Arkansas Ground Water Protection and Management Report for 2007

January 2008

STATE OF ARKANSAS

ARKANSAS NATURAL RESOURCES COMMISSION
101 EAST CAPITOL, SUITE 350
LITTLE ROCK, ARKANSAS 72201

MIKE BEEBE
GOVERNOR

COMMISSIONERS

Alec Farmer Commissioner Jonesboro	Corbet Lamkin Commissioner Chidester	Ann Cash Commissioner McGehee
David Feilke Chairman Stuttgart	Sloan Hampton Commissioner Stuttgart	James Neal Anderson Commissioner Lonoke
Robert White Vice Chairman Fayetteville	Jerry Mitchell Commissioner Harrison	Daniel Bryant Commissioner North Little Rock

J. Randy Young, P.E.
Executive Director

Jonathan R. Sweeney, P.E.
Deputy Director/Chief Engineer

Arkansas Natural Resources Commission
Ground Water Management and Protection Section Staff

Earl T. Smith, Jr., P.E.	Chief, Water Resources Management Division
D. Todd Fugitt, R.P.G.	Geology Supervisor
James L. Battreal, R.P.G.	Professional Geologist
Jay Johnston, C.P.G.,R.P.G.	Professional Geologist
Chris Kelley	Ground Water Technician
Michael Ritchey	Chief Construction Inspector
Perry Dotson	Water Well Inspector
Jacob Harvey	Engineer Technician
Shelly Murphy	Administrative Secretary

ACKNOWLEDGEMENTS

Special thanks to:

Tony Schrader, Greg Stanton, Terry Holland, John Czarnecki and John Terry of the United States Geological Survey Water Resources Division, Little Rock, Arkansas.

TABLE OF CONTENTS

Tables

Table **Page #**

Figures

Figure # **Page #**

Appendices

Appendix A	Alluvial Aquifer Water Level Monitoring Data
Appendix B	Selected Alluvial Aquifer Well Hydrographs
Appendix C	Sparta/Memphis Water Level Monitoring Data
Appendix D	Selected Sparta/Memphis Aquifer Well Hydrographs
Appendix E	Comparative Table of Selected Spring/Fall Water Level Changes
Appendix F	Water Quality Data from Selected ANRC Wells
Appendix G	Ozark Aquifer Water Level Data

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 2007; 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 2006 to the Spring of 2007, as well as other ground-water activities through the end of 2007. 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 2005 water use data, approximately 44 percent of the current alluvial aquifer pumpage, and 52 percent of the Sparta/Memphis aquifer pumpage 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

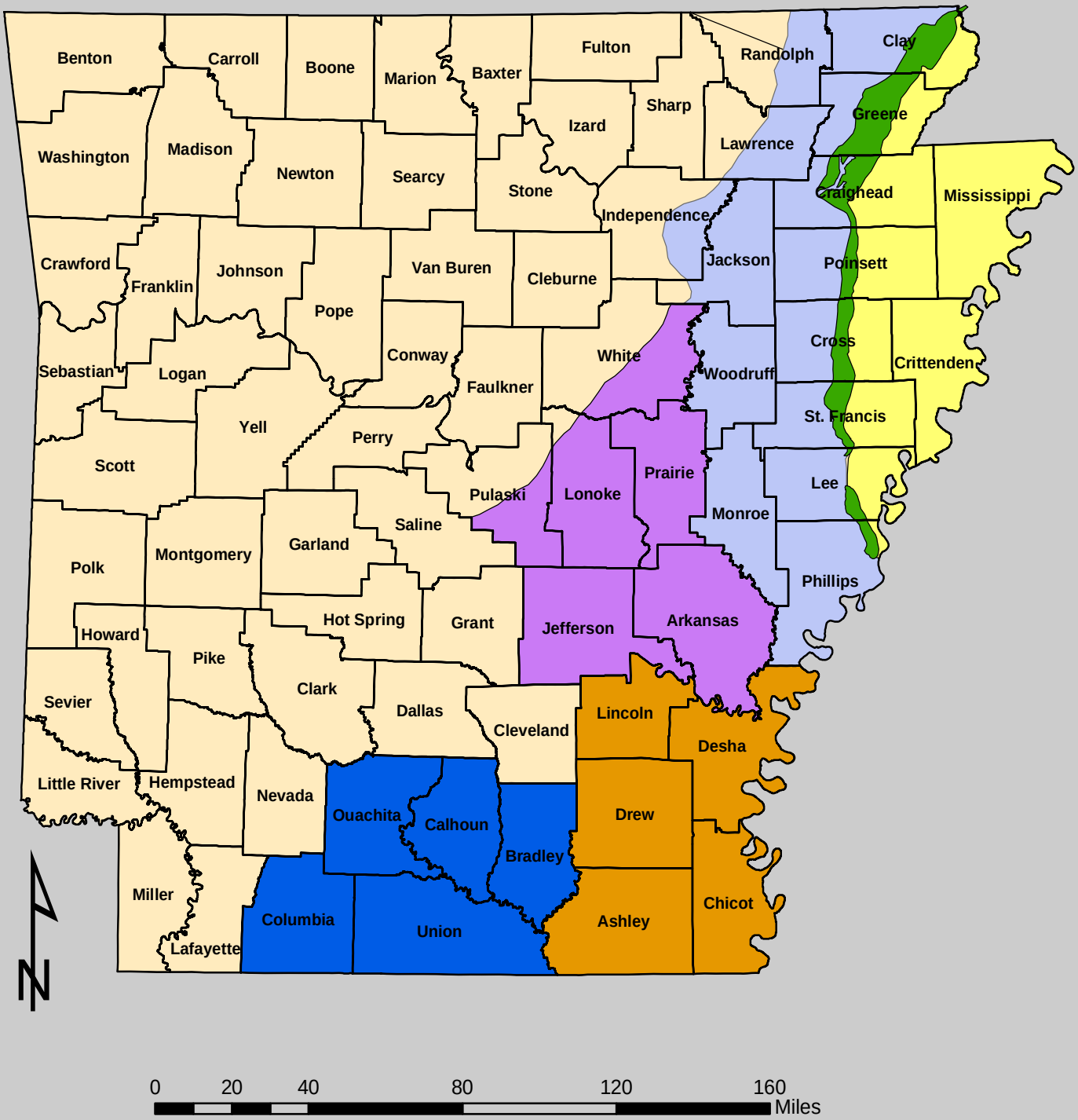
use studies. This report and all programs described herein are built on a strong cooperative program with other appropriate State, Federal, and local water resources agencies. Some of the programs described in this report are partially funded through federal grants from Region VI of the Environmental 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 rainfall, or lack thereof, is taken into account each monitoring period to observe the change of water levels during times of drought or excess rainfall. The rainfall total for this monitoring period was almost exactly the yearly average of 49 inches statewide.

Long-term water-level data collected over a 25-year period indicate a 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 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

Arkansas Ground Water Study Areas

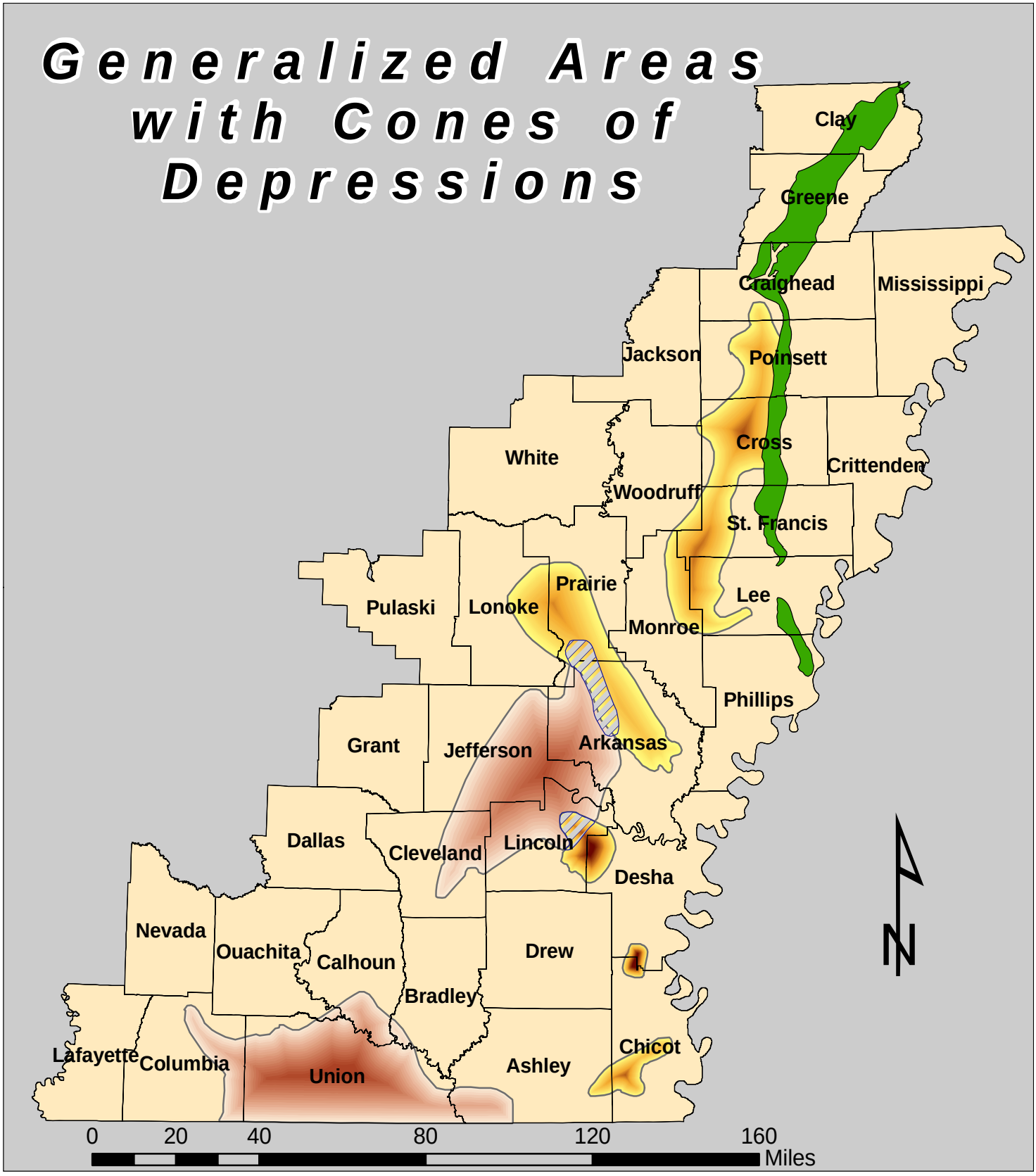


Legend

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

Fig. 1

Generalized Areas with Cones of Depressions



Legend

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

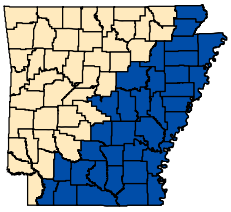


Fig. 2

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.

Water quality data collected by the USGS in 2006 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 2007, 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.

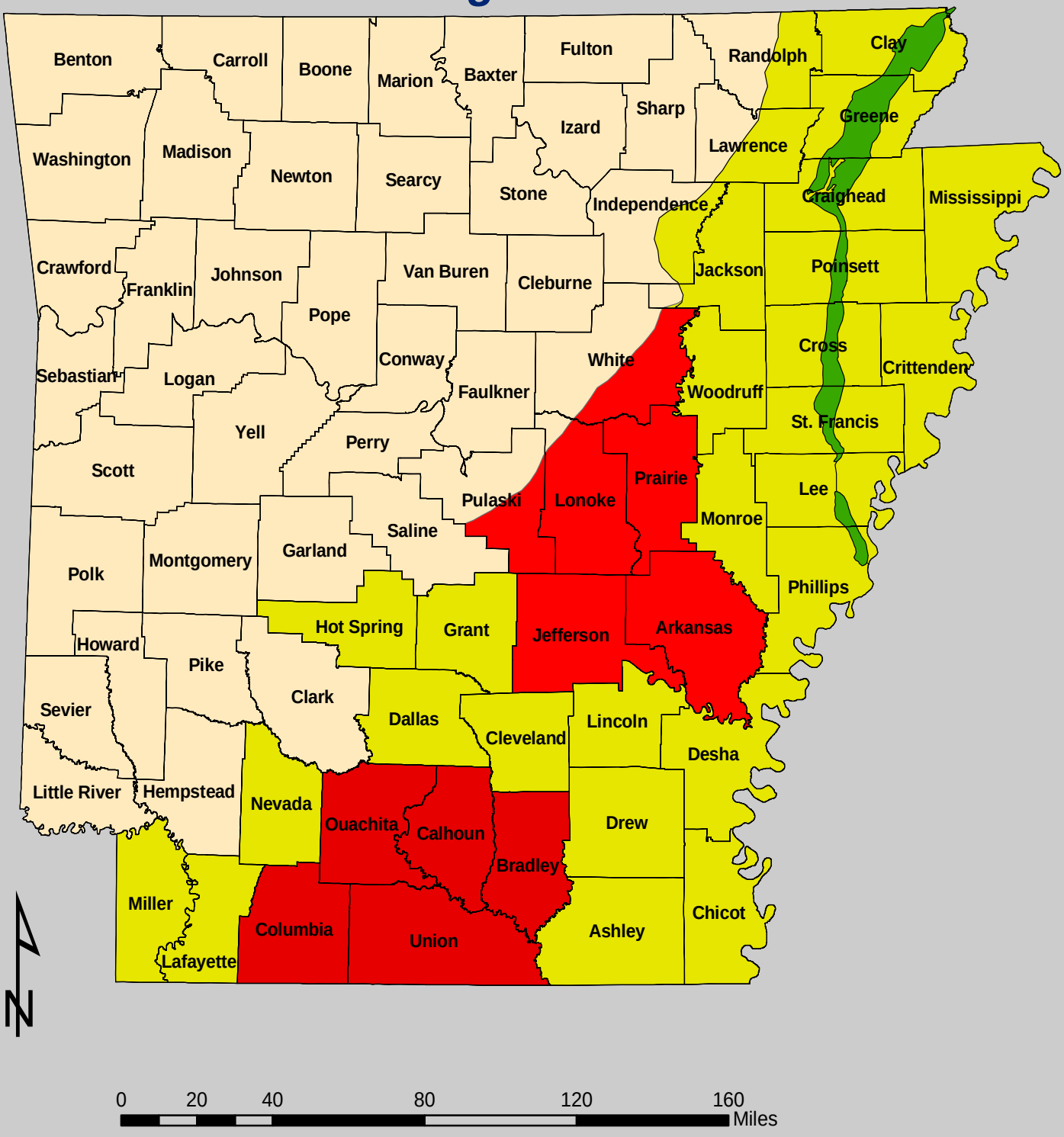
Arkansas is withdrawing ground water from the alluvial and Sparta aquifers in eastern and southern Arkansas at a rate, which is far above sustainable. With this in mind, the ANRC should continue to promote conservation, education, and the conjunctive use of ground- and surface- water at rates that are sustainable for current and future water use needs. Water–level data in this report indicates that the alluvial and Sparta aquifers in the Cache Study Area meets critical area criteria for saturated thickness, water-level declines, sustainable yield, and water quality

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 States 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 towards 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

- Crowleys 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

Fig. 3

Hydrogeology

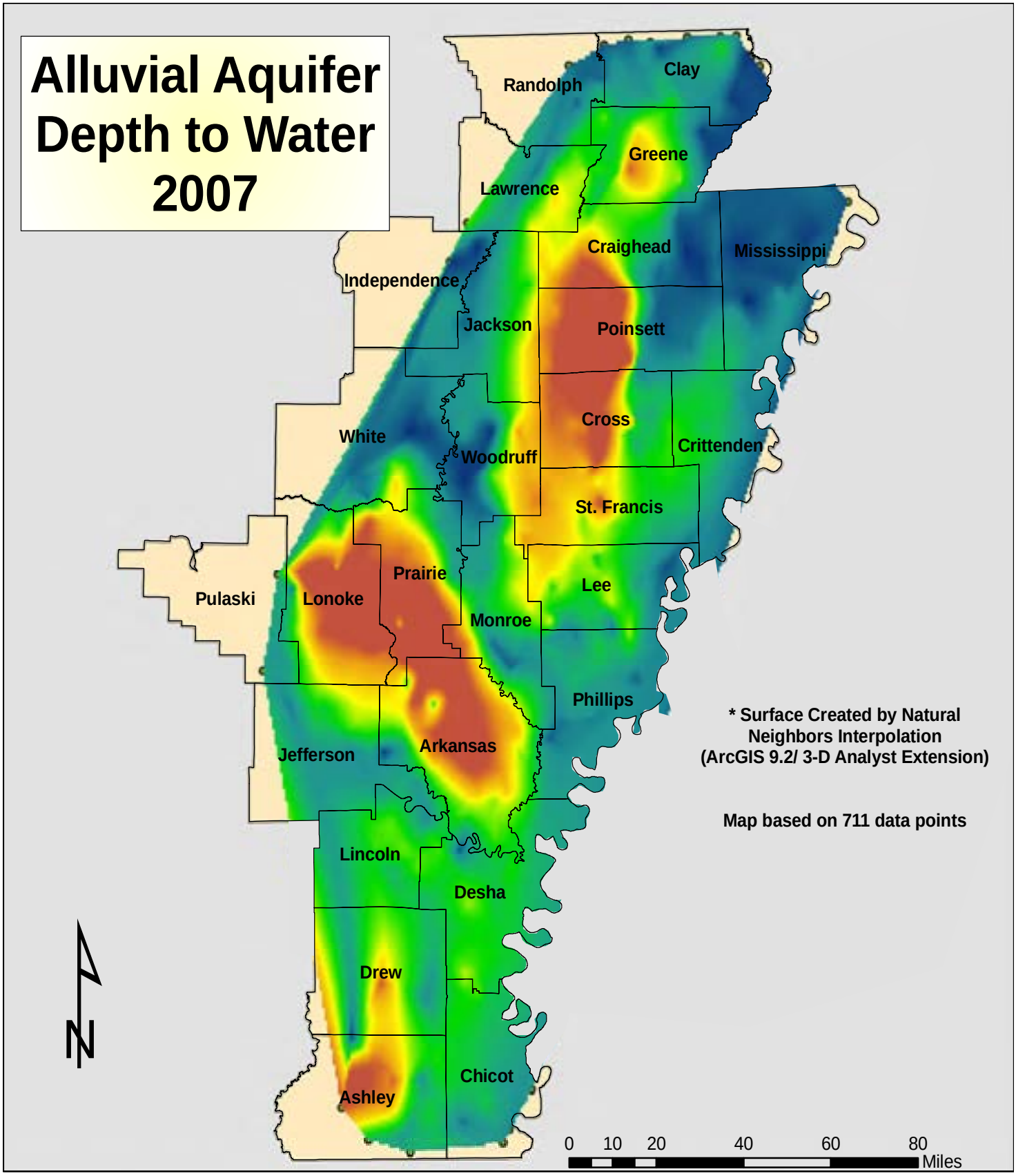
Alluvial Aquifer

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 2005 Arkansas had ground water withdrawals estimated to be 7,509.30 million gallons per day (Mgal/d). That is a 97.1% increase from the amount used in 1985, and a 509.9 % increase since 1965. (Holland, T.W. 2004).

In 2005 there was 7,252.82 Mgal/d pumped from the alluvial aquifer. The estimated sustainable yield for the alluvial aquifer is 2,700 Mgal/d, leaving an unmet demand of 4,552.82 Mgal/d (63%). 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 2007 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

Alluvial Aquifer Depth to Water 2007



* Surface Created by Natural Neighbors Interpolation (ArcGIS 9.2/ 3-D Analyst Extension)

Map based on 711 data points

Legend

Depth to Water, Below Land Surface

- 2 ft. - 22 ft.
- 23 ft - 38 ft.
- 39 ft. - 56 ft.
- 57 ft. - 76 ft.
- 77 ft. - 100 ft.
- 101 ft. - 142 ft.
- County Boundaries

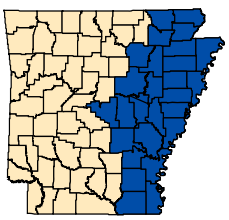
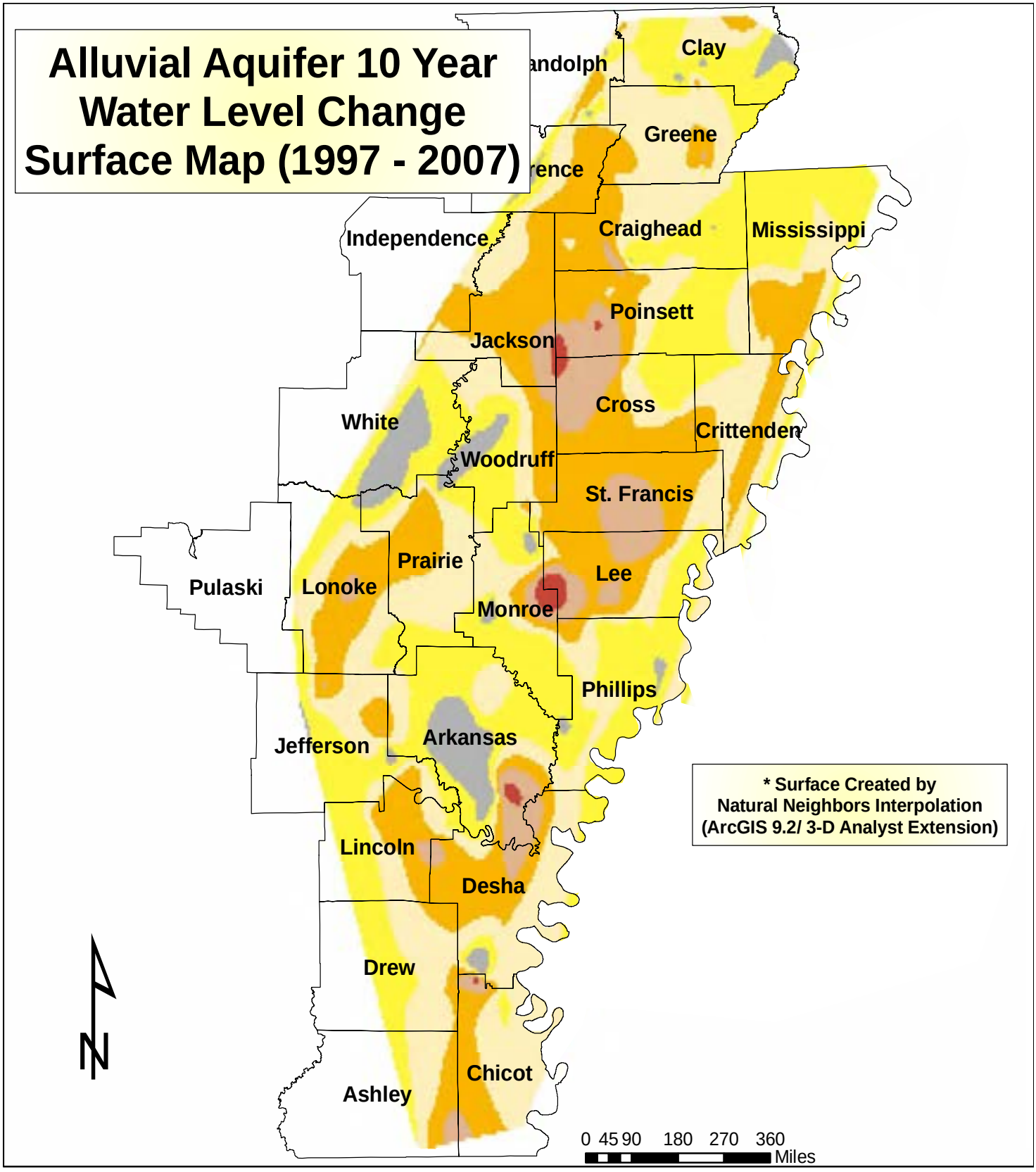


Fig. 4

Alluvial Aquifer 10 Year Water Level Change Surface Map (1997 - 2007)



Legend

County Boundary

Water Level Change, feet

- 0 to 10
- -4 to -1
- -7 to -5
- -11 to -8
- -18 to -12
- -41 to -19

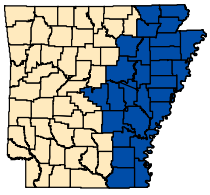


Fig. 5

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 620 alluvial aquifer wells monitored for water-level change in both 2006 and 2007, 407 (65.6%) of these had a decline in the static water level. The overall water-level change was -0.44 ft. The 2006 precipitation for Arkansas was approximately 49.39 inches, which is right on the average of 49.19 inches. Of 516 alluvial aquifer wells monitored in both 2002 and 2007, 383 (74.2%) of these had declining static water levels. Over a 10-year period of time from 1997 to 2007, 224 of 289 wells (77.5%) monitored showed declines in the alluvial aquifer. The average change over the entire aquifer during the 2006-2007 monitoring period was -0.44 feet, the 5-year average change was -2.40 feet, and the 10-year average change was -7.46 feet respectively. As in last year's report, the greatest 10-year declines were observed in the Cache Study Area (-8.73 feet) and the Boeuf-Tensas Study Area (-8.22 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

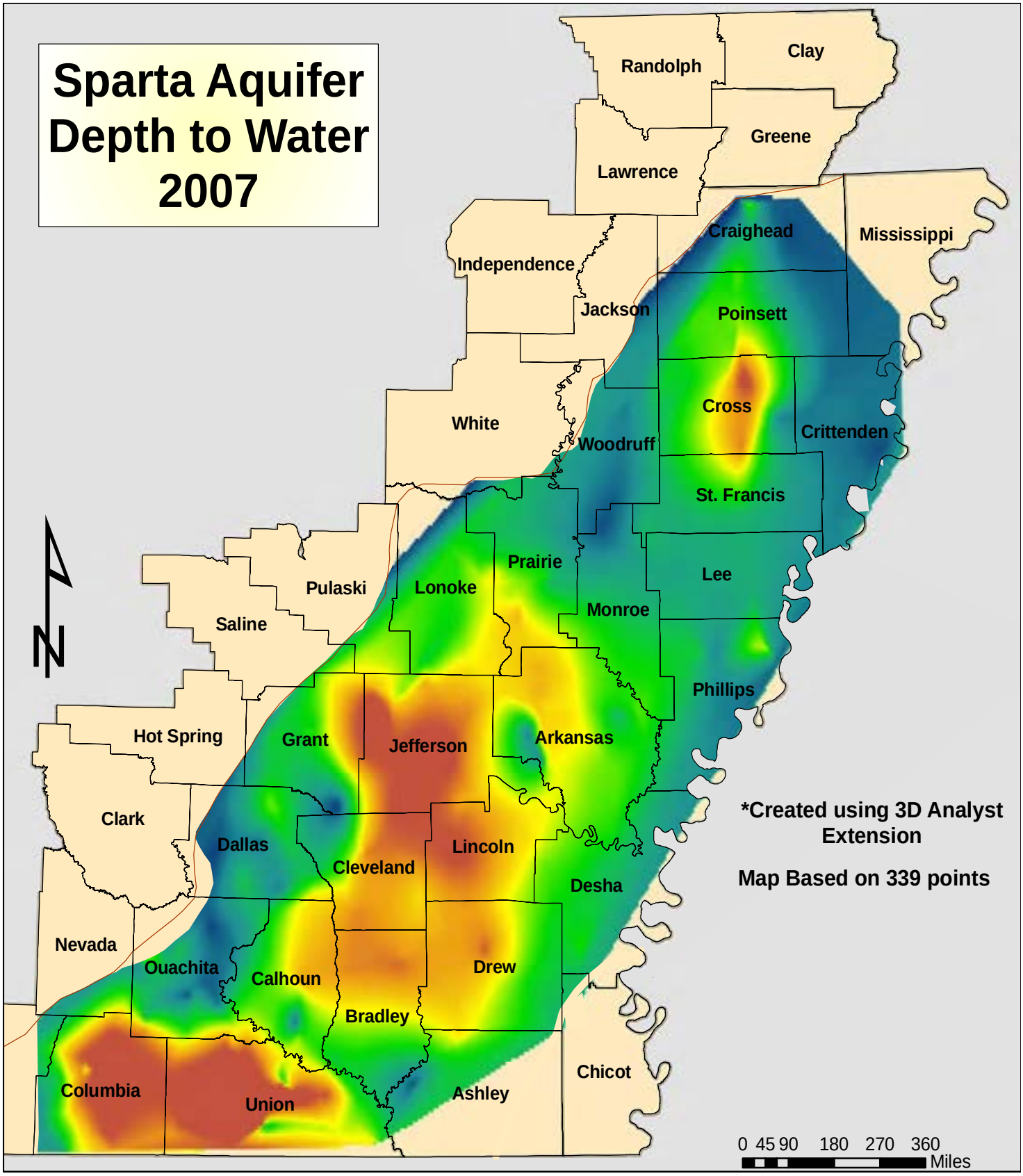
silt, clay, shale, and lignite, which are found in lenses throughout the unit. Lithologically, it varies considerably both vertically and laterally. Glauconite, a green hydrous potassium iron silicate mineral, is sometimes found in sand lenses in the upper levels of the aquifer, hence the name "Greensand".

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 260 water wells in the Sparta/Memphis aquifer throughout the south and east portions of Arkansas in 2006 and 2007. One hundred and forty-five of those wells (55.7%) showed declines in the static water level. The average change over the entire aquifer during the 2006-2007 monitoring period was -0.06 feet. During the monitoring period from 2002 to 2007, 219 wells were monitored for water-level change, with 127 of these wells (58.0%) showed a decline in static water levels during this time. During the 10-year monitoring period 179 wells were monitored, with 134 (74.8%) 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 50.7 percent of the 2005 withdrawal of 169.94 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 169.94 Mgal/d in 2004, an increase of 50.7 percent. 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



Legend

- Sparta Boundary
- 0 ft. - 54 ft.
- 55 ft. - 97 ft.
- 98 ft. - 148 ft.
- 149 ft. - 207 ft.
- 208 ft. - 272 ft.
- 273 ft. - 416 ft.
- County Boundaries

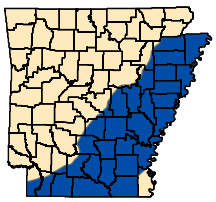
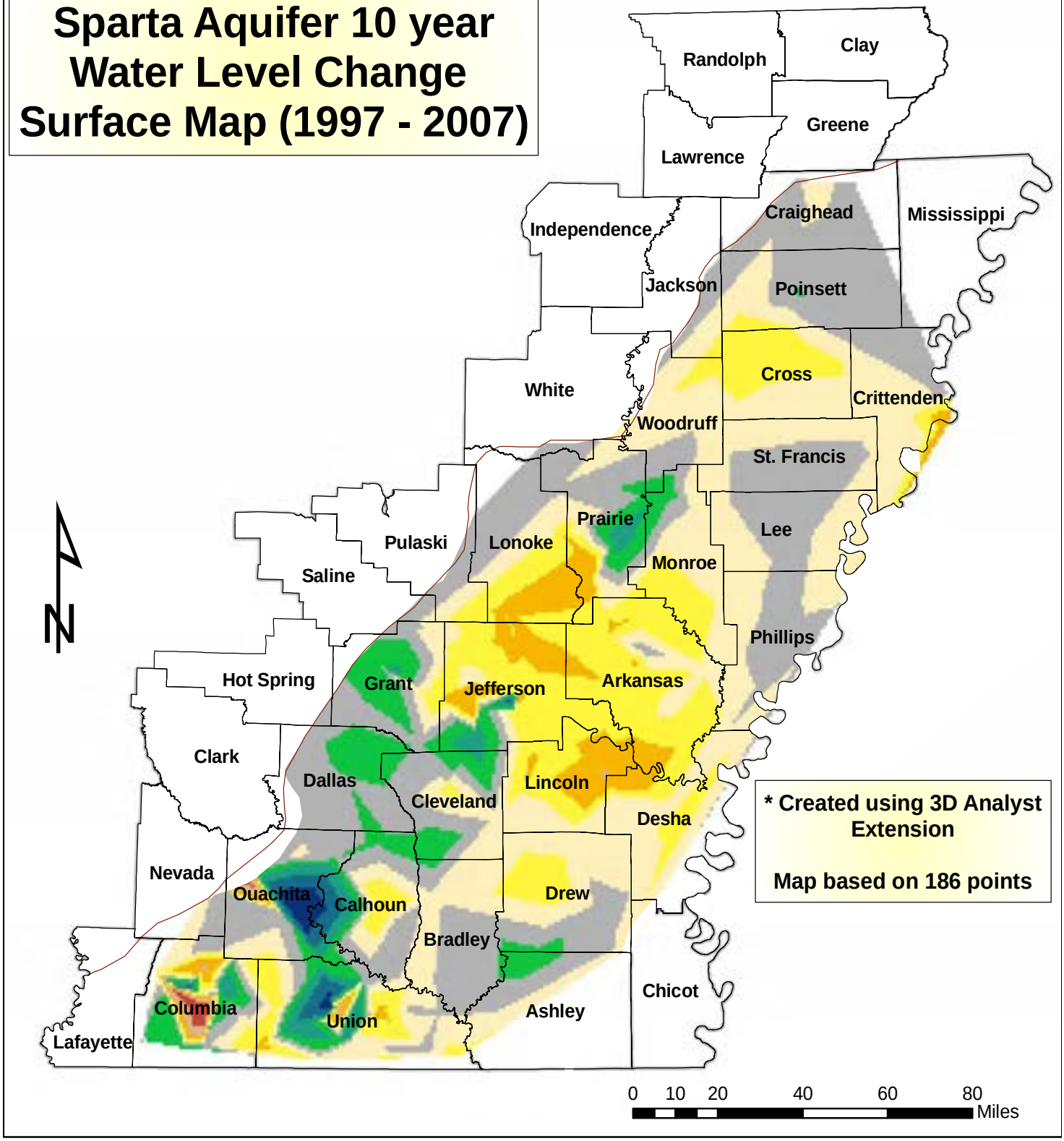


Fig. 6

Sparta Aquifer 10 year Water Level Change Surface Map (1997 - 2007)



Legend

- Sparta Boundary
- **Water Level Change, feet**
  - 54 to 91
  - 29 to 53
  - 12 to 28
  - 1 to 11
  - 0 to -4
  - -11 to -5
  - -20 to -12
  - -37 to -21
  - -67 to -38
  - -118 to -68
- County Boundaries

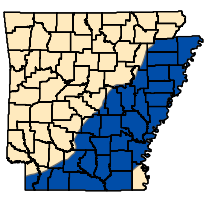
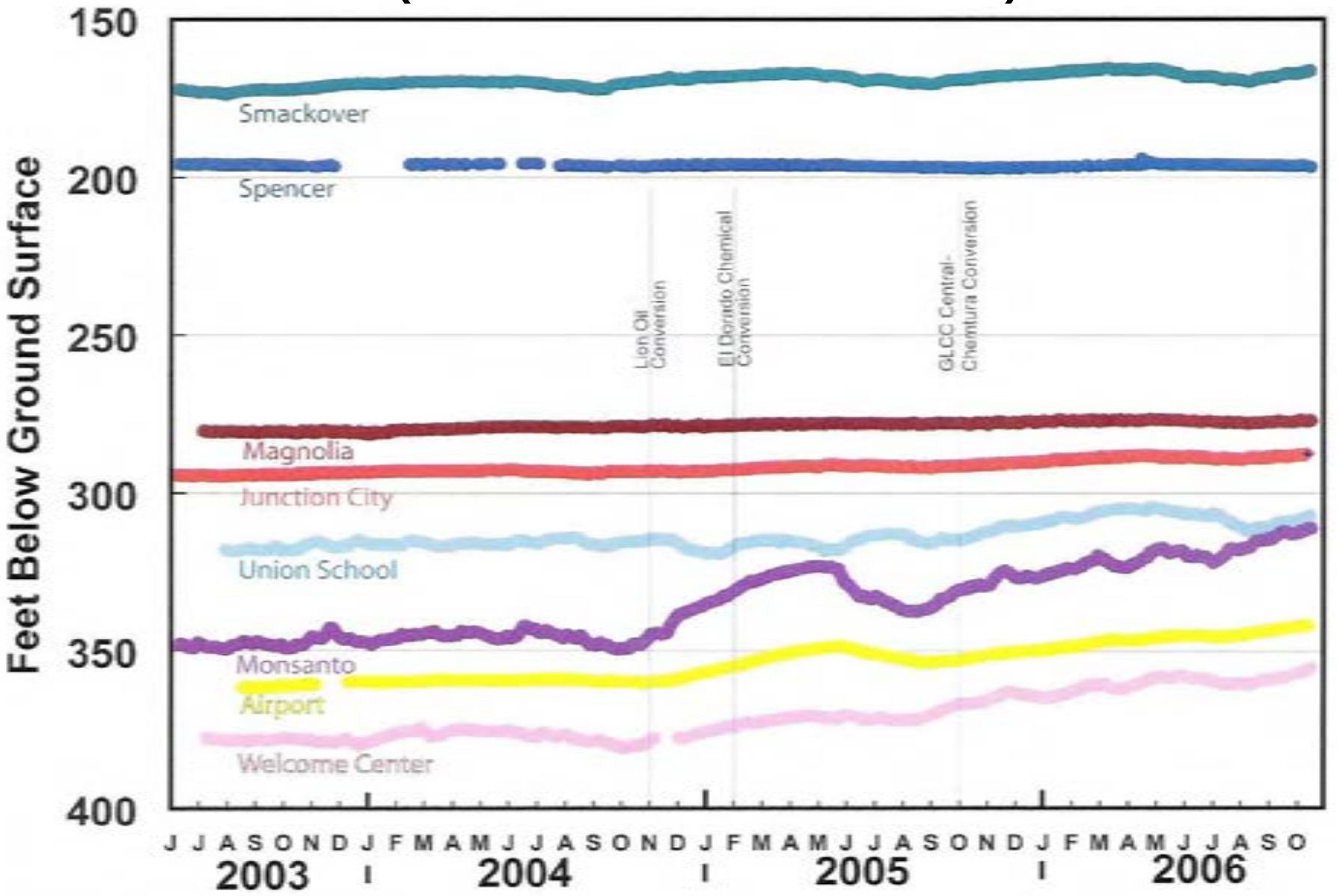


Fig. 7

Sparta Recovery Study
(October 2004 - October 2006)



From USGS Fact Sheet 2006 - 3090

Fig. 8

significantly fewer declines, as well as some rebound in water levels in some areas. This can be seen in figure 8, a graph of eight wells in the USGS Sparta Recovery Project. Appendix D is a series of hydrographs for Sparta/Memphis aquifer wells in Arkansas.

GROUND-WATER LEVELS AND WATER-LEVEL CHANGE

MONITORING

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 44 wells throughout the eastern part of the state used exclusively for monitoring purposes, with more to be added in the near future. (Fig.38) 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

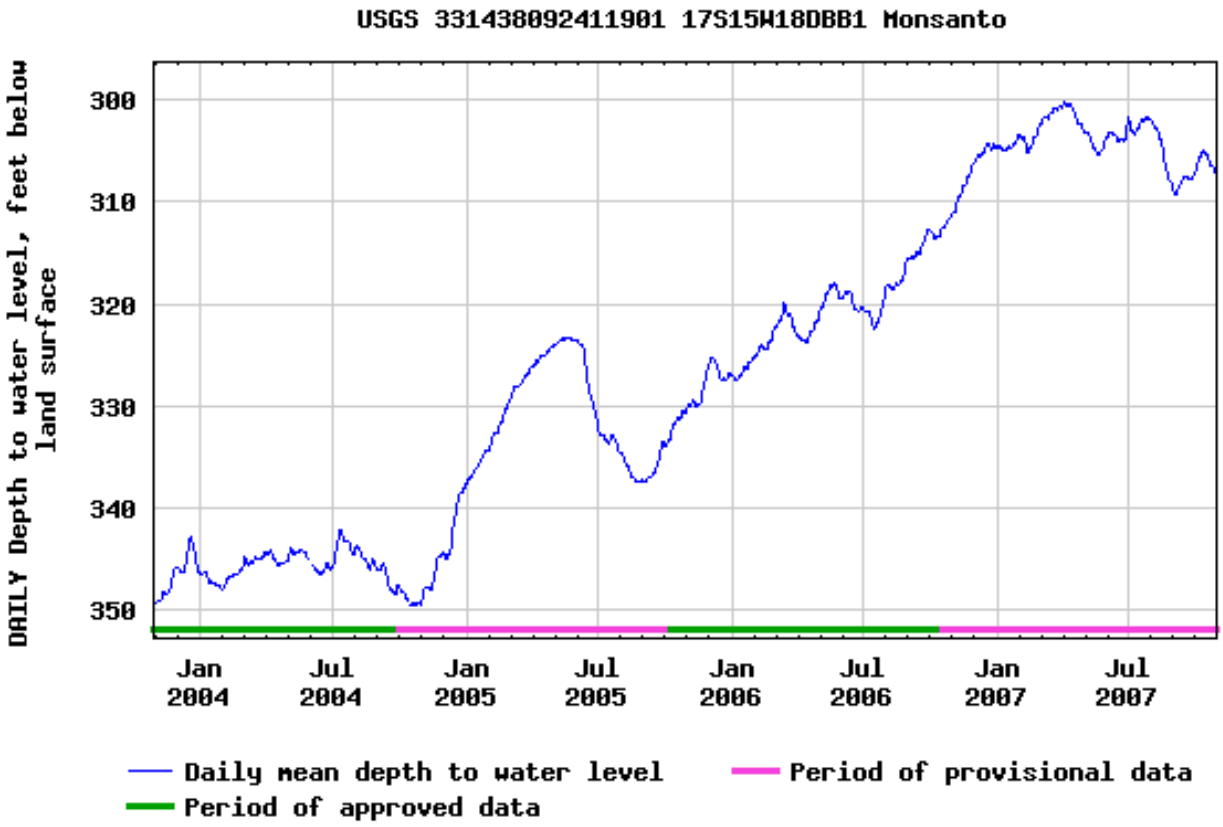
irrigation of crops. A table of measurements taken in the spring and fall from the same wells is included as Appendix E. This table is useful in showing the amount of drawdown and rebound from specific wells during the pumping season.

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.

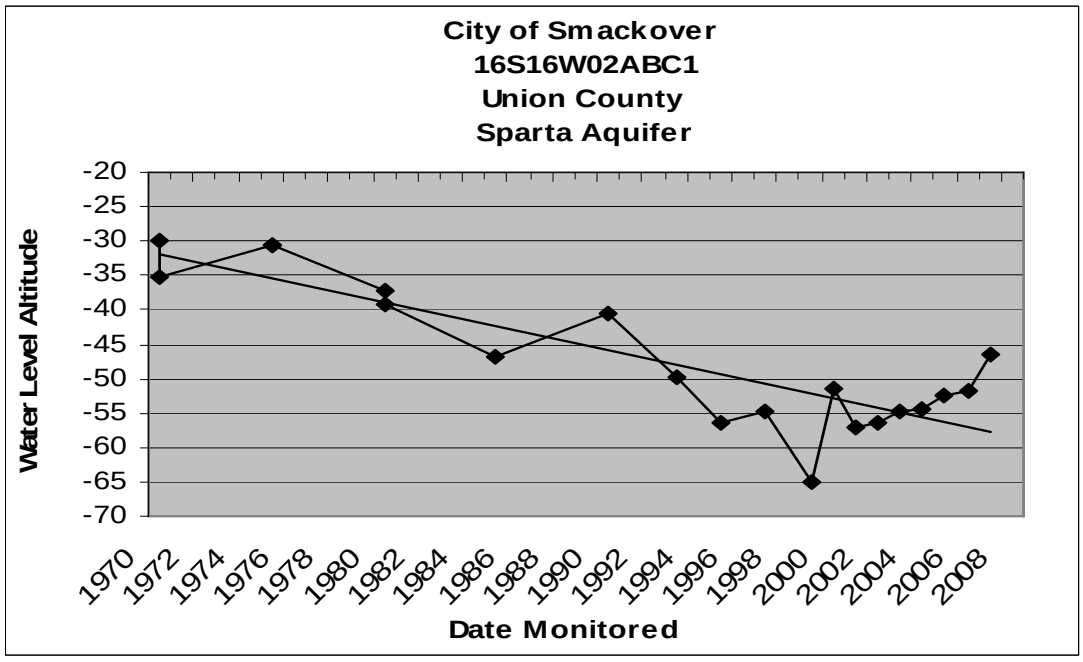
Continued monitoring of Sparta aquifer ground-water levels show that some ground-water levels in this region have stabilized or risen, while others continue to decline. During the 2006-2007 monitoring period, the ground-water level showed an average change of +6.59 feet in Union County, +2.11 feet in Ouachita County, -1.45 feet in Calhoun County, -10.57 feet in Bradley County, and +2.38 feet in Columbia County respectively. The South Arkansas Study Area as a whole had an average change of +3.27 feet during the 2006-2007 monitoring period, with only 30 of the 95 wells monitored showing declines (Fig.9). In 1998 the average change for Union County was -22.14 feet, in 1999 -4.40 feet, 2000 +0.62 feet, 2001 -1.25 feet, 2002 +3.21 feet, 2003 +1.14 feet, 2004 -0.58 feet, 2005 -1.54 feet, 2006 +5.82, and 2007 +6.59 feet respectively. 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 water levels have risen in specific wells from +1.60 feet in the “Spencer” well, to +43.9 feet in the “Monsanto” well. 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. The USGS real-time hydrograph of this well can be seen below.

