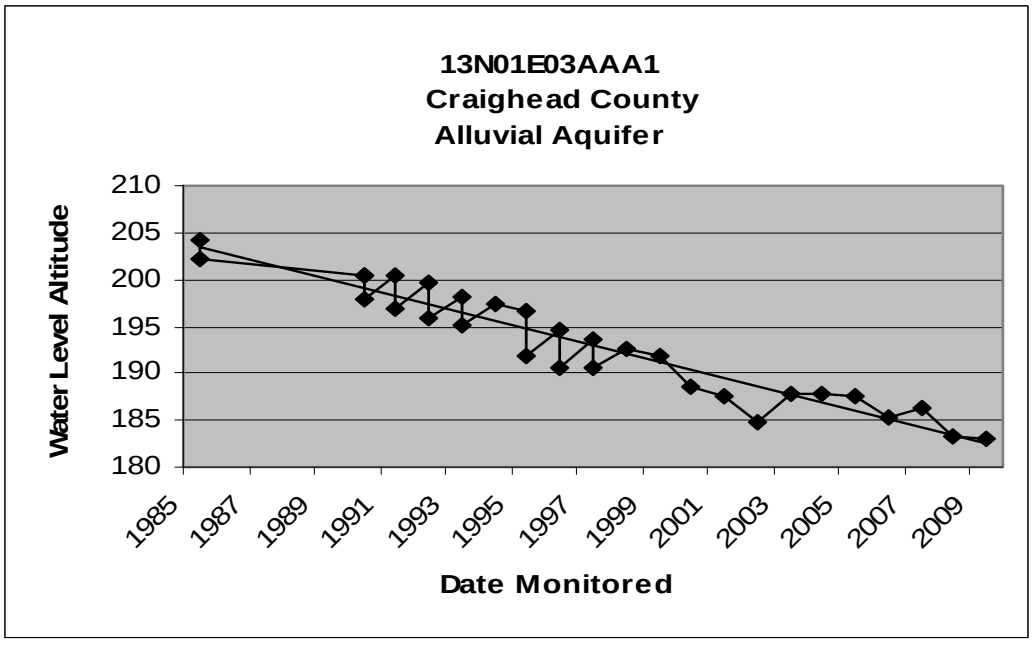
Monitoring of the alluvial aquifer in this study area from 2008 to 2009 showed declines in 109 of the 200 wells monitored. (54.5%) The study area showed an average change of -0.08 feet during this time. (Fig. 18)

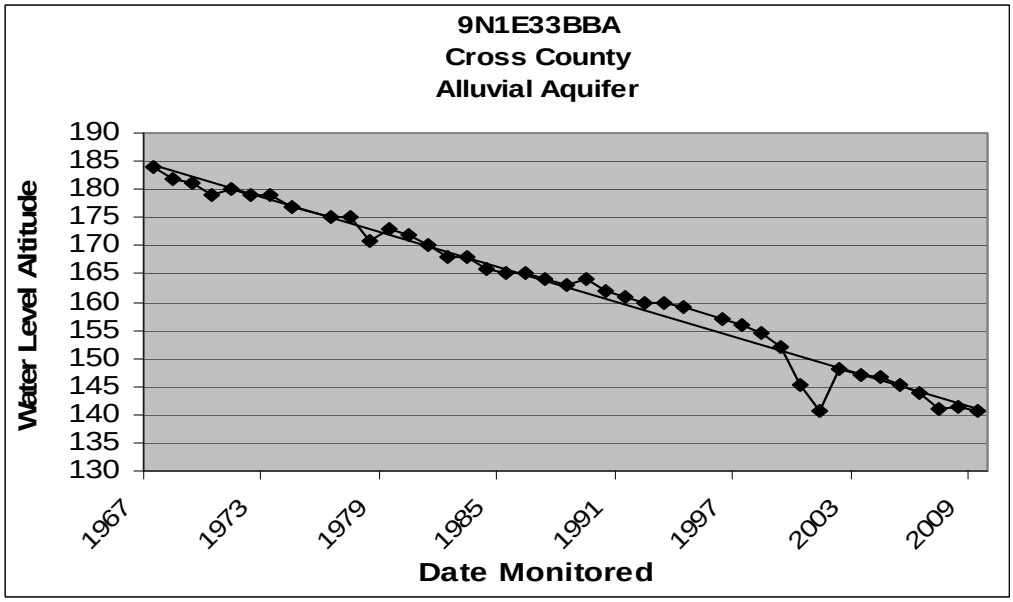
The alluvial aquifer in the Cache Study Area was also evaluated for change in water levels for a 5-year time period from 2004 to 2009. For this period the study area had an average change of -2.33 feet, with 132 of the 181 (72.9%) wells monitored showing declines. (Fig.19)

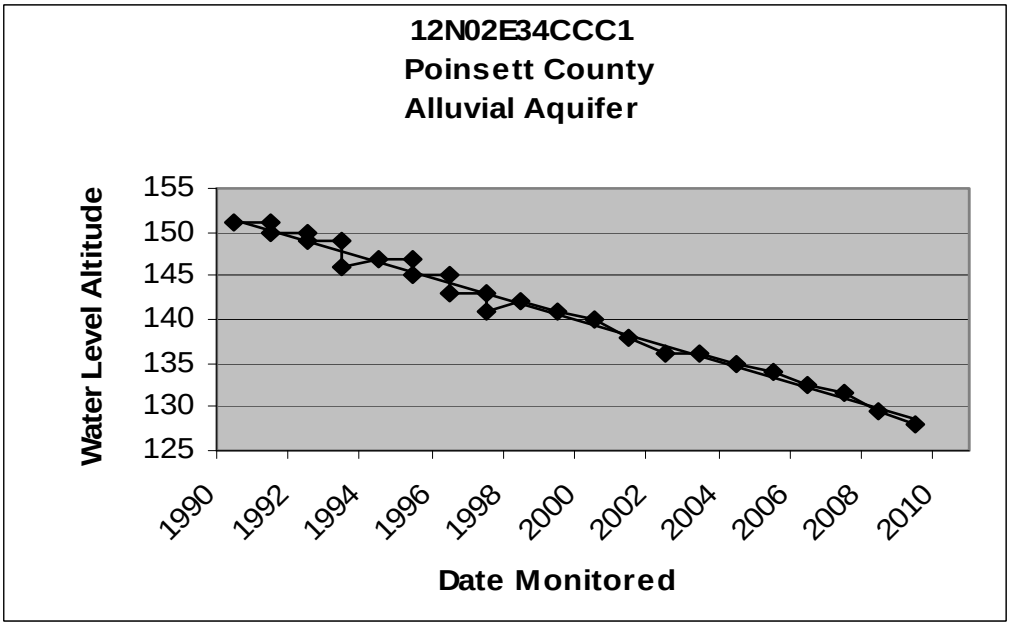
Average change was also compared in the alluvial aquifer for a 10-year timeframe for the Cache Study Area. Of the 82 wells monitored, 67 of these (81.7%) showed an average decline. The average change for the study area over this time was a decline of -6.85 feet. (Fig.20)

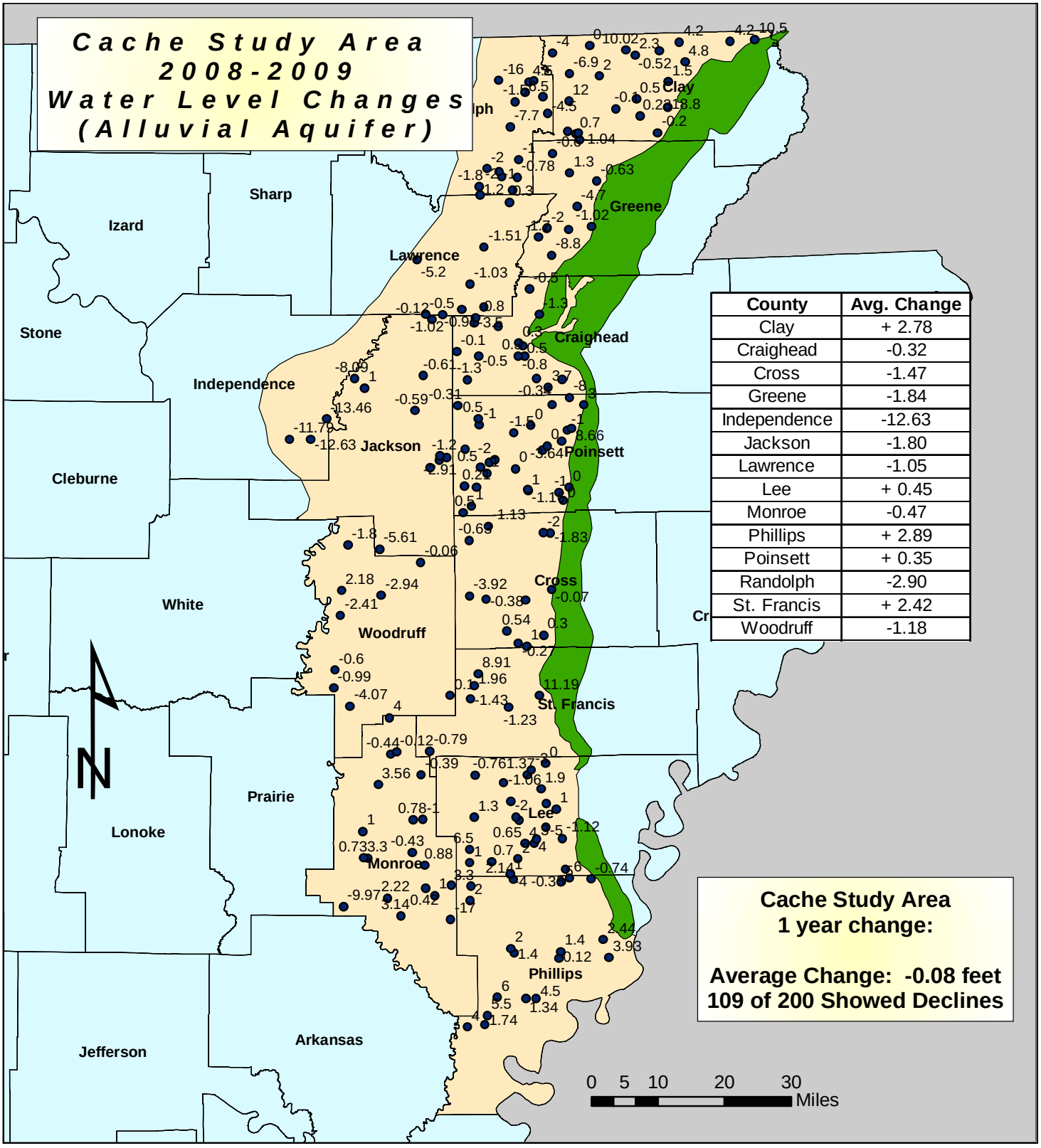
Based on the USGS's Conjunctive-Use Optimization Models of the Alluvial Aquifer sustainable yields were acquired based on the 1997 pumping rates. The percentage of the sustainable yield for each county in the model is shown in figure 43 and is based on the 2007 withdrawals. Water-use data shown in Table 1 is the reported use for 2007. Based on the reported water use for 2007, as well as the sustainable yields estimated from the USGS models, the percentage of water use that was sustainable in 2007 for each county in the Cache Study Area are as follows; Craighead County 69.9%, Cross County 24.5%, Greene County 30.2%, Jackson County 50.8%, Lawrence County 100%, Lee County 22.0%, Monroe County 67.4%, Phillips County 41.3%, Poinsett County 24.5%, Randolph County 63.9%, Woodruff County 100% and St. Francis County 26.2% respectively. It should be noted that Clay County

was “allowed” 100% of its 1997 pumping rate by the USGS model as part of the optimization. When the County’s pumping rate went from 234.9 Mgal/d in 1997 to 671.33 Mgal/d in 2007, this dropped the sustainable yield to 35.0%. While the 234.9 Mgal/d in 1997 may not have been the maximum volume sustainable in this county, the model assigned it 100% sustainable as part of the optimization. This should be noted when taking into account the 35.0% sustainable figure for 2007. Another factor that should be considered is the hydrogeologic boundary that is Crowley’s Ridge. Due to the separation of the alluvial aquifer by the ridge in some counties in the Cache Study Area, the sustainable yields may be even lower west of the ridge, as the total county volume of ground-water was taken into account for the 1997 and 2007 pumping rates.




9N1E33BBA
Cross County
Alluvial Aquifer
Water Level Altitude
190
185
180
175
170
165
160
155
150
145
140
135
130
1967
1973
1979
1985
1991
1997
2003
2009
Date Monitored


12N02E34CCC1
Poinsett County
Alluvial Aquifer
Water Level Altitude
155
150
145
140
135
130
125
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
Date Monitored



County	Avg. Change
Clay	+ 2.78
Craighead	-0.32
Cross	-1.47
Greene	-1.84
Independence	-12.63
Jackson	-1.80
Lawrence	-1.05
Lee	+ 0.45
Monroe	-0.47
Phillips	+ 2.89
Poinsett	+ 0.35
Randolph	-2.90
St. Francis	+ 2.42
Woodruff	-1.18

Cache Study Area
1 year change:

Average Change: -0.08 feet
109 of 200 Showed Declines

Legend

- Wells
- Crowleys Ridge
- Cache Study Area

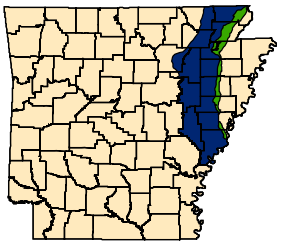
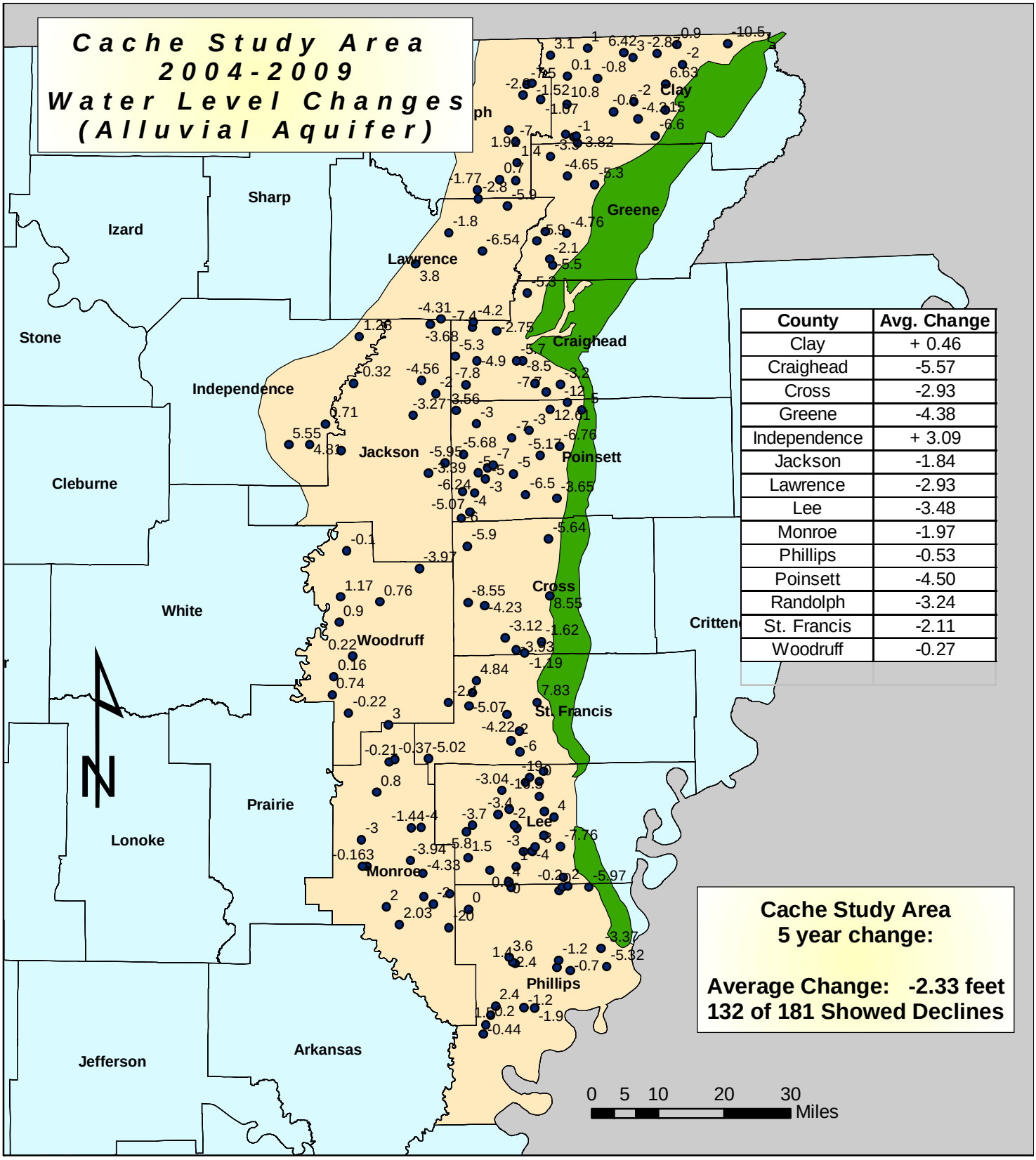


Fig. 18



County	Avg. Change
Clay	+ 0.46
Craighead	-5.57
Cross	-2.93
Greene	-4.38
Independence	+ 3.09
Jackson	-1.84
Lawrence	-2.93
Lee	-3.48
Monroe	-1.97
Phillips	-0.53
Poinsett	-4.50
Randolph	-3.24
St. Francis	-2.11
Woodruff	-0.27

Cache Study Area
5 year change:

Average Change: -2.33 feet
132 of 181 Showed Declines

Legend

- Wells
- Crowleys Ridge
- Cache Study Area

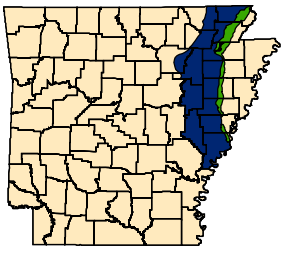
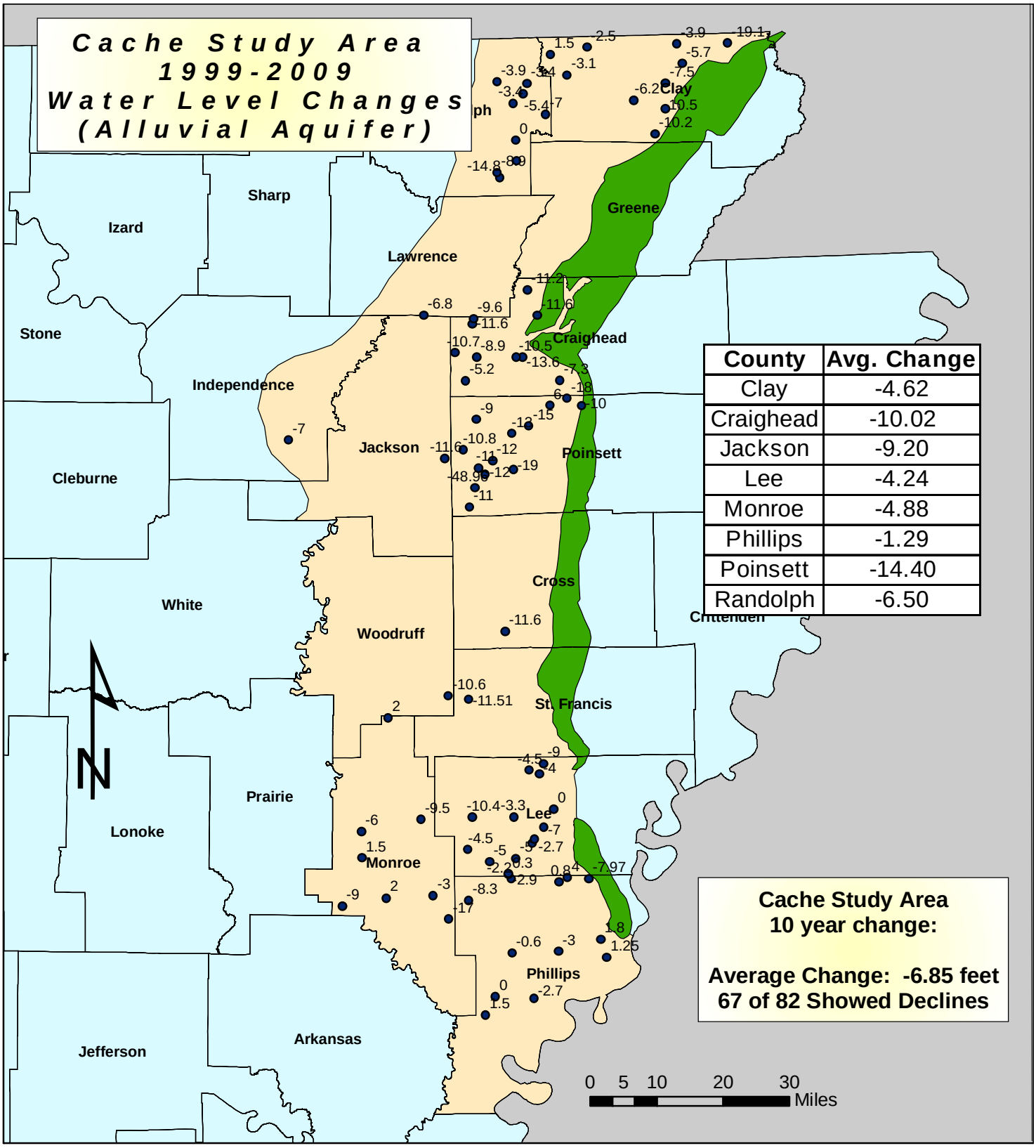


Fig. 19



County	Avg. Change
Clay	-4.62
Craighead	-10.02
Jackson	-9.20
Lee	-4.24
Monroe	-4.88
Phillips	-1.29
Poinsett	-14.40
Randolph	-6.50

Cache Study Area
10 year change:

Average Change: -6.85 feet
67 of 82 Showed Declines

Legend

- Wells
- Crowleys Ridge
- Cache Study Area

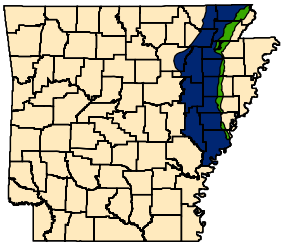
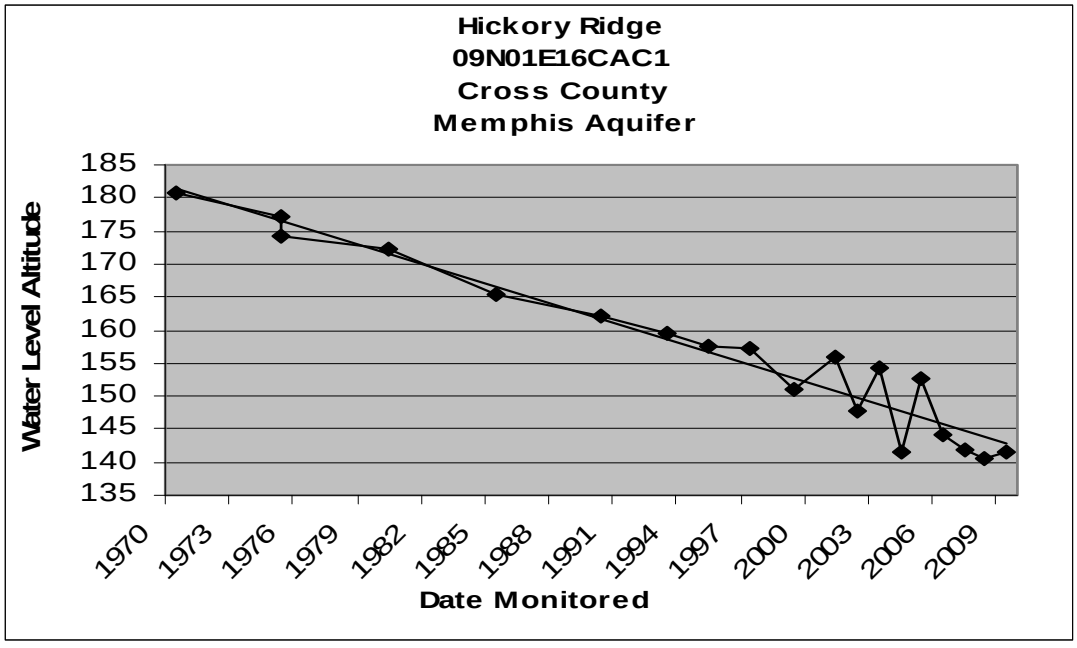


Fig. 20

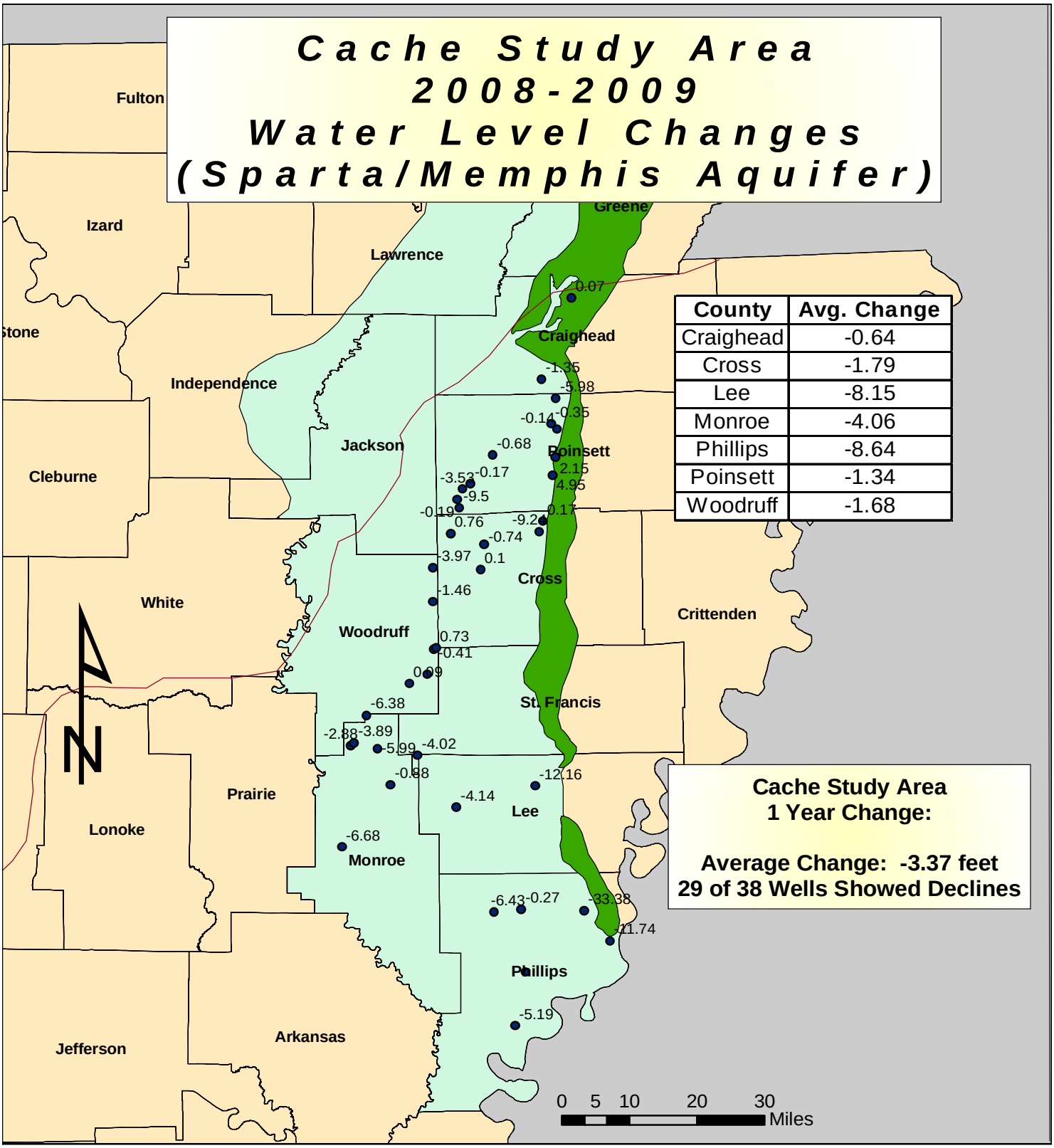
Monitoring of the Sparta/Memphis aquifer in the Cache Critical Ground Water Area from 2008 to 2009 shows that the study area had an overall average change in static water level of -3.37 feet. Although there are not as many irrigation wells in the Sparta/Memphis aquifer as there are in the alluvial aquifer in this study area, there has been an increase in recent years as the water level in the alluvial aquifer continues to drop. Twenty-nine of the 38 wells (76.3%) monitored showed declines during this time period. (Fig.21)

During the 2003 to 2008 monitoring period the Sparta/Memphis aquifer in the Cache Study Area had an average water level decline of -5.22 feet, with 26 of the 30 wells monitored (86.7%) showing decline. (Fig. 22)

Of the 31 wells monitored from 1999 to 2009, 25 (80.6%) show declines over this time. The average ground water level change for the Sparta/Memphis Aquifer in the study area was -7.35 feet over this 10-year period. (Fig.23)



Cache Study Area 2008-2009 Water Level Changes (Sparta/Memphis Aquifer)



County	Avg. Change
Craighead	-0.64
Cross	-1.79
Lee	-8.15
Monroe	-4.06
Phillips	-8.64
Poinsett	-1.34
Woodruff	-1.68

Cache Study Area
1 Year Change:

Average Change: -3.37 feet
29 of 38 Wells Showed Declines

Legend

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

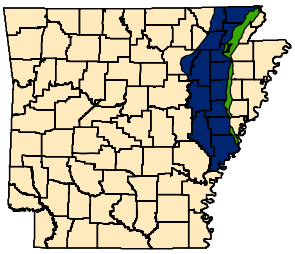
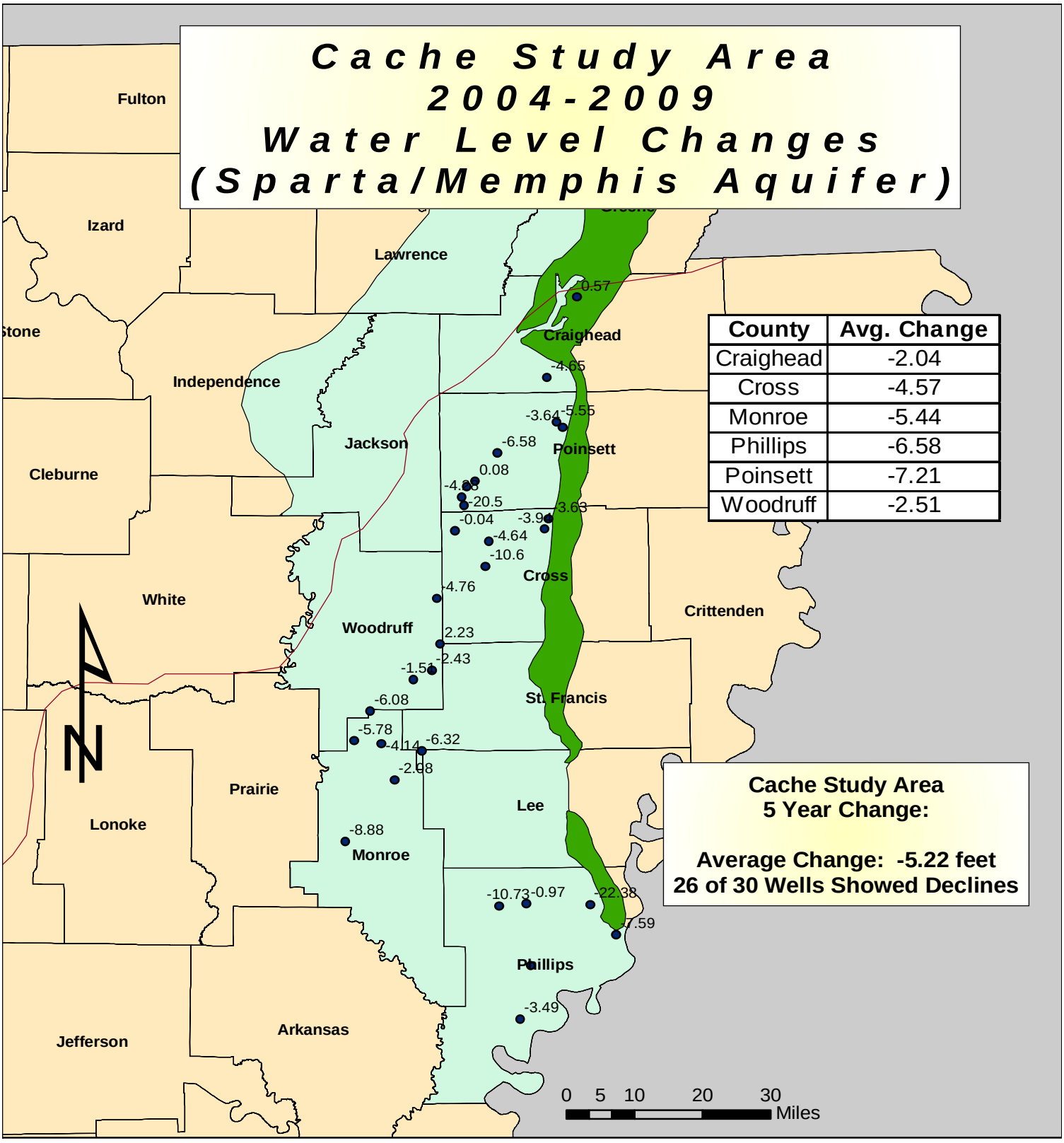


Fig. 21

Cache Study Area
2004-2009
Water Level Changes
(Sparta/Memphis Aquifer)



County	Avg. Change
Craighead	-2.04
Cross	-4.57
Monroe	-5.44
Phillips	-6.58
Poinsett	-7.21
Woodruff	-2.51

Cache Study Area
5 Year Change:

Average Change: -5.22 feet
26 of 30 Wells Showed Declines

Legend

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

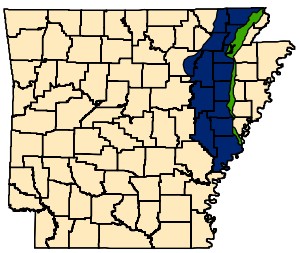


Fig. 22

Cache Study Area
1999-2009
Water Level Changes
(Sparta/Memphis Aquifer)

County	Avg. Change
Cross	-8.84
Lee	-11.29
Monroe	-4.09
Phillips	-6.78
Poinsett	-10.63
Woodruff	-7.38

Cache Study Area
10 Year Change:

Average Change: -7.35 feet
25 of 31 Wells Showed Declines

Legend

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

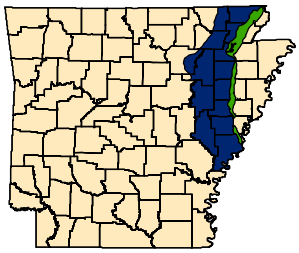


Fig. 23

BOEUF-TENSAS STUDY AREA

The Boeuf-Tensas study area in southeast Arkansas is comprised of Ashley, Chicot, Desha, Drew, and Lincoln Counties. This hydrologic basin extends into Louisiana but for the purposes of this study will be bounded by the Arkansas state line to the south.

The alluvial aquifer data in the Boeuf-Tensas Study Area for the monitoring period of 2008-2009 showed the entire study area having an average change of +0.20 feet. There were 77 wells monitored for this aquifer over this time period with 39 (50.6%) monitored having declines in static water level. (Fig.24)

During the 5-year monitoring period from 2004 to 2009 the study area had an average change of -2.92 feet in the alluvial aquifer, with 60 of the 74 wells monitored (81.1%) showing declines. (Fig.25)

The data for the 10-year change in the Boeuf-Tenses shows the entire study area showed an average change of -6.54 feet during this period in the alluvial aquifer with 3 of 19 wells monitored (15.8%) showing declines. (Fig.26)

Based on the USGS Conjunctive-Use Optimization Models of the alluvial aquifer (Czarnecki, 2003) sustainable yields were acquired based on the 1997 pumping rates. The percentage of the sustainable yield for each county based on the 2007 rates is shown in table 1. Water-use data shown in Table 3 is the reported use for 2007. Ground-water use in the Boeuf-Tensas hydrogeologic unit increased from 61.8 to 110.2 from 1997 to 2007, an increase of 78 percent. Based on the reported water use for 2007, as well as the sustainable yields estimated from the USGS models, the average percentage of water use in the alluvial aquifer that is sustainable in the Boeuf-Tenses Study Area is 54%. Though additional water may be available in some portions of the study area, the sustainable yield optimization considers the occurrence of high salinity which is also a limiting factor.

A recent water-quality study (Kresse, 2008) suggests that the briny ground water in the Boeuf-Tensas area is from upward movement through faulting, with the Smackover formation as a possible source of salinity. Trend analysis is inconclusive

due to an insufficient data set, but the overall shape and size of the zone of elevated chloride concentrations has remained relatively static (Kresse, 2008).

Table 1.

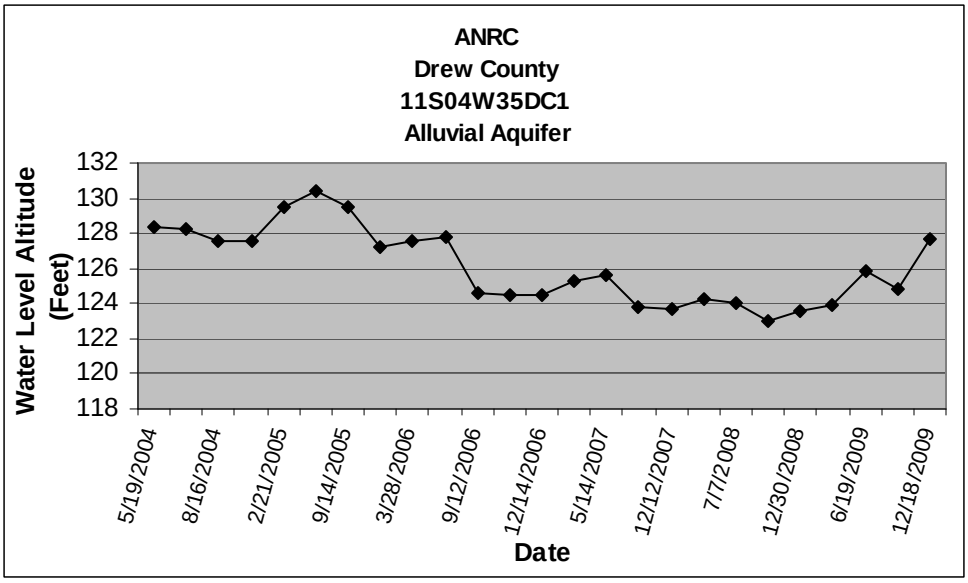
	Sustainable Yield	2007 Water Use	Percent Sustainable
Ashley	8.7	14.7	59
Chicot	7.9	27.7	29
Desha	19.6	37	53
Drew	6.8	6.8	100
Lincoln	15.9	24	66
Total	58.9	110.2	54

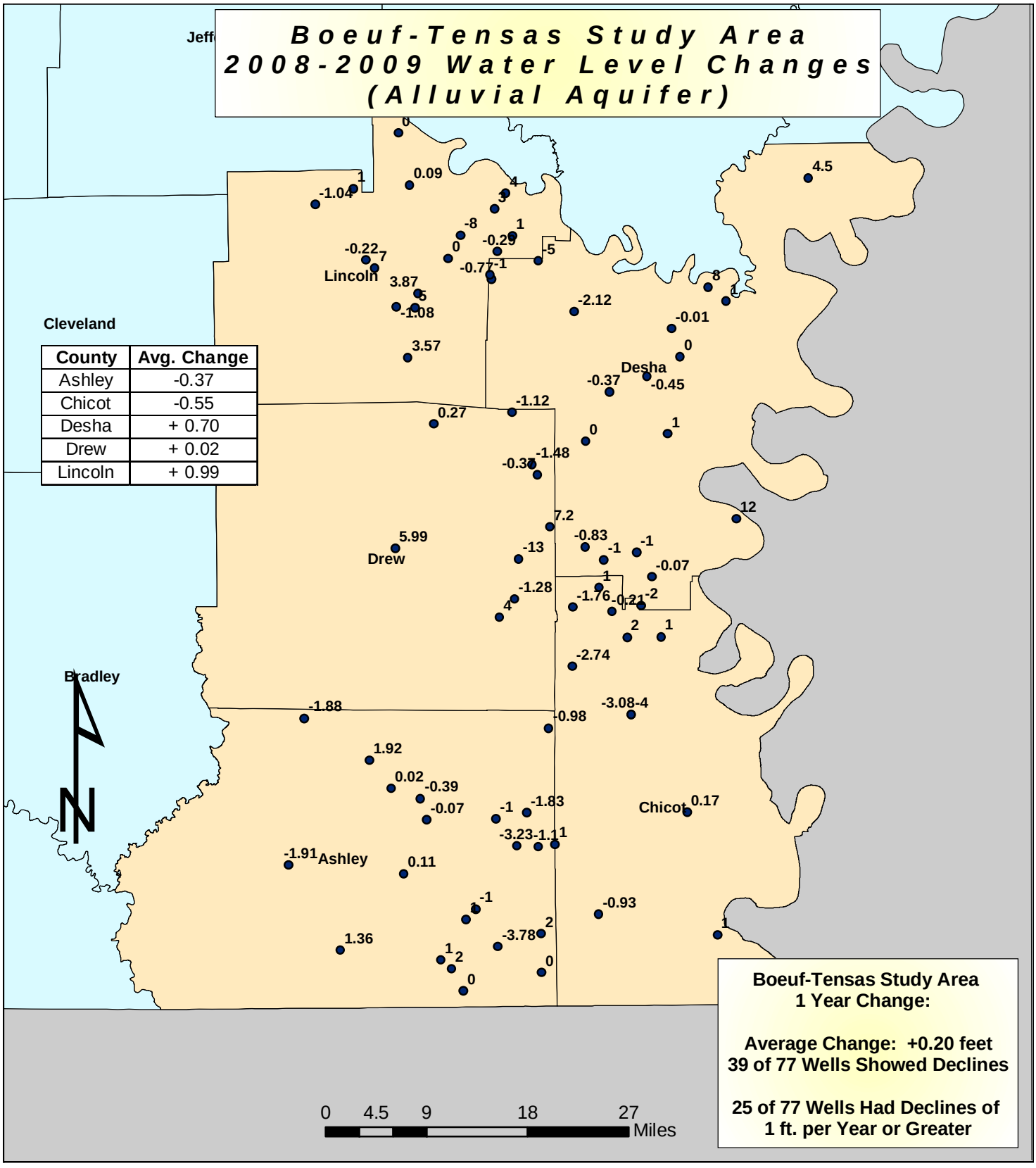
The Boeuf-Tensas area of southeastern Arkansas has been identified as a study area for years because of concerns with water-level declines as well as water-quality degradation. When compared to other areas of the State such as the Grand Prairie, Cache or South Arkansas study areas, the degree of ground-water depletion is observed to be much less severe. However, potentiometric surface maps do indicate the initial stages of the formation of a cone-of-depression. Conservation practices in this area could prove to be a valuable and proactive measure that may prevent adverse impacts on the aquifer as well as water users.

Table 2. is an evaluation of each county when compared to the critical ground water area criteria established in the Ground Water Protection and Management Act of 1991. In table 2 below; "O" indicates the county does not meet critical area criteria at this time, "X" indicates criteria are met, and "—" indicates there is insufficient data for a determination to be made at this time.

Table 2.

	Declines	Saturated Thickness	Sustainable Yield	Water Quality
Ashley	X	O	X	--
Chicot	X	O	X	--
Desha	X	O	X	--
Drew	X	O	O	--
Lincoln	X	O	X	--





Legend

- Wells
- Beouf-Tensas Study Area

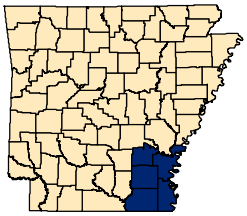
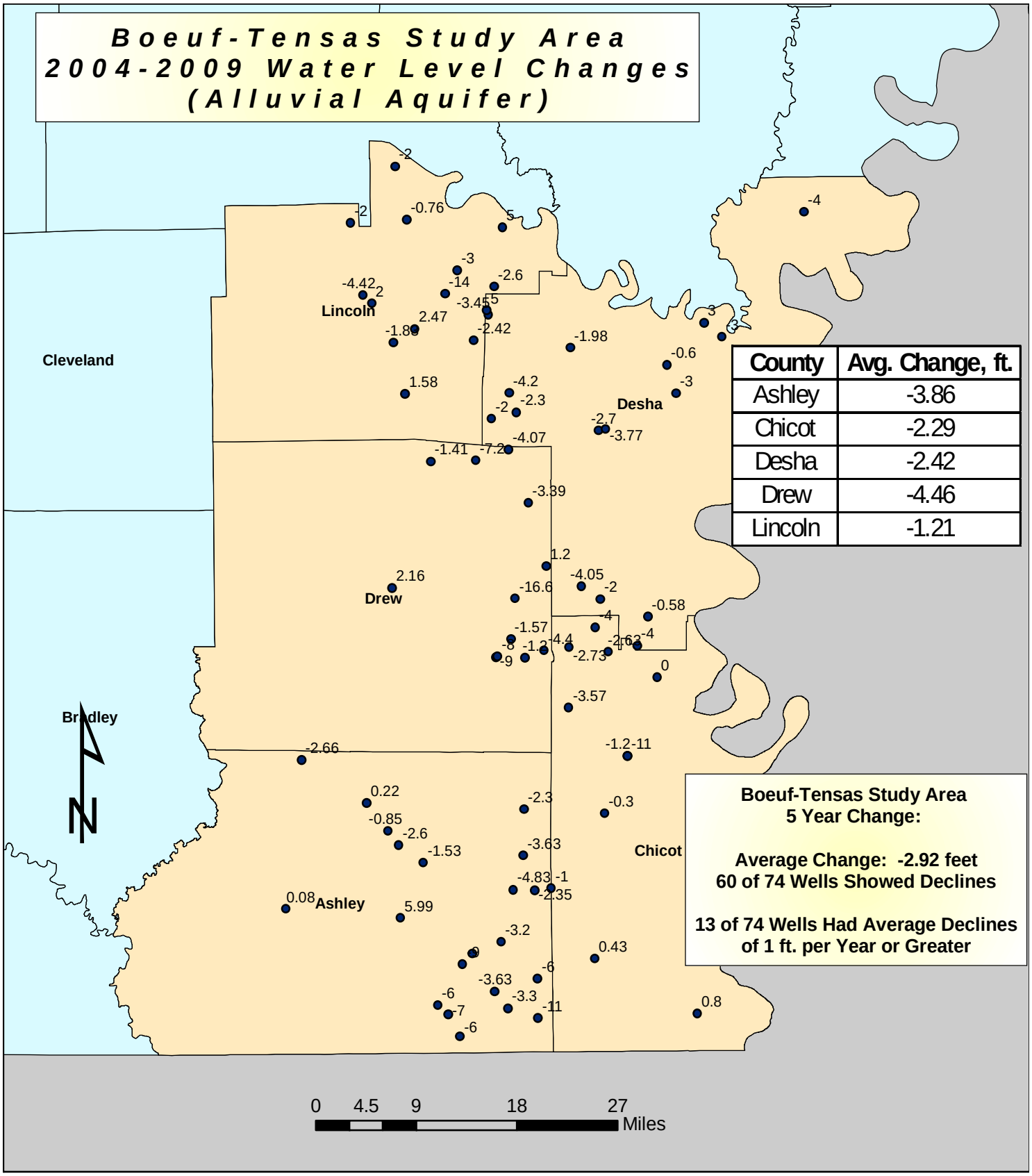


Fig. 24



Legend

- Wells
- Beouf-Tensas Study Area

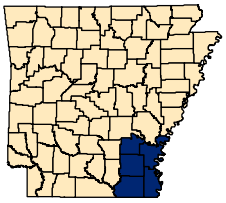
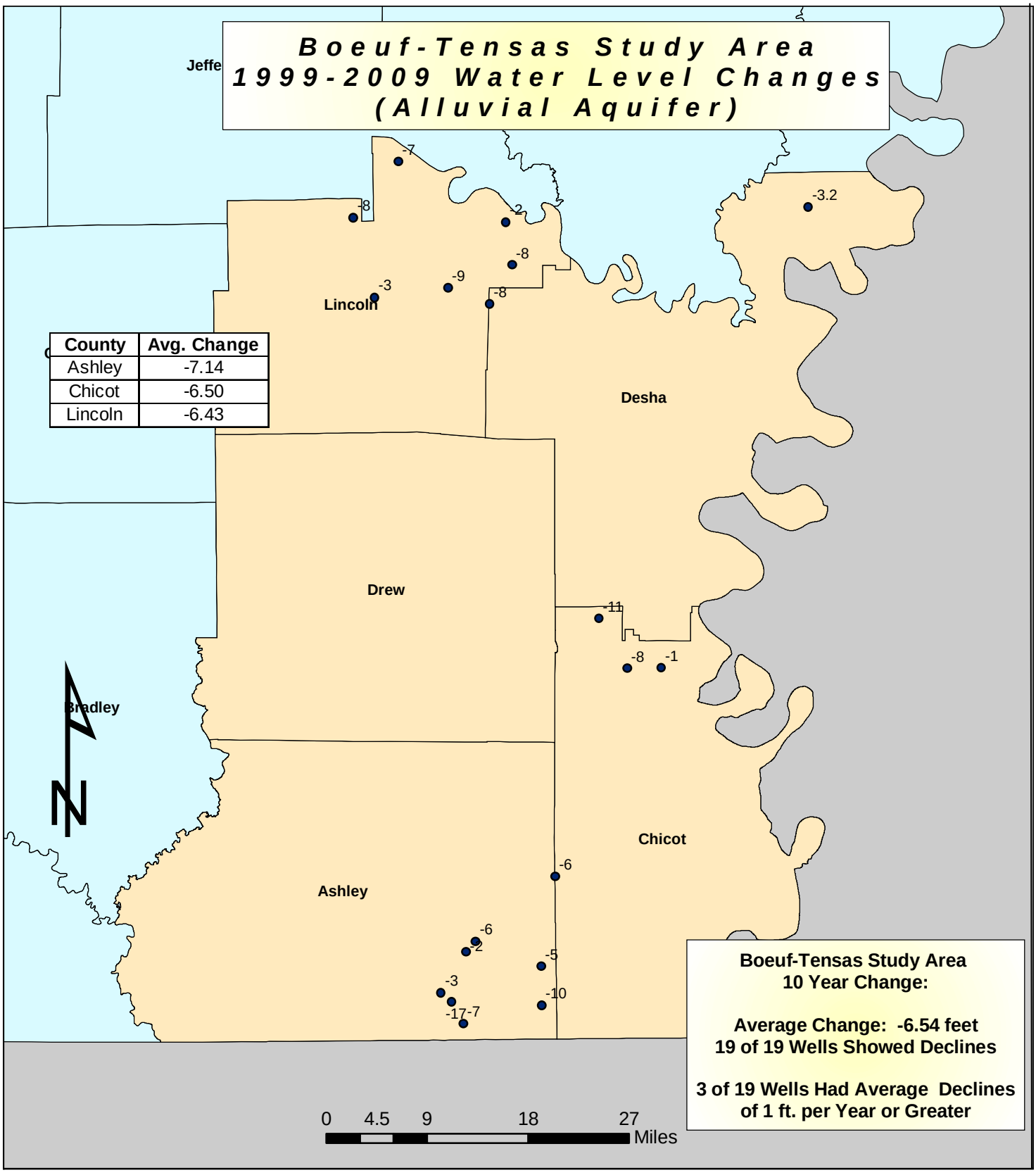