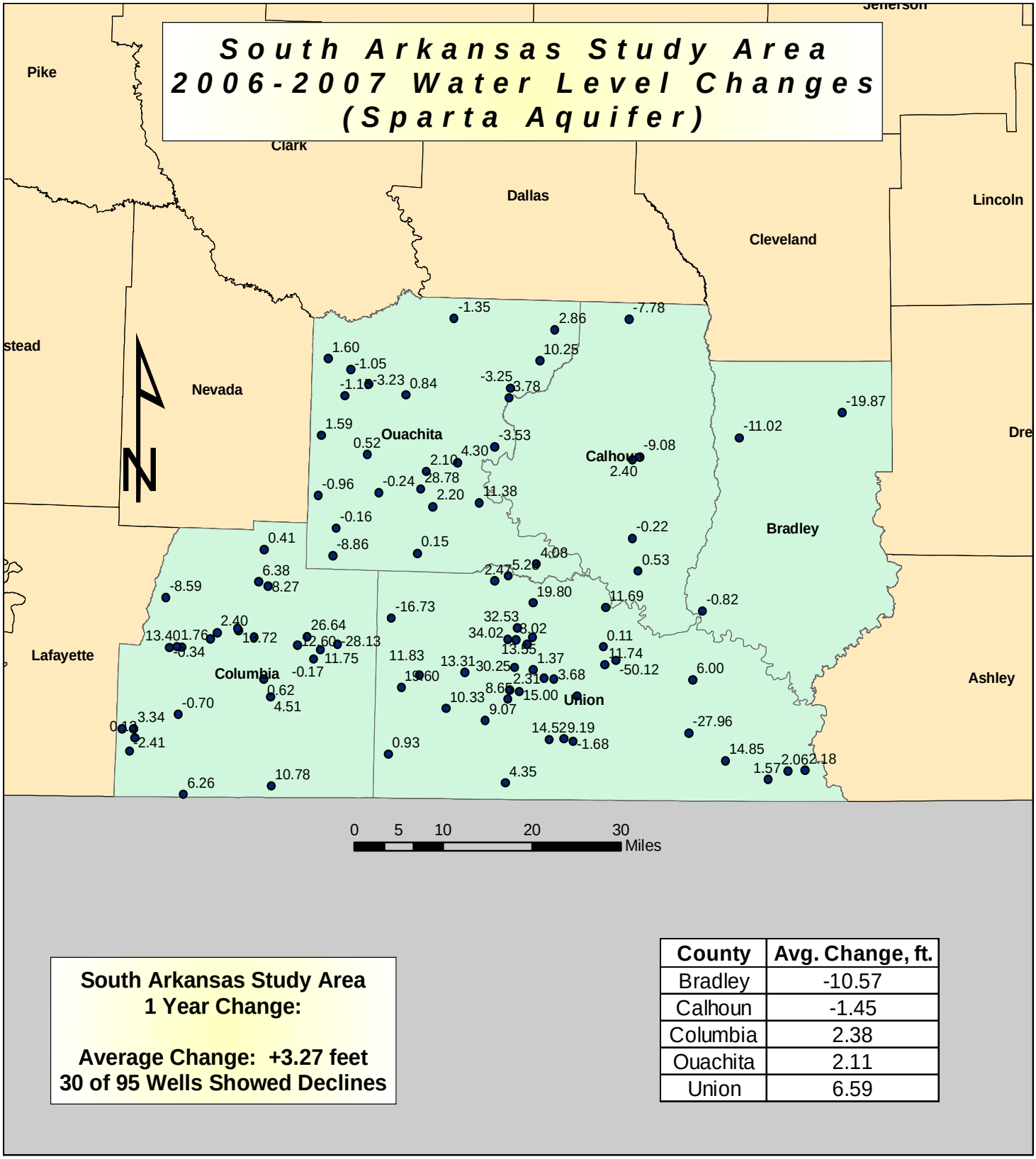
Since the lowest water level recorded in this well in October 1999 (-196.81 msl) to the level recorded in May of 2007 (-118.40) the depression has rebounded 78.41 feet, or approximately 25% of the total drawdown since 1922. (Schrader, 2007)



During the 5-year monitoring period, from 2002 to 2007, the South Arkansas Study Area had an average change of +5.38 feet. Eighty-five wells were monitored over this time, with 39 of them showing a decline in static water levels. Three of the 5 counties in the study area showed a positive average change in their respective water levels. Ouachita County had an average change of -1.62 feet, Union +12.33 feet, Calhoun -0.14 feet, Bradley +2.92 feet, and Columbia +4.62 feet respectively (Fig. 10).

Though the trend of water level increases in the South Arkansas Study Area in 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 to maintain water levels at or above the top of the Sparta Sand. (Hays, 2000)





South Arkansas Study Area
1 Year Change:

Average Change: +3.27 feet
30 of 95 Wells Showed Declines

County	Avg. Change, ft.
Bradley	-10.57
Calhoun	-1.45
Columbia	2.38
Ouachita	2.11
Union	6.59

Legend

- Wells
- South Arkansas Study Area

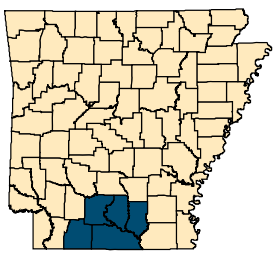
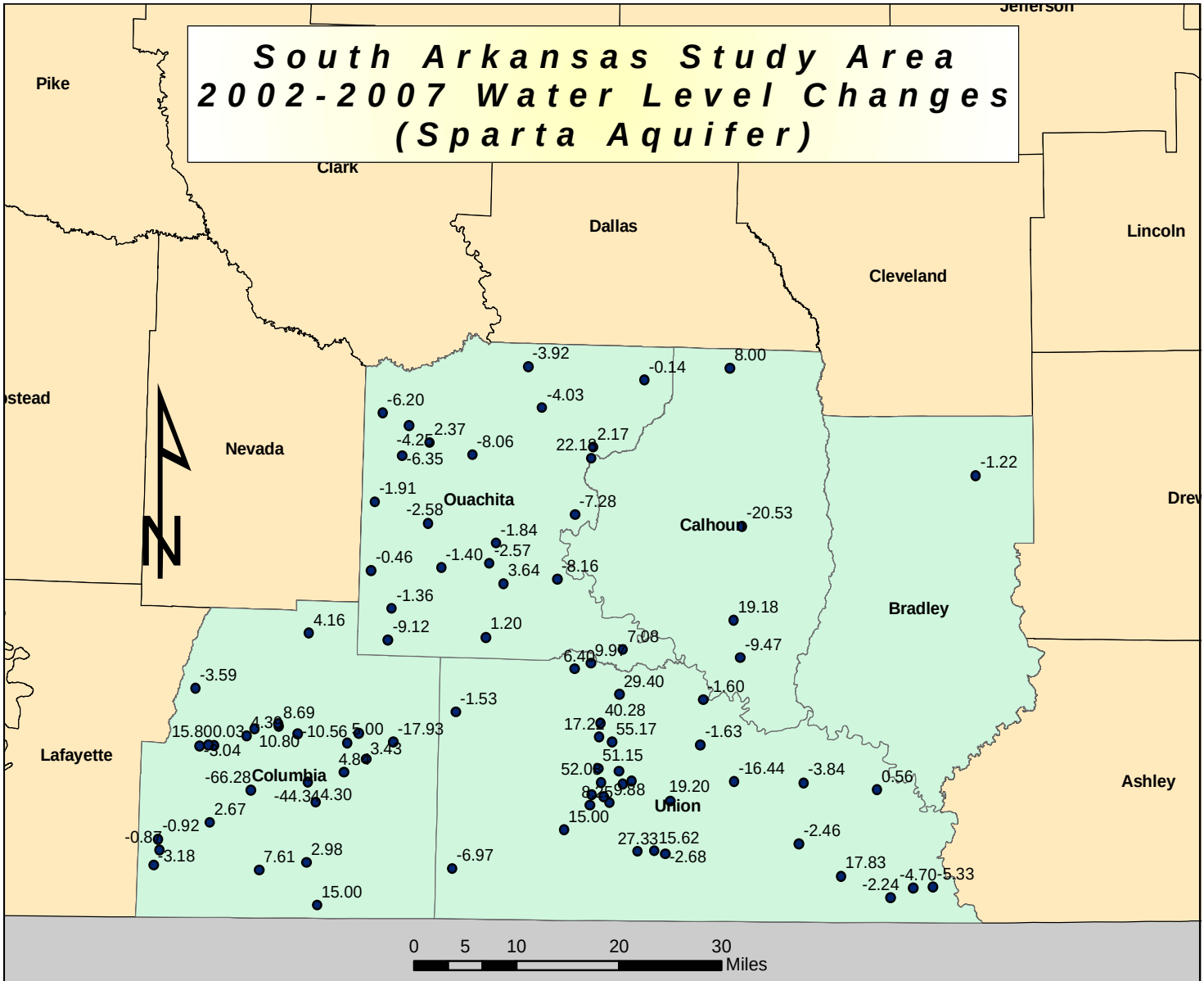


Fig. 9



County	Avg. Change, ft.
Calhoun	-0.44
Columbia	-2.91
Ouachita	-1.35
Union	16.04

South Arkansas Study Area
5 Year Change:

Average Change: +4.77 feet
41 of 85 Wells Showed Declines

Legend

- Wells
- South Arkansas Study Area

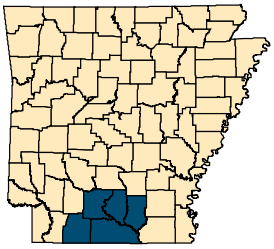
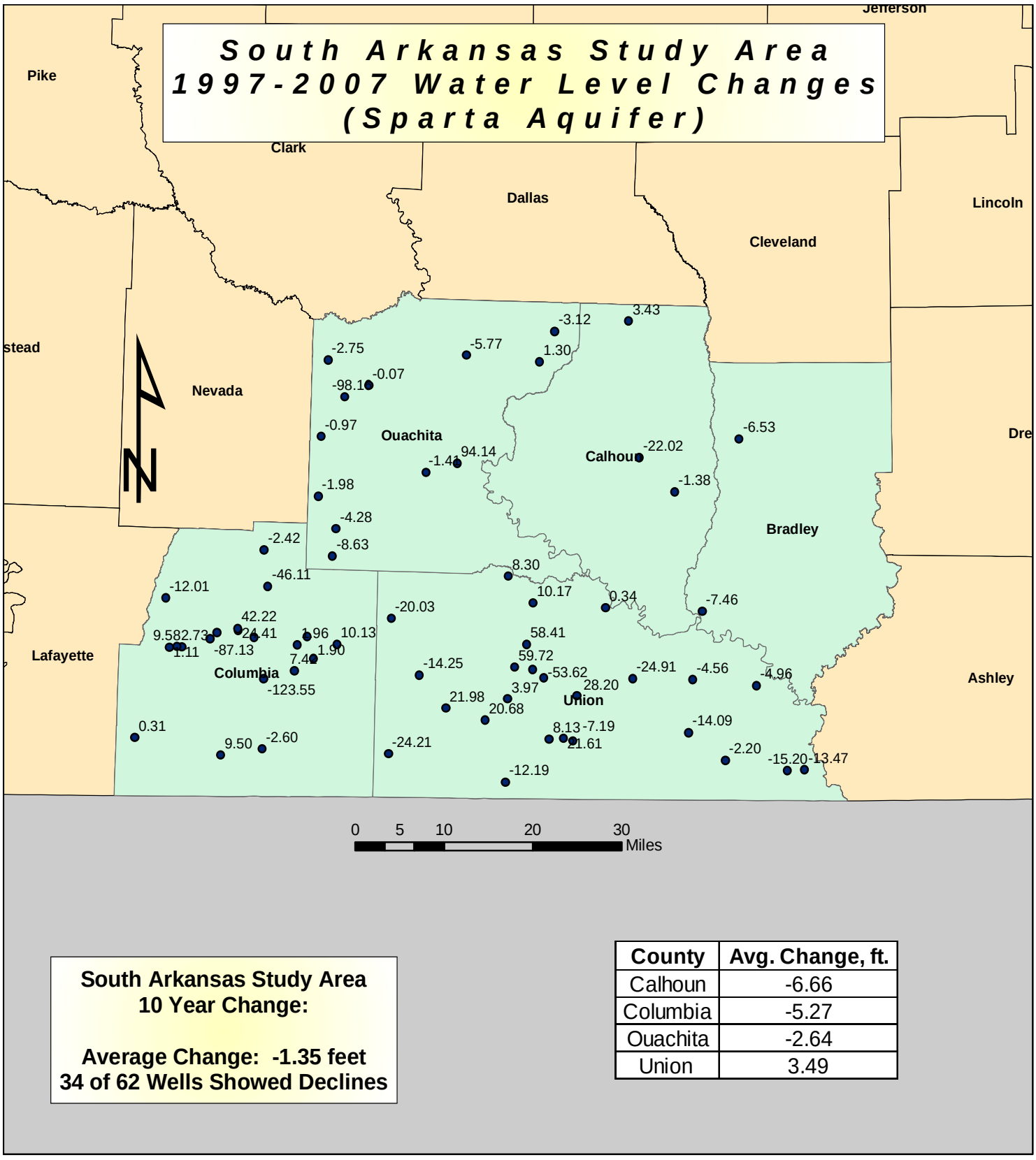


Fig. 10



South Arkansas Study Area
10 Year Change:

Average Change: -1.35 feet
34 of 62 Wells Showed Declines

County	Avg. Change, ft.
Calhoun	-6.66
Columbia	-5.27
Ouachita	-2.64
Union	3.49

Legend

- Wells
- South Arkansas Study Area

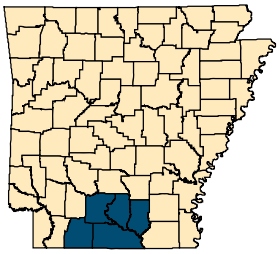


Fig. 11

GRAND PRAIRIE CRITICAL GROUND-WATER AREA

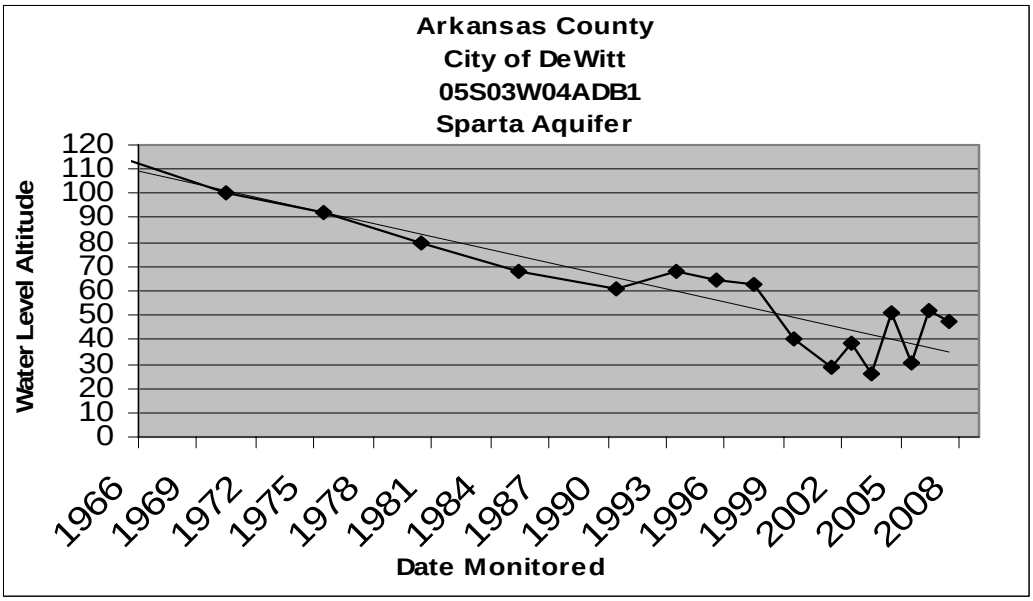
The designation “Grand Prairie” varies according to authors, but is commonly used to designate the area bounded on the south and west by the Arkansas River and on the north and east by the White and Little Red Rivers. (Ackerman, 1996) (Fig.1) This area was designated as a critical ground-water area for 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.

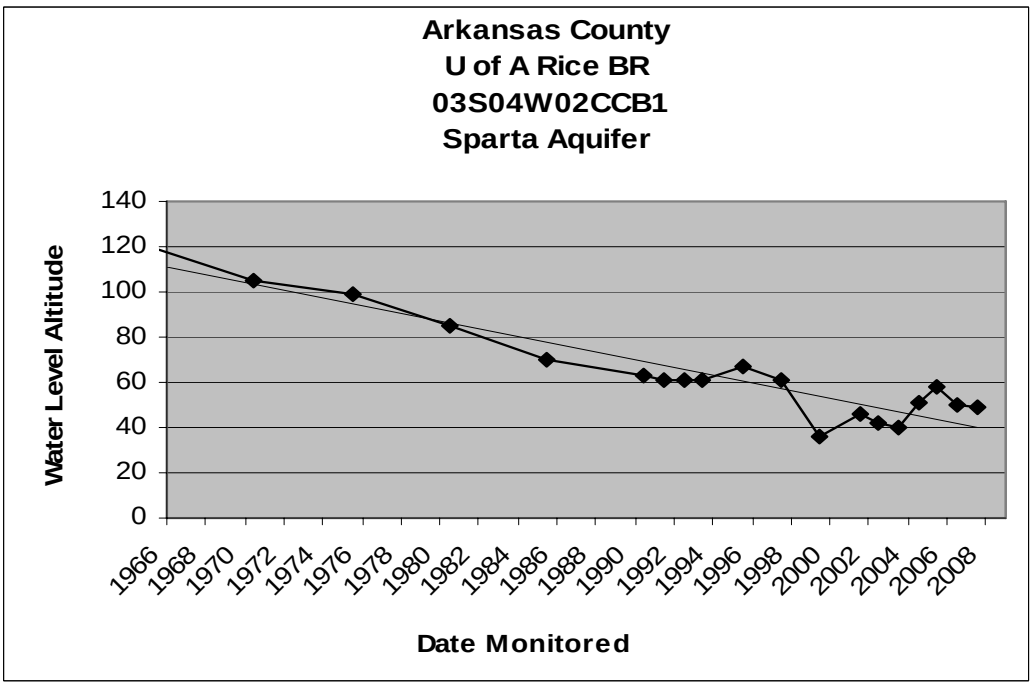
During the 2006-2007 monitoring period there 73 wells monitored with 53 (72.6%) showing average declines in the Sparta/Memphis aquifer throughout the counties in this study area. Every county in this study area had an average decline in static water levels during this monitoring period. Prairie County had an average change of -0.70 feet, Jefferson County -2.60 feet, Lonoke County -1.95 feet, and Arkansas County an average change of -1.38 feet. The average change for the entire study area for this time was -1.60 feet. (Fig.12)

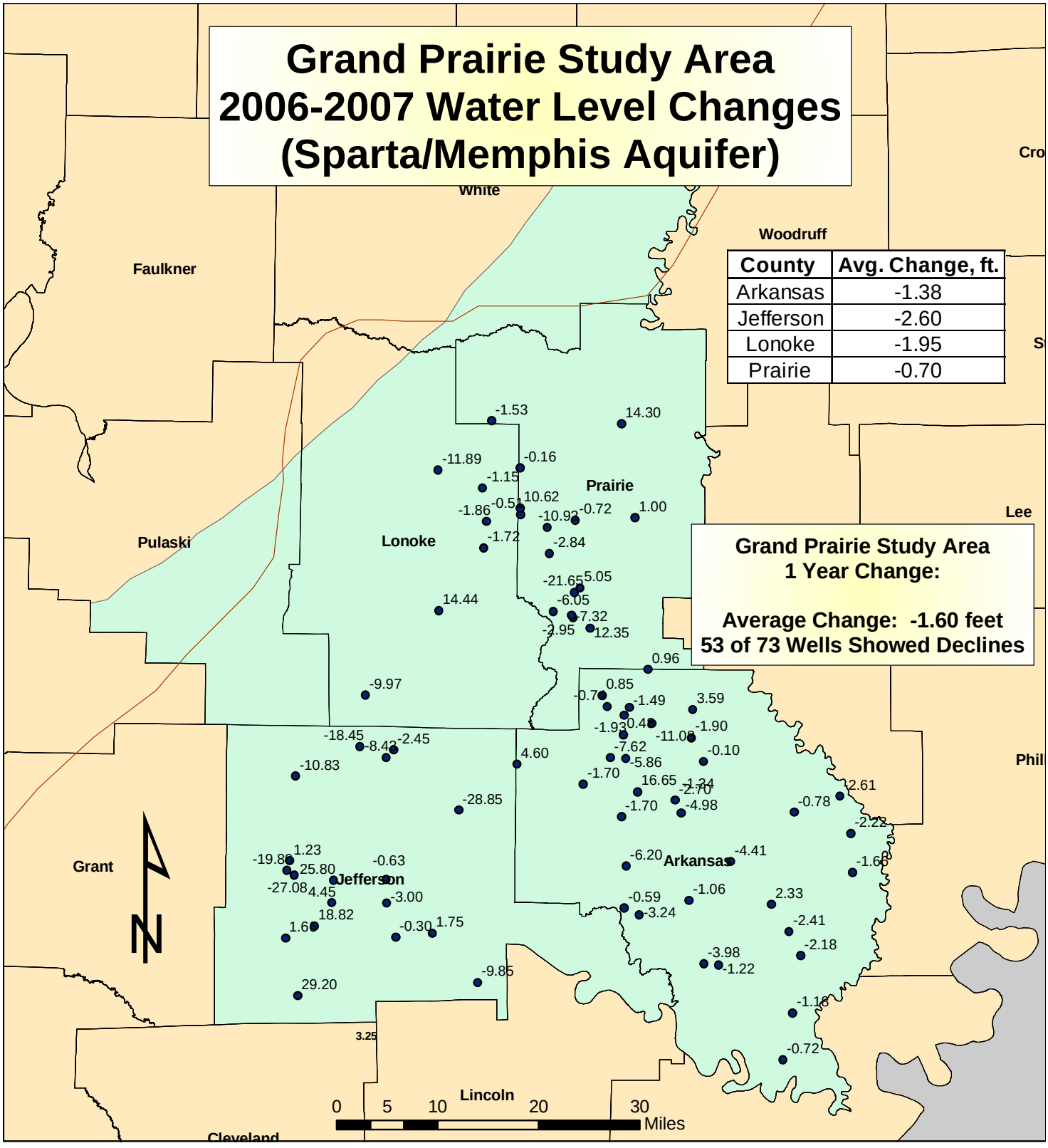
During the 5-year monitoring period from 2002 to 2007 Jefferson County had an average change of -3.27 feet, Lonoke County -4.72 feet, Arkansas County +4.74 feet and Prairie County -6.65 feet. Although some counties will show short- term increases in water levels, even in areas of significant historical decline, the long-term effect of over-use can be seen in the hydrograph below. The entire Grand Prairie Study Area averaged a +0.20 foot change during this 5-year period in the Sparta/Memphis aquifer, with 33 of 62 wells monitored showing declines. (Fig.13)

Over the 10-year period from 1997 to 2007 the Sparta/Memphis aquifer has shown an average decline of -14.80 feet. As seen in figure 14 all counties in the study area show an average decline significantly greater that 1-foot per year. Prairie County had an average change of -13.73 feet, Lonoke -14.11 feet, Jefferson -14.86, and Arkansas – 15.36 feet, respectively.

Sparta aquifer ground water withdrawals in Arkansas County have increased from an estimated 20.3 mgd in 1970 (Halburg, 1972) to a reported water use of 36.03 Mgal/d in 2005, an increase of 56.3% over this time period.



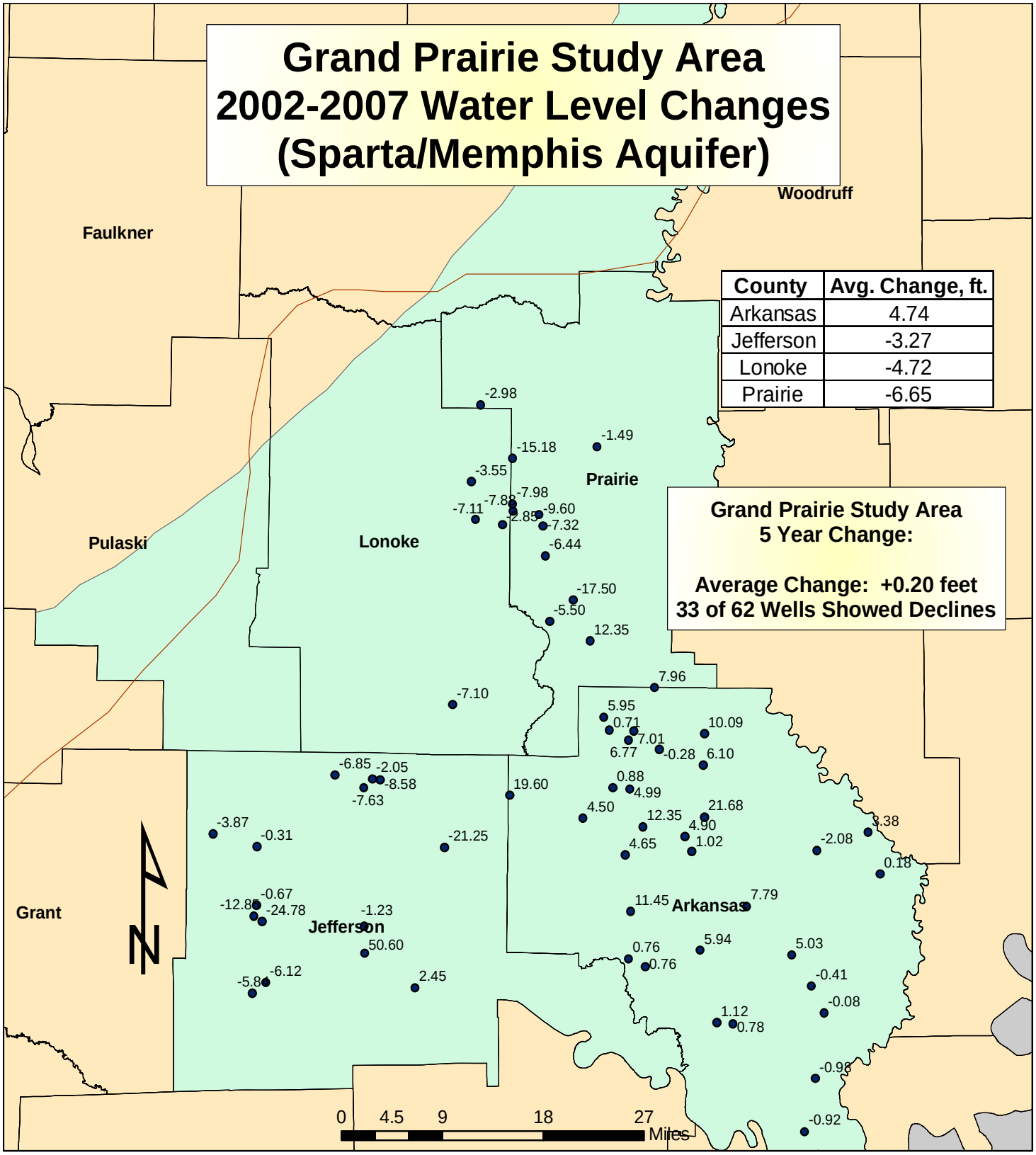




County	Avg. Change, ft.
Arkansas	-1.38
Jefferson	-2.60
Lonoke	-1.95
Prairie	-0.70

Fig. 12

Grand Prairie Study Area 2002-2007 Water Level Changes (Sparta/Memphis Aquifer)



County	Avg. Change, ft.
Arkansas	4.74
Jefferson	-3.27
Lonoke	-4.72
Prairie	-6.65

Grand Prairie Study Area
5 Year Change:

Average Change: +0.20 feet
33 of 62 Wells Showed Declines

Legend

- Wells
- Sparta Boundary
- Grand Prairie Study Area

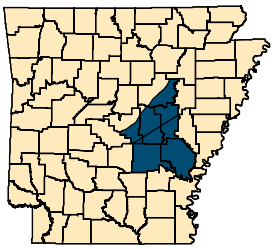
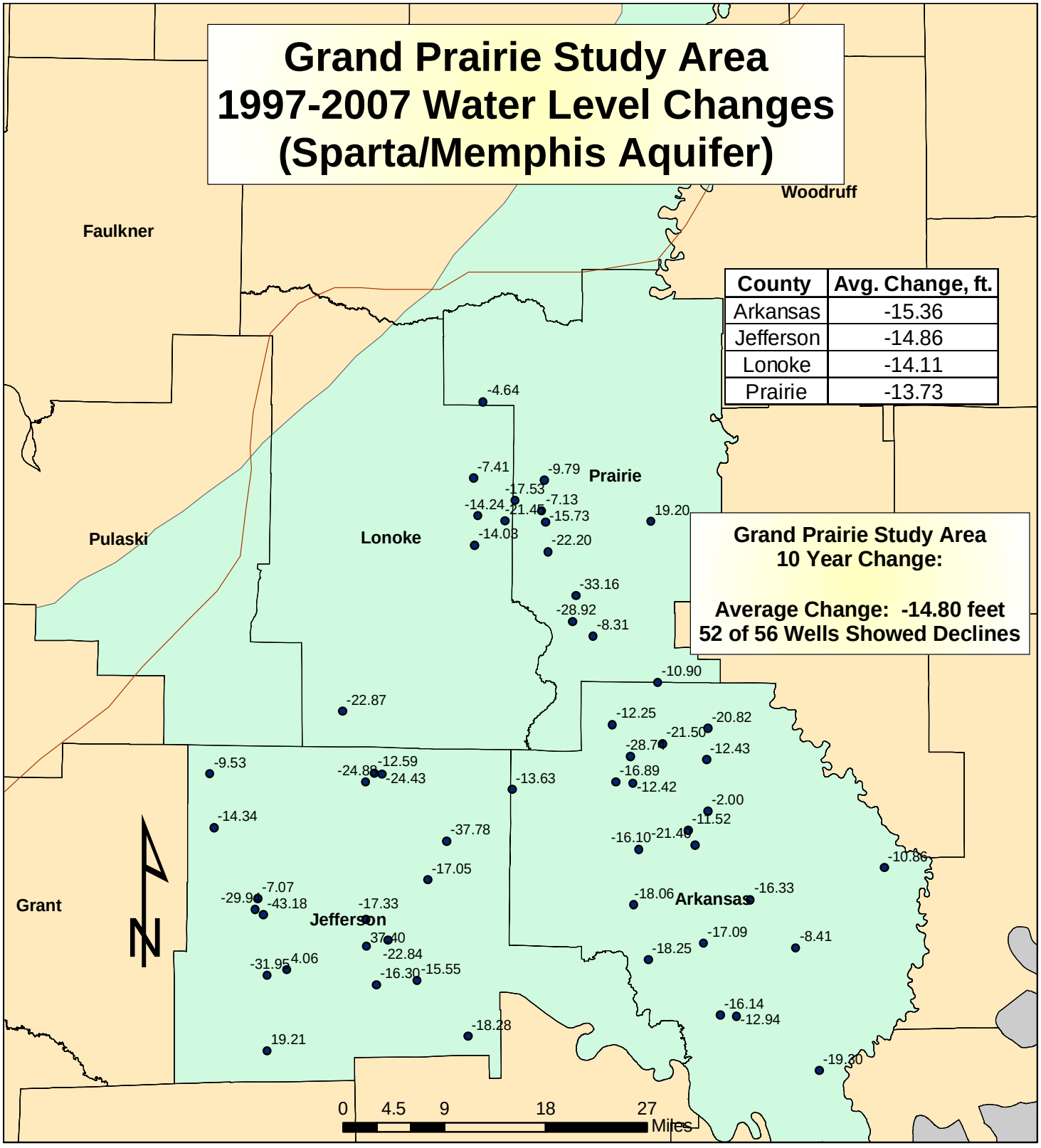


Fig. 13

Grand Prairie Study Area
1997-2007 Water Level Changes
(Sparta/Memphis Aquifer)



County	Avg. Change, ft.
Arkansas	-15.36
Jefferson	-14.86
Lonoke	-14.11
Prairie	-13.73

Grand Prairie Study Area
10 Year Change:

Average Change: -14.80 feet
52 of 56 Wells Showed Declines

Legend

- Wells
- Sparta Boundary
- Grand Prairie Study Area

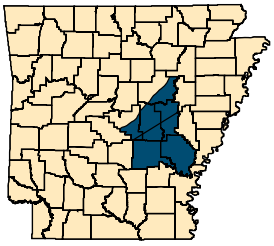


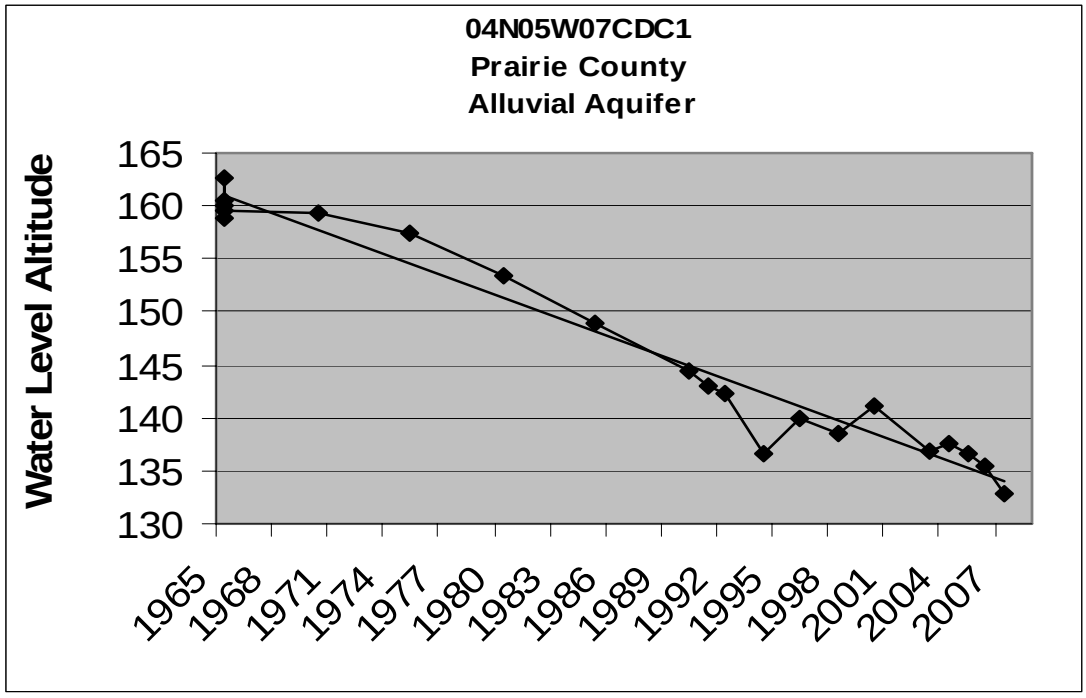
Fig. 14

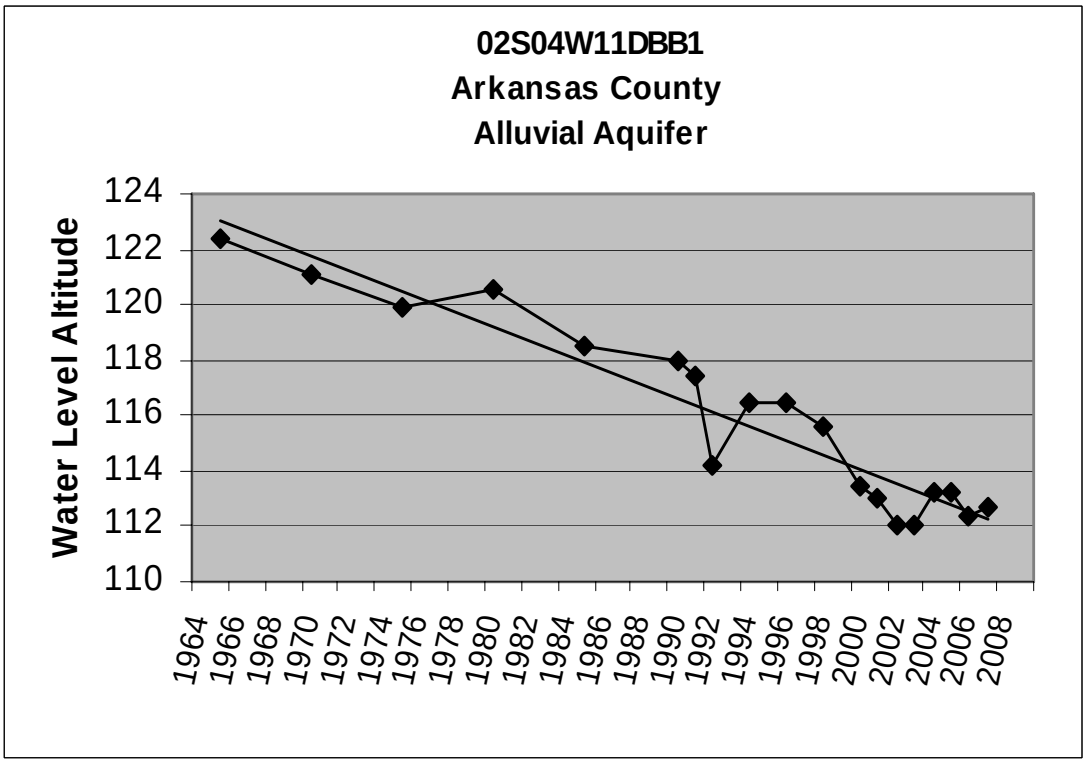
In the alluvial aquifer, during the 2006-2007 monitoring period for the Grand Prairie Critical Ground Water Area, Pulaski County had an average change of +3.50 feet, White County +1.70 feet, Prairie County -0.40 feet, Lonoke County -0.46 feet, Jefferson county +0.28 feet, and Arkansas County -0.61 feet, respectively. The average change for the entire study area for 2005-2006 in the alluvial aquifer was -0.10 feet, with 85 of the 140 wells (60.7%) monitored showing declines. (Fig.15)

During the 5-year monitoring period from 2002 to 2007, some counties showed declines in average ground water levels, while others showed positive average changes in the alluvial aquifer. White County showed an average change of +1.76 feet, Arkansas County -1.01 feet, Jefferson County -1.27 feet, Prairie County -2.05 feet, and Lonoke County -1.62 feet respectively. The Grand Prairie Study Area had an average decline -1.17 feet during this 5-year period for the alluvial aquifer, with 79 of the 131 wells (60.3%) monitored showing declines. (Fig.16)

From 1997 to 2007 the alluvial aquifer in the Grand Prairie Study Area had an average change of -3.57 feet, with 24 of 32 (75.0%) wells monitored showing declines. Changes during this 10-year period ranged from -7.04 feet in Lonoke County, to +5.81 feet in White County. Arkansas County had an average change of -1.33 feet, Jefferson County -5.63 feet, and Prairie County showed an average decline of -5.67 feet. (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 76% of the counties actual pumping rate, Prairie County 40.8%, Arkansas County 35.8%, and Lonoke County 31.4% respectively. (Fig.46) 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
1968
1971
1974
1977
1980
1983
1986
1989
1992
1995
1998
2001
2004
2007

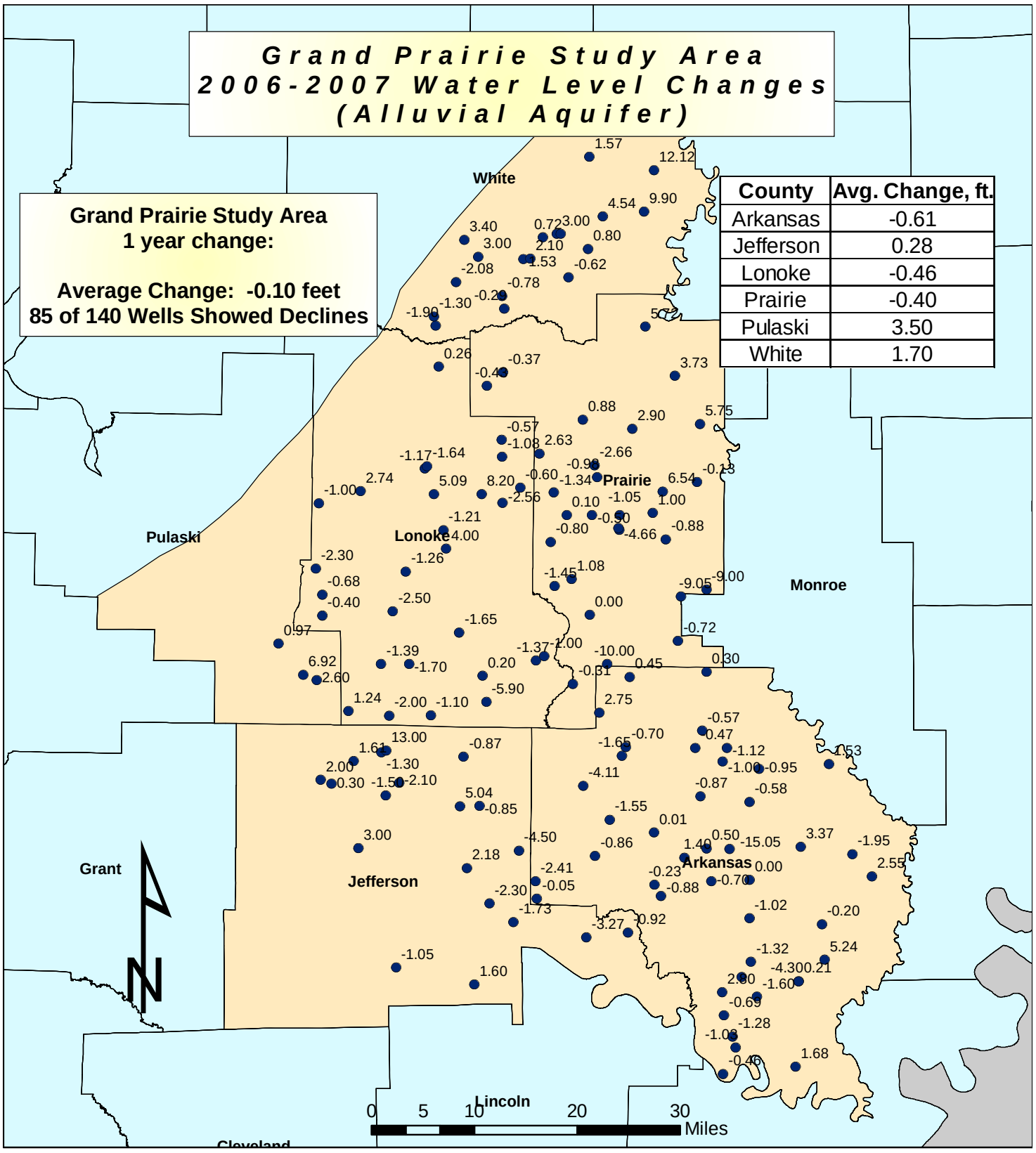

02S04W11DBB1
Arkansas County
Alluvial Aquifer
Water Level Altitude
124
122
120
118
116
114
112
110
1964
1966
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008

Grand Prairie Study Area
2006-2007 Water Level Changes
(Alluvial Aquifer)

Grand Prairie Study Area
1 year change:

Average Change: -0.10 feet
85 of 140 Wells Showed Declines

County	Avg. Change, ft.
Arkansas	-0.61
Jefferson	0.28
Lonoke	-0.46
Prairie	-0.40
Pulaski	3.50
White	1.70



Legend

- Wells
- Grand Prairie Study Area

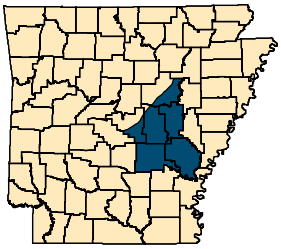
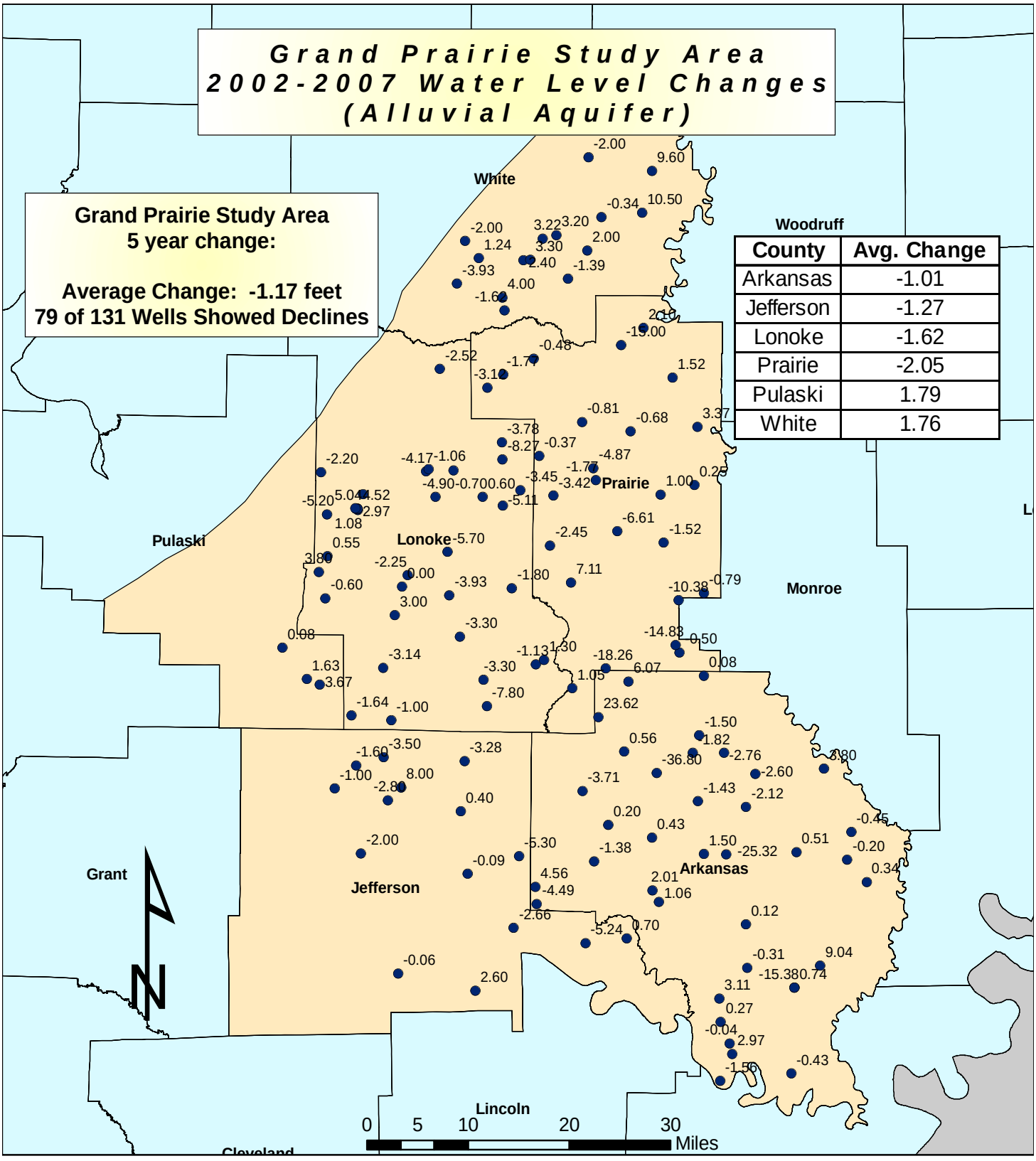


Fig. 15



County	Avg. Change
Arkansas	-1.01
Jefferson	-1.27
Lonoke	-1.62
Prairie	-2.05
Pulaski	1.79
White	1.76

Legend

- Wells
- Grand Prairie Study Area

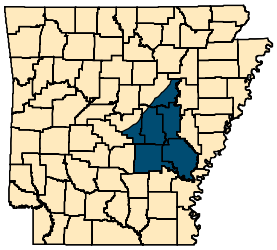
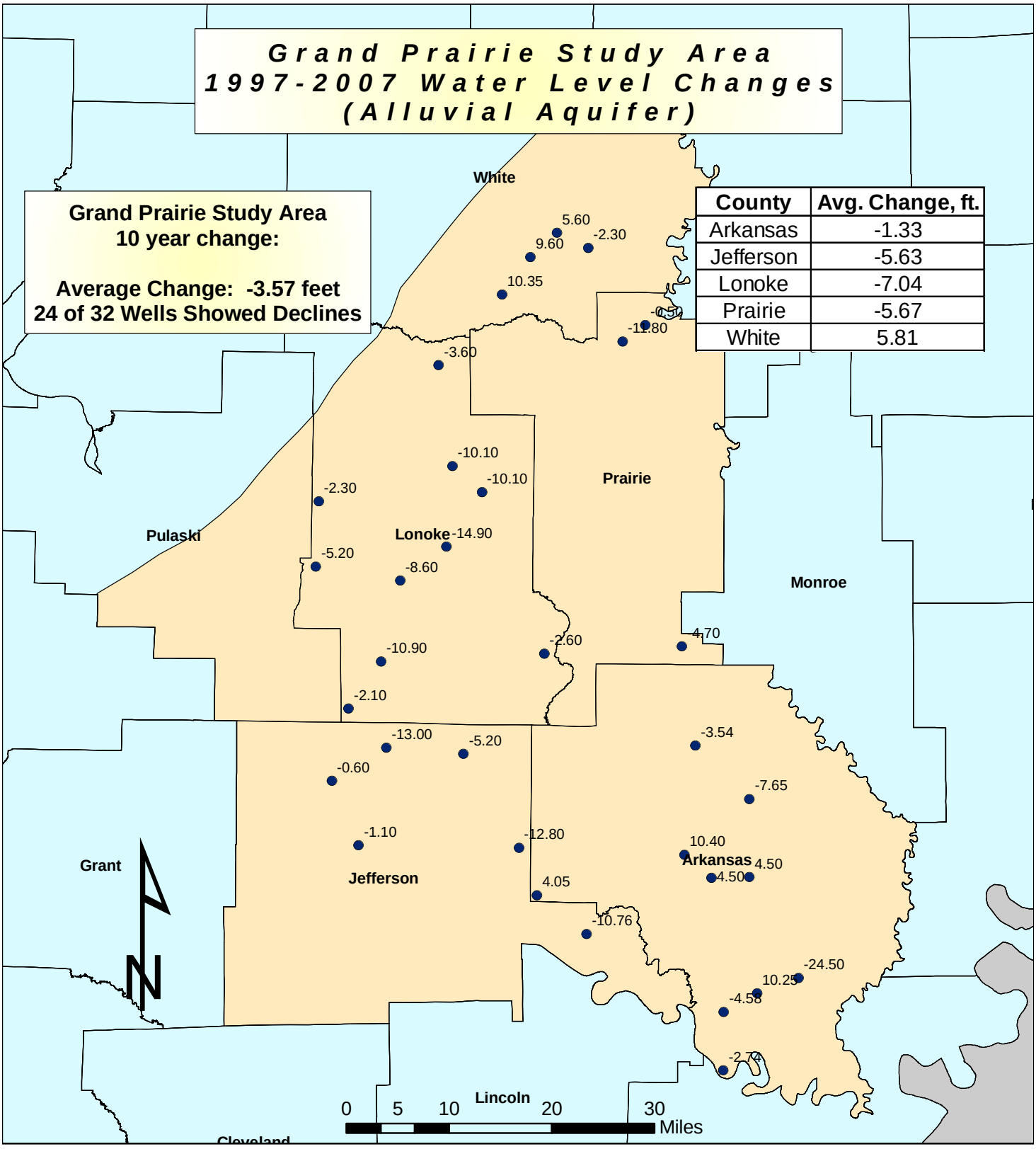


Fig. 16



Legend

- Wells
- Grand Prairie Study Area

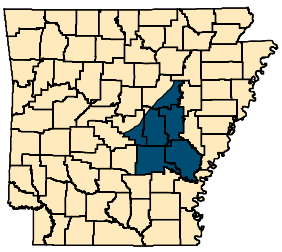


Fig. 17

CACHE STUDY 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)

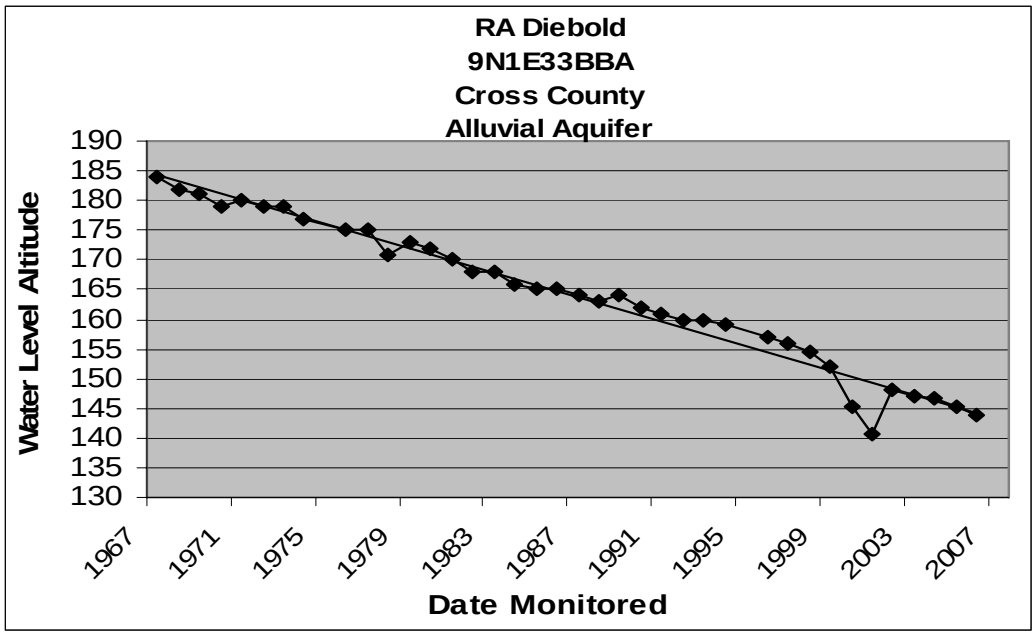
Monitoring of the alluvial aquifer in this study area from 2006 to 2007 showed significant change with the entire study area having an average change of -0.32 feet. One hundred and seventy one of the 263 wells monitored (65%) had a decline in static water level. During this same time Craighead County showed an average change of -0.72 feet, Cross County -0.55 feet, Greene County -2.60 feet, Independence County +2.68, Jackson County +1.43, Lawrence County -2.15, Lee County -1.54, Monroe County +0.31, Poinsett County -0.95, Randolph County +2.00, St. Francis -1.30 feet, Woodruff County -0.03, Phillips County -0.72 feet, and Clay County +2.53 feet, respectively. (Fig.18)

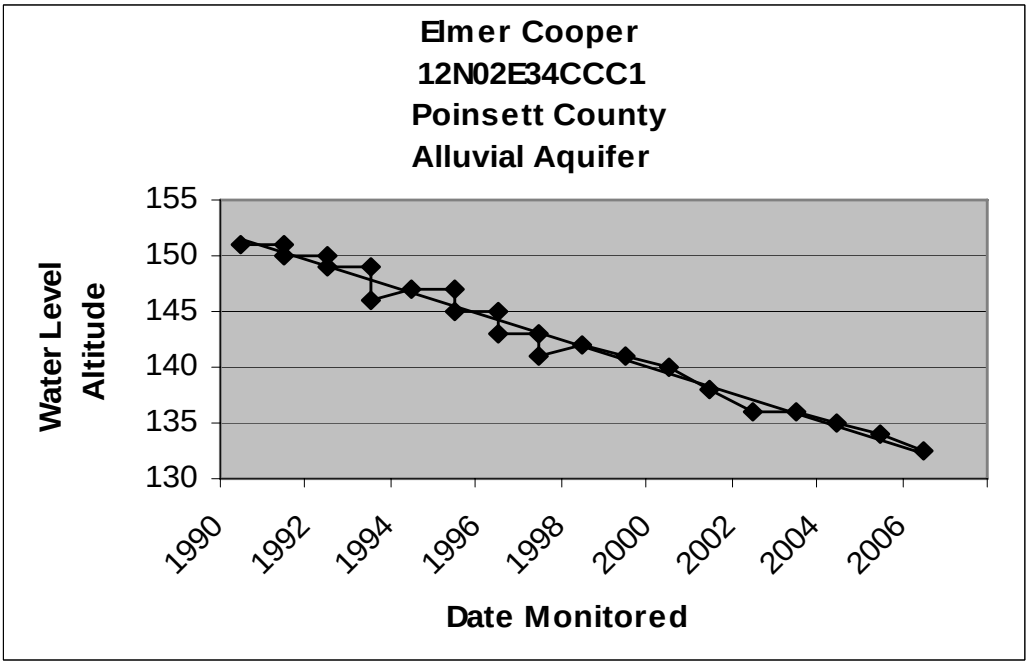
The alluvial aquifer in the Cache Study Area was also evaluated for change in water levels for a 5-year time period from 2002 to 2007. For this period all but two counties showed declines in static water levels. Greene County had an average change of -4.45 feet, Clay County +1.35 feet, Craighead County -3.76 feet, Cross County -3.13 feet, Independence County -3.08 feet, Jackson County +0.22 feet, Lee County -3.43 feet, Monroe County -1.58 feet, Phillips County -3.81 feet, Poinsett County -6.78 feet, Randolph -3.56 feet, St. Francis County -3.22 feet, and Woodruff County -1.00 feet, respectively. The entire Cache Study Area showed an average change of -2.97 feet in the alluvial aquifer during this 5-year monitoring period. Out of the 220 wells monitored, 183 (83.2%) of these showed average declines. (Fig.19)

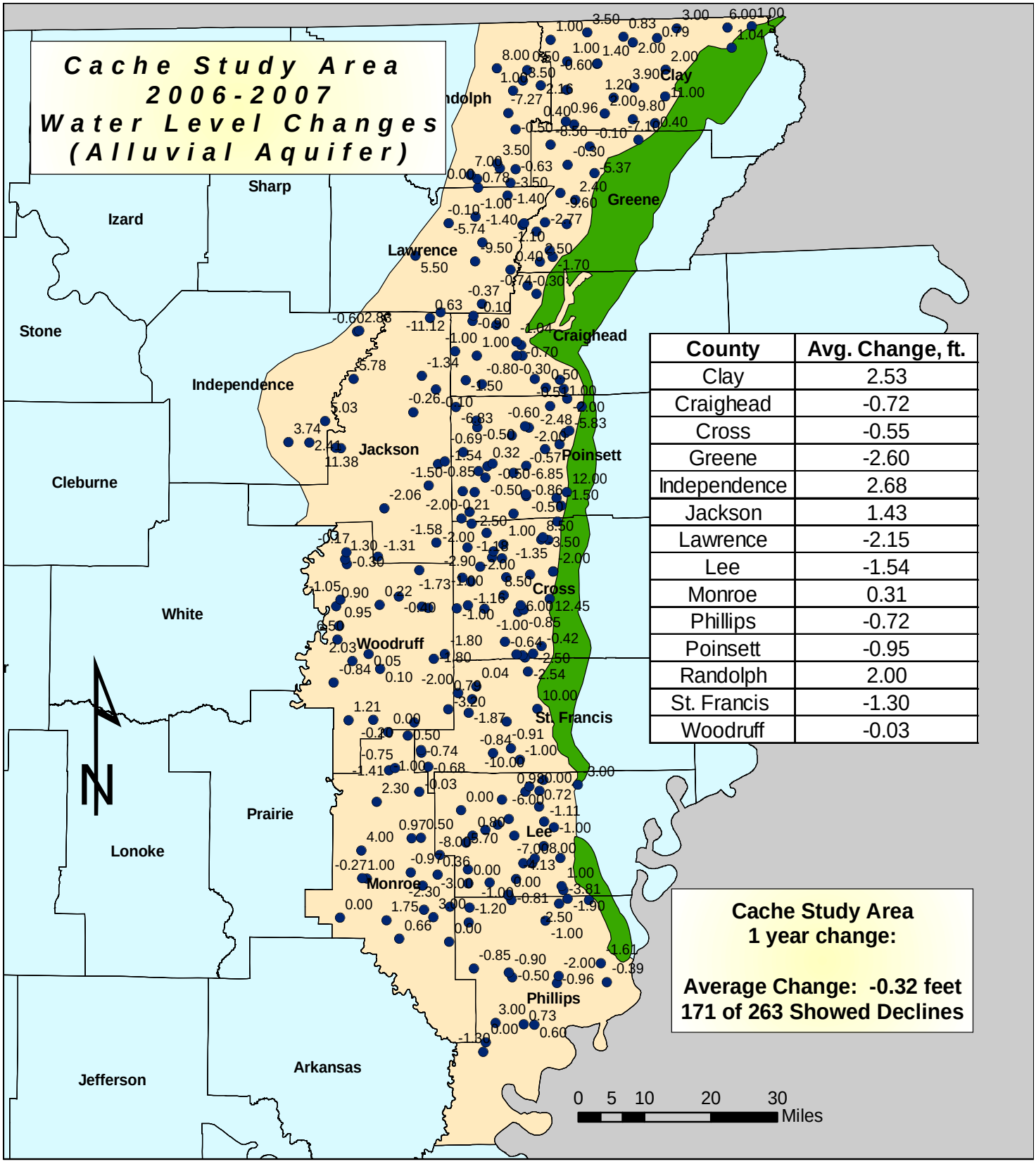
Average change was also compared in the alluvial aquifer for a 10-year timeframe for the Cache Study Area. Of the 130 wells monitored, 119 of these (91.5%) showed an average decline. Every county in the study area showed an average decline in static water levels once again for this time period. Phillips County had an average change of -3.83 feet, Cross -12.34 feet, Craighead -9.93 feet,

Lawrence -7.35 feet, Lee -14.25 feet, Monroe -4.46 feet, Poinsett -12.97 feet, Randolph -5.97 feet, St. Francis -7.97 feet, Woodruff -5.04, and Clay County -5.08 feet respectively. The average change for the study area over this time was a decline of -8.73 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 46 and is based on the 2005 withdrawals. Water-use data shown in Table 2 is the reported use for 2005. Based on the reported water use for 2005, as well as the sustainable yields estimated from the USGS models, the percentage of water use that was sustainable in 2005 for each county in the Cache Study Area are as follows; Craighead County 63.3%, Cross County 24.8%, Greene County 52.3%, Independence County 42.5%, Jackson County 53.8%, Lawrence County 100%, Lee County 22.2%, Monroe County 62.4%, Phillips County 43.8%, Poinsett County 25.3%, Randolph County 61.7%, and St. Francis County 22.7% 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 466.06 Mgal/d in 2005, this dropped the sustainable yield to 50.4%. 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 50.4% sustainable figure for 2005. 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 2005 pumping rates.


RA Diebold
9N1E33BBA
Cross County
Alluvial Aquifer
Water Level Altitude
190
185
180
175
170
165
160
155
150
145
140
135
130
1967
1971
1975
1979
1983
1987
1991
1995
1999
2003
2007
Date Monitored


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



County	Avg. Change, ft.
Clay	2.53
Craighead	-0.72
Cross	-0.55
Greene	-2.60
Independence	2.68
Jackson	1.43
Lawrence	-2.15
Lee	-1.54
Monroe	0.31
Phillips	-0.72
Poinsett	-0.95
Randolph	2.00
St. Francis	-1.30
Woodruff	-0.03

Legend

- Wells
- Crowleys Ridge
- Cache Study Area

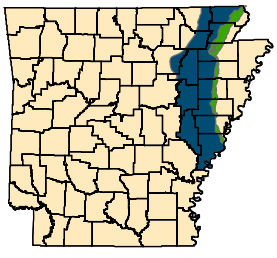
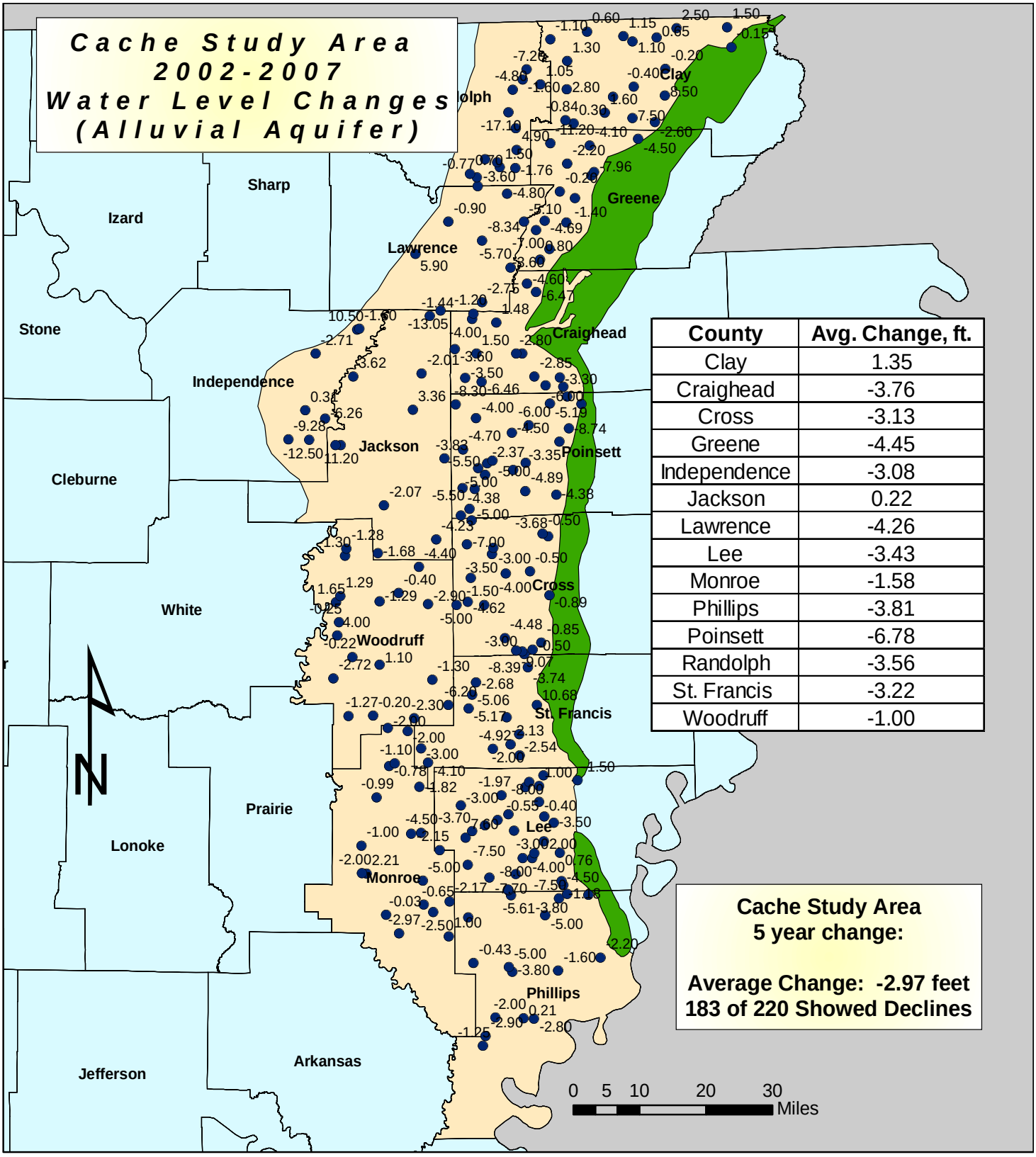


Fig. 18



County	Avg. Change, ft.
Clay	1.35
Craighead	-3.76
Cross	-3.13
Greene	-4.45
Independence	-3.08
Jackson	0.22
Lawrence	-4.26
Lee	-3.43
Monroe	-1.58
Phillips	-3.81
Poinsett	-6.78
Randolph	-3.56
St. Francis	-3.22
Woodruff	-1.00

Legend

- Wells
- Crowleys Ridge
- Cache Study Area

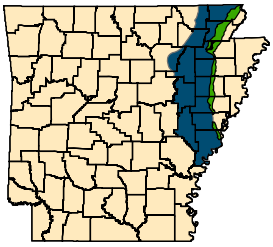
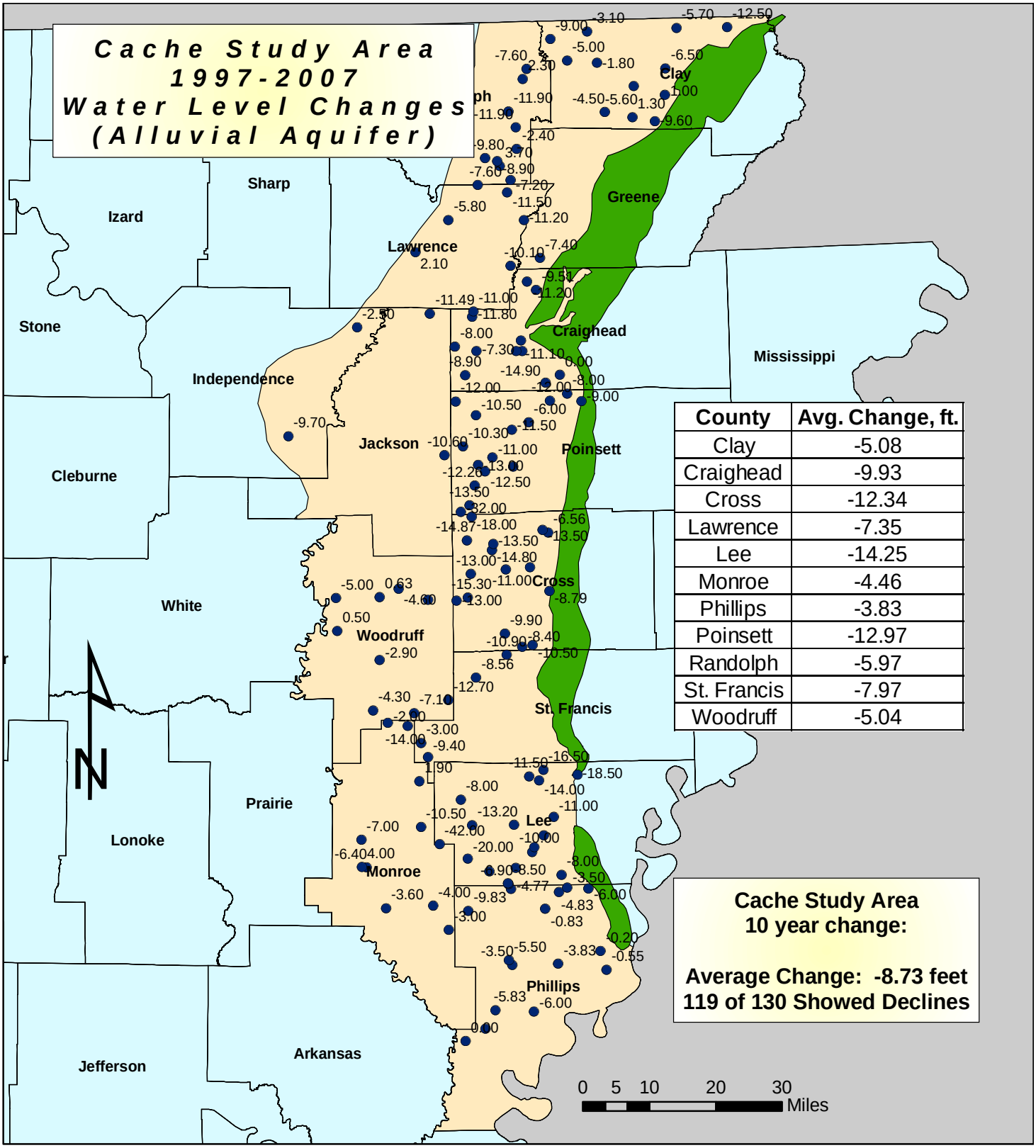


Fig. 19



County	Avg. Change, ft.
Clay	-5.08
Craighead	-9.93
Cross	-12.34
Lawrence	-7.35
Lee	-14.25
Monroe	-4.46
Phillips	-3.83
Poinsett	-12.97
Randolph	-5.97
St. Francis	-7.97
Woodruff	-5.04

Cache Study Area
10 year change:

Average Change: -8.73 feet
119 of 130 Showed Declines

Legend

- Wells
- Crowleys Ridge
- Cache Study Area

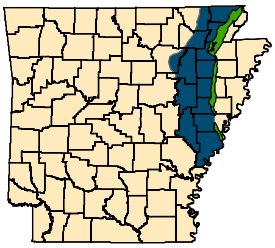
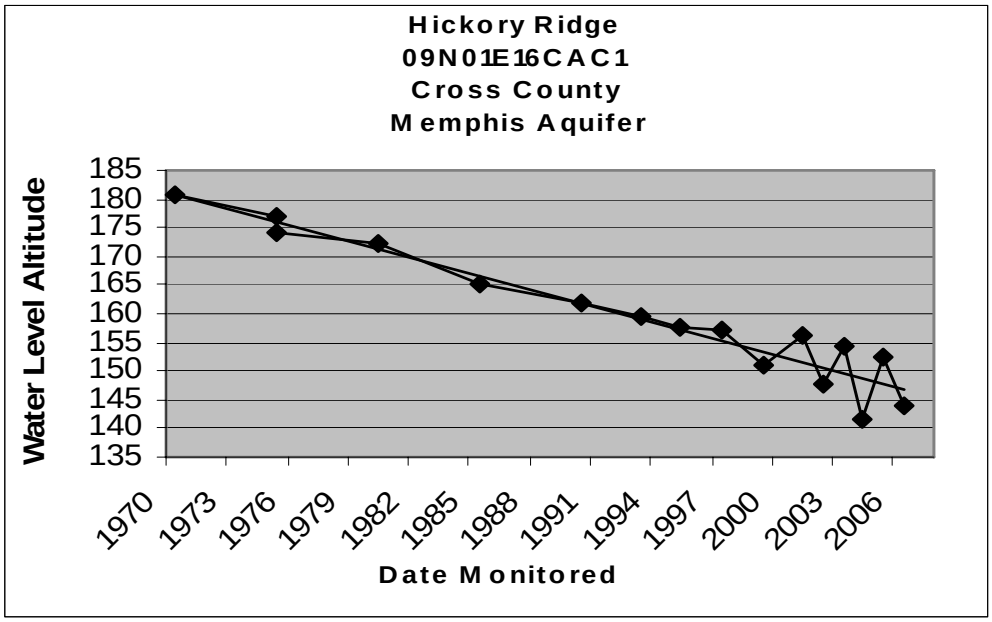


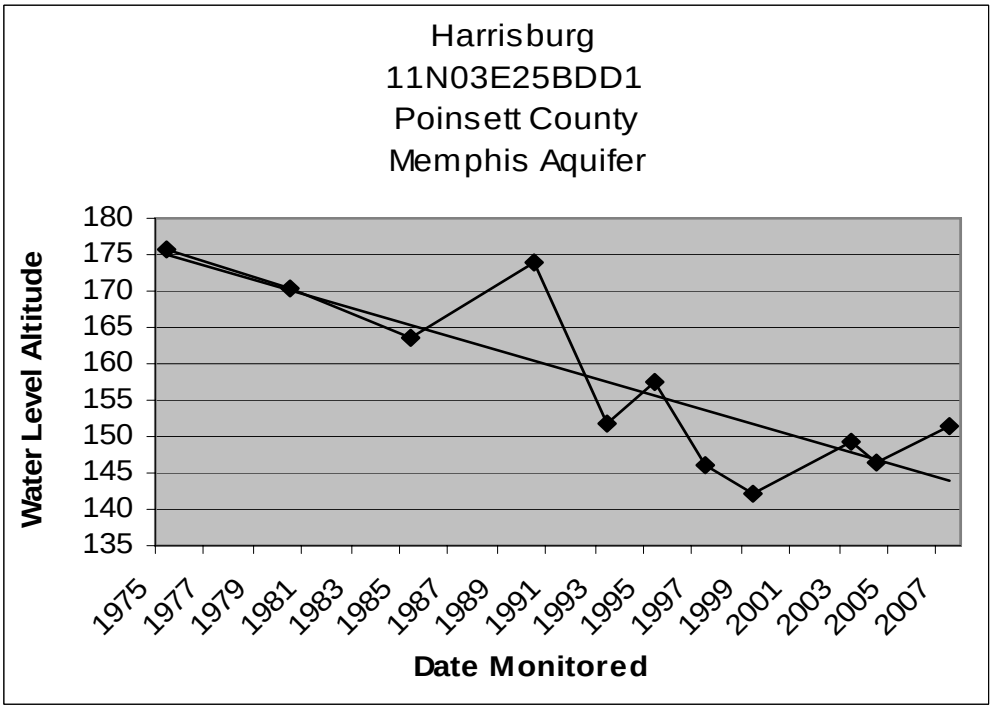
Fig. 20

Monitoring of the Sparta/Memphis aquifer in the Cache Study Area from 2006 to 2007 shows that the study area had an overall average decline in static water level of -2.04 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-six of the 33 wells (78.8%) monitored showed declines during this time period. The average change for the counties in this study area over the one-year period (2006-2007) were; Craighead County -0.18 feet, Cross County -1.38 feet, Monroe County -1.62 feet, Phillips County -4.38 feet, Poinsett County -1.26 feet, and Woodruff County -2.30 feet respectively. (Fig.21)

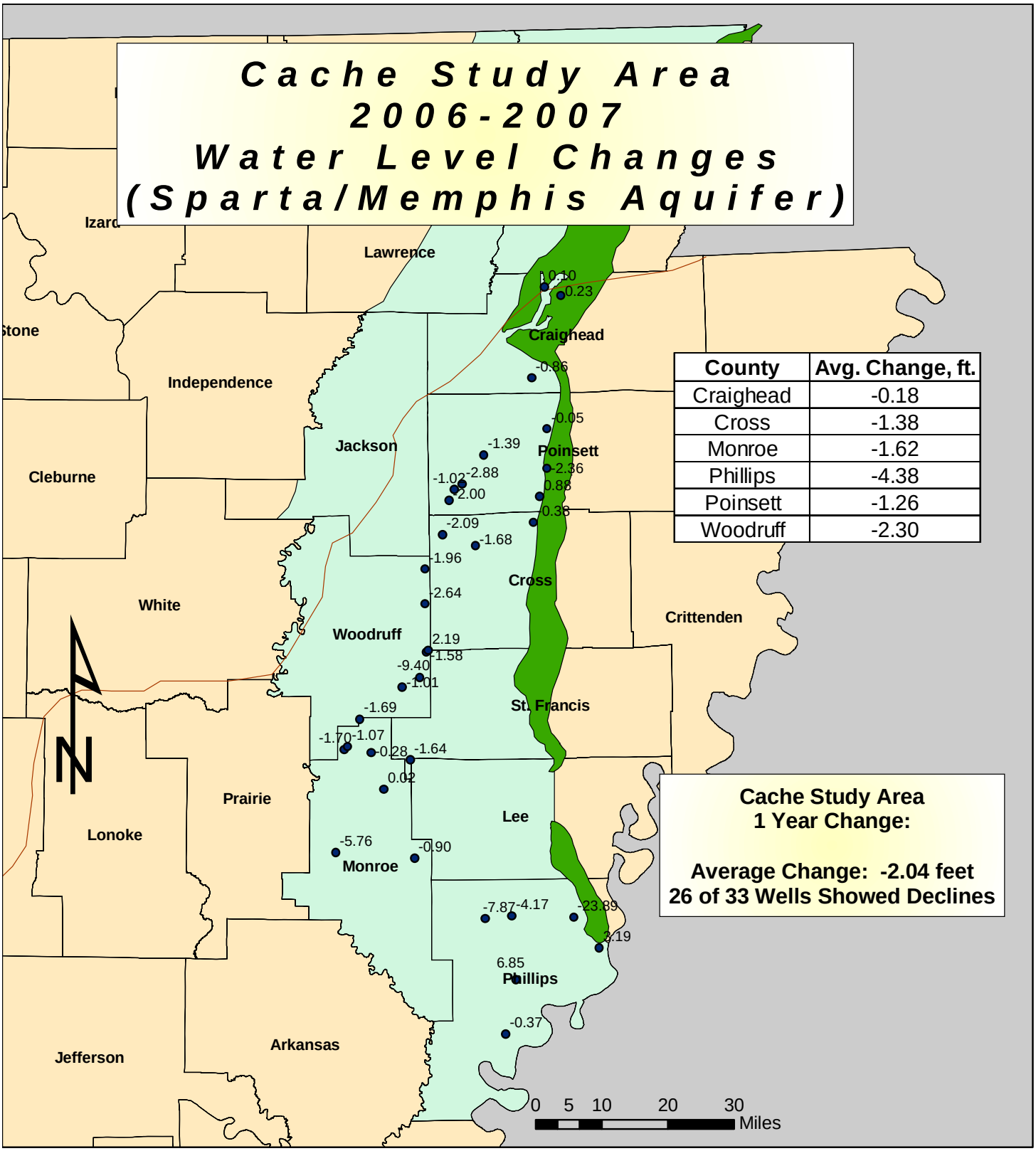
During the 2002 to 2007 monitoring period the Sparta/Memphis aquifer in the Cache Study Area had an average water level decline of -2.64 feet, with 20 of the 29 wells monitored (69.0%) showing decline. Woodruff County had an average change of -2.94 feet, Phillips County -2.99 feet, Poinsett County -0.68 feet, Monroe County -3.74 feet, Cross County -6.08 feet, and Craighead County +0.29 feet respectively. (Fig. 22)

Few wells were monitored in the Sparta/Memphis aquifer back in 1997, so that makes comparisons sparse for the 10-year change map as seen on figure 23. Of the 19 wells monitored from 1997 to 2007, 16 show declines (84.2%). Craighead County had an average change of -4.17 feet, Monroe County -4.71 feet, and Phillips County -3.42 feet respectively. USGS Scientific Investigations Reports studying the potentiometric surface of the Sparta/Memphis aquifer show an expanding cone of depression in Poinsett and Cross Counties west of Crowley's Ridge.


Hickory Ridge
09N01E16CAC1
Cross County
Memphis Aquifer
Water Level Altitude
185
180
175
170
165
160
155
150
145
140
135
1970
1973
1976
1979
1982
1985
1988
1991
1994
1997
2000
2003
2006
Date Monitored


Harrisburg
11N03E25BDD1
Poinsett County
Memphis Aquifer
Water Level Altitude
180
175
170
165
160
155
150
145
140
135
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
Date Monitored

Cache Study Area
2006-2007
Water Level Changes
(Sparta/Memphis Aquifer)



County	Avg. Change, ft.
Craighead	-0.18
Cross	-1.38
Monroe	-1.62
Phillips	-4.38
Poinsett	-1.26
Woodruff	-2.30

Cache Study Area
1 Year Change:

Average Change: -2.04 feet
26 of 33 Wells Showed Declines

Legend

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

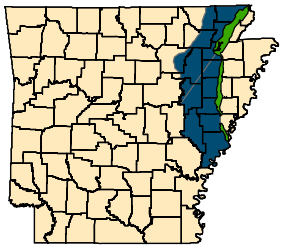
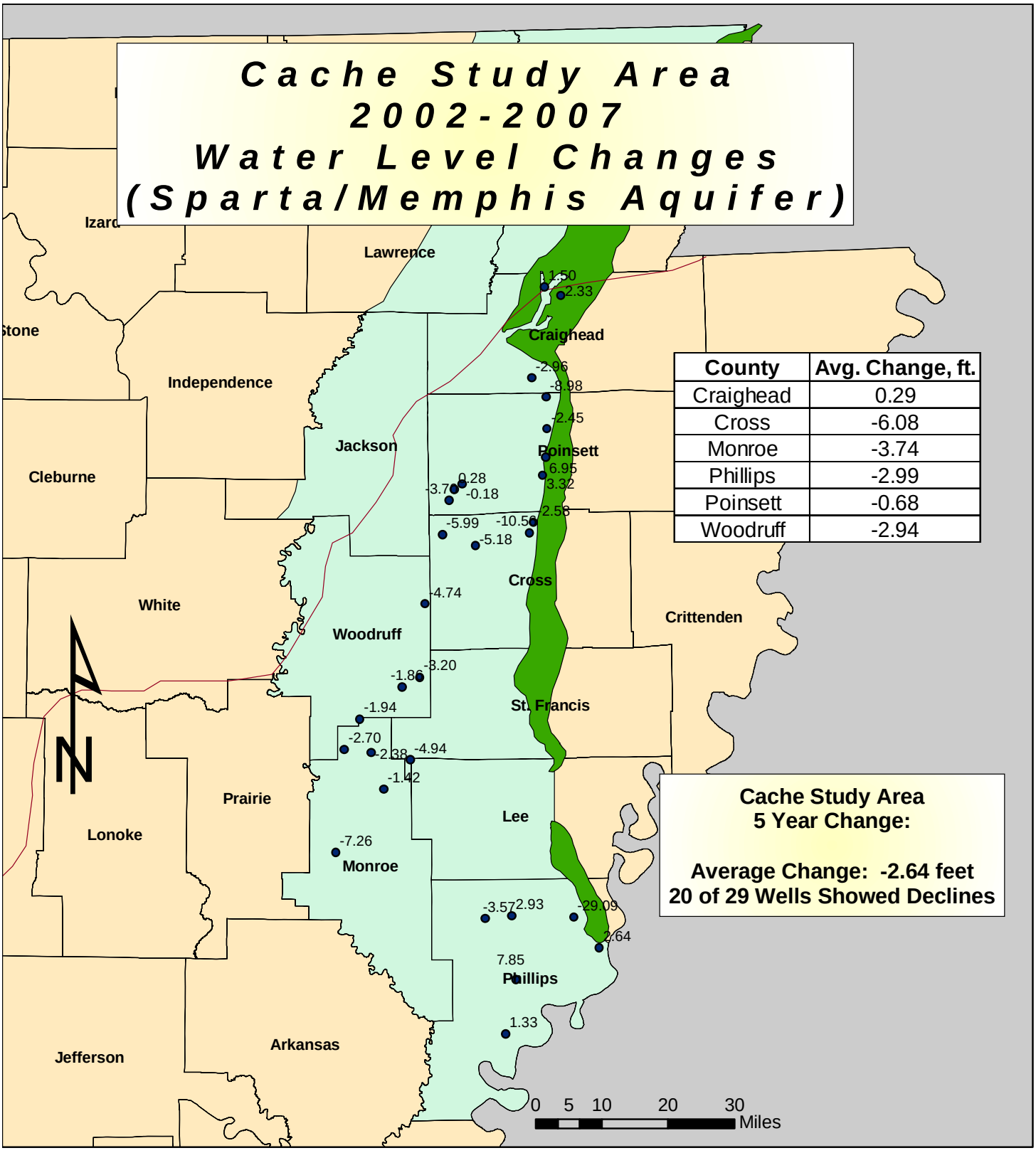


Fig. 21



County	Avg. Change, ft.
Craighead	0.29
Cross	-6.08
Monroe	-3.74
Phillips	-2.99
Poinsett	-0.68
Woodruff	-2.94

Cache Study Area
5 Year Change:

Average Change: -2.64 feet
20 of 29 Wells Showed Declines

Legend

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

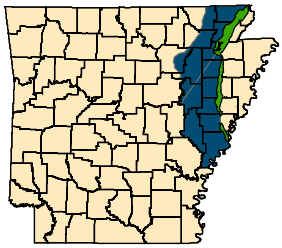
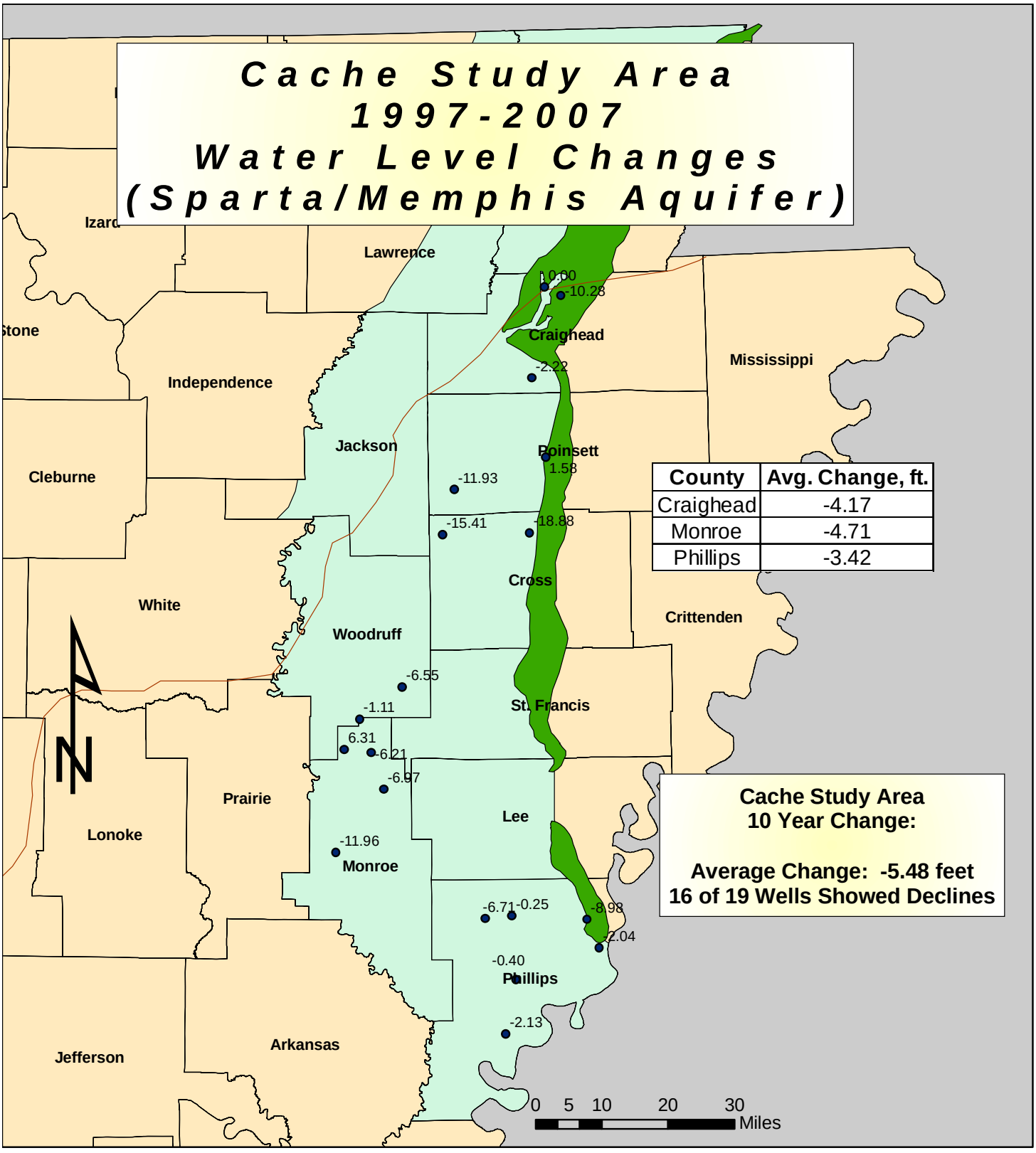


Fig. 22



County	Avg. Change, ft.
Craighead	-4.17
Monroe	-4.71
Phillips	-3.42

Legend

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

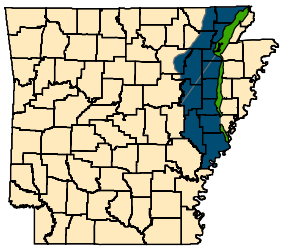


Fig. 23

BOEUF-TENSAS STUDY AREA

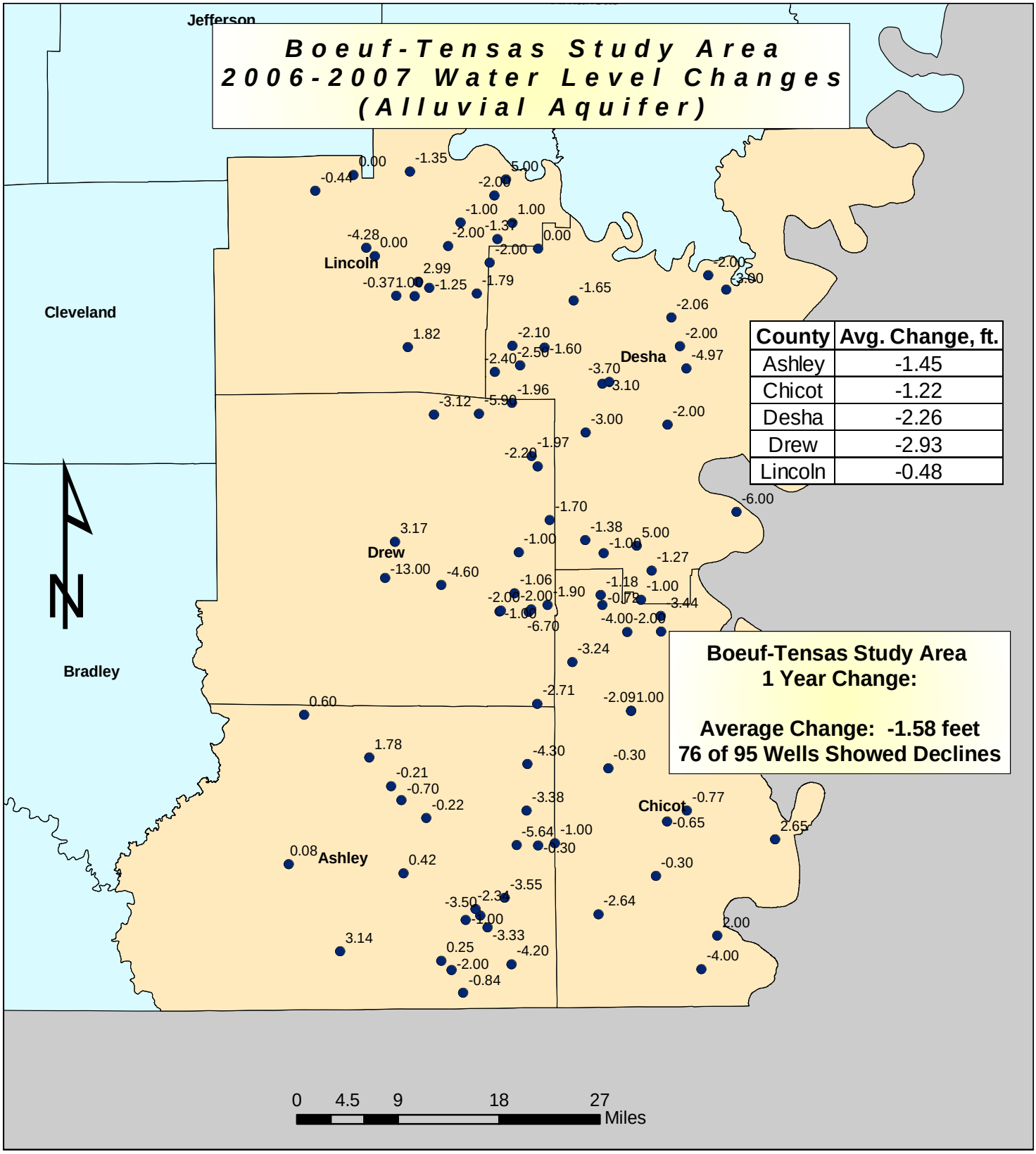
The Boeuf-Tensas study area in southeast Arkansas is comprised of Ashley, Chicot, Desha, Drew, and Lincoln Counties. This hydrologic basin extends into Louisiana but for the purposes of this study will be bounded by the Arkansas state line to the south.