Fig. 25



Legend

- Wells
- Beouf-Tensas Study Area

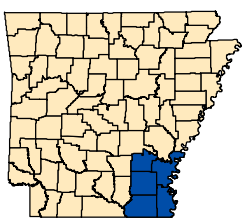
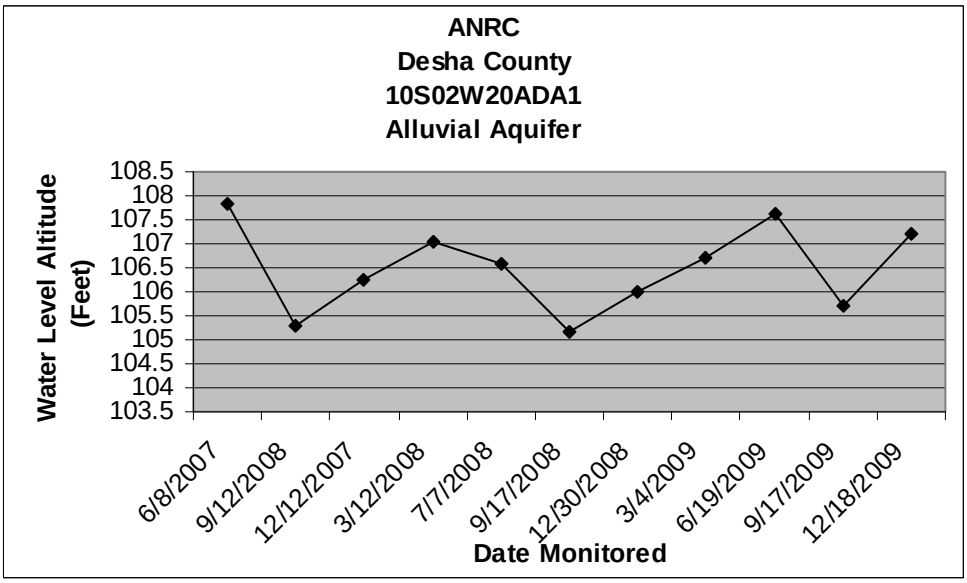
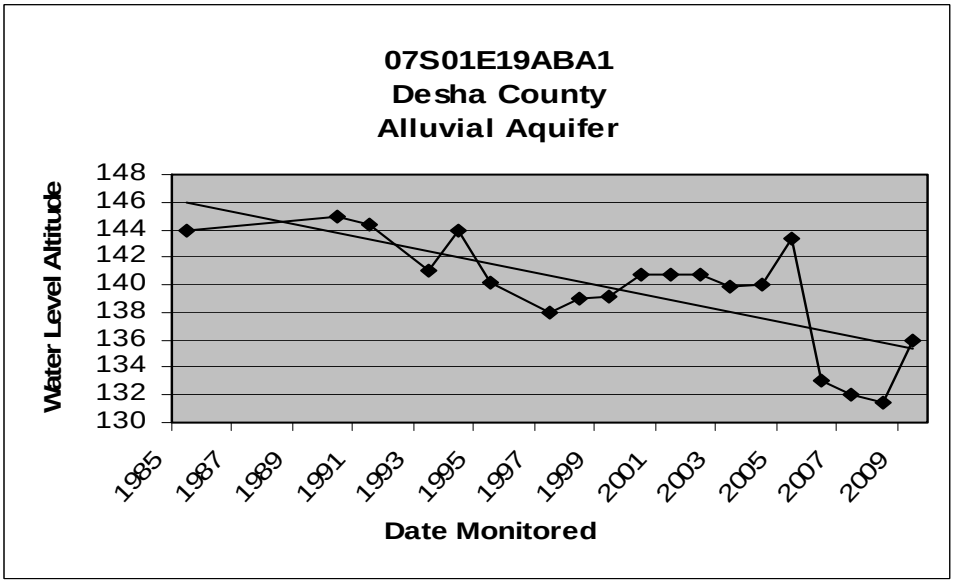


Fig. 26


ANRC
Desha County
10S02W20ADA1
Alluvial Aquifer
Water Level Altitude (Feet)
108.5
108
107.5
107
106.5
106
105.5
105
104.5
104
103.5
6/8/2007
9/12/2008
12/12/2007
3/12/2008
7/7/2008
9/17/2008
12/30/2008
3/4/2009
6/19/2009
9/17/2009
12/18/2009
Date Monitored

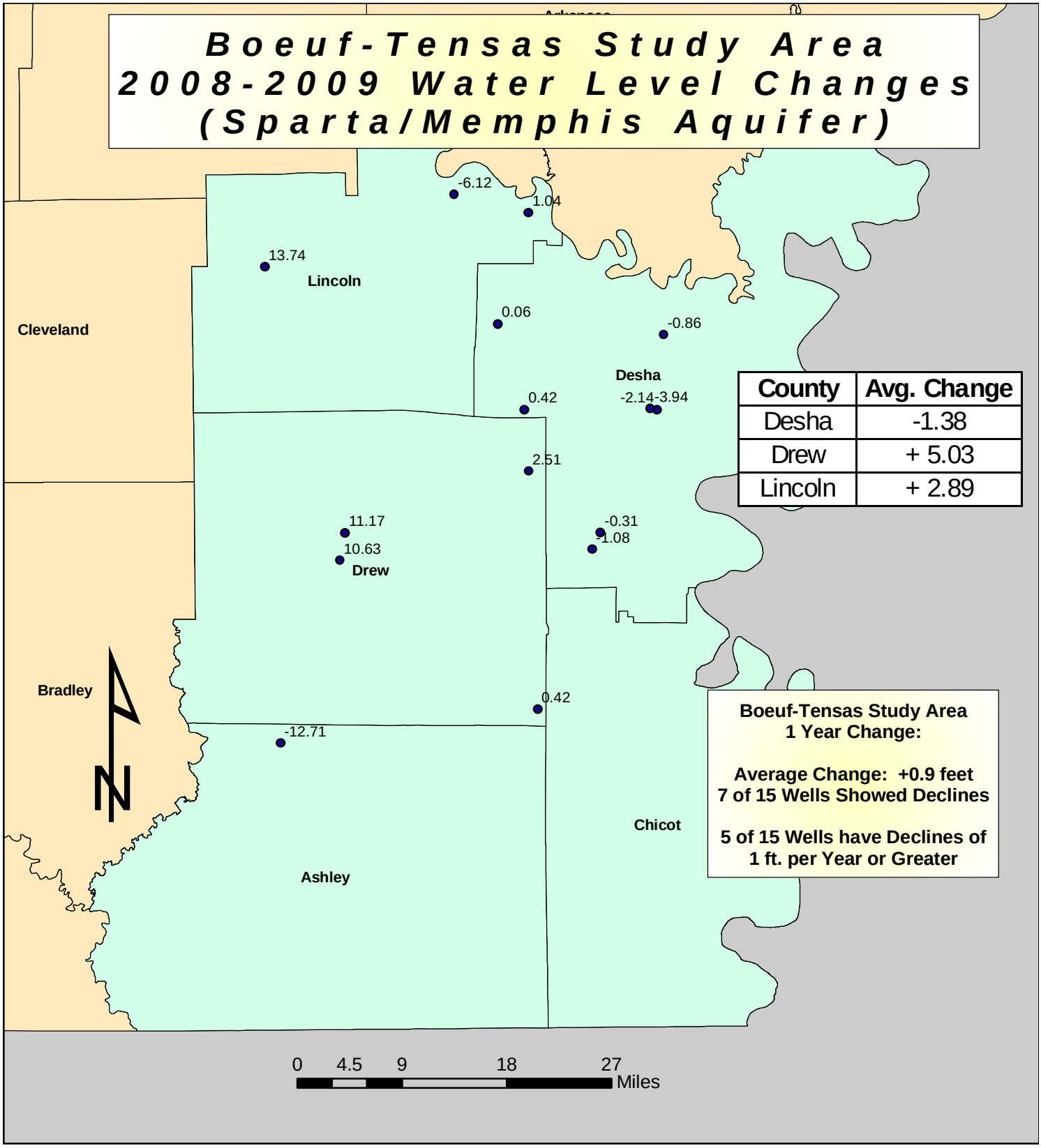

07S01E19ABA1
Desha County
Alluvial Aquifer
Water Level Altitude
148
146
144
142
140
138
136
134
132
130
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
Date Monitored

Continued monitoring of the ground-water levels in the Sparta aquifer of the Boeuf-Tensas Study Area shows mixed results mostly because of the relative lack of wells that are drilled into the aquifer in this part of the state. The ANRC as well as the USGS continue to add Sparta aquifer wells to the database from this study area and the historical data continues to improve every year.

During the 2008-2009 monitoring period the Boeuf-Tenses Study Area showed an average change of +0.90 feet in the Sparta/Memphis aquifer, with 5 of the 15 wells monitored (33.3%) showing declines. (Fig.27)

During the 5-year monitoring period, from 2004 to 2009, 16 of the 19 wells monitored in the Sparta/Memphis aquifer (84.2%) showed water-level declines in this study area. The entire study area had an average change of –8.73 feet during this time. (Fig.28)

From 1999 to 2009 the entire Boeuf-Tensas Study Area had an average change of -9.18 feet in the Sparta/Memphis aquifer. Eighteen of the 24 wells monitored during this 10-year period (75.0%) showed declines. (Fig. 29) Most noticeable in this study area is the average decline in the northwest portion of the area in the Sparta Aquifer. As seen in figure 2, this is possibly long-term average decline due to the expansion of the cone of depression to the southeast out of Jefferson County. Also water use from the Sparta Aquifer in Lincoln County has increased from 1.53 Mgal/day in 2006 to 2.67 Mgal/day in 2007, an increase of 57.3%.



Legend

- Wells
- Boeuf- Tensas Study Area

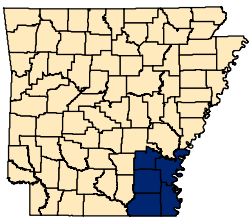
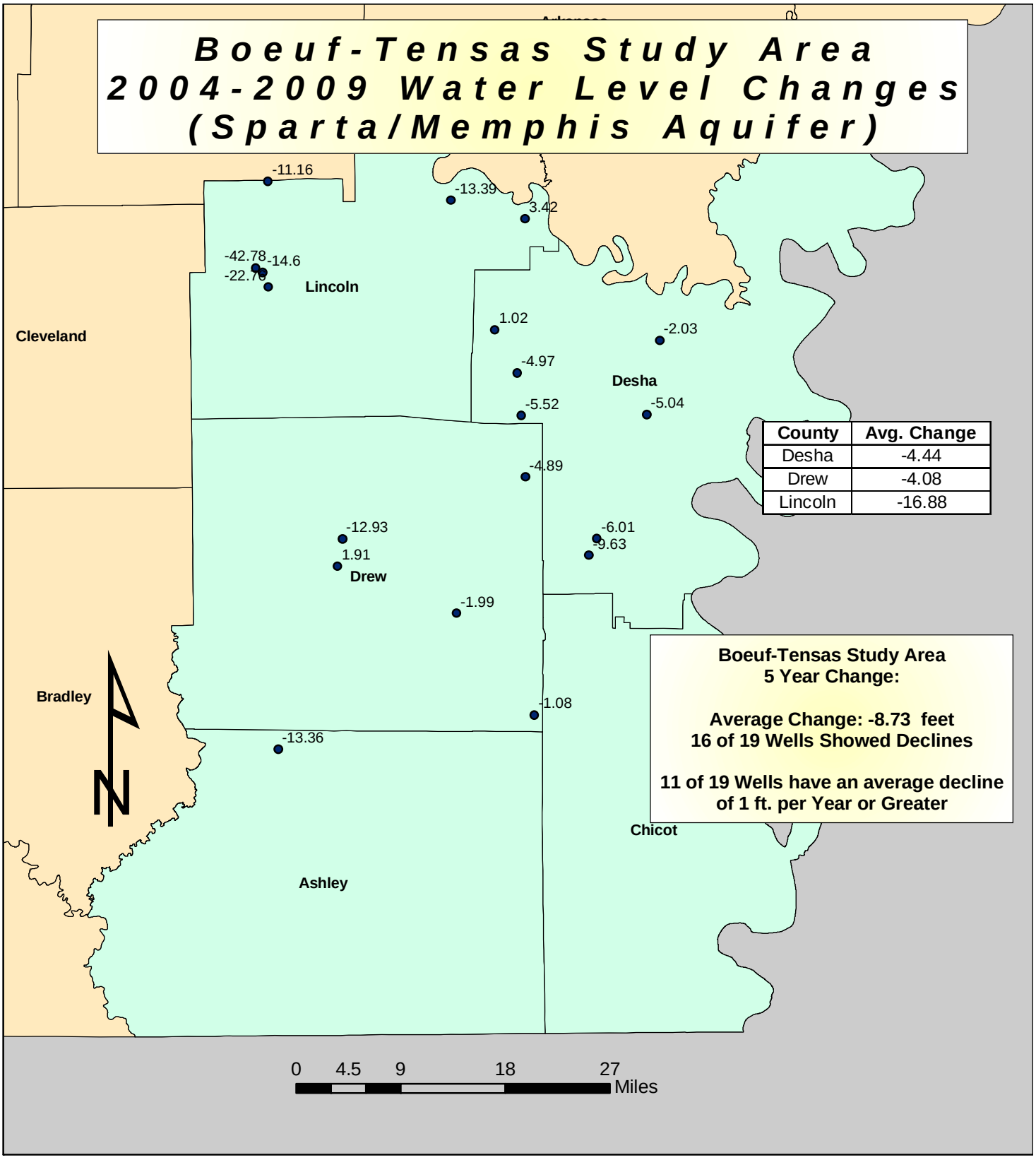


Fig. 27



Legend

- Wells
- Boeuf- Tensas Study Area

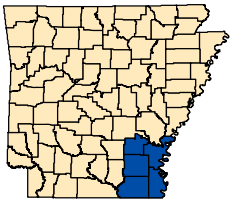
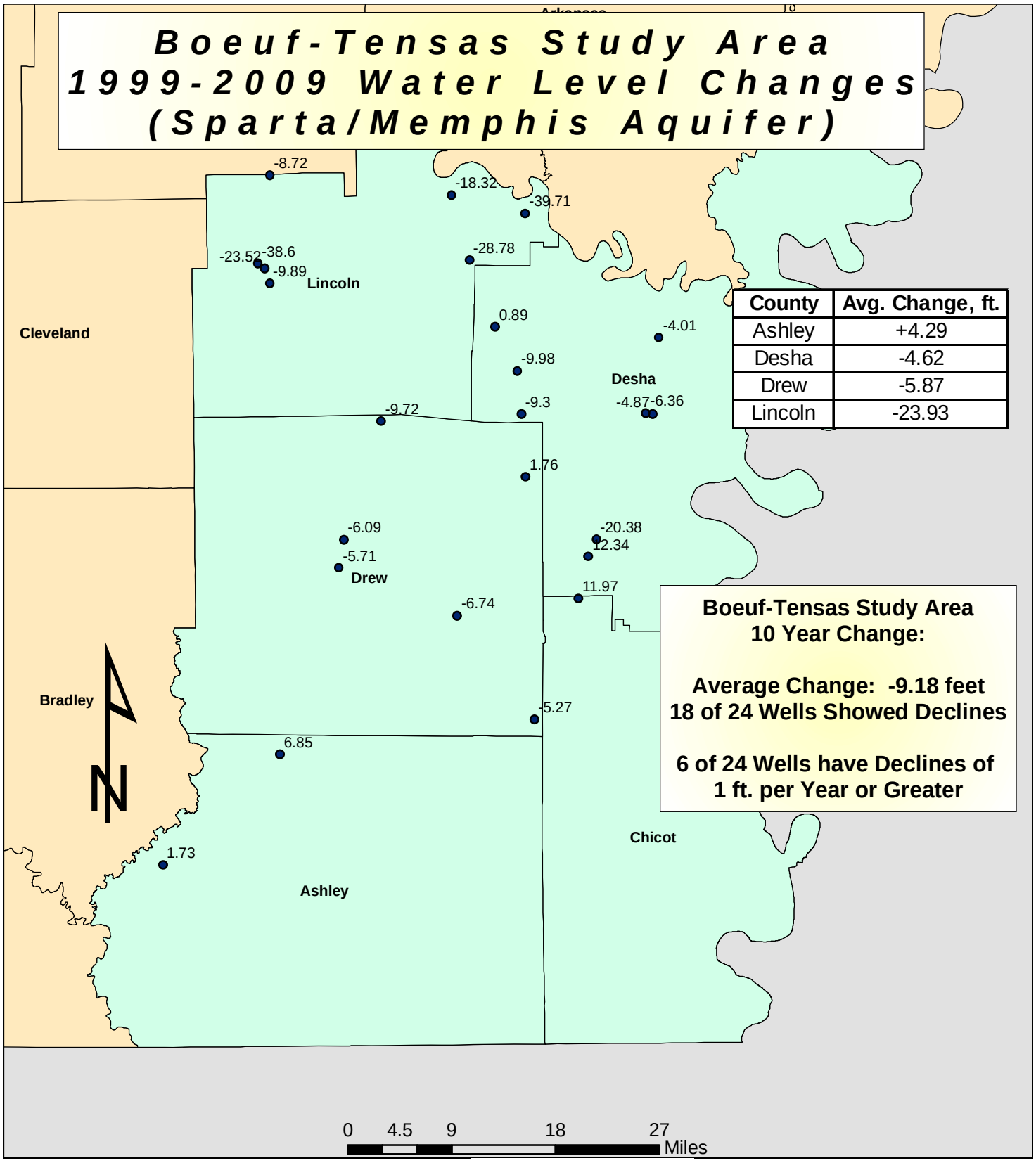


Fig. 28



County	Avg. Change, ft.
Ashley	+4.29
Desha	-4.62
Drew	-5.87
Lincoln	-23.93

Boeuf-Tensas Study Area
10 Year Change:

Average Change: -9.18 feet
18 of 24 Wells Showed Declines

6 of 24 Wells have Declines of 1 ft. per Year or Greater

Legend

- Wells
- Boeuf- Tensas Study Area

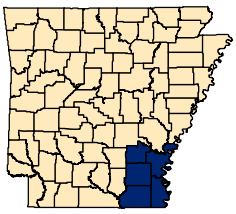


Fig. 29

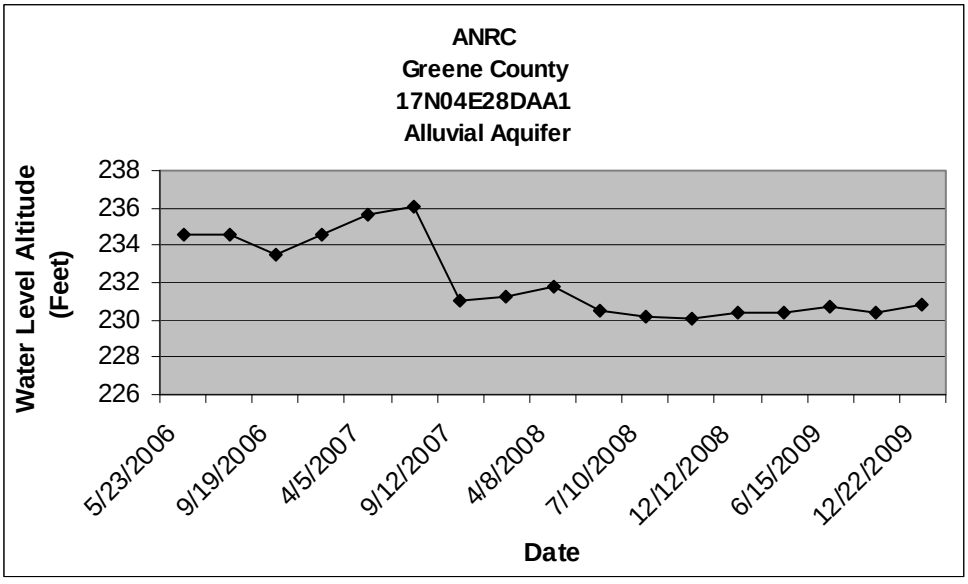
ST. FRANCIS STUDY AREA

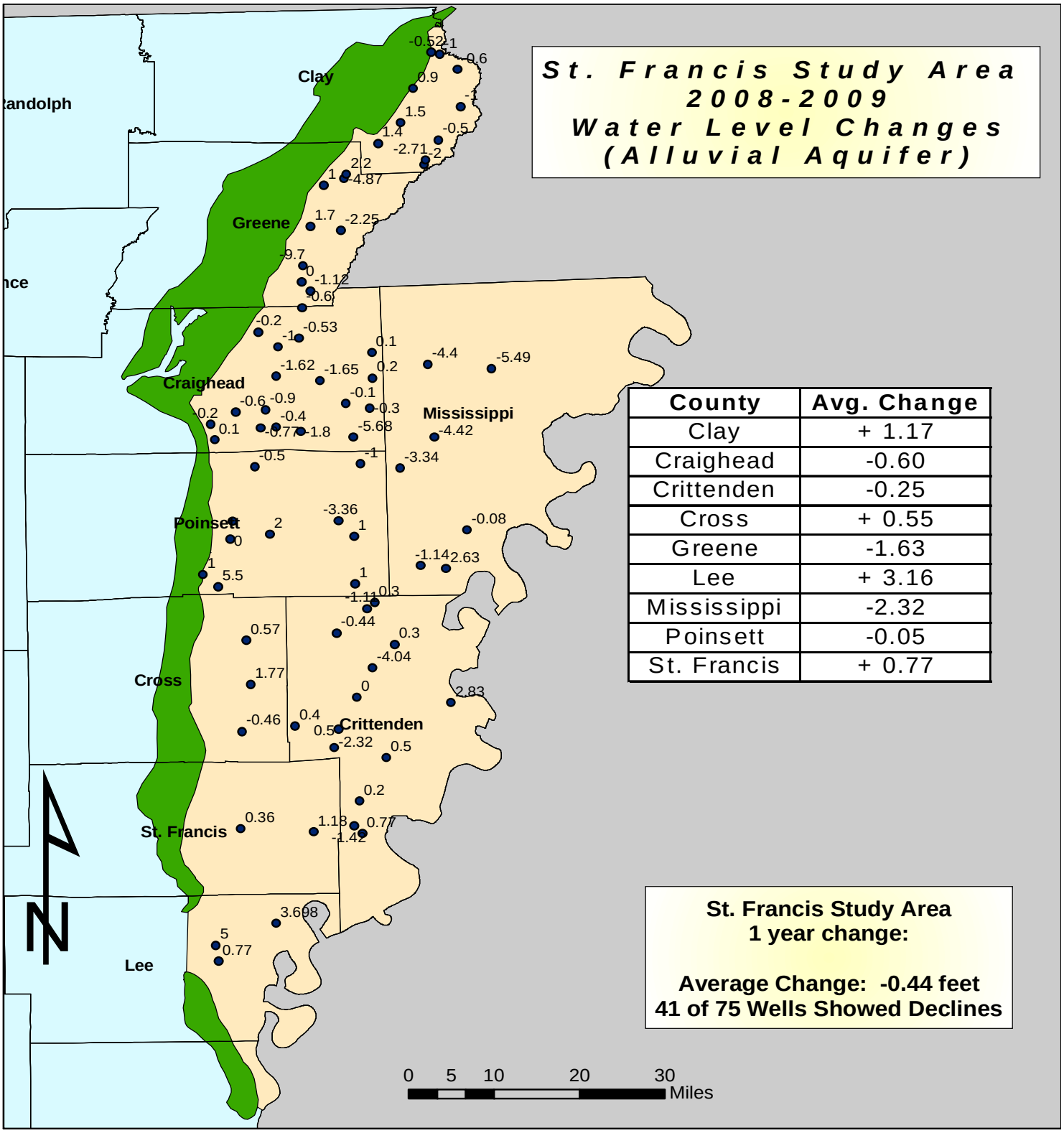
The St. Francis Study Area is defined as the area west of the Mississippi River, east of Crowley's Ridge, and south and east of the subcrop of the McNairy-Nacatoch aquifer (6900 square miles) (Ackerman, 1996). For the purpose of this report, only the area inside the boundaries of Arkansas is considered. (Fig.1)

During the 2008-2009 monitoring period there were declines in average static water levels in the alluvial aquifer in 41 of the 75 wells monitored (54.7%) with an average change of -0.44. (Fig.30)

During the 5-year monitoring timeframe, from 2004 to 2009 the alluvial aquifer in this study area had an average change of -1.50 feet, with 50 of the 71 wells monitored (70.4%) showing declines. (Fig.31)

A 10-year average change was also done in the St. Francis Study Area for the alluvial aquifer static water levels. There was an average change of -0.55 feet over the entire study area for this period, with 14 of the 24 wells monitored (58.3%) showing declines. (Fig. 32)





County	Avg. Change
Clay	+ 1.17
Craighead	-0.60
Crittenden	-0.25
Cross	+ 0.55
Greene	-1.63
Lee	+ 3.16
Mississippi	-2.32
Poinsett	-0.05
St. Francis	+ 0.77

Legend

- Wells
- Crowleys Ridge
- St. Francis Study Area

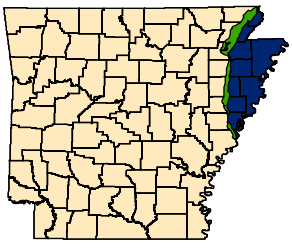
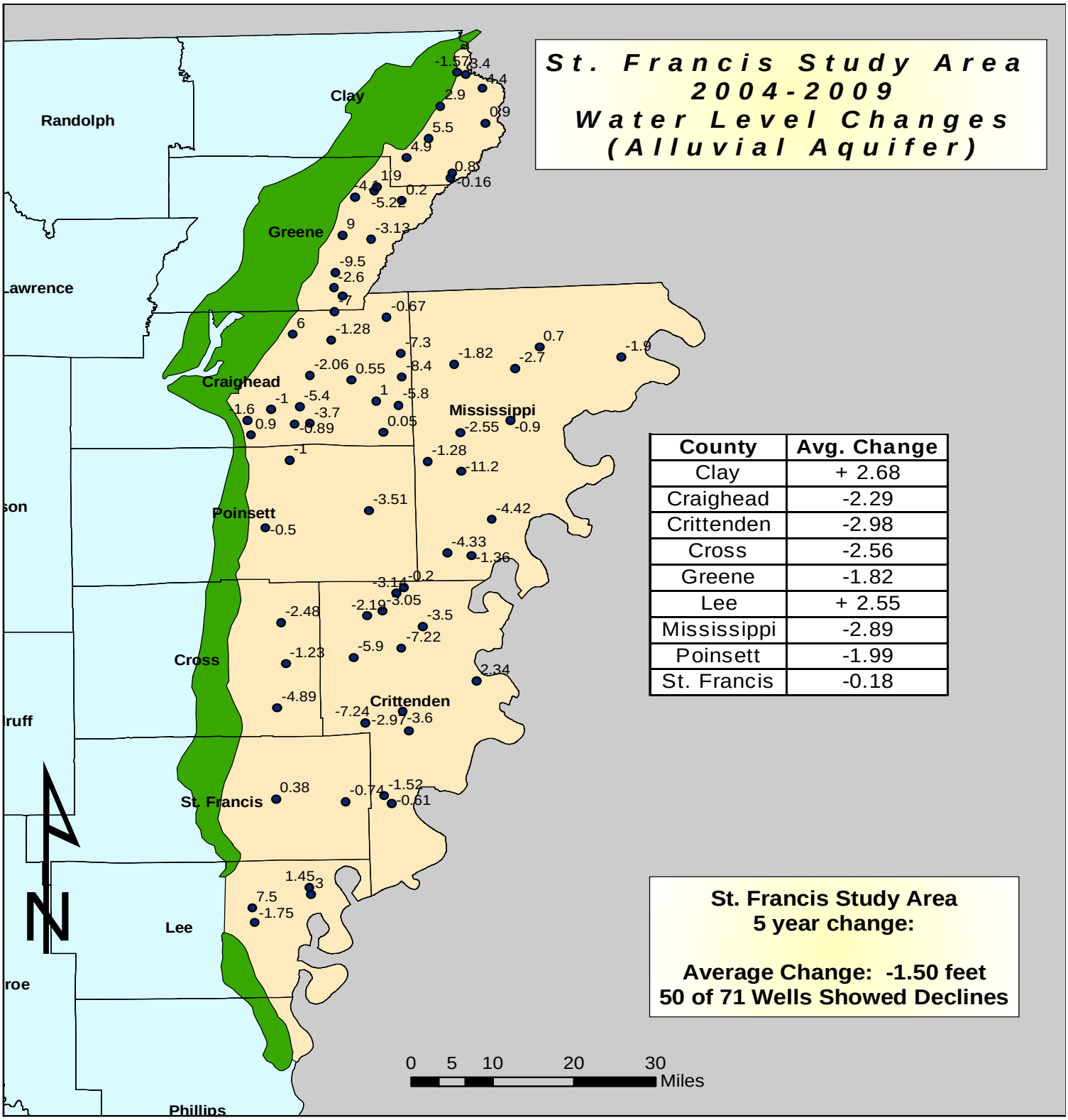


Fig. 30



County	Avg. Change
Clay	+ 2.68
Craighead	-2.29
Crittenden	-2.98
Cross	-2.56
Greene	-1.82
Lee	+ 2.55
Mississippi	-2.89
Poinsett	-1.99
St. Francis	-0.18

Legend

- Wells
- Crowleys Ridge
- St. Francis Study Area

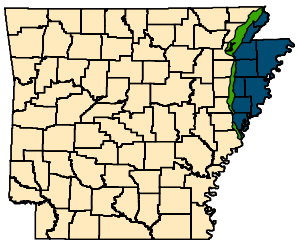
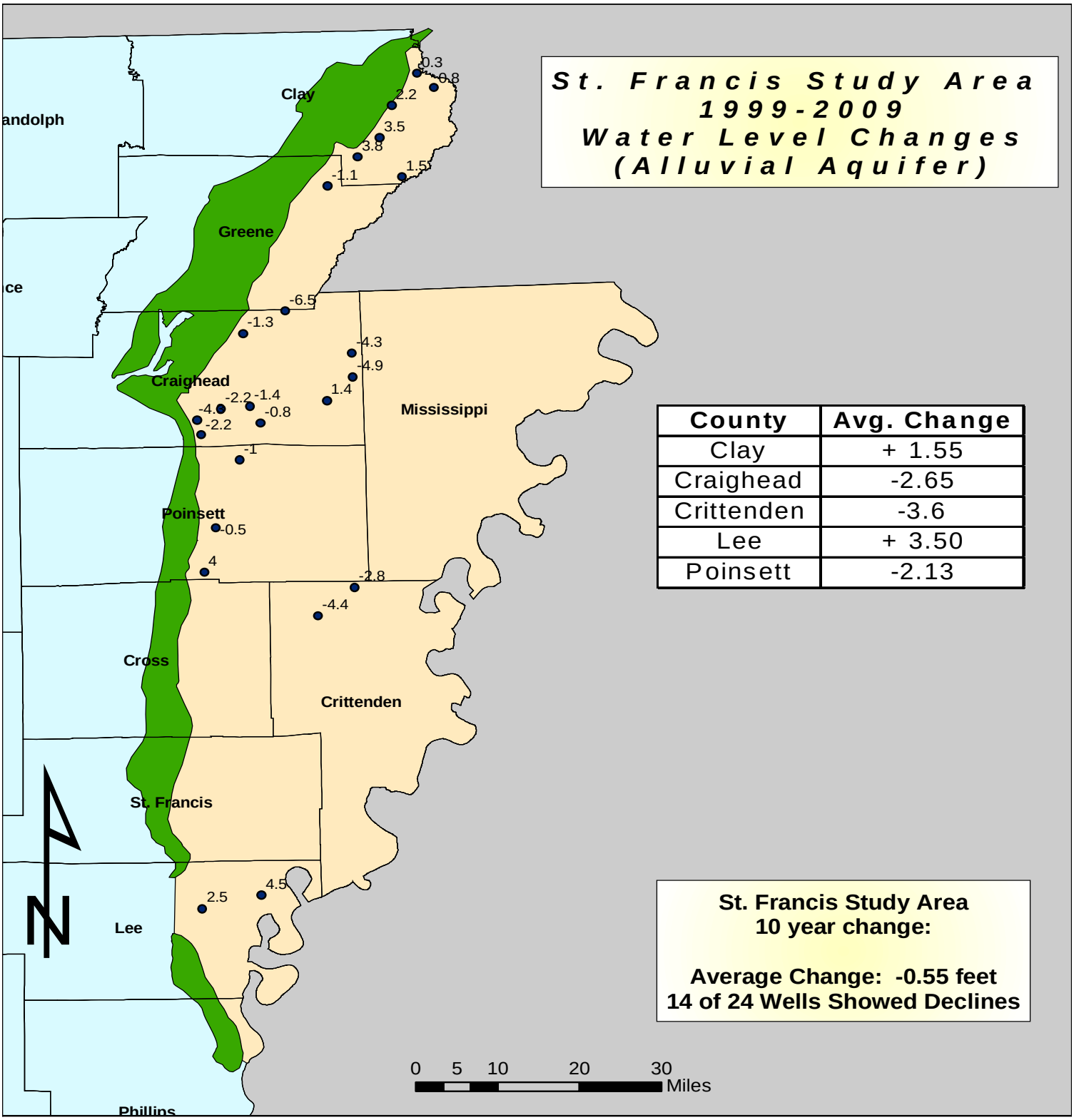


Fig. 31



County	Avg. Change
Clay	+ 1.55
Craighead	-2.65
Crittenden	-3.6
Lee	+ 3.50
Poinsett	-2.13

St. Francis Study Area
10 year change:

Average Change: -0.55 feet
14 of 24 Wells Showed Declines

Legend

- Wells
- Crowleys Ridge
- St. Francis Study Area

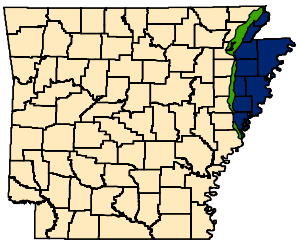
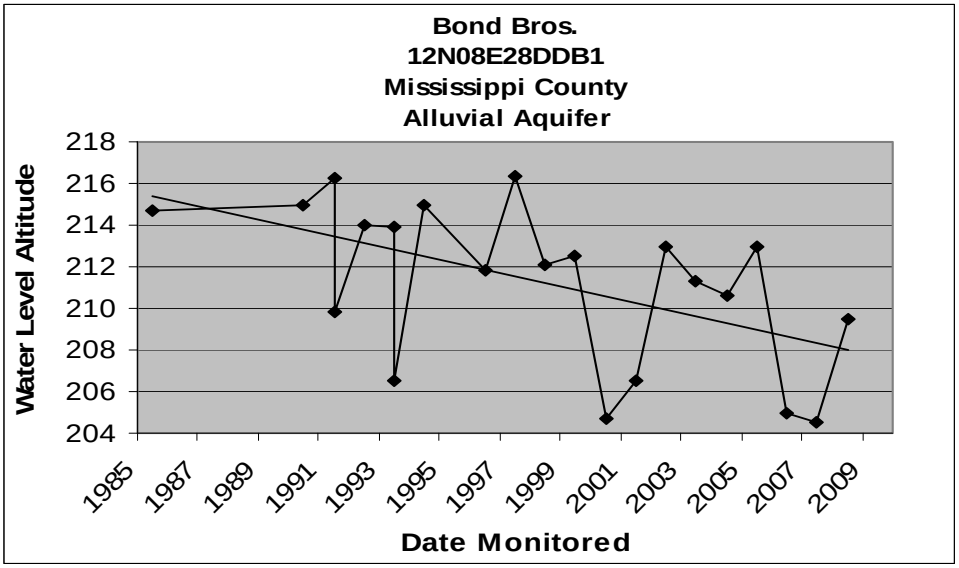
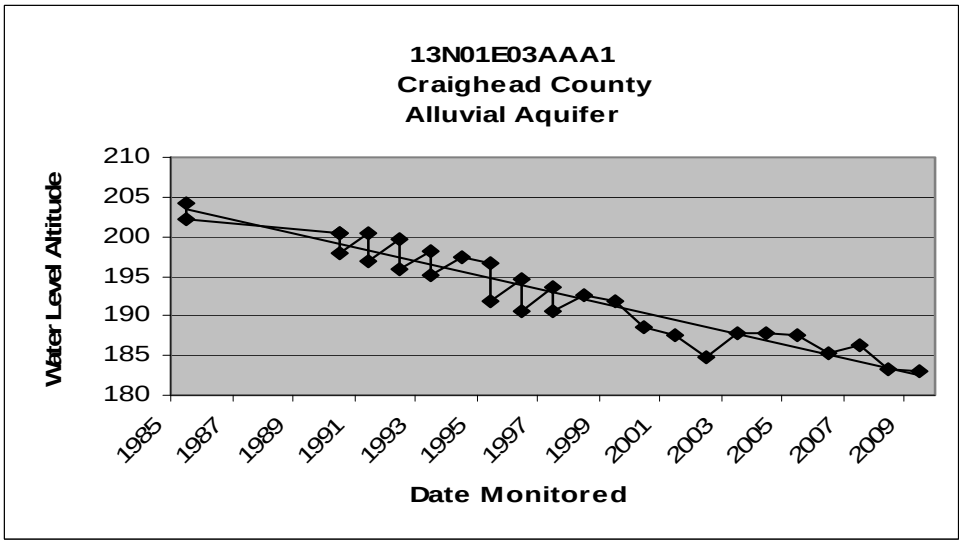
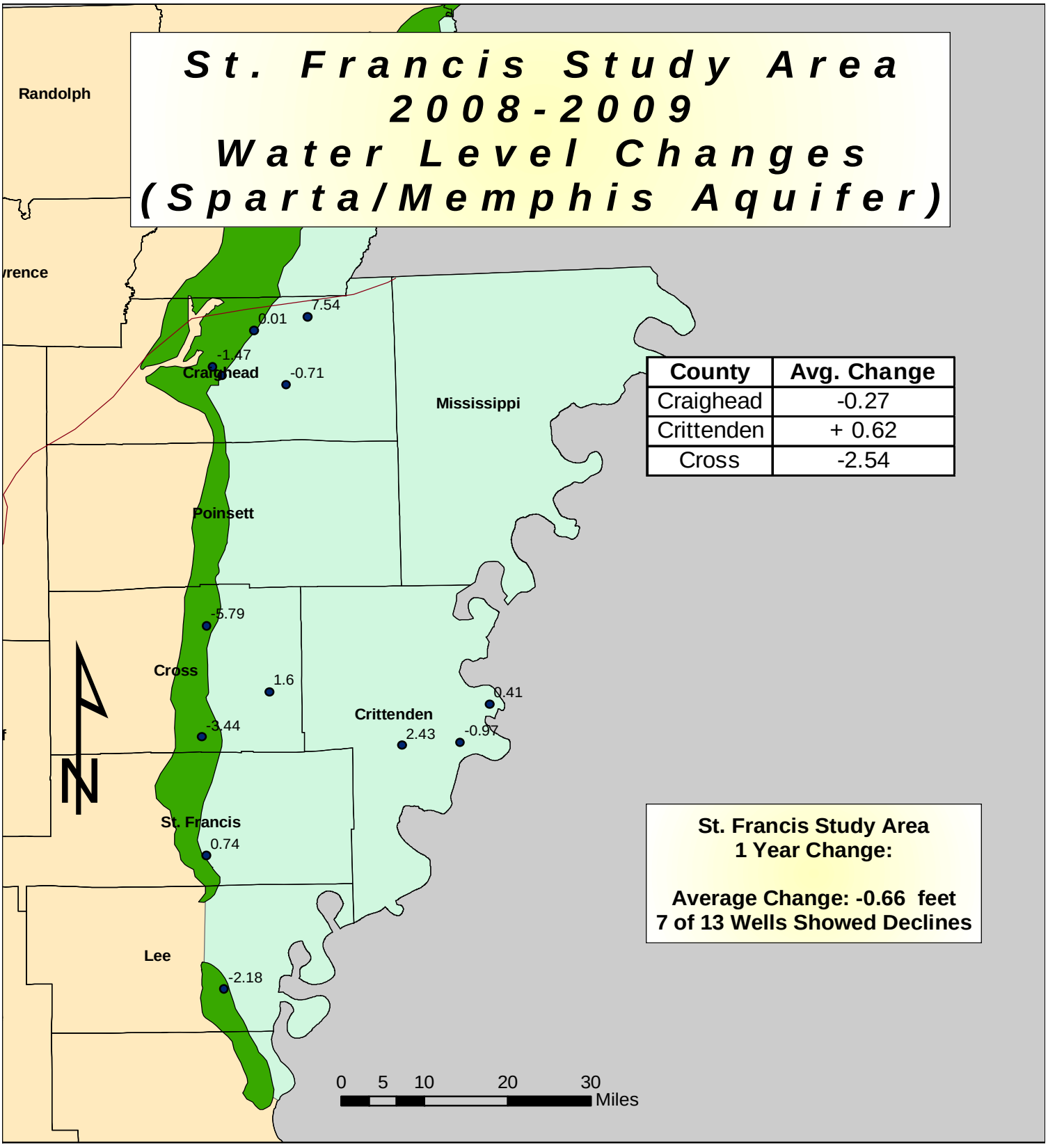


Fig. 32

Just as in the Boeuf-Tensas Study Area, the St. Francis Study Area has a limited number of wells drilled into the Sparta/Memphis aquifer. This should be taken into account when looking at the county changes in the figures. There are more wells being drilled into these areas as the water level in the alluvial aquifer continues to decline. USGS as well as the ANRC will continue to add monitoring points in these areas for the Sparta/Memphis aquifer. The hydrographs below are good representations of the static water level changes over time. Figures 33 and 34 show the actual measurements taken for the 1, and 10 year periods respectively.







County	Avg. Change
Craighead	-0.27
Crittenden	+ 0.62
Cross	-2.54

Legend

- Wells
- Sparta Boundary
- Crowleys Ridge
- St. Francis Study Area

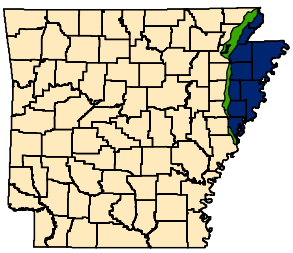
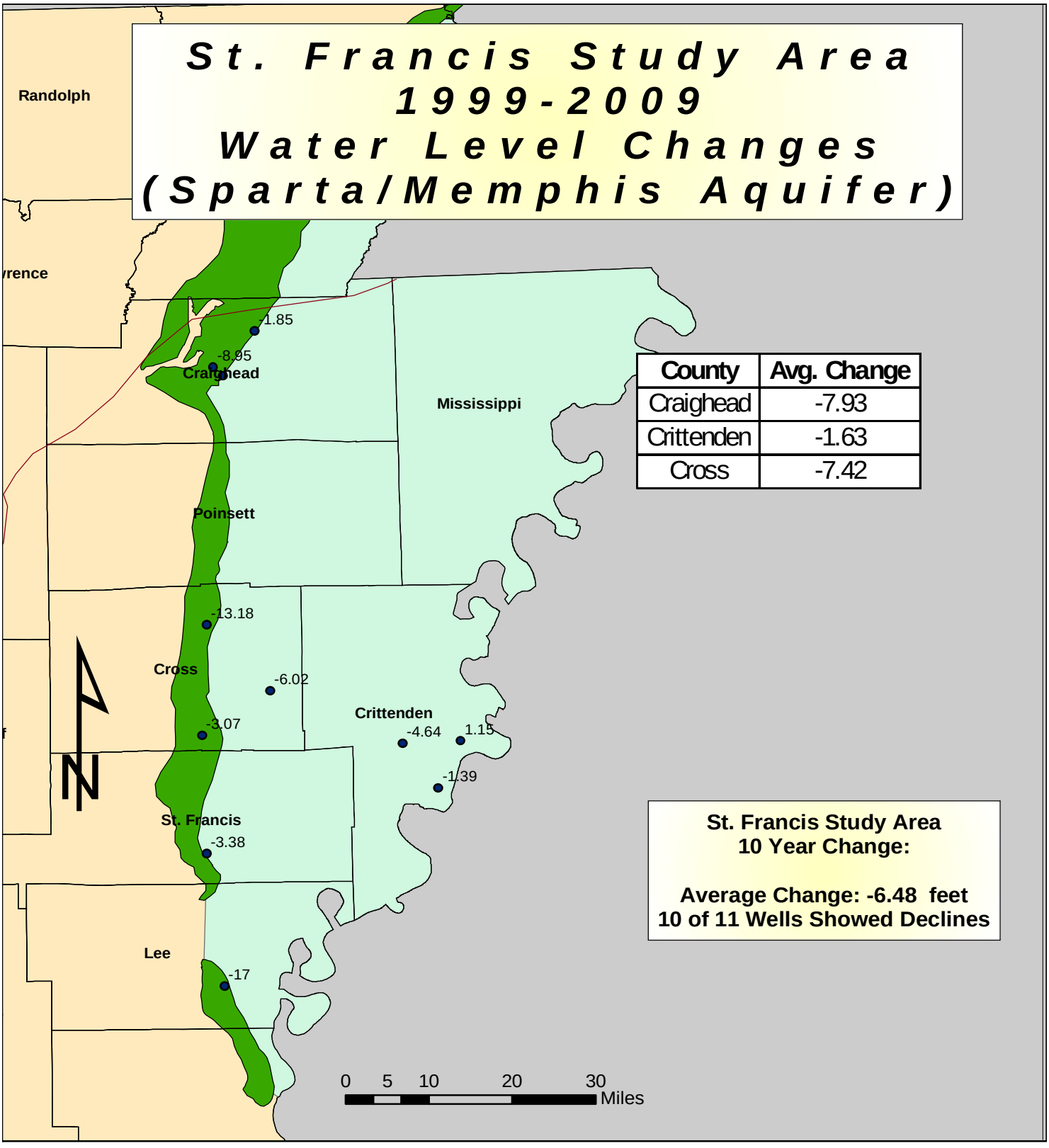


Fig. 33

St. Francis Study Area
1999-2009
Water Level Changes
(Sparta/Memphis Aquifer)



County	Avg. Change
Craighead	-7.93
Crittenden	-1.63
Cross	-7.42

St. Francis Study Area
10 Year Change:

Average Change: -6.48 feet
10 of 11 Wells Showed Declines

Legend

- Wells
- Sparta Boundary
- Crowleys Ridge
- St. Francis Study Area

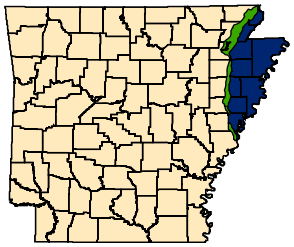


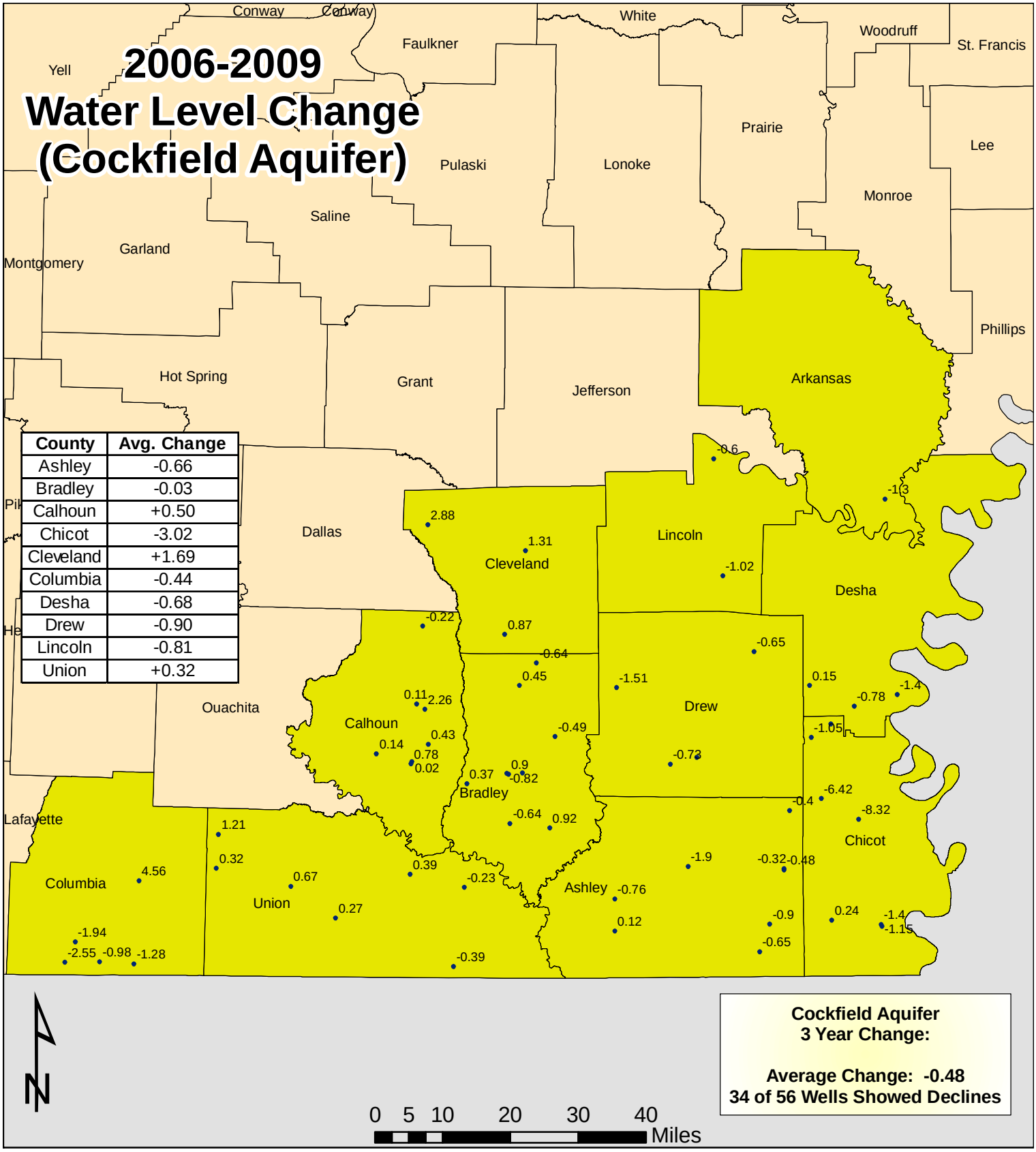
Fig. 34

Other Aquifers Monitored

The USGS in cooperation with the ANRC monitors aquifers other than the alluvial and Sparta/Memphis aquifers throughout Arkansas. Every third year the USGS monitors the Cockfield and Wilcox aquifers, the Tokio and Nacatoch aquifers, and Paleozoic Age aquifers. The 2009 monitoring year was designated for monitoring of the Cockfield and Wilcox aquifers. The water level changes were analyzed for a 4-year periods from 2006 to 2009.

In the Cockfield aquifer there were 56 wells monitored by the USGS for water level change from 2006 to 2009, thirty-four (60.1%) of these showed a decline, with an average change of -0.48 feet over the area of the aquifer that was studied. The county by county averages may be seen on figure 35.

The Wilcox aquifer is monitored in northeast and southwest Arkansas as can be seen in figure 36. For the 4-year monitoring period from 2006 to 2009, 38 of the 55 wells monitored (69.1%) showed water level declines, the aquifer-wide average change being -1.21 feet statewide. Each individual county average may be seen on figure 36.