The alluvial aquifer data in the Boeuf-Tensas Study Area for the monitoring period of 2006-2007 showed the entire study area having an average change of -1.58 feet, and 76 of the 95 wells monitored (80.0%) having declines in static water level. Lincoln County had an average change of -0.48 feet, Chicot County -1.22 feet, Desha County -2.26 feet, Drew County -2.93 feet, and Ashley County -1.45 feet respectively. (Fig.24)

During the 5-year monitoring period from 2002 to 2007 the study area had an average change of -2.97 feet in the alluvial aquifer, with 57 of the 71 wells monitored (80.3%) showing declines. Ashley County had an average change of -4.07 feet, Chicot County -1.76 feet, Drew County -3.41 feet, Desha County -3.65 feet, and Lincoln County -1.29 feet respectively. (Fig.25)

The data for the 10-year change in the Boeuf-Tenses shows Ashley County had an average change of -8.58 feet, Chicot County -10.20 feet, Desha County -5.45 feet, Drew County -6.14 feet, and Lincoln County -8.40 feet respectively. The entire study area showed an average change of -8.22 feet during this 10-year period in the alluvial aquifer with 30 of 31 wells monitored (96.8%) showing declines. (Fig.26)

Based on the USGS 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 based on the 2005 rates is shown in figure 46. Water-use data shown in Table 2 is the reported use for 2005. Based on the reported water use for 2005, as well as the sustainable yields estimated from the USGS models, the average percentage of water use in the Alluvial aquifer that was sustainable in the Boeuf-Tenses Study Area was 48.1%.



Legend

- Wells
- Boeuf-Tensas Study Area

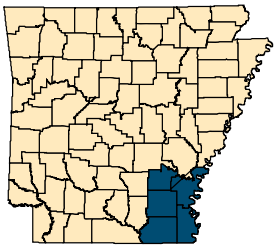
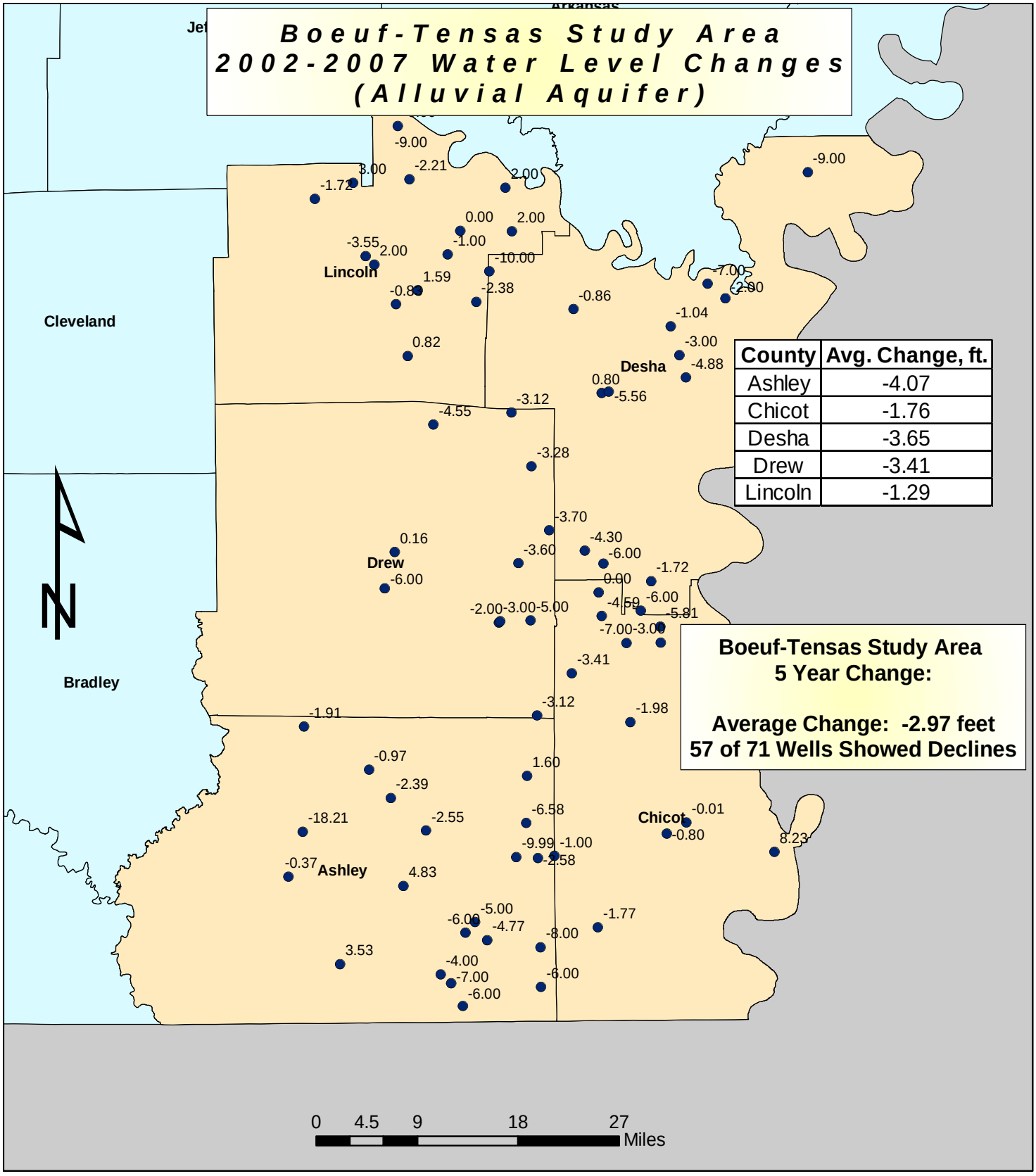


Fig. 24



County	Avg. Change, ft.
Ashley	-4.07
Chicot	-1.76
Desha	-3.65
Drew	-3.41
Lincoln	-1.29

Boeuf-Tensas Study Area
5 Year Change:

Average Change: -2.97 feet
57 of 71 Wells Showed Declines

Legend

- Wells
- Boeuf-Tensas Study Area

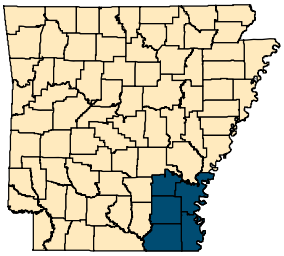
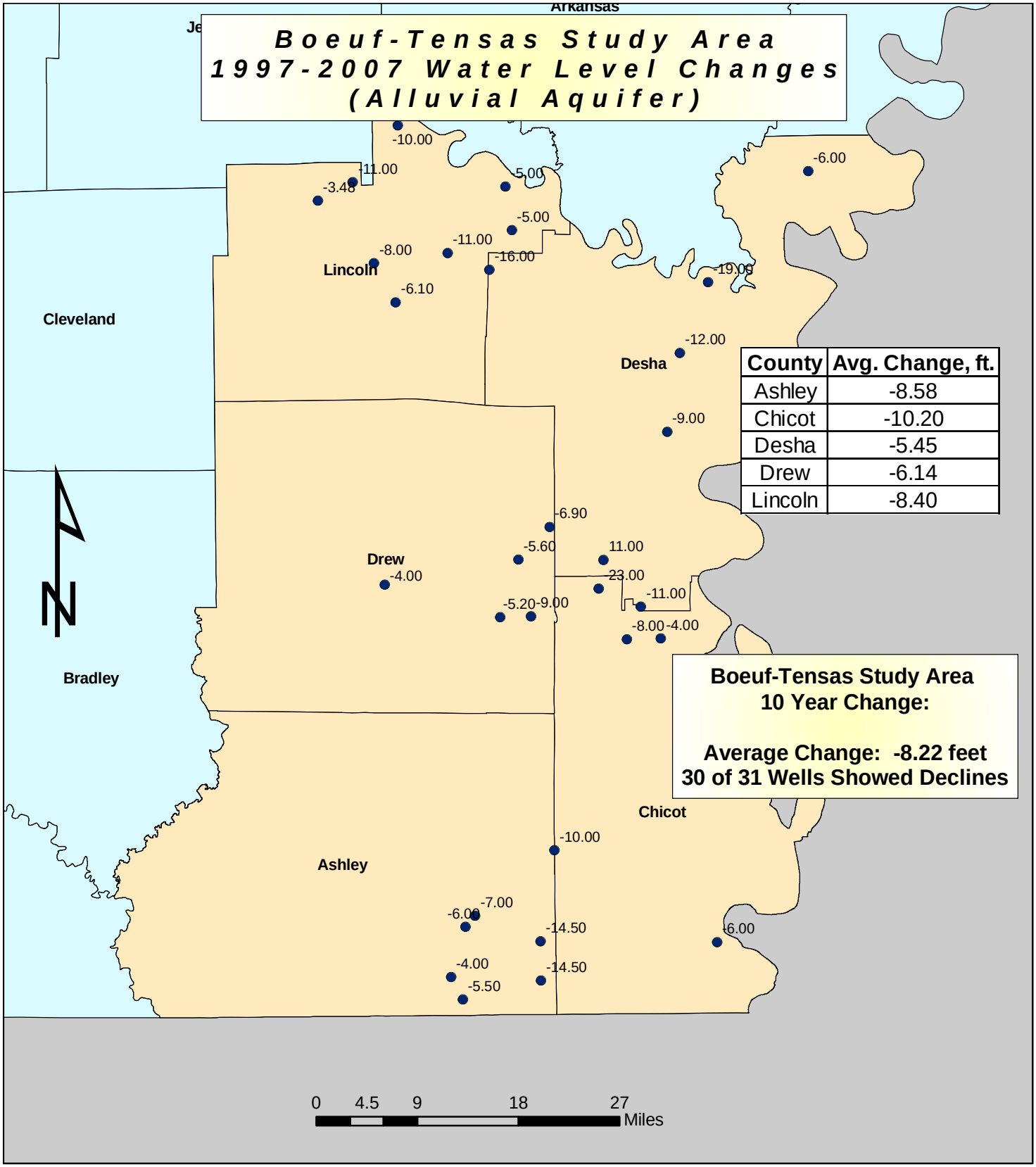


Fig. 25



County	Avg. Change, ft.
Ashley	-8.58
Chicot	-10.20
Desha	-5.45
Drew	-6.14
Lincoln	-8.40

Boeuf-Tensas Study Area
10 Year Change:

Average Change: -8.22 feet
30 of 31 Wells Showed Declines

Legend

- Wells
- Boeuf-Tensas Study Area

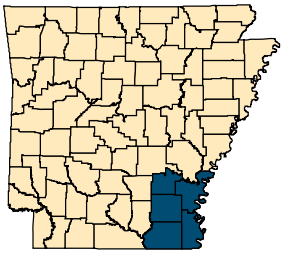
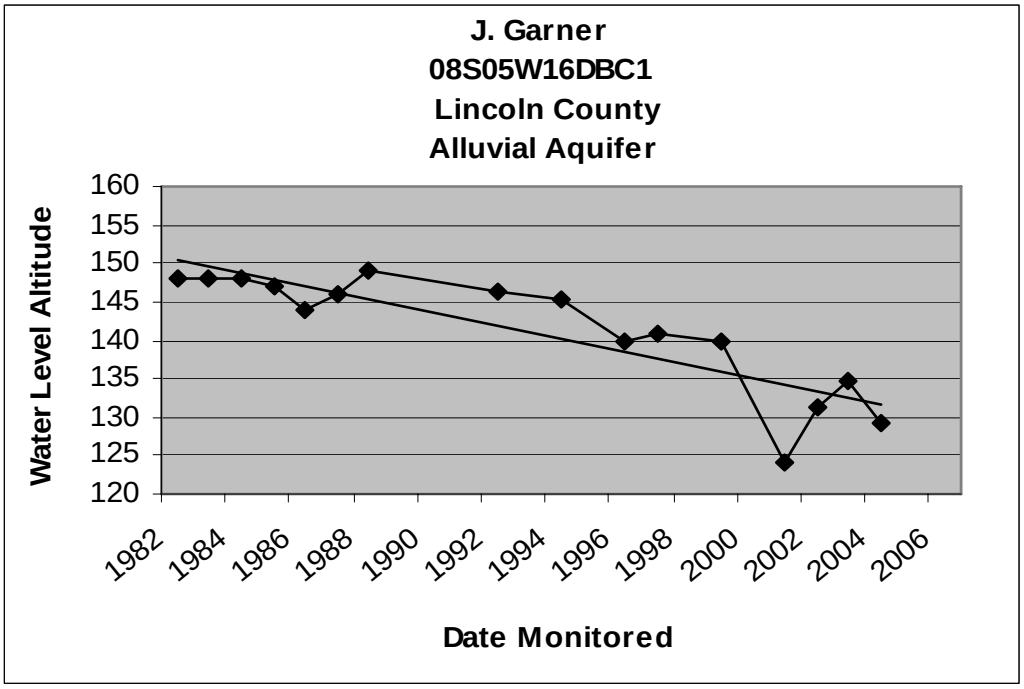
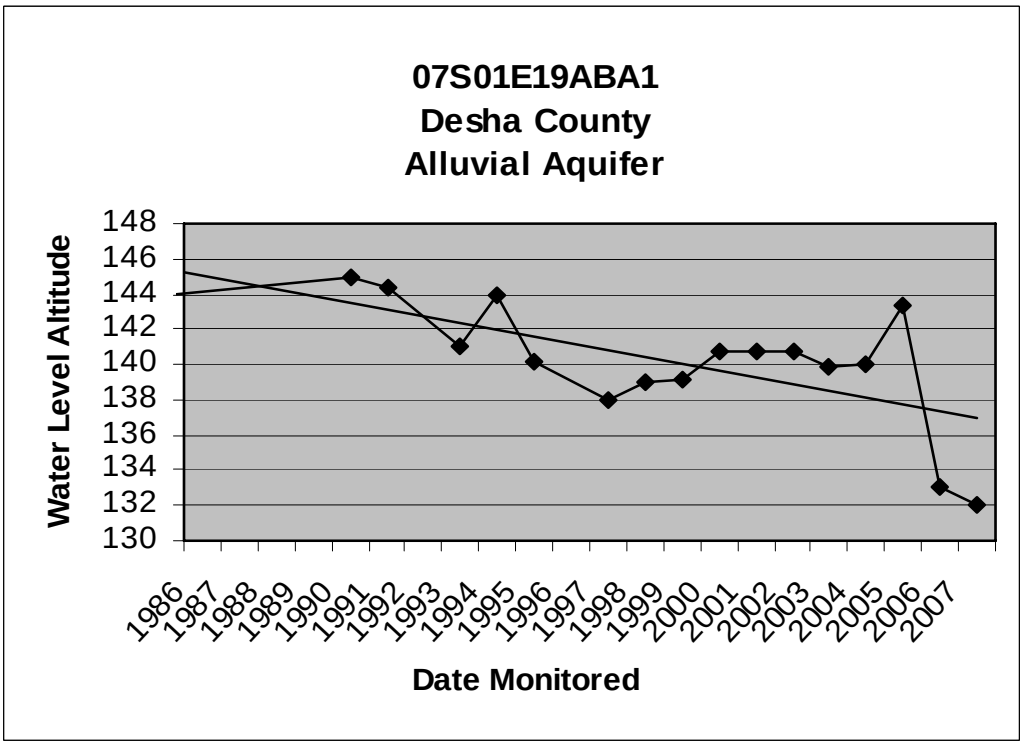


Fig. 26


J. Garner
08S05W16DBC1
Lincoln County
Alluvial Aquifer
Water Level Altitude
160
155
150
145
140
135
130
125
120
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
Date Monitored

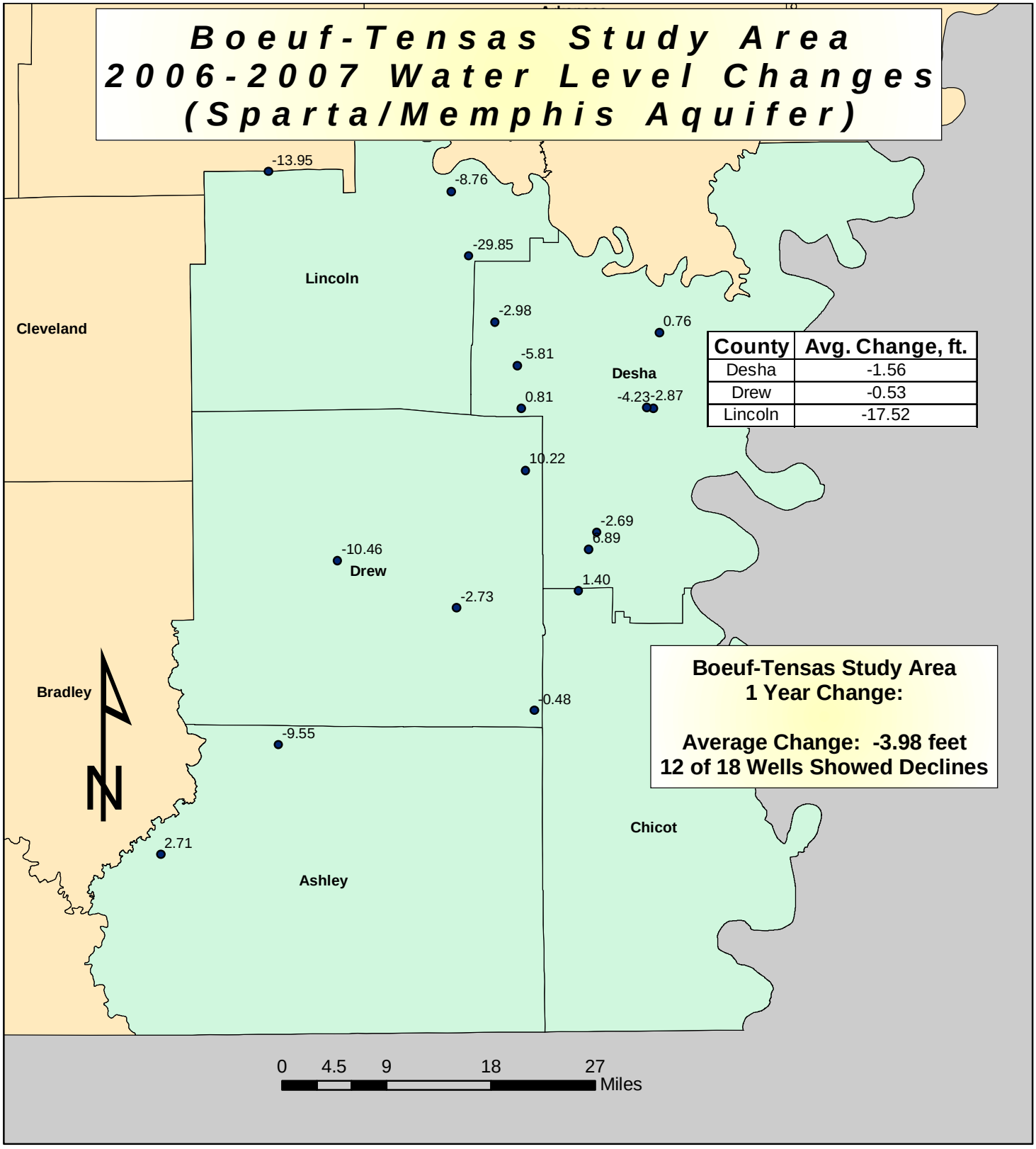

07S01E19ABA1
Desha County
Alluvial Aquifer
Water Level Altitude
148
146
144
142
140
138
136
134
132
130
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
Date Monitored

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 2006-2007 monitoring period the Boeuf-Tenses Study Area showed an average decline of -3.98 feet in the Sparta/Memphis aquifer, with 12 of the 18 wells monitored (66.7%) showing declines. Lincoln County had an average change of -17.52 feet, Desha County a change of -1.56 feet, and Drew County -0.53 feet respectively. (Fig.27)

During the 5-year monitoring period, from 2002 to 2007, 15 of the 17 wells monitored in the Sparta/Memphis aquifer (88.2%) showed water-level declines in this study area. Desha County had an average change of -2.69 feet, Lincoln County -13.00 feet, and Drew County -5.29 feet respectively. The entire study area had an average change of -7.16 feet during this time. (Fig.28)

From 1997 to 2007 the entire Boeuf-Tensas Study Area had an average change of -13.13 feet in the Sparta/Memphis aquifer. Fifteen of the 16 wells monitored during this 10-year period showed declines (93.8%) ranging from -3.10 feet all the way to -39.51 feet. Desha County showed an average change of -10.52 feet, Drew County -8.70 feet, and Lincoln County an average change of -23.79 feet respectively. These are significant declines for this aquifer in this study area with the potentiometric surface falling an average of 1.31 feet every year. (Fig. 29)



County	Avg. Change, ft.
Desha	-1.56
Drew	-0.53
Lincoln	-17.52

Boeuf-Tensas Study Area
1 Year Change:

Average Change: -3.98 feet
12 of 18 Wells Showed Declines

Legend

- Wells
- Boeuf-Tensas Study Area

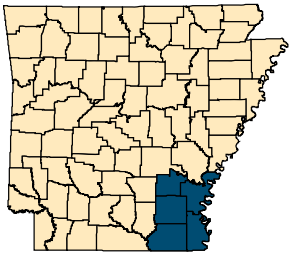
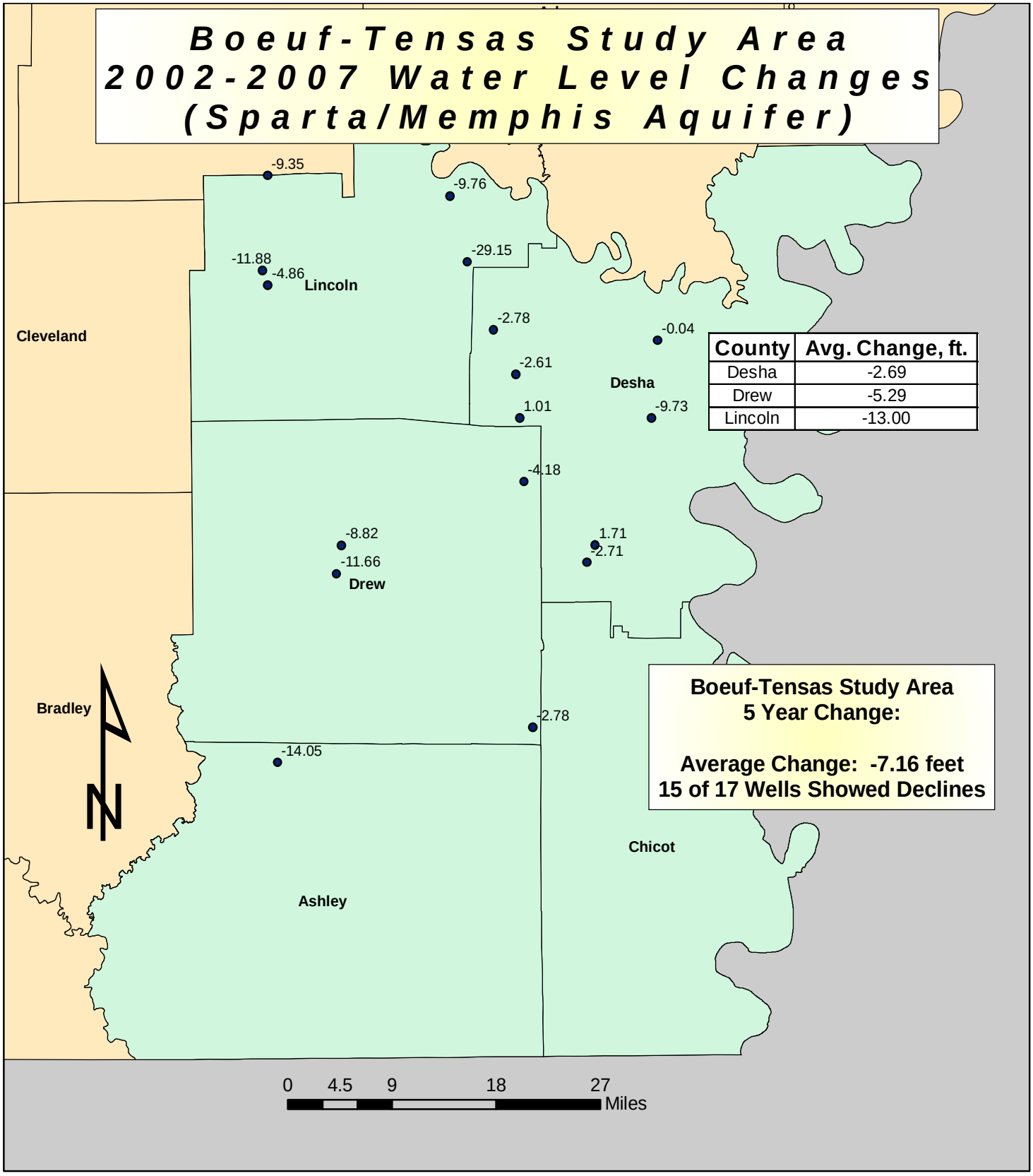


Fig. 27



County	Avg. Change, ft.
Desha	-2.69
Drew	-5.29
Lincoln	-13.00

Legend

- Wells
- Boeuf-Tensas Study Area

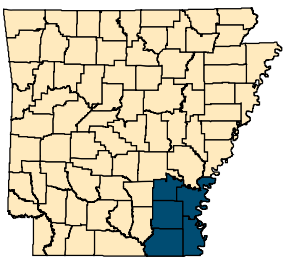
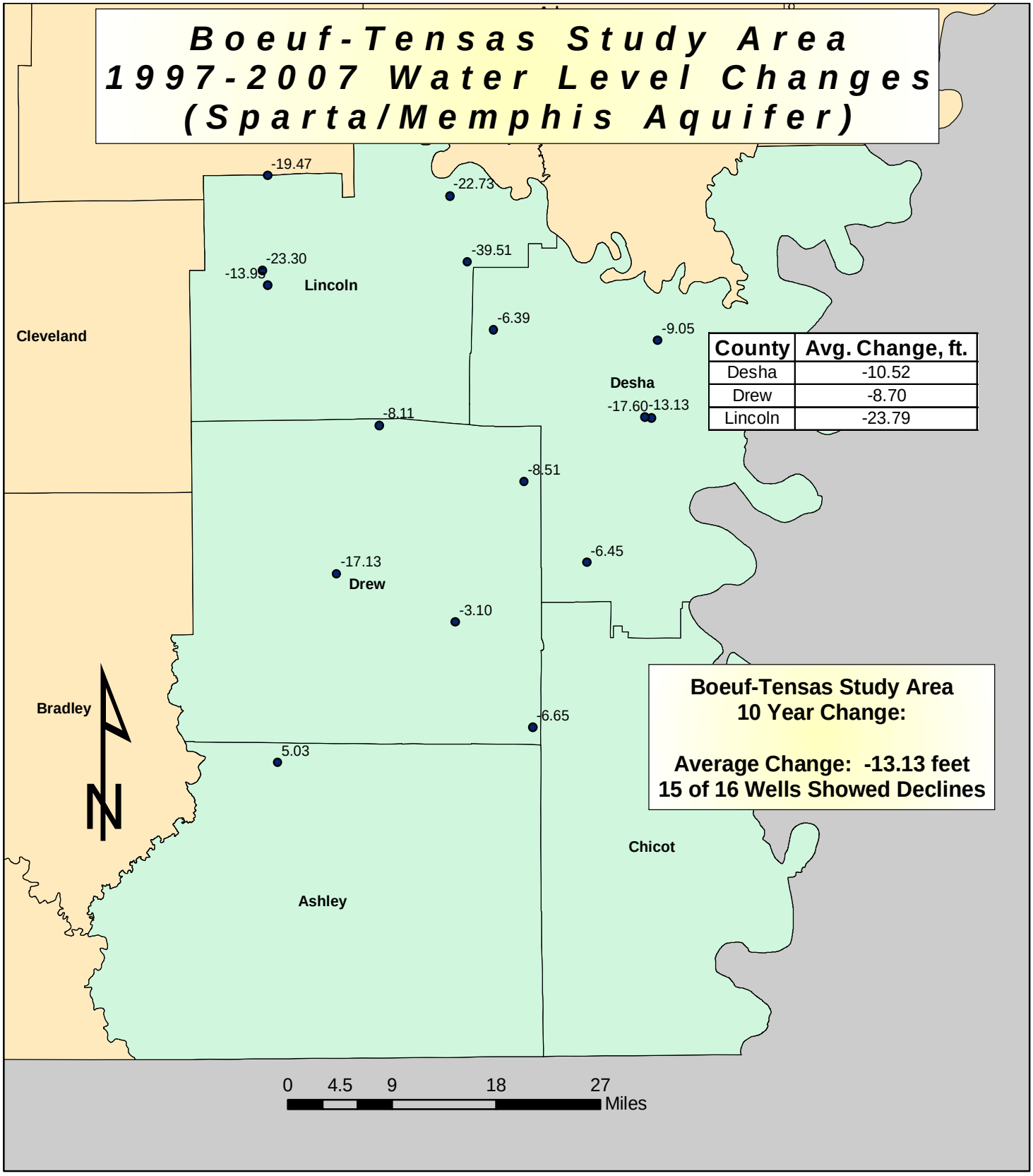


Fig. 28

Boeuf-Tensas Study Area
1997-2007 Water Level Changes
(Sparta/Memphis Aquifer)



County	Avg. Change, ft.
Desha	-10.52
Drew	-8.70
Lincoln	-23.79

Boeuf-Tensas Study Area
10 Year Change:

Average Change: -13.13 feet
15 of 16 Wells Showed Declines

Legend

- Wells
- Boeuf-Tensas Study Area

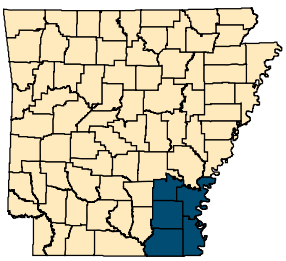


Fig. 29

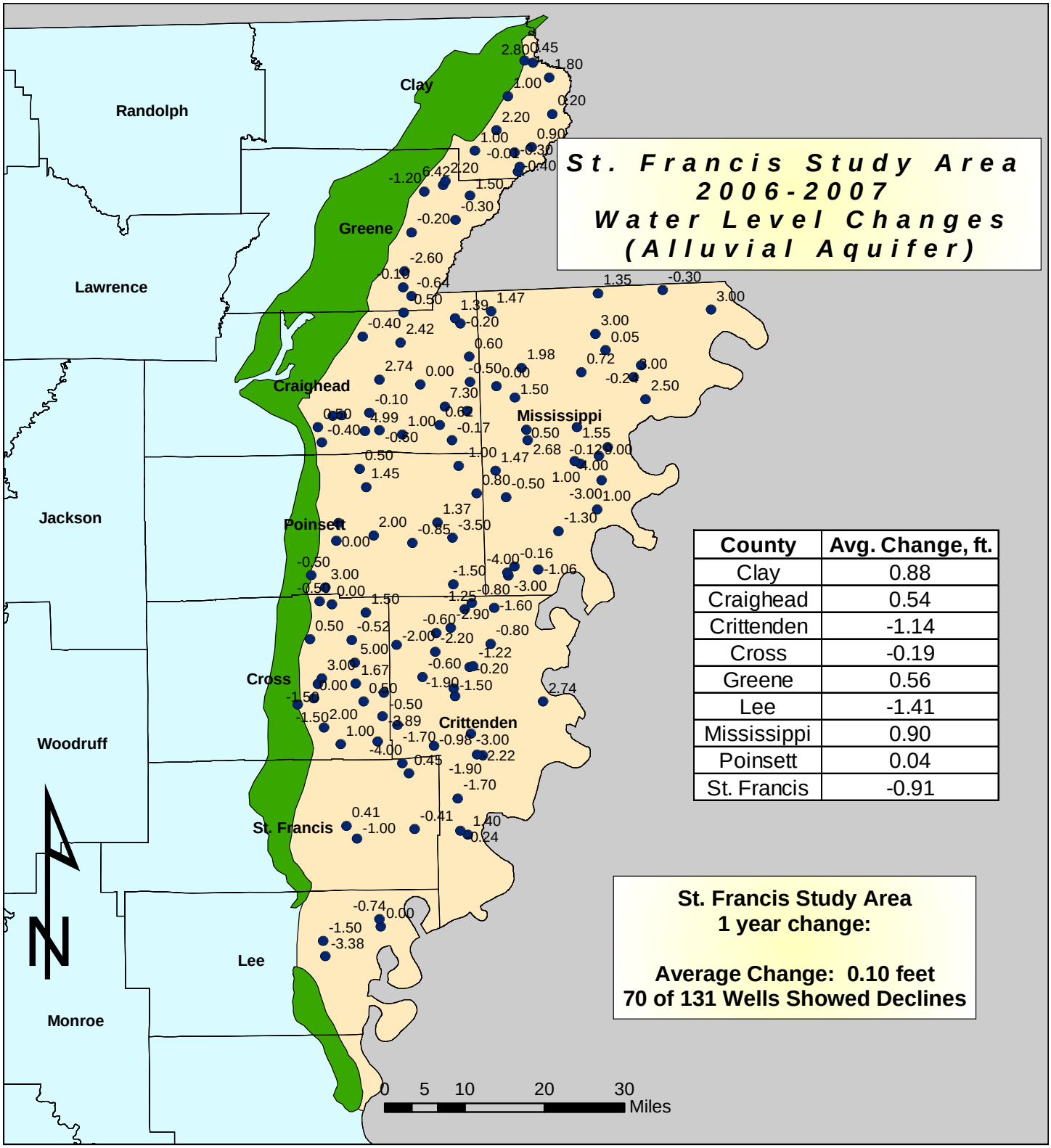
ST. FRANCIS STUDY AREA

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 2006-2007 monitoring period there were declines in average static water levels in the alluvial aquifer in 70 of the 131 wells monitored (53.4%) with an average change of +0.10 for a nearly static potentiometric surface. Cross County had an average change of -0.19 feet, Clay County +0.88 feet, Craighead County +0.54 feet, Crittenden County -1.14 feet, Greene County +0.56 feet, Lee County -1.41 feet, Mississippi County +0.90 feet, Poinsett County +0.04 feet, and St. Francis County -0.91 feet respectively. (Fig.30)

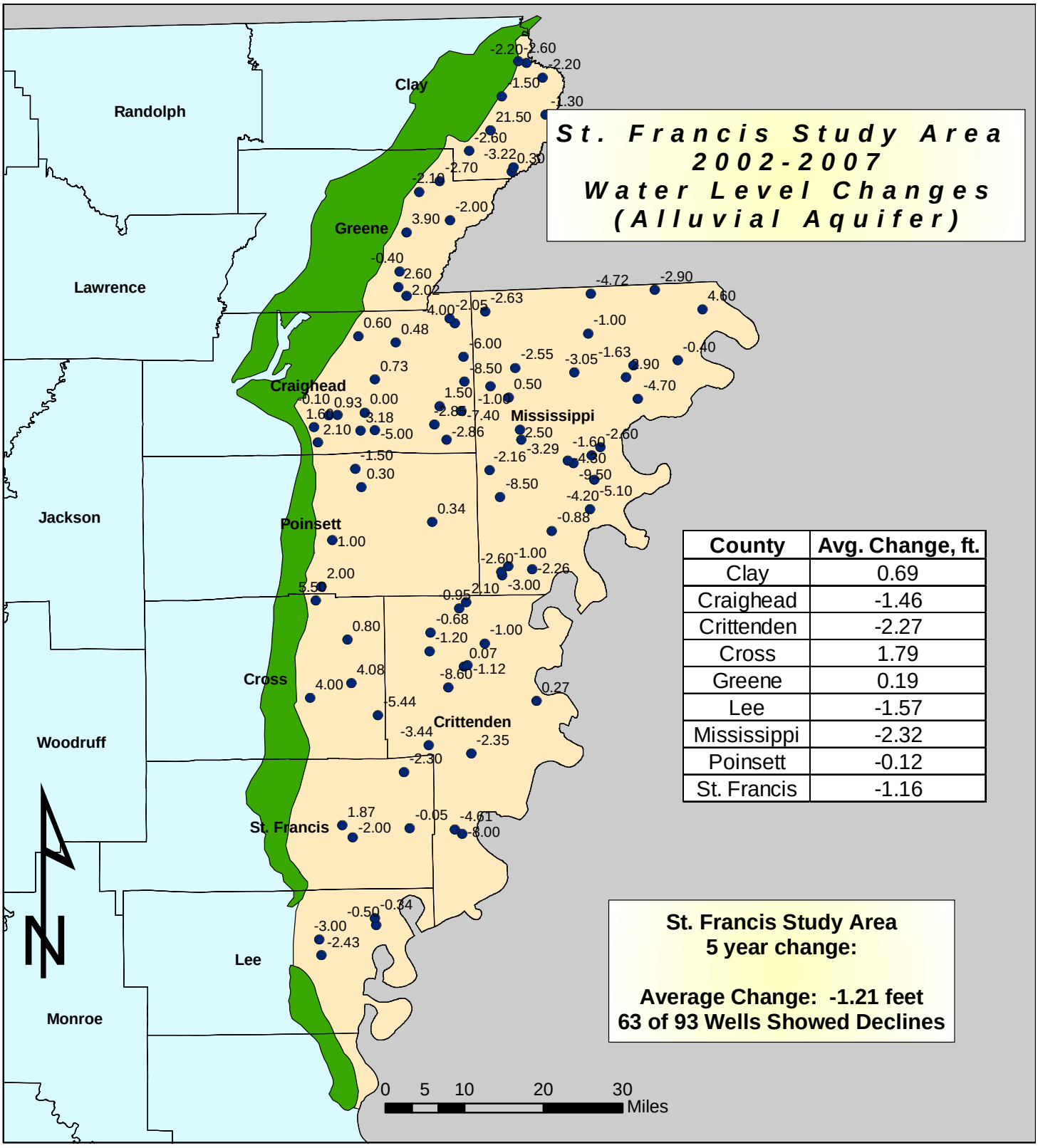
During the 5-year monitoring timeframe, from 2002 to 2007, Greene County had an average change of +0.19 feet, Mississippi County -2.32 feet, Craighead County -1.46 feet, Cross County +1.79 feet, Crittenden County -2.27 feet, St. Francis County -1.16 feet, Poinsett County -0.12 feet, Lee County -1.57 feet, and Clay County +0.69 feet respectively. The alluvial aquifer in this study area had an average change of -1.21 feet, with 63 of the 93 wells monitored (67.7%) 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. Clay County has an average change of -0.97 feet, Craighead County -4.23 feet, Crittenden County -6.14 feet, Cross County -5.02 feet, Greene County -7.08 feet, Lee County -4.65 feet, Mississippi County -6.29 feet, and Poinsett County -4.24 feet, respectively. There was an average change of -5.01 feet over the entire study area for this 10-year period, with all 50 of the 50 wells monitored (100.0%) showing declines. (Fig. 32)



County	Avg. Change, ft.
Clay	0.88
Craighead	0.54
Crittenden	-1.14
Cross	-0.19
Greene	0.56
Lee	-1.41
Mississippi	0.90
Poinsett	0.04
St. Francis	-0.91

Fig. 30



County	Avg. Change, ft.
Clay	0.69
Craighead	-1.46
Crittenden	-2.27
Cross	1.79
Greene	0.19
Lee	-1.57
Mississippi	-2.32
Poinsett	-0.12
St. Francis	-1.16

Legend

- Wells
- Crowleys Ridge
- St. Francis Study Area

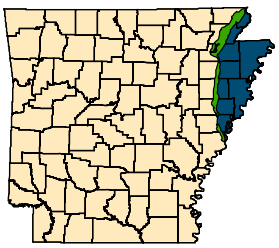
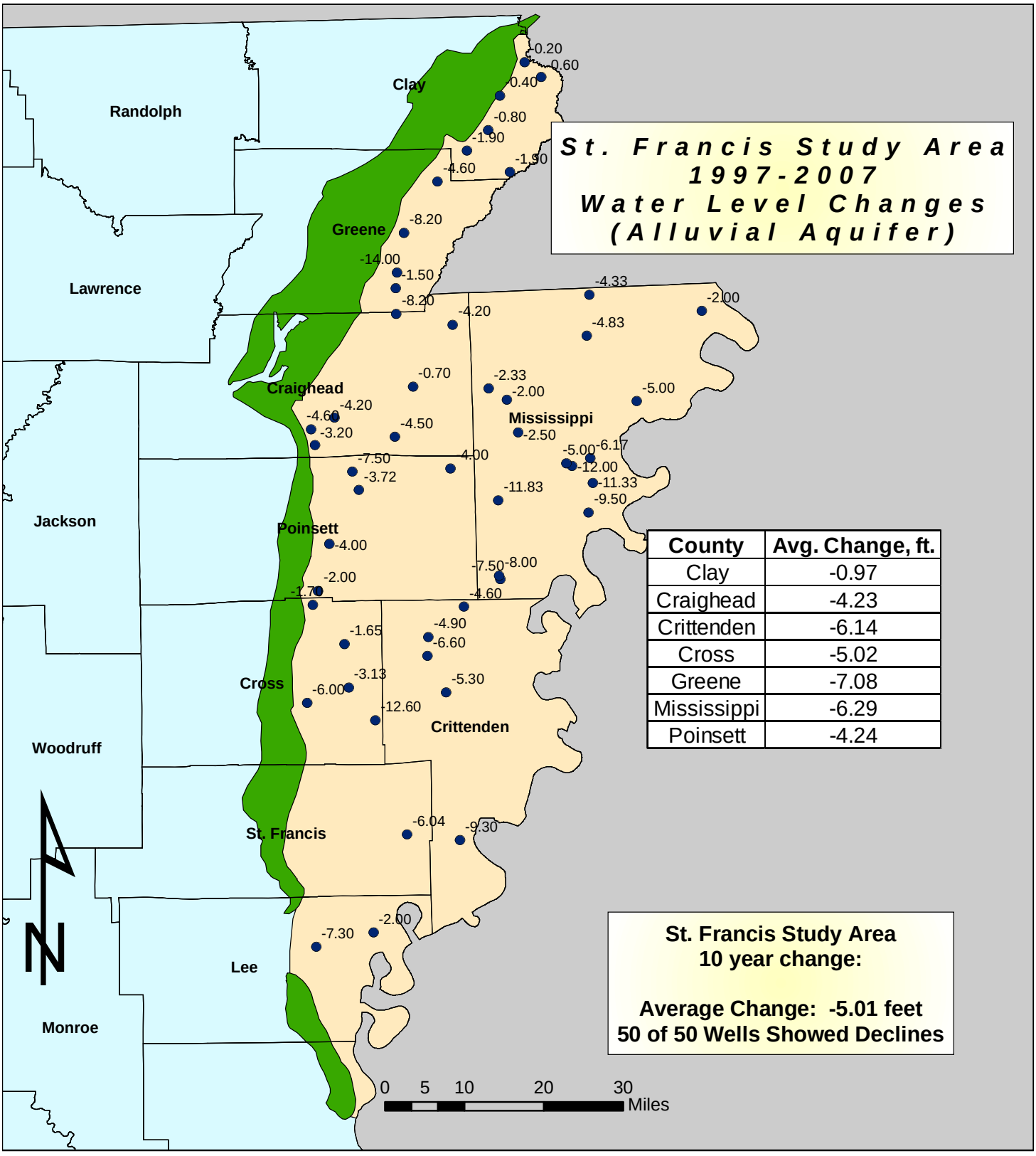


Fig. 31



County	Avg. Change, ft.
Clay	-0.97
Craighead	-4.23
Crittenden	-6.14
Cross	-5.02
Greene	-7.08
Mississippi	-6.29
Poinsett	-4.24

St. Francis Study Area
10 year change:

Average Change: -5.01 feet
50 of 50 Wells Showed Declines

Legend

- Wells
- Crowleys Ridge
- St. Francis Study Area

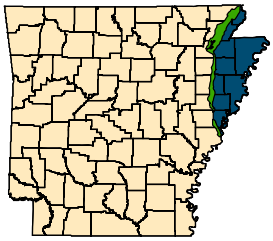
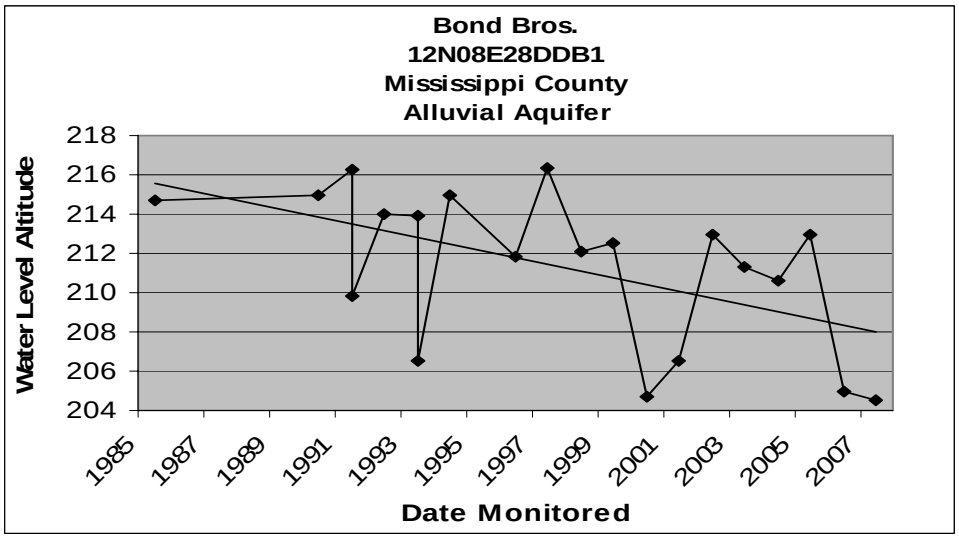
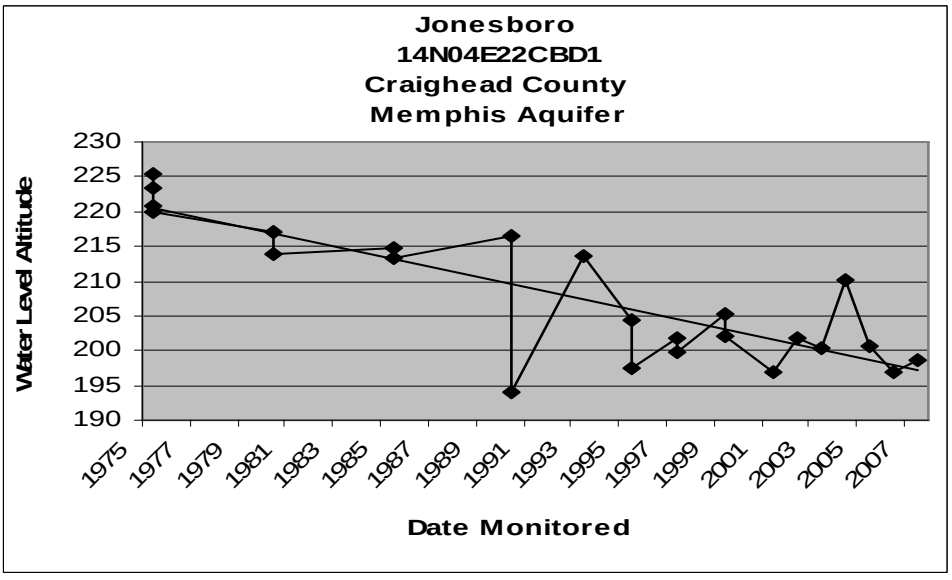
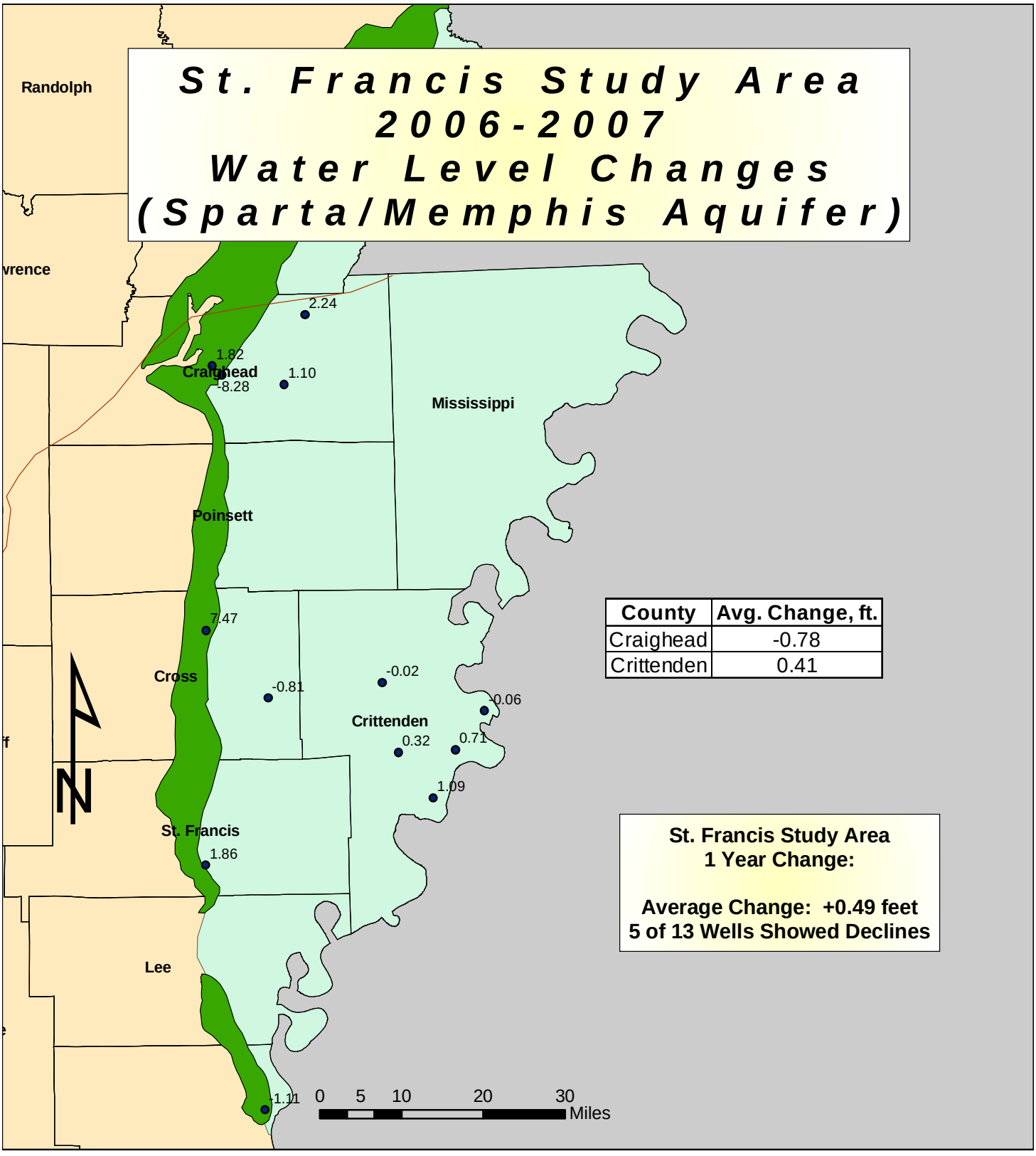


Fig. 32

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 year and 10 year periods respectively.







Legend

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

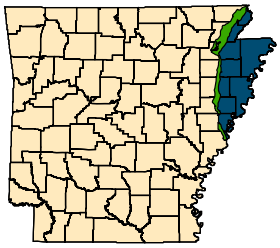
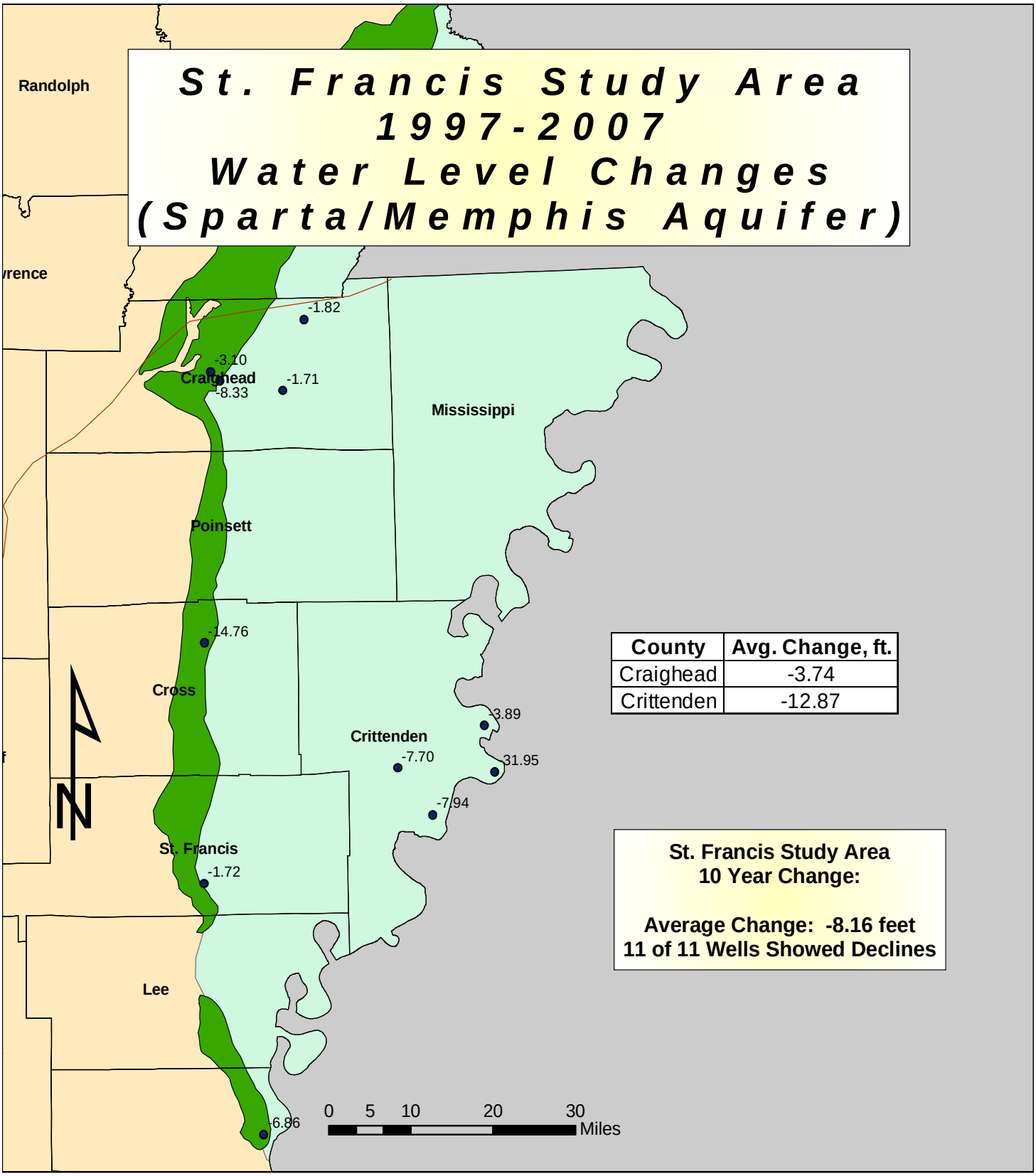


Fig. 33



Legend

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

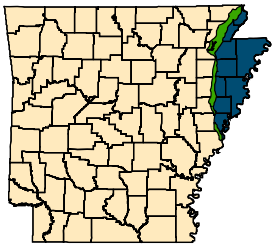


Fig. 34

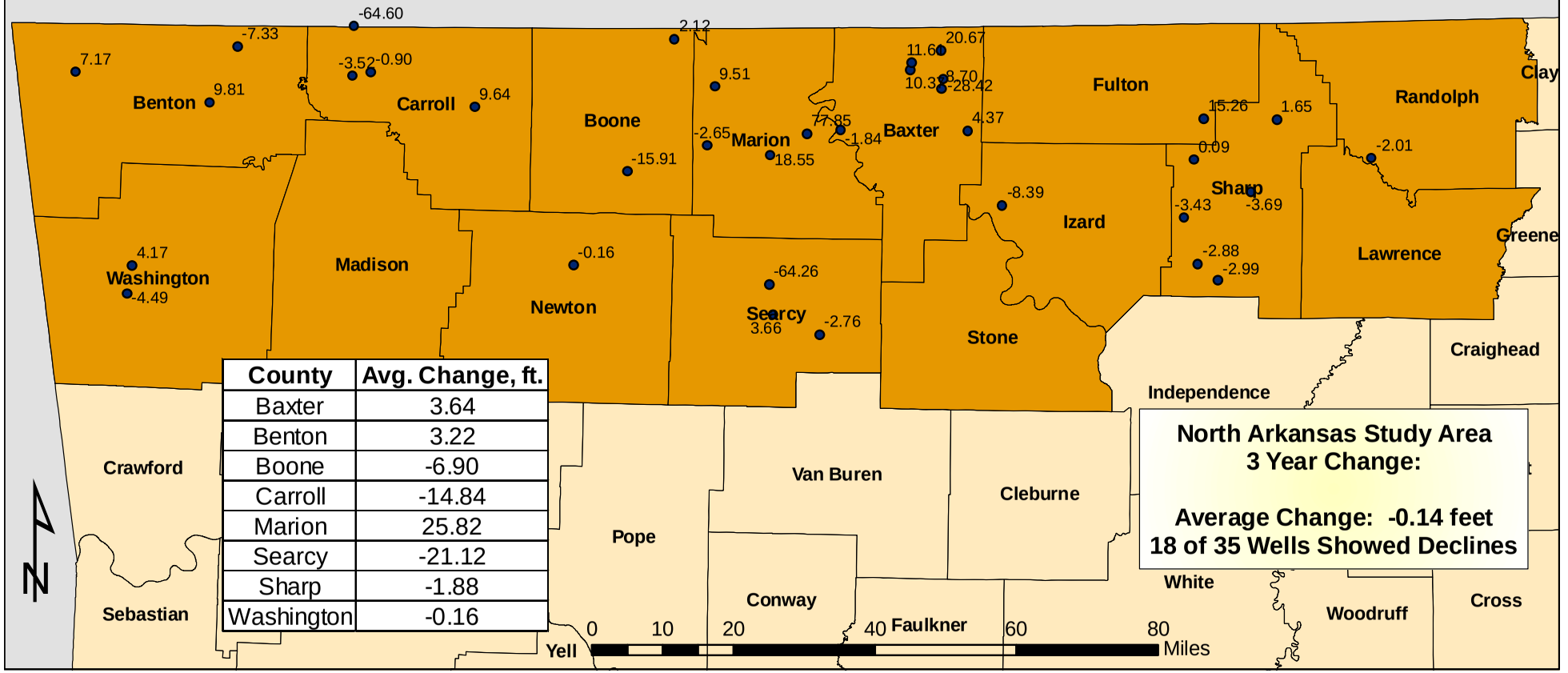
Other Aquifers Monitored

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 2007 monitoring year was designated for monitoring of the Ozark aquifer in northern Arkansas. The water level changes were analyzed for a 3-year and 6-year periods from 2004 to 2007 and from 2001 to 2007.

The Ozark Aquifer in northern Arkansas is complex relatively thick (1,200 ft – 4,000 ft) sequence of Paleozoic limestones, shales, dolomite, and sandstones that are the main source of good quality water in this area of the Ozark Plateau. For this reports purposes the Ozark Aquifer will be defined as the area in Arkansas bounded on the north by Missouri, on the east by the fall line of the Mississippi Alluvial Aquifer, on the west by Oklahoma, and to the south by the Ouachita region of the state.

There were 35 wells monitored by the USGS for water level change from 2004 to 2007. Of these 18 (51.4%) showed a decline, with an average change of -0.14 feet over the area of the aquifer studied. From the 2001 to 2007 period there were also 35 wells monitored, with 18 (51.4%) of these showing static water level decline as well. The county by county averages may be seen on figures 35 and 36.

Northern Arkansas
2004 - 2007
(Ozark Aquifer Systems)



County	Avg. Change, ft.
Baxter	3.64
Benton	3.22
Boone	-6.90
Carroll	-14.84
Marion	25.82
Searcy	-21.12
Sharp	-1.88
Washington	-0.16

North Arkansas Study Area
3 Year Change:

Average Change: -0.14 feet
18 of 35 Wells Showed Declines

Legend

- Wells
- Ozark Aquifer Study Area

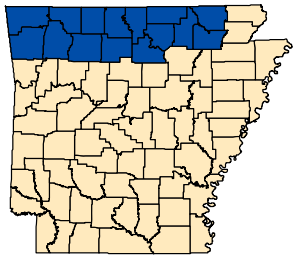
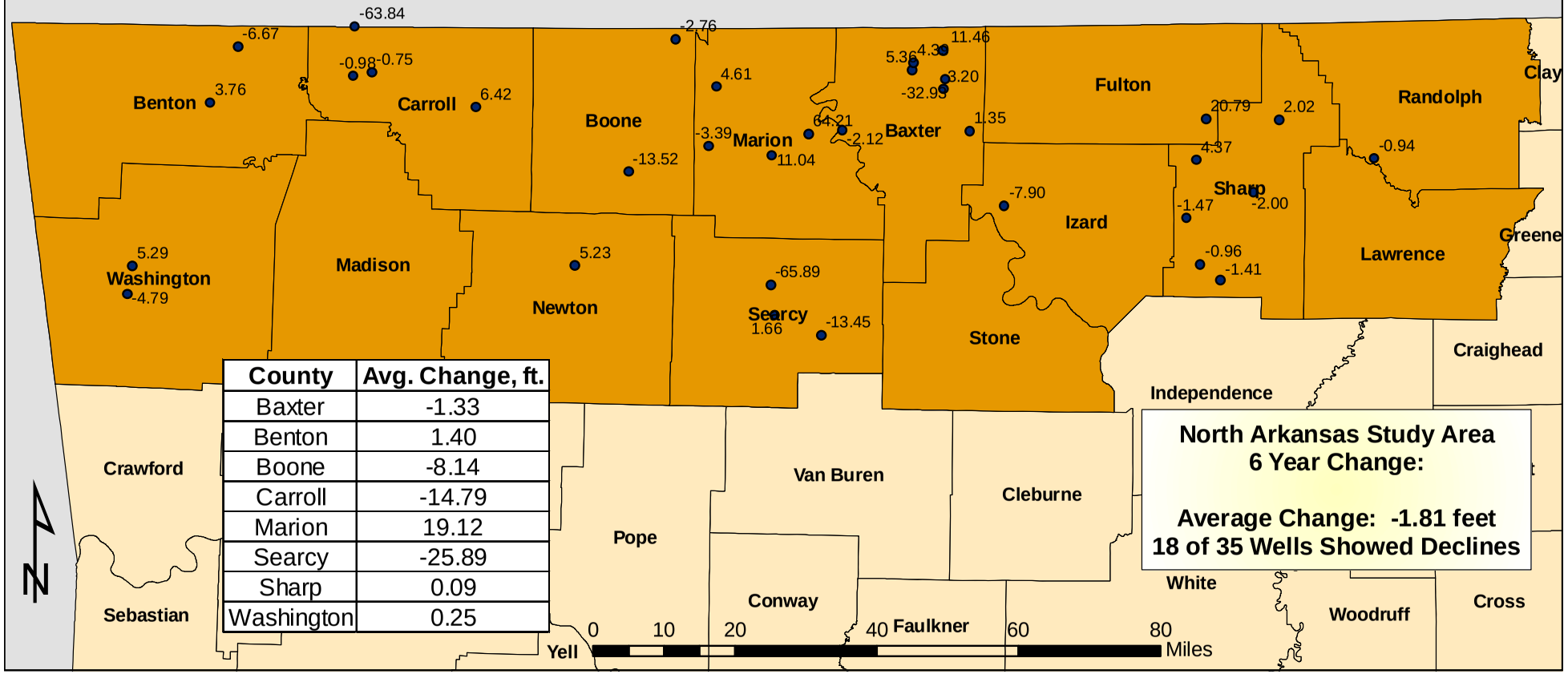


Fig. 35

Northern Arkansas
2001 - 2007
(Ozark Aquifer Systems)



County	Avg. Change, ft.
Baxter	-1.33
Benton	1.40
Boone	-8.14
Carroll	-14.79
Marion	19.12
Searcy	-25.89
Sharp	0.09
Washington	0.25

North Arkansas Study Area
6 Year Change:

Average Change: -1.81 feet
18 of 35 Wells Showed Declines

Legend

- Wells
- Ozark Aquifer Study Area

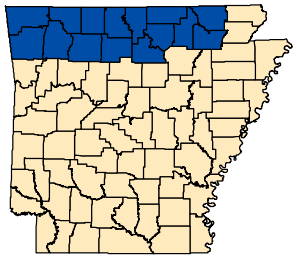


Fig. 36

Summary of Water-Level Changes Spring to Fall, 2007

A set of 357 of the Arkansas Natural Resources Commission (ANRC), and Natural Resource Conservation Service (NRCS) monitoring wells and 2 real time wells equipped and maintained by the Arkansas District of the U.S. Geological Survey (USGS) were utilized to survey the affects of this year's irrigation effects and precipitation pattern. This data illustrates the effects of the irrigation season on the alluvial aquifer in eastern Arkansas. This summary represents the first evaluation of the 2007 summer changes. This data is contained in appendix E.

Typically, water levels in the alluvial aquifer decline approximately 3.3 feet over the course of the agricultural irrigation season each summer. This survey has identified a water-level decline for the summer of 2007 that averages -3.28 feet in the alluvial aquifer, which is in the normal range of declines. Average spring to fall changes for the counties in the Grand Prairie Study Area are; Arkansas County -1.68 feet, Jefferson County -2.07 feet, Lonoke County -2.05 feet, Prairie County -0.33 feet, and White County -1.00 feet, respectfully.

The water level in the USGS/UAPB Lonoke Farm (real-time site) well shows a decline of 5.3 feet from early May through late September, and a rise in the water level of approximately 3 feet since pumping has decreased in September. This is an area of intense pumping from the alluvial aquifer, where the cone of depression is expanding as a result of pumping at a rate that is above the sustainable yield of the aquifer. The data from this well shows a decline in the static water level of approximately 8 feet since 2001.

A similar real-time site at the Stuttgart Experimental Rice Station revealed a decline of 0.85 feet over a period of about eight months ending in late November. This is a typical decline that is observed in those areas in close proximity to the cone-of-depression which centers around Stuttgart.

Water Quality

Specific Conductance in the Alluvial and Sparta/Memphis Aquifers

Generally, the occurrences of higher specific conductance in the alluvial aquifer most likely are caused by movement of water containing elevated concentrations of dissolved solids from sources at depth. (Bryant and others 1985). This "leaking" of water with higher concentrations of dissolved solids from an underlying aquifer is also thought to be a plausible explanation for the increase of specific conductance in the Sparta/Memphis aquifer.

The specific conductance data that is collected by the USGS is used to quantify the amount of dissolved solids present in the ground water. Table 3 shows the specific conductance and equivalent dissolved chloride for the wells monitored by the USGS in both the alluvial and Sparta/Memphis aquifers in 2006.

Generally the areas of higher specific conductance in the alluvial aquifer are located in western Chicot County and eastern Lincoln County. In data collected by the USGS, an area of increased concentration was noted west of Crowley's Ridge in Cross, Greene, Craighead, St. Francis, Lee, Monroe and Poinsett Counties. A map showing different concentrations can be found in the USGS Water-Resources Investigations Report 01-4124. (Schrader, T.P. 2001)

In the Sparta/Memphis aquifer the USGS collected water samples, and recorded specific conductance data from 65 wells in 26 different counties in 2006. This data is included in Table 3. Specific conductance values greater than 800 uS/cm were present in Arkansas, Ashley, Chicot, Craighead, Cross, Desha, Greene, Lincoln, Prairie, Pulaski, Monroe, St. Francis, White, and Woodruff Counties. (Schrader, T.P., 2006). A table of wells sampled, as well as a map showing the areas of equal specific conductance can be found in USGS Scientific Investigations Report 2004-5055.

Temperature and Specific Conductance for
2006

County	Agency Code	Site Id	Station Name	Latitude	Longitude	Sample Date	Sample Time	Conductance µSiemens/CM	Temperature Degrees C
Arkansas	USGS	341556091293101	05S04W07CCC1	341555.36	912931.6	6/21/2006	0831	1010	19.6
Arkansas	USGS	342101091205701	04S03W17ADD1	342101.87	912058.1	6/21/2006	0915	1080	19.5
Arkansas	USGS	342130091400001	04S06W16BD1	342130	914000	6/21/2006	0730	720	20
Arkansas	USGS	343100091244501	02S04W14CD1	343100	912445	6/21/2006	1010	887	19.5
Ashley	USGS	331015091522401	18S08W01AAB1	331014.97	915225.1	6/19/2006	1505	583	19.8
Ashley	USGS	331501091504901	17S07W05CDD1	331501.87	915049.7	6/19/2006	1400	689	19.7
Ashley	USGS	332245091285201	15S04W23DBD1	332247.33	912851.9	6/19/2006	1315	612	19.2
Chicot	USGS	331415091242601	17S03W09ADA1	331415	912426	6/20/2006	0815	2960	20.3
Chicot	USGS	331500091150701	17S01W06BCC1	331501.18	911505.2	6/20/2006	0710	797	19.2
Chicot	USGS	333154091224561	13S03W35BAC1	333154.05	912245.5	6/20/2006	1010	376	23.6
Clay	USGS	361519090131801	19N08E28BB1	361519	901318	6/28/2006	1700	356	16.7
Clay	USGS	361858090110301	19N08E02ABB1	361858.57	901103.7	6/28/2006	1550	371	16.8
Clay	USGS	362055090092901	20N08E24DDA1	362057.1	900933.5	6/28/2006	1425	362	17
Clay	USGS	362445090372901	21N04E34DDC1	362445.32	903729	6/28/2006	1325	267	17.9
Craighead	USGS	354402090471201	13N03E29AAA1	354403.31	904712.9	6/28/2006	0719	1140	18.2
Craighead	USGS	355516090285600	15N06E19AAB1	355517.28	902857.3	6/27/2006	1925	513	19.2
Craighead	USGS	355813090213901	16N07E32ADD1	355812.92	902138.2	6/27/2006	1805	407	18.9
Crittenden	USGS	350848090180801	06N07E13BAA1	350849.58	901807.5	6/27/2006	0715	516	18.5
Crittenden	USGS	351043090235901	07N07E31CCC1	351041.9	902358.9	6/27/2006	0805	496	18
Cross	USGS	351520091005201	07N01E05CDA1	351517.52	910049	6/27/2006	1100	961	19
Cross	USGS	352151090351101	09N05E32BDB1	352150.53	903512.1	6/27/2006	1005	569	18.5
Cross	USSCS	352204090595901	09N01E33BBA1	352204	905959	6/27/2006	1220	566	18.7
Desha	USGS	334809091220901	10S03W26CAA1	334806	912144.5	6/20/2006	1105	826	19.4
Desha	USGS	335754091324301	09S04W06BCA1	335756.06	913242.9	6/20/2006	1149	877	20.6
Drew	USGS	332734091292501	14S04W27AA1	332734	912925	6/19/2006	1230	637	19.8
Drew	USGS	334535091313401	11S04W08DBA1	334531.98	913136.2	6/19/2006	1155	380	21.1

Temperature and Specific Conductance for 2006

County	Agency Code	Site Id	Station Name	Latitude	Longitude	Sample Date	Sample Time	Conductance µSiemens/CM	Temperature Degrees C
Greene	USGS	355940090265501	16N06E28ABB1	355938.31	902657	6/28/2006	1815	819	17.8
Jackson	USGS	352151091134701	09N02W32CBB1	352151.79	911347.7	6/28/2006	0815	426	18.4
Jackson	USGS	352829091130901	10N02W29ABB1	352828.7	911311.8	6/28/2006	0910	299	18.7
Jackson	USGS	355219091051201	14N01W09AAA1	355220.36	910515.1	6/28/2006	1000	460	18.1
Jefferson	USGS	341007091370701	06S06W23AAD1	341006.74	913712.2	6/20/2006	1345	675	19.7
Jefferson	USGS	342123091492601	04S08W13DCB1	342122.85	914926.4	6/20/2006	1435	527	20
Jefferson	USGS	342415092004801	03S09W31DDA1	342415	920048	6/20/2006	1515	608	24.6
Jefferson	USGS	342657092013901	03S09W18CC2	342655.67	920139.1	6/20/2006	1605	642	20.2
Lawrence	USGS	360326090535201	16N02E05BA1	360326	905352	6/28/2006	1105	599	18.1
Lee	USGS	344025090460401	01N03E23CCC1	344025.26	904603.6	6/22/2006	1425	692	19.2
Lee	AR008	344914090483701	03N03E32CAB1	344932.65	904926.2	6/22/2006	1520	540	18.8
Lincoln	USGS	335714091463701	09S07W01DC1	335714	914637	6/19/2006	1035	548	19.9
Lincoln	USGS	335821091434601	09S06W04BCD1	335821.38	914345.8	6/19/2006	0950	372	19.1
Lincoln	USGS	340021091320101	08S04W19CC1	340021	913204.5	6/19/2006	1120	843	19.4
Lonoke	USGS	343230091495001	02S08W13BBB1	343231.92	914935.3	6/21/2006	1120	712	20
Lonoke	USGS	344114091472001	01N07W29BBB1	344114	914720	6/21/2006	1215	458	20.7
Lonoke	USGS	344957091433801	02N07W02BBA1	344957	914338	6/21/2006	1330	415	20.9
Mississippi	USGS	353841090145901	12N08E20DAD1	353842.48	901457.6	6/27/2006	1650	411	19.4
Monroe	USGS	343906091231701	01S04W01BAB1	343905.86	912316.7	6/22/2006	1030	712	19.4
Monroe	AR008	343958091264601	01N04W33BB2	343958	912646	6/22/2006	0940	743	19.4
Monroe	USGS	344242091103001	01N02W12CBC1	344242.3	911031.9	6/22/2006	1230	985	19.2
Monroe	USGS	345021091154701	03N03W36AAA1	345026.65	911547.1	6/22/2006	1110	806	18.9
Phillips	USGS	342916091005801	02S01E28CCB1	342916.37	910058.1	6/22/2006	1340	606	19.5
Poinsett	USGS	352651090443701	10N03E35CDD1	352656.17	904435.9	6/27/2006	1450	532	19.4
Poinsett	USGS	352947090440701	10N03E14DAB1	352947.21	904404.9	6/27/2006	1355	558	19.9

Temperature and Specific Conductance for 2006

County	Agency Code	Site Id	Station Name	Latitude	Longitude	Sample Date	Sample Time	Conductance µSiemens/CM	Temperature Degrees C
Poinsett	USGS	353349090503501	11N02E26AAB1	353350.31	905034.1	6/27/2006	1305	787	19.2
Poinsett	USGS	353435090232001	11N07E18CAB1	353435	902320	6/27/2006	1545	537	19.1
Prairie	USGS	343521091262401	01S04W28BD1	343521	912624	6/22/2006	0700	952	19.6
Prairie	AR008	344440091345401	02N05W06BAB1	344957.63	913420.7	6/22/2006	0845	1000	19.7
Prairie	USGS	344544091330802	02N05W29DDB2	344545.22	913308.7	6/22/2006	0750	886	19.1
Pulaski	USGS	343213092030901	02S10W14DC1	343204.71	920333.7	6/21/2006	1635	830	20.3
Randolph	USGS	360942090572901	18N01E34AAC1	360942.69	905729.1	6/28/2006	1210	761	17.7
St. Francis	USGS	345647091024500	04N01W24DA1	345649.24	910246.8	6/22/2006	1810	892	19.5
St. Francis	USGS	345708090563801	04N01E13DDA1	345708	905638	6/22/2006	1900	714	19.5
St. Francis	USGS	350812090500201	06N02E13DCA1	350812.64	905002.7	6/23/2006	0715	755	19.1
White	USGS	350623091375201	06N06W34AAB1	350623.57	913753.5	6/23/2006	1045	843	18
Woodruff	USGS	350944091051201	06N01W10AB1	350945.35	910512.5	6/23/2006	0805	925	19.1
Woodruff	USGS	351046091074101	07N01W32CCD1	351046	910741	6/23/2006	0910	589	18.3
Woodruff	USGS	351655091202801	08N03W31AAD1	351655	912028	6/23/2006	1000	668	18.5

Ground-Water Quality Standards

Through legislative authority, the ANRC Ground-Water section has been given the task of creating ground-water quality standards for the State of Arkansas. For the past year, ANRC Ground-Water section staff has been researching and documenting existing ground-water quality standards throughout the United States to determine the best approach to initializing the creation of enforceable regulations for the state of Arkansas. Arkansas Department of Environmental Quality (ADEQ) geologist, Tim Kresse, among others, has assisted ANRC staff by providing information from their research and documentation of existing ground-water quality standards from other States in the US. This information has been most valuable to ANRC staff, and the ANRC is extremely grateful to have the assistance of ADEQ on this matter.

ANRC staff has determined that although most states have some form of water quality standards, there are few that have enforceable standards targeted specifically at ground-water. Some states have chosen to have either narrative or numerical standards; however other states decided to include both narrative criteria as well as a list of numerical standards in their ground-water quality standards document. Figure 37 shows an illustration of the differences between states' ground-water quality standards. Those states that have standards deemed appropriate by ANRC staff will be used as models in the preparation of standards for Arkansas. The standards vary from state to state, but most of them share a few common traits. Most standards are based on water use. For example, waters used for agriculture may have a different set of numerical criteria than waters designated for municipal use. Some states have also implemented a numerical warning level that is usually half of the allotted MCL to serve as an early indicator that the ground-water is becoming impaired. These levels are often referred to as preventative action levels, (PAL).

ANRC staff has begun compiling data into lists, spreadsheets, and maps that will aid in the overall process of initializing a set of standards for the State. A comprehensive list of the specific constituents and their recommended maximum

contaminant level (MCL), listing every constituent that other States have included in their regulations and a range of the recommended MCL's, has been developed. From this spreadsheet, ANRC staff along with other groups and agencies will determine which constituents apply to Arkansas.

On December 5, 2006 a meeting was held at the ANRC office to begin formally discussing the ideas and concerns of stakeholders. Several state and federal agencies sent representatives to the meeting. Among the items discussed at the meeting were the identification of additional stakeholders for future meetings, the difficulties that may arise when attempting aquifer classification based upon water use, and the possible hardships in enforcing such standards. Another meeting is scheduled for the spring of 2008.

Developing ground-water quality standards for the State of Arkansas will prove to be a monumental task for the ANRC as well as for the stakeholders involved. There is currently no timeline in which the ANRC expects to have completed a set of standards; however, the need for such enforceable standards continues to grow. Enforceable ground-water quality standards will protect the State's ground-water for all uses, and once completed and in effect, the standards will be of utmost value to current and future citizens of the State of Arkansas.

United States Ground Water Quality Standards

Legend

- Narrative Standards
- No Standards
- Numerical Standards
- Narrative and Numerical Standards

*** Data compiled by Arkansas Department of Environmental Quality**

Fig. 37

Nonpoint Source Program

The Arkansas Natural Resources Commission's (ANRC's) Nonpoint Source Program is supported by Section 319 (Clean Water Act) Grant Funds which provide 60 percent of the total program funding. ANRC staff continued work on three nonpoint source ground-water projects in 2007.

A statewide 319 ground-water project began in 2000 and is ongoing until completed. The purpose of this project is to upgrade the statewide ambient ground-water quality monitoring program through installation of new wells or annexing existing wells into the monitoring network where new monitoring points are needed. Monitoring well installations/annexations have focused in the existing and potential critical ground-water areas of eastern and southern Arkansas. A more efficient monitoring network has resulted from the new well installations. Emphasis toward the critical threat to ground-water quality in the karst terrain of northern Arkansas has now also become a primary objective.

Ambient ground-water monitoring in Arkansas has traditionally been performed by three organizations: United States Geological Survey (USGS), Arkansas Department of Environmental Quality (ADEQ), and Arkansas Department of Health (ADH). The quality of this data is essential to the State's ability to manage and protect its valuable ground-water resources. ANRC is currently enhancing the quality and quantity of data collected in this program.

In 2001, a text summary of the hydrogeologic characteristics of each aquifer in the State was prepared, and twelve principal aquifers in the State were mapped to show the aerial extent of each aquifer along with the existing ground-water quality monitoring network's well locations. ANRC evaluated the placement of wells in the existing network, identified areas were new monitoring points were needed, and upgraded the network in eastern Arkansas by installing new wells or annexing existing wells into the network.

New monitoring well installations in eastern Arkansas initiated in June 2002 and are continuing to-date. In 2007, 3 alluvial wells were installed in southeastern Arkansas, 2 Sparta wells were installed in Ouachita County, and 1 Boone well was installed in Washington County. Thus far, 36 alluvial wells have been installed in 19 counties in eastern Arkansas from Greene to Chicot Counties (Figure 38), and 8 Sparta wells have been installed in eastern (6 wells) and southwestern Arkansas (2 wells). Leases are enacted for wells installed on private lands which allow for installation and continued access. Memorandums of Agreement (or Use Permits) are established with relevant agencies for wells installed on State lands.

New wells added to the monitoring network are sampled, following installation or annexation, for selected chemical constituents using EPA approved protocols. Subsequent sampling frequency is designated to enhance the existing ground-water quality monitoring program by documenting changes in ground-water quality over extended periods. One goal of the sampling program is to monitor wells in areas that may demonstrate water quality degradation as the alluvial and Sparta aquifers continue to be overdrawn. Long term monitoring will also establish observable trends in ground-water quality which will benefit government agencies and the general public.

All ground-water quality sampling for this project is performed under protocol outlined in EPA approved Quality Assurance Project Plan (QAPP). Initially approved on March 12, 2001, the QAPP has been revised as required during the project, and is currently updated each year.

Water quality analyses include parameters that allow evaluation of basic water quality conditions, as well as specific constituents, which indicate potential water quality degradation in the State's aquifers. Analyses include selected metals, nutrients, inorganic water parameters, and selected pesticides. The analyses selected for each well (or spring) are determined by the naturally occurring and/or anthropogenic induced effect on the aquifer being monitored.

Ground-water sampling is performed in all newly installed wells following installation, in addition to all wells annexed into the monitoring network. Samples are analyzed by the Arkansas Water Resources Center laboratory or a contract associate.

These results are presented in Appendix F. Pesticide analyses were performed on all alluvial wells installed through May of 2004 (SW22), however, due to the high cost of analyses and the absence of significant detections, pesticide analyses are currently performed on samples from selected wells. Pesticide analyses are performed by ADEQ.

In northern Arkansas, a project documenting karst features is underway. Ground-water studies performed since the late 1970s have documented water-quality degradation in springs and wells in the karst areas of the State (Ogden, 1979; Steele and Adamski, 1987). The inordinate rural population growth in the region, with associated reliance on onsite wastewater systems for homes and businesses, represent a threat to ground-water quality. ANRC has documented karst feature locations through review of relevant publications and maps, and generated maps displaying sinkholes. Lineament maps have been generated by the AWRC. Losing stream segments, critical soils, and previously performed dye trace studies are also being considered for mapping. Sinkhole locations have been provided by ADH, Environmental Health Specialists and Designated Representatives, with planned assistance for sinkhole mapping locations from Natural Resource Conservation Service (NRCS).