County	Avg. Change
Ashley	-0.66
Bradley	-0.03
Calhoun	+0.50
Chicot	-3.02
Cleveland	+1.69
Columbia	-0.44
Desha	-0.68
Drew	-0.90
Lincoln	-0.81
Union	+0.32

Legend

- Wells
- Cockfield Aquifer
- County Boundaries

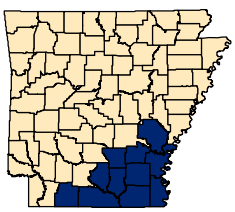
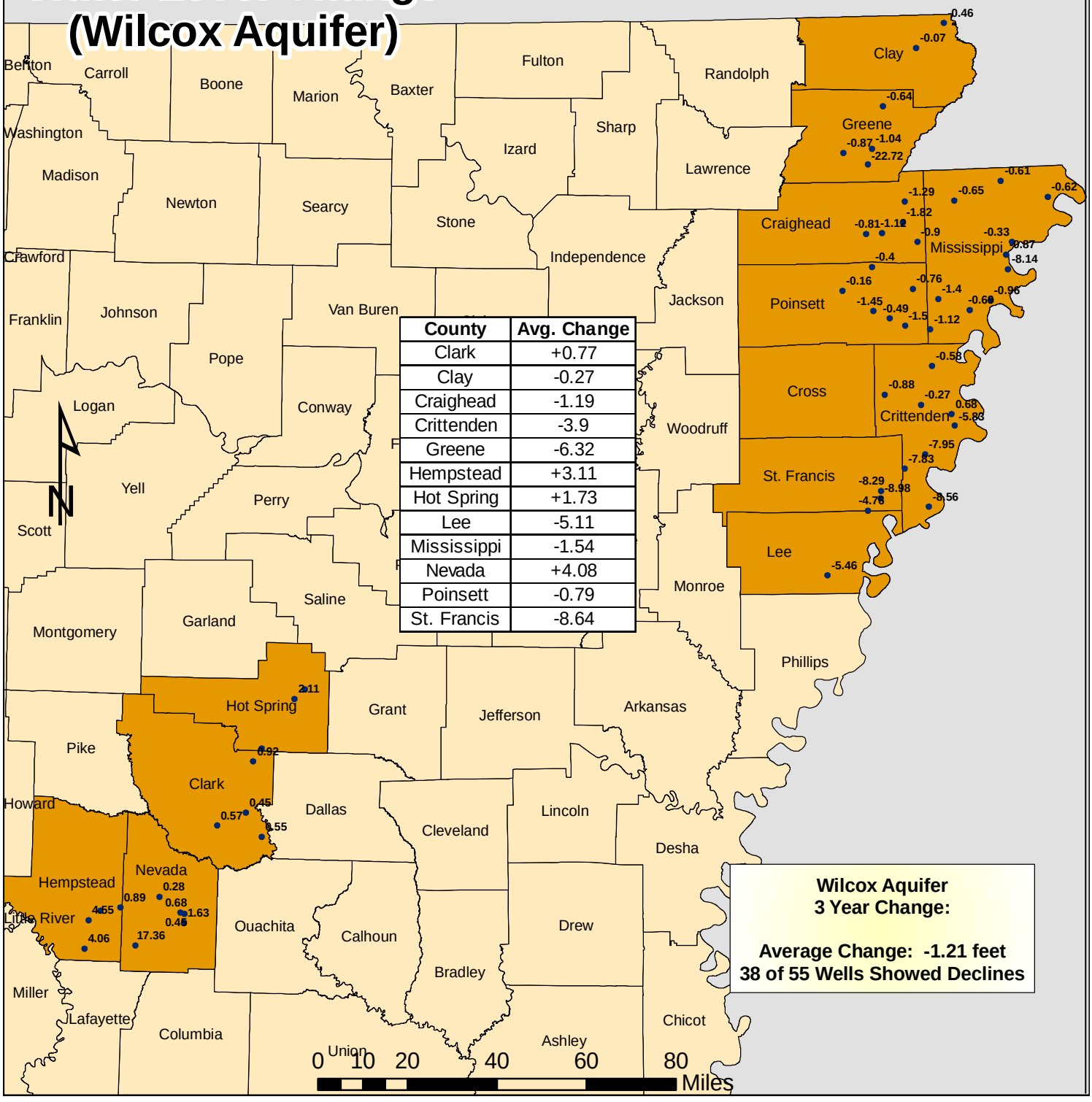


Fig. 35

2006 - 2009 Water Level Change (Wilcox Aquifer)



County	Avg. Change
Clark	+0.77
Clay	-0.27
Craighead	-1.19
Crittenden	-3.9
Greene	-6.32
Hempstead	+3.11
Hot Spring	+1.73
Lee	-5.11
Mississippi	-1.54
Nevada	+4.08
Poinsett	-0.79
St. Francis	-8.64

Wilcox Aquifer
3 Year Change:

Average Change: -1.21 feet
38 of 55 Wells Showed Declines

Legend

- Wells
- Wilcox Aquifer
- County Boundaries

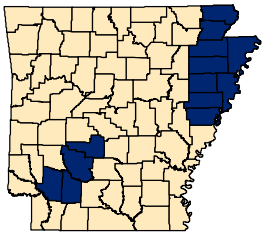


Fig. 36

Ground-Water Quality Standards

Arkansas Natural Resources Commission (ANRC) has developed an appropriate model/plan for standards development. Classification of aquifers in Arkansas is currently being performed, and specifications for standards are being developed. A draft of ground-water quality standards for Arkansas has been prepared, and work continues on provisions for standards designation.

Illinois' standards provide the best model for Arkansas' standards, due to their applicable classification of ground water, and many aspects of the state's detailed and comprehensive standards. Illinois' standards establish a ground-water protection policy through source water protection that relies on State and local partnerships, by emphasizing prevention of pollution, with special provisions that target drinking water wells. Illinois' EPA monitors ground water to provide an overview of ground-water conditions, establish baselines of ground-water quality, identify trends, and ensure compliance with ambient ground-water standards. All of these attributes are planned for Arkansas' standards.

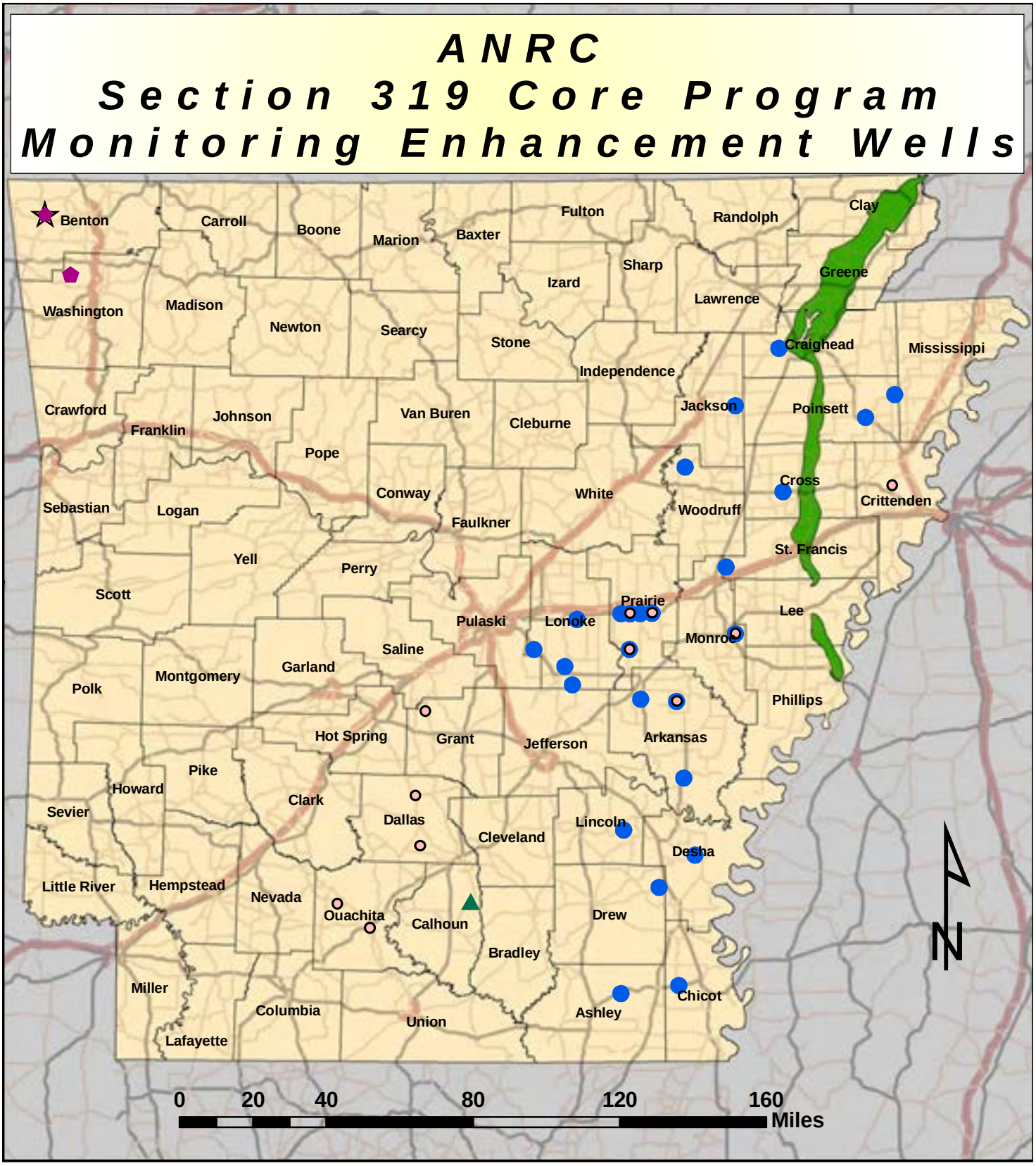
The other model States: Colorado, New Jersey, North Carolina, and Rhode Island, have classifications which are not well suited for Arkansas because division is broadly based on usable vs. unusable ground water, resulting from contamination or TDS. Only Colorado specifies agricultural designation as a classification. In addition, these states also have severe ground-water contamination problems at specific industrial (or mining in CO) sites which accommodate this type of classification. Consequently, only select portions/aspects of these state's standards are being utilized as models for Arkansas' standards.

Nonpoint Source Program

ANRC's Nonpoint Source Program is supported by Section 319 (Clean Water Act) Grant Funds which provide 60 percent of the total program funding. Work continued on two nonpoint source ground-water projects in 2009, with the primary effort directed toward development of ground-water quality standards (described in previous section).

A second non-point project involves mapping of karst features in northern Arkansas. Initiated in 2005 and 2006, draft sinkhole and lineament maps were generated along with identification of critical soils which allow rapid recharge in each county underlain by karst strata. ANRC hoped to gain cooperation in mapping karst features, particularly sinkholes, from agencies such as NRCS and UACES, however, both agencies denied requests for assistance. ANRC continues to map karst features identified in recent USGS publications. In addition, some new sink locations have been provided by AR Department of Health (ADH), Designated Representatives (DRs) and Environmental Health Professionals. ANRC will continue to document karst features, including sinkholes, lineaments, and losing streams with assistance from ADH. Additional karst feature recognition training at annual DR training events are planned to occur 2 of the next 3 years. These projects represent the State's commitment to improve and monitor ground-water quality as part of the Nonpoint Source Pollution Management Program.

ANRC
Section 319 Core Program
Monitoring Enhancement Wells



Legend

- Alluvial Wells (36 Wells)
- Sparta Wells (11 Wells)
- Cockfield Well
- Wells in Boone Formation (2 Wells)
- Everton Well
- Crowleys Ridge
- County Boundaries

Fig. 37

ARKANSAS WATER WELL CONSTRUCTION COMMISSION

WATER WELL CONSTRUCTION PROGRAM

The Arkansas Water Well Construction Commission (AWWCC) is designed to insure "that the general health, safety, and welfare be protected by providing a means for the proper development of the natural resource of underground water in an orderly, sanitary, reasonable, and safe manner, without waste, so that sufficient potable supplies for the continued economic growth of our state may be assured" (Arkansas Water Well Construction Act, 1969). The commission is composed of seven members. The members consist of: the director of the Department of Health or a designated representative, the director of the Arkansas Soil and Water Conservation Commission or a designated representative, one member involved in the heat pump industry, and four members involved the water well drilling industry.

The commission achieves its goal by monitoring the construction of water wells in the state. Any person who engages in water well construction must obtain a water well contractors license from the commission. The contractor must keep a current bond and obtain six hours of continuing education each year to keep their license. In addition to monitoring the drilling industry the commission also provides services to licensed drillers as well as to the public. Some of the services include providing information on water levels in wells, construction information about wells in an area, and proper well abandonment procedures. The commission also is equipped to assist drillers in the assessment of repair work, which may be needed in damaged wells.

One way the commission keeps up with where well construction is taking place is through its relationship with Arkansas Department of Health. The Health Department has an Environmental Health Specialist in each county. These health specialists know where in the county wells would be required, and often layout lots showing landowners where to place their septic system and well on their property. The commission's inspectors try to visit each county health office at least once a

year. The commission also conducts well inspections in each county. These inspections are to insure the protection of our ground water, through compliance with the rules and regulations set forth by the commission.

The inspectors also visit licensed contractors during their county surveys and inspections. These visits provide valuable insight about the area and industry. The local water well contractor knows more about drilling wells in his area than anyone else. This knowledge, along with grouting and sealing requirements in the commission's rules, ensure the customer clean safe water, and protect this precious resource.

During the 2009 legislative sessions amendments were made to section 5.8 of the rules and regulations in regard to abandonment of wells. These changes should allow the water well contractor to restore geologic and hydrogeologic conditions existing prior well construction. The changes allow the use of some natural material along with Bentonite. The rules also require the filing of an abandonment form with the AWWCC within 90 days of the abandonment.

The Commission fields complaints from the public about water well construction, as well as inspecting wells for violations of the Commissions rules and regulations. The Commission also issues licenses to water well contractors.

There are 175 water well contractors licensed (drill and/or pump) to work in Arkansas. The larger contractors usually employ several registered drillers and/or pump installers and can have more than one rig permitted. A new category, Drill Only, was added in 2009. The following is a break-down of the licensed contractors, drillers, pump installers, and permitted rigs for 2003-2009.

AWWCC LICENSE SUMMARY

	Contractors License Drill and Pump	Drill only Contractors	Pump Installer Contractors	Drillers Registrations	Pump Installers Registrations	Driller Apprentice Registrations	Pump Installers Apprentice Registrations	Riggs
2003	176		56	303	300			393
2004	148		37	283	271			375
2005	142		34	276	254			362
2006	149		34	305	271	7	11	393
2007	148		32	286	282	17	27	375
2008	140		31	276	268	16	29	362
2009	121	22	32	280	275	17	36	357

There were 2,296 wells reported to the Commission in 2008. Of these 2,296 wells, only 765 were domestic water wells, or 33.3% of the total number of wells drilled. There were 1,264 irrigation wells reported which is 55.1% of the total number of wells drilled in Arkansas.

The remaining wells were: livestock / poultry wells; monitoring wells; public or semi public supply wells; test wells; and geothermal wells for heat pump installations. The Commission typically only has geothermal contractors submit one report form for the entire loop field accounting for the total number of wells drilled.

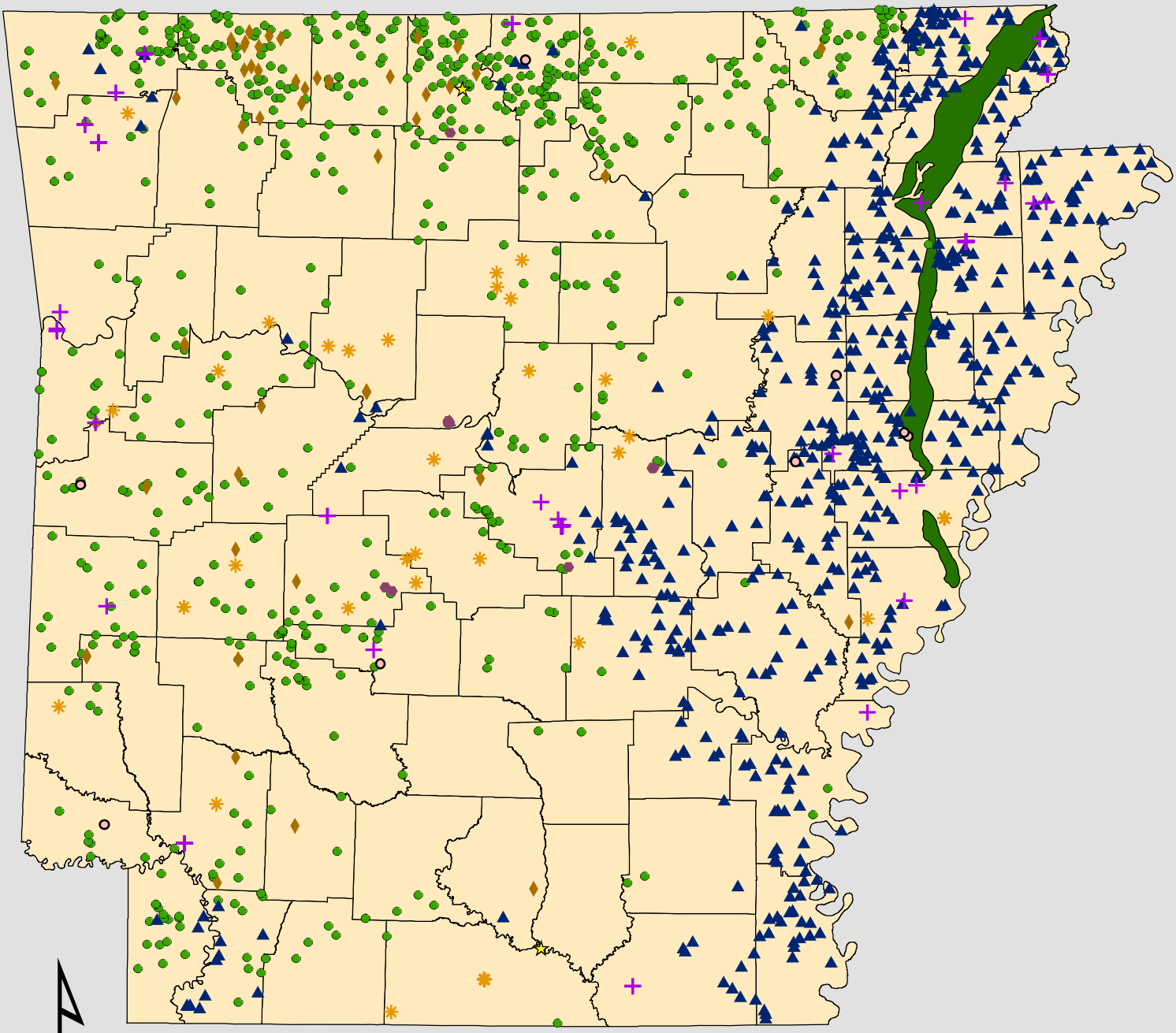
Flow Meter Report

According to Act 1426 of 2001, any well constructed after September 30th, 2001 to withdraw ground water from a sustaining aquifer, shall be equipped with a functioning metering device. After September 30th, 2006 any well withdrawing ground water from a sustaining aquifer shall have a functioning metering device. Domestic wells are exempt from metering requirements.

The aquifers affected are sustaining aquifers. The sustaining aquifers in Arkansas include the Sparta, Memphis, Cockfield, Cane River, Carrizo, Wilcox, Nacatoch, Roubidoux and Gunter.

This year a field inspection of wells requiring meters was performed in several counties in Arkansas. On average, about one third of the total number of wells inspected had metering devices installed. The number of meters on newly constructed well is much higher. Installing the meters is costly, but most farmers are seeing benefits for installing the meters. They are acquiring more accurate data about their water use, and therefore saving on fuel cost. A flow meter also helps with maintaining the wells performance. Most of the well owners contacted are installing meters when the wells are pulled for maintenance and repairs. A lot of the wells are requiring extensive reworking because there is not enough room between the well and the standpipe to install the meter.

New Wells Reported from July 2007 to July 2008



0 15 30 60 90 120 Miles

Agriculture: 1612 Wells
Municipal/ Industrial: 8 Wells
Domestic: 668 Wells

Legend

- Domestic
- Public Supply
- Irrigation
- Livestock/Poultry
- Monitoring
- Semi-Public
- Test Wells
- Other
- Crowleys Ridge
- County Boundaries

Fig. 38

GROUND WATER USE

REGISTERED WELLS

In accordance with Act 1051 of 1985, all wells in Arkansas that have the capacity to produce fifty thousand (50,000) gallons per day must be registered with the ANRC. Domestic wells are exempt. The quantity used must be reported by March 1st of the following year. The USGS reported for 2007 there were approximately 48,623 registered wells reported in the State. Of this total, 47,650 (98. %) are agricultural wells most of which are irrigation wells located primarily in eastern Arkansas. The remaining 973 reported wells are used predominately for municipal, industrial, and public water supply purposes.

REPORTED WATER USE

In 2007, an estimated 7,430.94 million gallons per day (mgd) of water were reported to be withdrawn from the State's aquifers. The greatest reported volume is pumped from the alluvial aquifer and used primarily for irrigation. Poinsett County, Clay County and Cross County used the most alluvial water of all counties, with 700.43 Mgal/d, 671.33 Mgal/d, and 600.91 Mgal/d respectively. The reported total ground-water use from the alluvial aquifer during 2007 was 7,049.33 Mgal/d. The Sparta/Memphis aquifer is the second largest aquifer in terms of withdrawals. The reported ground-water use from the Sparta/Memphis aquifer for 2007 was 186.91 Mgal/d, mostly used for municipal and industrial purposes. Arkansas County was the largest user of Sparta/Memphis water of all the counties with an average withdrawal rate of 63.88 Mgal/d, followed by Jefferson County with a rate of 48.86 Mgal/d. (Holland, 2009)

Table 3 contains the reported ground-water use by aquifer per county in Arkansas for 2007 and is also broken down by category of use. This is the most

recent information as supplied to the ANRC by the USGS.

The Sparta/Memphis aquifer had a reported average withdrawal of 186.91 Mgal/d during the 2007 reporting period. It is important to note that mainly due to increases in the Sparta/Memphis aquifer for irrigation in the area, Arkansas County is now the leading user of this aquifers' resources, with a withdrawal of 63.88 Mgal/d. Jefferson County is the second largest user of Sparta/Memphis ground-water, with a withdrawal of 48.86 Mgal/d. (Table 3) Figure 39 shows water use in million gallons per day (mgd) for the entire state from 1965 to 2007 in increments of 5 years. Figure 40 shows the quantity of ground water use for each county in Arkansas as reported.

The estimated sustainable yield of the Sparta/Memphis aquifer is discussed in the following section of this report, however the relation to this figure and reported water use are significant. The 2007 reported ground-water use from the Sparta/Memphis aquifer was an estimated 61.32 Mgal/d for agricultural uses, 80.68 Mgal/d for public supply use, and 42.58 Mgal/d for industrial uses, which combine with other uses for an estimated total use of 186.91 Mgal/d. The estimated sustainable use for the entire aquifer is 87 Mgal/d based on 1997 reported water use. This leaves a deficit of 99.91 Mgal/day, or 59.3% of the 1997 rate that is an unmet demand. (Holland, 2003, 2007)

2007 Withdrawals of Ground Water from Aquifers in Arkansas Counties by Use Type
(In million gallons per day; --, no data available)

County	Use Type	Deposits of Quaternary Age		Cockfield Formation		Cane River		Sparta-Memphis Sand		Wilcox Group		Clayton Formation		Nacatoch Sand		Tokio Formation		Trinity Group		Rocks Paleozoic Age		All Other Aquifers		Use Type total	
		Mgal/ day	# of Well	Mgal/ day	# of Well	Mgal/ day	# of Well	Mgal/ day	# of Well	Mgal/ day	# of Well	Mgal/ day	# of Well	Mgal/ day	# of Well	Mgal/ day	# of Well	Mgal/ day	# of Well	Mgal/ day	# of Well	Mgal/ day	# of Well	Mgal/ day	# of Well
ARKANSAS	AG/IR	396.72	2079	0.59	1	--	--	36.2	116	--	--	--	--	--	--	--	--	--	--	--	--	6.23	22	439.74	2218
	IN/CO/MI	--	--	--	--	--	--	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1
	WS	0.04	5	--	--	--	--	28.69	13	--	--	--	--	--	--	--	--	--	--	--	--	0.06	1	28.77	19
Totals		396.76	2084	0.59	1	--	--	63.89	130	--	--	--	--	--	--	--	--	--	--	--	--	6.29	23	467.51	2236
ASHLEY	AG/IR	109.96	1009	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.68	7	110.64	1016
	IN/CO/MI	--	--	7.5	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.5	7
	WS	--	--	1.91	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.16	2	2.06	14
Totals		109.96	1009	9.41	19	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.83	9	120.2	1037
BAXTER	IN/CO/MI	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	2	0	1	0	3
	WS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.44	20	--	--	0.44	20
Totals		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.44	22	0	1	0.44	23
BENTON	AG/IR	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.13	2	--	--	0.13	2
	IN/CO/MI	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	3	--	--	0	3
	WS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.91	15	0.26	3	1.17	18
Totals		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.04	20	0.26	3	1.3	23
BOONE	WS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.7	13	0.13	1	0.83	14
Totals		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.7	13	0.13	1	0.83	14
BRADLEY	IN/CO/MI	--	--	--	--	--	--	0.55	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.55	5
	WS	--	--	0.06	2	--	--	0.26	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.32	5
Totals		--	--	0.06	2	--	--	0.81	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.87	10
CALHOUN	AG/IR	--	--	--	--	--	--	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1
	IN/CO/MI	--	--	--	--	--	--	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1
	WS	--	--	--	--	--	--	0.42	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.42	7
Totals		--	--	--	--	--	--	0.42	9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.42	9
CARROLL	AG/IR	0.01	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	1
	IN/CO/MI	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.04	5	0.08	3	0.12	8
	WS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.76	10	0.01	5	0.77	15
Totals		0.01	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.8	15	0.09	8	0.9	24
CHICOT	AG/IR	207.05	1477	0.57	6	--	--	0.06	1	--	--	--	--	--	--	--	--	--	--	--	--	0.49	5	208.16	1489
	WS	--	--	1.19	8	--	--	0	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.19	11
Totals		207.05	1477	1.76	14	--	--	0.06	4	--	--	--	--	--	--	--	--	--	--	--	--	0.49	5	209.35	1500
CLARK	IN/CO/MI	--	--	--	--	--	--	--	--	--	--	--	--	0.12	3	--	--	--	--	0	3	0	1	0.12	7
	WS	--	--	--	--	--	--	--	--	--	--	0	1	0	4	0.12	2	--	--	--	--	--	--	0.12	7
Totals		--	--	--	--	--	--	--	--	--	--	0	1	0.12	7	0.12	2	--	--	0	3	0	1	0.24	14

CLAY	AG/R	670.94	2109	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.7	14	61.92	182	737.56	2305
	IN/CO/MI	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1
	WS	0.39	3	--	--	--	--	--	--	--	--	--	--	1.21	11	--	--	--	--	--	--	--	--	--	1.6	14
Totals		671.33	2113	--	--	--	--	--	--	--	--	--	--	1.21	11	--	--	--	--	4.7	14	61.92	182	739.16	2320
Totals		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	0
CLEVELAND	WS	--	--	--	--	--	--	0.43	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.43	5
Totals		--	--	--	--	--	--	0.43	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.43	5
COLUMBIA	IN/CO/MI	--	--	--	--	--	--	2.04	37	--	--	--	--	--	--	--	--	0	1	--	--	--	--	--	2.04	38
	WS	--	--	--	--	--	--	0.47	17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.47	17
Totals		--	--	--	--	--	--	2.51	54	--	--	--	--	--	--	--	--	0	1	--	--	--	--	--	2.51	55
CONWAY	AG/R	1.77	17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	1	1.83	18
Totals		1.77	17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	1	1.83	18
CRAIGHEAD	AG/R	315.51	2958	--	--	--	--	2.33	29	--	--	--	--	--	--	--	--	--	--	--	18.77	192	336.61	3179
	IN/CO/MI	0.06	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	1
	WS	1.76	5	--	--	--	--	13.13	23	0.65	5	--	--	--	--	--	--	--	--	--	--	--	--	--	15.54	33
Totals		317.33	2974	--	--	--	--	15.46	52	0.65	5	--	--	--	--	--	--	--	--	--	18.77	192	352.21	3228
CRAWFORD	AG/R	0.01	9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	9
Totals		0.01	9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	9
CRITTENDEN	AG/R	165.59	1325	0.4	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.44	7	166.39	1333
	IN/CO/MI	0.41	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.23	2	0.64	5
	WS	--	--	--	--	--	--	--	--	9.62	11	--	--	--	--	--	--	--	--	--	0	1	9.62	12
Totals		165.96	1328	0.4	1	--	--	--	--	9.62	11	--	--	--	--	--	--	--	--	--	0.67	10	176.64	1350
CROSS	AG/R	599.42	2212	--	--	--	--	3.78	9	--	--	--	--	--	--	--	--	--	--	--	15.73	72	618.93	2293
	IN/CO/MI	0.47	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.47	4
	WS	1.02	5	--	--	--	--	1.36	5	0.23	2	--	--	--	--	--	--	--	--	--	0	1	2.61	13
Totals		600.91	2221	--	--	--	--	5.16	14	0.23	2	--	--	--	--	--	--	--	--	--	15.73	73	622.03	2310
DALLAS	WS	0	1	--	--	0	2	0.7	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.7	8
Totals		0	1	--	--	0	2	0.7	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.7	8
DESHA	AG/R	277.2	1975	1.62	7	--	--	0.09	1	--	--	--	--	--	--	--	--	--	--	--	8.88	87	287.79	2070
	IN/CO/MI	--	--	0	1	--	--	3.13	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.13	5
	WS	--	--	--	--	--	--	0.34	11	--	--	--	--	--	--	--	--	--	--	--	0.02	1	0.36	12
Totals		277.2	1975	1.62	8	--	--	3.56	16	--	--	--	--	--	--	--	--	--	--	--	8.9	88	291.27	2087
DREW	AG/R	51.85	533	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1	51.85	534
	WS	--	--	--	--	--	--	2.56	9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.56	9
Totals		51.85	533	--	--	--	--	2.56	9	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1	54.41	543
FAULKNER	AG/R	0.78	9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.78	9
	IN/CO/MI	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	2	--	--	0	2
	WS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	8	--	--	0	8
Totals		0.78	9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	10	--	--	0.78	19

FRANKLIN	AG/R	0.01	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1	0.01	5	
	IN/COM/I	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1	--	--	0	1	
Totals		0.01	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1	0	1	0.01	1	
FULTON	AG/R	0.27	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.04	1	--	--	0.31	2	
	IN/COM/I	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	2	0	3	
	WS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.64	6	0	1	0.64	7	
Totals		0.27	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.68	7	0	3	0.95	12	
GARLAND	AG/R	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.27	1	0.27	1	
	IN/COM/I	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	4	0	2	0	6	
	WS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	3	--	--	0	3	
Totals		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	7	0.27	3	0.27	10	
GRANT	AG/R	0.16	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.16	1	
	IN/COM/I	--	--	--	--	--	--	0.03	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.03	6	
	WS	--	--	--	--	--	--	0.76	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.76	11	
Totals		0.16	1	--	--	--	--	0.79	17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.95	18	
GREENE	AG/R	376.78	2084	--	--	--	--	--	--	2.68	16	--	--	--	--	--	--	--	--	--	--	0.26	1	379.69	2101	
	IN/COM/I	0.22	2	--	--	--	--	--	--	0.64	4	--	--	0.02	1	--	--	--	--	--	--	--	--	0.82	7	
	WS	--	--	--	--	--	--	--	--	3.69	9	--	--	0.36	3	--	--	--	--	--	--	--	--	4.07	12	
Totals		376.98	2086	--	--	--	--	--	--	6.92	29	--	--	0.4	4	--	--	--	--	--	--	0.26	1	384.58	2120	
HEMPSTEAD	AG/R	--	--	--	--	--	--	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1	
	IN/COM/I	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1	0	1	
	WS	--	--	--	--	--	--	--	--	--	--	--	--	0.82	6	2.01	12	--	--	--	--	--	--	2.83	18	
Totals		--	--	--	--	--	--	0	1	--	--	--	--	0.82	6	2.01	12	--	--	--	--	0	1	2.83	20	
HOT SPRING	IN/COM/I	0	1	--	--	--	--	0	1	--	--	--	--	--	--	--	--	--	--	0.03	4	--	--	0.03	6	
	WS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02	1	--	--	0.02	1	
Totals		0	1	--	--	--	--	0	1	--	--	--	--	--	--	--	--	--	--	0.05	5	--	--	0.05	7	
HOWARD	WS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.12	6	--	--	--	--	--	--	0.12	6	
Totals		--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.12	6	--	--	--	--	--	--	0.12	6	
INDEPENDENCE	AG/R	31.4	305	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	31.4	305	
	WS	0.86	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.86	6	
Totals		32.26	311	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	32.26	311	
IZARD	AG/R	0.07	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.07	1	
	WS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.18	18	--	--	1.18	18	
Totals		0.07	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.18	18	--	--	1.25	19	
JACKSON	AG/R	404.74	3582	--	--	--	--	0.41	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	405.15	3584	
	WS	0.4	15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.4	15	
Totals		405.14	3597	--	--	--	--	0.41	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	405.55	3599	
JEFFERSON	AG/R	210.33	1676	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02	1	210.35	1677	
	IN/COM/I	4.43	7	--	--	--	--	35.11	30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	39.54	37	
	WS	--	--	--	--	--	--	13.75	42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13.75	42	
Totals		214.76	1683	--	--	--	--	48.86	72	--	--	--	--	--	--	--	--	--	--	--	--	0.02	1	263.64	1756	
JOHNSON	AG/R	0.03	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.03	14	
	IN/COM/I	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1	
Totals		0.03	15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.03	15	
LAFAYETTE	AG/R	22.64	345	0.01	4	--	--	0.49	32	0.01	10	--	--	--	--	--	--	--	--	0	1	0	3	23.06	395	
	IN/COM/I	--	--	--	--	--	--	0.01	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	2	
	WS	--	--	--	--	0.7	7	0.09	4	--	--	--	--	--	--	--	--	--	--	--	--	0.14	1	0.93	12	
Totals		22.64	345	0.01	4	0.7	7	0.59	38	0.01	10	--	--	--	--	--	--	--	--	0	1	0.14	4	23.98	309	

LAWRENCE	AG/IR	164.78	1361	--	--	--	--	0.19	1	--	--	--	--	--	--	--	--	--	--	0.4	3	6.68	48	172.05	1411
	IN/COMM	--	--	--	--	--	--	--	--	--	--	--	--	0.03	1	--	--	--	--	--	--	--	--	0.03	1
	WS	0.9	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.77	6	0.06	1	1.73	15
Totals		165.68	1369	--	--	--	--	0.19	1	--	--	--	--	0.03	1	--	--	--	--	1.17	9	6.74	47	173.81	1427
LEE	AG/IR	269.01	2244	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	269.01	2244
	WS	--	--	--	--	--	--	0.9	2	0.04	1	--	--	--	--	--	--	--	--	--	--	0	2	0.94	5
Totals		269.01	2244	--	--	--	--	0.9	2	0.04	1	--	--	--	--	--	--	--	--	--	--	0	2	269.95	2249
LINCOLN	AG/IR	175.49	1167	--	--	--	--	0.53	5	--	--	--	--	--	--	--	--	--	--	--	--	1	6	176.99	1178
	WS	--	--	--	--	--	--	2.14	15	--	--	--	--	--	--	--	--	--	--	--	--	0.07	2	2.21	17
Totals		175.49	1167	--	--	--	--	2.67	20	--	--	--	--	--	--	--	--	--	--	--	--	1.01	8	179.19	1195
LITTLE RIVER	IN/COMM	0.31	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.31	6
	WS	0.56	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.56	7
Totals		0.87	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.87	13
LOGAN	AG/IR	0.53	17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.53	17
Totals		0.53	17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.53	17
LONOKE	AG/IR	306.09	2620	--	--	--	--	7.72	36	0.06	1	--	--	--	--	--	--	--	--	--	--	13.63	55	327.45	2811
	IN/COMM	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1
	WS	6.31	28	0.25	2	--	--	1.73	8	0.45	2	--	--	--	--	--	--	--	--	--	--	--	--	8.74	40
Totals		312.34	2649	0.22	2	--	--	9.45	43	0.5	3	--	--	--	--	--	--	--	--	--	--	13.63	55	336.19	2852
MADISON	AG/IR	0.09	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1	--	--	0.09	2
Totals		0.09	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1	--	--	0.09	2
MARION	IN/COMM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1	0	1	0	2
	WS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	2	--	--	0.01	2
Totals		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	3	0	1	0.01	4
MILLER	AG/IR	7.8	76	--	--	--	--	0.04	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.84	77
	IN/COMM	--	--	--	--	--	--	--	--	0.04	2	--	--	--	--	0.17	3	--	--	--	--	0	2	0.21	7
	WS	0.11	1	--	--	--	--	0	1	0.09	2	--	--	--	--	--	--	--	--	--	--	0.01	1	0.21	5
Totals		7.91	77	--	--	--	--	0.04	2	0.13	4	--	--	--	--	0.17	3	--	--	--	--	0.01	3	8.26	89
MISSISSIPPI	AG/IR	276.66	2187	--	--	--	--	--	--	0.16	1	--	--	--	--	--	--	--	--	--	--	0.37	3	276.19	2191
	IN/COMM	0.02	1	--	--	--	--	--	--	2.14	10	--	--	--	--	--	--	--	--	--	--	0.02	1	2.18	12
	WS	--	--	--	--	--	--	--	--	3.15	20	--	--	--	--	--	--	--	--	--	--	0.39	3	3.54	23
Totals		276.68	2188	--	--	--	--	--	--	5.45	31	--	--	--	--	--	--	--	--	--	--	0.74	7	281.91	2226
MONROE	AG/IR	266.2	2199	0.78	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.14	1	267.12	2206
	IN/COMM	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1
	WS	0.67	1	--	--	--	--	0.73	3	--	--	--	--	--	--	--	--	--	--	--	--	0.01	1	1.41	5
Totals		266.87	2201	0.78	6	--	--	0.73	3	--	--	--	--	--	--	--	--	--	--	--	--	0.15	2	268.53	2214

MONTGOMERY	IN/COMI	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	5	--	--	0.01	5
	WS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.02	3	0.02	3
Totals		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	5	0.02	3	0.03	8
NEVADA	IN/COMI	0	2	--	--	--	--	--	--	--	--	0.04	1	--	--	--	--	--	--	--	--	--	--	0.04	3
	WS	--	--	--	--	--	--	0.04	2	0.06	2	--	--	0.04	2	--	--	--	--	--	--	--	--	0.13	6
Totals		0	2	--	--	--	--	0.04	2	0.06	2	0.04	1	0.04	2	--	--	--	--	--	--	--	--	0.17	9
NEWTON	WS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.29	6	0	1	0.29	7
Totals		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.29	6	0	1	0.29	7
OUACHITA	WS	--	--	--	--	--	--	1	13	--	--	--	--	0	1	--	--	--	--	--	--	0.06	1	1.06	15
Totals		--	--	--	--	--	--	1	13	--	--	--	--	0	1	--	--	--	--	--	--	0.06	1	1.06	15
PERRY	WS	0.01	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.12	3	--	--	0.13	6
Totals		0.01	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.12	3	--	--	0.13	6
PHILLIPS	AG/IR	216.51	1893	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.24	1	216.76	1894
	IN/COMI	0.04	1	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.04	2
	WS	--	--	--	--	--	--	3.44	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.44	16
Totals		216.55	1894	0	1	--	--	3.44	16	--	--	--	--	--	--	--	--	--	--	--	--	0.24	1	220.23	1912
PIKE	AG/IR	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1	--	--	0	1
	WS	0.06	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.06	1
Totals		0.06	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1	--	--	0.06	2
POINSETT	AG/IR	699.93	2867	--	--	--	--	1.13	4	--	--	--	--	--	--	--	--	--	--	--	--	0.38	1	701.44	2872
	IN/COMI	0.04	2	--	--	--	--	0.07	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.11	3
	WS	0.48	7	--	--	--	--	0.06	4	3.26	9	--	--	--	--	--	--	--	--	--	--	0	1	3.79	21
Totals		700.43	2876	--	--	--	--	1.26	9	3.26	9	--	--	--	--	--	--	--	--	--	--	0.38	2	705.34	2896
POLK	IN/COMI	0.54	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	2	0.01	3	0.56	8
Totals		0.54	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	2	0.01	3	0.56	8
POPE	AG/IR	0.54	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.38	2	--	--	0.92	8
	IN/COMI	0.03	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.03	3
Totals		0.57	9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.38	2	--	--	0.95	11
PRAIRIE	AG/IR	186.6	1812	--	--	--	--	8.43	31	1.71	10	--	--	--	--	--	--	--	--	--	--	10.92	75	207.66	1934
	WS	0.63	9	--	--	--	--	0.09	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.72	10
Totals		187.23	1821	--	--	--	--	8.52	36	1.71	10	--	--	--	--	--	--	--	--	--	--	10.92	75	208.38	1944
PULASKI	AG/IR	18.36	231	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	18.36	231
	IN/COMI	0.03	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	2	0.03	4
	WS	2.86	6	--	--	--	--	0.27	4	--	--	--	--	--	--	--	--	--	--	0.04	4	0.02	2	3.22	16
Totals		21.3	239	--	--	--	--	0.27	4	--	--	--	--	--	--	--	--	--	--	0.04	4	0.02	4	21.63	250
RANDOLPH	AG/IR	99.75	657	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.11	1	99.86	658
	IN/COMI	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1	--	--	0	1
	WS	0.07	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.21	4	--	--	0.28	7
Totals		99.82	660	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.21	5	0.11	1	99.14	666

ST FRANCIS	AG/R	253.11	2018	0.33	5	--	--	0.06	1	--	--	--	--	--	--	--	--	--	--	--	--	0.36	3	253.84	2027
	WS	3.66	10	--	--	--	--	--	--	0.59	4	--	--	--	--	--	--	--	--	--	--	--	--	4.24	14
Totals		256.76	2028	0.33	5	--	--	0.06	1	0.59	4	--	--	--	--	--	--	--	--	--	--	0.36	3	258.08	2041
SALINE	AG/R	--	--	--	--	--	--	0.02	2	0	1	--	--	--	--	--	--	--	--	--	--	--	--	0.02	3
	WS	0.37	2	--	--	--	--	0.24	2	0.66	9	--	--	--	--	--	--	--	--	--	--	--	--	1.26	13
Totals		0.37	2	--	--	--	--	0.26	4	0.66	10	--	--	--	--	--	--	--	--	--	--	--	--	1.28	16
SCOTT	IN/CO/MI	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1	--	--	0	1
Totals		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1	--	--	0	1
SEARCY	WS	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.26	5	0.14	2	0.39	7
Totals		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.26	5	0.14	2	0.39	7
Totals		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	0
SEVIER	IN/CO/MI	--	--	--	--	--	--	0	1	--	--	--	--	--	--	--	--	--	--	--	--	0	1	0	2
	WS	0.06	1	--	--	--	--	--	--	--	--	--	--	--	--	0	1	0	4	--	--	--	--	0.06	6
Totals		0.06	1	--	--	--	--	0	1	--	--	--	--	--	--	0	1	0	4	--	--	0	1	0.06	8
SHARP	IN/CO/MI	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1
	WS	0	1	--	--	--	--	--	--	--	--	--	--	--	--	0.01	2	--	--	0.87	11	0.1	1	0.98	15
Totals		0	2	--	--	--	--	--	--	--	--	--	--	--	--	0.01	2	--	--	0.87	11	0.1	1	0.98	16
STONE	AG/R	0.07	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.07	1
	IN/CO/MI	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	1	--	--	0.01	1
Totals		0.07	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.01	1	--	--	0.08	2
UNION	AG/R	0.17	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.17	2
	IN/CO/MI	--	--	--	--	--	--	1.64	18	--	--	--	--	--	--	--	--	--	--	--	--	0.36	2	2	20
	WS	0.04	3	--	--	--	--	7.09	39	--	--	--	--	--	--	--	--	--	--	--	--	0.06	1	7.19	43
Totals		0.21	5	--	--	--	--	8.72	57	--	--	--	--	--	--	--	--	--	--	--	--	0.42	3	9.36	65
VAN BUREN	AG/R	0.32	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.32	1
Totals		0.32	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.32	1
WASHINGTON	IN/CO/MI	0.03	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1	0.01	1	0.04	5
Totals		0.03	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	1	0.01	1	0.04	5
WHITE	AG/R	38.69	746	--	--	--	--	--	--	0.64	1	--	--	--	--	--	--	--	--	--	--	3.11	41	42.34	788
	IN/CO/MI	0.04	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.04	1
	WS	0.79	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.79	7
Totals		39.52	754	--	--	--	--	--	--	0.64	1	--	--	--	--	--	--	--	--	--	--	3.11	41	43.17	796
WOODRUFF	AG/R	167.86	1654	--	--	--	--	0.87	6	--	--	--	--	--	--	--	--	--	--	--	--	11.52	116	180.27	1776
	IN/CO/MI	0	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	2
	WS	0.36	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.36	3
Totals		168.24	1659	--	--	--	--	0.87	6	--	--	--	--	--	--	--	--	--	--	--	--	11.52	116	180.63	1780
YELL	IN/CO/MI	0	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	2
	WS	0	9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	9
Totals		**0**	**11**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**0**	**11**
		7049.3		**15.2**		**0.7**		**186.9**		**30.5**		**0.04**		**2.42**		**2.43**		**0**		**12.95**		**164.6**		**7430.94**	**48623**

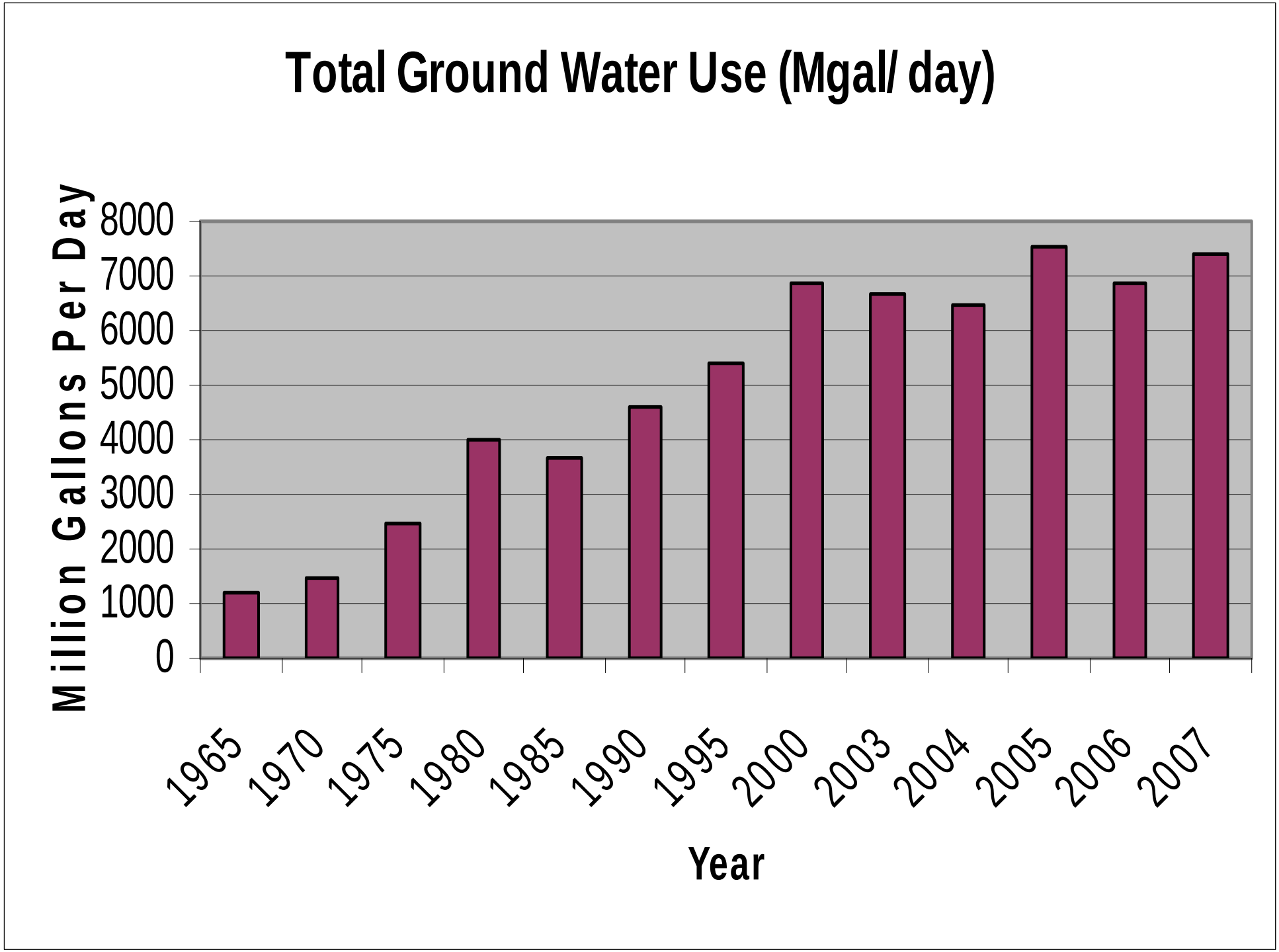
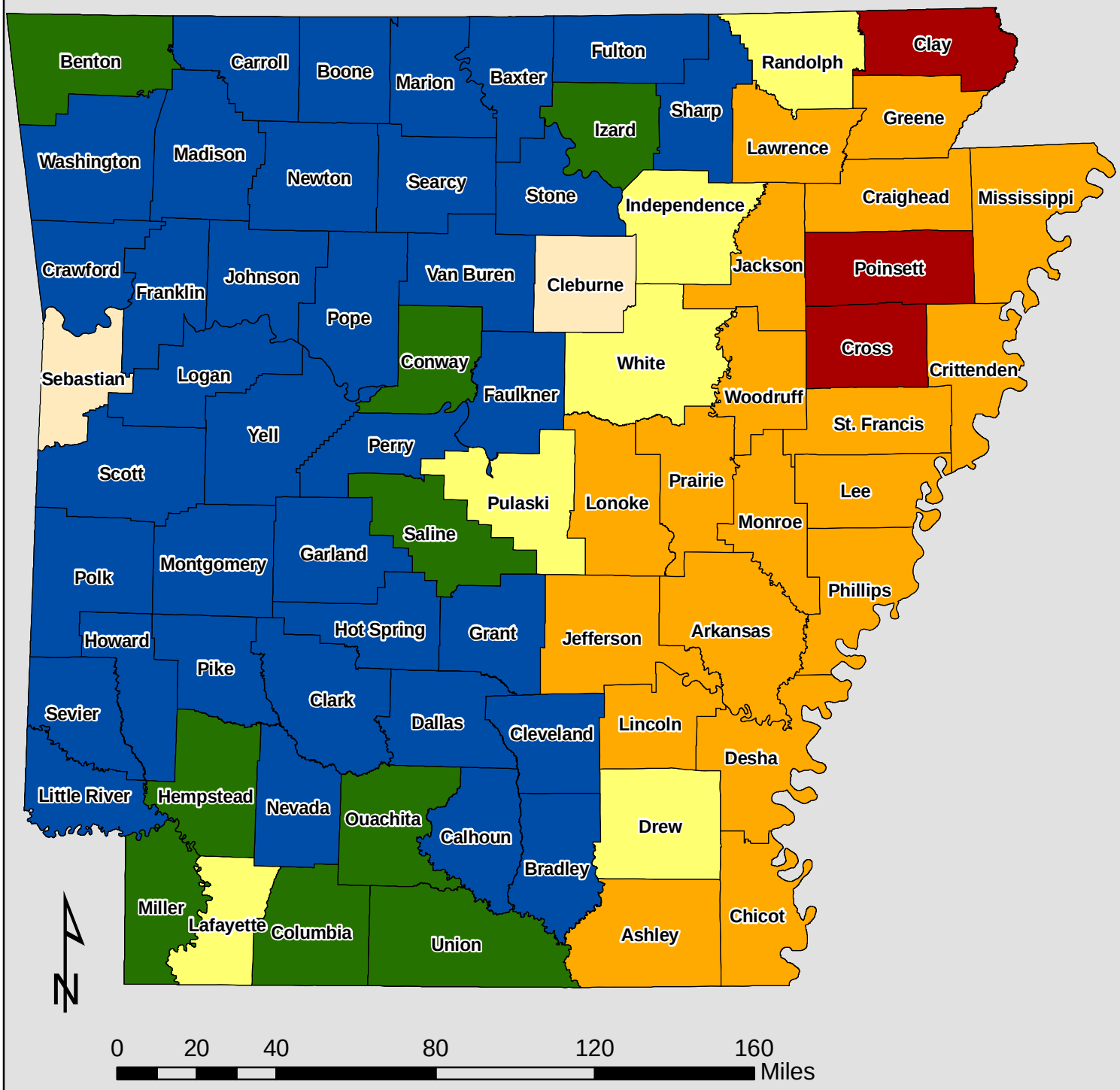

Total Ground Water Use (Mgal/ day)
Million Gallons Per Day
8000
7000
6000
5000
4000
3000
2000
1000
0
1965
1970
1975
1980
1985
1990
1995
2000
2003
2004
2005
2006
2007
Year

Fig. 39

Ground Water Use in Arkansas as of 2007 (Mgal/day)