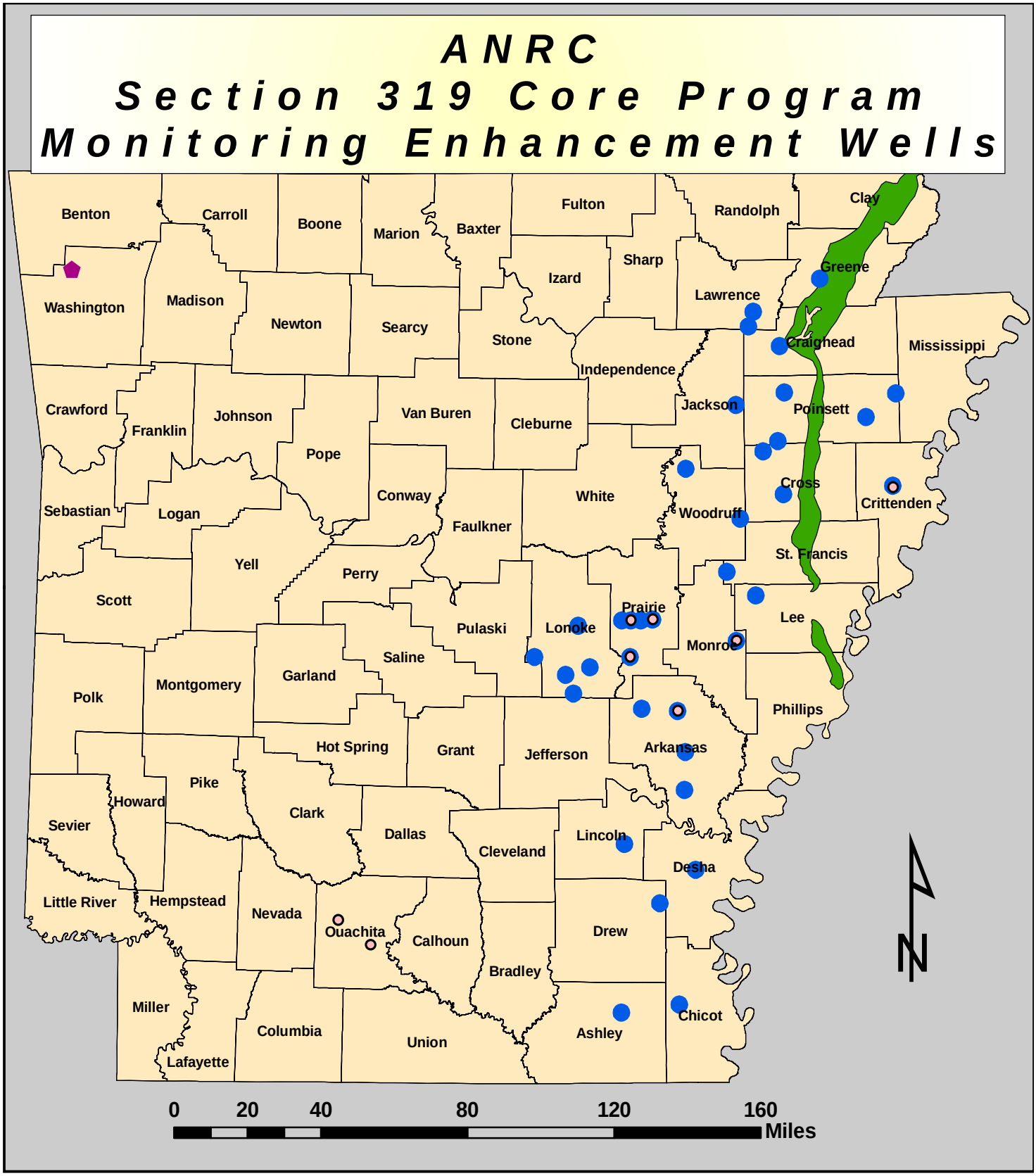
A threat to ground-water quality from onsite wastewater systems also exists in the fractured rock terrain of the southern Ozarks, Arkansas valley, and Ouachitas. Similar to the karst region, characterized by thin soils in upland areas and rapid recharge into fractures, water wells in this region are also subject to potential contamination.

Karst maps and other training materials associated with the hydrogeology of karst and fractured rock terrains were presented to ADH professionals in November 2006. Further training of ADH personnel is also planned. The goal is to achieve improved septic and alternative system design in the karst region and in the fractured rock terrain of the southern Ozarks, Arkansas valley, and Ouachitas. Training materials are also planned for distribution to governmental agencies and the general public to

provide information regarding the potential for ground-water contamination in karst and fractured rock terrain.

A third non-point project involves development of ground-water quality standards for Arkansas. Beginning in 2006 and through 2007, documentation of standards development in other states was performed. Review of standards development in other states allowed evaluation of the positive and negative aspects of development and fostered selection of select states that can be used as models for development of standards in Arkansas. Currently, models for classification of ground water and aquifers are being developed, which will provide a foundation for ground-water quality standards development. In 2008 and 2009, formulation of ground water quality standards for Arkansas will be performed.

These projects represent the State's commitment to improve and monitor ground-water quality as part of the Nonpoint Source Pollution Management Program.



Legend

- Alluvial Wells (36 Wells)
- Sparta Wells (8 Wells)
- Well in Boone Formation (1 Well)
- Crowleys Ridge
- County Boundaries

Fig. 38

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 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 2003 legislative sessions an act was passed to allow the commission to develop an apprenticeship program for drillers and pump installers. The apprentice program will allow people wanting to become registered a way to gain verifiable experience in their chosen field. The program allows a person with one year of experience apply for the apprenticeship program. Since the program began in 2005 sixty applicants have enrolled, and almost a dozen have gone on to become registered drillers and pump installers.

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 following is a summary of those activities for the 2006-2007 licensing year.

1. Fourteen (14) complaints were recorded in which it was determined that an investigation or arbitration was required, or in which it was determined that a violation had occurred as a result of noncompliance.

2. There were Four (4) cases, which required civil penalties to be assessed.

3. Three (3) administrative hearings were conducted regarding contractors.

4. Six (6) new applications to become a licensed pump installer or certified driller were received.

5. Fifteen (15) new applicants have entered the apprenticeship program.

There are 180 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. The following is a break down of the licensed contractors, drillers, pump installers, and permitted rigs for 2007-2008.

1. 148 contractors are licensed for drilling and pump installation.

2. 32 contractors are licensed for pump installation only.

3. 286 registered drillers

4. 282 registered pump installers

5. 375 permitted drill or pump installation rigs.

Last year there were 3,023 wells reported to the Commission. Of these approximately 50% were domestic wells. The next largest group is irrigation wells which accounted for approximately 45% 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.

AWWCC LICENSE SUMMARY

	Contractors License Drill and Pump	Pump Installer Contractors Only	Drillers Registrations	Pump Installers Registrations	Driller Apprentice Registrations	Pump Installers Apprentice Registrations	Riggs
2002	186	54	316	313			444
2003	176	56	303	300			383
2004	148	37	283	271			389
2005	142	34	276	254			369
2006	149	34	305	271	7	11	393
2007	148	32	286	282	17	27	375

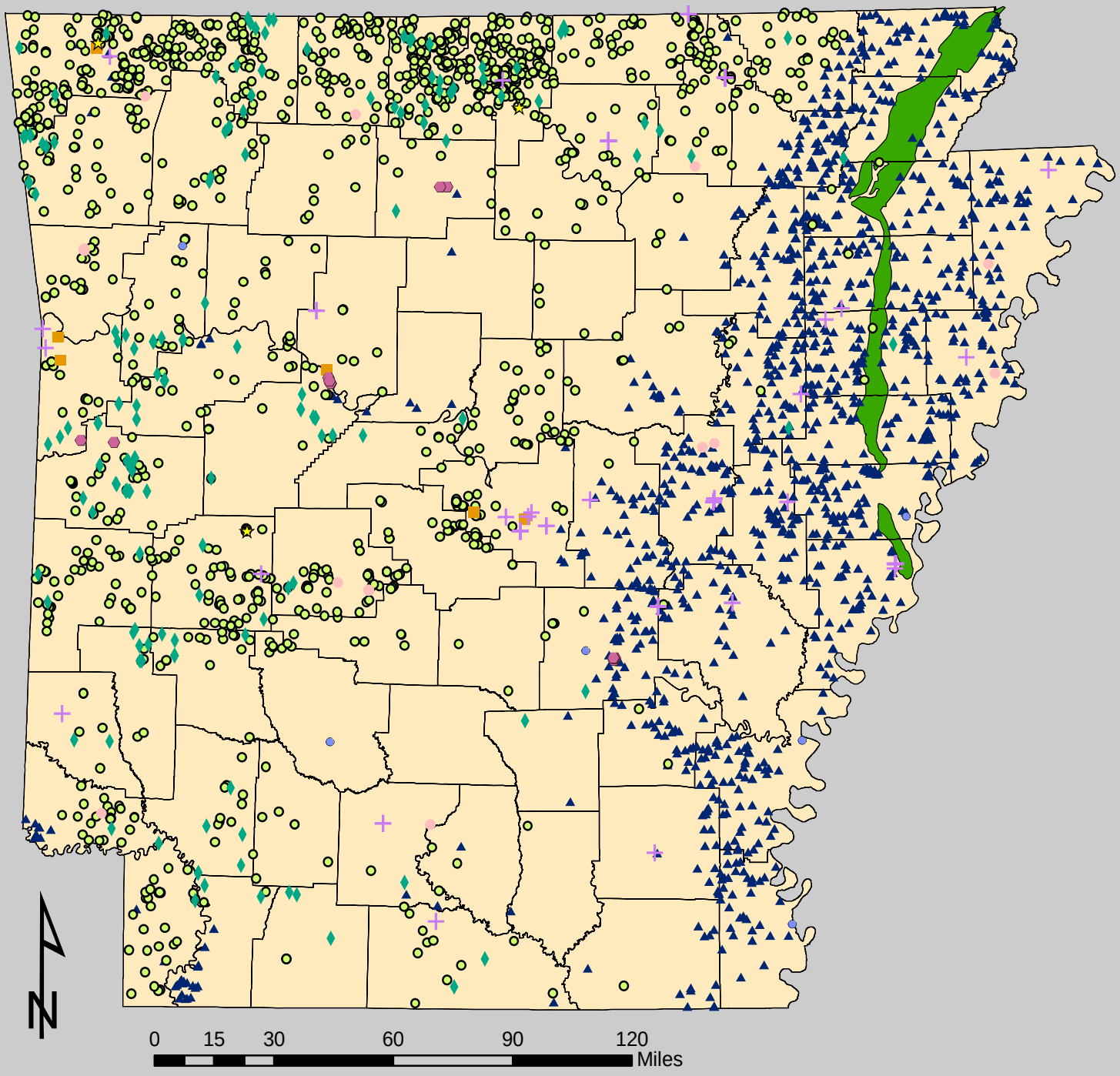
Flow Meter Report

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 and are getting more accurate data about their water use, therefore saving on fuel cost. A flow meter also helps with maintaining the wells performance. Most of the well owners talked with 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 in 2005



Legend

- Monitoring
- Livestock/Poultry
- Semi-Public
- Test Wells
- Geo-thermal
- Commercial
- Public
- Domestic
- Irrigation
- Crowleys Ridge
- County Boundaries

Fig. 39

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 2005 there were approximately 47,809 registered wells reported in the State. Of this total, 46,763 (97.8%) are agricultural wells most of which are irrigation wells located primarily in eastern Arkansas. The remaining 1,046 reported wells are used predominately for municipal, industrial, and public water supply purposes.

REPORTED WATER USE

In 2005, an estimated 7510.24 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 and Cross County used the most alluvial water of all counties, with 678.17 mgd and 592.27 mgd respectively. The reported total ground-water use from the alluvial aquifer during 2005 was 7252.82 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 2005 was 169.81 Mgal/d, mostly used for municipal and industrial purposes. Jefferson County was the largest user of Sparta/Memphis water of all the counties with an average withdrawal rate of 50.38 Mgal/d, followed by Arkansas County with a rate of 36.03 Mgal/d. (Holland, 2007)

Table 2 contains the reported ground-water use by aquifer per county in Arkansas for 2005 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 169.81 Mgal/d during the 2005 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 second leading user of this aquifers' resources, with an average withdrawal of 36.03 Mgal/d. Jefferson County is the largest user of Sparta/Memphis ground-water by far, with an average withdrawal of 50.38 Mgal/d. (Table 2) Figure 40 shows water use in million gallons per day (mgd) for the entire state from 1965 to 2005 in increments of 5 years. Figure 41 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 2005 reported ground-water use from the Sparta/Memphis aquifer was an estimated 59.79 Mgal/d for agricultural uses, 60.86 Mgal/d for public supply use, and 48.41 Mgal/d for industrial uses, which combine with other uses for an estimated total use of 169.06 Mgal/d. The estimated sustainable use for the entire aquifer is 83 Mgal/d based on 1997 reported water use. This leaves a deficit of 86.06 Mgal/day, or 51% of the 1997 rate that is an unmet demand. (Holland, 2003, 2005)

2005 Withdrawals of Ground Water from Aquifers in Arkansas Counties by Use Type (In M/gal per day: 0, no data)

County	Use Type	Deposits of Quaternary age		Cockfield Formation		Cane River Formation		Sparta-Memphis Sand		Wilcox Group		Clayton Formation		Nacatoch Sand		Tokio Formation		Trinity Group		Rocks of Paleozoic age		Use Type Totals	
		Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells		
ARKANSAS	AG/IR	469.94	1991	0.48	1	0.00	0	32.68	77	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	503.10	2069
	CO/IN/MI	0.17	1	0.00	0	0.00	0	0.01	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.18	3
	WS/DO	2.86	6	0.00	0	0.00	0	3.34	10	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	6.20	16
	Total	472.97	1998	0.48	1	0.00	0	36.03	89	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	509.48	2088
ASHLEY	AG/IR	147.78	1042	0.02	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	147.80	1043
	CO/IN/MI	0.00	0	6.20	7	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	6.20	7
	WS/DO	0.35	2	1.95	12	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	2.30	14
	Total	148.13	1044	8.17	20	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	156.30	1064
BAXTER	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.15	0	0.15	0
	CO/IN/MI	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.61	6	0.61	6
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.19	20	1.19	20
	Total	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.95	26	1.95	26
BENTON	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.26	2	1.26	2
	CO/IN/MI	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	3	0.00	3
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.61	18	1.61	18
	Total	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	2.87	23	2.87	23
BOONE	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.54	0	0.54	0
	CO/IN/MI	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.01	1	0.01	1
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.37	12	1.37	12
	Total	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.91	13	1.91	13
BRADLEY	AG/IR	0.00	0	0.00	0	0.00	0	0.05	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.05	0
	CO/IN/MI	0.00	0	0.00	0	0.00	0	0.46	4	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.46	5
	WS/DO	0.00	0	0.08	2	0.00	0	1.19	6	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.27	8
	Total	0.00	0	0.08	2	0.00	0	1.70	10	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.78	13
CALHOUN	AG/IR	0.00	0	0.00	0	0.00	0	0.03	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.03	1
	WS/DO	0.00	0	0.00	0	0.00	0	0.50	7	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.50	7
	Total	0.00	0	0.00	0	0.00	0	0.53	8	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.53	8
CARROLL	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.57	1	1.57	1
	CO/IN/MI	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.10	10	0.10	10
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.20	10	1.20	10
	Total	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	2.87	11	2.87	22
CHICOT	AG/IR	246.90	1292	0.58	5	0.00	0	0.05	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	247.53	1298
	WS/DO	0.18	0	1.35	8	0.00	0	0.47	3	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	2.00	11
	Total	247.08	1291	1.93	13	0.00	0	0.52	4	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	249.53	1309
CLARK	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.10	0	0.00	0	0.00	0	0.00	0	0.10	0
	CO/IN/MI	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.27	3	0.00	0	0.00	0	0.00	3	0.27	6
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.06	5	0.07	2	0.00	0	0.01	0	0.14	7
	Total	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.43	6	0.07	2	0.00	0	0.01	3	0.51	13
CLAY	AG/IR	463.64	2326	0.00	0	0.00	0	0.00	0	0.33	2	0.00	0	0.00	0	0.00	0	0.00	0	3.69	16	467.66	2410
	CO/IN/MI	1.97	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.97	2

2005 Withdrawals of Ground Water from Aquifers in Arkansas Counties by Use Type (In M/gal per day: 0, no data)

County	Use Type	Deposits of Quaternary age		Cockfield Formation		Cane River Formation		Sparta-Memphis Sand		Wilcox Group		Clayton Formation		Nacatoch Sand		Tokio Formation		Trinity Group		Rocks of Paleozoic age		Use Type Totals	
		Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells		
	WS/DO	0.45	3	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.97	8	0.00	0	0.00	0	0.00	0	1.42	11
	Total	466.06	2331	0.00	0	0.00	0	0.00	0	0.33	2	0.00	0	0.97	8	0.00	0	0.00	0	3.69	16	471.05	2423
CLEBURNE	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.24	1	0.24	1
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.17	2	0.17	2
	Total	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.41	3	0.41	3
CLEVELAND	AG/IR	0.00	0	0.00	0	0.00	0	0.12	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.12	0
	WS/DO	0.00	0	0.00	0	0.00	0	0.61	6	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.61	6
	Total	0.00	0	0.00	0	0.00	0	0.73	6	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.73	6
COLUMBIA	AG/IR	0.00	0	0.00	0	0.00	0	0.12	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.12	12
	CO/IN/MI	0.00	0	0.00	0	0.00	0	2.05	38	0.00	0	0.00	0	0.00	0	0.00	0	0.03	1	0.00	0	2.08	39
	WS/DO	0.00	2	0.00	0	0.00	0	1.44	20	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.44	22
	Total	0.00	2	0.00	0	0.00	0	3.61	58	0.00	0	0.00	0	0.00	0	0.00	0	0.03	1	0.00	0	3.64	61
CONWAY	AG/IR	2.33	14	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	2.33	14
	WS/DO	0.18	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.18	0
	Total	2.51	15	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	2.51	15
CRAIGHEAD	AG/IR	347.37	3091	0.00	0	0.00	0	3.60	39	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	350.97	3130
	CO/IN/MI	0.08	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.08	1
	WS/DO	2.63	7	0.00	0	0.00	0	10.54	22	0.81	7	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	13.98	36
	Total	350.08	3099	0.00	0	0.00	0	14.14	61	0.81	7	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	365.03	3157
CRAWFORD	AG/IR	0.29	9	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.29	9
	WS/DO	0.65	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.65	0
	Total	0.94	9	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.94	9
CRITTENDEN	AG/IR	150.56	1239	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	150.56	1241
	CO/IN/MI	0.30	5	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.30	5
	WS/DO	0.56	0	0.00	0	0.00	0	0.00	0	8.09	21	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	8.65	19
	Total	151.42	1244	0.00	0	0.00	0	0.00	0	8.09	21	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	159.51	1265
CROSS	AG/IR	590.47	2196	0.00	0	0.00	0	5.98	9	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	596.45	2205
	CO/IN/MI	0.40	4	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.40	4
	WS/DO	1.40	5	0.00	0	0.00	0	1.04	7	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	2.44	12
	Total	592.27	2205	0.00	0	0.00	0	7.02	16	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	599.29	2221
DALLAS	AG/IR	0.00	0	0.00	0	0.00	0	0.02	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.02	0
	WS/DO	0.00	0	0.00	0	0.00	0	1.45	8	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.45	8
	Total	0.00	0	0.00	0	0.00	0	1.47	8	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.47	8
DESHA	AG/IR	297.34	1989	1.54	7	0.00	0	0.09	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	298.97	1997
	CO/IN/MI	0.00	0	0.00	0	0.00	0	3.19	5	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	3.19	5
	WS/DO	0.00	0	0.04	0	0.00	0	2.14	11	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	2.18	12
	Total	297.34	1990	1.58	7	0.00	0	5.42	17	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	304.34	2014
DREW	AG/IR	74.46	544	0.00	0	0.00	0	0.09	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	74.55	545
	WS/DO	0.12	2	0.00	0	0.00	0	2.73	10	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	2.85	12

2005 Withdrawals of Ground Water from Aquifers in Arkansas Counties by Use Type (In M/gal per day: 0, no data)

County	Use Type	Deposits of Quaternary age		Cockfield Formation		Cane River Formation		Sparta-Memphis Sand		Wilcox Group		Clayton Formation		Nacatoch Sand		Tokio Formation		Trinity Group		Rocks of Paleozoic age		Use Type Totals	
		Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells		
	Total	74.58	546	0.00	0	0.00	0	2.82	11	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	77.40	557
FAULKNER	AG/IR	1.23	12	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.18	0	1.41	12
	WS/DO	0.99	8	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0		0	0.99	8
	Total	2.22	20	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.18	2	2.40	20
FRANKLIN	AG/IR	0.39	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.01	0	0.40	2
	Other	0.00	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.00	1
	Total	0.39	4	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.01	0	0.40	5
FULTON	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.59	1	0.59	1
	CO/IN/MI	0.00	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2	0.00	3
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.37	6	1.37	6
	Total	0.00	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.96	9	1.96	10
GARLAND	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.06	0	0.06	0
	CO/IN/MI	0.00	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.06	4	0.06	5
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.20	4	0.20	4
	Total	0.01	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.32	8	0.32	9
GRANT	AG/IR	0.00	0	0.00	0	0.00	0	0.30	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.30	2
	CO/IN/MI	0.00	0	0.00	0	0.00	0	0.15	6	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.15	6
	WS/DO	0.00	0	0.00	0	0.00	0	2.15	14	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	2.15	14
	Total	0.00	0	0.00	0	0.00	0	2.83	22	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	2.60	22
GREENE	AG/IR	217.42	2010	0.00	0	0.00	0	0.00	0	1.72	17	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	219.14	1921
	CO/IN/MI	0.13	1	0.00	0	0.00	0	0.00	0	0.08	2	0.00	0	0.00	1	0.00	0	0.00	0	0.00	0	0.21	4
	WS/DO	0.05	0	0.00	0	0.00	0	0.00	0	3.75	10	0.00	0	0.48	3	0.00	0	0.00	0	0.00	0	4.28	13
	Total	217.60	2011	0.00	0	0.00	0	0.00	0	5.55	29	0.00	0	0.48	4	0.00	0	0.00	0	0.00	0	223.63	1938
HEMPSTEAD	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.58	0	0.00	0	0.00	0	0.00	0	0.58	0
	CO/IN/MI	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.01	2	0.00	0	0.00	0	0.00	0	0.01	2
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.33	6	2.10	13	0.00	0	0.00	0	3.43	19
	Total	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.92	8	2.10	13	0.00	0	0.00	0	4.02	21
HOT SPRING	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.11	0	0.11	0
	CO/IN/MI	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	5	0.00	5
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.16	1	0.16	1
	Total	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.27	6	0.27	6
HOWARD	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.31	0	0.00	0	0.00	0	0.31	0
	CO/IN/MI	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.00	0	0.00	0	0.00	1
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.19	5	0.00	0	0.00	0	0.19	5
	Total	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.50	6	0.00	0	0.00	0	0.50	6
INDEPENDENCE	AG/IR	40.45	296	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	40.45	296
	Other	0.47	6	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.47	6
	WS/DO	0.92	7	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.92	7
	Total	41.84	309	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	41.84	309

2005 Withdrawals of Ground Water from Aquifers in Arkansas Counties by Use Type (In M/gal per day: 0, no data)

County	Use Type	Deposits of Quaternary age		Cockfield Formation		Cane River Formation		Sparta-Memphis Sand		Wilcox Group		Clayton Formation		Nacatoch Sand		Tokio Formation		Trinity Group		Rocks of Paleozoic age		Use Type Totals	
		Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells		
IZARD	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.64	2	0.64	2
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.15	16	1.15	16
	Total	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.79	18	1.79	18
JACKSON	AG/IR	381.04	2458	0.00	0	0.00	0	0.42	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	381.76	2460
	WS/DO	1.66	14	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.66	14
	Total	382.70	2472	0.00	0	0.00	0	0.42	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	383.12	2474
JEFFERSON	AG/IR	220.82	1581	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	220.82	1581
	CO/IN/MI	6.42	7	0.00	0	0.00	0	36.13	29	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	42.55	36
	Other	0.00	0	1.97	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.97	2
	WS/DO	0.12	0	0.00	0	0.00	0	14.25	42	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	14.37	42
	Total	227.36	1588	1.97	2	0.00	0	50.38	71	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	279.71	1661
JOHNSON	AG/IR	0.31	14	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.31	14
	CO/IN/MI	0.01	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.01	1
	Total	0.05	15	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.32	15
LAFAYETTE	AG/IR	37.79	226	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	37.79	226
	CO/IN/MI	0.00	0	0.00	0	0.00	0	0.00	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2
	Other	0.18	0	0.00	0	0.00	0	0.32	5	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.50	5
	WS/DO	0.34	0	0.00	0	0.67	7	0.10	5	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.11	12
	Total	38.31	225	0.00	0	0.67	7	0.42	10	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	39.40	245
LAWRENCE	AG/IR	220.91	1768	0.00	0	0.00	0	0.13	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.37	3	221.41	1772
	CO/IN/MI	0.24	3	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.01	1	0.00	0	0.00	0	0.00	0	0.25	4
	WS/DO	1.05	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.56	6	1.61	15
	Total	222.20	1773	0.00	0	0.00	0	0.13	1	0.00	0	0.00	0	0.01	1	0.00	0	0.00	0	0.93	9	223.27	1791
LEE	AG/IR	265.79	2108	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	265.79	2108
	WS/DO	0.07	1	0.00	0	0.00	0	0.93	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.00	3
	Total	265.86	2109	0.00	0	0.00	0	0.93	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	266.79	2111
LINCOLN	AG/IR	181.65	1109	0.00	0	0.00	0	0.20	3	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	181.82	1112
	WS/DO	0.02	0	0.00	0	0.00	0	1.00	13	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.05	13
	Total	181.67	1109	0.00	0	0.00	0	1.20	16	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	182.87	1125
LITTLE RIVER	AG/IR	3.42	22	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	3.42	22
	CO/IN/MI	0.30	8	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.30	8
	WS/DO	0.71	6	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.71	6
	Total	4.43	36	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	4.43	36
LOGAN	AG/IR	0.79	24	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.79	24
	WS/DO	0.86	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.86	0
	Total	1.65	24	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.65	24
LONOKE	AG/IR	408.59	2475	0.00	0	0.00	0	7.56	31	0.06	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	416.21	2596
	CO/IN/MI	0.59	4	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.59	4
	WS/DO	3.90	14	0.90	2	0.00	0	1.79	8	0.45	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	7.04	26
	Total	413.08	2493	0.90	2	0.00	0	9.35	39	0.51	3	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	423.84	2626

2005 Withdrawals of Ground Water from Aquifers in Arkansas Counties by Use Type (In M/gal per day: 0, no data)

County	Use Type	Deposits of Quaternary age		Cockfield Formation		Cane River Formation		Sparta-Memphis Sand		Wilcox Group		Clayton Formation		Nacatoch Sand		Tokio Formation		Trinity Group		Rocks of Paleozoic age		Use Type Totals	
		Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells		
MADISON	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.55	1	0.55	1
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.60	2	0.60	2
	Total	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.15	3	1.15	3
MARION	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.18	0	0.18	0
	CO/IN/MI	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.01	2	0.01	2
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.64	3	0.64	3
	Total	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.83	5	0.83	5
MILLER	AG/IR	15.29	76	0.00	0	0.00	0	0.02	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	15.31	77
	WS/DO	0.85	2	0.00	0	0.00	0	0.02	1	0.10	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.97	5
	Total	16.14	78	0.00	0	0.00	0	0.04	2	0.10	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	16.28	82
MISSISSIPPI	AG/IR	271.05	2026	0.00	0	0.00	0	0.00	0	0.50	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	271.55	2027
	CO/IN/MI	0.02	1	0.00	0	0.00	0	0.00	0	2.14	8	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	2.16	9
	WS/DO	0.12	3	0.00	0	0.00	0	0.00	0	3.93	20	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	4.05	23
	Total	271.19	2030	0.00	0	0.00	0	0.00	0	6.57	29	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	277.76	2059
MONROE	AG/IR	287.60	2149	0.94	7	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	288.54	2156
	CO/IN/MI	0.01	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.01	1
	WS/DO	0.72	2	0.00	0	0.00	0	0.77	3	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.49	5
	Total	288.33	2152	0.94	7	0.00	0	0.77	3	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	290.04	2162
MONTGOMERY	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.18	0	0.18	0
	CO/IN/MI	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.01	3	0.01	3
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.51	3	0.51	3
	Total	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.70	6	0.70	6
NEVADA	AG/IR	0.00	0	0.00	0	0.00	0	0.13	0	0.00	0	0.00	1	0.00	0	0.00	0	0.00	0	0.00	0	0.13	1
	CO/IN/MI	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.18	3	0.00	0	0.00	0	0.00	0	0.00	0	0.18	3
	WS/DO	0.00	0	0.00	0	0.00	0	0.06	2	0.18	2	0.00	0	0.18	2	0.00	0	0.00	0	0.00	0	0.42	6
	Total	0.00	0	0.00	0	0.00	0	0.19	2	0.18	2	0.18	4	0.18	2	0.00	0	0.00	0	0.00	0	0.73	10
NEWTON	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.14	0	0.14	0
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.03	12	1.03	12
	Total	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.17	12	1.17	12
OUACHITA	AG/IR	0.00	0	0.00	0	0.00	0	0.05	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.05	0
	WS/DO	0.00	0	0.00	0	0.04	1	0.98	12	0.00	0	0.00	0	0.01	1	0.00	0	0.00	0	0.00	0	1.03	16
	Total	0.00	0	0.00	0	0.04	1	1.03	12	0.00	0	0.00	0	0.01	1	0.00	0	0.00	0	0.00	0	1.08	16
PERRY	AG/IR	0.13	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.13	0
	CO/IN/MI	0.00	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1
	WS/DO	0.33	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.33	2
	Total	0.46	3	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.46	3
PHILLIPS	AG/IR	204.36	1774	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	204.36	1774
	CO/IN/MI	0.01	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.01	1
	Other	0.00	0	0.00	0	0.00	0	0.43	4	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.43	4
	WS/DO	0.00	0	0.00	0	0.00	0	3.71	15	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	3.71	15

2005 Withdrawals of Ground Water from Aquifers in Arkansas Counties by Use Type (In M/gal per day: 0, no data)

County	Use Type	Deposits of Quaternary age		Cockfield Formation		Cane River Formation		Sparta-Memphis Sand		Wilcox Group		Clayton Formation		Nacatoch Sand		Tokio Formation		Trinity Group		Rocks of Paleozoic age		Use Type Totals	Wells
		Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells		
	Total	204.37	1775	0.00	0	0.00	0	4.14	19	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	208.51	1794
PIKE	AG/IR	0.19	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.01	2	0.20	2
	CO/IN/MI	0.00	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2
	WS/DO	0.28	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.28	1
	Total	0.47	3	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.01	2	0.48	5
POINSETT	AG/IR	675.63	2817	0.00	0	0.00	0	1.13	3	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	676.76	2819
	CO/IN/MI	0.19	2	0.00	0	0.00	0	0.08	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.27	4
	WS/DO	2.35	9	0.00	0	0.00	0	0.08	4	2.85	6	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	5.28	19
	Total	678.17	2828	0.00	0	0.00	0	1.29	8	2.85	6	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	682.31	2842
POLK	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.31	0	0.31	0
	CO/IN/MI	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.03	7	0.03	7
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.83	0	0.83	0
	Total	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.17	7	1.17	7
POPE	AG/IR	1.18	8	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.54	3	1.72	11
	CO/IN/MI	0.10	3	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.10	3
	WS/DO	0.27	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.27	0
	Total	1.55	11	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.54	3	2.09	14
PRAIRIE	AG/IR	246.60	1887	0.00	0	0.00	0	5.79	25	0.22	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	252.61	1913
	WS/DO	0.97	10	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.97	11
	Total	247.57	1897	0.00	0	0.00	0	5.79	25	0.22	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	253.58	1924
PULASKI	AG/IR	21.70	229	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	21.70	229
	CO/IN/MI	0.09	5	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.03	4	0.12	9
	WS/DO	4.45	14	0.00	0	0.00	0	0.12	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	4.57	16
	Total	26.24	248	0.00	0	0.00	0	0.12	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.03	4	26.39	250
RANDOLPH	AG/IR	101.67	636	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	101.67	636
	CO	0.01	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.01	1
	WS/DO	0.58	3	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.25	5	0.83	8
	Total	102.26	640	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.25	5	102.51	645
ST FRANCIS	AG/IR	291.78	1965	0.06	4	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	291.84	1965
	Other	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	4
	WS/DO	3.56	2	0.00	0	0.00	0	0.00	0	0.33	3	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	3.89	5
	Total	295.34	1967	0.06	4	0.00	0	0.00	0	0.33	3	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	295.73	1974
SALINE	AG/IR	0.03	0	0.00	0	0.00	0	0.04	2	0.00	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.07	3
	WS/DO	0.95	2	0.00	0	0.00	0	0.34	3	0.93	7	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	2.22	12
	Total	0.98	2	0.00	0	0.00	0	0.38	5	0.93	8	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	2.29	15
SCOTT	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.29	0	0.29	0
	CO/IN/MI	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.01	2	0.01	2
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	2.05	0	2.05	0
	Total	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	2.35	2	2.35	2

2005 Withdrawals of Ground Water from Aquifers in Arkansas Counties by Use Type (In M/gal per day: 0, no data)

County	Use Type	Deposits of Quaternary age		Cockfield Formation		Cane River Formation		Sparta-Memphis Sand		Wilcox Group		Clayton Formation		Nacatoch Sand		Tokio Formation		Trinity Group		Rocks of Paleozoic age		Use Type Totals	
		Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells		
SEARCY	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.29	6	0.29	6
	Total	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.29**	**6**	0.29	6
SEBASTIAN	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.23	0	0.23	0
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.71	0	0.71	0
	Total	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.94**	**0**	0.94	0
SEVIER	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.31	0	0.00	0	0.00	0	0.31	0
	CO/IN/MI	0.00	0	0.00	0	0.00	0	0.01	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.01	1
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.42	7	0.00	0	0.00	0	1.42	6
	Total	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.01**	**1**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**1.73**	**7**	**0.00**	**0**	**0.00**	**0**	1.74	7
SHARP	CO/IN/MI	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.51	1	0.51	1
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.08	2	0.00	0	3.72	15	3.80	17
	Total	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.08**	**2**	**0.00**	**0**	**4.23**	**16**	4.31	18
STONE	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.56	2	0.56	2
	CO/IN/MI	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.01	1	0.01	1
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.03	1	0.03	1
	Total	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.60**	**4**	0.60	4
UNION	AG/IR	0.00	0	0.00	0	0.00	0	0.11	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.11	0
	CO/IN/MI	0.00	0	0.00	0	0.00	0	6.33	28	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	6.33	28
	WS/DO	0.00	0	0.00	0	0.00	0	9.11	52	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	9.11	52
	Total	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**15.55**	**80**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	15.55	80
VAN BUREN	AG/IR	0.37	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.37	1
	WS/DO	0.04	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.04	0
	Total	**0.41**	**1**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	0.41	1
WASHINGTON	AG/IR	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.12	0	1.12	0
	CO/IN/MI	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.06	6	0.06	6
	WS/DO	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.17	0	0.17	0
	Total	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**1.35**	**6**	1.35	6
WHITE	AG/IR	46.51	801	0.00	0	0.00	0	0.00	0	0.54	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	47.05	802
	CO/IN/MI	0.05	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.05	1
	WS/DO	1.49	7	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.49	7
	Total	**48.05**	**809**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.54**	**1**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	48.59	810
WOODRUFF	AG/IR	264.79	2217	0.00	0	0.00	0	1.08	7	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	265.87	2224
	CO/IN/MI	0.01	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.01	2
	Other	0.07	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.07	2
	WS/DO	1.05	8	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	1.05	8
	Total	**265.92**	**2229**	**0.00**	**0**	**0.00**	**0**	**1.08**	**9**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	267.00	2236
YELL	AG/IR	0.36	1	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.36	1
	CO/IN/MI	0.00	2	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	2
	WS/DO	2.01	9	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	2.01	9
	Total	**2.37**	**12**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	**0.00**	**0**	2.37	12

2005 Withdrawals of Ground Water from Aquifers in
Arkansas Counties by Use Type (In M/gal per day: 0, no data)

Use Type	Deposits of Quaternary age		Cockfield Formation		Cane River Formation		Sparta-Memphis Sand		Wilcox Group		Clayton Formation		Nacatoch Sand		Tokio Formation		Trinity Group		Rocks of Paleozoic age		Use Type	
	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Sum	Wells	Totals	Wells
Agriculture/ Irrigation	7200.92	46425	3.62	25	0.00	0	59.79	206	3.37	25	0.00	1	0.68	0	0.62	0	0.00	0	13.52	34	7282.79	46763
Commercial/Indus./Mining	11.09	60	6.20	7	0.00	0	48.41	116	2.22	10	0.18	3	0.29	7	0.00	1	0.03	1	1.45	60	69.87	263
Water Supply/ Domestic	40.09	153	4.32	24	0.71	8	60.86	288	21.42	80	0.00	0	3.03	25	3.86	29	0.00	0	19.82	143	154.14	758
Other	0.72	10	1.97	2	0.00	0	0.75	9	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	3.44	25
Total	7252.82	46648	16.11	58	0.71	8	169.81	619	27.01	115	0.18	4	4.00	32	4.48	30	0.03	1	34.79	237	7510.24	47809

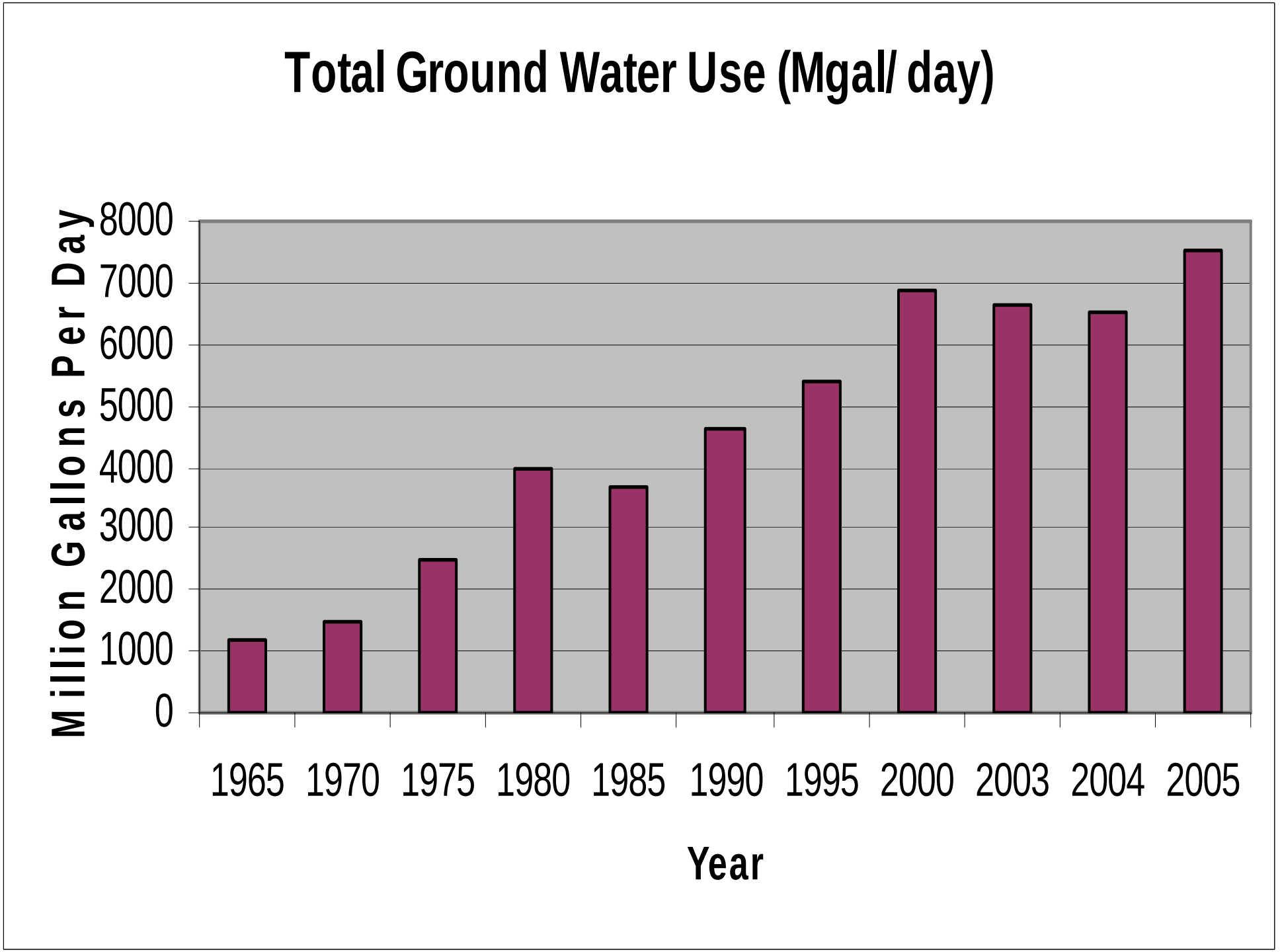
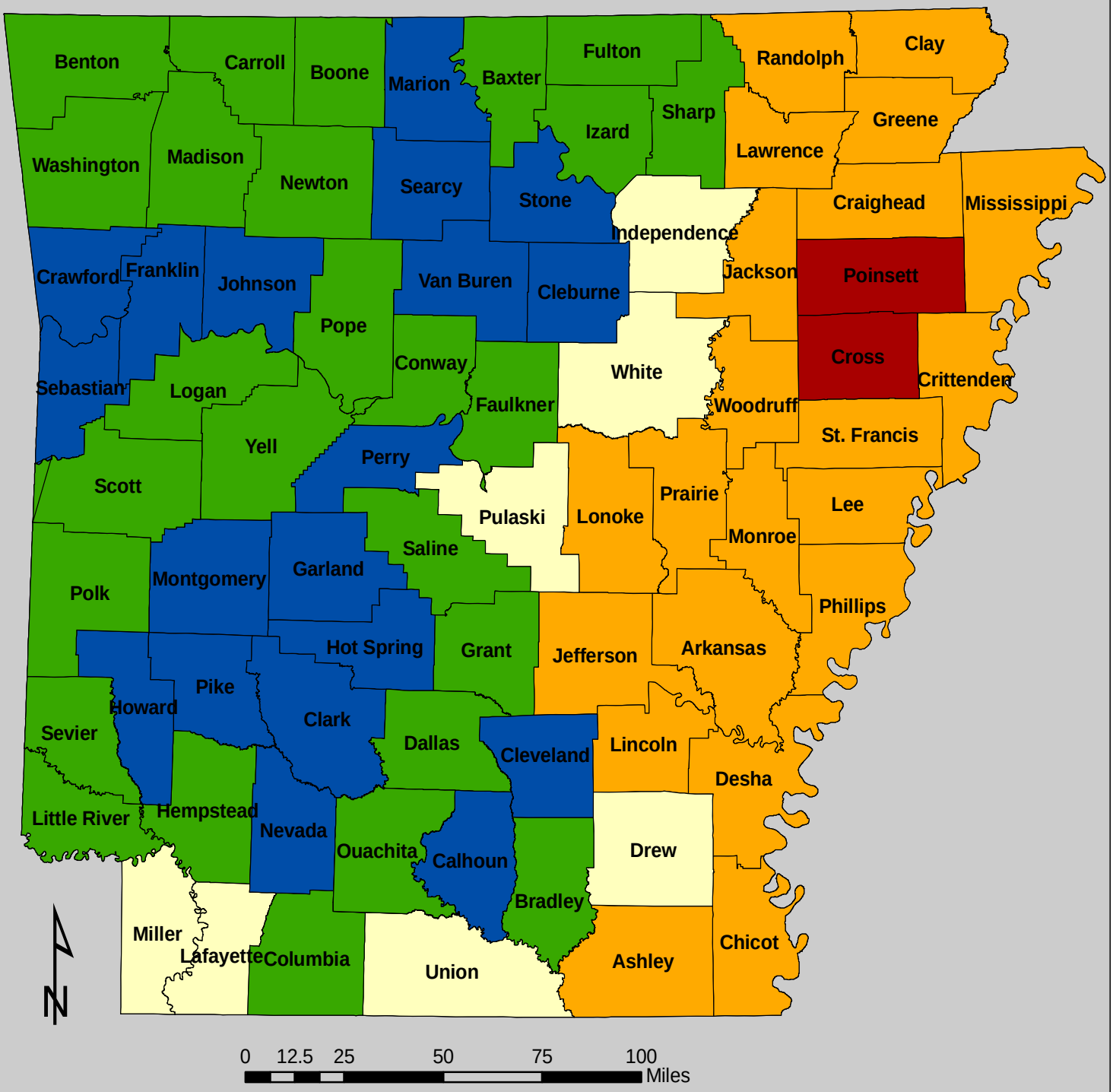

Total Ground Water Use (Mgal/ day)
Million Gallons Per Day
8000
7000
6000
5000
4000
3000
2000
1000
0
1965
1970
1975
1980
1985
1990
1995
2000
2003
2004
2005
Year

Fig. 40

Ground Water Use in Arkansas as of 2005 (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 560-685 Mgal/day

Total Use (Mgal/day): 7510.24

*** Data obtained from USGS**

Fig. 41

2005 Total Withdrawals of Ground Water (Mgal/day) by Aquifer

Total Use Mgal/day: 7510.24

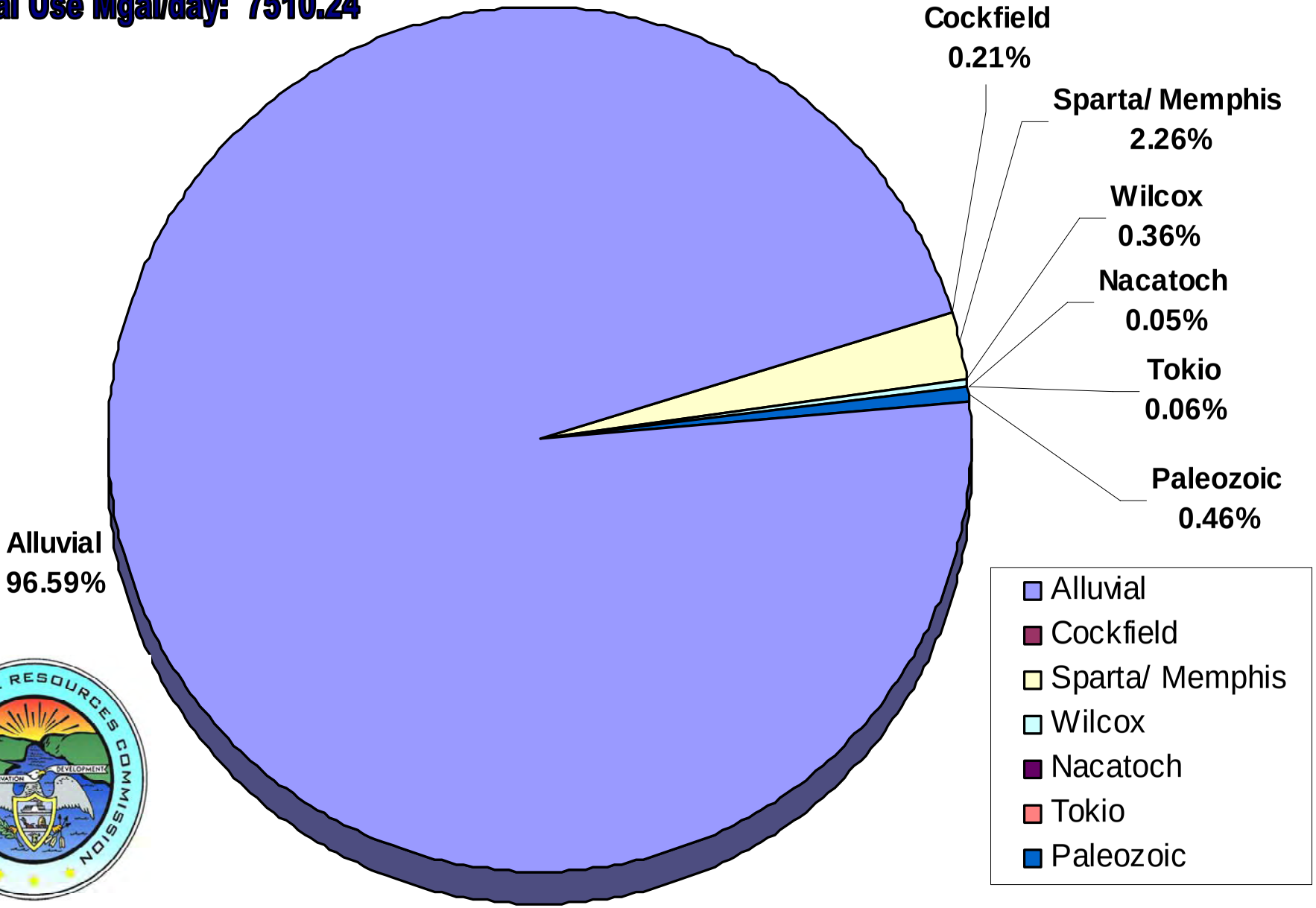


Fig. 42

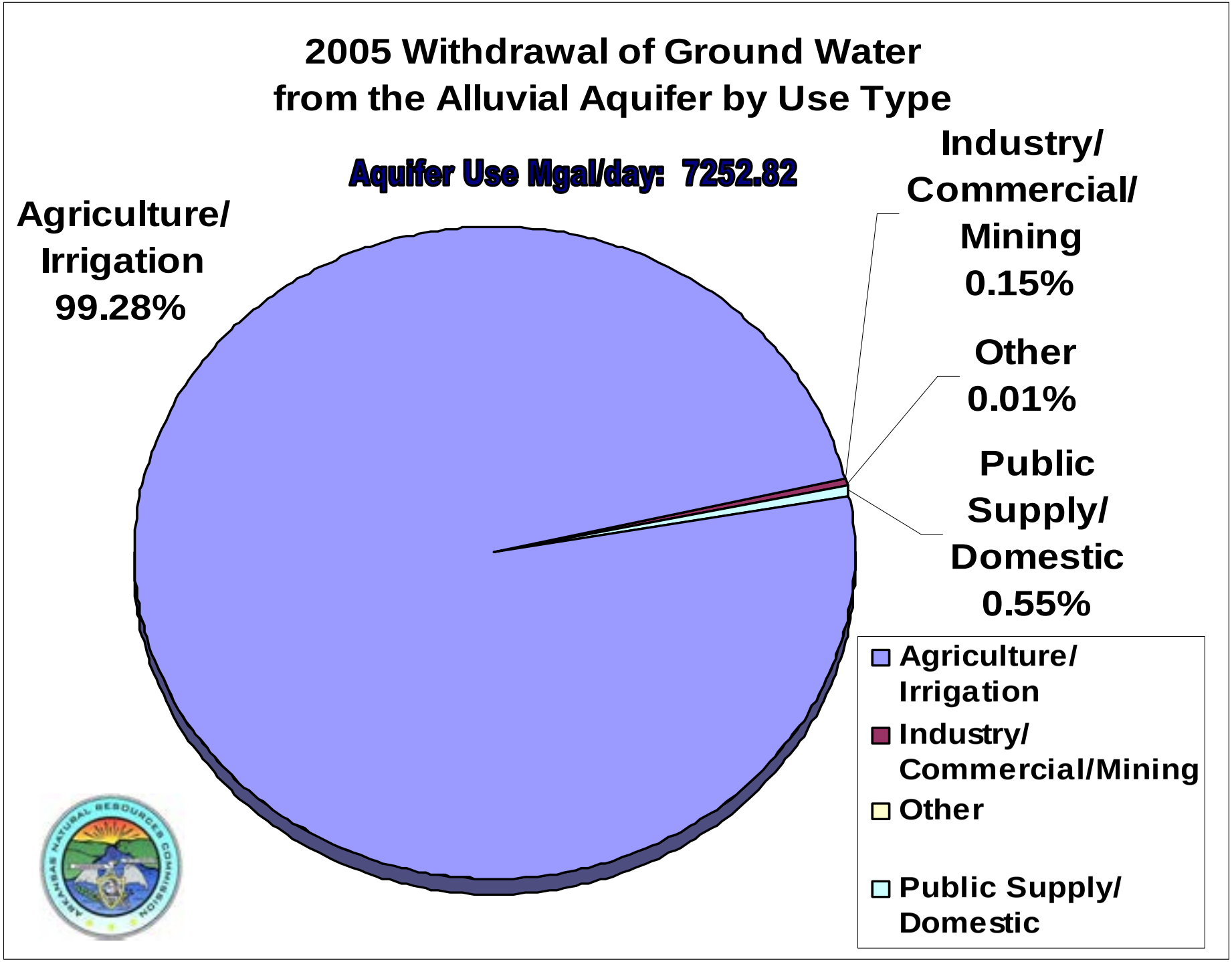

2005 Withdrawal of Ground Water
from the Alluvial Aquifer by Use Type
Aquifer Use Mgal/day: 7252.82
Agriculture/
Irrigation
99.28%
Industry/
Commercial/
Mining
0.15%
Other
0.01%
Public
Supply/
Domestic
0.55%
Agriculture/ Irrigation
Industry/ Commercial/Mining
Other
Public Supply/ Domestic

Fig. 43

2005 Withdrawal of Ground Water from the Sparta/ Memphis Aquifers by Use Type

Aquifer Use Mgal/day: 169.81

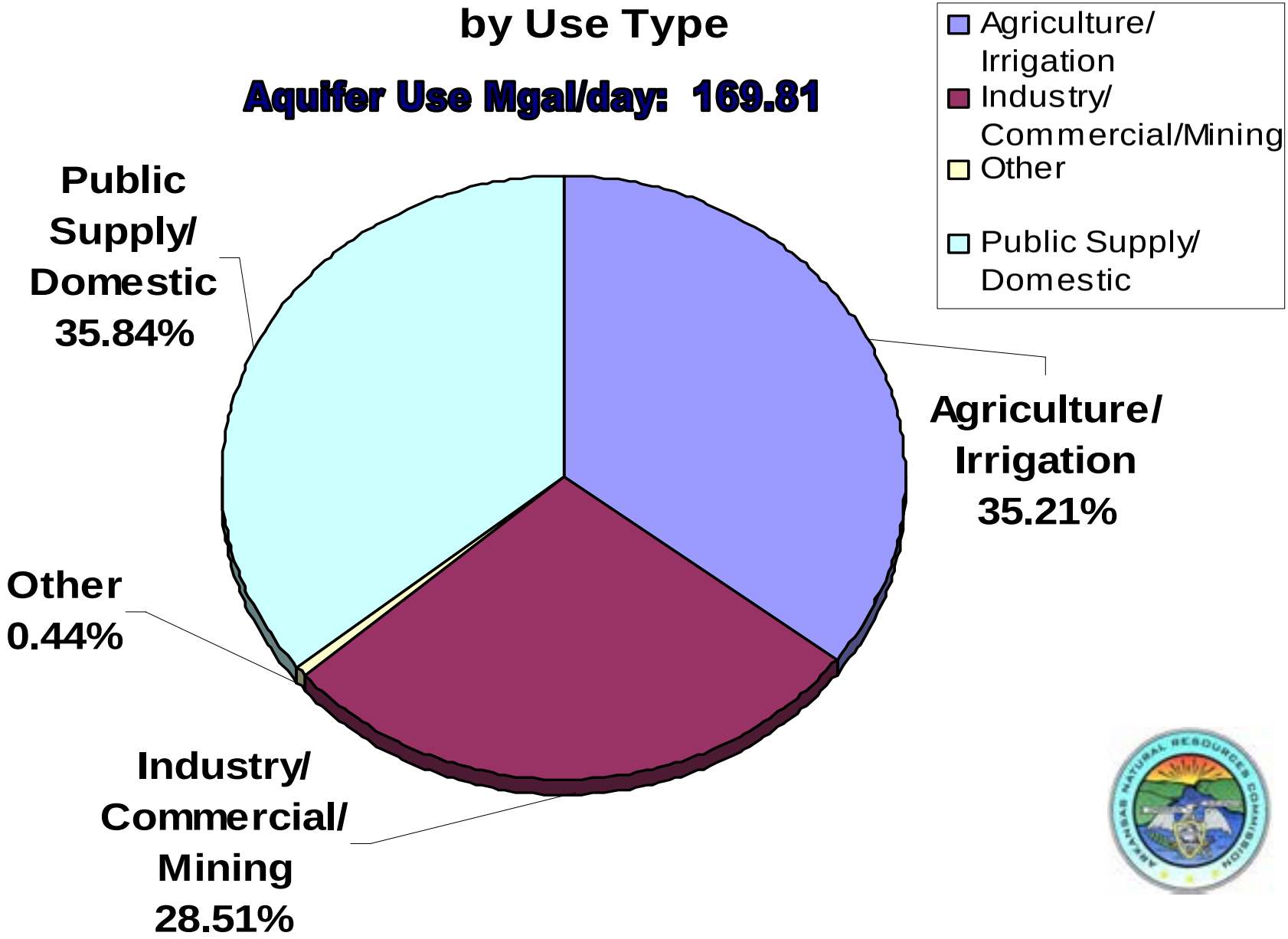


Fig. 44

2005 Withdrawal of Ground Water from Paleozoic Rocks by Use Type

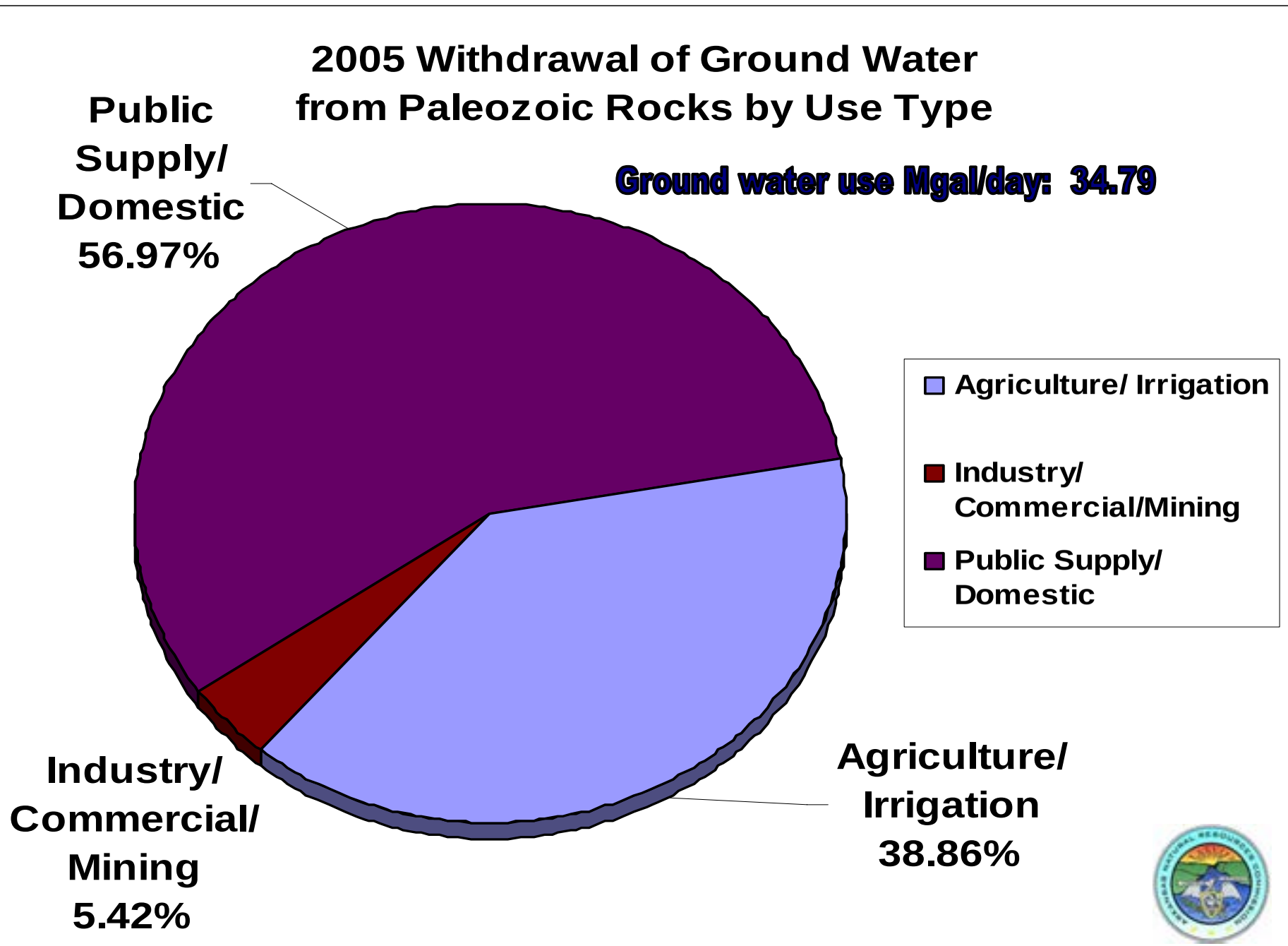


Fig. 45

Ground-Water Modeling and Sustainable Yield

The Arkansas District of the US Geological Survey has released several ground-water flow modeling reports. These models provide the State with valuable information on the ground-water flow systems of the two major aquifers in Arkansas as well as an important ground-water resources tool that define areas of future ground-water depletion, and quantifies a sustainable yield, along with unmet demand, based on a described set of head constraints that are consistent with current State water resources policy.

The USGS recently completed recalibration, conjunctive-use optimization, and sustainable yield optimization of ground-water flow models for the Sparta and alluvial aquifers in eastern and southern Arkansas. These reports define and document future projected ground-water declines in Arkansas based on current water use trends, and quantify a sustainable yield for each aquifer based on the head constraints consistent with State water policy. It is essential that the State pursue protection of a sustainable yield for its aquifers, in order to protect this valuable resource from adverse impacts such as damage to the aquifer system, land subsidence, reduced yield to wells, saline water encroachment, increased cost to well users, and reduced base flow to streams and wetlands.

Any attempt to establish a "safe yield" for an aquifer should appropriately be consistent with the preferred concept of "sustainable yield", which includes the often dynamic needs of society, ecology, hydrology and the environment. (Maimone, 2004). The definition of sustainable yield in *WRI Report 03-4230* is the withdrawal rate from an aquifer that can be maintained indefinitely without causing a violation hydraulic head or streamflow constraints. Another definition of sustainable yield proposed by the USGS is *"the development and use of ground water resources in a manner that can be maintained for an indefinite time without causing unacceptable environmental, economic, or social consequences"* (Alley 2004). The misperception of setting a fixed safe yield, has been replaced with the goal of establishing a process of defining a

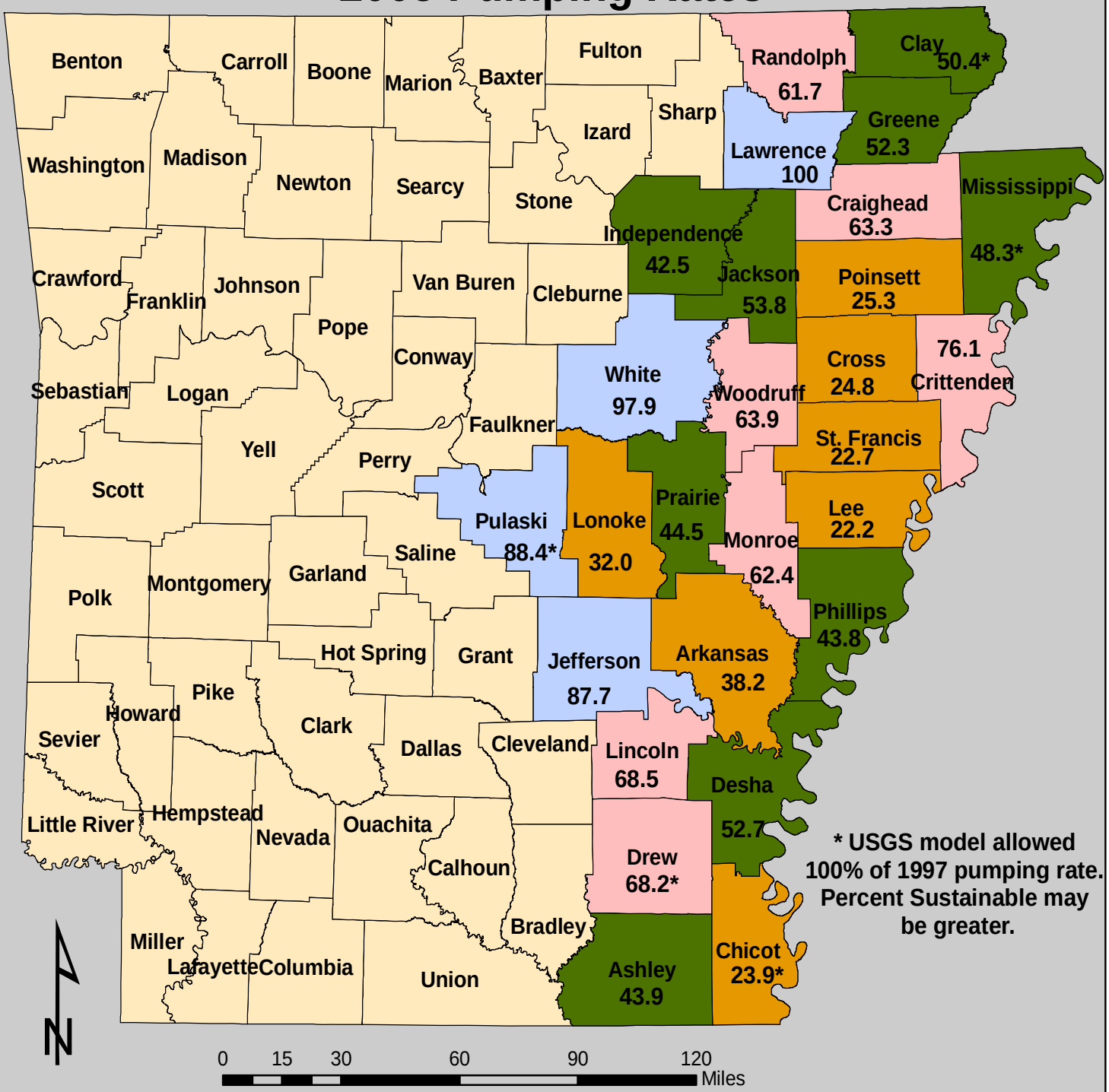
sustainable yield that is adaptive and flexible to changing needs and additional scientific knowledge.

The scale of these models is immense, and the methodology and complete results can be found in the USGS Water-Resources Investigations Reports; 03-4230, 03 4231, and 03-4233, which are all listed in the "References" section of this report. One product of these models was the determination of maximum withdrawal rates from each one square mile cell in the model based on 1997 ground-water use, while not violating specified constraints imposed on the model. (Czarnecki, and others, 2003) The constraints were based on predetermined stream flow levels, as well as aquifer saturated thickness percentages that must be maintained. A minimum of 50% has been utilized for the alluvial aquifer as the sustainable yield thickness in Arkansas.

The ground-water models showed that a sustainable yield for the alluvial and Sparta aquifers could not be met using the 1997 pumping rate. The alluvial model is split into a North Optimization Model, and a South Optimization Model. The sustainable yield from ground water in the North Model was 360.3 million cubic feet per day, and the demand was 635.7 million cubic feet per day, based on 1997 pumping rates. This leaves an unmet demand of 275.5 million cubic feet per day (43%). In the South Optimization Model the sustainable yield from ground water, based in 1997 pumping rates, was 70.3 million gallons per day with a demand of 73.6 million gallons per day. This leaves an unmet demand of 3.3 million gallons per day, or 5% for the south model. (Czarnecki and others, 2003) The unmet demand represents the amount by which water use must be reduced to achieve a sustainable yield. Figure 47 provides a real view of those portions of the State which could continue to pump from the alluvial aquifer within a sustainable yield pumping rate, based on head constraints as described. This figure also shows those portions of the State where no pumping from the alluvial aquifer could be maintained. It should be noted that the aforementioned sustainable yield and demand figures were based on 1997 ground-water rates.

The latest USGS model report, "Simulation of Various Management Scenarios of the Mississippi River Valley Alluvial Aquifer in Arkansas" (Czarnecki, 2006), provides essential information for proper evaluation of sustainable yield. Figure 46 shows the

Percentage of Sustainable Yield for the Alluvial Aquifer based on 2005 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

Fig. 46

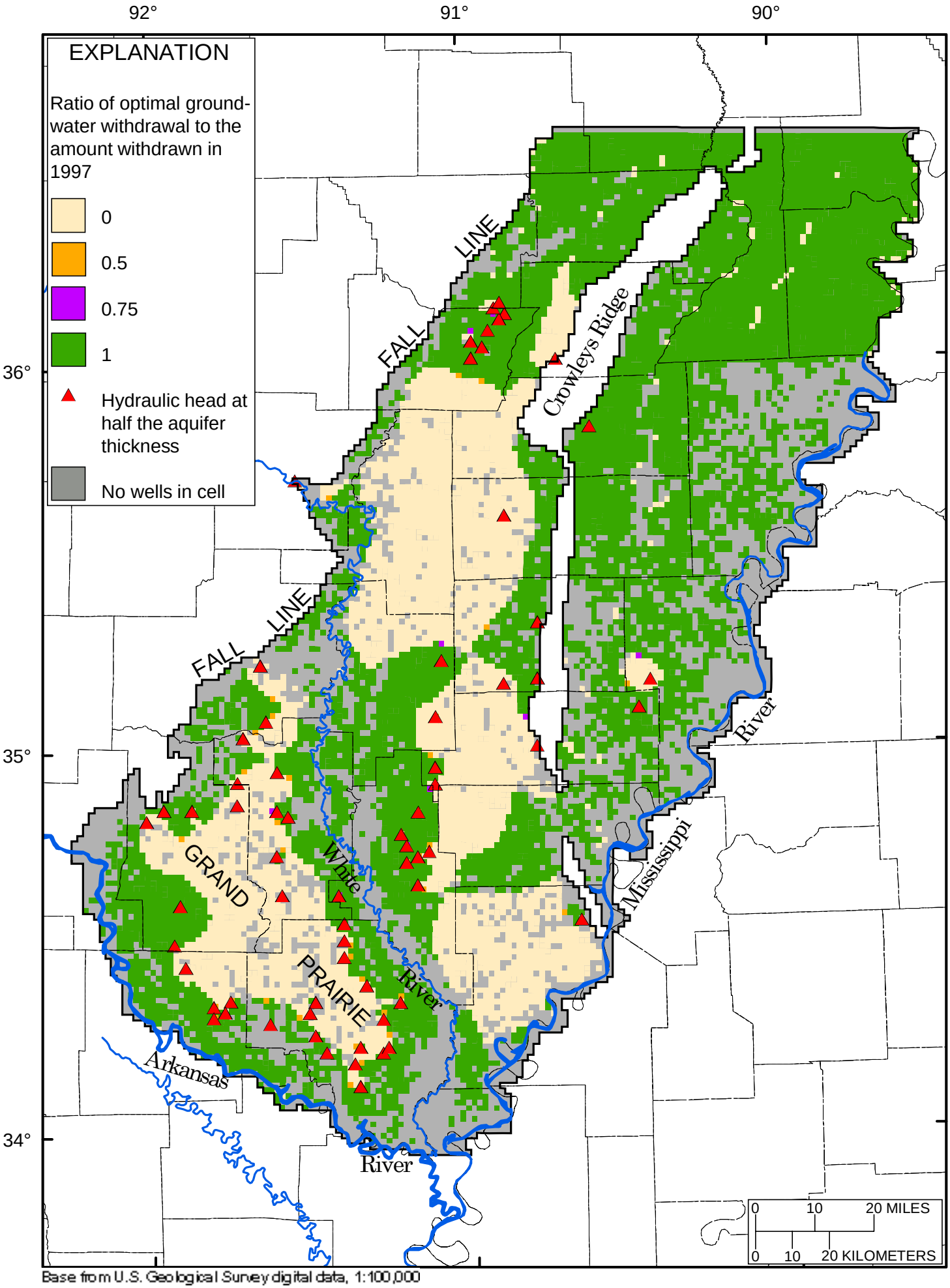

92°
91°
90°
36°
35°
34°
EXPLANATION
Ratio of optimal ground-water withdrawal to the amount withdrawn in 1997
0
0.5
0.75
1
Hydraulic head at half the aquifer thickness
No wells in cell
FALL LINE
Crowleys Ridge
FALL LINE
GRAND PRAIRIE
White River
Arkansas River
Mississippi River
0 10 20 MILES
0 10 20 KILOMETERS
Base from U.S. Geological Survey digital data, 1:100,000

Fig. 47

estimated sustainable yield for the alluvial aquifer in a portion of eastern Arkansas, based on current State water policy. The amount of water use, as well as the unmet demand has both increased since this time due to the number of new irrigation wells drilled each year. There have been over 10,000 new wells drilled in the alluvial aquifer since 1997.

SUMMARY

The Ground Water Protection and Management Report for 2007 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 2006 to 2007 provided short term data indicating an overall average decline in water levels. The overall change in the alluvial aquifer for spring 2006 to spring 2007 was a decline of 0.44 feet with 66 percent of measured wells showing a water-level decline. Over the same time period the Sparta aquifer declined 0.06 feet; however, the water level in the Grand Prairie declined 1.6 feet. Elevated levels of dissolved solids are being recorded in areas of significant water-level decline in the Boeuf-Tensas and Grand Prairie Study Areas. 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 respectively.

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.

REFERENCES

Ackerman, D. J., 1989, Hydrology of the Mississippi River Valley Alluvial Aquifer, South-Central United States – A Preliminary Assessment of the Regional Flow System: U. S. Geological Survey Water-Resources Investigations Report 88-4028, 74 p.

Ackerman, D. J., 1996, Hydrology of the Mississippi River Valley Alluvial Aquifer, South-Central United States: U. S. Geological Survey Professional Paper 1416-D, 56 p.

Alley, William M. and Leake, Stanley A., 2004, They Journey from Safe Yield to Sustainability, Ground Water Journal, Vol. 42, No. 1, January-February 2004, pp. 12-16.

Cushing, E. M., Boswell, E. H., and Hosman, R. L., 1964, General Geology of the Mississippi Embayment: U. S. Geological Survey Professional Paper 448-B.

Czarnecki, John B., Clark, Bryan R., and Reed, 2003, Thomas B. Conjunctive-Use Optimization Model of the Mississippi River Alluvial Aquifer of Northeastern Arkansas. USGS Water-Resources Investigations Report 03-4230, 29 p.

Czarnecki, John B., Clark, Bryan R., and Stanton, Gregory P., 2003, Conjunctive-Use Optimization Model and Sustainable-Yield Estimation for the Sparta Aquifer of Southeastern Arkansas and North Central Louisiana. USGS Water-Resources Investigations Report 03-4291, 30 p.

Czarnecki, John B., Clark, Bryan R., and Stanton, Gregory P., 2003, Conjunctive-Use Optimization Model of the Mississippi River Alluvial Aquifer of Southeastern Arkansas. USGS Water-Resources Investigations Report 03-4233, 26 p.

Czarnecki, John B. and Fugitt, D. Todd, 2003, Ground-Water Models of the Alluvial Aquifer, USGS information sheet.

Fitzpatrick, D. J., 1985, Occurrence of Saltwater in the Alluvial Aquifer in the Boeuf-Tensas Basin, Arkansas: U. S. Geological Survey Water-Resources Investigations Report 84-4363, 1 sheet.

Gonthier, G.J., and Mahon, G.L., 1993, Thickness of the Mississippi River Valley Confining Unit, Eastern Arkansas: U. S. Geological Survey Water-Resources Investigations Report 92-4121, 4 sheets.

Hayes, P. D., and Fugitt, D. T., The Sparta Aquifer in Arkansas' Critical Ground-Water Areas-Response of the Aquifer to Supplying Future Water Needs: U. S. Geological Survey Water-Resources Investigations Report 99-4075, 1999.

Hayes, P.D., 2000, sustainable yield estimation for the Sparta aquifer in Union County, Arkansas: U.S. Geological Survey Water Resources Investigation Report 99-4272, 17 p.

Holland, T.W., Water Use in Arkansas, 2005: USGS Scientific Investigations Report 2007-5241. 2008.

Holland, T.W., 2007, Estimated Water Use in Arkansas, 2005. Personal Communication

Holland, T. W., 2005, Water Use in Arkansas, 2003: USGS information sheet.

Holland, T. W., 1999, Water Use in Arkansas, 1995: U.S. Geological Survey Open-File Report 99-188, 1 sheet.

Holland, T. W., 1987, Use of Water in Arkansas, 1985: USGS Water Resources Summary Number 16.

Hosman, R.L., 1982, Outcropping Tertiary Units in Southern Arkansas: U. S. Geological Survey Miscellaneous Investigations Series, I-1405, 1 sheet.

Maimone, Mark, Defining and Managing Sustainable Yield. Ground Water Journal, Vol. 42, Nos. 6 and 7, pp797-1102. November-December 2004.

McKee, Paul W., Clark, Brian R., and Czarnecki, John B., 2003, Conjunctive-Use Optimization Model and Sustainable Yield Estimation for the Sparta Aquifer of Southeastern Arkansas and North-Central Louisiana. U.S. Geological Survey Water-Resources Investigations Report 03-4231. 30 p.

Pugh, A. L., Westerfield, P. W., Gonthier, G. J., and Poynter, D. T., 1998, Altitude of the Top of the Sparta Sand and Memphis Sand in Three Areas of Arkansas: U.S. Geological Survey Water Resources Investigations Report 98-4002.

Pugh, A.L., Westerfield, P. W., and Poynter, D. T., 1997, Thickness of the Mississippi River Alluvial Aquifer in Eastern Arkansas: U. S. Geological Survey Water-Resources Investigations Report 97-4049, 1 sheet.

Scheiderer, Rheannon M. and Freiwald, David A., USGS Fact Sheet 2006-3090. 2006.

Schrader, T. P. Status of Water Levels and Selected Water-Quality Conditions in the Sparta-Memphis Aquifer in Arkansas, Spring-Summer 2003. USGS Scientific Investigations Report 2006-5021, 43 p.

Schrader, T.P. 2006, Status of Water Levels and Selected Water Quality Conditions in the Mississippi River Valley Alluvial Aquifer in Eastern Arkansas, 2004. USGS Scientific Investigation Report 2006-5128, 82 p.

Appendix A

Alluvial Aquifer Water Level Monitoring Data

Alluvial Aquifer
97-02-06-07 WL Change

County	Station ID	Latitude	Longitude	LSA	Date	07	WL	WL	WL	WL	06-07	02-07	97-07
					Measured	meas.	Alt. 07	Alt. 06	Alt. 02	Alt. 97	Change	Change	Change
Arkansas	02S04W11DBB1	343232.89	912415.21	213.04	3/20/2007	100.40	112.64	112.34	112.56		0.30	0.08	
Arkansas	02S05W15AAB1	343212.68	913126.72	213.00	3/20/2007	104.65	108.35	107.90	102.28		0.45	6.07	
Arkansas	02S05W31BBB1	342936.71	913536.22	198.00	3/20/2007	37.00	161.00	158.25	137.38		2.75	23.62	
Arkansas	03S02W27ABB1	342447.92	911251.01	197.00	3/21/2007	66.00	131.00	129.47	127.20		1.53	3.80	
Arkansas	03S03W05CCD1	342737.02	912131.83	201.00	3/20/2007	99.30	101.70	102.82	104.46		-1.12	-2.76	
Arkansas	03S03W18CCC1	342553	912251	196.00	3/20/2007	99.71	96.29	97.29			-1.00		
Arkansas	03S03W27BBC1	342454.73	911944.08	195.00	3/21/2007	92.60	102.40	103.35	105.00		-0.95	-2.60	
Arkansas	03S04W02BBB1	342831	912454	197.63	3/20/2007	92.80	104.83	105.40	106.33		-0.57	-1.50	
Arkansas	03S04W03DCA16	342753.04	912515.37	205.00	4/9/2007	100.92	104.08	104.55	105.90	107.62	-0.47	-1.82	-3.54
Arkansas	03S05W03CCC1	342752.15	913227.43	215.00	3/20/2007	105.10	109.90	110.60	109.34		-0.70	0.56	
Arkansas	03S05W13AC1	342630	913307	211.00	3/20/2007	107.40	103.60	105.25			-1.65		
Arkansas	03S05W24DAA1	342525	912922	207.00	3/20/2007	37.50	169.50		206.30			-36.80	
Arkansas	03S06W35ADD1	342411.4	913651.67	190.00	3/21/2007	57.00	133.00	137.11	136.71		-4.11	-3.71	
Arkansas	04S01W19AAD1	342012	910919	196.00	4/17/2007	66.70	129.30		129.75			-0.45	
Arkansas	04S01W31DCB1	341753	910947	179.00	3/21/2007	54.60	124.40	126.35	124.60		-1.95	-0.20	
Arkansas	04S02W29CCC1	341846.35	911538.5	191.00	3/21/2007	83.15	107.85	104.48	107.34		3.37	0.51	
Arkansas	04S03W17ADD1	342101.87	912058.11	200.00	3/21/2007	108.30	91.70	92.28	93.82	99.35	-0.58	-2.12	-7.65
Arkansas	04S03W32BCB1	341820.31	912202.18	192.00	3/22/2007	131.50	60.50	75.55	85.82		-15.05	-25.32	
Arkansas	04S04W02ABB1	342313.2	912423.69	200.00	3/21/2007	109.50	90.50	91.37	91.93		-0.87	-1.43	
Arkansas	04S04W35ABC1	341835	912437	197.00	4/19/2007	105.50	91.50	91.00	90.00		0.50	1.50	
Arkansas	04S05W16CDC1	342044.68	913320.89	201.00	3/21/2007	70.90	130.10	131.65	129.90		-1.55	0.20	
Arkansas	04S05W24DAA1	342001.3	912929.57	198.00	3/21/2007	90.00	108.00	107.99	107.57		0.01	0.43	
Arkansas	05S01W16BAB1	341551.59	910729.49	183.00	3/21/2007	48.50	134.50	131.95	134.16		2.55	0.34	
Arkansas	05S01W17CAD1	341521	910820	180.00	3/21/2007	44.20	135.80						
Arkansas	05S03W09CBA1	341624	912046	196.00	3/22/2007	113.19	82.81						
Arkansas	05S03W16ABB1	341551	912019	196.00	3/21/2007	115.50	80.50	80.50		76.00	0.00		4.50
Arkansas	05S03W21BAA1	341510	912035	196.00	3/22/2007	114.50	81.50						
Arkansas	05S03W22AAB	341511	911930	195.00	3/22/2007	111.20	83.80						
Arkansas	05S04W04BAA	341750	912654	186.00	3/21/2007	90.60	95.40	94.00		85.00	1.40		10.40
Arkansas	05S04W07CCC1	341555.36	912931.61	194.00	3/22/2007	74.50	119.50	119.73	117.49		-0.23	2.01	
Arkansas	05S04W14AAD1	341549	912411	186.00	3/22/2007	93.50	92.50	93.20		88.00	-0.70		4.50
Arkansas	05S04W32BBA1	341315.97	912821.81	191.00	3/22/2007	58.30	132.70	133.58	131.64		-0.88	1.06	
Arkansas	05S06W02DDD1	341723.66	913650.8	182.93	3/21/2007	21.50	161.43	162.29	162.81		-0.86	-1.38	
Arkansas	05S06W07DDC1	341641.5	914129.68	180.48	3/15/2007	4.80	175.68	178.09	171.12		-2.41	4.56	
Arkansas	06S02W23DCD1	340852.62	911206.48	188.00	3/21/2007	64.50	123.50	118.26	114.46		5.24	9.04	
Arkansas	06S03W03ABA1	341228.4	911302.3	187.00	3/22/2007	72.10	114.90	115.10			-0.20		
Arkansas	06S03W10BBA1	341135.97	911953.82	184.00	3/22/2007	83.00	101.00	102.02	100.88		-1.02	0.12	
Arkansas	06S03W27AAA1	340857.58	911912.78	183.14	3/22/2007	68.00	115.14	116.46	115.45		-1.32	-0.31	

Alluvial Aquifer
97-02-06-07 WL Change

County	Station ID	Latitude	Longitude	LSA	Date Measured	07 meas.	WL Alt. 07	WL Alt. 06	WL Alt. 02	WL Alt. 97	06-07 Change	02-07 Change	97-07 Change
Arkansas	06S03W32DDA	340740	912115	180.00	4/17/2007	56.14	123.86	124.66			-0.80		
Arkansas	07S02W04BBB1	340707.15	911451.89	176.00	3/22/2007	46.50	129.50	133.80	144.88	154.00	-4.30	-15.38	-24.50
Arkansas	07S02W17BBA1	340707.15	911451.89	184.00	3/22/2007	54.30	129.70	129.49	128.96		0.21	0.74	
Arkansas	07S03W10ACD1	340560	911944	187.00	3/22/2007	49.75	137.25	138.85		127.00	-1.60		10.25
Arkansas	07S03W18CCD1	340435.28	912316.09	186.18	3/22/2007	43.10	143.08	143.77	142.81	147.66	-0.69	0.27	-4.58
Arkansas	07S03W32BBC1	340240	912216	176.92	3/22/2007	26.00	150.92	152.20	150.96		-1.28	-0.04	
Arkansas	07S04W01DDD1	340625.25	912327.15	186.00	3/22/2007	44.30	141.70	138.90	138.59		2.80	3.11	
Arkansas	08S02W08ACA1	340041.03	911505.57	179.00	3/22/2007	43.45	135.55	133.87	135.98		1.68	-0.43	
Arkansas	08S03WT2299	340147.45	912202.5	178.00	3/22/2007	22.50	155.50	156.53	152.53		-1.03	2.97	
								Declines/wells:			**27/41**	**16/35**	**4/8**
								Average Change:			**-0.61**	**-1.01**	**-1.33**
Ashley	15S04W26DCC1	332231.97	912902	127.00	2/27/2007	33.80	93.20	95.91	96.32		-2.71	-3.12	
Ashley	15S07W21CBA1	332315.7	915001.37	210.00	2/21/2007	6.00	204.00	203.40	205.91		0.60	-1.91	
Ashley	16S04W10ABB	331902	913002	130.00	2/21/2007	39.50	90.50	94.80	88.90		-4.30	1.60	
Ashley	16S06W08CAA1	331941	914438	185.00	2/27/2007	76.50	108.50	106.72	109.47		1.78	-0.97	
Ashley	16S06W27BAB1	331729	914240	182.00	2/27/2007	84.05	97.95	98.16	100.34		-0.21	-2.39	
Ashley	16S06W35BAD	331624	914143	175.00	2/27/2007	73.30	101.70	102.40			-0.70		
Ashley	17S04W03ABB1	331528	913010	124.00	2/21/2007	33.60	90.40	93.78	96.98		-3.38	-6.58	
Ashley	17S04W15DDC1	331252.48	912954.09	116.00	2/21/2007	26.80	89.20	89.50	91.78		-0.30	-2.58	
Ashley	17S04W21ABA1	331252	913108	117.00	2/27/2007	29.20	87.80	93.44	97.79		-5.64	-9.99	
Ashley	17S05W01AAC1	331529.1	913347.5	122.00	4/17/2007	18.00	104.00						
Ashley	17S06W01ADD1	331517.9	913956.26	182.00	2/21/2007	83.80	98.20	98.42	100.75		-0.22	-2.55	
Ashley	17S06W35CAC1	331049	914136	179.00	2/21/2007	72.20	106.80	106.38	101.97		0.42	4.83	
Ashley	17S07W05CDD1	331501	915049	185.00	2/21/2007	109.70	75.30		93.51			-18.21	
Ashley	18S04W08CAD1	330852	913218	120.00	2/21/2007	34.75	85.25	88.80			-3.55		
Ashley	18S04W23DDD1	330651.4	912941.2	103.00	4/17/2007	29.00	74.00		82.00	88.50		-8.00	-14.50
Ashley	18S05W11CCD1	330816.6	913537.3	118.00	4/17/2007	25.00	93.00	95.34	98.00	100.00	-2.34	-5.00	-7.00
Ashley	18S05W22DDA1	330712	913555	125.00	4/17/2007	22.00	103.00	104.00	109.00	109.00	-1.00	-6.00	-6.00
Ashley	18S05W24BDC1	330730	913435	118.00	2/21/2007	27.30	90.70	94.20			-3.50		
Ashley	18S08W01AAB1	331014.97	915225.12	181.00	2/27/2007	86.55	94.45	94.37	94.82		0.08	-0.37	
Ashley	19S04W06BAB2	330503.96	913328.56	110.00	2/21/2007	27.00	83.00	86.33	87.77		-3.33	-4.77	
Ashley	19S04W09CBB	330346	913146	105.00	2/21/2007	26.40	78.60	82.80			-4.20		
Ashley	19S04W14BBB1	330314.2	912940.6	107.00	4/17/2007	31.00	76.00		82.00	90.50		-6.00	-14.50
Ashley	19S05W08ACA1	330405	913815	111.00	4/17/2007	17.00	94.00	93.75	98.00		0.25	-4.00	
Ashley	19S05W16ABB1	330323	913718	116.00	4/17/2007	26.00	90.00	92.00	97.00	94.00	-2.00	-7.00	-4.00
Ashley	19S05W22DCD1	330139	913615	107.00	4/17/2007	24.00	83.00	83.84	89.00	88.50	-0.84	-6.00	-5.50