Legend

- 0 - 1 Mgal/ Day
- Greater than 1 -10 Mgal/day
- Greater than 10 - 100 Mgal/day
- Greater than 100 - 560 Mgal/day
- Greater than 560 - 740 Mgal/day
- No Data Available

Total Use (Mgal/day): 6869.28

***Data Obtained from United States Geological Survey**

Fig. 40

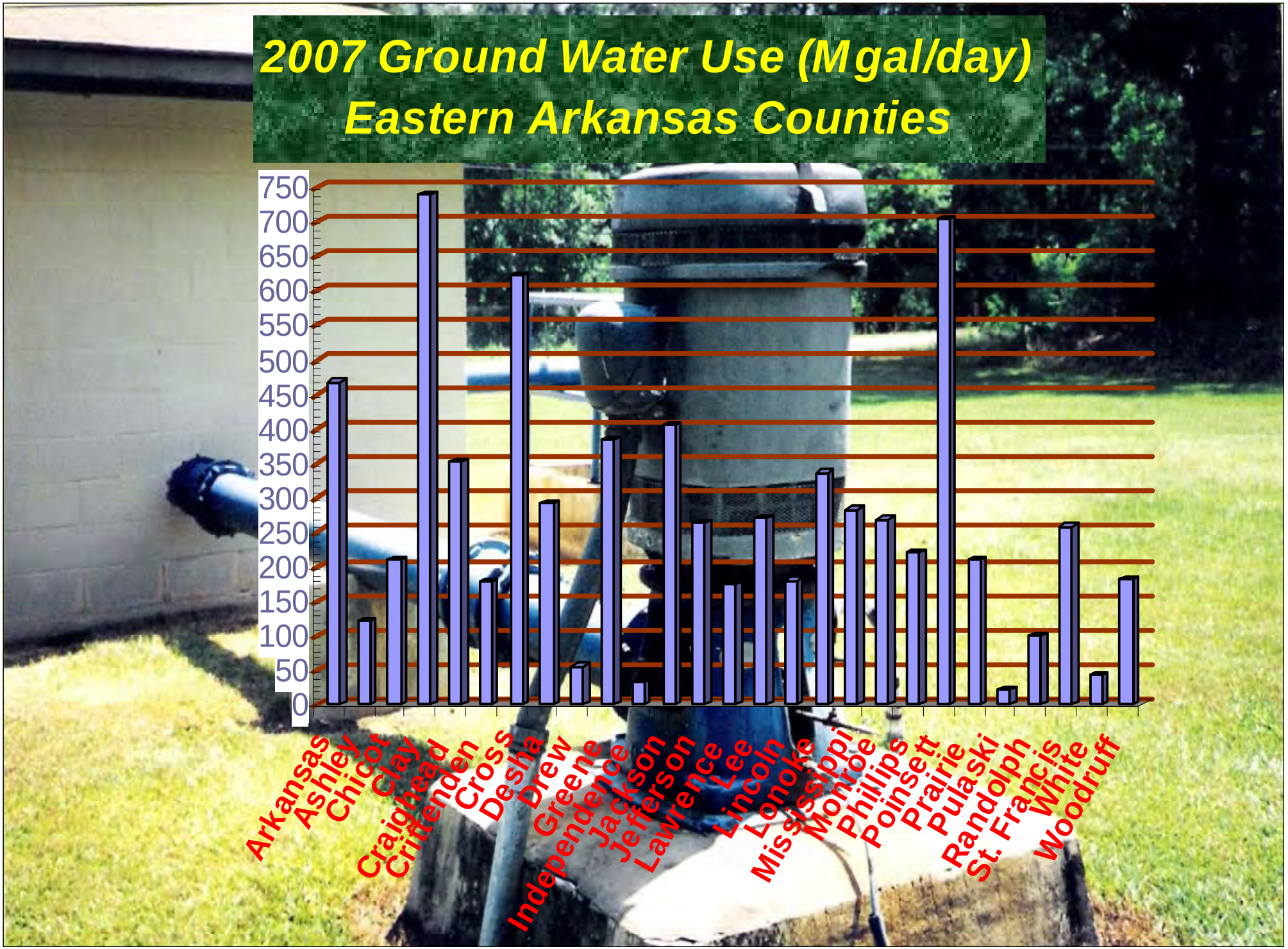
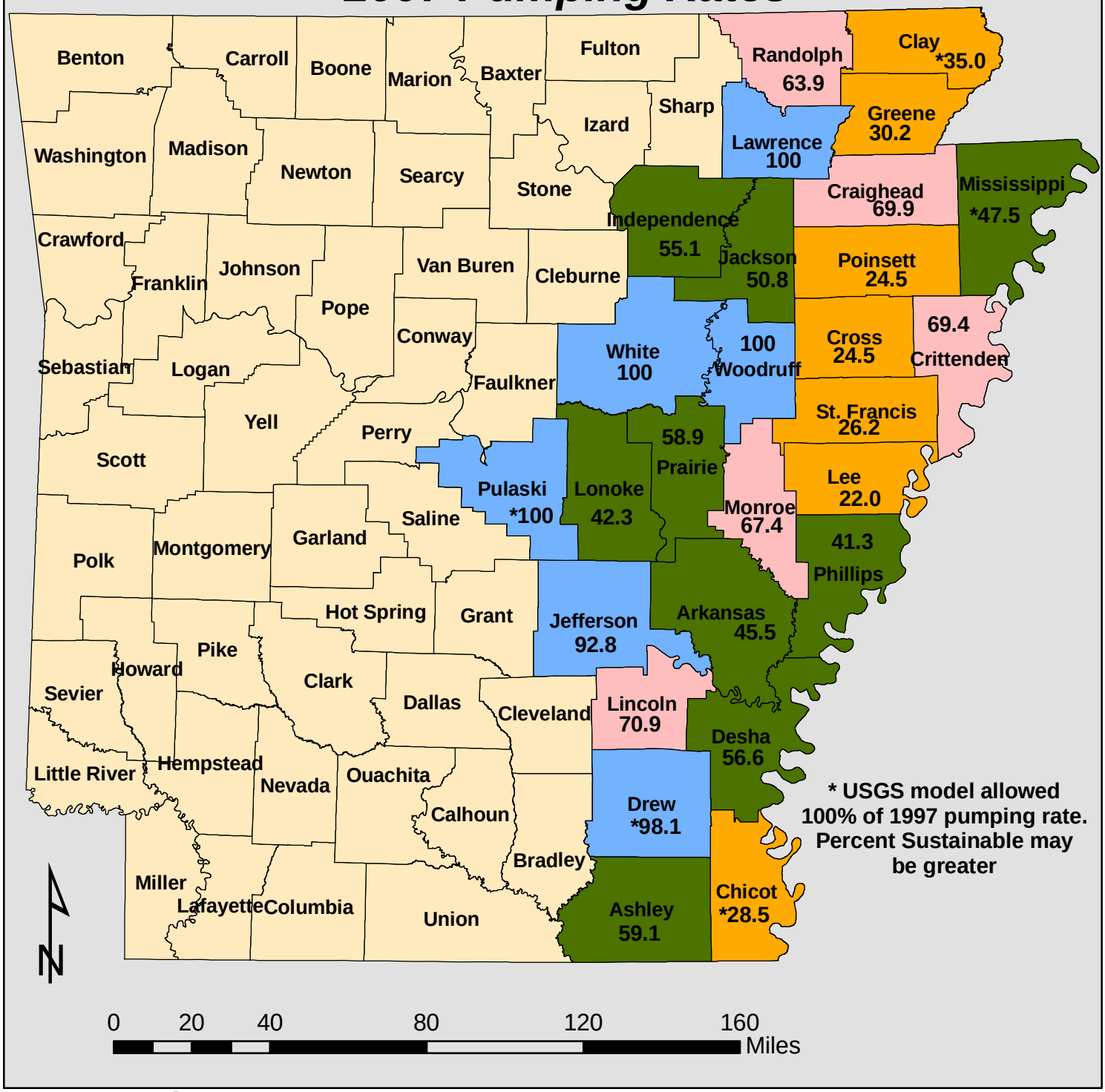

2007 Ground Water Use (Mgal/day)
Eastern Arkansas Counties
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
Arkansas
Ashley
Chicot
Clay
Craighead
Crittenden
Cross
Desha
Drew
Greene
Independence
Jackson
Jefferson
Lawrence
Lee
Lincoln
Lonoke
Mississippi
Monroe
Phillips
Poinsett
Prairie
Pulaski
Randolph
St. Francis
White
Woodruff

Fig. 41

Percentage of Sustainable Yield for the Alluvial Aquifer based on 2007 Pumping Rates



* USGS model allowed 100% of 1997 pumping rate. Percent Sustainable may be greater

Legend

- 21 - 40%
- 41 - 60%
- 61 - 80%
- 81 - 100%
- County Boundaries

Modified from USGS Reports 2003-4230 &2007-5241

Total Alluvial Water Use: 7,049.33 Mgal/day
Total Sustainable Yield: 42.4%

Fig. 42

2007 Total Withdrawals of Ground Water (Mgal/day) by Aquifer

Total Use Mgal/day: 7430.94

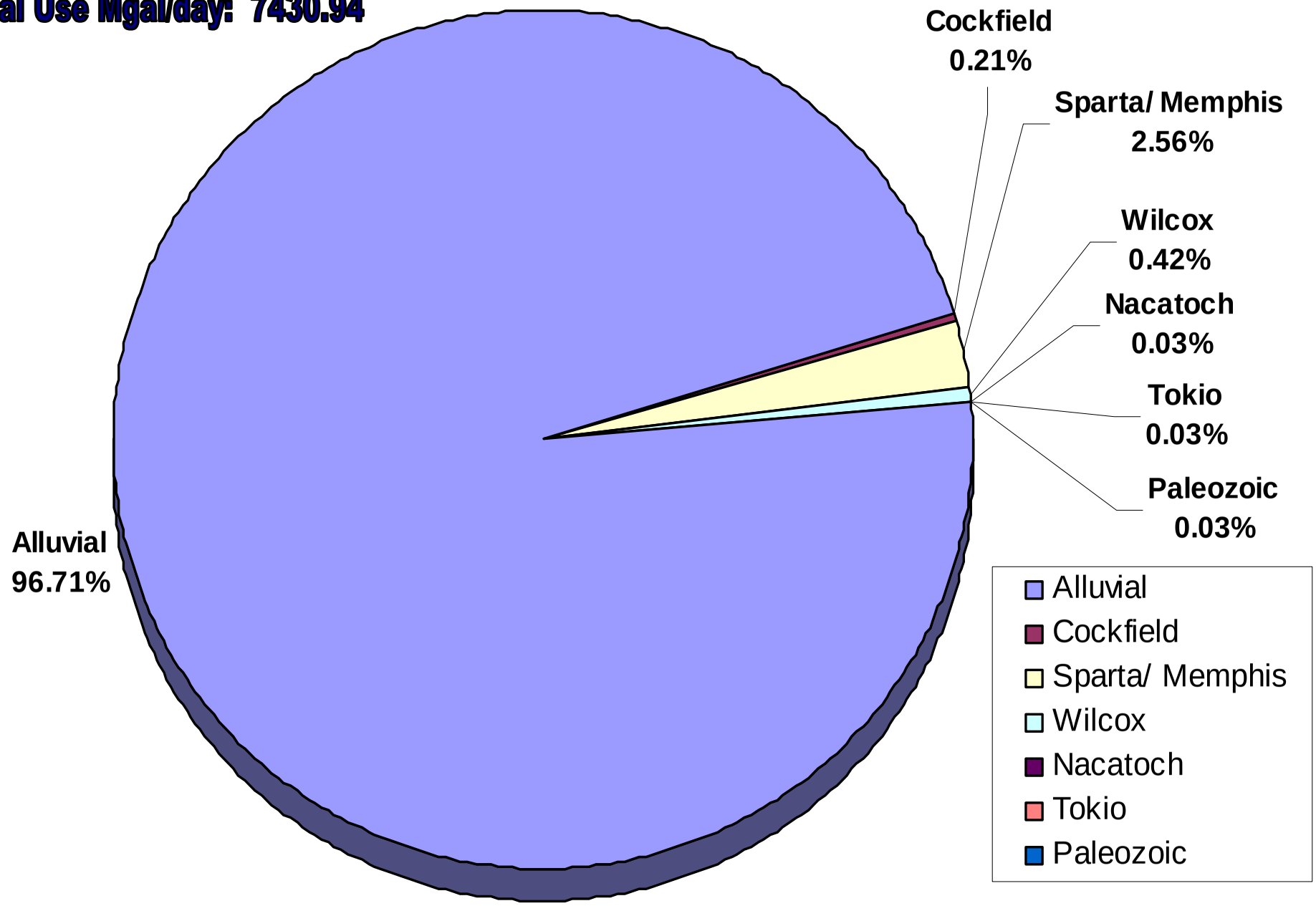


Fig. 43

2007 Withdrawal of Ground Water from the Alluvial Aquifer by Use Type

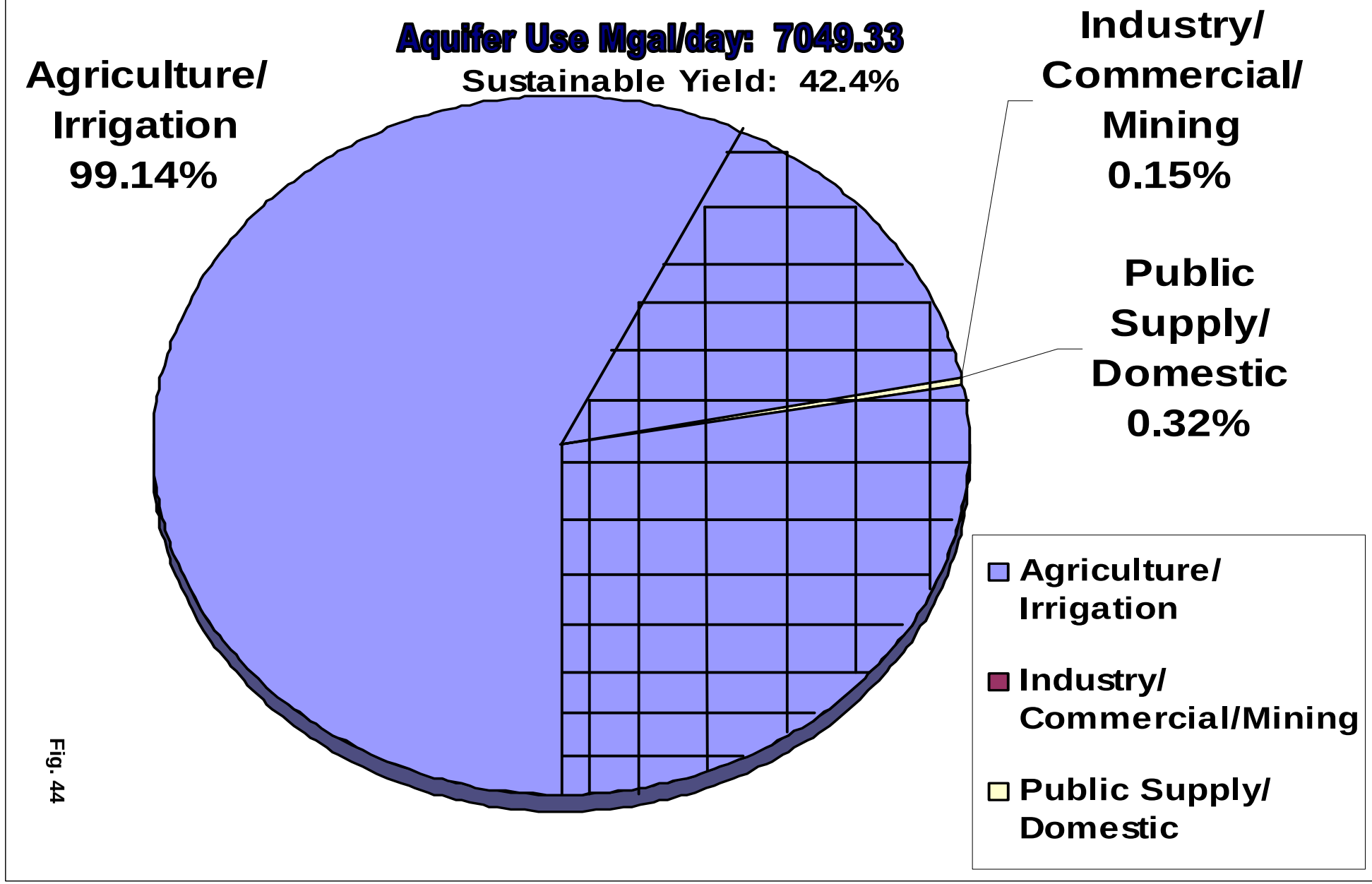


Fig. 44

2007 Withdrawal of Ground Water from the Sparta/ Memphis Aquifers by Use Type

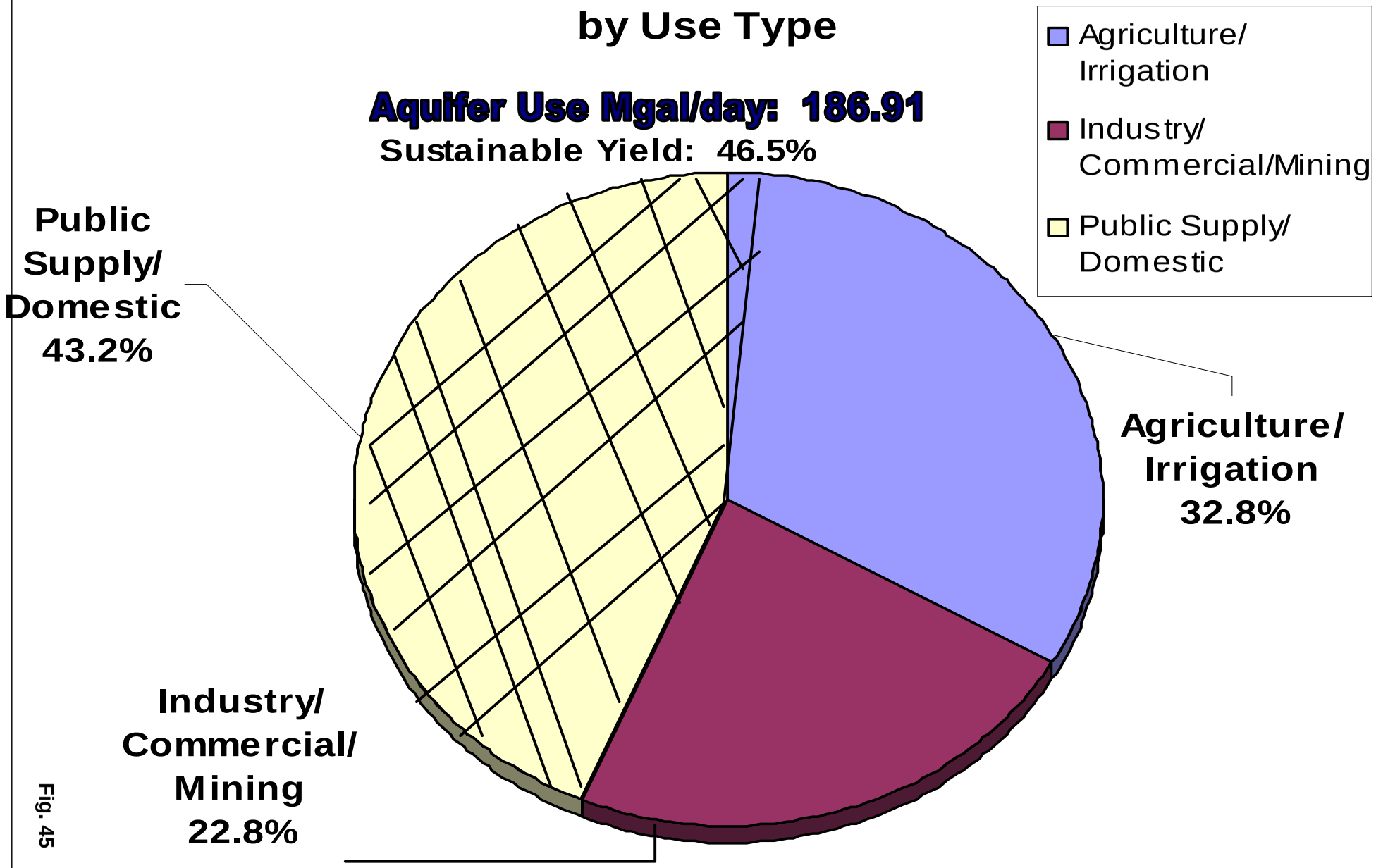


Fig. 45

SUMMARY

The Ground Water Protection and Management Report for 2009 is a summary of the activities and significant findings of the Arkansas Natural Resources Commission (ANRC). This report is prepared annually in response to legislative mandates that direct the ANRC to study the State's ground-water resources. The report also describes ground-water protection activities administered through Region VI of the U.S. Environmental Protection Agency, which are funded through Sections 106 and 319 of the Clean Water Act.

The purposes of the programs outlined in this report are to monitor the condition of the State's ground-water resources and to evaluate trends in water level and water quality fluctuations. The ANRC, the NRCS, and the USGS monitor over 1,700 water wells each year for water levels and prescribed water quality parameters. This monitoring is accomplished through a cooperative agreement with the ANRC, the USGS, and the Arkansas Geological Commission (AGC).

Spring water level measurements from 2008 to 2009 provided short term data indicating an overall average decline in water levels. The overall change in the alluvial aquifer for spring 2008 to spring 2009 was a decline of -0.96 feet with 49.4 percent of measured wells showing a water-level decline. Over the same time period he Sparta aquifer had an average change of -0.08 feet. The water levels in the Cache Study areas declined over a foot/year in the Sparta/Memphis Aquifer. The areas of heightened concern due to water-level decline continue to be in the Grand Prairie, South Arkansas, and Cache Study Areas. Fluctuations may be observed in ground-water levels over a short time period, however long term records illustrate the seriousness of the declines in ground-water levels as illustrated by the hydrographs and long term change maps. These hydrographs for both the alluvial and Sparta/Memphis aquifers are included as appendix B and appendix D.

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

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Appendix A

Alluvial Aquifer Water Level Monitoring Data

Alluvial Aquifer
09-08-04-99
WL Change

County	Station ID	Latitude	Longitude	LSA	Date Measured	09 meas.	WL Alt. 09	WL Alt. 08	WL Alt. 04	WL Alt. 99	08-09 Change	04-09 Change	99-09 Change
Arkansas	02S04W11DBB1	343232.89	912415.21	213.04	3/24/2009	99.20	113.84	112.30	113.26	114.54	1.54	0.58	-0.70
Arkansas	02S05W15AAB1	343212.68	913126.72	213.00	3/24/2009	113.65	99.35	105.62	105.34		-6.27	-5.99	
Arkansas	02S05W31BBB1	342936.71	913536.22	198.00	3/24/2009	44.00	154.00	156.76	159.82		-2.76	-5.82	
Arkansas	03S02W27ABB1	342447.92	911251.01	197.00	3/25/2009	63.10	133.90	131.08	131.42	134.00	2.82	2.48	-0.10
Arkansas	03S03W05CCD1	342737.02	912131.83	201.00	3/25/2009	98.00	103.00	101.22	103.15		1.78	-0.15	
Arkansas	03S03W18CCC1	342553	912251	196.00	3/18/2009	100.47	95.53	93.76			1.77		
Arkansas	03S03W27BBC1	342454.73	911944.08	195.00	3/25/2009	92.50	102.50	101.96	104.17		0.54	-1.67	
Arkansas	03S04W02BBB1	342831	912454	197.63	3/25/2009	93.30	104.33	104.41	105.71		-0.08	-1.38	
Arkansas	03S04W03DCA16	342753.04	912515.37	205.00	3/27/2009	100.87	104.13	103.86	104.63	106.10	0.27	-0.50	-1.97
Arkansas	03S05W13AC1	342630	913307	211.00	3/30/2009	107.07	103.93	103.61			0.32		
Arkansas	03S05W24DAA1	342525	912922	207.00	3/26/2009	58.00	149.00						
Arkansas	03S06W35ADD1	342411.4	913651.67	190.00	3/26/2009	54.10	135.90	135.19	138.02		0.71	-2.12	
Arkansas	04S01W19AAD1	342012	910919	196.00	3/25/2009	66.40	129.60						
Arkansas	04S01W31DCB1	341753	910947	179.00	3/25/2009	52.00	127.00	126.58			0.42		
Arkansas	04S02W29CCC1	341846.35	911538.5	191.00	3/25/2009	83.95	107.05	107.08	109.20		-0.03	-2.15	
Arkansas	04S03W17ADD1	342101.87	912058.11	200.00	3/25/2009	108.40	91.60	90.02	92.92	98.50	1.58	-1.32	-6.90
Arkansas	04S03W32BCB1	341820.31	912202.18	192.00	3/26/2009	130.20	61.80	68.81	75.57		-7.01	-13.77	
Arkansas	04S04W02ABB1	342313.2	912423.69	200.00	3/25/2009	109.20	90.80	90.11	91.46		0.69	-0.66	
Arkansas	04S05W24DAA1	342001.3	912929.57	198.00	3/26/2009	89.50	108.50	107.83	107.51		0.67	0.99	
Arkansas	05S01W16BAB1	341551.59	910729.49	183.00	3/25/2009	47.20	135.80	131.63	133.39	166.20	4.17	2.41	-30.40
Arkansas	05S01W17CAD1	341521	910820	180.00	3/25/2009	42.00	138.00						
Arkansas	05S03W09CBA1	341624	912046	196.00	3/18/2009	113.23	82.77	82.91			-0.14		
Arkansas	05S03W16ABB1	341551	912019	198.00	3/26/2009	96.50	101.50		84.00			17.50	
Arkansas	05S03W21BAA1	341510	912035	196.00	3/26/2009	114.80	81.20						
Arkansas	05S03W22AAB	341511	911930	195.00	3/26/2009	110.60	84.40						
Arkansas	05S04W07CCC1	341555.36	912931.61	194.00	3/26/2009	73.00	121.00	118.95	118.80		2.05	2.20	
Arkansas	05S04W14AAD1	341549	912411	186.00	3/26/2009	92.40	93.60		92.60	92.00		1.00	1.60
Arkansas	05S04W32BBA1	341315.97	912821.81	191.00	3/26/2009	57.50	133.50	132.25	132.97		1.25	0.53	
Arkansas	05S06W02DDD1	341723.66	913650.8	182.93	3/26/2009	20.10	162.83	161.13	162.45		1.70	0.38	
Arkansas	05S06W07DDC1	341641.5	914129.68	180.48	3/26/2009	1.60	178.88	176.65	177.70		2.23	1.18	
Arkansas	06S02W23DCD1	340852.62	911206.48	188.00	3/26/2009	60.50	127.50	117.39	119.83		10.11	7.67	
Arkansas	06S03W03ABA1	341228.4	911302.3	187.00	3/26/2009	70.10	116.90		117.30			-0.40	
Arkansas	06S03W10BBA1	341135.97	911953.82	184.00	3/26/2009	80.50	103.50	101.75	101.58		1.75	1.92	
Arkansas	06S03W27AAA1	340857.58	911912.78	183.14	3/26/2009	67.10	116.04	114.59	116.42		1.45	-0.38	
Arkansas	06S03W32DDA	340740	912115	180.00	3/18/2009	56.88	123.12	122.65	122.66		0.47	0.46	
Arkansas	07S02W04BBB1	340707.15	911451.89	176.00	3/26/2009	44.50	131.50	125.50	140.62	152.00	6.00	-9.12	-20.50
Arkansas	07S02W17BBA1	340707.15	911451.89	184.00	3/26/2009	48.70	135.30	129.95	131.77		5.35	3.53	
Arkansas	07S03W10ACD1	340560	911944	187.00	3/25/2009	47.50	139.50		137.80	138.00		1.70	1.50
Arkansas	07S03W18CCD1	340435.28	912316.09	186.18	3/25/2009	41.50	144.68	142.01	143.10	141.88	2.67	1.58	2.80
Arkansas	07S03W32BBC1	340240	912216	176.92	3/25/2009	24.60	152.32	150.47	151.42		1.85	0.90	

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WL Change

County	Station ID	Latitude	Longitude	LSA	Date Measured	09 meas.	WL Alt. 09	WL Alt. 08	WL Alt. 04	WL Alt. 99	08-09 Change	04-09 Change	99-09 Change
Arkansas	07S04W01DDD1	340625.25	912327.15	186.00	3/25/2009	42.40	143.60	137.52	141.48		6.08	2.12	
Arkansas	08S02W08ACA1	340041.03	911505.57	179.00	3/26/2009	45.75	133.25	136.33	136.77		-3.08	-3.52	
Arkansas	08S03WT2299	340147.45	912202.5	178.00	3/25/2009	19.70	158.30	155.91	156.38		2.39	1.92	
							Wells/Declines:				**34/7**	**34/15**	**9/7**
							Average Change:				**1.27**	**0.06**	**-6.07**
Ashley	15S04W23DBD1	332247.3	912851.9	128.00	2/26/2009	34.40	93.60	94.58			-0.98		
Ashley	15S07W21CBA1	332315.7	915001.37	210.00	2/26/2009	6.40	203.60	205.48	206.26		-1.88	-2.66	
Ashley	16S04W10ABB	331902	913002	130.00	2/26/2009	37.00	93.00		95.30			-2.30	
Ashley	16S06W08CAA1	331941	914438	185.00	3/3/2009	77.00	108.00	106.08	107.78		1.92	0.22	
Ashley	16S06W25DDD1	331640	913958	182.00	3/3/2009	78.86	103.14	103.53			-0.39		
Ashley	16S06W27BAB1	331729	914240	182.00	3/3/2009	84.05	97.95	97.93	98.80		0.02	-0.85	
Ashley	16S06W35BAD	331624	914143	175.00	3/3/2009	74.40	100.60		103.20			-2.60	
Ashley	17S04W03ABB1	331528	913010	124.00	2/26/2009	32.60	91.40	93.23	95.03		-1.83	-3.63	
Ashley	17S04W15DDC1	331252.48	912954.09	116.00	2/26/2009	28.80	87.20	88.30	89.55		-1.10	-2.35	
Ashley	17S04W21ABA1	331252	913108	117.00	2/26/2009	26.20	90.80	94.03	95.63		-3.23	-4.83	
Ashley	17S05W01AAC1	331529.1	913347.5	122.00	4/15/2009	19.00	103.00	104.00			-1.00		
Ashley	17S06W01ADD1	331517.9	913956.26	182.00	3/3/2009	84.10	97.90	97.97	99.43		-0.07	-1.53	
Ashley	17S06W35CAC1	331049	914136	179.00	2/26/2009	72.30	106.70	106.59	100.71		0.11	5.99	
Ashley	18S04W08CAD1	330852	913218	120.00	2/26/2009	34.60	85.40		88.60			-3.20	
Ashley	18S04W23DDD1	330651.4	912941.2	103.00	4/15/2009	28.00	75.00	73.00	81.00	80.00	2.00	-6.00	-5.00
Ashley	18S05W11CCD1	330816.6	913537.3	118.00	4/15/2009	28.00	90.00	91.00	102.00	96.00	-1.00	-12.00	-6.00
Ashley	18S05W22DDA1	330712	913555	125.00	4/15/2009	21.00	104.00	103.00	113.00	106.00	1.00	-9.00	-2.00
Ashley	18S08W01AAB1	331014.97	915225.12	181.00	2/26/2009	86.25	94.75	96.66	94.67		-1.91	0.08	
Ashley	19S04W06BAB2	330504	913328.6	110.00	2/26/2009	27.70	82.30	86.08	85.93		-3.78	-3.63	
Ashley	19S04W09CBB	330346	913146	105.00	2/26/2009	27.00	78.00		81.30			-3.30	
Ashley	19S04W14BBB1	330314.2	912940.6	107.00	4/15/2009	31.00	76.00	76.00	87.00	86.00	0.00	-11.00	-10.00
Ashley	19S05W08ACA1	330405	913815	111.00	4/15/2009	17.00	94.00	93.00	100.00	97.00	1.00	-6.00	-3.00
Ashley	19S05W16ABB1	330323	913718	116.00	4/15/2009	26.00	90.00	88.00	97.00	107.00	2.00	-7.00	-17.00
Ashley	19S05W22DCD1	330139	913615	107.00	4/15/2009	26.00	81.00	81.00	87.00	88.00	0.00	-6.00	-7.00
Ashley	19S06W07BCC1	330403.56	914607.92	134.70	2/26/2009	31.10	103.60	102.24			1.36		
							Wells/Declines:				**21/11**	**21/18**	**7/7**
							Average Change:				**-0.37**	**-3.89**	**-7.14**
Chicot	13S03W27AAA1	333253	912310	138.00	3/18/2009	47.00	91.00	90.00	95.00	102.00	1.00	-4.00	-11.00
Chicot	13S03W34BAA1	333110.24	912539.38	133.00	2/24/2009	42.50	90.50	92.26	93.23		-1.76	-2.73	
Chicot	13S03W35BAC1	333154.1	912245.5	134.00	2/24/2009	41.50	92.50	92.71	95.13		-0.21	-2.63	
Chicot	14S02W09BDD1	332859	911729	133.00	3/20/2009	29.00	104.00	103.00	104.00	105.00	1.00	0.00	-1.00

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Chicot	14S02W18BBA1	332859	912038	130.00	3/19/2009	32.00	98.00	96.00		106.00	2.00		-8.00
Chicot	14S03W32CDB2	332613.47	912551.45	134.00	2/24/2009	38.50	95.50	98.24	99.07		-2.74	-3.57	
Chicot	15S02W20DDC1	332226.59	911919.83	126.00	2/24/2009	31.20	94.80	97.88	96.00		-3.08	-1.20	
Chicot	15S03W18BBB1	332226.59	911919.83	125.00	3/19/2009	46.00	79.00	83.00	90.00		-4.00	-11.00	
Chicot	16S03W24BBC1	331797	912234	118.00	2/24/2009	32.20	85.80		86.10			-0.30	
Chicot	17S01W06BCC1	331501.18	911505.22	115.00	2/24/2009	21.40	93.60	93.43			0.17		
Chicot	17S02W33DDA1	331021	911820	120.00	2/24/2009	31.20	88.80						
Chicot	17S03W18CBC1	331257	912736	117.00	3/23/2009	34.00	83.00	82.00	84.00	89.00	1.00	-1.00	-6.00
Chicot	18S01W33BDA1	330543	911245	115.00	3/19/2009	13.00	102.00	101.00			1.00		
Chicot	18S03W22ABA2	330728	912341	103.00	2/24/2009	12.10	90.90	91.83	90.47		-0.93	0.43	
Chicot	19S01W17BBB	330309	911415	105.00	2/24/2009	16.70	88.30		87.50			0.80	
Chicot	18S03W15DAD1	331818	912334	118.00	3/3/2009	32.09	85.91						
							Wells/Declines:				12/6	11/8	4/4
							Average Change:				-0.55	-2.29	-6.50
Clay	18N08E03DAB1	361323.23	901153.03	257.00	2/25/2009	7.00	250.00	252.71	250.16		-2.71	-0.16	
Clay	18N08E11BAA1	361253	901117	259.00	5/19/2009	6.00	253.00	255.00	252.20	251.50	-2.00	0.80	1.50
Clay	19N03E24AAA1	361655	904157.1	278.00	2/25/2009	22.00	256.00	257.04	259.82		-1.04	-3.82	
Clay	19N04E19AAA1	361654.4	904050	282.00	2/25/2009	32.20	249.80	250.44	252.97		-0.64	-3.17	
Clay	19N04E19BAA1	361649	904125	279.00	5/13/2009	22.50	256.50	255.80	257.50		0.70	-1.00	
Clay	19N06E18DBC1	361642	902815	297.00	5/13/2009	39.10	257.90	258.10	264.50	268.10	-0.20	-6.60	-10.20
Clay	19N07E25BCB1	361519	901700	268.00	5/13/2009	11.70	256.30	254.90	251.40	252.50	1.40	4.90	3.80
Clay	19N08E08DCA1	361729	901402	270.00	5/13/2009	2.50	267.50	266.00	262.00	264.00	1.50	5.50	3.50
Clay	19N09E30BB1	361531	900921	265.00	5/19/2009	5.00	260.00	260.50			-0.50		
Clay	20N03E25BAA1	362112	904225	288.00	5/13/2009	11.00	277.00	265.00	268.20		12.00	10.80	
Clay	20N04E02BBC1	362427	903722	285.00	2/25/2009	16.50	268.50		269.30			-0.80	
Clay	20N05E22CAD1	362118	903132	290.00	5/13/2009	29.00	261.00	260.50	263.00	267.20	0.50	-2.00	-6.20
Clay	20N05E30CAC1	362003	903454	283.00	5/13/2009	17.50	265.50	265.60	266.10		-0.10	-0.60	
Clay	20N05E34DBA1	361939.3	903117.2	285.00	2/25/2009	31.55	253.45	253.22	257.75		0.23	-4.30	
Clay	20N06E09BBA1	362327	902620	290.00	5/13/2009	21.00	269.00	267.50	262.37	276.50	1.50	6.63	-7.50
Clay	20N06E28CCD1	362005	902630	290.00	5/13/2009	12.00	278.00	259.20	263.00	267.50	18.80	15.00	10.50
Clay	20N08E22BDC1	362111	901220	275.00	5/13/2009	5.60	269.40	268.50	266.50	267.20	0.90	2.90	2.20
Clay	20N09E09ABC1	362306	900642	279.00	5/12/2009	3.60	275.40	276.00	271.00	274.60	-0.60	4.40	0.80
Clay	20N09E33DDC1	361904	900628	270.00	5/19/2009	6.00	264.00	265.00	263.10		-1.00	0.90	
Clay	21N03E15CBC1	362738	904453	292.00	5/13/2009	9.00	283.00	287.00	279.90	281.50	-4.00	3.10	1.50
Clay	21N03E36CDD1	362450	904214	290.00	5/13/2009	18.00	272.00	278.90	271.90	275.10	-6.90	0.10	-3.10
Clay	20N04E03AA1	362425	903725	290.00	5/13/2009	14.00	276.00	274.00			2.00		
Clay	21N04E09DBC1	362828	903853	291.00	5/13/2009	10.00	281.00	281.00	280.00	283.50	0.00	1.00	-2.50

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Clay	21N05E17ABB1	362755.47	903328.9	298.00	2/25/2009	13.90	284.10	274.08	277.68		10.02	6.42	
Clay	21N05E22BAB1	362704	903132	288.00	5/13/2009	3.50	284.50	282.20	281.50		2.30	3.00	
Clay	21N06E11BBB1	362839	902421	296.00	5/13/2009	11.00	285.00	280.80	284.10	288.90	4.20	0.90	-3.90
Clay	21N06E28BB1	362604.92	902607.97	292.50	2/29/09	19.90	272.60	273.12	275.47		-0.52	-2.87	
Clay	21N07E01DDC1	362835	901607	303.00	5/13/2009	29.00	274.00	269.80	284.50	293.10	4.20	-10.50	-19.10
Clay	21N07E19BDA1	362619.5	902247.92	295.00	5/13/2009	20.00	275.00	270.20	277.00	280.70	4.80	-2.00	-5.70
Clay	21N08E03CD1	362842	901211	308.00	5/13/2009	10.00	298.00	287.50			10.50		
Clay	21N08E36ABB1	362502	900958	283.00	2/25/2009	3.20	279.80	280.32	281.37		-0.52	-1.57	
Clay	21N09E31BDA1	362447	900851	284.00	5/12/2009	2.00	282.00	283.00	278.60	281.70	-1.00	3.40	0.30
							Wells/Declines:				31/14	29/13	16/8
							Average Change:				1.74	1.05	-2.13
Craighead	13N01E03AAA1	354739	905753	240.00	3/17/2009	57.10	182.90	183.40	187.80	191.80	-0.50	-4.90	-8.90
Craighead	13N01E21CAB	354434	905945	240.00	3/19/2009	66.80	173.20	174.50	181.00	178.40	-1.30	-7.80	-5.20
Craighead	13N01E26BC1	353832	905800	245.00	3/19/2009	71.10	173.90	174.90			-1.00		
Craighead	13N02E02AAB1	354731	905032	251.00	3/17/2009	93.50	157.50	157.20	166.00	171.10	0.30	-8.50	-13.60
Craighead	13N02E03AAA1	354733	905129	250.00	3/19/2009	89.50	160.50	161.30	166.20	171.00	-0.80	-5.70	-10.50
Craighead	13N03E23CDA1	354419	904434	249.00	3/24/2009	82.00	167.00	167.30	170.20	174.30	-0.30	-3.20	-7.30
Craighead	13N03E28CDB1	354322	904652	250.00	3/24/2009	113.20	136.80	133.10	144.50		3.70	-7.70	
Craighead	13N03E29AAA1	354403.31	904712.98	251.00	3/2/2009	106.10	144.90	145.24	148.95		-0.34	-4.05	
Craighead	13N04E15DBA1	354521	903857	230.00	3/20/2009	26.80	203.20	203.40	204.80	207.50	-0.20	-1.60	-4.30
Craighead	13N04E26BCC1	354340	903829	225.00	3/20/2009	26.50	198.50	198.40	197.60	200.70	0.10	0.90	-2.20
Craighead	13N05E02CCC1	354648	903202	230.00	3/20/2009	14.40	215.60	216.50	221.00	217.00	-0.90	-5.40	-1.40
Craighead	13N05E06DCC1	354637	903547	229.00	3/20/2009	21.00	208.00	208.60	209.00	210.20	-0.60	-1.00	-2.20
Craighead	13N05E22BAD1	354449	903243	226.00	3/3/2009	14.00	212.00	212.77	212.89		-0.77	-0.89	
Craighead	13N05E24BAC1	354451	903045	225.00	3/20/2009	9.20	215.80	216.20	219.50	216.60	-0.40	-3.70	-0.80
Craighead	13N06E21AD1	354421	902743	220.00	3/20/2009	10.30	209.70	211.50			-1.80		
Craighead	13N07E02CAB1	354642	901901	226.00	3/20/2009	10.80	215.20	215.50	221.00		-0.30	-5.80	
Craighead	13N07E05ABB1	354716	902158	225.00	3/20/2009	4.50	220.50	220.60	219.50	219.10	-0.10	1.00	1.40
Craighead	13N07E35AD1	354403	901821	249.00	3/24/2009	98.10							
Craighead	14N01E03ACB1	355246	905816	249.00	3/19/2009	52.30	196.70	197.50	200.90	206.30	-0.80	-4.20	-9.60
Craighead	14N01E10BAB1	355204	905828	246.00	3/19/2009	57.50	188.50	192.00	195.90	200.10	-3.50	-7.40	-11.60
Craighead	14N01E31DCA1	354817	910121	251.00	3/17/2009	62.00	189.00	189.10	194.30	199.70	-0.10	-5.30	-10.70
Craighead	14N02E15DD1	354852	905044	255.00	3/17/2009	77.50	177.50	177.00			0.50		
Craighead	14N02E18BDD1	355040.91	905419.37	242.00	3/2/2009	53.00	189.00	188.43	191.75		0.57	-2.75	
Craighead	14N02E27AA	354918	905125	255.00	3/2/2009	81.95	173.05	172.75			0.30		
Craighead	14N06E06BB1	355239.93	903013.15	240.00	3/20/2009	22.50	217.50	218.50			-1.00		
Craighead	14N05E25ABB1	354920.85	903025.35	238.00	3/2/2009	20.20	217.80	219.42	219.86		-1.62	-2.06	

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Craighead	14N06E27AAB1	354911.46	902559.08	225.93	3/2/2009	1.90	224.03	225.68	223.48		-1.65	0.55	
Craighead	14N07E14DDC1	354956	901831	230.00	3/20/2009	12.90	217.10	216.90	225.50	222.00	0.20	-8.40	-4.90
Craighead	15N02E12DCB1	355626	904930	250.00	3/17/2009	37.00	213.00	213.50	218.30	224.20	-0.50	-5.30	-11.20
Craighead	15N03E31ADA1	355313.6	904807.3	270.00	3/17/2009	60.50	209.50	210.80		221.10	-1.30		-11.60
Craighead	15N05E22BAB1	355513	903241	260.00	3/20/2009	32.00	228.00	228.20	222.00	229.30	-0.20	6.00	-1.30
Craighead	15N06E04BAD1	355744	902706	239.00	3/20/2009	18.00	221.00	221.60	228.00	227.50	-0.60	-7.00	-6.50
Craighead	15N06E20DDD1	355426	902739	234.00	3/2/2009	9.90	224.10	224.63	225.38		-0.53	-1.28	
Craighead	15N07E10DBA1	355627.56	901943.75	236.00	3/2/2009	8.25	227.75		228.42			-0.67	
Craighead	15N07E35DCB1	355241	901831	231.00	3/20/2009	13.80	217.20	217.10	224.50	221.50	0.10	-7.30	-4.30
							Wells/Declines:				33/25	28/24	20/19
							Average Change:				-0.46	-3.69	-6.34
Crittenden	05N07E09BCA1	350410	902138	206.00	5/12/2009	25.80	180.20	180.00			0.20		
Crittenden	05N07E28CBA1	350121.32	902139.85	201.00	4/22/2009	18.50	182.50	183.92	184.02		-1.42	-1.52	
Crittenden	05N07E34BAB1	350059.39	902029.86	203.00	4/22/2009	15.50	187.50	186.73	188.11		0.77	-0.61	
Crittenden	06N07E13BAA1	350849.58	901807.57	205.00	4/15/2009	22.00	183.00		185.97			-2.97	
Crittenden	06N07E13BAB1	350849	901811	211.00	5/12/2009	23.10	187.90	187.40			0.50		
Crittenden	07N06E24CCD1	351255.2	902452.9	213.00	5/12/2009	37.10	175.90	175.40			0.50		
Crittenden	07N06E30AAA1	351227	902923	210.00	5/12/2009	39.71	170.29	169.89			0.40		
Crittenden	07N07E05DAD1	351504	902129	215.00	4/15/2009	34.95	180.05						
Crittenden	07N07E31CCC1	351041.9	902358.97	207.00	4/15/2009	38.80	168.20	170.52	175.44		-2.32	-7.24	
Crittenden	07N07E34DDA1	351116	901941	215.00	4/15/2009	30.80	184.20		187.80			-3.60	
Crittenden	07N08E04BDC1	351525	902138	211.00	5/12/2009	22.90	188.10	188.10			0.00		
Crittenden	07N09E05CDD1	351453.34	900933.58	214.00	4/22/2009	12.00	202.00	199.17	199.66		2.83	2.34	
Crittenden	08N06E26BBA1	351737	902552	215.00	4/15/2009	36.30	178.70		184.60			-5.90	
Crittenden	08N07E13CCC2	351828.34	901811.95	221.00	3/30/2009	35.47	185.53	189.57	192.75		-4.04	-7.22	
Crittenden	08N08E06ABB1	352103	901644	223.00	5/12/2009	31.00	192.00	191.70	195.50		0.30	-3.50	
Crittenden	09N07E02CDB1	352537	901905	225.00	5/12/2009	33.20	191.80	191.50	192.00	194.60	0.30	-0.20	-2.80
Crittenden	09N07E10DDA1	352447.58	901924.64	221.00	4/22/2009	30.40	190.60	191.71	193.74		-1.11	-3.14	
Crittenden	09N07E20DDC1	352256	902158	215.00	4/22/2009	30.55	184.45		187.50			-3.05	
Crittenden	09N07E31BAB1	352159.85	902326.57	221.00	4/22/2009	34.50	186.50	186.94	188.69	190.90	-0.44	-2.19	-4.40
Crittenden	09N08E35BBD1	352144	901251	225.00	4/22/2009	14.53	210.47						
							Wells/Declines:				14/5	13/12	2/2
							Average Change:				-0.25	-2.98	-3.60
Cross	07N01E05CDA1	351517.52	910049.05	217.00	3/17/2009	80.30	136.70	140.62	145.25		-3.92	-8.55	
Cross	07N01E11AAA1	351501.25	905705.29	217.00	3/17/2009	79.00	138.00	138.38	142.23		-0.38	-4.23	
Cross	07N02E02CD	351510	905113	225.00	3/18/2009	82.62	142.38	148.50			-6.12		

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County	Station ID	Latitude	Longitude	LSA	Date Measured	09 meas.	WL Alt. 09	WL Alt. 08	WL Alt. 04	WL Alt. 99	08-09 Change	04-09 Change	99-09 Change
Cross	07N02E29DDC1	351138.09	905409.17	220.00	3/18/2009	73.60	146.40	145.86	149.52	158.00	0.54	-3.12	-11.60
Cross	07N03E05ADA1	351548.89	904738.6	254.00	3/18/2009	112.30	141.70	141.77	133.15		-0.07	8.55	
Cross	07N03E32DCC1	351045.29	904810.28	251.00	3/18/2009	97.50	153.50	153.20	155.12		0.30	-1.62	
Cross	07N05E19CCC1	351237.7	903644.9	207.00	3/18/2009	39.80	167.20	167.66	172.09		-0.46	-4.89	
Cross	08N05E32ADD1	351631.65	903440.45	204.00	3/18/2009	29.70	174.30	172.53	175.53		1.77	-1.23	
Cross	09N01E12CBB1	352505	905653	226.00	3/17/2009	93.41	132.59	133.72			-1.13		
Cross	09N01E33BBA2	352202.76	910000.6	225.00	3/17/2009	84.30	140.70	141.33	146.60		-0.63	-5.90	
Cross	09N03E17DDC1	352408.8	904725.6	251.00	3/17/2009	109.60	141.40	143.23	147.04		-1.83	-5.64	
Cross	09N05E32BDB1	352150.53	903512.11	210.00	3/18/2009	31.60	178.40	177.83	180.88		0.57	-2.48	
							Wells/Declines:				12/8	10/9	1/1
							Average Change:				-0.95	-2.91	
Desha	07S01E19ABA1	340428	910303	154.00	5/27/2009	18.00	136.00	131.50	140.00	139.20	4.50	-4.00	-3.20
Desha	08S03W33ABD1	335802.92	912338.18	165.04	2/23/2009	7.90	157.14	158.11	159.72		-0.97	-2.58	
Desha	09S01W08BDA1	335608	911234	156.00	3/30/2009	22.00	134.00	126.00	131.00		8.00	3.00	
Desha	09S01W15CBB1	335501	911055	152.00	3/30/2009	38.00	114.00	113.00	117.00		1.00	-3.00	
Desha	09S02W17CBC1	355502	911920	153.00	3/30/2009	33.00	120.00	118.00			2.00		
Desha	09S02W26DDC1	335256.57	911529.64	149.27	2/23/2009	31.69	117.58	117.59	118.18		-0.01	-0.60	
Desha	09S03W17DCB1	335448.23	912456.66	155.08	2/23/2009	35.80	119.28	121.40	121.26		-2.12	-1.98	
Desha	09S04W02CDA1	335823	912821	163.00	3/30/2009	41.00	122.00	127.00			-5.00		
Desha	09S04W06BCA1	335756.1	913243	161.00	2/23/2009	37.20	123.80	124.57	127.25		-0.77	-3.45	
Desha	10S02W11ADD1	335045	911517	146.00	3/30/2009	31.00	115.00	115.00	118.00		0.00	-3.00	
Desha	10S02W20ADA1	334916	911825	148.00	3/4/2009	41.30	106.70	107.15			-0.45		
Desha	10S03W26CAA1	334806	912144.55	155.00	2/23/2009	47.80	107.20	107.57	110.97		-0.37	-3.77	
Desha	10S03W26CCC	334759	912235	150.00	2/23/2009	46.10	103.90		106.60			-2.70	
Desha	10S04W09BCD1	335059	913052	164.00	2/23/2009	36.10	127.90		132.10			-4.20	
Desha	10S04W19DAC1	334901	913233	160.00	2/23/2009	29.00	131.00		133.00			-2.00	
Desha	10S04W21AAA1	334929	913012	160.00	2/23/2009	30.50	129.50		131.80			-2.30	
Desha	11S03W21ABB1	334416	912412	139.00	3/30/2009	36.00	103.00	103.00			0.00		
Desha	11S02W15BAD1	334446	911635	148.00	3/30/2009	35.00	113.00	112.00			1.00		
Desha	12S01W23DBC1	333803	911019	146.00	3/30/2009	19.00	127.00	115.00			12.00		
Desha	13S02W05CDD1	333535	911938	146.00	3/30/2009	47.00	99.00	100.00			-1.00		
Desha	13S02W27CAC1	333223.99	911734.76	133.00	2/24/2009	32.50	100.50	100.57	101.08		-0.07	-0.58	
Desha	13S02W32DBD1	333126	911917	135.00	3/30/2009	42.00	93.00	95.00	97.00		-2.00	-4.00	
Desha	13S03W10DAA1	333505.64	912301.83	140.00	2/24/2009	50.00	90.00	90.83	94.05		-0.83	-4.05	
Desha	13S03W11CAB1	333503	912241	142.00	3/30/2009	53.00	89.00	90.00	91.00		-1.00	-2.00	
							Wells/Declines:				20/12	17/16	1/1
							Average Change:				0.70	-2.42	

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County	Station ID	Latitude	Longitude	LSA	Date Measured	09 meas.	WL Alt. 09	WL Alt. 08	WL Alt. 04	WL Alt. 99	08-09 Change	04-09 Change	99-09 Change
Drew	11S04W08DBA1	334531.98	913136.2	160.00	2/26/2009	27.20	132.80	133.92	136.87		-1.12	-4.07	
Drew	11S04W09BBB	334550	913404	160.00	2/26/2009	35.50	124.50		131.70			-7.20	
Drew	11S04W35DC1	334144	912842	154.00	3/4/2009	30.10	123.90	124.27			-0.37		
Drew	11S05W08CCC1	334546.48	913837.16	185.00	2/26/2009	37.20	147.80	147.53	149.21		0.27	-1.41	
Drew	12S04W03ABB1	334133.92	912946.13	155.00	2/26/2009	27.50	127.50	128.98	130.89		-1.48	-3.39	
Drew	12S04W25DBB1	333739	912738	149.00	2/26/2009	32.80	116.20	109.00	115.00		7.20	1.20	
Drew	13S04W09ACD1	333512	913034	145.00	4/7/2009	33.00	112.00	125.00	128.60		-13.00	-16.60	
Drew	13S04W33BAA1	333206	913100	138.00	2/26/2009	20.60	117.40	118.68	118.97		-1.28	-1.57	
Drew	13S04W36DCC	333110	912757	140.00	2/26/2009	29.00	111.00		115.40			-4.40	
Drew	13S06W03DDC1	333544.69	914201.6	191.00	2/26/2009	58.90	132.10	126.11	129.94		5.99	2.16	
Drew	13S06W21DAA1	333324	914258	207.00	4/7/2009	61.00	146.00						
Drew	14S04W03ADD1	333050	912929	141.00	4/7/2009	15.00	126.00						
Drew	14S04W03CBA1	333039	912944	140.00	2/26/2009	26.20	113.80		115.00			-1.20	
Drew	14S04W05CBA1	333047	913218	131.00	4/7/2009	20.00	111.00		119.00			-8.00	
Drew	14S04W05CBC1	333042	913226	131.00	4/7/2009	22.00	109.00	105.00	118.00		4.00	-9.00	
							Wells/Declines:				**9/5**	**12/10**	
							Average Change:				**0.02**	**-4.46**	
Greene	16N03E03BA1	360315.87	904515.85	260.00	2/26/2009	33.60	226.40	226.83	230.96		-0.43	-4.56	
Greene	16N03E05BBB1	360316	904750	257.00	5/11/2009	34.30	222.70	224.40	228.60		-1.70	-5.90	
Greene	16N03E16DDD1	360049	904547	258.00	5/11/2009	36.90	221.10	229.90	223.20		-8.80	-2.10	
Greene	16N03E19DBC1	360000	904519	265.00	2/26/2009	42.20	222.80		228.30			-5.50	
Greene	16N06E09ABB1	360215	902651	261.00	5/11/2009	49.90	211.10	220.80	220.60		-9.70	-9.50	
Greene	16N06E21BAA1	360031	902705	249.00	5/11/2009	27.60	221.40	221.40	224.00		0.00	-2.60	
Greene	16N06E28ABB1	355938.31	902657.01	251.00	2/25/2009	26.85	224.15	225.27	227.11		-1.12	-2.96	
Greene	17N03E26CBB1	360422	904626	260.00	5/11/2009	39.20	220.80	222.80			-2.00		
Greene	17N04E07DDA1	360712	904129	271.00	5/11/2009	42.80	228.20	232.90			-4.70		
Greene	17N04E28DAA1	360431	903917	319.00	2/25/2009	88.28	230.72	231.74			-1.02		
Greene	17N04E30CDC1	360409.09	904217.57	265.00	2/26/2009	40.14	224.86	225.91	229.62		-1.05	-4.76	
Greene	17N06E15ABC1	360631	902546	268.00	5/11/2009	29.20	238.80	237.10	229.80		1.70	9.00	
Greene	17N07E18ABB1	360638.5	902234.7	245.00	5/11/2009	10.10	234.90	237.15	238.03		-2.25	-3.13	
Greene	18N03E24ABA1	361141	904234	270.00	2/25/2009	33.80	236.20	234.90	240.85		1.30	-4.65	
Greene	18N04E21CBD1	361052.32	903724.76	294.00	2/25/2009	59.20	234.80	235.43	240.10		-0.63	-5.30	
Greene	18N06E23ACB1	361056	902357	277.00	5/11/2009	14.40	262.60	261.60	266.70		1.00	-4.10	
Greene	18N07E17BAB1	361203	902105	262.00	5/11/2009	6.40	255.60	253.40	253.70	256.70	2.20	1.90	-1.10
Greene	18N07E20BBA1	361110.37	902113.23	257.00	2/25/2009	12.10	244.90	249.77	250.12		-4.87	-5.22	
Greene	18N07E23CCD1	361022	901747	250.00	2/25/2009	7.10	242.90		242.70			0.20	
Greene	19N03E26AD1	361600.72	904258.43	281.00	2/25/2009	30.90	250.10	250.72	253.41		-0.62	-3.31	

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County	Station ID	Latitude	Longitude	LSA	Date Measured	09 meas.	WL Alt. 09	WL Alt. 08	WL Alt. 04	WL Alt. 99	08-09 Change	04-09 Change	99-09 Change
Greene	19N03E33DDD1	361418	904516	276.00	5/11/2009	37.10	238.90	239.50	242.20		-0.60	-3.30	
							Wells/Declines:				19/14	18/15	1/1
							Average Change:				-1.75	-3.10	-1.10
Independence	12N04W09CAA1	354047	912535	236.00	3/4/2009	22.1	213.90						
Independence	12N04W14DD1	353929.42	912236.26	231.00	3/4/2009	24.00	207.00	220.46	206.29		-13.46	0.71	
Independence	12N04W34CBB1	353720.1	912512.5	231.00	3/3/2009	17.10	213.90	226.53	209.09		-12.63	4.81	
Independence	12N05W36AAD2	353738.04	912827.22	236.00	3/3/2009	18.20	217.80	229.59	212.25	224.80	-11.79	5.55	-7.00
Independence	14N03W14DAA2	355106	911640.42	230.00	3/4/2009	2.80	227.20		225.92			1.28	
							Wells/Declines:				3/3	4/0	1/1
							Average Change:				-12.63	3.09	
Jackson	09N02W32CBB1	352151.79	911347.79	220.00	3/3/2009	36.00	184.00	189.61			-5.61		
Jackson	11N01W10DA	353358	910428	231.00	3/3/2009	55.73	175.27	175.90			-0.63		
Jackson	11N01W25	353337.92	910409.23	227.00	3/27/2009	70.50	156.50	157.70			-1.20		
Jackson	11N01W26AAD1	353329.77	910323.21	227.00	3/3/2009	71.20	155.80	158.71	161.75	167.40	-2.91	-5.95	-11.60
Jackson	11N01W29AAD1	353338.7	910635.3	225.00	3/3/2009	42.40	182.60	183.12	185.99		-0.52	-3.39	
Jackson	11N03W06DAB1	353655.13	912008.5	223.00	3/3/2009	13.60	209.40		200.97			8.43	
Jackson	11N03W07BBD1	353615	912047	215.00	3/3/2009	13.50	201.50						
Jackson	12N02W25ABB2	353909.97	910852.17	234.00	3/3/2009	35.00	199.00	199.59	202.27		-0.59	-3.27	
Jackson	13N01W20AAA1	354514.14	910627.47	242.00	3/3/2009	42.20	199.80	200.41	204.36		-0.61	-4.56	
Jackson	13N01W27DDD1	354327	910435	233.00	3/3/2009	37.70	195.30		197.30			-2.00	
Jackson	13N03W15CDD1	354525.9	911749.46	232.00	3/3/2009	15.50	216.50	224.59	216.82		-8.09	-0.32	
Jackson	13N03W36	354311.43	911539.74	235.00	3/27/2009	15.30	219.70	218.70			1.00		
Jackson	14N01W08	355234.79	910554.75	252.00	3/27/2009	38.00	214.00	214.50		220.80	-0.50		-6.80
Jackson	14N01W09AAA1	355220.36	910515.16	251.00	3/3/2009	44.00	207.00	207.12	210.68		-0.12	-3.68	
							Wells/Declines:				11/10	8/7	2/2
							Average Change:				-1.80	-1.84	-9.20
Jefferson	03S08W24BBC1	342620.37	914953.19	202.00	4/6/2009	54.00	148.00	150.97	152.42		-2.97	-4.42	
Jefferson	03S09W14BCD1	342712	915712	224.00	4/15/2009	46.00	178.00	173.00		181.50	5.00		-3.50
Jefferson	03S09W29CBD1	342516.81	920023.32	216.00	3/10/2009	27.20	188.80	188.26	168.96		0.54	19.84	
Jefferson	03S09W36ACC1	342428	915555	214.00	4/15/2009	28.00	186.00	185.00	167.70	181.50	1.00	18.30	4.50
Jefferson	03S09W32CBC1	342415	902248	218.00	4/6/2009	24.60	193.40		187.80			5.60	
Jefferson	03S10W26BBB2	342427	920249	215.00	4/15/2009	26.00	189.00	190.00	199.00	198.50	-1.00	-10.00	-9.50
Jefferson	04S07W08CBB1	342226	914745	195.00	3/11/2009	50.20	144.80		147.00			-2.20	
Jefferson	04S07W35DDB1	341836	914347	185.00	4/15/2009	29.00	156.00	156.20	158.80	148.50	-0.20	-2.80	7.50

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County	Station ID	Latitude	Longitude	LSA	Date Measured	09 meas.	WL Alt. 09	WL Alt. 08	WL Alt. 04	WL Alt. 99	08-09 Change	04-09 Change	99-09 Change
Jefferson	04S06W13DCB1	342122.85	914926.45	204.00	3/11/2009	44.70	159.30	156.01	157.88		3.29	1.42	
Jefferson	05S06W31CAA1	341329.94	914206.1	189.22	3/10/2009	20.00	169.22	170.89	173.05		-1.67	-3.83	
Jefferson	05S07W28CCC1	341412	914651	195.00	4/15/2009	15.00	180.00	178.90			1.10		
Jefferson	05S08W12DAA1	341712	914907	194.25	3/10/2009	17.40	176.85	178.10	176.78		-1.25	0.07	
Jefferson	06S05W15BCA1	341022.95	913245	177.14	4/6/2009	15.50	161.64	158.92	157.70		2.72	3.94	
Jefferson	06S06W23AAD1	341006.74	913712.2	189.01	4/6/2009	17.20	171.81	169.99	167.55		1.82	4.26	
Jefferson	06S07W14BAA1	341124.96	914425	199.00	3/10/2009	18.30	180.70	183.75	182.77		-3.05	-2.07	
Jefferson	07S08W06BAA1	340858.53	915647.26	202.31	3/3/2009	20.00	182.31	183.24	183.04		-0.93	-0.73	
							Wells/Declines:				14/7	14/7	4/2
							Average Change:				0.31	1.96	-0.25
Lawrence	15N01E09ABD1	355714	905900	259.00	2/26/2009	56.28	202.72	203.75			-1.03		
Lawrence	15N01E26DDA1	355412	905651	251.00	2/26/2009	54.30	196.70	196.93			-0.23		
Lawrence	15N01E32BAA1	355352	910027	254.00	2/26/2009	54.00	200.00	200.91			-0.91		
Lawrence	15N01W35CBB1	355336.15	910356.33	250.00	2/26/2009	47.70	202.30	203.32	206.61		-1.02	-4.31	
Lawrence	16N01E11DAC2	360203.04	905639.37	262.00	2/26/2009	50.20	211.80	213.31	218.34		-1.51	-6.54	
Lawrence	16N01E27ADC1	355938	905750	260.00	2/26/2009	56.70	203.30						
Lawrence	16N01W30DDC1	355936.93	910723.26	255.00	4/6/2009	18.20	236.80	242.00	233.00		-5.20	3.80	
Lawrence	17N01E02BBA1	360901	905707	260.00	4/6/2009	15.00	245.00	243.80	247.80		1.20	-2.80	
Lawrence	17N01E26CCC1	360522	905738	265.00	2/26/2009	38.00	227.00						
Lawrence	17N01W36AAB1	360435	910158	257.00	4/6/2009	13.30	243.70		245.50			-1.80	
Lawrence	17N02E04DCA1	360758	905224	270.00	4/5/2009	43.90	226.10	225.80	232.00		0.30	-5.90	
							Wells/Declines:				8/6	6/5	
							Average Change:				-1.05	-2.93	
Lee	01N01E09CCC1	344215	910054	182.00	5/20/2009	29.00	153.00	146.50	151.50	157.50	6.50	1.50	-4.50
Lee	01N01E21CCC1	344030	910055	209.00	5/20/2009	55.00	154.00	153.00			1.00		
Lee	01N01E24CBD1	344033	905729	185.00	5/20/2009	16.00	169.00	168.30	168.70	174.00	0.70	0.30	-5.00
Lee	01N02E01ADD1	344330	905016	207.00	5/20/2009	28.00	179.00	176.00	182.00	181.70	3.00	-3.00	-2.70
Lee	01N02E11BAB1	344255	905208	202.00	5/20/2009	29.00	173.00	169.00	176.00		4.00	-3.00	
Lee	01N02E12ABB1	344254	905040	206.00	5/20/2009	30.00	176.00	172.00	180.00	177.30	4.00	-4.00	-1.30
Lee	01N02E22CBA1	344056	905318	200.00	5/20/2009	27.50	172.50	170.50	171.50	177.50	2.00	1.00	-5.00
Lee	01N02E33CBB1	343858	905434	186.00	5/20/2009	10.00	176.00	175.00	172.00	175.70	1.00	4.00	0.30
Lee	01N02E33CCB1	343851	905433	185.00	5/20/2009	13.00	172.00	176.00	172.00	174.90	-4.00	0.00	-2.90
Lee	01N03E02BBC1	344339.29	904601.14	236.43	4/15/2009	54.80	181.63	182.75	189.39		-1.12	-7.76	
Lee	01N03E7BBB1	344258	905044	200.00	4/15/2009	34.20	165.80		171.90			-6.10	
Lee	01N03E35BBA1	343923	904549	202.00	4/15/2009	14.20	187.80	188.15	192.82		-0.35	-5.02	

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WL Change

County	Station ID	Latitude	Longitude	LSA	Date Measured	09 meas.	WL Alt. 09	WL Alt. 08	WL Alt. 04	WL Alt. 99	08-09 Change	04-09 Change	99-09 Change
Lee	02N01E21BAA1	344633	910005	185.00	5/20/2009	37.00	148.00	146.70	151.70	158.40	1.30	-3.70	-10.40
Lee	02N01E29ABC1	344542	910108	185.00	4/16/2009	52.80	132.20		138.00			-5.80	
Lee	02N02E07ACA1	344752	905602	200.00	4/16/2009	49.30	150.70		154.10			-3.40	
Lee	02N02E08ADC1	344807.34	905338.75	201.00	4/16/2009	46.00	155.00	155.08	157.07		-0.08	-2.07	
Lee	02N02E21ABC1	344621.6	905358.2	200.00	4/16/2009	40.60	159.40	158.75	161.27		0.65	-1.87	
Lee	02N02E22BBB1	344628	905327	200.00	5/20/2009	36.00	164.00	166.00	166.00	167.30	-2.00	-2.00	-3.30
Lee	02N03E08AAD1	344810	904837	211.00	4/15/2009	46.00	165.00	165.27	167.57		-0.27	-2.57	
Lee	02N03E09DDD1	344723	904707	220.00	5/20/2009	46.00	174.00	173.00	170.00	174.00	1.00	4.00	0.00
Lee	02N03E29CAD1	344500	904846	215.00	5/20/2009	48.00	167.00	172.00	176.50	174.00	-5.00	-9.50	-7.00
Lee	02N04E03ABD1	344855	903954	192.00	5/20/2009	21.00	171.00	166.00	163.50	168.50	5.00	7.50	2.50
Lee	02N04E15DAC1	344636.73	903950.39	192.00	4/15/2009	19.90	172.10	171.33	173.85		0.77	-1.75	
Lee	03N01E15CC1	345206	905947	205.00	4/16/2009	64.72	140.28	141.04			-0.76		
Lee	03N02E12CDC1	345239	905053	210.00	5/20/2009	46.00	164.00	167.00	183.00	168.50	-3.00	-19.00	-4.50
Lee	03N02E13BBA1	345237.4	905107.32	212.00	4/16/2009	50.50	161.50	160.13	163.45		1.37	-1.95	
Lee	03N02E29DAD1	345013.62	905429.78	205.00	4/16/2009	45.70	159.30	160.36	162.34		-1.06	-3.04	
Lee	03N03E05CDD1	345327	904837	204.00	5/20/2009	49.00	155.00	155.00	171.50	164.00	0.00	-16.50	-9.00
Lee	03N03E18DAB1	345206	904919	196.00	5/20/2009	27.00	169.00		169.00	173.00		0.00	-4.00
Lee	03N03E32CAB1	344932.65	904926.23	204.00	4/15/2009	49.32	154.68	152.78	155.65		1.90	-0.97	
Lee	03N05E14DDA1	345148.08	903203.25	193.00	4/15/2009	12.10	180.90	177.20	179.45		3.70	1.45	
Lee	03N05E26ADC1	345020	903215	185.00	5/20/2009	2.00	183.00		180.00	178.50		3.00	4.50
							Wells/Declines:				27/10	30/20	16/12
							Average Change:				0.75	-2.68	-3.27
Lincoln	07S06W03CCA2	340828	914114	190.00	4/1/2009	18.00	172.00	172.00	174.00	179.00	0.00	-2.00	-7.00
Lincoln	07S07W36CBD1	340411	914529	183.00	4/1/2009	40.00	143.00	142.00	145.00	151.00	1.00	-2.00	-8.00
Lincoln	08S04W06ABD1	340341	913116	171.00	4/1/2009	12.00	159.00	155.00	154.00	161.00	4.00	5.00	-2.00
Lincoln	08S04W31CBA1	335901.09	913149.69	161.90	2/23/2009	35.40	126.50	126.79	129.10		-0.29	-2.60	
Lincoln	08S05W12DBA1	340229	913222	171.00	4/1/2009	21.00	150.00	147.00			3.00		
Lincoln	08S05W21DCD1	340027	913533	169.00	4/1/2009	38.00	131.00	139.00	134.00		-8.00	-3.00	
Lincoln	08S05W29ABC1	340021	913044	176.00	4/1/2009	44.00	132.00	131.00		140.00	1.00		-8.00
Lincoln	08S05W32DCC1	335840	913644	172.00	4/1/2009	47.00	125.00	125.00	139.00	134.00	0.00	-14.00	-9.00
Lincoln	08S06W02ACB1	340338.84	913957.73	181.03	2/23/2009	43.40	137.63	137.54	138.39		0.09	-0.76	
Lincoln	08S07W05DDD1	340301	914903	190.00	2/23/2009	31.27	158.73	159.77			-1.04		
Lincoln	08S07W09BBD1	340248	914845	189.80	2/23/2009	32.30	157.50						
Lincoln	09S04W06CBB1	335721	913252	163.00	4/1/2009	40.00	123.00	124.00	118.00	131.00	-1.00	5.00	-8.00
Lincoln	09S05W14ABC1	335553.02	913439.08	172.50	2/23/2009	40.00	132.50		134.92			-2.42	
Lincoln	09S05W17BCB1	335551.59	913819.95	171.00	2/23/2009	39.30	131.70	127.83	129.23		3.87	2.47	
Lincoln	09S06W04BCD1	335821.38	914345.83	181.00	2/23/2009	42.80	138.20	138.42	142.62		-0.22	-4.42	
Lincoln	09S06W04BDD1	335759	914335	178.00	4/1/2009	39.00	139.00	132.00	137.00	142.00	7.00	2.00	-3.00

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County	Station ID	Latitude	Longitude	LSA	Date Measured	09 meas.	WL Alt. 09	WL Alt. 08	WL Alt. 04	WL Alt. 99	08-09 Change	04-09 Change	99-09 Change
Lincoln	09S06W23CDB1	335439.57	914136.37	175.00	2/23/2009	32.00	143.00	144.08	144.83		-1.08	-1.83	
Lincoln	09S06W24DAA1	335452	913954	177.00	4/1/2009	35.00	142.00	137.00			5.00		
Lincoln	10S05W05CB	335529	913832	172.00	3/4/2009	27.97	144.03						
Lincoln	10S05W06DCC1	335155.3	913907.96	175.00	2/23/2009	28.80	146.20	142.63	144.62		3.57	1.58	
							Wells/Declines:				17/6	14/9	7/7
							Average Change:				0.99	-1.21	-6.43
Lonoke	01N07W27AAD1	344103	914410	220.00	4/8/2009	131.95	88.05						
Lonoke	01N08W26CCB1	344033	915042	212.00	4/8/2009	104.90	107.10						
Lonoke	01N09W13DAB1	344235.17	915517.01	226.00	4/9/2009	86.80	139.20	137.57	138.88		1.63	0.32	
Lonoke	01N09W25BAA1	344120	915537	228.00	5/2/2009	88.00	140.00	140.00		146.90	0.00		-6.90
Lonoke	01N10W15CDA1	344236	920414	240.00	5/2/2009	25.00	215.00	209.00	213.20	219.00	6.00	1.80	-4.00
Lonoke	01S07W12BCB1	343820	914308	211.00	4/8/2009	130.05	80.95						
Lonoke	01S07W19DC1	343609	914746	206.00	4/21/2009	84.60	121.40						
Lonoke	01S08W24CDD1	343605.64	914912.37	210.00	4/8/2009	82.65	127.35	126.66	126.07		0.69	1.28	
Lonoke	01S09W36CCC1	343435.31	915618.98	220.00	4/8/2009	62.90	157.10	158.09	157.73	162.90	-0.99	-0.63	-5.80
Lonoke	01S10W11CCB1	343839	920337	235.00	4/21/2009	29.10	205.90						
Lonoke	02N07W07DAA1	344845	914707	232.00	5/2/2009	135.00	97.00	98.00	100.50	104.70	-1.00	-3.50	-7.70
Lonoke	02N08W16ABC1	344806.48	915113.61	230.00	3/24/2009	123.60	106.40	105.13	110.11		1.27	-3.71	
Lonoke	02N08W23DDB1	344642.34	914909.53	229.00	15/2/09	135.00	94.00	100.00			-6.00		
Lonoke	02N08W34BA1	344543	915106	230.00	4/21/2009	130.57	99.43						
Lonoke	02N09W02BDB1	344955.06	915840.93	251.00	3/24/2009	122.00	129.00	124.26	127.13		4.74	1.87	
Lonoke	02N09W17CCB1	344746	920006	253.20	4/9/2009	86.65	166.55						
Lonoke	02N09W17CBC2	344751	920010	255.00	4/9/2009	85.45	169.55						
Lonoke	02N09W18DAD2	344754	920020	255.00	4/9/2009	83.90	171.10						
Lonoke	02N09W18DAD3	344754	920011	255.00	4/9/2009	84.70	170.30						
Lonoke	02N10W15ACC1	344807	920352	242.00	5/2/2009	32.00	210.00	210.00			0.00		
Lonoke	02S07W05CDC1	343326	914715	205.00	5/2/2009	68.00	137.00	135.00	131.50		2.00	5.50	
Lonoke	02S08W06AAB1	343430	915447	221.00	4/21/2009	68.29	152.71						
Lonoke	02S08W28CDC	343008	915237	211.00	4/8/2009	61.70	149.30						
Lonoke	02S08W34DBB1	343003	915149.8	214.00	4/8/2009	63.50	150.50	150.24	151.32		0.26	-0.82	
Lonoke	02S09W22AAA1	344825.51	915700.68	228.00	5/2/2009	72.00	156.00	165.00		172.00	-9.00		-16.00
Lonoke	02S09W35ABB1	343008	915652	217.00	5/2/2009	61.00	156.00	164.00	167.60		-8.00	-11.60	
Lonoke	03N07W15DBC2	345252.79	914416.62	227.00	3/24/2009	83.50	143.50	143.47	146.50		0.03	-3.00	
Lonoke	03N07W29CCD1	345115.53	914602.98	232.00	5/2/2009	102.00	130.00	134.00			-4.00		
Lonoke	03N07W35CDC2	344957.16	914332.11	232.00	3/24/2009	116.25	115.75	114.77	117.37		0.98	-1.62	
Lonoke	03N08W21BCC1	345220.2	915220.2	247.00	3/24/2009	108.35	138.65	164.21	166.73		-25.56	-28.08	
Lonoke	03N08W26CDC1	345100	915007	235.00	5/2/2009	112.00	123.00	124.00		134.40	-1.00		-11.40

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Loncke	03N10W34ABB1	345058	920356	257.00	3/24/2009	58.20	198.80						
Loncke	04N08W15BCB2	345832.92	915121.25	225.00	3/24/2009	34.50	190.50	195.80	191.46		-5.30	-0.96	
Loncke	04N08W36DBB1	345540	914914.4	259.00	5/2/2009	67.00	192.00						
							Wells/Declines:				20/9	14/9	6/6
							Average Change:				-2.16	-3.08	-8.63
Mississippi	10N08E22ABA2	352850.89	901312.16	224.00	3/10/2009	26.67	197.33	198.47	201.66		-1.14	-4.33	
Mississippi	10N09E08ACC1	352949.05	900925.66	230.00	3/10/2009	15.15	214.85	212.22	216.21		2.63	-1.36	
Mississippi	11N09E34BBB1	353217.73	900715.17	235.00	3/10/2009	19.20	215.80	215.88	220.22		-0.08	-4.42	
Mississippi	12N08E08BCB1	354047.06	901559.25	225.00	3/10/2009	9.60	215.40	218.74	216.68		-3.34	-1.28	
Mississippi	12N08E27ACA1	353851	901104	225.00	3/10/2009	24.30	200.70		211.90			-11.20	
Mississippi	13N09E013DDA1	354437	900425	232.00	3/10/2009	7.00	225.00		225.90			-0.90	
Mississippi	13N09E30CCD1	354247.81	901028.63	230.00	3/10/2009	11.50	218.50	222.92	221.05		-4.42	-2.55	
Mississippi	14N08E12DAB1	355104.17	901051.94	235.00	3/10/2009	7.15	227.85	232.25	229.67		-4.40	-1.82	
Mississippi	14N10E18ABC1	355022.36	900345.36	236.00	3/10/2009	13.60	222.40	227.89	225.10		-5.49	-2.70	
Mississippi	14N12E05DCB1	355134	894936	250.00	3/10/2009	11.50	238.50		240.40			-1.90	
Mississippi	15N10E34AAC1	355259	900018	240.00	3/10/2009	8.50	231.50		230.80			0.70	
							Wells/Declines:				7/6	11/10	
							Average Change:				-2.32	-2.89	
Monroe	01N01W21CDC2	344037.18	910706.66	181.00	3/24/2009	38.80	142.20	141.32	146.53		0.88	-4.33	
Monroe	01N02W12CBC1	344242.3	911031.9	182.00	3/24/2009	41.33	140.67	141.10	144.61		-0.43	-3.94	
Monroe	01N03W23BAC1	344124	911743	170.00	5/14/2009	11.00	159.00	155.70	156.00	157.50	3.30	3.00	1.50
Monroe	01N03W24BBB1	344135.21	911650.59	185.00	3/24/2009	27.50	157.50	156.77	157.66		0.73	-0.16	
Monroe	01N04W33BBB2	343959.52	912646.52	218.00	3/24/2009	102.10	115.90	120.44	123.72		-4.54	-7.82	
Monroe	01S01W13CDD1	343610.94	910340.54	178.00	3/24/2009	21.00	157.00	155.48	157.56		1.52	-0.56	
Monroe	01S01W16DB	343615	910632	175.00	5/24/2009	19.00	156.00	155.00	158.00	159.00	1.00	-2.00	-3.00
Monroe	01S01W18DCD1	343617.76	910849.2	178.00	3/24/2009	24.10	153.90	153.48	155.36		0.42	-1.46	
Monroe	01S02W20BBB1	343612.7	911456.1	170.00	3/24/2009	10.00	160.00	157.78	158.00	158.00	2.22	2.00	2.00
Monroe	01S03W20BBA1	343538.3	912117.7	210.00	5/26/2009	85.00	125.00	134.97		134.00	-9.97		-9.00
Monroe	01S04W01BAB1	343905.86	912316.73	210.00	3/24/2009	75.40	134.60	133.12	133.66		1.48	0.94	
Monroe	02N01W19ADD1	344624	910814	188.00	5/26/2009	55.00	133.00	134.00	137.00	142.50	-1.00	-4.00	-9.50
Monroe	02N01W19BBA1	344645.21	910912.46	191.00	3/24/2009	54.00	137.00	136.22	138.44		0.78	-1.44	
Monroe	02N03W35BCA1	344455	911745	188.00	5/26/2009	34.00	154.00	153.00	157.00	160.00	1.00	-3.00	-6.00
Monroe	02S01W01BCD1	343305	910408	176.00	5/26/2009	39.00	137.00	154.00	157.00	154.00	-17.00	-20.00	-17.00
Monroe	02S02W11DAC1	343208.97	911100.58	164.00	3/24/2009	7.90	156.10	152.96	154.07		3.14	2.03	
Monroe	03N01W20ABA1	345201.18	910722.83	189.00	3/24/2009	49.00	140.00	140.39			-0.39		
Monroe	03N03W36AAA1	345026.65	911547.12	176.00	3/24/2009	19.50	156.50	152.94	155.70		3.56	0.80	

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County	Station ID	Latitude	Longitude	LSA	Date Measured	09 meas.	WL Alt. 09	WL Alt. 08	WL Alt. 04	WL Alt. 99	08-09 Change	04-09 Change	99-09 Change
Monroe	04N02W05BBB1	345957	911311	188.00	5/26/2009	12.00	176.00	172.00	173.00	174.00	4.00	3.00	2.00
Monroe	04N02W27CDD3	345540.22	911149.73	200.00	3/25/2009	45.80	154.20	154.32	154.57		-0.12	-0.37	
Monroe	04N02W28DDD3	345535.05	911220.68	192.00	3/25/2009	33.25	158.75	159.19	158.96		-0.44	-0.21	
							Wells/Declines:				21/8	19/13	8/5
							Average Change:				-0.47	-1.97	-4.88
Phillips	01S01E20DDB1	343529	910058	185.00	5/14/2009	25.00	160.00	158.00	160.00	168.30	2.00	0.00	-8.30
Phillips	01S02E09BDC1	343725	910047	185.00	5/27/2009	9.50	175.50	172.20			3.30		
Phillips	01S02E09CBB1	343718.73	905434.06	185.00	4/15/2009	13.30	171.70	169.56	173.54	173.90	2.14	-1.84	-2.20
Phillips	01S03E02CBB1	343809	904604	200.00	5/27/2009	12.50	187.50		187.70			-0.20	
Phillips	01S03E02ADD1	343814	904511	200.00	6/1/2009	11.00	189.00	183.00	187.00	185.00	6.00	2.00	4.00
Phillips	01S03E10ABB1	343741	904634	205.00	5/27/2009	14.00	191.00	186.00	191.00	190.20	5.00	0.00	0.80
Phillips	01S04E05DCD1	343802	904151	230.00	4/15/2009	50.97	179.03	179.77	185.00	187.00	-0.74	-5.97	-7.97
Phillips	02S02E29DDD1	342901	905444	180.00	5/14/2009	22.00	158.00	156.00	154.40		2.00	3.60	
Phillips	02S02E33DCA1	342812	905347	185.00	4/14/2009	17.50	167.50		166.10			1.40	
Phillips	02S02E33ACC1	342824	905412	177.00	5/14/2009	22.60	154.40	153.00	152.00	155.00	1.40	2.40	-0.60
Phillips	02S03E34BCD1	342828	904653	165.00	6/1/2009	19.00	146.00	144.60	147.20	149.00	1.40	-1.20	-3.00
Phillips	02S04E27AAC1	342931.57	904001.09	179.00	4/15/2009	7.30	171.70	169.26	175.07	169.90	2.44	-3.37	1.80
Phillips	03S02E35DDA1	342256.24	905129.93	163.00	4/14/2009	21.10	141.90	140.56	143.10		1.34	-1.20	
Phillips	03S03E02DDD1	342706	904504	175.00	4/15/2009	22.10	152.90		153.60			-0.70	
Phillips	03S03E04DAA1	342735	904710	171.00	4/14/2009	20.25	150.75	150.63	152.73		0.12	-1.98	
Phillips	03S04E02CAA1	342732	903918	176.00	4/15/2009	13.55	162.45	158.52	167.77	161.20	3.93	-5.32	1.25
Phillips	04S01E01AAD1	342238	905700	156.00	5/27/2009	12.00	144.00	138.00	141.60	144.00	6.00	2.40	0.00
Phillips	04S01E12CAB1	342128	905748	150.00	4/14/2009	10.30	139.70		139.50			0.20	
Phillips	04S01E14CDD1	342014	905837	155.00	5/27/2009	10.50	144.50	139.00	143.00	143.00	5.50	1.50	1.50
Phillips	04S01E23CCA1	341931.3	905852.62	156.00	4/14/2009	12.40	143.60	141.86	144.04		1.74	-0.44	
Phillips	04S01E29CBC1	341844	910148	150.00	5/27/2009	3.00	147.00	143.00			4.00		
Phillips	04S02E01DBB1	342220	905053	163.00	5/27/2009	11.50	151.50	147.00	153.40	154.20	4.50	-1.90	-2.70
							Wells/Declines:				18/1	20/10	12/6
							Average Change:				2.89	-0.53	-1.29
Poinsett	10N01E02AAA	353205	905654	235.00	5/14/2009	100.00	135.00	134.00	138.00	147.00	1.00	-3.00	-12.00
Poinsett	10N01E14CC1	352909.77	905813.38	231.00	3/11/2009	95.96	135.04	136.09	141.28	184.00	-1.05	-6.24	-48.96
Poinsett	10N01E16CCB1	352921.87	910005.35	225.00	3/11/2009	77.46	147.54	147.33	152.61		0.21	-5.07	
Poinsett	10N01E32CBB1	352657	910053	222.00	5/14/2009	76.00	146.00	145.50	152.00		0.50	-6.00	
Poinsett	10N01E33ACB1	352746	905931	220.00	5/14/2009	80.00	140.00	139.00	144.00	151.00	1.00	-4.00	-11.00
Poinsett	10N02E13BCC1	352948.52	905026.29	237.00	3/11/2009	106.40	130.60	131.76	137.10		-1.16	-6.50	

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County	Station ID	Latitude	Longitude	LSA	Date Measured	09 meas.	WL Alt. 09	WL Alt. 08	WL Alt. 04	WL Alt. 99	08-09 Change	04-09 Change	99-09 Change
Poinsett	10N02E15CAA1	352939	905026	237.00	5/14/2009	107.00	130.00	129.00			1.00		
Poinsett	10N02E34BBB1	352726	905231	236.00	4/1/2009	102.08	133.92						
Poinsett	10N03E13BCB1	353001	904352	270.00	5/14/2009	140.00	130.00	130.00			0.00		
Poinsett	10N03E14DAB1	352947.21	904404.93	263.00	3/11/2009	120.60	142.40	143.40	146.05		-1.00	-3.65	
Poinsett	10N03E19BCB1	352906	904021	239.00	5/14/2009	100.00	139.00	138.00			1.00		
Poinsett	10N03E20BBA1	352405	904810	235.00	5/14/2009	108.00	127.00	129.00			-2.00		
Poinsett	10N03E26BBD1	352817	904449	257.00	5/14/2009	115.00	142.00	142.00			0.00		
Poinsett	10N04E35BBA1	352745	903831	215.00	5/11/2009	14.00	201.00	195.50		197.00	5.50		4.00
Poinsett	10N06E11AAA1	353045	902501	212.00	3/11/2009	15.20	196.80						
Poinsett	10N07E28CBB1	352743	902128	215.00	5/11/2009	30.00	185.00	184.00			1.00		
Poinsett	11N01E17DDD1	353436.83	910013.21	230.00	3/17/2009	81.80	148.20	149.11	153.88	159.00	-0.91	-5.68	-10.80
Poinsett	11N01E26AA1	353340.33	905653.32	236.00	3/17/2009	96.95	139.05	139.37	144.05		-0.32	-5.00	
Poinsett	11N01E34AAA	353256	905759	229.00	5/14/2009	90.00	139.00	138.50	144.00	150.00	0.50	-5.00	-11.00
Poinsett	11N02E30BBB1	353352	905540	239.00	5/14/2009	107.00	132.00	134.00	139.00	144.00	-2.00	-7.00	-12.00
Poinsett	11N02E34CBA1	353238	905222	240.00	5/14/2009	110.00	130.00	130.00	135.00	149.00	0.00	-5.00	-19.00
Poinsett	11N03E10DDA1	353545.69	904456.54	243.00	3/11/2009	109.75	133.25	136.89	140.01		-3.64	-6.76	
Poinsett	11N03E17AAA1	353534	904713	243.00	5/14/2009	107.00	136.00	136.00			0.00		
Poinsett	11N03E18BAB1	353537.8	904852.4	243.00	3/11/2009	108.40	134.60	136.47	139.77		-1.87	-5.17	
Poinsett	11N04E13DDA1	353447	903631	210.00	5/11/2009	16.00	194.00	192.00			2.00		
Poinsett	11N04E36ABA1	353251	903654	211.00	5/11/2009	16.50	194.50	194.50	195.00	195.00	0.00	-0.50	-0.50
Poinsett	11N05E26BDB1	353318	903155	213.00	5/11/2009	9.00	204.00	202.00			2.00		
Poinsett	11N07E18CAB1	353435	902320	217.00	3/11/2009	17.40	199.60	202.96	203.11		-3.36	-3.51	
Poinsett	11N07E22ADD1	353349	901922	218.00	3/11/2009	28.60	189.40						
Poinsett	11N07E28CBB1	353250	902125	218.00	5/11/2009	24.00	194.00	193.00			1.00		
Poinsett	12N01E07CDA1	354053.69	910141.25	236.00	3/17/2009	55.45	180.55	180.86	184.11		-0.31	-3.56	
Poinsett	12N01E22DAB1	353922	905809	235.00	5/14/2009	76.00	159.00	158.50	162.00	168.00	0.50	-3.00	-9.00
Poinsett	12N02E25DCC1	353820	904944	245.00	5/14/2009	115.00	130.00	130.00	133.00	145.00	0.00	-3.00	-15.00
Poinsett	12N02E26DDA1	353831	905024	245.00	4/1/2009	112.30	132.70						
Poinsett	12N02E34CCC1	353724	905230	245.00	5/14/2009	117.00	128.00	129.50	135.00	141.00	-1.50	-7.00	-13.00
Poinsett	12N03E01CBD1	354154	904329	250.00	5/14/2009	104.00	146.00	154.00	158.00	164.00	-8.00	-12.00	-18.00
Poinsett	12N03E04DAD1	354158.01	904600.16	247.00	5/14/2009	90.00	157.00	140.88	144.39	151.00	16.12	12.61	6.00
Poinsett	12N03E35DDA1	353735	904355	245.00	5/14/2009	107.00	138.00	139.00			-1.00		
Poinsett	12N03E36ACB1	353749	904318	250.00	3/11/2009	91.20	158.80	150.14			8.66		
Poinsett	12N04E08CDA	354053	904112	250.00	5/14/2009	92.00	158.00	155.00	163.00	168.00	3.00	-5.00	-10.00
Poinsett	12N05E16ABA1	354039	903333	221.00	5/11/2009	10.00	211.00	211.50	212.00	212.00	-0.50	-1.00	-1.00
Poinsett	12N07E04BAA1	354201.95	902059.69	223.00	3/11/2009	8.10	214.90	220.58	214.85		-5.68	0.05	
Poinsett	12N07E10BCC1	354042	902022	228.00	5/11/2009	11.00	217.00	218.00			-1.00		
Poinsett	12N07E25DC1	353740	901802	226.00	3/11/2009	18.44	207.56						
Poinsett	11N06E34AB1	353224	902646	211.00	3/31/2009	12.34	198.66						

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							Wells/Declines:				39/17	25/23	16/14
							Average Change:				0.25	-4.00	-11.33
Prairie	01N06W05CCB1	344352.97	914049.08	220.00	3/24/2009	118.30	101.70	100.73	102.90		0.97	-1.20	
Prairie	01N06W29ODD1	344017.54	913951.46	223.00	3/24/2009	117.80	105.20	104.87	107.09	109.50	0.33	-1.89	-4.30
Prairie	01S04W28BDB1	343522.68	912629.73	205.00	3/20/2009	98.00	107.00	107.00	107.75		0.00	-0.75	
Prairie	01S05W31DDA1	343416	913431	206.00	3/20/2009	113.80	92.20	100.43	95.30		-8.23	-3.10	
Prairie	01S06W12BAB1	343826	913613	228.00	3/20/2009	119.49	108.51		108.99			-0.48	
Prairie	02N04W32CCB1	344436.43	912737.79	221.00	3/20/2009	83.00	138.00	136.16	137.27		1.84	0.73	
Prairie	02N05W21CB1	344849	913300	225.00	3/19/2009	109.76	115.24		117.25			-2.01	
Prairie	02N05W29ODB2	344544	913308	228.00	3/20/2009	123.50	104.50	108.22			-3.72		
Prairie	02N05W32AAA1	344534	913305	225.00	3/20/2009	145.90	79.10		108.10			-29.00	
Prairie	02N06W17ABB1	344809.48	913959.44	235.00	3/24/2009	124.40	110.60	109.18	111.84		1.42	-1.24	
Prairie	02S06W14BBB1	343213.38	913728.62	201.00	3/20/2009	64.50	136.50	125.24	138.75		11.26	-2.25	
Prairie	02N06W21DAA1	344653	913827	225.00	3/19/2009	115.63	109.37		108.73			0.64	
Prairie	02N06W24CAA1	344651	913551	233.00	3/19/2009	116.61	114.39		114.88			-0.49	
Prairie	03N05W03BDD2	345444.06	913115.35	207.00	3/24/2009	63.30	143.70	141.75	140.73		1.95	2.97	
Prairie	03N06W01BCB1	345454.54	913601.39	216.00	3/24/2009	83.10	132.90	135.28	135.36		-2.38	-2.46	
Prairie	04N04W07ADC1	345850.31	912733.07	195.00	3/19/2009	22.60	172.40	171.34	169.47		1.06	2.93	
Prairie	04N05W07CDC1	345042.62	913440.92	212.00	3/19/2009	79.00	133.00	132.66	137.58		0.34	-4.58	
Prairie	04N06W05CCC1	345933.76	914017.96	206.00	3/24/2009	60.10	145.90		146.04			-0.14	
Prairie	04N07W03DCB1	345942.1	914412.48	255.00	3/24/2009	87.90	167.10	166.27	168.39		0.83	-1.29	
Prairie	04N07W28BBA1	345700.53	914544.88	258.00	3/24/2009	96.80	161.20	160.33	163.25		0.87	-2.05	
							Wells/Declines:				14/3	19/15	1/1
							Average Change:				0.47	-2.40	
Pulaski	01S10W29CC1	343537.78	920707.66	239.00	3/10/2009	16.80	222.20	224.13	222.35		-1.93	-0.15	
Pulaski	02N10W05BCC1	344953	920635	239.00	2/24/2009	22.00	217.00						
Pulaski	02S10W14DC1	343204.71	920333.75	225.00	3/10/2009	20.10	204.90	201.50	199.73		3.40	5.17	
Pulaski	02S10W16CCA1	343216.99	920549.36	230.76	3/10/2009	17.10	213.66	205.43	205.84		8.23	7.82	
Pulaski	02S11W23BCB1	343150	921022	236.76	3/3/2009	18.00	218.76						
							Wells/Declines:				3/1	3/1	
							Average Change:				3.23	4.28	
Randolph	18N01E13BBA1	361230	905551	265.00	3/18/2009	18.00	247.00	249.00			-2.00		
Randolph	18N01E34AAC1	360942.69	905729.13	266.00	2/24/2009	17.70	248.30	250.10	250.07		-1.80	-1.77	
Randolph	18N02E03DAD1	361336	905043	280.00	3/20/2009	33.50	246.50	247.50	245.10	258.20	-1.00	1.40	-11.70

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Randolph	18N02E06BCB1	361400.42	905458.36	273.00	3/20/2009	20.50	252.50						
Randolph	18N02E17BBC1	361204	905356	265.00	3/18/2009	20.00	245.00	246.00		253.90	-1.00		-8.90
Randolph	18N02E20BDA1	361125	905332	274.00	3/20/2009	34.50	239.50	241.50	238.80	254.30	-2.00	0.70	-14.80
Randolph	18N02E22DCD1	361045.76	905104.7	273.00	2/24/2009	39.90	233.10	233.88	247.73		-0.78	-14.63	
Randolph	18N02E28AAA1			265.00	3/18/2009	18.50	246.50	251.50			-5.00		
Randolph	18N02E34BAB1	360933	905150	270.00	3/20/2009	37.00	233.00	234.50			-1.50		
Randolph	19N02E09DCA1	361759	905158	267.00	2/24/2009	8.20	258.80	266.50	256.88		-7.70	1.92	
Randolph	19N02E22DAB1	361622	905049	266.00	3/20/2009	14.00	252.00		259.00	252.00		-7.00	0.00
Randolph	19N03E33CCB1	361941	904552	285.00	3/18/2009	28.00	257.00	261.50		264.00	-4.50		-7.00
Randolph	20N02E01ADD1	362424.2	904811.4	280.00	2/24/2009	12.74	267.26	277.34	268.78		-10.08	-1.52	
Randolph	20N02E06DAD1	362410	905339	281.00	3/20/2009	19.00	262.00	278.00		265.90	-16.00		-3.90
Randolph	20N02E12BAA1	362352	904848	281.00	3/20/2009	14.50	266.50	262.00	274.00	269.90	4.50	-7.50	-3.40
Randolph	20N02E14DAB1	362232	904930	274.00	3/20/2009	11.50	262.50	256.00	265.40	267.90	6.50	-2.90	-5.40
Randolph	20N02E21CDD1	362117	905107	270.00	3/20/2009	10.50	259.50	261.00		262.90	-1.50		-3.40
Randolph	20N03E28BA1	362113.53	904537.97	276.00	2/24/2009	12.00	264.00	266.57	265.07		-2.57	-1.07	
							Wells/Declines:				16/14	10/7	9/8
							Average Change:				-2.90	-3.24	-6.50
St. Francis	04N01W17CBC1	345735	910801	208.00	3/19/2009	60.50	147.50						
St. Francis	04N01W20DA1	345646.5	910707.4	200.00	5/29/2009	60.00	140.00						
St. Francis	04N01E27BC1	345609.71	910545.23	200.00	5/29/2009	72.00	128.00						
St. Francis	04N01W28CDD1	345535.26	910633.55	208.00	3/19/2009	73.30	134.70	135.49	139.72		-0.79	-5.02	
St. Francis	04N02E03DDD3	345848	905218	210.00	3/19/2009	46.00	164.00		168.22			-4.22	
St. Francis	04N02E16ACD1	345733	905341	209.00	5/29/2009	53.00	156.00		158.00			-2.00	
St. Francis	04N02E27AAA1	345604	905220	211.00	5/29/2009	53.00	158.00		164.00			-6.00	
St. Francis	04N02E29BB1	345556.38	905435.04	212.00	5/29/2009	60.00	152.00						
St. Francis	05N01E15BCB1	350302.57	905942.41	209.00	3/19/2009	67.70	141.30	139.34	145.52		1.96	-4.22	
St. Francis	05N01E27BBA1	350135.73	905928.78	209.00	3/19/2009	70.50	138.50	139.93	143.57	150.01	-1.43	-5.07	-11.51
St. Francis	05N02E20ADC1	350156.9	905437.16	211.00	3/19/2009	57.30	153.70	154.93	157.92		-1.23	-4.22	
St. Francis	05N02E26CC1	350034.88	905208.56	215.00	5/29/2009	53.00	162.00						
St. Francis	05N03E20AAB2	350214.31	904800.83	250.00	3/19/2009	94.90	155.10	143.91	147.27		11.19	7.83	
St. Francis	05N03E32BA1	350610.48	904828.73	300.00	5/29/2009	51.00	249.00						
St. Francis	05N05E19DCA1	350128	903629	203.00	3/18/2009	32.30	170.70	170.34	170.32		0.36	0.38	
St. Francis	05N05E33BCC1	350004	903506	196.00	5/29/2009	68.00	128.00						
St. Francis	05N06E34CAB1	350025.57	902656.87	200.00	3/18/2009	27.20	172.80	171.62	173.54		1.18	-0.74	
St. Francis	05N01E06DA1	350446	910156	211.00	5/29/2009	74.00	137.00						
St. Francis	06N01E33ACA2	350552.33	905941.6	211.00	3/19/2009	60.50	150.50	141.59	145.66		8.91	4.84	
St. Francis	06N02E13DCA1	350812.64	905002.71	231.00	3/19/2009	74.80	156.20	155.20	157.39		1.00	-1.19	

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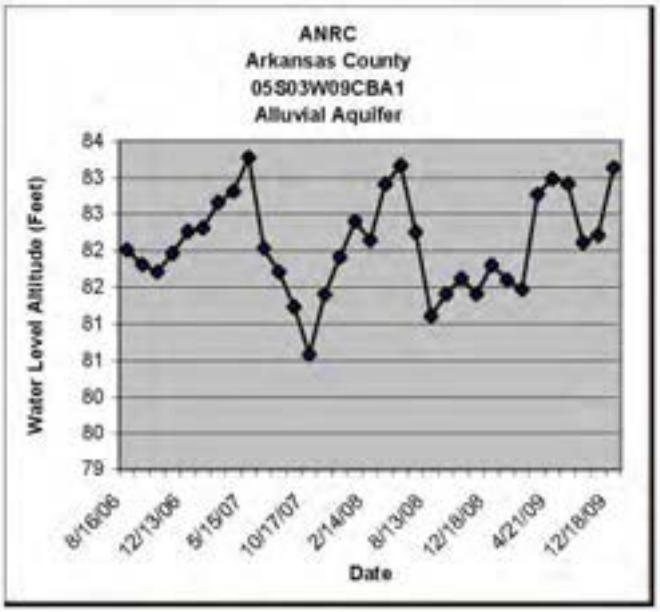
St. Francis	06N02E15BDD1	350841.91	905247.31	214.64	3/19/2009	62.50	152.14	152.41	156.07		-0.27	-3.93	
St. Francis	06N02E16CC1	350824	905403	210.00	5/29/2009	74.00	136.00						
St. Francis	06N05E27BDD1	350654	903102	200.00	3/18/2009	35.80	164.20						
St. Francis	06N06E17DD1	350812	902853	200.00	5/29/2009	100.00	100.00						
							Wells/Declines:				10/4	13/10	1/1
							Average Change:				2.09	-1.81	
White	05N07W09AAA1	350446.87	914441.48	205.00	4/7/2009	10.50	194.50	192.38	190.18		2.12	4.32	
White	05N07W10CCC1	350400.22	914436	203.00	4/7/2009	9.20	193.80	195.21	194.22		-1.41	-0.42	
White	06N06W04AAD1	351037	913839	217.00	4/8/2009	39.90	177.10		177.40			-0.30	
White	06N06W04BAA1	351047.21	913909.91	220.00	4/8/2009	30.65	189.35	191.10	183.55		-1.75	5.80	
White	06N06W18BBC1	350851.33	914151.92	210.00	4/8/2009	12.30	197.70	197.91	195.33		-0.21	2.37	
White	06N06W34AAB1	350623.57	913753.55	213.00	4/8/2009	60.30	152.70	152.22	153.30		0.48	-0.60	
White	06N08W13ABA1	350907.73	914824.37	228.00	4/8/2009	7.90	220.10	221.40	220.60		-1.30	-0.50	
White	06N08W26DDB1	350639	914931	230.00	4/7/2009	11.00	219.00	216.77	217.75		2.23	1.25	
White	07N05W01AAA1	351552	912858	205.00	4/7/2009	12.00	193.00	193.89	189.65		-0.89	3.35	
White	07N05W26AAA1	351224	913003	200.00	4/7/2009	12.10	187.90		174.00			13.90	
White	07N05W32BAB1	351136.63	913406.19	213.70	4/8/2009	25.20	188.50	180.53	184.70		7.97	3.80	
White	08N04W06CCB1	352026.21	912846.51	214.00	4/7/2009	12.30	201.70	201.19	197.84		0.51	3.86	
White	08N05W32CBC1	351615.66	913416.96	199.00	4/7/2009	1.00	198.00	195.54	197.50		2.46	0.50	
							Wells/Declines:				11/5	13/4	
							Average Change:				-0.09	2.92	
Woodruff	04N03W03AB1	350020.93	911819.87	185.00	3/23/2009	13.70	171.30	175.37	171.52		-4.07	-0.22	
Woodruff	05N01W13DCC1	350244	910331	210.00	3/23/2009	76.50	133.50	133.40	135.90	144.10	0.10	-2.40	-10.60
Woodruff	05N03W35CC2	350021	911735	187.00	3/23/2009	9.75	177.25						
Woodruff	05N04W12DBA1	350426.8	912210.8	186.00	3/23/2009	3.93	182.07	183.06	181.33		-0.99	0.74	
Woodruff	06N01W33ADB2	350600	910559	216.00	3/23/2009	70.70	145.30						
Woodruff	06N03W12BAA1	350955	911607	185.00	3/23/2009	6.50	178.50						
Woodruff	06N03W15BAB1	350903.06	911807.41	188.79	3/23/2009	5.50	183.29		183.07			0.22	
Woodruff	06N03W31BCB1	350623	912144	185.00	3/23/2009	2.10	182.90	183.50	182.74		-0.60	0.16	
Woodruff	07N03W19AAA1	351335	912025.42	202.59	3/23/2009	10.80	191.79	194.20	190.89		-2.41	0.90	
Woodruff	08N01W06DDD1	352028	910747	218.00	3/23/2009	46.20	171.80	171.86	175.77		-0.06	-3.97	
Woodruff	08N02W31DDD1	351611	911411	194.55	3/23/2009	4.60	189.95	192.89	189.19		-2.94	0.76	
Woodruff	08N03W04BBB1	352128	911919	221.00	4/7/2009	16.18	204.82						
Woodruff	08N03W31AAD1	351655	912028	212.00	3/23/2009	20.60	191.40	189.22	190.23		2.18	1.17	
Woodruff	09N03W29AAD1	352258	911921	220.00	3/23/2009	20.70	199.30	201.10	199.40		-1.80	-0.10	

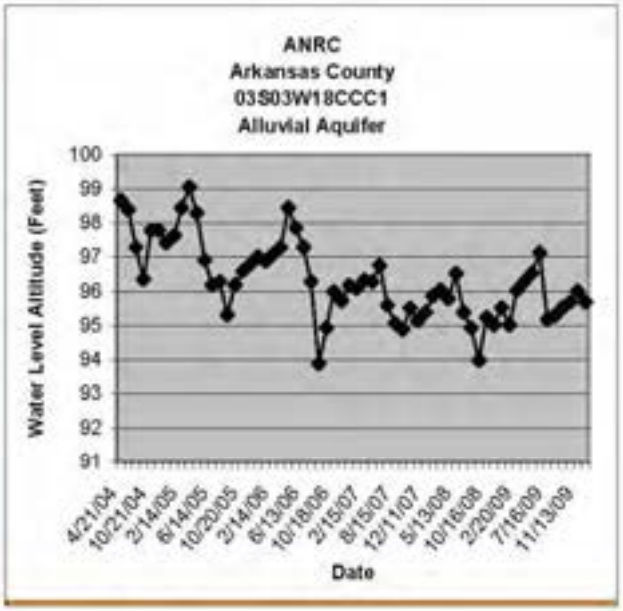
Alluvial Aquifer
09-08-04-99
WL Change

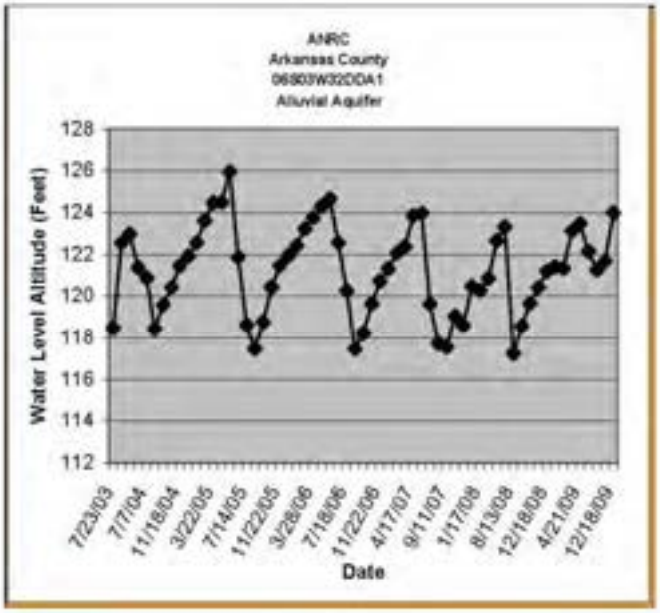
County	Station ID	Latitude	Longitude	LSA	Date Measured	09 meas.	WL Alt. 09	WL Alt. 08	WL Alt. 04	WL Alt. 99	08-09 Change	04-09 Change	99-09 Change
							Wells/Declines:				9/7	10/4	1/1
							Average Change:				-1.18	-0.27	
							Total Wells/Declines:				453/224	426/294	145/116
							Total Average Change:				-0.96	-4.71	-11.43

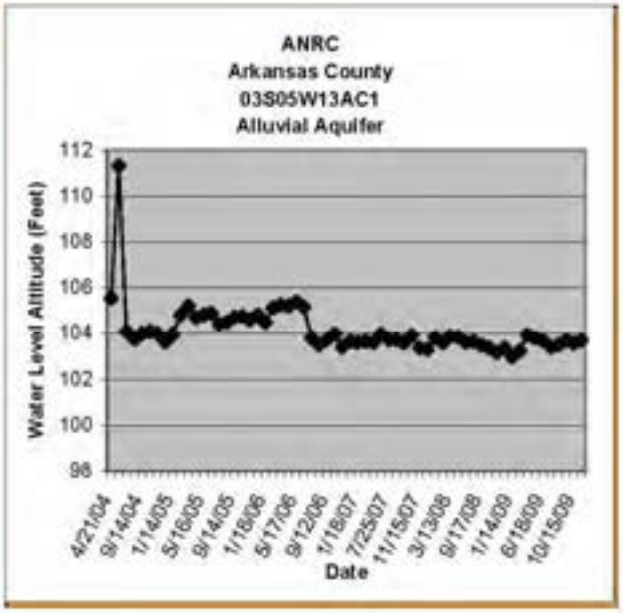
Appendix B

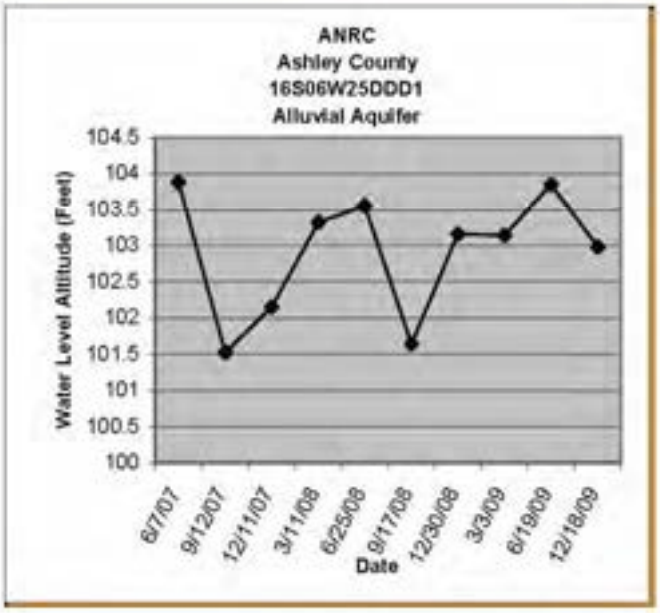
Selected Alluvial Aquifer Well Hydrographs

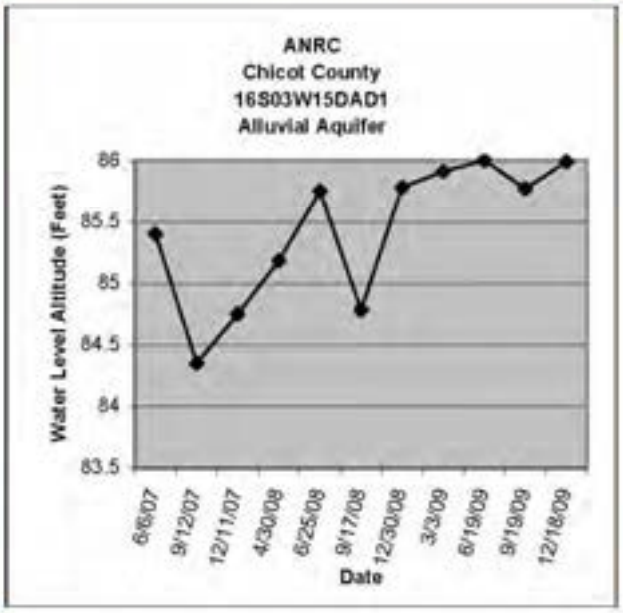

ANRC
Arkansas County
05S03W09CBA1
Alluvial Aquifer
Water Level Altitude (Feet)
84
83
83
82
82
81
81
80
80
79
8/16/06
12/13/06
5/15/07
10/17/07
2/14/08
8/13/08
12/18/08
4/21/09
12/18/09
Date

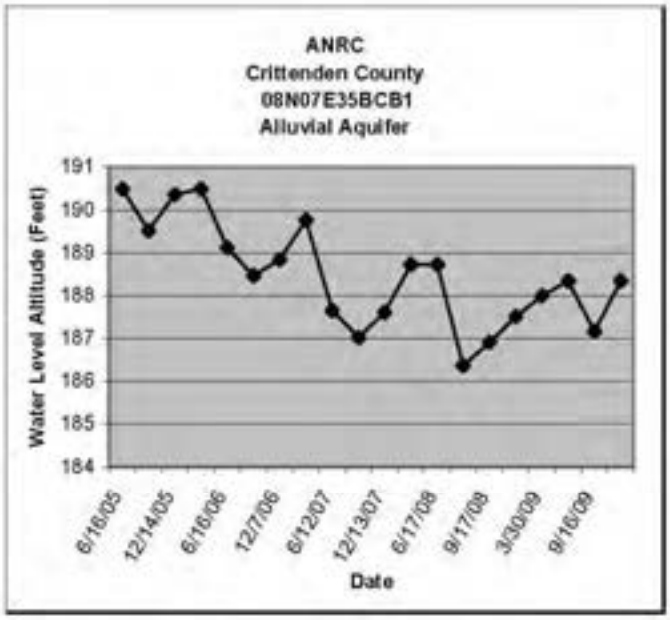

ANRC
Arkansas County
03S03W18CCC1
Alluvial Aquifer
Water Level Altitude (Feet)
100
99
98
97
96
95
94
93
92
91
4/21/04
10/21/04
2/14/05
6/14/05
10/20/05
2/14/06
6/13/06
10/18/06
2/15/07
8/15/07
12/11/07
5/13/08
10/16/08
2/20/09
7/16/09
11/13/09
Date

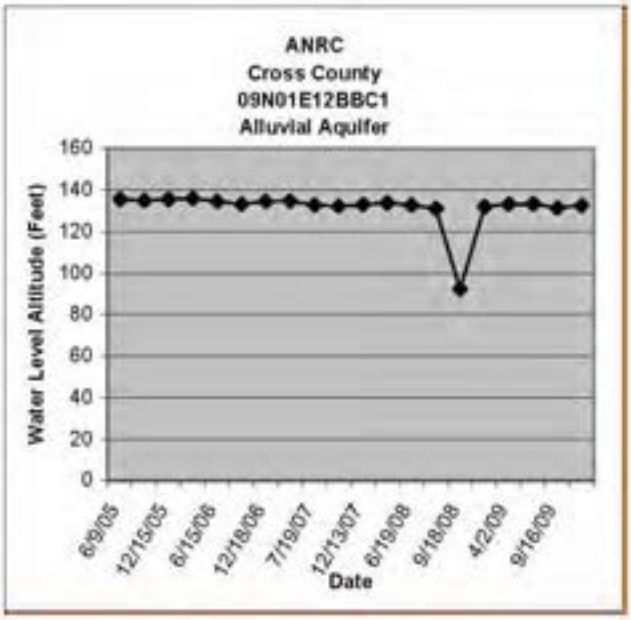

ANRC
Arkansas County
06S03W32DDA1
Alluvial Aquifer
Water Level Altitude (Feet)
128
126
124
122
120
118
116
114
112
7/23/03
7/7/04
11/18/04
3/22/05
7/14/05
11/22/05
3/28/06
7/18/06
11/22/06
4/17/07
9/11/07
1/17/08
8/13/08
12/18/08
4/21/09
12/18/09
Date

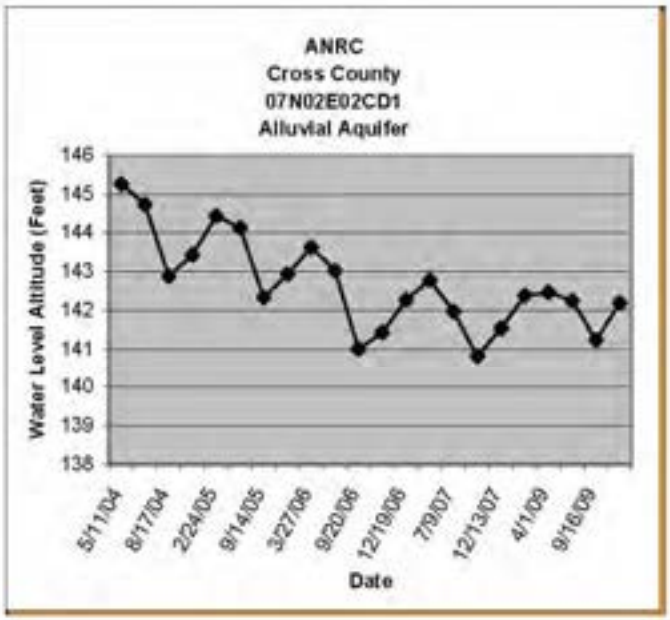

ANRC
Arkansas County
03S05W13AC1
Alluvial Aquifer
Water Level Altitude (Feet)
112
110
108
106
104
102
100
98
4/21/04
9/14/04
1/14/05
5/16/05
9/14/05
1/15/06
5/17/06
9/12/06
1/18/07
7/25/07
11/15/07
3/13/08
9/17/08
1/14/09
6/15/09
10/15/09
Date

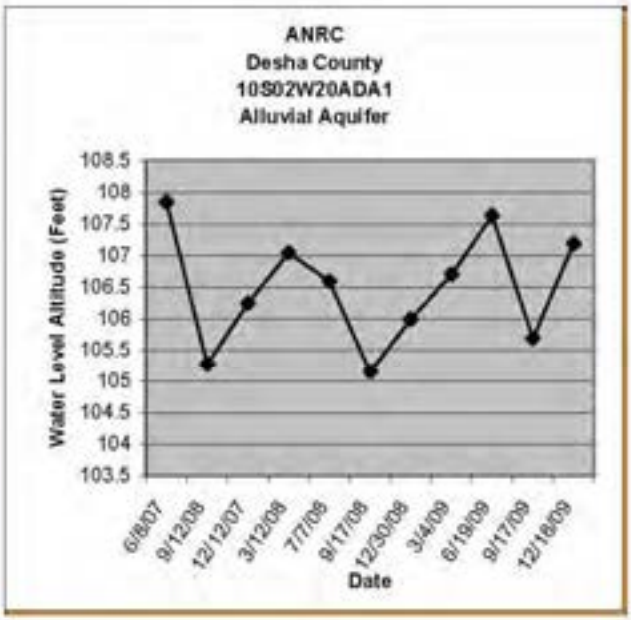

ANRC
Ashley County
16S06W25DDD1
Alluvial Aquifer
Water Level Altitude (Feet)
104.5
104
103.5
103
102.5
102
101.5
101
100.5
100
6/7/07
9/12/07
12/11/07
3/11/08
6/25/08
9/17/08
12/30/08
3/3/09
6/19/09
12/18/09
Date

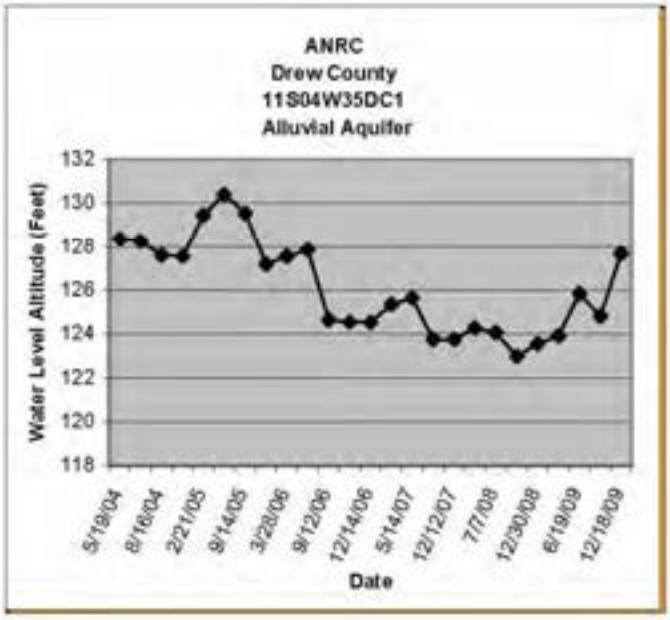

ANRC
Chicot County
16S03W15DAD1
Alluvial Aquifer
Water Level Altitude (Feet)
86
85.5
85
84.5
84
83.5
6/6/07
9/12/07
12/11/07
4/30/08
6/25/08
9/17/08
12/30/08
3/3/09
6/19/09
9/19/09
12/18/09
Date

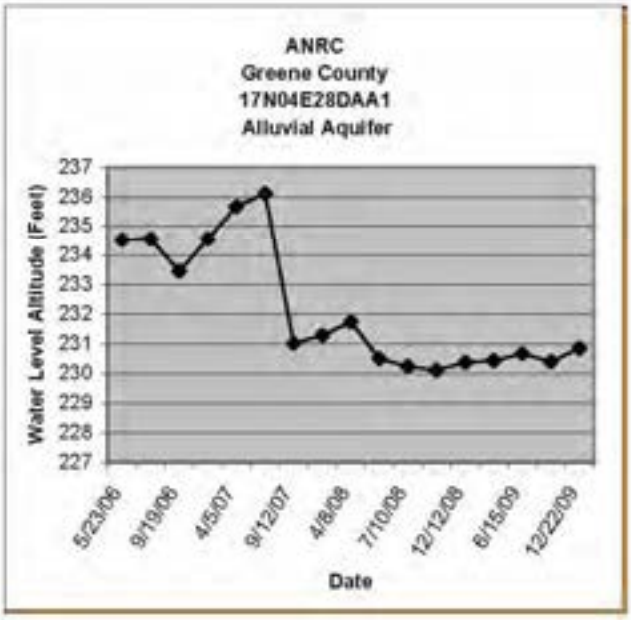

ANRC
Crittenden County
08N07E35BCB1
Alluvial Aquifer
Water Level Altitude (Feet)
191
190
189
188
187
186
185
184
6/16/05
12/14/05
6/16/06
12/7/06
6/12/07
12/13/07
6/17/08
9/17/09
3/30/09
9/16/09
Date

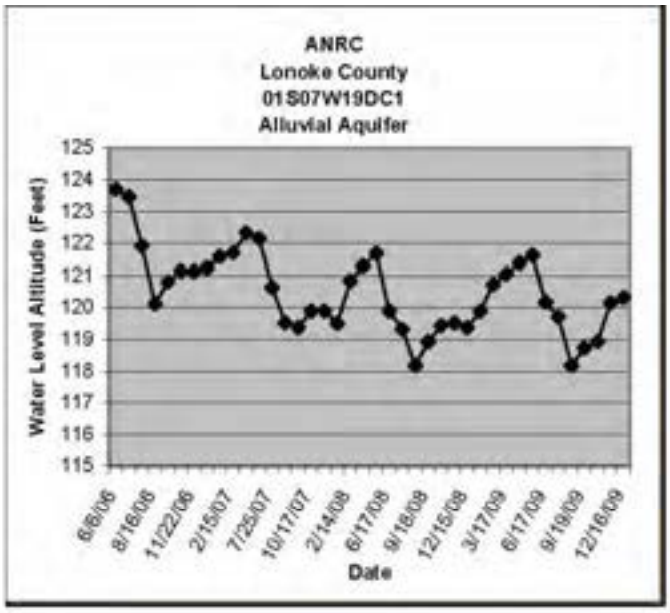

ANRC
Cross County
09N01E12BBC1
Alluvial Aquifer
Water Level Altitude (Feet)
160
140
120
100
80
60
40
20
0
6/9/05
12/15/05
6/15/06
12/18/06
7/19/07
12/13/07
6/19/08
9/18/08
4/2/09
9/16/09
Date

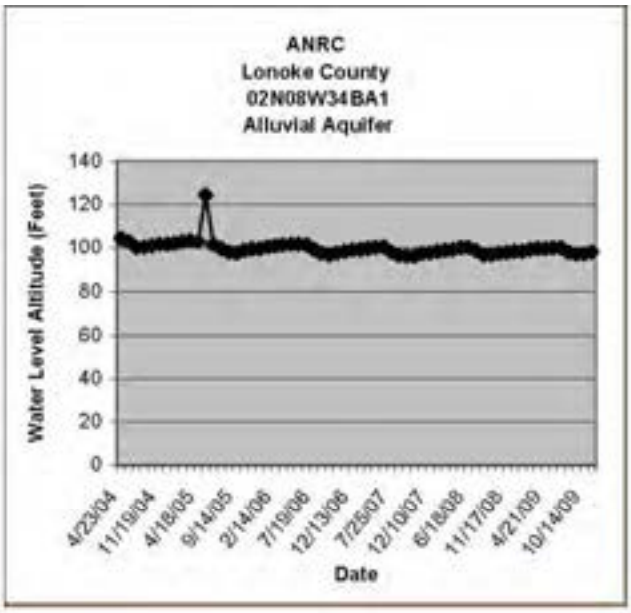

ANRC
Cross County
07N02E02CD1
Alluvial Aquifer
Water Level Altitude (Feet)
146
145
144
143
142
141
140
139
138
5/11/04
8/17/04
2/24/05
9/14/05
3/27/06
9/20/06
12/19/06
7/9/07
12/13/07
4/1/09
9/16/09
Date

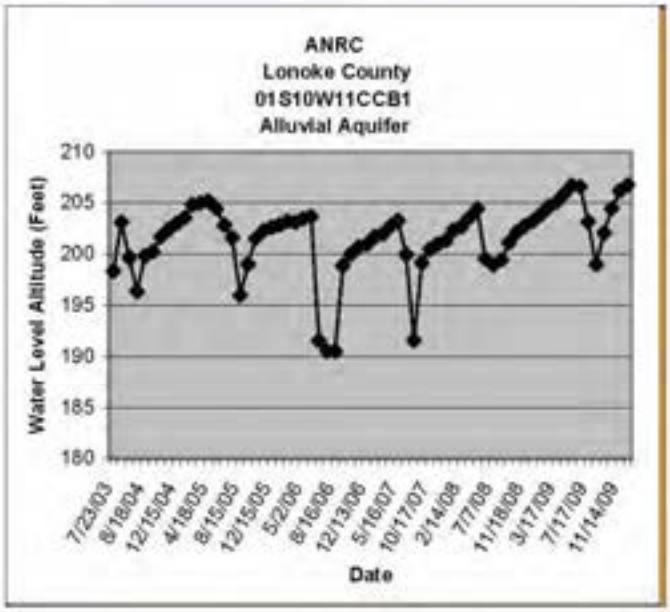

ANRC
Desha County
10S02W20ADA1
Alluvial Aquifer
Water Level Altitude (Feet)
108.5
108
107.5
107
106.5
106
105.5
105
104.5
104
103.5
6/8/07
9/12/08
12/12/07
3/12/08
7/7/08
9/17/08
12/30/08
3/4/09
6/19/09
9/17/09
12/16/09
Date

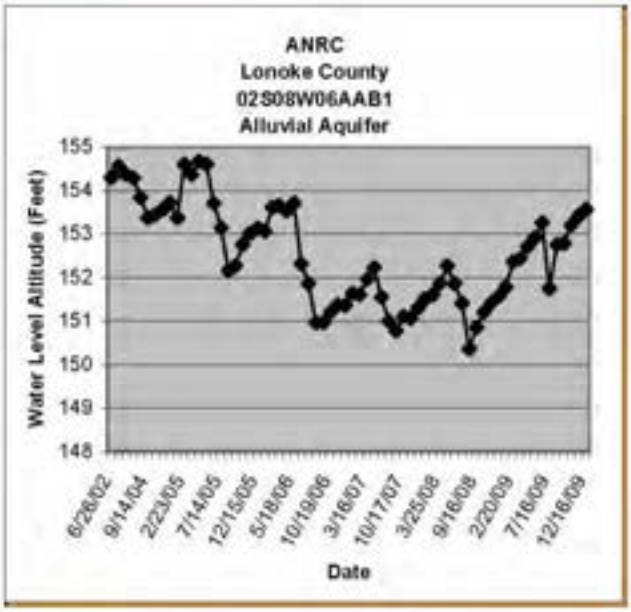

ANRC
Drew County
11S04W35DC1
Alluvial Aquifer
Water Level Altitude (Feet)
132
130
128
126
124
122
120
118
5/19/04
8/16/04
2/21/05
9/14/05
3/28/06
9/12/06
12/14/06
5/14/07
12/12/07
7/7/08
12/30/08
6/19/09
12/18/09
Date

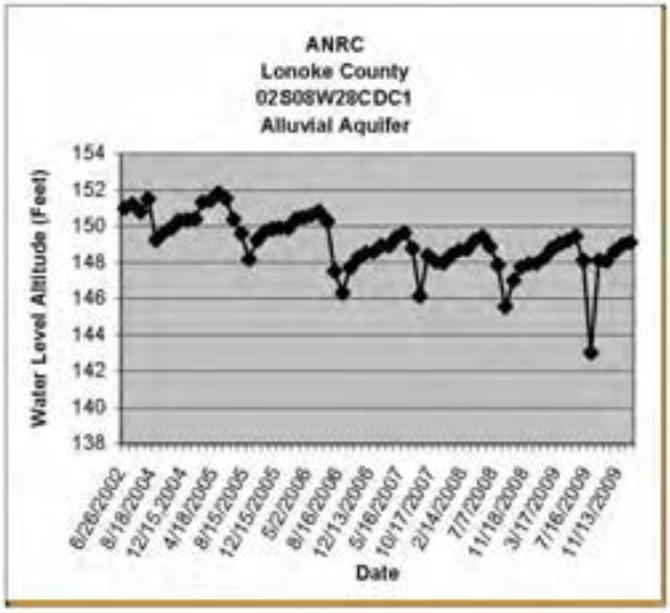

ANRC
Greene County
17N04E28DAA1
Alluvial Aquifer
Water Level Altitude (Feet)
237
236
235
234
233
232
231
230
229
228
227
5/23/06
9/19/06
4/5/07
9/12/07
4/8/08
7/10/08
12/12/08
6/15/09
12/22/09
Date

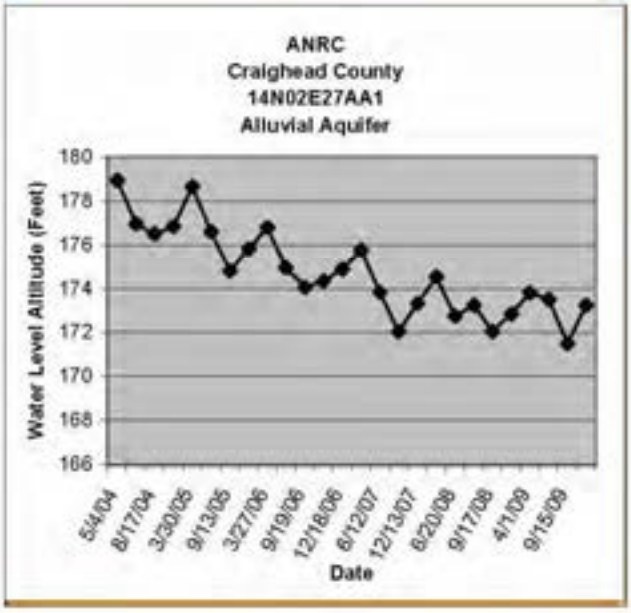

ANRC
Lonoke County
01S07W19DC1
Alluvial Aquifer
Water Level Altitude (Feet)
125
124
123
122
121
120
119
118
117
116
115
6/6/06
8/16/06
11/22/06
2/15/07
7/25/07
10/17/07
2/14/08
6/17/08
9/18/08
12/15/08
3/17/09
6/17/09
9/19/09
12/16/09
Date

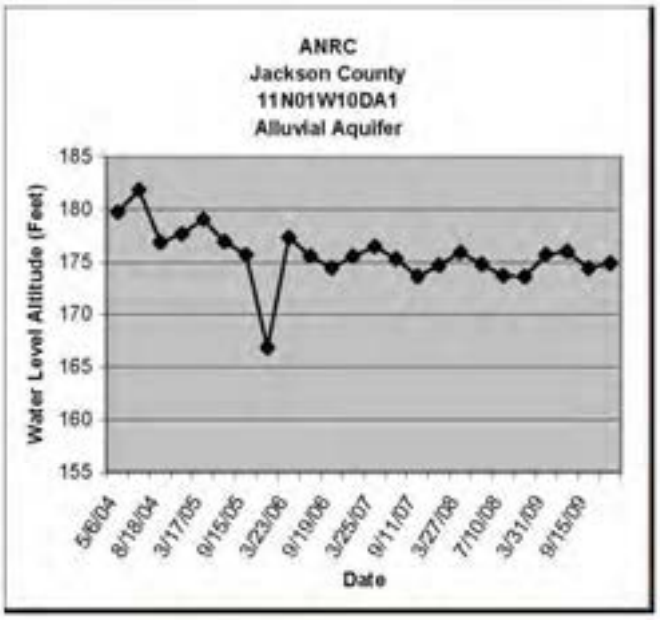

ANRC
Lonoke County
02N08W34BA1
Alluvial Aquifer
Water Level Altitude (Feet)
140
120
100
80
60
40
20
0
4/23/04
11/19/04
4/18/05
9/14/05
2/14/06
7/19/06
12/13/06
7/25/07
12/10/07
6/18/08
11/17/08
4/21/09
10/14/09
Date

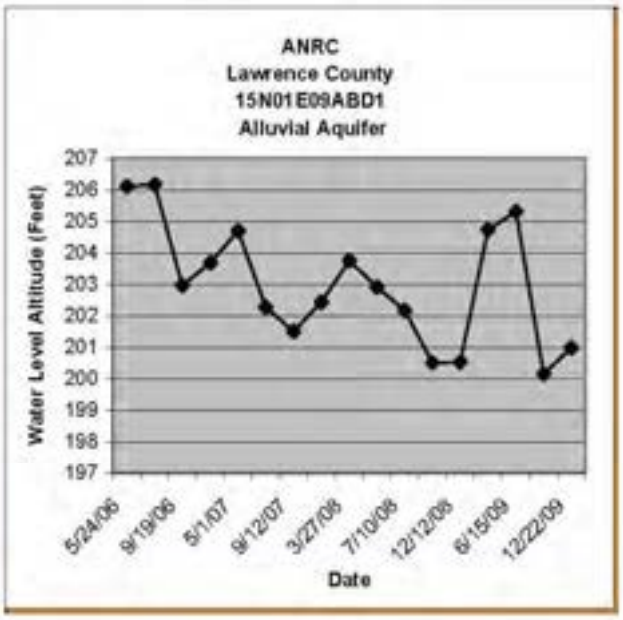

ANRC
Lonoke County
01S10W11CCB1
Alluvial Aquifer
Water Level Altitude (Feet)
210
205
200
195
190
185
180
7/23/03
8/18/04
12/15/04
4/18/05
8/15/05
12/15/05
5/2/06
8/16/06
12/13/06
5/16/07
10/17/07
2/14/08
7/7/08
11/18/08
3/17/09
7/17/09
11/14/09
Date

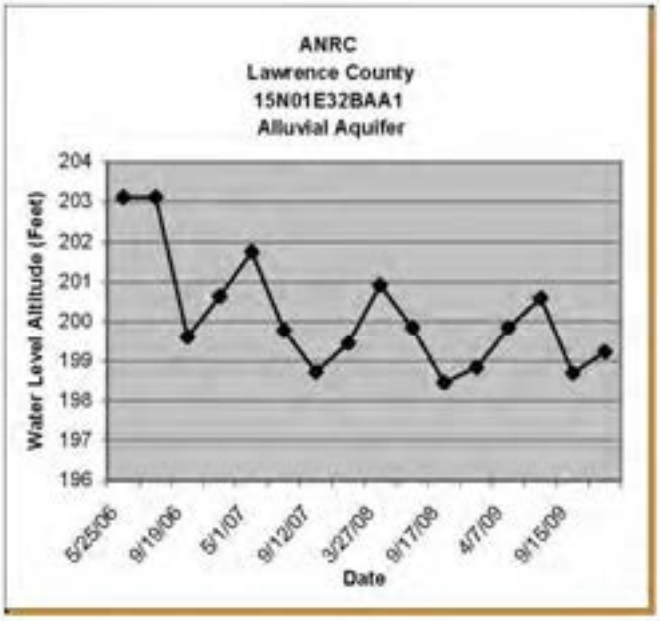

ANRC
Lonoke County
02S08W06AAB1
Alluvial Aquifer
Water Level Altitude (Feet)
155
154
153
152
151
150
149
148
6/26/02
9/14/04
2/23/05
7/14/05
12/15/05
5/18/06
10/19/06
3/16/07
10/17/07
3/25/08
9/16/08
2/20/09
7/16/09
12/16/09
Date

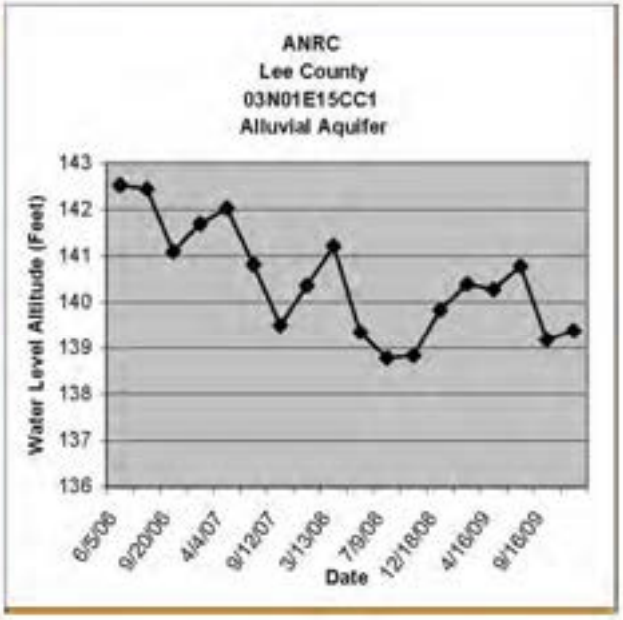

ANRC
Lonoke County
02S08W28CDC1
Alluvial Aquifer
Water Level Altitude (Feet)
154
152
150
148
146
144
142
140
138
6/26/2002
8/18/2004
12/15/2004
4/18/2005
8/15/2005
12/15/2005
5/2/2006
8/16/2006
12/13/2006
5/16/2007
10/17/2007
2/14/2008
7/7/2008
11/18/2008
3/17/2009
7/16/2009
11/13/2009
Date

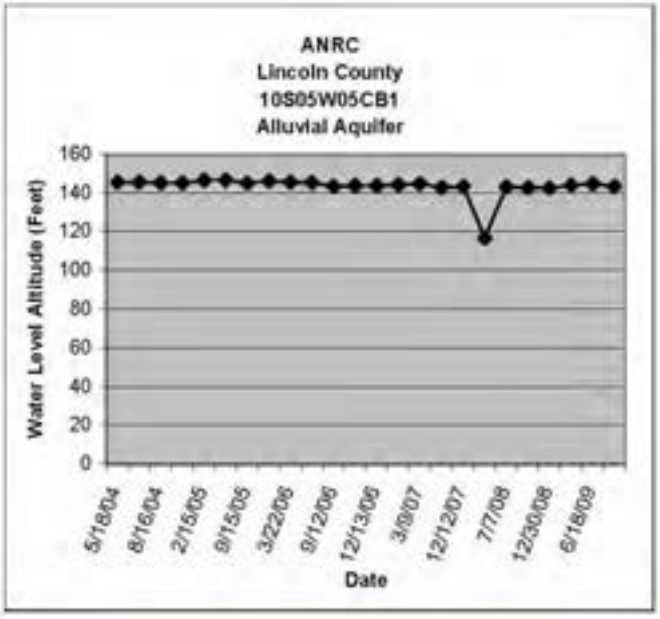

ANRC
Craighead County
14N02E27AA1
Alluvial Aquifer
Water Level Altitude (Feet)
180
178
176
174
172
170
168
166
5/4/04
8/17/04
3/30/05
9/13/05
3/27/06
9/19/06
12/18/06
6/12/07
12/13/07
6/20/08
9/17/08
4/1/09
9/15/09
Date

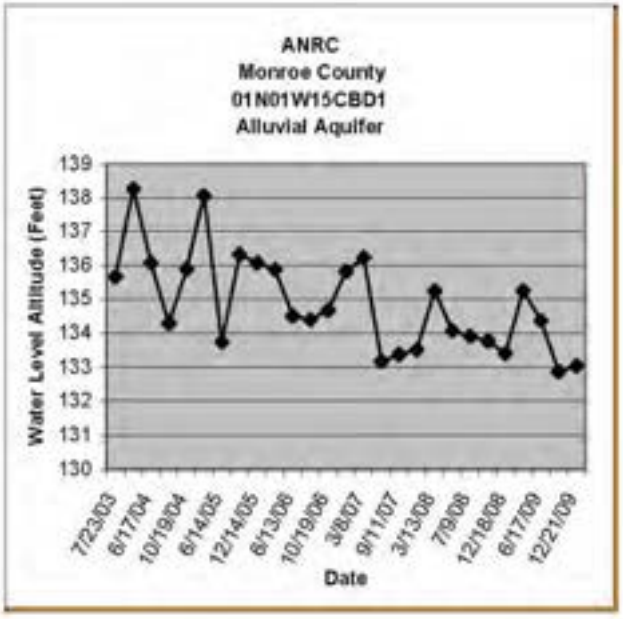

ANRC
Jackson County
11N01W10DA1
Alluvial Aquifer
Water Level Altitude (Feet)
185
180
175
170
165
160
155
5/6/04
8/18/04
3/17/05
9/15/05
3/23/06
9/19/06
3/25/07
9/11/07
3/27/08
7/10/08
3/31/09
9/15/09
Date

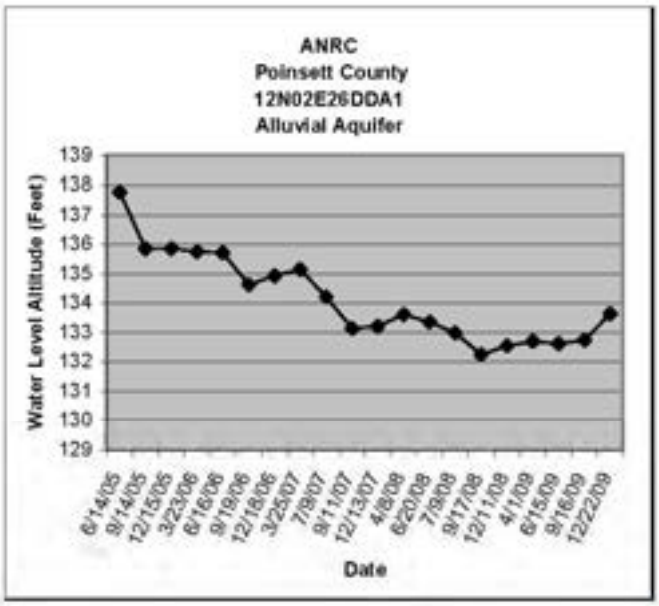

ANRC
Lawrence County
15N01E09ABD1
Alluvial Aquifer
Water Level Altitude (Feet)
207
206
205
204
203
202
201
200
199
198
197
5/24/06
9/19/06
5/1/07
9/12/07
3/27/08
7/10/08
12/12/08
6/15/09
12/22/09
Date

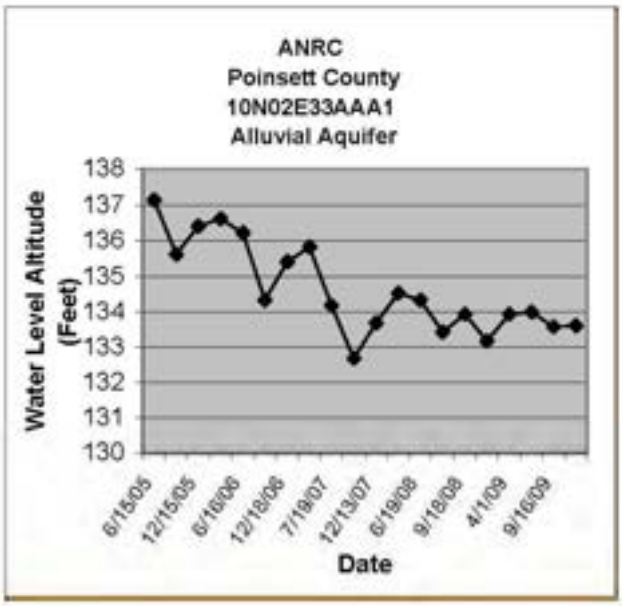

ANRC
Lawrence County
15N01E32BAA1
Alluvial Aquifer
Water Level Altitude (Feet)
204
203
202
201
200
199
198
197
196
5/25/06
9/19/06
5/1/07
9/12/07
3/27/08
9/17/09
4/7/09
9/15/09
Date

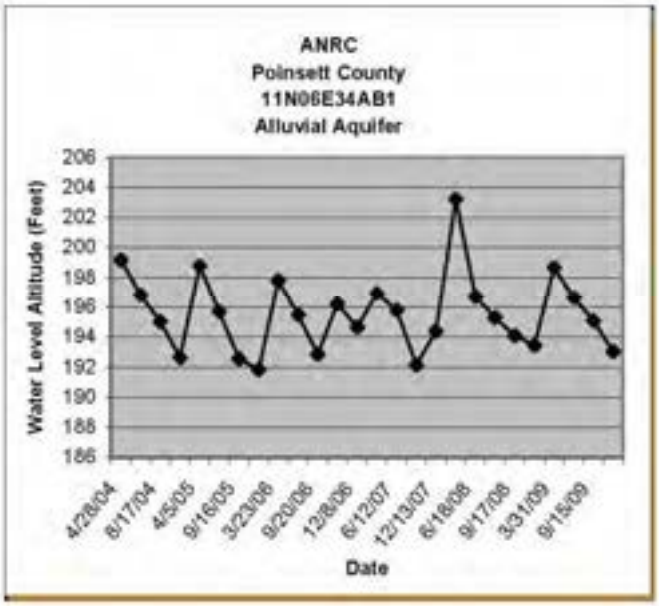

ANRC
Lee County
03N01E15CC1
Alluvial Aquifer
Water Level Altitude (Feet)
143
142
141
140
139
138
137
136
6/5/06
9/20/06
4/4/07
9/12/07
3/13/08
7/9/08
12/18/08
4/16/09
9/16/09
Date

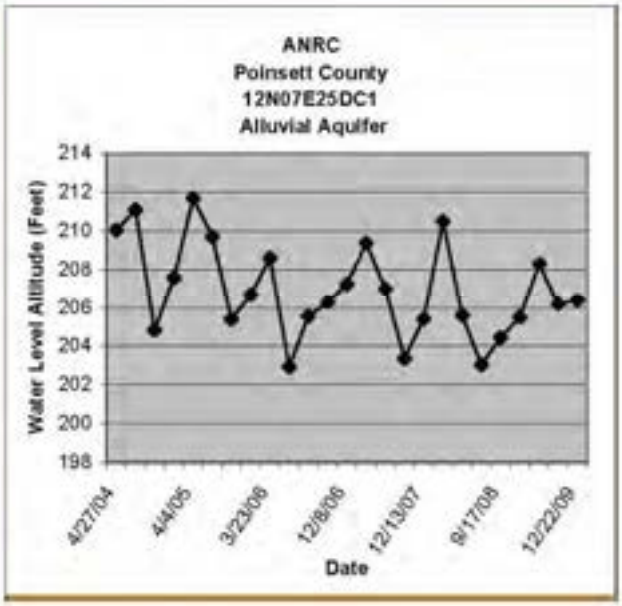

ANRC
Lincoln County
10S05W05CB1
Alluvial Aquifer
Water Level Altitude (Feet)
160
140
120
100
80
60
40
20
0
5/18/04
8/16/04
2/15/05
9/15/05
3/22/06
9/12/06
12/13/06
3/9/07
12/12/07
7/7/08
12/30/08
6/18/09
Date

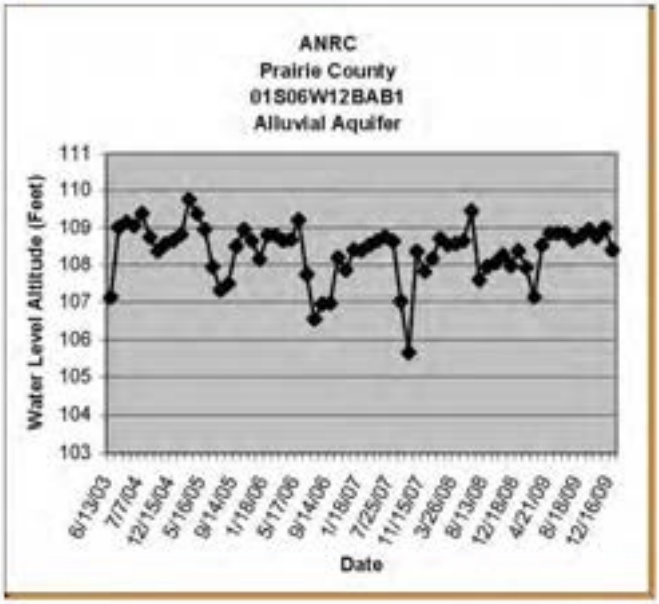

ANRC
Monroe County
01N01W15CBD1
Alluvial Aquifer
Water Level Altitude (Feet)
139
138
137
136
135
134
133
132
131
130
7/23/03
6/17/04
10/19/04
6/14/05
12/14/05
6/13/06
10/19/06
3/8/07
9/11/07
3/13/08
7/9/08
12/18/08
6/17/09
12/21/09
Date

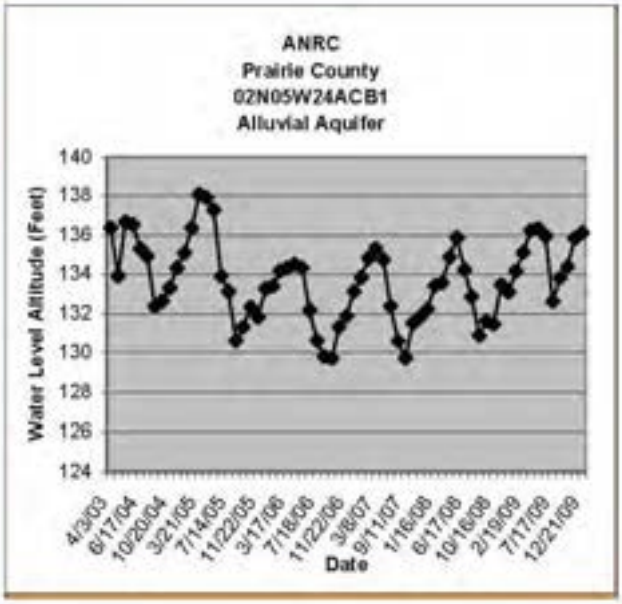

ANRC
Poinsett County
12N02E26DDA1
Alluvial Aquifer
Water Level Altitude (Feet)
139
138
137
136
135
134
133
132
131
130
129
6/14/05
9/14/05
12/15/05
3/23/06
6/16/06
9/19/06
12/18/06
3/25/07
7/9/07
9/11/07
12/13/07
4/8/08
6/20/08
7/9/08
9/17/08
12/11/08
4/1/09
6/15/09
9/16/09
12/22/09
Date

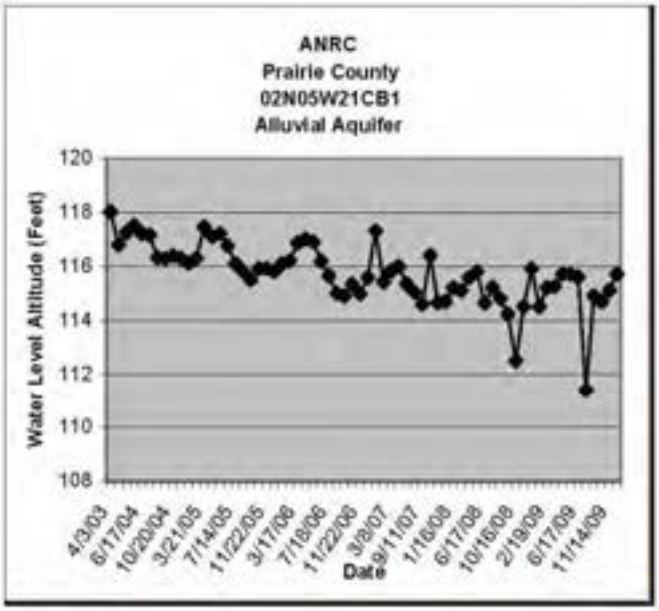

ANRC
Poinsett County
10N02E33AAA1
Alluvial Aquifer
Water Level Altitude (Feet)
138
137
136
135
134
133
132
131
130
6/15/05
12/15/05
6/16/06
12/18/06
7/19/07
12/13/07
6/19/08
9/18/08
4/1/09
9/16/09
Date

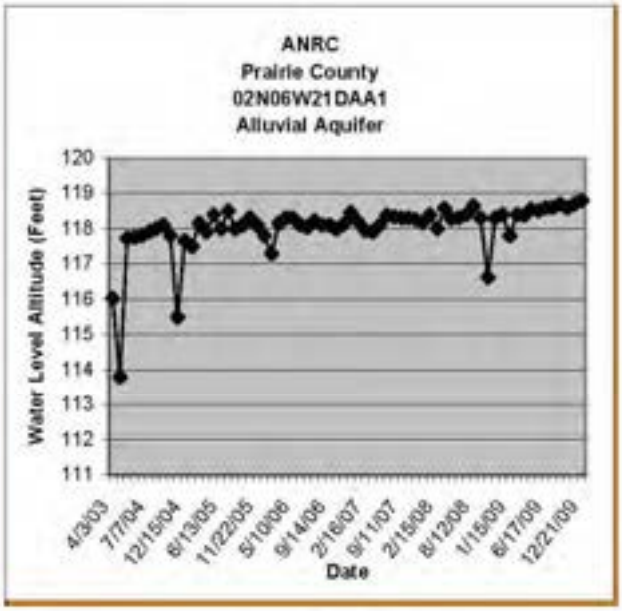

ANRC
Poinsett County
11N06E34AB1
Alluvial Aquifer
Water Level Altitude (Feet)
206
204
202
200
198
196
194
192
190
188
186
4/28/04
6/17/04
4/5/05
9/16/05
3/23/06
9/20/06
12/8/06
6/12/07
12/13/07
6/18/08
9/17/08
3/31/09
9/15/09
Date

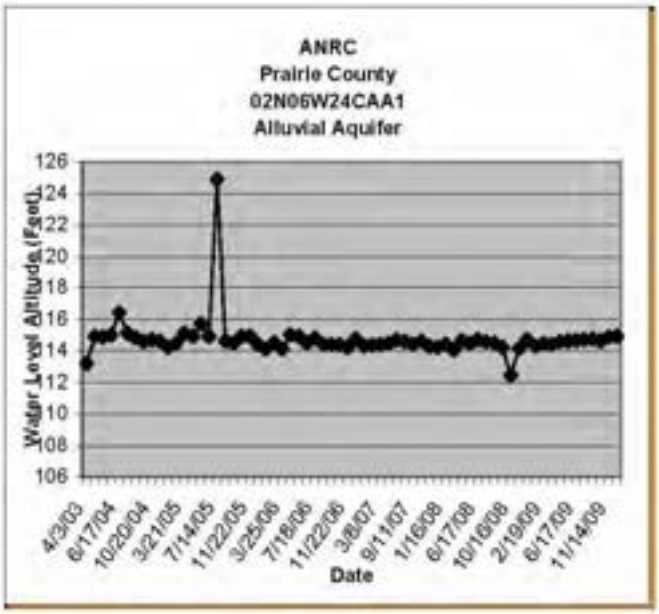

ANRC
Poinsett County
12N07E25DC1
Alluvial Aquifer
Water Level Altitude (Feet)
214
212
210
208
206
204
202
200
198
4/27/04
4/4/05
3/23/06
12/8/06
12/13/07
9/17/08
12/22/09
Date

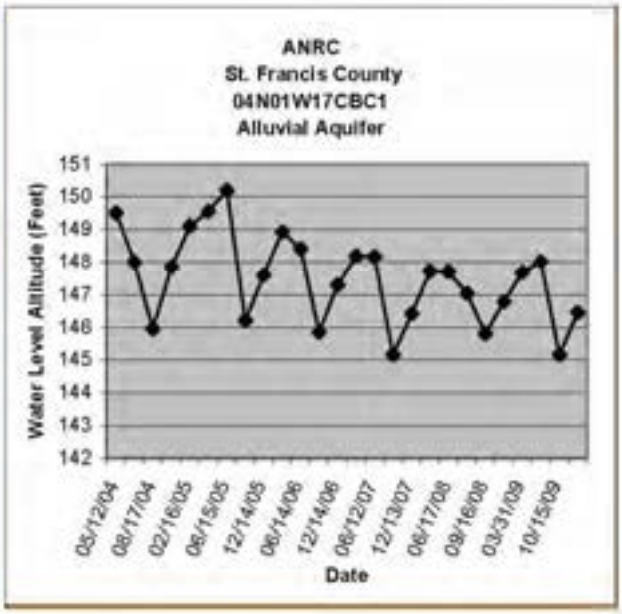

ANRC
Prairie County
01S06W12BAB1
Alluvial Aquifer
Water Level Altitude (Feet)
111
110
109
108
107
106
105
104
103
6/13/03
7/7/04
12/15/04
5/16/05
9/14/05
1/18/06
5/17/06
9/14/06
1/15/07
7/25/07
11/15/07
3/26/08
8/13/08
12/18/08
4/21/09
8/18/09
12/16/09
Date

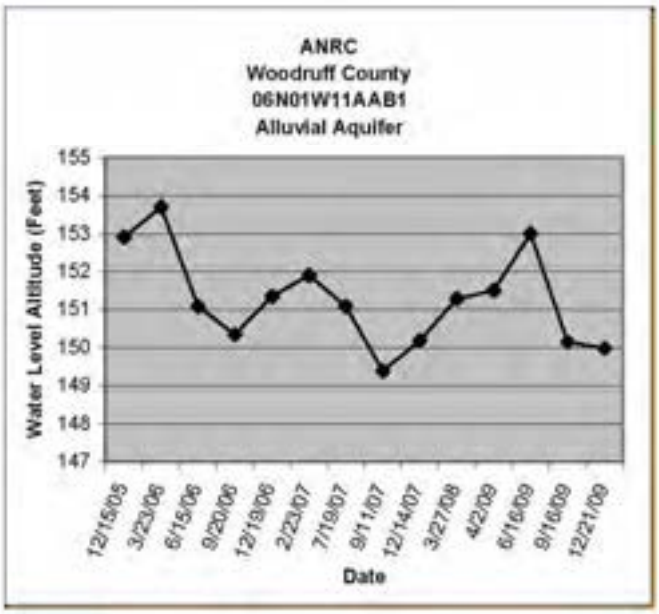

ANRC
Prairie County
02N05W24ACB1
Alluvial Aquifer
Water Level Altitude (Feet)
140
138
136
134
132
130
128
126
124
4/3/03
6/17/04
10/20/04
3/21/05
7/14/05
11/22/05
3/17/06
7/18/06
11/22/06
3/8/07
9/11/07
1/16/08
6/17/08
10/16/08
2/19/09
7/17/09
12/21/09
Date

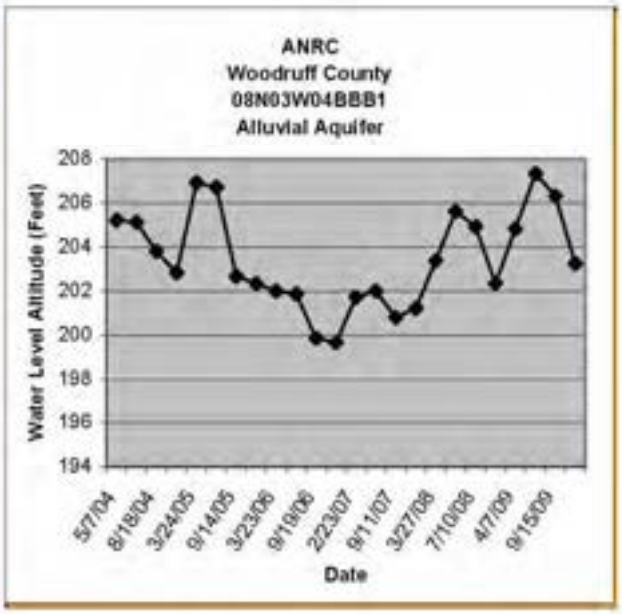

ANRC
Prairie County
02N05W21CB1
Alluvial Aquifer
Water Level Altitude (Feet)
120
118
116
114
112
110
108
4/3/03
6/17/04
10/20/04
3/21/05
7/14/05
11/22/05
3/17/06
7/18/06
11/22/06
3/8/07
9/11/07
1/16/08
6/17/08
10/16/08
2/19/09
6/17/09
11/14/09
Date


ANRC
Prairie County
02N06W21DAA1
Alluvial Aquifer
Water Level Altitude (Feet)
120
119
118
117
116
115
114
113
112
111
4/3/03
7/7/04
12/15/04
6/13/05
11/22/05
5/10/06
9/14/06
2/16/07
9/11/07
2/15/08
8/12/08
1/15/09
6/17/09
12/21/09
Date


ANRC
Prairie County
02N06W24CAA1
Alluvial Aquifer
Water Level Altitude (Feet)
126
124
122
120
118
116
114
112
110
108
106
4/3/03
6/17/04
10/20/04
3/21/05
7/14/05
11/22/05
3/25/06
7/18/06
11/22/06
3/8/07
9/11/07
1/16/08
6/17/08
10/16/08
2/19/09
6/17/09
11/14/09
Date


ANRC
St. Francis County
04N01W17CBC1
Alluvial Aquifer
Water Level Altitude (Feet)
151
150
149
148
147
146
145
144
143
142
05/12/04
08/17/04
02/16/05
06/15/05
12/14/05
06/14/06
12/14/06
06/12/07
12/13/07
06/17/08
09/16/08
03/31/09
10/15/09
Date


ANRC
Woodruff County
06N01W11AAB1
Alluvial Aquifer
Water Level Altitude (Feet)
155
154
153
152
151
150
149
148
147
12/15/05
3/23/06
6/15/06
9/20/06
12/19/06
2/23/07
7/19/07
9/11/07
12/14/07
3/27/08
4/2/09
6/16/09
9/16/09
12/21/09
Date


ANRC
Woodruff County
08N03W04BBB1
Alluvial Aquifer
Water Level Altitude (Feet)
208
206
204
202
200
198
196
194
5/7/04
6/18/04
3/24/05
9/14/05
3/23/06
9/19/06
2/23/07
9/11/07
3/27/08
7/10/08
4/7/09
9/15/09
Date

Appendix C

Sparta / Memphis Aquifer Water Level Monitoring Data

Sparta/Memphis Aquifer
09-08-04-99
WL Change

County	Station	Latitude	Longitude	LSA	Date Measured	09 Meas.	WL Alt.09	WL Alt.08	WL Alt.04	WL Alt.99	08-09 Change	04-09 Change	99-09 Change
Arkansas	02S04W06CDB1	343311.54	912849.29	212.00	4/1/2009	160.98	51.02	53.00	46.60	42.53	-1.98	4.42	8.49
Arkansas	02S04W23DAA1	343044.22	912354.53	208.00	4/1/2009	141.41	66.59	47.10	64.50	56.25	19.49	2.09	10.34
Arkansas	02S04W33BBB1	342922.14	912702.68	205.00	4/1/2009	166.79	38.21	21.30	42.50	39.62	16.91	-4.29	-1.41
Arkansas	02S05W16CBB1	343143	913318	213.00	4/2/2009	172.68	40.32	39.70	41.80	29.61	0.62	-1.48	10.71
Arkansas	02S05W27BBB1	343028.45	913230.47	216.00	4/1/2009	180.87	35.13	55.60	43.50	29.73	-20.47	-8.37	5.40
Arkansas	02S05W34BDA1	342924.58	913148.02	216.00	4/1/2009	181.77	34.23	39.50	37.80	12.76	-5.27	-3.57	21.47
Arkansas	02S05W35AAB1	342929.98	913035.31	216.00	4/1/2009	176.73	39.27	41.20	41.90		-1.93	-2.63	
Arkansas	03S04W02CCB1	342747.58	912458.04	202.00	4/1/2009	149.71	52.29	46.50	50.80		5.79	1.49	
Arkansas	03S04W26CDA1	342421.03	912438.3	203.00	4/1/2009	144.10	58.90	57.30	58.30	59.89	1.60	0.60	-0.99
Arkansas	03S05W02AAB1	342842.19	913033.71	210.00	4/1/2009	174.79	35.21	36.10	36.60	36.96	-0.89	-1.39	-1.75
Arkansas	03S05W13BDC1	342631.15	913004.57	210.00	4/1/2009	174.57	35.43	39.90	36.60	24.42	-4.47	-1.17	11.01
Arkansas	03S05W15CBB1	342633.21	913229.33	206.00	4/1/2009	176.86	29.14	33.70	35.40	30.65	-4.56	-6.26	-1.51
Arkansas	03S05W18CAB1	342633	913523	196.00	4/1/2009	161.94	34.06	28.30	33.10	30.12	5.76	0.96	3.94
Arkansas	03S05W28DAB1	342447.16	913240.25	204.00	4/1/2009	173.68	30.32	30.50	35.00	25.77	-0.18	-4.68	4.55
Arkansas	03S06W21ACB1	342554	913927	200.00	4/1/2009	156.31	43.69	39.20	43.00	62.81	4.49	0.69	-19.12
Arkansas	03S06W30BBD1	342515.54	914216.15	191.00	4/1/2009	160.82	30.18	30.40	34.60	26.72	-0.22	-4.42	3.46
Arkansas	04S01W04CBD1	342225.42	910808.42	196.00	3/31/2009	110.47	85.53	85.10	83.10	87.71	0.43	2.43	-2.18
Arkansas	04S01W28BAA1	341929	910739	190.00	3/31/2009	104.43	85.57	85.00	85.75	88.52	0.57	-0.18	-2.95
Arkansas	04S02W09DDC	342123	911331	175.00	3/31/2009	68.03	106.97		110.30			-3.33	
Arkansas	04S04W11BCC1	342156.96	912501.52	198.00	4/2/2009	155.82	42.18	42.90	38.70	39.12	-0.72	3.48	3.06
Arkansas	04S04W19CBB1	342003.73	912928.89	195.00	4/1/2009	157.76	37.24	18.50	38.30	36.46	18.74	-1.06	0.78
Arkansas	04S04W22DAA1	342006.89	912515.15	195.00	4/2/2009	158.64	36.36	37.80	41.20	33.32	-1.44	-4.84	3.04
Arkansas	04S05W01BAA1	342322.23	912956.46	196.00	4/1/2009	168.16	27.84	4.00	26.20	4.44	23.84	1.64	23.40
Arkansas	04S05W05ACC1	342302.67	913412.84	186.00	1/14/2009	161.17	24.83	26.50	28.60	29.98	-1.67	-3.77	-5.15
Arkansas	04S05W15AAA1	342132.16	913133.29	201.00	4/1/2009	169.79	31.21	33.70	36.00		-2.49	-4.79	
Arkansas	04S05W31DDA1	341819.25	913448.06	184.00	4/1/2009	34.84	149.16						
Arkansas	04S05W36DCC1	341752.00	913003.63	196.00	4/1/2009	158.02	37.98	34.80	40.60	38.88	3.18	-2.62	-0.90
Arkansas	05S01W17BAA1	341550.68	910745.34	176.00	3/31/2009	92.51	83.49	84.60	84.10	79.98	-1.11	-0.61	3.51
Arkansas	05S03W04ADB1	341734.14	912007.11	188.00	3/31/2009	142.39	45.61	50.60	52.10	41.72	-4.99	-6.49	3.89
Arkansas	05S04W26ACA1	341358	912435	188.00	3/31/2009	133.14	54.86	48.40	49.00	60.45	6.46	5.86	-5.59
Arkansas	05S05W26CDD1	341324	913119	188.00	3/31/2009	34.63	153.37	150.45	149.15	148.97	2.92	4.22	4.40
Arkansas	05S06W36DAA	341247	912946	180.00	3/31/2009	146.88	33.12	35.95	77.45	41.31	-2.83	-44.33	-8.19
Arkansas	06S02W06ABB1	341227.90	911620.01	181.00	3/31/2009	113.25	67.75	62.60	63.95	67.33	5.15	3.80	0.42
Arkansas	06S02W17ADA1	341022.67	911453.14	188.00	3/31/2009	112.68	75.32	75.05	67.90	79.41	0.27	7.42	-4.09
Arkansas	06S02W22CDB1	340904	911331.06	186.00	3/31/2009	110.83	75.17	75.30	75.70	76.94	-0.13	-0.53	-1.77
Arkansas	06S03W27BAA1	340859.22	912008.98	181.00	3/31/2009	117.84	63.16	60.90	62.75	66.86	2.26	0.41	-3.70
Arkansas	07S02W28ABA1	340339.67	911411.01	181.00	3/31/2009	103.53	77.47	76.80	77.00	81.06	0.67	0.47	-3.59
Arkansas	07S03W06ABC1	340701.89	912247.68	185.00	3/31/2009	125.52	59.48	57.90	59.40	65.51	1.58	0.08	-6.03
Arkansas	06S02W09BCC1	340031.06	911447.66	174.00	3/31/2009	99.32	74.68	74.70	72.10	79.08	-0.02	2.58	-4.40

Sparta/Memphis Aquifer
09-08-04-99
WL Change

County	Station	Latitude	Longitude	LSA	Date Measured	09 Meas.	WL Alt.09	WL Alt.08	WL Alt.04	WL Alt.99	08-09 Change	04-09 Change	99-09 Change
									Wells/Declines:		39/18	39/21	39/17
									Average Change:		1.77	-1.79	1.43
Ashley	15S07W32CDD1	332117.77	915101.06	190.00	3/23/2009	149.86	40.14	52.85	53.50	33.29	-12.71	-13.36	6.85
Ashley	17S09W15ACC1	331333.66	920116.44	100.00	3/23/2009	19.93	80.07			78.34			1.73
									Wells/Declines:		2/1	2/1	2/0
									Average Change:		-12.71	-13.36	4.29
Bradley	12S09W31CCB1	333711.24	920444.21	231.00	3/20/2009	196.99	34.01	31.55	45.52		2.46	-11.51	
Bradley	13S09W06ACA1	333647.9	920437.48	235.00	3/20/2009	207.48	27.52	36.75	40.84	37.71	-9.23	-13.32	-10.19
Bradley	13S09W06ACB3	333647	920407	208.00	3/20/2009	182.02	25.98	32.50	50.70	37.20	-6.52	-24.72	-11.22
Bradley	13S11W17BCD1	333453.65	921607.25	250.00	3/20/2009	204.04	45.96	51.20	51.30	53.33	-5.24	-5.34	-7.37
Bradley	16S12W21CAA1	331839	922052	100.00	3/20/2009	81.12	18.88	21.22		29.02	-2.34		-10.14
									Wells/Declines:		5/4	4/4	4/4
									Average Change:		-4.17	-13.72	-9.73
Calhoun	13S13W32CDA1	333226.81	922741.66	208.00	3/17/2009	194.38	13.62	15.12	30.20	32.08	-1.50	-16.58	-18.46
Calhoun	13S15W36CBD1	333252	923616	158.00	3/17/2009	82.93	75.07	76.00		76.21	-0.93		-1.14
Calhoun	14S13W03CAB1	333145.32	922551.43	202.00	3/17/2009	165.46	36.54						
Calhoun	14S13W05BBD1	333206.66	922801.55	189.00	3/17/2009	158.81	30.19	26.15			4.04		
Calhoun	14S13W12CCB1	333040.05	922403.54	205.00	3/17/2009	177.48	27.52	23.90	35.90		3.62	-8.38	
Calhoun	15S13W20BDC1	332410.97	922606.59	109.00	2/19/2009	25.40	83.60	83.30	81.50	26.57	0.30	2.10	57.03
									Wells/Declines:		5/2	3/2	3/2
									Average Change:		1.11	-7.62	12.48
Chicot	13S03W22DAD1	333312.37	912307.62	135.00	3/23/2009	69.26	65.74			53.77			11.97
									Wells/Declines:		0/0	0/0	1/0
									Average Change:				11.97
Cleveland	08S09W06BBA1	340349	920237	300.00	3/25/2009	146.87	153.13						
Cleveland	09S09W04BBD1	335820.09	920236.95	308.00	3/26/2009	224.37	83.63			87.78			-4.15
Cleveland	09S11W01DCA1	335729.02	921133.93	225.00	3/25/2009	207.52	17.48	38.42	27.30	27.14	-20.94	-9.82	-9.66
Cleveland	09S11W11CDB1	335622.66	921250.52	233.00	3/25/2009	162.19	70.81	70.45	71.35	93.80	0.36	-0.54	-22.99
Cleveland	10S09W23CDC1	334917.94	920020.5	220.00	3/26/2009	163.04	56.96	42.50		56.99	14.46		-0.03

Sparta/Memphis Aquifer
09-08-04-99
WL Change

County	Station	Latitude	Longitude	LSA	Date Measured	09 Meas	WL Alt.09	WL Alt.08	WL Alt.04	WL Alt.99	08-09 Change	04-09 Change	99-09 Change
Cleveland	10S09W35ACD1	334758	915956	219.00	3/26/2009	158.71	60.29	27.70			32.59		
Cleveland	10S12W12BDD1	335132.99	921743.38	220.00	3/25/2009	121.44	98.56	94.23	100.60	100.82	4.33	-2.04	-2.26
Cleveland	11S11W16AAB1	334543.01	921423.47	303.00	3/25/2009	204.79	98.21			83.13			15.08
								Wells/Declines:			7/2	3/3	5/4
								Average Change:			6.16	-4.13	-4.00
Columbia	15S20W20CCB1	332453.37	931215.01	372.00	3/11/2009	217.85	154.15	155.90	155.20	151.94	-1.75	-1.05	2.21
Columbia	16S20W08DCC1	332114.08	931141.34	402.00	4/9/2008	320.99	81.01	75.50	84.00		5.51	-2.99	
Columbia	16S20W18ACD1	332052.93	931237.40	337.00	3/11/2009	265.72	71.28		49.50	56.45		21.78	14.83
Columbia	16S21W14CBB1	332049	931516	281.00	3/11/2009	199.86	81.14	83.30	87.20	82.01	-2.16	-6.06	-0.87
Columbia	16S21W20DAD1	331955.06	931736.47	350.00	3/11/2009	252.24	97.76						
Columbia	16S22W22CCD1	331947.61	932224.89	340.00	3/11/2009	138.34	201.66	202.60	203.80	187.61	-0.94	-2.14	14.05
Columbia	17S19W15ABD1	331537	930328	325.00	3/11/2009	267.38	57.62	47.20	30.90		10.42	26.72	
Columbia	17S19W17ACA1	331538.06	930536.26	303.00	3/11/2009	260.11	42.89						
Columbia	17S19W18CBD1	331516.81	930655.59	305.00	3/11/2009	260.31	44.69	15.40	37.40		29.29	7.29	
Columbia	17S19W19BCA1	331432.77	930704.56	301.00	3/11/2009	267.17	33.83			72.85			-39.02
Columbia	17S19W30ABB1	331406.12	930650.14	248.00	3/11/2009	217.72	30.28	29.60	29.60	18.52	0.68	0.68	11.76
Columbia	17S20W13BCD1	331533	930807	340.00	3/11/2009	308.29	31.71	11.80	29.60	15.79	19.91	2.11	15.92
Columbia	17S20W17CDA1	331519.76	931200.69	325.10	3/11/2009	298.40	26.70	26.20	24.75	25.88	0.50	1.95	0.82
Columbia	17S20W36ABC1	331307.06	930754.88	335.00	3/12/2009	292.97	42.03		37.60	37.41		4.43	4.62
Columbia	17S21W01BBC1	331743.07	931423.65	305.00	3/11/2009	255.40	49.60	39.60	46.60		10.00	3.00	
Columbia	17S21W08DCA1	331613.42	931758.30	300.00	3/11/2009	206.53	93.47		171.80			-78.33	
Columbia	17S21W11DCC2	331608.55	931448.61	300.00	1/28/2009	273.21	26.79	10.85	19.35		15.94	7.44	
Columbia	17S21W11DCC3	331609.3	931449.35	298.00	3/11/2009	274.99	23.01		14.35	4.65		8.66	18.36
Columbia	17S21W17BAB1	331607	931818	287.00	3/11/2009	198.81	88.19		82.50			5.69	
Columbia	17S22W21ABD1	331516	932303	295.00	3/12/2009	82.23	212.77		213.00			-0.23	
Columbia	17S22W22ABB1	331521	932209	321.00	3/12/2009	135.13	185.87	237.85	184.80		-51.98	1.07	
Columbia	17S22W23BBB1	331519	932136	340.00	3/12/2009	129.61	210.39	203.15	195.15		7.24	15.24	
Columbia	18S20W06DDC1	331142	931248	300.00	3/11/2009	295.65	4.35	12.00	0.50	-15.12	-7.65	3.85	19.47
Columbia	18S20W08CBC1	331114.79	931227.04	263.00	3/11/2009	270.36	-7.36	-17.80			10.44		
Columbia	18S20W10CAA1	331054.37	931015.76	290.00	3/11/2009	276.42	13.58	6.75	15.00		6.83	-1.42	
Columbia	18S21W01ACC1	331214	931404	295.00	3/11/2009	295.84	-0.84	3.15		3.91	-3.99		-4.75
Columbia	18S21W17ACD1	331033.97	931758.51	315.00	3/10/2009	230.16	84.84	84.50			0.34		
Columbia	18S22W27DDD1	330834.57	932158.59	312.00	3/10/2009	135.31	176.69		174.75	186.37		1.94	-9.68
Columbia	19S20W09CBD1	330555.38	931128.72	332.00	3/10/2009	264.02	67.98	58.30			9.68		
Columbia	19S20W34BDD1	330239.09	931030.67	290.00	3/10/2009	201.72	88.28	79.38	79.00	72.88	8.90	9.28	15.40
Columbia	19S21W16DBB1	330517.2	931724.2	284.00	3/10/2009	174.38	109.62	109.30	109.30	108.96	0.32	0.32	0.66
Columbia	19S23W10ABD1	330643.92	932833.33	242.00	3/10/2009	45.09	196.91	196.83	197.31	197.17	0.08	-0.40	-0.26
Columbia	19S23W11CDA2	330609.39	932744.02	248.00	3/10/2009	52.54	195.46	194.95	195.80	192.12	0.51	-0.34	3.34

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County	Station	Latitude	Longitude	LSA	Date Measured	09 Meas.	WL Alt.09	WL Alt.08	WL Alt.04	WL Alt.99	08-09 Change	04-09 Change	99-09 Change
Columbia	19S23W11DDB1	330604.93	932722.12	246.00	3/10/2009	53.76	192.24	192.66	192.80	192.46	-0.42	-0.56	-0.22
Columbia	19S23W14BAB2	330555.24	932752.38	244.00	3/10/2009	52.11	191.89	196.25	194.70	192.91	-4.36	-2.81	-1.02
Columbia	20S22W03DCC1	330138.44	932236.27	214.00	3/10/2009	52.40	161.60	161.73	161.58	160.68	-0.13	0.02	0.92
Columbia	20S22W11ACD1	330109.20	932133.20	271.00	3/10/2009	107.79	163.21	164.05	163.20	162.76	-0.84	0.01	0.45
								Wells/Declines:			**27/10**	**29/11**	**21/7**
								Average Change:			**2.31**	**0.84**	**3.19**
Craighead	13N03E23CDD1	354404.17	904432.83	248.00	4/14/2009	91.25	156.75	158.10	161.40		-1.35	-4.65	
Craighead	14N04E22CBD1	354928.92	903920.99	256.00	4/14/2009	59.67	196.33	197.80	210.20	205.28	-1.47	-13.87	-8.95
Craighead	14N04E28DBD1	354836.94	903953.27	254.00	4/14/2009	64.89	189.11	195.85	195.75	202.11	-6.74	-6.64	-13.00
Craighead	14N05E36CBC1	354750.84	903100.18	220.00	4/14/2009	13.16	206.84	207.55	207.90		-0.71	-1.06	
Craighead	15N04E20ADB1	355506.01	904043.21	438.00	4/14/2009	119.08	318.92	318.85	318.35	315.54	0.07	0.57	3.38
Craighead	15N05E29DBB1	355359.83	903432.73	258.00	4/14/2009	25.24	232.76	232.75	234.00	234.61	0.01	-1.24	-1.85
Craighead	15N06E18ACA1	355544.42	902858.20	230.00	4/14/2009	18.66	211.34	203.80	213.20		7.54	-1.86	
								Wells/Declines:			**7/4**	**7/6**	**4/3**
								Average Change:			**-0.38**	**-4.11**	**-5.11**
Crittenden	05N08E11CCA2	350344.68	901300.21	211.00	4/8/2009	25.88	185.12		184.50	186.51		0.62	-1.39
Crittenden	06N07E01DAD2	350958.04	901738.42	209.00	4/8/2009	26.22	182.78	180.35	183.80	187.42	2.43	-1.02	-4.64
Crittenden	06N09E08DCC1	350849.72	900921.78	215.00	4/8/2009	8.07	206.93	207.90		205.78	-0.97		1.15
Crittenden	07N09E14BAC1	351348.14	900628.23	217.00	4/8/2009	30.49	186.51	186.10			0.41		
								Wells/Declines:			**3/1**	**2/1**	**3/2**
								Average Change:			**0.62**	**-0.20**	**-1.63**
Cross	06N04E06ACA1	351004.29	904237.72	358.00	4/9/2009	205.58	152.42	155.86	141.20	155.49	-3.44	11.22	-3.07
Cross	07N05E04ADD1	351538.11	903329.85	209.00	4/9/2009	35.80	173.20	171.60	176.00	179.22	1.60	-2.80	-6.02
Cross	08N02E18BDB1	351908	905538	228.00	4/9/2009	92.30	135.70	135.60	146.30		0.10	-10.60	
Cross	09N01E16CAC1	352405.00	905950.75	234.00	4/9/2009	92.54	141.46	140.70	141.50	150.85	0.76	-0.04	-9.39
Cross	09N01E25AAD1	352244.31	905554.00	227.00	4/9/2009	91.54	135.46	136.20	140.10	146.95	-0.74	-4.64	-11.49
Cross	09N03E22AAB2	352403.82	904518.39	277.00	4/9/2009	129.23	147.77	147.60	151.40	156.44	0.17	-3.63	-8.67
Cross	09N03E22AAD1	352403.2	904511.77	276.00	4/3/2009	134.24	143.76	153.00	147.70	149.55	-9.24	-3.94	-5.79
Cross	09N04E30DCA1	352231	904215	429.32	4/9/2009	271.39	157.93	163.72	155.62	171.11	-5.79	2.31	-13.18
								Wells/Declines:			**8/4**	**8/6**	**7/7**
								Average Change:			**-2.07**	**-1.52**	**-8.23**

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County	Station	Latitude	Longitude	LSA	Date Measured	09 Meas.	WL Alt.09	WL Alt.08	WL Alt.04	WL Alt.99	08-09 Change	04-09 Change	99-09 Change
Dallas	07S14W30DCC1	340430.87	923359.85	335.00	3/9/2009	120.40	214.60	214.20		216.92	0.40		-2.32
Dallas	07S14W31AAA1	340425.29	923334.44	330.00	3/9/2009	112.36	217.64			220.27			-2.63
Dallas	07S16W20CAB1	340559	924541	322.00	3/9/2009	26.95	295.05	290.00	295.90	295.83	5.05	-0.85	-0.78
Dallas	08S15W34BDC1	335853	923658	240.00	3/9/2009	26.32	213.68	216.50	216.40	215.87	-2.82	-2.72	-2.19
Dallas	08S16W18ACC1	340152	922446	252.00	3/9/2009	15.55	236.45	236.60	236.40	242.83	-0.15	0.05	-6.38
Dallas	08S16W27DDD1	335935	924307	275.00	3/9/2009	33.29	241.71	240.50	241.20	242.37	1.21	0.51	-0.66
Dallas	09S13W35CCD1	335304	922413	200.00	3/9/2009	71.47	128.53	127.00	128.10	131.13	1.53	0.43	-2.60
Dallas	09S14W01BDC1	335753.63	922918.78	265.00	3/9/2009	82.60	182.40	185.70	185.90	187.90	-3.30	-3.50	-5.50
Dallas	09S16W19CAA1	335605.48	924701.17	260.00	3/9/2009	7.25	252.75	253.70	252.80	254.73	-0.95	-0.05	-1.98
Dallas	10S13W34ACA2	334829.46	922457.61	272.00	3/9/2009	151.08	120.92	119.70	120.70	123.55	1.22	0.22	-2.63
Dallas	10S14W27CDB1	334907.60	923137.99	270.00	3/9/2009	32.36	237.64	246.40	244.50		-8.76	-6.86	
Dallas	10S15W18BCC1	335119.53	924120.08	328.00	3/9/2009	76.44	251.56	249.66	251.20		1.90	0.36	
								Wells/Declines:			11/5	10/5	10/10
								Average Change:			-0.42	-1.24	-2.77
Desha	09S02W26AAC1	335346.00	911520.82	153.00	3/24/2009	73.83	79.17	80.03	81.20	83.18	-0.86	-2.03	-4.01
Desha	09S04W28DDD1	335309.60	913006.71	165.00	3/24/2009	113.98	51.02	50.96	50.00	50.13	0.06	1.02	0.89
Desha	10S02W26CCC2	334750.23	911623.99	148.00	3/24/2009	77.24	70.76	74.70	75.80	77.12	-3.94	-5.04	-6.36
Desha	10S04W11CBC1	335034.41	912905.14	161.00	3/24/2009	107.07	53.93		58.90	63.91		-4.97	-9.98
Desha	11S02W03CCA1	334615.78	911711.03	139.00	3/24/2009	71.64	67.36	69.50		72.23	-2.14		-4.87
Desha	12S03W26CBB1	333748.60	912259.18	143.00	3/24/2009	102.01	40.99	41.30	47.00	61.37	-0.31	-6.01	-20.38
Desha	12S03W34DAD1	333643.44	912305.04	147.00	3/24/2009	84.63	62.37	63.45	72.00	50.03	-1.08	-9.63	12.34
								Wells/Declines:			6/5	6/5	7/5
								Average Change:			-1.38	-4.44	-4.62
Drew	11S04W02ACA2	334631.87	912826.56	153.00	3/23/2009	97.92	55.08	54.66	60.60	64.38	0.42	-5.52	-9.30
Drew	11S04W25CB2	334249.46	912706.96	148.00	3/23/2009	89.89	58.11	55.60	63.00	56.35	2.51	-4.89	1.76
Drew	11S06W11DBC1	334606.63	914122.37	203.00	3/23/2009	152.49	50.51			60.23			-9.72
Drew	12S06W30BBD1	333807.15	914543.08	271.00	3/23/2009	227.93	43.07	31.90	56.00	49.16	11.17	-12.93	-6.09
Drew	12S06W32DAD1	333649.09	914401.96	215.00	3/23/2009	161.09	53.91	43.28	52.00	59.62	10.63	1.91	-5.71
Drew	13S05W36ACB1	333150.88	913407.59	169.00	3/20/2009	92.09	76.91		78.90	83.65		-1.99	-6.74
Drew	15S04W12DDA1	332429.38	912723.69	125.00	3/23/2009	63.48	61.52	61.10	62.60	66.79	0.42	-1.08	-5.27
								Wells/Declines:			5/0	6/5	7/6
								Average Change:			5.03	-4.08	-5.87
Grant	03S13W12AAA1	342845.65	922106.24	361.00	3/25/2009	134.47	226.53	228.60		231.70	-2.07		-5.17
Grant	03S15W26DAA1	342600.52	923447.01	337.00	3/25/2009	11.98	325.02	332.50		332.41	-7.48		-7.39

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County	Station	Latitude	Longitude	LSA	Date Measured	09 Meas.	WL Alt.09	WL Alt.08	WL Alt.04	WL Alt.99	08-09 Change	04-09 Change	99-09 Change
Grant	05S13W03CAA1	341843.97	922400.47	260.00	3/25/2009	90.07	169.93	174.30			-4.37		
Grant	05S13W03CDA4	341837.64	922401.95	281.00	3/25/2009	116.39	164.61	174.45		166.87	-9.84		-2.26
Grant	05S13W07ADB1	341810	922649.75	270.00	3/25/2009	79.53	190.47	167.10		199.68	23.37		-9.21
Grant	05S13W30AAA1	341550.1	341550.1	330.00	3/25/2009	129.76	200.24			198.64			1.60
Grant	05S14W06DCC1	341842.5	923326.69	293.00	3/25/2009	89.57	203.43	209.10		202.94	-5.67		0.49
Grant	05S15W05ABD1	341923.78	923826.87	236.00	3/25/2009	16.41	219.59	225.00		218.86	-5.41		0.73
Grant	06S11W05ACD1	341340.82	921413.01	269.00	3/25/2009	217.63	51.37	74.00			-22.63		
Grant	06S15W26ACA1	341021.99	923537.59	280.00	3/25/2009	75.47	204.53	215.30		212.64	-10.77		-8.11
Grant	07S12W21BDB1	340558.11	921952.7	223.00	3/25/2009	2.37	220.63	219.86		219.70	0.77		0.93
								Wells/Declines:			**10/8**		**9/5**
								Average Change:			**-4.41**		**-3.15**
Hot Spring	05S16W35ACA1	341459.51	924151.12	342.00	3/9/2009	35.47	306.53	309.10	305.80	304.68	-2.57	0.73	1.85
								Wells/Declines:			**1/1**	**1/0**	**1/0**
								Average Change:			**-2.57**	**0.73**	**1.85**
Jefferson	03S08W19BAD1	342623.76	915443.67	217.00	3/27/2009	176.38	40.62	46.50	47.70	48.16	-5.88	-7.08	-7.54
Jefferson	03S08W19BBD1	342628.36	915504.54	215.00	3/27/2009	183.26	31.74	42.60	45.70	55.55	-10.86	-13.96	-23.81
Jefferson	03S08W19BDB1	342618.71	915455.22	215.00	3/31/2009	179.38	35.62		48.40	52.76		-12.78	-17.14
Jefferson	03S09W23BBD1	342626.95	915712.96	224.00	3/31/2009	188.64	35.36	52.70	52.90	61.69	-17.34	-17.54	-26.33
Jefferson	03S10W14CAD1	342659.22	920330.26	221.00	3/31/2009	121.01	99.99		100.50	105.26		-0.51	-5.27
Jefferson	03S10W27AAD1	342502.05	920433.81	222.00	3/31/2009	139.14	82.86	118.22	99.40	99.10	-35.36	-16.54	-16.24
Jefferson	03S11W22ABC1	342650.81	921058.27	310.00	3/30/2009	178.17	131.83	139.10	134.60	144.05	-7.27	-2.77	-12.22
Jefferson	04S07W17BCC1	342139.61	914741.85	200.00	3/30/2009	185.22	14.78		28.45	28.78		-13.67	-14.00
Jefferson	04S08W35BBD1	341909.06	915056.13	200.00	3/27/2009	218.37	-18.37			-1.65			-16.72
Jefferson	04S10W17BDA1	342212.14	920645.6	265.00	3/26/2009	206.43	58.57		57.65	77.75		0.92	-19.18
Jefferson	04S10W29ADB1	341814	920512	267.55	3/26/2009	212.06	55.49	56.55	51.05	50.52	-1.06	4.44	4.97
Jefferson	04S11W14BAD1	342219.74	921000.07	400.00	3/30/2009	316.03	83.97	92.01	90.80	96.06	-8.04	-6.83	-12.09
Jefferson	05S08W30ADB1	341452.32	915440.2	221.00	4/29/2009	296.14	-75.14	-75.00	-78.65	-43.65	-0.14	3.51	-31.49
Jefferson	05S09W31DDC1	341336.69	920109.42	227.00	3/26/2009	275.32	-48.32	-54.80	-50.85	-36.60	6.48	2.53	-11.72
Jefferson	05S09W35AAB1	341420.05	915653.1	205.00	3/26/2009	238.65	-33.65	-36.80		-69.50	3.15		35.85
Jefferson	05S10W11ACA1	341741.24	920321.58	235.00	3/26/2009	219.37	15.63		28.80	68.71		-13.17	-53.08
Jefferson	05S10W16BAD1	341700.48	920548.64	277.00	3/30/2009	247.89	29.11	43.00	31.80	38.49	-13.89	-2.69	-9.38
Jefferson	05S10W16DBB1	341634.59	920542.79	315.00	3/30/2009	313.03	1.97	51.15	20.25	30.70	-49.18	-18.28	-28.73
Jefferson	05S10W16DBD1	341634	920534	302.00	3/30/2009	312.89	-10.89		12.80	32.55		-23.69	-43.44
Jefferson	06S08W16CCC1	341143.07	915517.06	202.42	1/30/2009	254.80	-52.38	-55.38	-56.38	-45.78	3.00	4.00	-6.60
Jefferson	06S08W25ADC1	341024.86	915116.18	203.48	3/26/2009	223.88	-20.40	-24.72	-22.52	-13.82	4.32	2.12	-6.58
Jefferson	06S09W17CAD1	341158.70	920206.91	233.00	3/26/2009	259.15	-26.15		-53.40	-39.00		27.25	12.85

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County	Station	Latitude	Longitude	LSA	Date Measured	09 Meas.	WL Alt.09	WL Alt.08	WL Alt.04	WL Alt.99	08-09 Change	04-09 Change	99-09 Change
Jefferson	06S09W17CCA1	341151.82	920220.85	234.34	3/26/2009	263.82	-29.48			-29.58			0.10
Jefferson	06S10W23ACA2	341123.09	920503.93	235.00	3/30/2009	227.88	7.12	-6.50	10.10	12.35	13.62	-2.98	-5.23
Jefferson	06S10W23DBA1	341104.56	920506.17	252.00	3/30/2009	249.98	2.02		12.20	9.20		-10.18	-7.18
Jefferson	07S07W24BAB1	340632.68	914522.99	188.00	3/26/2009	172.56	15.44	19.25	24.60	33.82	-3.81	-9.16	-18.38
Jefferson	07S10W24CAC1	340548.70	920420.81	311.00	3/30/2009	266.27	44.73	13.50	22.70	18.28	31.23	22.03	26.45
									Wells/Declines:		17/11	24/16	27/22
									Average Change:		-5.35	-4.38	-11.56
Lafayette	16S23W12CAD1	332142.57	932608.59	322.00	3/10/2009	78.77	243.23	259.84		257.26	-16.61		-14.03
Lafayette	16S24W26AAC1	331950.2	933302.96	267.00	3/10/2009	58.26	208.74	210.90		214.73	-2.16		-5.99
Lafayette	17S23W19ACC1	331519.6	933127.61	291.00	3/10/2009	54.00	237.00			238.86			-1.86
Lafayette	16S23W29ACC1	330910.83	933039.27	255.00	3/10/2009	11.52	243.48	238.70		242.08	4.78		1.40
Lafayette	19S23W29BDB1	330351.94	933103.37	250.00	3/10/2009	42.29	207.71	209.43		210.45	-1.72		-2.74
Lafayette	19S25W13CAB1	330555.42	933922.02	255.00	3/10/2009	37.06	217.94			219.47			-1.53
Lafayette	20S23W05ADA1	330222.7	933026.3	242.00	3/10/2009	34.71	207.29						
Lafayette	20S23W05ADB1	330223.35	933036.08	242.00	3/10/2009	39.87	202.13	204.35		202.94	-2.22		-0.81
									Wells/Declines:		5/4	0/0	7/6
									Average Change:		-3.59		-3.65
Lee	01N04E09CDD1	344209.69	904119.07	208.00	4/8/2009	66.48	141.52	143.70		158.52	-2.18		-17.00
Lee	02N01E10CAD1	344743.36	905924.74	201.00	4/8/2009	58.14	142.86	147.00		151.41	-4.14		-8.55
Lee	03N03E28CDB1	345011	904749	207.00	4/8/2009	64.71	142.29	154.45		156.31	-12.16		-14.02
									Wells/Declines:		3/3	0/0	3/3
									Average Change:		-6.16		-13.19
Lincoln	07S07W30CDC1	340443.93	915042.86	208.00	3/24/2009	189.56	18.44		29.60	27.16		-11.16	-8.72
Lincoln	08S05W03BAA2	340309.54	913453.58	180.00	3/24/2009	154.59	25.41	31.53	38.80	43.73	-6.12	-13.39	-18.32
Lincoln	08S05W35ACC1	335906.6	913337.26	166.00	3/24/2009	153.44	12.56			41.34			-28.78
Lincoln	08S04W22AAA1	340104.86	912752.79	167.00	3/24/2009	116.68	50.32	49.28	46.90	90.03	1.04	3.42	-39.71
Lincoln	08S08W35DBB1	335858.35	915222.4	250.00	3/24/2009	221.80	28.20	14.46	42.80	51.72	13.74	-14.60	-23.52
Lincoln	08S06W35DCB1	335850.57	915217.37	270.00	3/24/2009	251.48	18.52		61.30	57.12		-42.78	-38.60
Lincoln	09S07W07DAD1	335633.89	915128.31	296.00	3/24/2009	283.36	12.64		35.40	26.53		-22.76	-9.89
									Wells/Declines:		3/1	6/5	7/7
									Average Change:		2.89	-16.88	-23.93
Lonoke	01N07W03BCC1	344425.34	914503.28	223.00	4/6/2009	131.94	91.06	91.10		102.04	-0.04		-10.98

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County	Station	Latitude	Longitude	LSA	Date Measured	09 Meas.	WL Alt.09	WL Alt.08	WL Alt.04	WL Alt.99	08-09 Change	04-09 Change	99-09 Change
Lonoke	01S08W02DBD1	343854.72	914959.73	210.00	4/6/2009	107.17	102.83	113.10		107.54	-10.27		-4.71
Lonoke	02N07W06ACD1	344939.05	914737.03	241.00	4/6/2009	126.74	112.26						
Lonoke	02N07W09AAA1	344906.42	914500.30	232.00	4/6/2009	100.58	131.42	130.60	132.40	132.60	0.82	-0.98	-1.18
Lonoke	02N07W22DBA1	344651.49	914425.68	227.00	4/6/2009	134.45	92.55	93.80	96.20	106.98	-1.25	-3.65	-14.43
Lonoke	02N07W24DAC1	344650.23	914209.37	231.00	4/6/2009	152.69	78.31						
Lonoke	02N07W32DDD1	344448	914618	226.00	4/6/2009	142.30	83.70	91.15	88.10	104.78	-7.45	-4.40	-21.08
Lonoke	02S07W08DCC1	343235.49	914700.29	202.00	4/7/2009	145.17	56.83		64.80	70.91		-7.97	-14.08
Lonoke	02S08W16BDA1	343227	915222	216.00	4/7/2009	124.98	91.02	85.50		89.71	5.52		1.31
Lonoke	02S09W15BBB2	343246.5	915825.0	226.00	4/7/2009	80.81	145.19	149.50	155.00	158.10	-4.31	-9.81	-12.91
Lonoke	03N07W03CAA1	345444.90	914426.30	235.00	4/6/2009	80.55	154.45	154.55	157.05	161.16	-0.10	-2.60	-6.71
Lonoke	03N07W23CCC1	345145	914347	228.00	4/6/2009	91.26	136.74	141.80			-5.06		
Lonoke	03N08W11ACD1	345402.52	914934.74	248.00	1/21/2009	95.58	152.42	152.69		166.36	-0.27		-13.94
Lonoke	03N08W22DAD1	345205.16	345205.16	233.00	1/20/2009	101.24	131.76	133.23	145.42		-1.47	-13.66	
Lonoke	03N08W22DAD2	345204.58	915023.87	233.00	4/30/2009	96.77	136.23	131.90	138.00		4.33	-1.77	
Lonoke	03N08W22DDD2	345152.18	915025.08	235.00	4/30/2009	100.12	134.88	137.10	138.88		-2.22	-4.00	
								Wells/Declines:			**13/10**	**9/9**	**10/9**
								Average Change:			**-1.67**	**-5.43**	**-9.87**
Mississippi	11N09E26AAD3	353302.32	900523.06	240.00	4/13/2009	26.60	213.40						
Mississippi	11N09E26ABA2	353304.1	900539	236.00	4/13/2009	27.11	208.89						
								Wells/Declines:			**0/0**	**0/0**	**0/0**
								Average Change:					
Monroe	01N03W14CCB1	344143.93	911801.12	172.00	4/7/2009	77.28	94.72	101.40	103.60	102.52	-6.68	-8.88	-7.80
Monroe	03N01W33CDD1	345446.34	910635.08	210.00	4/7/2009	74.82	135.18	139.20	141.50	147.64	-4.02	-6.32	-12.46
Monroe	03N02W26DAB1	345043	911026	192.00	4/7/2009	50.58	141.42	142.30	143.50	147.61	-0.88	-2.08	-6.19
Monroe	04N02W26DDD4	345535	911221	192.00	4/7/2009	35.64	156.36	162.35	160.50	163.78	-5.99	-4.14	-7.42
Monroe	04N02W30BAC1	345617.03	911503.95	182.00	4/7/2009	14.78	167.22	170.10	173.00	162.16	-2.88	-5.78	5.06
Monroe	04N02W30BAD1	345617.24	911514.62	176.00	4/7/2009	18.74	157.26	161.15		153.01	-3.89		4.25
								Wells/Declines:			**6/6**	**5/5**	**6/4**
								Average Change:			**-4.06**	**-5.44**	**-4.09**
Nevada	14S21W04CCB1	333251	931708	360.00	3/10/2009	58.28	301.72	300.02	301.20	301.11	1.70	0.52	0.61
								Wells/Declines:			**1/0**	**1/0**	**1/0**
								Average Change:			**1.70**	**0.52**	**0.61**

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County	Station	Latitude	Longitude	LSA	Date Measured	09 Meas.	WL Alt.09	WL Alt.08	WL Alt.04	WL Alt.99	08-09 Change	04-09 Change	99-09 Change
Ouachita	11S15W27ABD1	334440.87	923725.58	200.00	3/16/2009	70.76	129.24	129.30	129.70	127.04	-0.06	-0.46	2.20
Ouachita	11S17W14CAC1	334631.35	924927.46	146.00	3/12/2009	21.58	124.42	124.70		127.05	-0.28		-2.63
Ouachita	11S17W36CCA1	334341.11	924834.21	133.00	3/12/2009	10.64	122.36	124.36		125.67	-2.00		-3.31
Ouachita	12S15W09BBA1	334223.32	923922.44	213.00	3/16/2009	58.57	154.43	154.50	139.65	142.62	-0.07	14.78	11.81
Ouachita	12S16W25BDC1	333929.4	924210.82	140.00	3/13/2009	34.48	105.52		105.50			0.02	
Ouachita	12S16W26ABD1	333945.55	924304.12	137.00	3/13/2009	35.57	101.43		92.85			8.58	
Ouachita	12S18W19CDC1	334018	925948	235.00	3/12/2009	23.42	211.58	208.10	219.20	195.33	3.48	-7.62	16.25
Ouachita	12S18W25CAB1	333937.19	925441.87	187.00	3/17/2009	80.41	106.59		109.20			-2.61	
Ouachita	12S19W09BAB1	334251.46	930351.94	290.00	3/12/2009	10.88	279.12	276.60	274.80	273.13	2.52	4.32	5.99
Ouachita	12S19W14AAA1	334143.44	930104.54	237.00	3/12/2009	8.53	228.47	230.20	231.60		-1.73	-3.13	
Ouachita	12S19W35BDD1	333901.13	930145.97	350.00	3/12/2009	157.61	192.39	191.31	190.25	191.50	1.08	2.14	0.89
Ouachita	13S16W28ADD1	333416.22	924450.63	106.00	3/16/2009	34.19	71.81	80.85		71.69	-9.04		0.12
Ouachita	13S18W31BDD1	333340	925956	242.00	3/12/2009	72.04	169.96	172.00	170.30	172.57	-2.04	-0.34	-2.61
Ouachita	13S19W28BCD1	333433.86	930417.81	230.00	3/12/2009	39.32	190.68	190.40	192.60	193.60	0.28	-1.92	-2.92
Ouachita	14S16W32BDB1	332815.62	924639.52	231.00	3/17/2009	24.31	206.69	204.20	205.00		2.49	1.69	
Ouachita	14S17W02ABB1	333252	924926	131.00	3/12/2009	17.80	113.20			52.87			60.33
Ouachita	14S17W05CAD1	333238.01	925254.64	157.00	3/12/2009	37.40	119.60	121.28	119.90	119.76	-1.68	-0.30	-0.16
Ouachita	14S17W19DBB1	333002.20	925345.44	259.00	3/17/2009	12.71	246.29	248.30	248.70		-2.01	-2.41	
Ouachita	14S17W32CAD1	332803.41	925251.18	220.00	3/17/2009	79.50	140.50	140.00	138.00	134.52	0.50	2.50	5.98
Ouachita	14S18W27BDC1	332917.60	925703.97	309.00	3/17/2009	43.82	265.18	260.80	266.10		4.38	-0.92	
Ouachita	14S19W29ABB1	332941.45	930513.43	280.00	3/12/2009	89.04	190.96	191.30	193.30	194.04	-0.34	-2.34	-3.08
Ouachita	15S15W32DBB2	332233.72	924027.13	119.00	3/17/2009	170.03	-51.03	-57.50	-56.00	-56.32	6.47	4.97	5.29
Ouachita	15S16W23DAC1	332416.77	924314.16	170.00	3/13/2009	127.23	42.77	38.40		45.26	4.37		-2.49
Ouachita	15S18W36ADD1	332310.75	925436.06	160.00	3/17/2009	95.24	64.76	66.40	64.90	64.85	-1.64	-0.14	-0.09
Ouachita	15S19W10DCC1	332618.38	930318.37	210.00	3/12/2009	70.92	139.08	139.20	140.00	143.12	-0.12	-0.92	-4.04
Ouachita	15S19W21CDD2	332438.02	930431.9	272.00	3/12/2009	199.76	72.24			82.96			-10.72
								Wells/Declines:			**21/12**	**20/12**	**19/10**
								Average Change:			**0.22**	**0.79**	**4.04**
Phillips	01S02E32DDC1	343324.32	905455.41	211.00	4/7/2009	86.43	124.57	131.00	135.30	130.97	-6.43	-10.73	-6.40
Phillips	02S02E01ADC1	343323.48	905056.27	176.00	4/7/2009	36.47	139.53	139.80	140.50	137.57	-0.27	-0.97	1.96
Phillips	02S04E02DBA1	343242.87	903906.98	250.00	4/7/2009	125.68	124.32	157.70	146.70	149.80	-33.38	-22.38	-25.48
Phillips	02S05E16BCB1	343106.32	903525.64	190.00	4/7/2009	37.59	152.41	162.10	155.90	147.27	-9.69	-3.49	5.14
Phillips	02S05E29CCC1	342850.81	903635.44	179.00	4/7/2009	32.29	146.71	158.45	154.30	157.92	-11.74	-7.59	-11.21
Phillips	03S03E30DAA1	342402.88	904914.59	172.00	4/7/2009	37.23	134.77	129.60	129.10	128.75	5.17	5.67	6.02
Phillips	04S02E25CCC1	341824.20	905121.49	166.00	4/7/2009	40.59	125.41	130.60	128.90	130.98	-5.19	-3.49	-5.57
								Wells/Declines:			**7/6**	**7/6**	**7/4**
								Average Change:			**-8.79**	**-6.14**	**-5.08**

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County	Station	Latitude	Longitude	LSA	Date Measured	09 Meas.	WL Alt.09	WL Alt.08	WL Alt.04	WL Alt.99	08-09 Change	04-09 Change	99-09 Change
Poinsett	10N01E12BDC1	353026.35	905629.57	234.00	4/9/2009	102.92	131.08	131.25	131.00	132.56	-0.17	0.08	-1.48
Poinsett	10N01E15DBB1	352930.54	905825.14	232.00	4/9/2009	99.23	132.77	136.30	142.80	149.43	-3.53	-10.03	-16.66
Poinsett	10N01E33ABA1	352724.90	905924.05	221.00	4/9/2009	80.38	140.62	140.81	144.90	152.45	-0.19	-4.28	-11.83
Poinsett	10N01E34BAA1	352724	905846	231.00	1/8/2009	102.80	128.20	137.70	148.70		-9.50	-20.50	
Poinsett	10N03E02BCD1	353139.29	904446.6	251.00	4/9/2009	112.85	138.15	133.20			4.95		
Poinsett	10N03E23CAC1	352844	904433	258.00	4/9/2009	114.59	143.41						
Poinsett	11N02E16CCC1	353448.21	905321.22	243.00	4/9/2009	111.48	131.52	132.20	138.10		-0.68	-6.58	
Poinsett	11N03E25BDD1	353324.54	904323.28	269.00	4/9/2009	122.55	146.45	144.30		142.19	2.15		4.26
Poinsett	12N03E12BBB1	354137.44	904340.09	246.00	4/9/2009	114.38	131.62	137.60		158.01	-5.98		-26.39
Poinsett	12N03E35BCC1	353744.78	904455.7	244.00	4/9/2009	102.65	141.35	141.70	146.90	153.00	-0.35	-5.55	-11.65
Poinsett	12N03E35DDA1	353727.35	904353.06	247.00	4/9/2009	104.84	142.16	142.30	145.80		-0.14	-3.64	
								Wells/Declines:			**10/8**	**7/6**	**6/5**
								Average Change:			**-1.34**	**-7.21**	**-10.63**
Prairie	01N05W19CDC1	344113.1	913505.27	212.00	4/2/2009	141.08	70.92	66.60		66.37	4.32		4.55
Prairie	01N06W02ABB1	344442.4	913700.96	221.00	4/2/2009	117.17	103.83	103.45	95.40	109.18	0.38	8.43	-5.35
Prairie	01N06W34CBB1	343943.01	913846.17	226.00	4/2/2009	159.78	66.22	64.55	53.60	72.93	1.67	12.62	-6.71
Prairie	01S05W06BCB1	343903.98	913531.63	220.00	4/2/2009	154.53	65.47	61.80		67.53	3.67		-2.06
Prairie	01S05W20ABB1	343639.91	913351.89	220.00	4/2/2009	152.27	67.73	57.30	51.50	63.85	10.43	16.23	3.88
Prairie	01S06W11DBD1	343748.99	913654.24	226.00	4/2/2009	161.40	64.60	56.90	52.40	63.84	7.70	12.20	0.76
Prairie	02N04W19ACB1	344649.11	912801.56	211.00	4/3/2009	58.54	152.46						
Prairie	02N06W04DBB1	344928	913852	235.00	4/3/2009	101.96	133.04			132.61			0.43
Prairie	02N06W19AAB1	344718.24	914049.95	236.00	4/3/2009	145.46	90.54	84.93	90.43	91.30	5.61	0.11	-0.76
Prairie	02N06W20BCB1	344706.57	914032.97	236.00	4/3/2009	141.86	94.14	80.60	82.00	106.24	13.54	12.14	-12.10
Prairie	02N06W21DAD1	344644.15	913829.47	232.00	4/3/2009	121.35	110.65	109.65	100.80	115.14	1.00	9.85	-4.49
Prairie	02N06W22BDD1	344653.66	913800.68	233.00	4/2/2009	128.97	104.03	112.20	108.70	98.82	-8.17	-4.67	5.21
Prairie	03N05W03ADA2	345451.65	913042.51	205.00	4/2/2009	58.99	146.01	143.55	137.80		2.46	8.21	
Prairie	03N05W20CCC1	345144.72	913356.35	213.00	4/2/2009	73.59	139.41	137.70		145.90	1.71		-6.49
Prairie	03N06W20CDD1	345140.24	914003.93	225.00	4/2/2009	86.99	138.01	138.88	140.40	141.32	-0.87	-2.39	-3.31
								Wells/Declines:			**13/2**	**10/2**	**14/8**
								Average Change:			**3.34**	**7.27**	**-2.03**
St. Francis	04N04E18BAB1	345743.38	904319.00	220.00	4/8/2009	67.91	152.09	151.35	153.50	155.47	0.74	-1.41	-3.38
								Wells/Declines:			**1/0**	**1/1**	**1/1**
								Average Change:			**0.74**	**-1.41**	**-3.38**

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WL Change

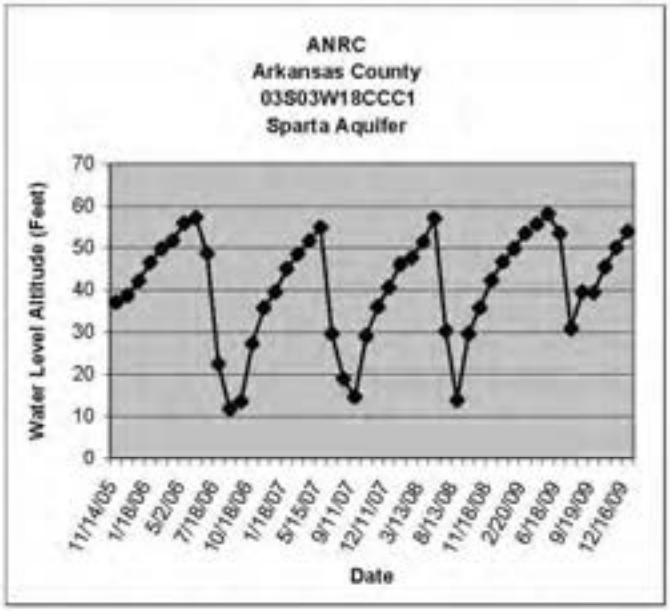
County	Station	Latitude	Longitude	LSA	Date Measured	09 Meas.	WL Alt.09	WL Alt.08	WL Alt.04	WL Alt.99	08-09 Change	04-09 Change	99-09 Change
Union	16S14W15CAB1	331944.03	923218.09	94.00	3/17/2009	152.73	-58.73	-63.95	-65.90	-69.83	5.22	7.17	11.10
Union	16S15W20DAA1	331859.92	923957.97	190.00	3/19/2009	252.98	-62.98	-103.90	-83.30	-89.92	40.92	20.32	26.94
Union	16S15W31ACC1	331717.09	924128.90	168.00	3/18/2009	259.78	-91.78	-96.15	-132.10	-149.57	4.37	40.32	57.79
Union	16S16W02ABC1	332205	924330	116.00	1/27/2009	158.63	-42.63	-44.58	-54.44	-64.92	1.95	11.81	22.29
Union	16S16W03CBB1	332138	924507	200.00	3/18/2009	216.50	-16.50	-19.15	-27.40	-28.30	2.65	10.90	11.80
Union	16S18W34ABC2	331805	925709	251.00	3/17/2009	211.24	39.76	21.99	40.95	48.36	17.77	-1.19	-8.60
Union	17S12W31DDD1	331206.4	922225.88	220.00	3/18/2009	231.99	-11.99			-13.06			1.07
Union	17S12W32BBC1	331202.09	922219.02	231.00	3/17/2009	246.34	-15.34	-15.18	-8.00	-16.75	-0.16	-7.34	1.41
Union	17S13W31BAC1	331200.17	922915.7	216.00	3/17/2009	308.27	-92.27		-75.02	-78.06		-17.25	-14.21
Union	17S14W10DCC1	331456.79	923203.26	182.00	3/19/2009	99.27	82.73	85.50	86.66	88.36	-2.77	-3.93	-5.63
Union	17S14W15ABA1	331451.3	923159.8	169.00	3/19/2009	97.91	71.09	82.40	79.60		-11.31	-8.51	
Union	17S15W06BAA1	331645.6	924133.99	170.00	3/18/2009	231.03	-61.03	-64.50	-87.15	-92.94	3.47	26.12	31.91
Union	17S15W08CDD1	331504.77	924027.41	174.92	3/18/2009	279.20	-104.28	-111.66	-158.73	-179.98	7.38	54.45	75.70
Union	17S15W18DBB1	331438.96	924129.21	182.93	1/29/2009	295.76	-112.83	-109.48	-163.55	-178.17	-3.35	50.72	65.34
Union	17S15W28DBA1	331246.08	923909.78	230.00	1/29/2009	334.12	-104.12	-110.27	-157.40	-197.22	6.15	53.28	93.10
Union	17S15W28DCC1	331223	923922	285.00	3/19/2009	426.09	-141.09		-167.40			26.31	
Union	17S15W29CDC1	331228.71	924039.39	220.00	3/19/2009	349.58	-129.58		-167.20	-206.78		37.62	77.20
Union	17S15W31DCA1	331145.05	924116.74	272.00	3/18/2009	380.73	-108.73	-116.40	-162.15	-204.53	7.67	53.42	95.80
Union	17S15W31DDA1	331143.75	924104.87	261.00	1/29/2009	375.12	-114.12	-111.30	-161.80	-206.12	-2.82	47.68	92.00
Union	17S16W01BAA1	331649.04	924232.96	188.84	3/18/2009	268.10	-79.26	-81.95	-123.66	-144.87	2.69	44.40	65.61
Union	17S16W02CCC1	331559.23	924403.41	182.00	3/19/2009	314.27	-132.27			-164.50			32.23
Union	17S16W02DCD1	331602.12	924325.72	222.00	3/19/2009	373.13	-151.13			-172.55			21.42
Union	17S16W12CDD1	331505.81	924232.01	221.58	3/19/2009	378.42	-156.84			-197.47			40.63
Union	17S16W24BDB1	331357.24	924248.47	205.00	3/19/2009	333.81	-128.81	-119.44	-169.50	-214.26	-9.37	60.69	85.45
Union	17S17W25DBA2	331256	924837	250.00	1/28/2009	328.58	-78.58	-81.45			2.87		
Union	17S17W30DCD1	331257.41	925355.54	280.00	3/17/2009	325.07	-45.07	-17.65		-30.85	-27.42		-14.22
Union	18S11W09ABC1	331011.92	921443.35	135.00	3/19/2009	96.01	38.99		37.50	42.38		1.49	-3.39
Union	18S12W33BBB1	330650.66	922119.92	112.00	3/19/2009	136.20	-24.20	-30.74	-27.20	-24.04	6.54	3.00	-0.16
Union	18S14W06CCD1	331040	923531	232.00	3/18/2009	339.28	-107.28	-136.19		-139.62	28.91		32.34
Union	18S15W03DAB1	331103.78	923802.12	240.00	1/29/2009	336.01	-96.01	-102.03			6.02		
Union	18S15W07BAC2	331035	924139	253.00	3/19/2009	346.79	-93.79						
Union	18S15W33ADA1	330659.32	923858.48	253.00	3/18/2009	347.84	-94.84	-115.28	-123.64	-136.27	20.44	28.80	41.43
Union	18S15W35DAC1	330635	923707	201.00	3/18/2009	275.84	-74.84			-110.31			35.47
Union	18S16W11DAC1	331011.23	924316.37	272.00	3/18/2009	401.94	-129.94	-105.90		-220.23	-24.04		90.29
Union	18S16W10CDD1	331000.38	924445.32	182.00	3/18/2009	308.87	-126.87	-138.40		-156.67	11.53		29.80
Union	18S16W12ACB1	331028.75	924231.85	302.00	3/18/2009	391.21	-89.21	-100.64	-154.70	-181.58	11.43	65.49	92.37
Union	18S16W28BBB1	330809.22	924611.13	225.00	3/18/2009	329.26	-104.26	-76.20	-101.10	-126.13	-28.06	-3.16	21.87
Union	18S17W22BDD1	330855.91	925056.48	285.00	12/28/2009	331.58	-46.58	-53.25	-71.80	-112.38	6.67	25.22	65.80
Union	18S18W11ACD2	331050.91	925615.1	239.00	3/19/2009	261.67	-22.67	-45.28	-45.55		22.61	22.88	
Union	19S10W16CBC1	330329	920903	82.00	3/19/2009	89.87	-7.87	-6.70		-2.22	-1.17		-5.65

Sparta/Memphis Aquifer
09-08-04-99
WL Change

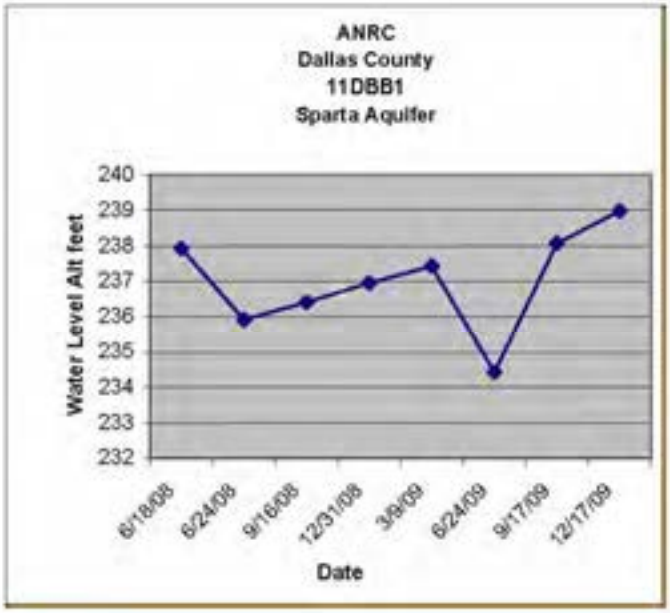
County	Station	Latitude	Longitude	LSA	Date Measured	09 Meas.	WL Alt.09	WL Alt.08	WL Alt.04	WL Alt.99	08-09 Change	04-09 Change	99-09 Change
Union	19S11W23ACA1	330255.38	921228.80	142.00	3/19/2009	152.67	-10.67	-1.62	-10.42	-3.62	-9.05	-0.25	-7.05
Union	19S11W25AAA1	330217.84	921113.03	135.00	3/19/2009	151.75	-16.75	-14.08	-14.50	-17.60	-2.67	-2.25	0.85
Union	19S12W13AAA1	330411.26	921716.78	191.00	3/19/2009	159.05	31.95	31.45	31.24	27.93	0.50	0.71	4.02
Union	19S15W01CCA1	330534.81	923645.01	192.00	3/19/2009	68.93	123.07	118.25	120.16	124.89	4.82	2.91	-1.82
Union	19S16W35DDC1	330106.86	924325.54	175.00	3/18/2009	219.84	-44.84	-60.94	-65.25	-63.31	16.10	20.41	18.47
Union	19S18W14ADA1	330451.70	925607.90	243.00	3/18/2009	192.15	50.85	60.78	51.30	61.01	-9.93	-0.45	-10.16
								Wells/Declines:			**36/13**	**33/9**	**40/10**
								Average Change:			**2.96**	**20.36**	**31.77**
Woodruff	05N01W11ABA1	350425.81	910407.19	211.00	4/13/2009	60.83	150.17	150.50	152.60		-0.33	-2.43	
Woodruff	05N01W17DBB1	350310.68	910727.11	210.00	4/13/2009	47.46	162.54	162.45	164.05	167.73	0.09	-1.51	-5.19
Woodruff	05N02W31DCB3	350026.9	911455.9	193.00	4/13/2009	19.38	173.62	180.00	179.70	177.70	-6.38	-6.08	-4.08
Woodruff	06N01W13ABA1	350851	910255	212.00	4/13/2009	69.97	142.03	141.30	139.80	149.88	0.73	2.23	-7.85
Woodruff	06N01W13ADC1	350827.39	910246.74	212.00	4/13/2009	67.21	144.79	145.20		147.84	-0.41		-3.05
Woodruff	07N01W12BCB1	351441.58	910326.17	222.00	4/13/2009	69.36	152.64	154.10	157.40	164.26	-1.46	-4.76	-11.62
Woodruff	08N01W12CDA1	351932	910310	225.00	4/13/2009	76.47	148.53	152.50		161.00	-3.97		-12.47
								Wells/Declines:			**7/5**	**5/4**	**6/6**
								Average Change:			**-1.68**	**-2.51**	**-7.38**
							Total Well/Declines:				**279/146**	**248/145**	**277/167**
							Total Average Change:				**-0.08**	**-2.14**	**-2.80**

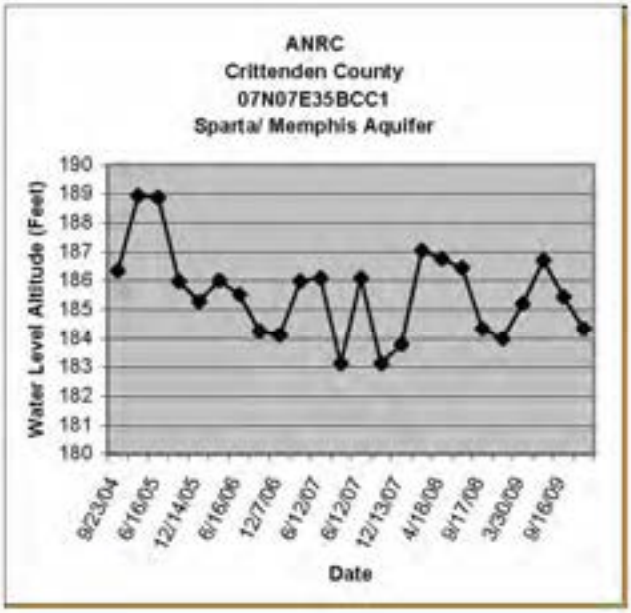
Appendix D

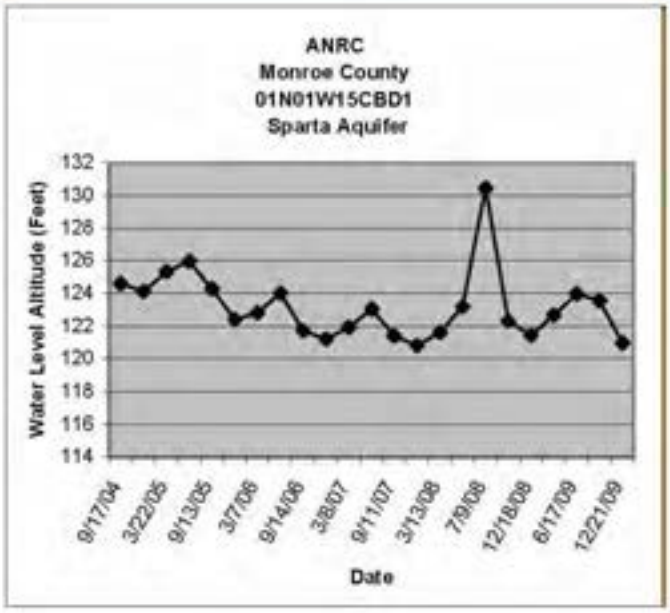
Selected Sparta / Memphis Aquifer Well Hydrographs

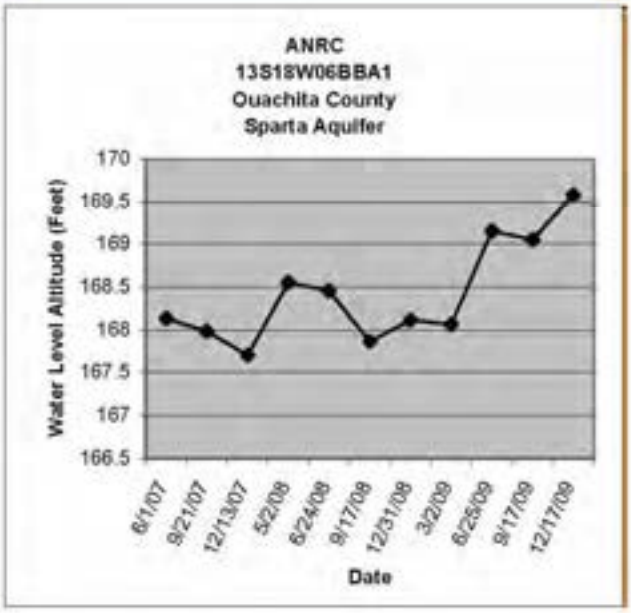

ANRC
Arkansas County
03S03W18CCC1
Sparta Aquifer
Water Level Altitude (Feet)
70
60
50
40
30
20
10
0
11/14/05
1/18/06
5/2/06
7/18/06
10/18/06
1/18/07
5/15/07
9/11/07
12/11/07
3/13/08
6/13/08
11/18/08
2/20/09
6/18/09
9/19/09
12/16/09
Date

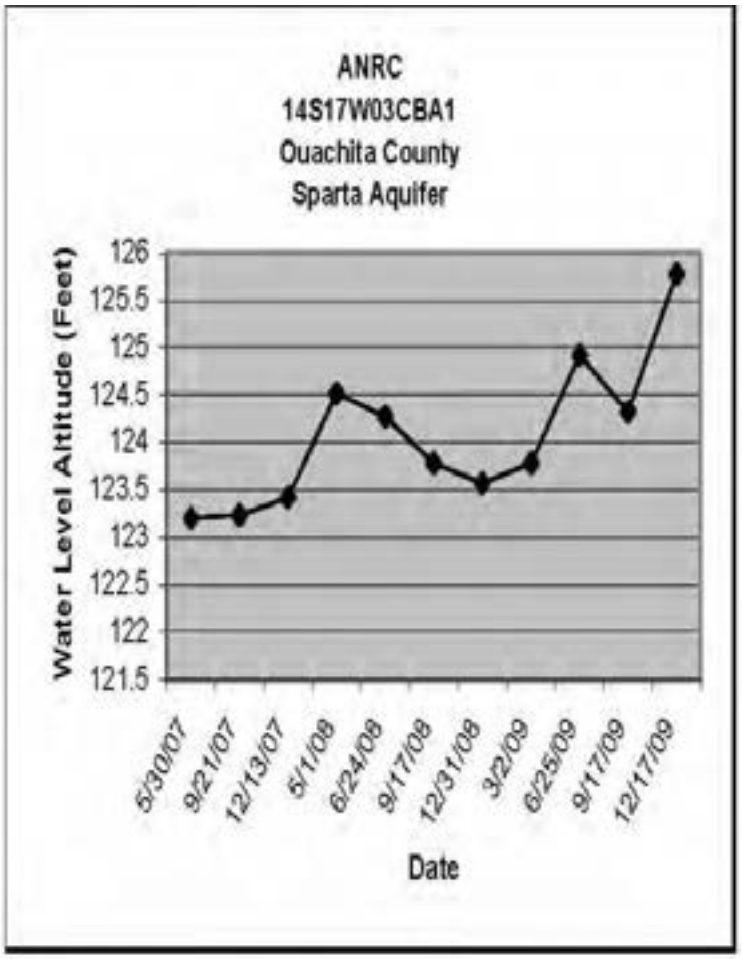

ANRC
Dallas county
33DA
Sparta Aquifer
Water Level Alt feet
460
455
450
445
440
435
430
425
420
415
6/18/08
6/24/08
8/21/08
9/16/08
12/31/08
3/9/09
6/24/09
9/17/09
12/17/09
Date

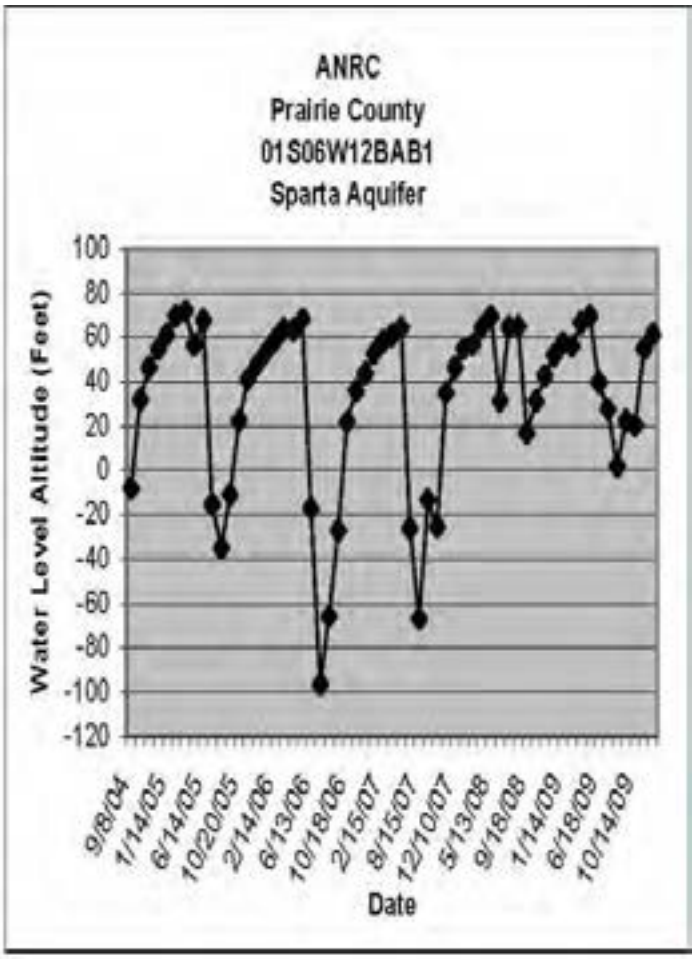

ANRC
Dallas County
11DBB1
Sparta Aquifer
Water Level Alt feet
240
239
238
237
236
235
234
233
232
6/18/08
6/24/08
9/16/08
12/31/08
3/9/09
6/24/09
9/17/09
12/17/09
Date

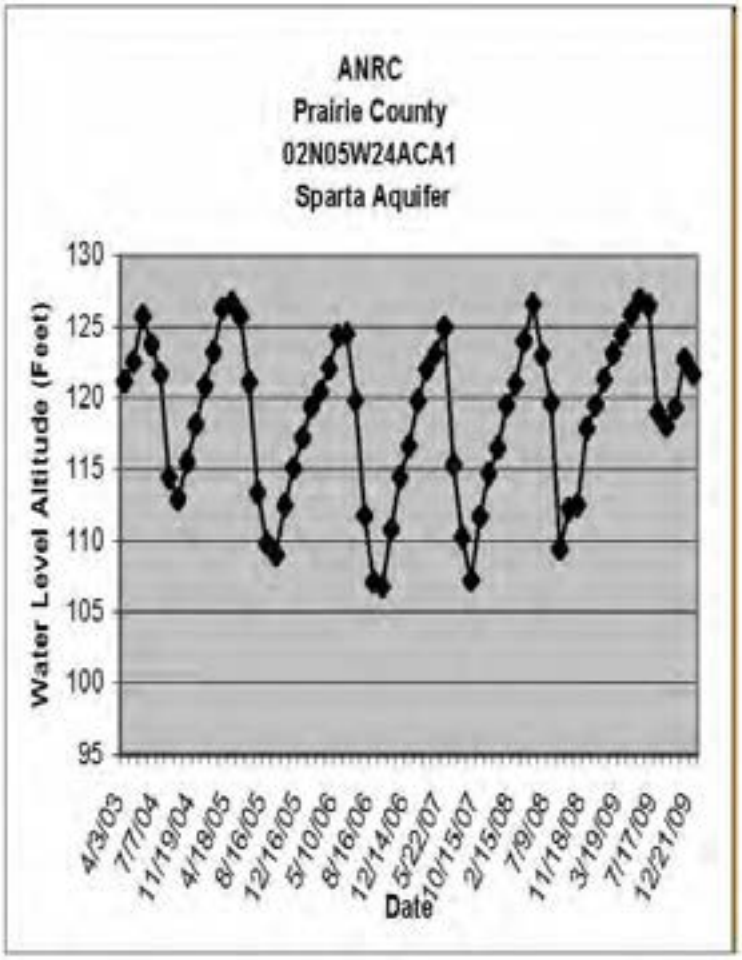

ANRC
Crittenden County
07N07E35BCC1
Sparta/ Memphis Aquifer
Water Level Altitude (Feet)
190
189
188
187
186
185
184
183
182
181
180
9/23/04
6/16/05
12/14/05
6/16/06
12/7/06
6/12/07
6/12/07
12/13/07
4/16/08
9/17/08
3/30/09
9/16/09
Date

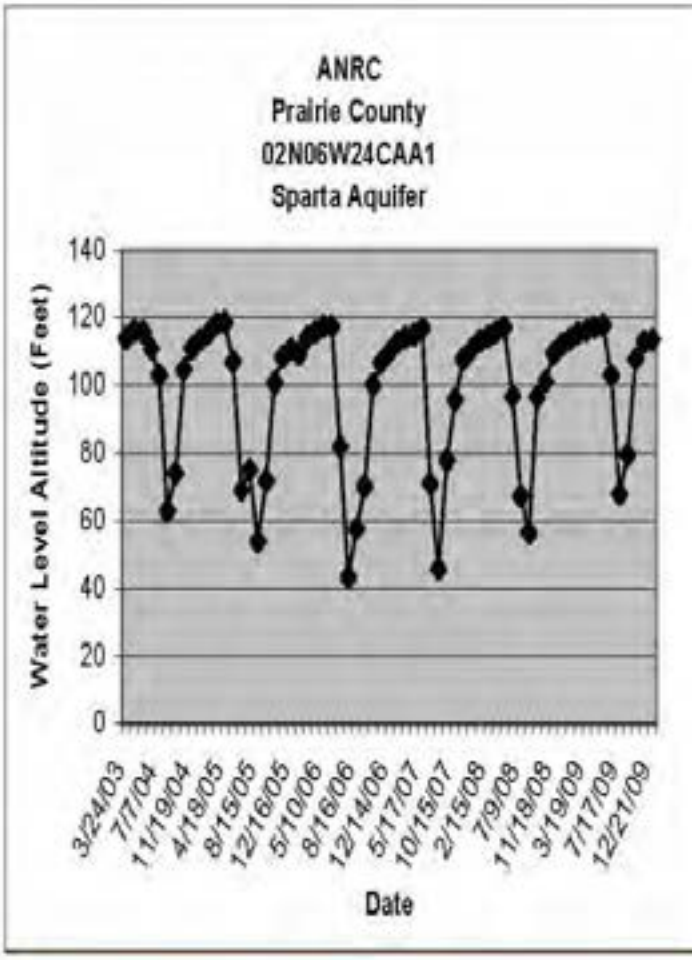

ANRC
Monroe County
01N01W15CBD1
Sparta Aquifer
Water Level Altitude (Feet)
132
130
128
126
124
122
120
118
116
114
9/17/04
3/22/05
9/13/05
3/7/06
9/14/06
3/8/07
9/11/07
3/13/08
7/9/08
12/18/08
6/17/09
12/21/09
Date


ANRC
13S18W06BBA1
Ouachita County
Sparta Aquifer
Water Level Altitude (Feet)
170
169.5
169
168.5
168
167.5
167
166.5
6/1/07
9/21/07
12/13/07
5/2/08
6/24/08
9/17/08
12/31/08
3/2/09
6/25/09
9/17/09
12/17/09
Date


ANRC
14S17W03CBA1
Ouachita County
Sparta Aquifer
Water Level Altitude (Feet)
126
125.5
125
124.5
124
123.5
123
122.5
122
121.5
5/30/07
9/21/07
12/13/07
5/1/08
6/24/08
9/17/08
12/31/08
3/2/09
6/25/09
9/17/09
12/17/09
Date


ANRC
Prairie County
01S06W12BAB1
Sparta Aquifer
Water Level Altitude (Feet)
100
80
60
40
20
0
-20
-40
-60
-80
-100
-120
9/8/04
1/14/05
6/14/05
10/20/05
2/14/06
6/13/06
10/18/06
2/15/07
8/15/07
12/10/07
5/13/08
9/16/08
1/14/09
6/18/09
10/14/09
Date


ANRC
Prairie County
02N05W24ACA1
Sparta Aquifer
Water Level Altitude (Feet)
130
125
120
115
110
105
100
95
4/3/03
7/7/04
11/19/04
4/18/05
8/16/05
12/16/05
5/10/06
8/16/06
12/14/06
5/22/07
10/15/07
2/15/08
7/9/08
11/18/08
3/19/09
7/17/09
12/21/09
Date


ANRC
Prairie County
02N06W24CAA1
Sparta Aquifer
Water Level Altitude (Feet)
140
120
100
80
60
40
20
0
3/24/03
7/7/04
11/19/04
4/18/05
8/15/05
12/16/05
5/10/06
8/16/06
12/14/06
5/17/07
10/15/07
2/15/08
7/9/08
11/18/08
3/19/09
7/17/09
12/21/09
Date

Appendix E

Cockfield Aquifer Water Level Data

Cockfield Aquifer
Water Level Change
2006-2009

County	Agency	Site id	Station ID	Latitude	Longitude	Alt LSD	Well Depth	Date Meas	09 WL Alt	09 WL Meas	06 WL Alt	06-09 Change
Arkansas	USGS	340138091140501	08S02W04ACA1	340138.52	911405.94	165	453	2/23/2009	72.08	92.92	73.38	-1.30
								Wells/Declines:				1/1
								Average Change:				-1.30
Ashley	USGS	332154091292801	15S04W26CBC1	332144.16	912932.04	128	409	2/20/2009	85.72	42.28	86.12	-0.40
Ashley	USGS	331416091302802	17S04W10BCD2	331417.16	913029.96	125	340	2/20/2009	86.50	38.50	86.82	-0.32
Ashley	USGS	331405091303201	17S04W10CBA1	331405.59	913032.52	125	360	2/20/2009	91.22	33.78	91.7	-0.48
Ashley	USGS	331442091451001	17S06W07ADA1	331441.73	914510.26	174	426	2/20/2009	99.25	74.75	101.15	-1.90
Ashley	USGS	330720091324601	18S04W19DAA2	330710.14	913247.2	116	356	2/20/2009	88.21	27.79	89.11	-0.90
Ashley	USGS	331037091562601	18S08W04BBC1	331037.97	915627.09	149	314	2/20/2009	67.94	81.06	68.7	-0.76
Ashley	USGS	330630091562902	18S08W29DDD2	330629.64	915629.28	140		2/20/2009	70.32	69.68	70.2	0.12
Ashley	USGS	330335091342601	19S05W12CAC1	330336.04	913424.8	115	320	2/20/2009	84.97	30.03	85.62	-0.65
								Wells/Declines:				8/7
								Average Change:				-0.66
Bradley	USGS	334103092075201	12S10W10BCA1	334107.62	920807.47	227	425	2/19/2009	102.21	124.79	102.85	-0.64
Bradley	USGS	333814092104401	12S10W30CAC1	333814.86	921046.17	240	58.2	2/19/2009	228.79	11.21	228.34	0.45
Bradley	USGS	333140092052501	14S10W01BAD1	333138.81	920521.74	231	540	2/19/2009	85.96	145.04	86.45	-0.49
Bradley	USGS	332658092102601	14S10W31DBA1	332657.77	921025.45	193	349	2/19/2009	96.22	96.78	96.53	-0.31
Bradley	USGS	332656092125101	14S11W35CAB1	332656.05	921250.79	190	320	2/19/2009	113.29	76.71	114.11	-0.82
Bradley	USGS	332650092123401	14S11W35DAC1	332649.91	921232.92	174	345	2/19/2009	109.22	64.78	108.32	0.90
Bradley	USGS	332536092185701	15S12W11CAB1	332536.2	921858.24	155	225	2/19/2009	131.43	23.57	131.06	0.37
Bradley	USGS	331949092061701	16S10W11DCB1	331950.8	920618.92	152	152	2/19/2009	107.41	44.59	106.49	0.92
Bradley	USGS	332026092122301	16S11W11ACA1	332027.06	921223.16	141	140	2/19/2009	111.00	30.00	111.64	-0.64
								Wells/Declines:				9/5
								Average Change:				-0.03
Calhoun	USGS	334558092253301	11S13W15BBC1	334559.5	922534.29	310	70	2/19/2009	256.60	53.40	256.82	-0.22
Calhoun	USGS	333556092264501	13S13W09CBD1	333555.01	922637.58	232	147	2/19/2009	194.08	37.92	193.97	0.11
Calhoun	USGS	333516092251701	13S13W15DBA1	333516.77	922519.52	232	122	2/19/2009	210.86	21.14	208.6	2.26
Calhoun	USGS	333045092245101	14S13W11CAC1	333045.41	922450.85	205	105	2/19/2009	176.88	28.12	176.45	0.43
Calhoun	USGS	332828092272101	14S13W29ADA1	332829.4	922721.84	160	81	2/19/2009	134.00	26.00	133.98	0.02
Calhoun	USGS	332811092272201	14S13W29DAC1	332814.95	922729.08	139		2/19/2009	125.54	13.46	124.76	0.78
Calhoun	USGS	332932092325001	14S14W21ACB1	332931.23	923249.3	132	160	2/19/2009	91.87	40.13	91.73	0.14
								Wells/Declines:				7/1
								Average Change:				0.50

Cockfield Aquifer
Water Level Change
2006-2009

County	Agency	Site id	Station ID	Latitude	Longitude	Alt LSD	Well Depth	Date Meas	09 WL Alt	09 WL Meas	06 WL Alt	06-09 Change
Chicot	USGS	333244091225901	13S03W26BBB1	333246.81	912301.06	139	422	2/20/2009	66.62	72.38	69.66	-3.04
Chicot	USGS	333104091260001	14S03W05BBA1	333106.11	912601.62	139	510	2/20/2009	62.26	76.74	63.31	-1.05
Chicot	USGS	332317091243601	15S03W21ABA1	332314.42	912437.93	122	400	2/20/2009	76.67	45.33	83.09	-6.42
Chicot	USGS	332030091185401	16S02W04BAC1	332027.37	911857.43	125	330	2/20/2009	78.61	46.39	86.93	-8.32
Chicot	USGS	330645091154901	18S02W24CDB1	330651.76	911546.75	129	364	2/20/2009	80.53	48.47	81.93	-1.40
Chicot	USGS	330640091154103	18S02W25ABB3	330640.4	911541.03	135	332	2/20/2009	87.58	47.42	88.73	-1.15
Chicot	USGS	330731091231801	18S03W14CCC1	330731.03	912319.49	98	320	2/20/2009	83.38	14.62	83.14	0.24
								Wells/Declines:				7/6
								Average Change:				-3.02
Cleveland	USGS	335854092244401	06S13W34BDA1	335901.6	922443.58	248	181	2/19/2009	163.86	84.14	160.98	2.88
Cleveland	USGS	335530092094001	09S10W17CDD1	335533.53	920941.65	270	361	2/19/2009	266.58	3.42	265.27	1.31
Cleveland	USGS	334449092125601	11S11W23BBD1	334449.24	921257.5	275	148	2/19/2009	233.84	41.16	232.97	0.87
								Wells/Declines:				3/0
								Average Change:				1.69
Columbia	USGS	331312093091401	17S20W35BBD1	331312.79	930914.27	361		2/18/2009	350.65	10.35	346.09	4.56
Columbia	USGS	330233093095801	19S20W34ADC1	330233.23	930958.13	313	39.8	2/18/2009	289.35	23.65	290.63	-1.28
Columbia	USGS	330520093185601	19S21W17CBB1	330519.87	931856.93	306	54.8	2/18/2009	259.94	46.06	261.88	-1.94
Columbia	USGS	330245093151001	19S21W35ADC1	330247.49	931512.71	256	30.1	2/18/2009	251.48	4.52	252.46	-0.98
Columbia	USGS	330246093203301	19S22W36DBB1	330244.94	932033.94	351	68.6	2/18/2009	307.30	43.70	309.85	-2.55
								Wells/Declines:				5/4
								Average Change:				-0.44
Desha	USGS	333624091124201	12S01W32DCA1	333627.61	911244.74	136	495	2/23/2009	64.73	71.27	66.13	-1.40
Desha	USGS	333830091263001	12S03W30ADC1	333747.19	912611.12	153	280	2/23/2009	80.16	72.84	80.01	0.15
Desha	USGS	333502091193201	13S02W06CAA1	333503.88	911920.57	147	515	2/23/2009	81.74	65.26	82.52	-0.78
								Wells/Declines:				3/2
								Average Change:				-0.68
Drew	USGS	334201091344901	11S05W35DDB1	334216.06	913438.36	180	500	2/23/2009	98.27	81.73	98.92	-0.65
Drew	USGS	333749091554201	12S08W33AAB1	333749.57	915550.67	173	543	2/23/2009	70.47	102.53	71.98	-1.51
Drew	USGS	332846091433801	14S06W21BDC1	332846.37	914338.98	216		2/23/2009	94.67	121.33	95.38	-0.71
Drew	USGS	332757091474701	14S07W26BAB1	332754.08	914744.45	230	440	2/23/2009	104.23	125.77	104.96	-0.73

Cockfield Aquifer
Water Level Change
2006-2009

County	Agency	Site id	Station ID	Latitude	Longitude	Alt LSD	Well Depth	Date Meas	09 WL Alt	09 WL Meas	06 WL Alt	06-09 Change
									Wells/Declines:			4/4
									Average Change:			-0.90
Lincoln	USGS	340715091392201	07S06W14BBC1	340709.18	914025.67	182	483	2/23/2009	159.18	22.82	159.78	-0.60
Lincoln	USGS	335203091391701	10S05W06CAC1	335203.84	913917.74	170	550	2/23/2009	42.68	127.32	43.7	-1.02
									Wells/Declines:			2/2
									Average Change:			-0.81
Union	USGS	331910092570701	16S18W22DCD1	331913.44	925703.65	247	36	2/18/2009	233.50	13.50	232.29	1.21
Union	USGS	331218092192901	17S12W27DCA1	331219.26	921928.98	170	24	2/18/2009	157.86	12.14	158.09	-0.23
Union	USGS	331401092274801	17S13W17DDC1	331402.11	922745.81	193	156	2/18/2009	154.72	38.28	154.33	0.39
Union	USGS	331229092460002	17S16W33BBA2	331229.04	924600.84	255	31	2/18/2009	230.13	24.87	229.46	0.67
Union	USGS	331453092572201	17S18W15CDA1	331453.24	925722.95	290	35	2/18/2009	261.50	28.50	261.18	0.32
Union	USGS	330825092390801	18S15W21DAC1	330823.8	923909.29	200	40	2/18/2009	174.14	25.86	173.87	0.27
Union	USGS	330201092211101	19S12W28CBA1	330207.08	922109.3	200	25	2/18/2009	188.88	11.12	189.27	-0.39
									Wells/Declines:			7/2
									Average Change:			0.32
									Total Wells/Declines:			56/34
									Total Average Change:			-0.48

Appendix F

Wilcox Aquifer Water Level Data

Wilcox Aquifer
Water Level Change
2006-2009

County	Station ID	Latitude	Longitude	Alt LSD	Well Depth	WL Date	09 WL Alt	09 WL Meas	06 WL Alt	09-06 Change
Clark	07S18W03BBD1	340916.58	925603.5	270	47	2/17/2009	256.64	13.36	255.28	1.36
Clark	07S18W20ABB2	340651.92	925756.59	242	18.5	2/17/2009	231.29	10.71	230.37	0.92
Clark	09S18W20CBB1	335610.94	925905.46	230	25.5	2/17/2009	212.42	17.58	211.97	0.45
Clark	10S18W10DDB1	335215.53	925613.2	195	215	2/17/2009	147.24	47.76	146.69	0.55
Clark	10S20W01BAC1	335402.68	930612.28	295	53	2/17/2009	265.31	29.69	264.74	0.57
							Wells/Declines:			5/0
							Average:			0.77
Clay	20N07E01CBB1	362347.39	901702.65	460	200	2/25/2009	367.68	92.32	367.75	-0.07
Clay	21N08E14CBB1	362715.82	901126.15	380	157	2/25/2009	296.01	83.99	296.47	-0.46
							Wells/Declines:			2/2
							Average:			-0.27
Craighead	13N07E14BBA2	354525.74	901911.04	221	1028	2/24/2009	193.21	27.79	194.11	-0.90
Craighead	14N05E25DCB1	354842.5	903026.78	233	890	2/24/2009	189.95	43.05	190.76	-0.81
Craighead	14N06E27ACB2	354858.06	902612.88	227	999	2/24/2009	194.90	32.10	196.02	-1.12
Craighead	14N07E17DCB1	355008.1	902202.27	232	1070	2/24/2009	194.61	37.39	196.43	-1.82
Craighead	15N07E33BAD1	355314.65	902107.49	232	1034	2/24/2009	202.71	29.29	204.00	-1.29
							Wells/Declines:			5/5
							Average:			-1.19
Crittenden	04N07E36ADB1	345448.57	901827.9	201	1638	2/26/2009	133.35	67.65	141.91	-8.56
Crittenden	05N07E29ACC1	350128.89	902224.94	200	1700	2/26/2009	130.65	69.35	138.48	-7.83
Crittenden	06N07E01ABB1	350520.04	901807.36	207	1541	2/26/2009	132.99	74.01	140.94	-7.95
Crittenden	06N09E07CAC1	350906.93	901041.83	210	1470	2/26/2009	113.73	96.27	119.56	-5.83
Crittenden	07N07E14CCC1	351317.99	901930.17	223	1584	2/26/2009	153.80	69.20	154.07	-0.27
Crittenden	07N08E24CAB1	351238.43	901147.62	221	1540	2/26/2009	153.31	67.69	152.63	0.68
Crittenden	08N06E33CBD1	351614.48	902752.47	215	1750	2/26/2009	160.16	54.84	161.04	-0.88
Crittenden	09N08E29ADD1	352225.08	901515.82	225	1564	2/26/2009	168.39	56.61	168.97	-0.58
							Wells/Declines:			8/7
							Average:			-3.90
Greene	16N05E13BAB1	360123.25	903026.27	290	545	2/25/2009	167.96	122.04	190.68	-22.72
Greene	17N04E36BCA1	360348.44	903658.17	505	311	2/25/2009	351.61	153.39	352.48	-0.87
Greene	17N06E31DCB1	360327.82	902902.22	285	462	2/25/2009	179.96	105.04	181.00	-1.04
Greene	18N06E10DCD1	361209.33	902519.91	320	120	2/25/2009	295.59	24.41	296.23	-0.64

Wilcox Aquifer
Water Level Change
2006-2009

County	Station ID	Latitude	Longitude	Alt LSD	Well Depth	WL Date	09 WL Alt	09 WL Meas	06 WL Alt	09-06 Change
							Wells/Declines:			4/4
							Average:			-6.32
Hempstead	13S23W04BDD1	333841.73	932911.4	350	14.2	2/17/2009	345.98	4.02	345.09	0.89
Hempstead	13S24W02DCA2	333829.33	933311.35	446	63	2/17/2009	400.02	45.98	397.10	2.92
Hempstead	13S24W29ACC1	333523.99	933635.22	371	60.2	2/17/2009	343.95	27.05	339.40	4.55
Hempstead	14S24W29BCA1	333016.72	933704.19	355	30.5	2/17/2009	333.38	21.62	329.32	4.06
							Wells/Declines:			4/0
							Average:			3.11
Hot Spring	04S16W20CBB1	342144.24	924532.49	345	18.2	2/17/2009	342.10	2.90	340.75	1.35
Hot Spring	05S17W10AAC1	341835.92	924853.18	410	26	2/17/2009	393.26	16.74	391.15	2.11
							Wells/Declines:			2/0
							Average:			1.73
Lee	01N04E09DCC1	344209.13	904220.23	204	1885	2/27/2009	135.92	68.08	141.38	-5.46
Lee	03N05E01BAB1	345413.29	903135.86	196	1702	2/27/2009	140.06	55.94	144.82	-4.76
							Wells/Declines:			2/2
							Average:			-5.11
Mississippi	10N08E17ADD1	352923.16	901504.93	225	1521	2/26/2009	171.48	53.52	172.60	-1.12
Mississippi	11N08E10AAC2	353538.1	901300.85	220	1380	2/26/2009	178.53	41.47	179.93	-1.40
Mississippi	11N09E33AAB1	353214.43	900739.3	237	1560	2/26/2009	184.02	52.98	184.71	-0.69
Mississippi	11N10E20ADA1	353348.86	900213.03	235	1417	2/25/2009	186.97	48.03	187.93	-0.96
Mississippi	12N11E17CDD1	353916.85	895617.97	245	1500	2/25/2009	184.07	60.93	192.21	-8.14
Mississippi	13N11E08DDA1	354528.38	895546.91	245	1445	2/25/2009	185.64	59.36	185.97	-0.33
Mississippi	13N11E31CCCC1	354220.74	895806.8	241	1500	2/25/2009	186.62	54.38	187.49	-0.87
Mississippi	15N09E31ACD1	355305.56	900951.56	240	1158	2/25/2009	198.66	41.34	199.31	-0.65
Mississippi	15N10E01ADC1	355712.28	895806.44	248	1350	2/25/2009	207.46	40.54	208.07	-0.61
Mississippi	15N12E23DBC1	355426.05	894701.36	238	1491	2/25/2009	180.79	57.21	181.41	-0.62
							Wells/Declines:			10/10
							Average:			-1.54
Nevada	12S22W24CDA1	334045.77	931940.51	344	41.2	2/18/2009	312.27	31.73	311.99	0.28
Nevada	13S21W02DCC1	333753.62	931425.8	315	240	2/18/2009	256.14	58.86	255.69	0.45
Nevada	13S21W11BDA1	333737.73	931431.58	268		2/18/2009	242.61	25.39	241.93	0.68

Wilcox Aquifer
Water Level Change
2006-2009

County	Station ID	Latitude	Longitude	Alt LSD	Well Depth	WL Date	09 WL Alt	09 WL Meas	06 WL Alt	09-06 Change
Nevada	13S21W23ABC1	333555.78	931423.09	362	47.2	2/18/2009	320.35	41.65	318.72	1.63
Nevada	14S22W19AAA1	333105.49	932442.85	337	75	2/18/2009	311.08	25.92	293.72	17.36
							Wells/Declines:			5/0
							Average:			4.08
Poinsett	10N07E16CBB2	352924.65	902128.92	218	1500	2/24/2009	165.47	52.53	166.97	-1.50
Poinsett	11N05E06CCD1	353621.64	903617.76	214	992	2/24/2009	171.12	42.88	171.28	-0.16
Poinsett	11N05E36AAA1	353233.66	903009.4	214	1175	2/24/2009	175.17	38.83	176.62	-1.45
Poinsett	11N06E35CDA3	353152.33	902519.67	215	1301	2/24/2009	184.03	30.97	184.52	-0.49
Poinsett	11N07E03BDD1	353628.66	901954.89	216	1456	2/24/2009	174.21	41.79	174.97	-0.76
Poinsett	12N05E13BBB1	354037.95	903059.05	222	1071	2/24/2009	174.32	47.68	174.72	-0.40
							Wells/Declines:			6/6
							Average:			-0.79
St.Francis	04N06E16CCB1	345711.72	902829.76	202	1615	2/27/2009	139.35	62.65	147.64	-8.29
St.Francis	04N06E21BAD2	345649	902814.83	201	1740	2/27/2009	130.21	70.79	139.19	-8.98
							Wells/Declines:			2/2
							Average:			-8.64
						Total Wells/Declines:				55/38
						Total Average:				-1.21