Alluvial Aquifer
97-02-06-07 WL Change

County	Station ID	Latitude	Longitude	LSA	Date	07	WL	WL	WL	WL	06-07	02-07	97-07
					Measured	meas.	Alt. 07	Alt. 06	Alt. 02	Alt. 97	Change	Change	Change
Ashley	19S06W07BCC1	330403.56	914607.92	134.70	2/21/2007	27.90	106.80	103.66	103.27		3.14	3.53	
								Declines/Wells:			**16/22**	**18/21**	**6/6**
								Average Change:			**-1.45**	**-4.07**	**-8.58**
Chicot	13S03W27AAA1	333253	912310	138.00	4/12/2007	46.00	92.00		92.00	115.00		0.00	-23.00
Chicot	13S03W34CAA1	333135.52	912335.8	132.00	3/1/2007	38.26	93.74	94.92			-1.18		
Chicot	13S03W35BAC1	333154.05	912245.53	134.00	3/1/2007	40.30	93.70	94.42	98.29		-0.72	-4.59	
Chicot	14S02W09BDD1	332859	911729	133.00	4/16/2007	31.00	102.00	104.00	105.00	106.00	-2.00	-3.00	-4.00
Chicot	14S02W18BBA1	332859	912038	130.00	4/12/2007	36.00	94.00	98.00	101.00	102.00	-4.00	-7.00	-8.00
Chicot	14S03W07BBD1	333011	911729	134.00	3/1/2007	30.00	104.00	107.44	109.81		-3.44	-5.81	
Chicot	14S03W32CDB2	332613.47	912551.45	134.00	3/1/2007	38.10	95.90	99.14	99.31		-3.24	-3.41	
Chicot	15S02W20DDC1	332226.59	911919.83	126.00	4/16/2007	30.00	96.00	98.09	97.98		-2.09	-1.98	
Chicot	15S03W18BBB1	332226.59	911919.83	125.00	4/5/2007	37.00	88.00	87.00			1.00		
Chicot	16S03W24BBC1	331797	912234	118.00	3/1/2007	32.80	85.20	85.50			-0.30		
Chicot	17S01W06BCC1	331501.18	911505.22	115.00	2/27/2007	21.80	93.20	93.97	93.21		-0.77	-0.01	
Chicot	17S01E17CDA1	331258	910716	118.00	3/1/2007	17.60	100.40	97.75	92.17		2.65	8.23	
Chicot	17S02W10AAA1	331429	911712	114.00	2/27/2007	27.00	87.00	87.65	87.80		-0.65	-0.80	
Chicot	17S02W33DDA1	331021	911820	120.00	2/23/2007	31.80	88.20	88.50			-0.30		
Chicot	17S03W18CBC1	331257	912736	117.00	4/5/2007	34.00	83.00	84.00	84.00	93.00	-1.00	-1.00	-10.00
Chicot	18S01W33BDA1	330543	911245	115.00	4/5/2007	16.00	99.00	97.00		105.00	2.00		-6.00
Chicot	18S03W22ABA2	330728	912341	103.00	2/27/2007	13.20	89.80	92.44	91.57		-2.64	-1.77	
Chicot	19S01W17BBB	330309	911415	105.00	2/27/2007	17.70	87.30	91.30			-4.00		
								Declines/Wells:			**14/17**	**10/11**	**5/5**
								Average Change:			**-1.22**	**-1.76**	**-10.20**
Clay	18N08E03DAB1	361323.23	901153.03	257.00	4/4/2007	7.90	249.10	249.11	252.32		-0.01	-3.22	
Clay	18N08E11BAA1	361253	901117	259.00	4/25/2007	7.40	251.60	252.00	251.30	253.50	-0.40	0.30	-1.90
Clay	19N04E11DAA1	361805	903621	280.00	4/26/2007	21.00	259.00	257.00	257.40	263.50	2.00	1.60	-4.50
Clay	19N04E19BAA1	361649	904125	279.00	4/26/2007	21.60	257.40	257.00	257.10		0.40	0.30	
Clay	19N05E15BBD1	361716	903152	289.00	4/26/2007	24.20	264.80	255.00	257.30	263.50	9.80	7.50	1.30
Clay	19N06E18DBC1	361642	902815	297.00	4/26/2007	36.60	260.40	260.00	263.00	270.00	0.40	-2.60	-9.60
Clay	19N07E25BCB1	361519	901700	268.00	4/25/2007	17.00	251.00	250.00	253.60	252.90	1.00	-2.60	-1.90
Clay	19N08E08DCA1	361729	901402	270.00	4/25/2007	4.80	265.20	263.00	243.70	266.00	2.20	21.50	-0.80
Clay	19N08E27DAA1	361459	901140	261.00	4/4/2007	5.50	255.50	255.80			-0.30		
Clay	19N09E30BB1	361531	900921	265.00	4/25/2007	7.10	257.90	257.00			0.90		
Clay	20N03E25BAA1	362112	904225	288.00	4/26/2007	20.50	267.50	266.00	264.70		1.50	2.80	

Alluvial Aquifer
97-02-06-07 WL Change

County	Station ID	Latitude	Longitude	LSA	Date	07	WL	WL	WL	WL	06-07	02-07	97-07
					Measured	meas.	Alt. 07	Alt. 06	Alt. 02	Alt. 97	Change	Change	Change
Clay	20N04E02BBC1	362427	903722	285.00	4/4/2007	16.30	268.70	269.30			-0.60		
Clay	20N05E22CAD1	362118	903132	290.00	4/25/2007	27.10	262.90	259.00	263.30	268.50	3.90	-0.40	-5.60
Clay	20N05E30CAC1	362003	903454	283.00	4/26/2007	16.80	266.20	265.00	266.90		1.20	-0.70	
Clay	20N06E09BB1	362327	902620	290.00	4/26/2007	20.00	270.00	268.00	270.20	276.50	2.00	-0.20	-6.50
Clay	20N06E28CCD1	362005	902630	290.00	4/26/2007	18.00	272.00	261.00	263.50	271.00	11.00	8.50	1.00
Clay	20N08E22BDC1	362111	901220	275.00	4/25/2007	8.00	267.00	266.00	268.50	267.40	1.00	-1.50	-0.40
Clay	20N09E09ABC1	362306	900642	279.00	4/25/2007	6.20	272.80	271.00	275.00	273.40	1.80	-2.20	-0.60
Clay	20N09E33DDC1	361904	900628	270.00	4/25/2007	6.80	263.20	263.00	264.50		0.20	-1.30	
Clay	21N03E15CBC1	362738	904453	292.00	4/26/2007	10.00	282.00	281.00	283.10	291.00	1.00	-1.10	-9.00
Clay	21N03E36CDD1	362450	904214	290.00	4/26/2007	18.00	272.00	271.00	270.70	277.00	1.00	1.30	-5.00
Clay	20N04E03AA1	362425	903725	290.00	4/26/2007	14.60	275.40	274.00		277.20	1.40		-1.80
Clay	21N04E09DBC1	362828	903853	291.00	4/26/2007	9.50	281.50	278.00	280.90	284.60	3.50	0.60	-3.10
Clay	21N05E17ABB1	362755.47	903328.9	298.00	4/4/2007	22.40	275.60	274.77	274.45		0.83	1.15	
Clay	21N05E22BAB1	362704	903132	288.00	4/26/2007	5.00	283.00	281.00	281.90		2.00	1.10	
Clay	21N06E11BBB1	362839	902421	296.00	4/26/2007	12.00	284.00	281.00	281.50	289.70	3.00	2.50	-5.70
Clay	21N06E28BB1	362604.92	902607.97	292.50	4/4/2007	18.40	274.10	273.31	273.45		0.79	0.65	
Clay	21N07E01DDC1	362835	901607	303.00	4/26/2007	20.00	283.00	277.00	281.50	295.50	6.00	1.50	-12.50
Clay	21N08E03CD1	362842	901211	308.00	4/26/2007	18.00	290.00	289.00			1.00		
Clay	21N08E18CCC1	362650.9	901550.33	324.00	4/4/2007	37.60	286.40	285.36	286.55		1.04	-0.15	
Clay	21N08E36ABB1	362502	900958	283.00	4/4/2007	3.60	279.40	278.95	282.00		0.45	-2.60	
Clay	21N09E31BDA1	362447	900851	284.00	4/25/2007	4.20	279.80	277.00	282.00	280.00	2.80	-2.20	-0.20
								Declines/Wells;			**4/32**	**13/27**	**17/18**
								Average Change:			**1.96**	**1.13**	**-3.71**
Craighead	13N01E03AAA1	354739	905753	240.00	3/13/2007	53.70	186.30	185.30	184.80	193.60	1.00	1.50	-7.30
Craighead	13N01E21CAB	354434	905945	240.00	3/13/2007	63.50	176.50	178.00	180.00	185.40	-1.50	-3.50	-8.90
Craighead	13N01E23DAA1	354435.4	905651.69	242.00	3/26/2007	75.30	166.70	170.98	173.16		-4.28	-6.46	
Craighead	13N01E26BC1	353832	905800	245.00	3/13/2007	69.00	176.00	176.50			-0.50		
Craighead	13N02E02AAB1	354731	905032	251.00	3/13/2007	93.00	158.00	158.80	168.60	173.40	-0.80	-10.60	-15.40
Craighead	13N02E03AAA1	354733	905129	250.00	3/13/2007	87.20	162.80	163.10	165.60	172.80	-0.30	-2.80	-10.00
Craighead	13N03E23CDA1	354419	904434	249.00	3/14/2007	81.60	167.40	169.40	170.70	167.40	-2.00	-3.30	0.00
Craighead	13N03E28CDB1	354322	904652	250.00	3/14/2007	108.50	141.50	141.00	147.50	156.40	0.50	-6.00	-14.90
Craighead	13N03E29AAA1	354403.31	904712.98	251.00	3/26/2007	104.30	146.70	147.21	149.55		-0.51	-2.85	
Craighead	13N03E35AAA1	354308	904401	249.00	3/13/2007	93.00	156.00	155.00	160.00		1.00	-4.00	
Craighead	13N04E12ABB1	354635	903656	231.00	4/2/2007	24.55	206.45	207.18	205.52		-0.73	0.93	
Craighead	13N04E15DBA1	354521	903857	230.00	3/16/2007	26.10	203.90	203.40	202.30	208.50	0.50	1.60	-4.60
Craighead	13N04E26BCC1	354340	903829	225.00	3/14/2007	26.90	198.10	198.50	196.00	201.30	-0.40	2.10	-3.20

Alluvial Aquifer
97-02-06-07 WL Change

County	Station ID	Latitude	Longitude	LSA	Date	07	WL	WL	WL	WL	06-07	02-07	97-07
					Measured	meas.	Alt. 07	Alt. 06	Alt. 02	Alt. 97	Change	Change	Change
Craighead	13N05E02CCC1	354648	903202	230.00	3/14/2007	13.00	217.00	217.10	217.00		-0.10	0.00	
Craighead	13N05E06DCC1	354637	903547	229.00	3/14/2007	21.00	208.00	209.00	208.10	212.20	-1.00	-0.10	-4.20
Craighead	13N05E22BAD1	354449	903243	226.00	4/2/2007	10.40	215.60	210.61	212.42		4.99	3.18	
Craighead	13N05E24BAC1	354451	903045	225.00	3/14/2007	12.80	212.20	212.80	217.20		-0.60	-5.00	
Craighead	13N06E21AD1	354421	902743	220.00	3/14/2007	9.00	211.00	210.00		215.50	1.00		-4.50
Craighead	13N07E02CAB1	354642	901901	226.00	3/14/2007	11.40	214.60	221.00	222.00		-6.40	-7.40	
Craighead	13N07E05ABB1	354716	902158	225.00	3/14/2007	5.00	220.00	212.70	218.50		7.30	1.50	
Craighead	13N07E20BBA1	354439.77	902216.44	223.20	4/2/2007	4.80	218.40	217.78	221.25		0.62	-2.85	
Craighead	13N07E35AD1	354403	901821	249.00	3/14/2007	14.00	235.00						
Craighead	14N01E03ACB1	355246	905816	249.00	3/13/2007	51.00	198.00	198.10	199.20	209.00	-0.10	-1.20	-11.00
Craighead	14N01E10BAB1	355204	905828	246.00	3/13/2007	52.00	194.00	194.90	198.00	205.80	-0.90	-4.00	-11.80
Craighead	14N01E31DCA1	354817	910121	251.00	3/13/2007	60.10	190.90	191.90	194.50	198.90	-1.00	-3.60	-8.00
Craighead	14N02E15DD1	354852	905044	255.00	3/13/2007	75.50	179.50	180.20		190.60	-0.70		-11.10
Craighead	14N02E18BDD1	355040.91	905419.37	242.00	3/26/2007	52.50	189.50	190.24	188.02		-0.74	1.48	
Craighead	14N02E27AA	354918	905125	255.00	3/26/2007	79.25	175.75	176.79			-1.04		
Craighead	14N05E25ABB1	354920.85	903025.35	238.00	4/2/2007	18.80	219.20	216.46	218.47		2.74	0.73	
Craighead	14N06E27AAB1	354911.46	902559.08	225.93	4/2/2007	3.10	222.83	222.83		223.53	0.00		-0.70
Craighead	14N07E14DDC1	354956	901831	230.00	3/14/2007	14.00	216.00	216.50	224.50		-0.50	-8.50	
Craighead	15N02E12DCB1	355626	904930	250.00	3/14/2007	34.80	215.20	215.50	219.80	226.40	-0.30	-4.60	-11.20
Craighead	15N03E19ADA1	355502.21	904802.05	262.00	3/26/2007	49.90	212.10	212.84	218.57	221.61	-0.74	-6.47	-9.51
Craighead	15N05E22BAB1	355513	903241	260.00	3/14/2007	35.20	224.80	225.20	224.20		-0.40	0.60	
Craighead	15N06E04BAD1	355744	902706	239.00	3/14/2007	16.00	223.00	223.50		231.20	-0.50		-8.20
Craighead	15N06E20DDD1	355426	902739	234.00	4/2/2007	8.80	225.20	222.78	224.72		2.42	0.48	
Craighead	15N07E10DAB1	355622	901934	235.00	3/14/2007	10.00	225.00	225.20	229.00	229.20	-0.20	-4.00	-4.20
Craighead	15N07E10DBA1	355627.56	901943.75	236.00	4/2/2007	8.05	227.95	226.56	230.00		1.39	-2.05	
Craighead	15N07E35DCB1	355241	901831	231.00	3/14/2007	14.00	217.00	216.40	223.00		0.60	-6.00	
								Declines/Wells:			**25/38**	**21/32**	**18/19**
								Average Change:			**-0.06**	**-2.54**	**-7.83**
Crittenden	05N07E09BCA1	350410	902138	206.00	3/20/2007	24.50	181.50	183.20			-1.70		
Crittenden	05N07E34BAB1	350059.39	902029.86	203.00	4/6/2007	19.70	183.30	183.54	187.91		-0.24	-4.61	
Crittenden	05N07E34CDD1	350010	902028	205.00	3/20/2007	17.60	187.40	186.00	195.40	196.70	1.40	-8.00	-9.30
Crittenden	06N07E13BAA1	350849.58	901807.57	205.00	4/6/2007	22.50	182.50	184.72	184.85		-2.22	-2.35	
Crittenden	06N07E13BAB1	350849	901811	211.00	3/20/2007	22.30	188.70	190.60			-1.90		
Crittenden	07N06E24CCD1	351255.2	902452.9	213.00	3/21/2007	36.00	177.00						
Crittenden	07N06E30AAA1	351227	902923	210.00	3/21/2007	40.80	169.20	170.90			-1.70		
Crittenden	07N07E05DAD1	351504	902129	215.00	4/6/2007	32.35	182.65						

Alluvial Aquifer
97-02-06-07 WL Change

County	Station ID	Latitude	Longitude	LSA	Date Measured	07 meas.	WL Alt. 07	WL Alt. 06	WL Alt. 02	WL Alt. 97	06-07 Change	02-07 Change	97-07 Change
Crittenden	07N07E31CCC1	351041.9	902358.97	207.00	4/6/2007	35.90	171.10	172.08	174.54		-0.98	-3.44	
Crittenden	07N07E34DDA1	351116	901941	215.00	4/6/2007	30.20	184.80	187.80			-3.00		
Crittenden	07N08E04BDC1	351525	902138	211.00	3/20/2007	21.00	190.00	191.90			-1.90		
Crittenden	07N09E05CDD1	351453.34	900933.58	214.00	4/6/2007	14.20	199.80	197.06	199.53		2.74	0.27	
Crittenden	08N06E01DCC1	352021	902408	215.00	3/21/2007	34.20	180.80	183.00	182.00	187.40	-2.20	-1.20	-6.60
Crittenden	08N06E06BBB1	352114	902912	214.00	3/21/2007	32.20	181.80	183.80			-2.00		
Crittenden	08N06E26BBA1	351737	902552	215.00	4/6/2007	34.00	181.00	181.60			-0.60		
Crittenden	08N07E13CCC2	351828.34	901811.95	221.00	4/6/2007	29.40	191.60	191.80	191.53		-0.20	0.07	
Crittenden	08N07E14DAA2	351854.41	901832.68	219.00	4/6/2007	31.20	187.80	189.02	188.92		-1.22	-1.12	
Crittenden	08N07E32DAA1	351618	902146	215.00	3/21/2007	30.50	184.50	186.00	193.10	189.80	-1.50	-8.60	-5.30
Crittenden	08N07E35BCB1	351630	901933	221.00	4/6/2007	31.24	189.76	190.49			-0.73		
Crittenden	08N08E06ABB1	352103	901644	223.00	3/21/2007	29.80	193.20	194.00	194.20		-0.80	-1.00	
Crittenden	09N07E02CDB1	352537	901905	225.00	3/20/2007	32.50	192.50	193.30	190.40	197.10	-0.80	2.10	-4.60
Crittenden	09N07E10DDA1	352447.58	901924.64	221.00	4/6/2007	29.10	191.90	193.15	192.85		-1.25	-0.95	
Crittenden	09N07E20DDC1	352256	902158	215.00	4/6/2007	31.10	183.90	186.80			-2.90		
Crittenden	09N07E31BAB1	352159.85	902326.57	221.00	4/6/2007	33.00	188.00	188.60	188.68	192.90	-0.60	-0.68	-4.90
Crittenden	09N08E08CCB1	352501	901608	214.00	3/21/2007	25.70	188.30	189.90			-1.60		
Crittenden	09N08E35BBD1	352144	901251	225.00	5/8/2007	15.78	209.22						
Crittenden	09N08E35BBD2	352143	901250	225.00	5/8/2007	16.57	208.43						
								Declines/Wells:			**21/23**	**10/13**	**5/5**
								Average Change:			**-1.13**	**-2.27**	**-6.14**
Cross	06N02E11DDB1	350923	905132	200.00	5/8/2007	64.00	136.00	138.00	139.00	144.40	-2.00	-3.00	-8.40
Cross	06N02E12AAA1	350934	904952	235.00	5/8/2007	80.50	154.50	157.00	155.00	165.00	-2.50	-0.50	-10.50
Cross	06N04E01DDB1	351028	903656	205.00	5/10/2007	36.00	169.00	168.00			1.00		
Cross	06N05E02BAB1	351039	903202	205.00	5/10/2007	40.00	165.00	175.00			-10.00		
Cross	07N01E05BCD1	351550	910726	215.00	5/8/2007	74.00	141.00	142.00			-1.00		
Cross	07N01E05CDA1	351517.52	910049.05	217.00	3/19/2007	74.80	142.20	143.36	146.82	157.50	-1.16	-4.62	-15.30
Cross	07N01E06DCD1	351532	910152	220.00	5/8/2007	74.00	146.00	147.00	151.00	159.00	-1.00	-5.00	-13.00
Cross	07N01E11AAA1	351501.25	905705.29	217.00	3/19/2007	78.50	138.50	140.42	143.65		-1.92	-5.15	
Cross	07N02E02CCD1	351544	905140	225.00	5/4/2007	74.00	151.00	145.00			6.00		
Cross	07N02E02CD	351510	905113	225.00	3/20/2007	82.22	142.78	143.63			-0.85		
Cross	07N02E10BBB1	351455	905205	225.00	5/4/2007	85.00	140.00	141.00			-1.00		
Cross	07N02E15ACA1	351959	904623	218.00	5/4/2007	82.50	135.50	139.00			-3.50		
Cross	07N02E28CCC1	351709	903947	210.00	5/4/2007	71.50	138.50	140.00			-1.50		
Cross	07N02E29DDC1	351138.09	905409.17	220.00	3/19/2007	72.90	147.10	147.74	151.58	157.00	-0.64	-4.48	-9.90
Cross	07N03E05ADA1	351548.89	904738.6	254.00	3/20/2007	111.60	142.40	129.95	143.29	151.19	12.45	-0.89	-8.79

Alluvial Aquifer
97-02-06-07 WL Change

County	Station ID	Latitude	Longitude	LSA	Date	07	WL	WL	WL	WL	06-07	02-07	97-07
					Measured	meas.	Alt. 07	Alt. 06	Alt. 02	Alt. 97	Change	Change	Change
Cross	07N03E32DCC1	351045.29	904810.28	251.00	3/19/2007	96.80	154.20	154.62	155.05		-0.42	-0.85	
Cross	07N04E04DBB1	351534	904021	205.00	5/10/2007	30.00	175.00	175.00	171.00	181.00	0.00	4.00	-6.00
Cross	07N04E07AAA1	351457	904234	215.00	5/10/2007	46.50	168.50	170.00			-1.50		
Cross	07N04E27ADB1	351221	903908	200.00	5/10/2007	25.00	175.00	173.00			2.00		
Cross	07N05E02AAB1	351600	903103	210.00	5/7/2007	41.50	168.50	169.00			-0.50		
Cross	07N05E09BAA1	351506	903347	210.00	5/10/2007	32.50	177.50	177.00			0.50		
Cross	07N05E25ABA1	351228.87	903044.79	205.00	3/20/2007	40.60	164.40	168.29	169.84	177.00	-3.89	-5.44	-12.60
Cross	08N01E02DDC1	352045	905801	220.00	5/8/2007	85.00	135.00	136.00			-1.00		
Cross	08N01E16DBB1	351855	905933	225.00	5/7/2007	85.50	139.50	141.00	141.00	152.50	-1.50	-1.50	-13.00
Cross	08N01E17CAD1	351926	910056	220.00	5/8/2007	76.00	144.00	146.00			-2.00		
Cross	08N02E12DCC1	351938	905002	230.00	5/4/2007	89.50	140.50	142.00	141.00	151.50	-1.50	-0.50	-11.00
Cross	08N02E17AAA1	351923	905354	225.00	5/4/2007	87.00	138.00	140.00	142.00	152.00	-2.00	-4.00	-14.00
Cross	08N02E29ABD1	351704	905421	225.00	5/4/2007	71.50	153.50	145.00			8.50		
Cross	08N03E09CAC1	351959	904623	265.00	5/7/2007	114.00	151.00	153.00			-2.00		
Cross	08N04E27ABB1	351745	903916	205.00	5/10/2007	25.00	180.00	177.00			3.00		
Cross	08N05E17AAC1	351922	903448	210.00	5/10/2007	25.00	185.00	180.00			5.00		
Cross	08N05E32ADD1	351631.65	903440.45	204.00	3/20/2007	27.90	176.10	174.43	172.02	179.23	1.67	4.08	-3.13
Cross	09N01E04CDB1	352617	905913	225.00	5/7/2007	90.00	135.00	137.00	140.00	153.00	-2.00	-5.00	-18.00
Cross	09N01E12BBC1	352505	905653	226.00	3/20/2007	91.27	134.73	135.91			-1.18		
Cross	09N01E33BBA2	352202.76	910000.6	225.00	3/20/2007	84.00	141.00	143.90	148.00	155.87	-2.90	-7.00	-14.87
Cross	09N01E36AAB1	352155	905605	225.00	5/7/2007	86.50	138.50	140.00	142.00	153.30	-1.50	-3.50	-14.80
Cross	09N02E30CBB1	352243	905551	225.00	5/7/2007	89.00	136.00	138.00	139.00	149.50	-2.00	-3.00	-13.50
Cross	09N02E32BBB1	352148	905431	225.00	5/7/2007	96.00	129.00	131.00			-2.00		
Cross	09N03E03DCC1	352619	904529	250.00	5/7/2007	108.00	142.00	144.00			-2.00		
Cross	09N03E17DDC1	352408.8	904725.6	251.00	3/20/2007	107.00	144.00	145.35	147.68	150.56	-1.35	-3.68	-6.56
Cross	09N03E17DCD1	352422	904753	245.00	5/7/2007	102.50	142.50	146.00	143.00	156.00	-3.50	-0.50	-13.50
Cross	09N04E01AAC1	352552	903742	205.00	5/10/2007	15.00	190.00	190.00			0.00		
Cross	09N04E03DBB1	352614	903918	215.00	5/10/2007	25.50	189.50	190.00	184.00	191.20	-0.50	5.50	-1.70
Cross	09N04E33DBB1	352205	904041	205.00	5/10/2007	36.50	168.50	168.00			0.50		
Cross	09N05E10DBC1	352451	903312	210.00	5/10/2007	21.50	188.50	187.00			1.50		
Cross	09N05E32BDB1	352150.53	903512.11	210.00	3/20/2007	31.15	178.85	179.37	178.05	180.50	-0.52	0.80	-1.65
Cross	09N09E20AAA1	352333	905414	230.00	5/7/2007	93.00	137.00	136.00			1.00		
								Declines/Wells:			**33/47**	**18/22**	**20/20**
								Average Change:			**-0.42**	**-2.01**	**-10.51**
Desha	07S01E19ABA1	340428	910303	154.00	4/3/2007	22.00	132.00	133.00	141.00	138.00	-1.00	-8.00	3.00
Desha	08S03W33ABD1	335802.92	912338.18	165.04	3/15/2007	7.70	157.34	157.80	158.90	160.08	-0.46	-1.56	-1.18

Alluvial Aquifer
97-02-06-07 WL Change

County	Station ID	Latitude	Longitude	LSA	Date	07	WL	WL	WL	WL	06-07	02-07	97-07
					Measured	meas.	Alt. 07	Alt. 06	Alt. 02	Alt. 97	Change	Change	Change
Desha	09S01W08BDA1	335608	911234	156.00	4/3/2007	30.00	126.00	128.00	133.00	145.00	-2.00	-7.00	-19.00
Desha	09S01W15CBB1	335501	911055	152.00	4/3/2007	39.00	113.00	116.00	115.00		-3.00	-2.00	
Desha	09S02W17CBC1	355502	911920	153.00	4/3/2007	43.00	110.00	121.00			-11.00		
Desha	09S02W26DDC1	335256.57	911529.64	149.27	3/15/2007	31.39	117.88	119.94	118.92		-2.06	-1.04	
Desha	09S03W17DCB1	335448.23	912456.66	155.08	3/15/2007	34.60	120.48	122.13	121.34		-1.65	-0.86	
Desha	09S04W02CDA1	335823	912821	163.00	4/3/2007	42.00	121.00	121.00			0.00		
Desha	10S02W11ADD1	335045	911517	146.00	4/3/2007	30.00	116.00	118.00	119.00	128.00	-2.00	-3.00	-12.00
Desha	10S02W24DBC1	334849.63	911453.44	143.00	3/15/2007	30.50	112.50	117.47	117.38		-4.97	-4.88	
Desha	10S03W26CAA1	334806	912144.55	155.00	3/15/2007	48.50	106.50	110.20	112.06		-3.70	-5.56	
Desha	10S03W26CCC	334759	912235	150.00	3/15/2007	44.00	106.00	109.10	105.20		-3.10	0.80	
Desha	10S04W09BCD1	335059	913052	164.00	3/9/2007	33.10	130.90	133.00			-2.10		
Desha	10S04W12BBB1	335048	912754	155.00	3/9/2007	33.60	121.40	123.00			-1.60		
Desha	10S04W19DAC1	334901	913233	160.00	3/9/2007	28.20	131.80	134.20			-2.40		
Desha	10S04W21AAA1	334929	913012	160.00	3/9/2007	29.50	130.50	133.00			-2.50		
Desha	11S03W21ABB1	334416	912412	139.00	4/3/2007	34.00	105.00	108.00			-3.00		
Desha	11S02W15BAD1	334446	911635	148.00	4/3/2007	36.00	112.00	114.00		121.00	-2.00		-9.00
Desha	12S01W23DBC1	333803	911019	146.00	4/3/2007	32.00	114.00	120.00			-6.00		
Desha	13S02W05CDD1	333535	911938	146.00	4/3/2007	40.00	106.00	101.00			5.00		
Desha	13S02W27CAC1	333223.99	911734.76	133.00	3/15/2007	32.10	100.90	102.17	102.62		-1.27	-1.72	
Desha	13S02W32DBD1	333126	911917	135.00	4/3/2007	44.00	91.00	92.00	97.00	102.00	-1.00	-6.00	-11.00
Desha	13S03W10DAA1	333505.64	912301.83	140.00	3/15/2007	48.50	91.50	92.88	95.80		-1.38	-4.30	
Desha	13S03W11CAB1	333503	912241	142.00	4/3/2007	52.00	90.00	91.00	96.00	79.00	-1.00	-6.00	11.00
								Declines/Wells:			**22/24**	**13/14**	**5/7**
								Average Change:			**-2.26**	**-3.65**	**-5.45**
Drew	11S04W08DBA1	334531.98	913136.2	160.00	3/1/2007	27.10	132.90	134.86	136.02		-1.96	-3.12	
Drew	11S04W09BBB	334550	913404	160.00	3/1/2007	33.60	126.40	132.30			-5.90		
Drew	11S04W35DC1	334144	912842	154.00	3/1/2007	28.66	125.34	127.54			-2.20		
Drew	11S05W08CCC1	334546.48	913837.16	185.00	3/12/2007	39.60	145.40	148.52	149.95		-3.12	-4.55	
Drew	12S04W03ABB1	334133.92	912946.13	155.00	3/1/2007	26.20	128.80	130.77	132.08		-1.97	-3.28	
Drew	12S04W25DBB1	333739	912738	149.00	3/1/2007	31.70	117.30	119.00	121.00	124.20	-1.70	-3.70	-6.90
Drew	13S04W09ACD1	333512	913034	145.00	4/16/2007	20.00	125.00	126.00	128.60	130.60	-1.00	-3.60	-5.60
Drew	13S04W33BAA1	333206	913100	138.00	3/12/2007	19.20	118.80	119.86			-1.06		
Drew	13S04W36DCC	333110	912757	140.00	3/12/2007	27.50	112.50	114.40			-1.90		
Drew	13S05W29ADA1	333248	913747	185.00	3/12/2007	45.10	139.90	144.50			-4.60		
Drew	13S06W03DDC1	333544.69	914201.6	191.00	3/12/2007	59.00	132.00	128.83	131.84		3.17	0.16	

Alluvial Aquifer
97-02-06-07 WL Change

County	Station ID	Latitude	Longitude	LSA	Date Measured	07 meas.	WL Alt. 07	WL Alt. 06	WL Alt. 02	WL Alt. 97	06-07 Change	02-07 Change	97-07 Change
Drew	13S06W21DAA1	333324	914258	207.00	4/10/2007	87.00	120.00	133.00	126.00	124.00	-13.00	-6.00	-4.00
Drew	14S04W03ADD1	333050	912929	141.00	4/10/2007	29.00	112.00	114.00	117.00	121.00	-2.00	-5.00	-9.00
Drew	14S04W03CBA1	333039	912944	140.00	3/12/2007	24.90	115.10	121.80			-6.70		
Drew	14S04W05CBA1	333047	913218	131.00	4/23/2007	16.00	115.00	117.00	118.00	120.20	-2.00	-3.00	-5.20
Drew	14S04W05CBC1	333042	913226	131.00	4/23/2007	16.00	115.00	116.00	117.00		-1.00	-2.00	
								Declines/Wells:			**15/16**	**9/10**	**5/5**
								Average Change:			**-2.93**	**-3.41**	**-6.14**
Greene	16N03E03BA1	360315.87	904515.85	260.00	4/5/2007	33.50	226.50	229.27	231.19		-2.77	-4.69	
Greene	16N03E05BBB1	360316	904750	257.00	4/19/2007	33.90	223.10	226.50	230.10		-3.40	-7.00	
Greene	16N03E16DDD1	360049	904547	258.00	4/19/2007	29.60	228.40	231.20	232.00		-2.80	-3.60	
Greene	16N03E19DBC1	360000	904519	265.00	4/5/2007	40.30	224.70	226.40			-1.70		
Greene	16N03E29ACC1	355926	904722	257.00	4/19/2007	29.00	228.00	225.50	227.20	235.40	2.50	0.80	-7.40
Greene	16N06E03CCC1	360224.07	902625.9	258.00	4/6/2007	41.60	216.40						
Greene	16N06E09ABB1	360215	902651	261.00	4/19/2007	52.50	208.50	211.10	208.90	222.50	-2.60	-0.40	-14.00
Greene	16N06E21BAA1	360031	902705	249.00	4/19/2007	27.20	221.80	221.90	219.20	223.30	-0.10	2.60	-1.50
Greene	16N06E28ABB1	355938.31	902657.01	251.00	4/6/2007	26.40	224.60	225.24	222.58		-0.64	2.02	
Greene	17N03E02DCC1	360806	904352	267.00	4/19/2007	29.80	237.20	246.80	237.40		-9.60	-0.20	
Greene	17N03E26CBB1	360422	904626	260.00	4/19/2007	39.80	220.20						
Greene	17N04E07DDA1	360712	904129	271.00	4/19/2007	40.20	230.80	228.40	232.20		2.40	-1.40	
Greene	17N04E28DAA1	360431	903917	319.00	4/5/2007	83.33	235.67		319.00				
Greene	17N04E30CDC1	360409.09	904217.57	265.00	4/5/2007	38.00	227.00	227.61	230.04		-0.61	-3.04	
Greene	17N06E15ABC1	360631	902546	268.00	4/19/2007	31.30	236.70	236.90	232.80	244.90	-0.20	3.90	-8.20
Greene	17N07E01BBA1	360822.5	901745.5	248.00	4/19/2007	6.60	241.40						
Greene	17N07E03CCC1	360744	901951	246.00	4/19/2007	6.10	239.90	240.20	241.90		-0.30	-2.00	
Greene	18N03E24ABA1	361141	904234	270.00	4/5/2007	31.70	238.30	238.60	240.50		-0.30	-2.20	
Greene	18N04E04AAC1	361356	903854	273.00	4/19/2007	32.70	240.30	240.40	244.40		-0.10	-4.10	
Greene	18N04E21CBD1	361052.32	903724.76	294.00	4/6/2007	61.00	233.00	238.37	240.96		-5.37	-7.96	
Greene	18N04E28DAD1	361003	903845	277.00	4/19/2007	50.30	226.70		239.10			-12.40	
Greene	18N06E23ACB1	361056	902357	277.00	4/19/2007	16.10	260.90	262.10	263.00		-1.20	-2.10	
Greene	18N07E05DAB1	361317.08	902034.6	275.00	4/19/2007	14.20	260.80						
Greene	18N07E17BAB1	361203	902105	262.00	4/19/2007	9.10	252.90	250.70	255.60	257.50	2.20	-2.70	-4.60
Greene	18N07E20BBA1	361110.37	902113.23	257.00	4/4/2007	4.50	252.50	246.08			6.42		
Greene	18N07E23CCD1	361022	901747	250.00	4/4/2007	7.30	242.70	241.20			1.50		
Greene	19N03E26AD1	361600.72	904258.43	281.00	4/5/2007	28.54	252.46	251.50	253.30		0.96	-0.84	
Greene	19N03E33DDD1	361418	904516	276.00	4/19/2007	44.50	231.50	240.00	242.70		-8.50	-11.20	
Greene	19N05E34AAD1	361437	903102	282.00	4/19/2007	41.30	240.70	247.80	245.20		-7.10	-4.50	

Alluvial Aquifer
97-02-06-07 WL Change

County	Station ID	Latitude	Longitude	LSA	Date Measured	07 meas.	WL Alt. 07	WL Alt. 06	WL Alt. 02	WL Alt. 97	06-07 Change	02-07 Change	97-07 Change
								Declines/Wells:			**17/23**	**17/21**	**5/5**
								Average Change:			**-1.36**	**-2.91**	**-7.14**
Independence	12N04W09CAA1	354047	912535	236.00	3/25/2007	20.8	215.20	214.89	214.89		0.31	0.31	
Independence	12N04W14DD1	353929.42	912236.26	231.00	3/25/2007	22.00	209.00	203.97	215.26		5.03	-6.26	
Independence	12N04W34CBB1	353720.1	912512.5	231.00	3/24/2007	21.10	209.90	207.49	222.40		2.41	-12.50	
Independence	12N05W36AAA1	353738.04	912827.22	236.00	3/24/2007	21.90	214.10	210.36	223.38	223.80	3.74	-9.28	-9.70
Independence	13N04W02BBC1	354803	912347	391.00	3/25/2007	3.80	387.20		389.91			-2.71	
Independence	14N03W14CBB1	355101	911703	235.00	3/25/2007	3.00	232.00	232.60	221.50	234.50	-0.60	10.50	-2.50
Independence	14N03W14DBB1	355106	911640.42	230.00	3/25/2007	3.10	226.90	224.07	228.50		2.83	-1.60	
								Declines/Wells:			**1/6**	**5/7**	**2/2**
								Average Change:			**2.29**	**-3.08**	
Jackson	09N01W22ADD1	352331.57	910432.57	215.00	2/23/2007	63.30	151.70	153.28	155.93		-1.58	-4.23	
Jackson	09N02W32CBB1	352151.79	911347.79	220.00	2/23/2007	31.60	188.40	189.71	190.08		-1.31	-1.68	
Jackson	10N01W04DCB1	353114	910602	225.00	3/25/2007	55.90	169.10	170.60			-1.50		
Jackson	10N02W29ABB1	352828	911311	227.00	3/6/2007	30.00	197.00	199.06	199.07		-2.06	-2.07	
Jackson	11N01W10DA	353358	910428	231.00	3/25/2007	54.53	176.47	177.32			-0.85		
Jackson	11N01W26AAD1	353329.77	910323.21	227.00	3/25/2007	68.60	158.40	159.94	162.23	169.00	-1.54	-3.83	-10.60
Jackson	11N03W06DAB1	353655.13	912008.5	223.00	3/7/2007	10.85	212.15	200.77	212.85		11.38	-0.70	
Jackson	11N03W07BBD1	353615	912047	215.00	3/7/2007	10.83	204.17	192.77	192.97		11.40	11.20	
Jackson	12N02W25ABB2	353909.97	910852.17	234.00	3/25/2007	33.50	200.50	200.76	197.14		-0.26	3.36	
Jackson	13N01W20AAA1	354514.14	910627.47	242.00	3/25/2007	40.60	201.40	202.74	203.41		-1.34	-2.01	
Jackson	13N01W27DDD1	354327	910435	233.00	3/25/2007	36.50	196.50	196.60			-0.10		
Jackson	13N03W15CDD1	354525.9	911749.46	232.00	3/27/2007	11.15	220.85	215.07	217.23		5.78	3.62	
Jackson	14N01W09AAA1	355220.36	910515.16	251.00	3/15/2007	41.80	209.20	208.57	210.64	220.69	0.63	-1.44	-11.49
								Declines/Wells:			**9/13**	**7/10**	**2/2**
								Average Change:			**1.43**	**0.22**	
Jefferson	03S08W24BBC1	342620.37	914953.19	202.00	3/8/2007	51.90	150.10	150.97	153.38	155.30	-0.87	-3.28	-5.20
Jefferson	03S09W14BCD1	342712	915712	224.00	4/5/2007	43.00	181.00	168.00		194.00	13.00		-13.00
Jefferson	03S09W22AAA1	342639.63	915728.43	218.00	4/5/2007	42.00	176.00	177.30	179.50		-1.30	-3.50	
Jefferson	03S09W29CBD1	342516.81	920023.32	216.00	3/8/2007	27.50	188.50	186.89	190.10		1.61	-1.60	
Jefferson	03S09W36ACC1	342428	915555	214.00	4/5/2007	30.00	184.00	186.10	176.00		-2.10	8.00	
Jefferson	03S09W32CBC1	342415	902248	218.00	3/8/2007	33.80	184.20	186.66			-2.46		

Alluvial Aquifer
97-02-06-07 WL Change

County	Station ID	Latitude	Longitude	LSA	Date	07	WL	WL	WL	WL	WL	06-07	02-07	97-07
					Measured	meas.	Alt. 07	Alt. 06	Alt. 02	Alt. 97		Change	Change	Change
Jefferson	03S10W26BBB2	342427	920249	215.00	4/5/2007	18.50	196.50	196.20	197.50	197.10		0.30	-1.00	-0.60
Jefferson	03S10W35BBC1	342446	920357	215.00	4/5/2007	13.70	201.30	199.30				2.00		
Jefferson	04S07W08CBB1	342226	914745	195.00	3/8/2007	48.60	146.40	147.25				-0.85		
Jefferson	04S07W35DDB1	341836	914347	185.00	4/5/2007	31.80	153.20	157.70	158.50	166.00		-4.50	-5.30	-12.80
Jefferson	04S08W13DCB1	342122.85	914926.45	204.00	3/8/2007	43.30	160.70	155.66	160.30			5.04	0.40	
Jefferson	04S09W02CBD1	342325	915717	212.00	4/5/2007	34.80	177.20	178.70	180.00			-1.50	-2.80	
Jefferson	04S09W32DDA1	341859	920008	212.00	4/5/2007	20.00	192.00	189.00	194.00	193.10		3.00	-2.00	-1.10
Jefferson	05S06W31CAA1	341329.94	914206.1	189.22	3/8/2007	19.90	169.32	169.37	173.81	165.27		-0.05	-4.49	4.05
Jefferson	05S07W28CCC1	341412	914651	195.00	4/5/2007	16.50	178.50	180.80				-2.30		
Jefferson	05S08W12DAA1	341712	914907	194.25	3/7/2007	16.80	177.45	175.27	177.54			2.18	-0.09	
Jefferson	06S05W15BCA1	341022.95	913245	177.14	3/8/2007	19.50	157.64	158.56	156.94			-0.92	0.70	
Jefferson	06S06W23AAD1	341006.74	913712.2	189.01	3/8/2007	24.50	164.51	167.78	169.75	175.27		-3.27	-5.24	-10.76
Jefferson	06S07W14BAA1	341124.96	914425	199.00	3/8/2007	17.80	181.20	182.93	183.86			-1.73	-2.66	
Jefferson	07S07W16BAA1	340722	914828	188.00	4/5/2007	26.40	161.60	160.00	159.00			1.60	2.60	
Jefferson	07S08W06BAA1	340858.53	915647.26	202.31	3/8/2007	19.70	182.61	183.66	182.67			-1.05	-0.06	
								Declines/Wells:				**13/21**	**12/16**	**6/7**
								Average Change:				**0.28**	**-1.27**	**-5.63**
Lawrence	15N01E09ABD1	355714	905900	259.00	5/1/2007	54.30	204.70							
Lawrence	15N01E26DDA1	355412	905651	251.00	3/20/2007	52.30	198.70	199.07	201.45			-0.37	-2.75	
Lawrence	15N01E32BAA1	355352	910027	254.00	5/1/2007	52.25	201.75							
Lawrence	15N01W35CBB1	355336.15	910356.33	250.00	3/20/2007	56.10	193.90	205.02	206.95			-11.12	-13.05	
Lawrence	16N01E11DAC2	360203.04	905639.37	262.00	5/1/2007	52.50	209.50	215.24	217.84			-5.74	-8.34	
Lawrence	16N01E27ADC1	355938	905750	260.00	3/20/2007	60.00	200.00	209.50				-9.50		
Lawrence	16N01W30DDC1	355936.93	910723.26	255.00	3/20/2007	16.10	238.90	233.40	233.00	236.80		5.50	5.90	2.10
Lawrence	16N02E34CBB1	355831	905208	255.00	3/15/2007	47.70	207.30	206.90	213.00	217.40		0.40	-5.70	-10.10
Lawrence	16N02E35AAA1	360409	905004	256.00	3/14/2007	50.60	205.40	206.80				-1.40		
Lawrence	17N01E02BBA1	360901	905707	260.00	3/18/2007	15.00	245.00	245.00	248.60	252.60		0.00	-3.60	-7.60
Lawrence	17N01E26CCC1	360522	905738	265.00	5/1/2007	37.00	228.00	229.00				-1.00		
Lawrence	17N01W36AAB1	360435	910158	257.00	3/19/2007	13.20	243.80	243.90	244.70	249.60		-0.10	-0.90	-5.80
Lawrence	17N02E04DCA1	360758	905224	270.00	3/17/2007	42.30	227.70	229.10	232.50	239.20		-1.40	-4.80	-11.50
Lawrence	17N02E25CBD1	360423	904948	265.00	3/16/2007	39.20	225.80	226.90	230.90	237.00		-1.10	-5.10	-11.20
								Declines/Wells:				**9/12**	**8/9**	**5/6**
								Average Change:				**-2.15**	**-4.26**	**-7.35**

Alluvial Aquifer
97-02-06-07 WL Change

County	Station ID	Latitude	Longitude	LSA	Date	07	WL	WL	WL	WL	06-07	02-07	97-07
					Measured	meas.	Alt. 07	Alt. 06	Alt. 02	Alt. 97	Change	Change	Change
Lee	01N01E09CCC1	344215	910054	182.00	4/24/2007	35.50	146.50	149.50	154.00	166.50	-3.00	-7.50	-20.00
Lee	01N01E21CCC1	344030	910055	209.00	4/18/2007	54.00	155.00	155.00			0.00		
Lee	01N01E24CBD1	344033	905729	185.00	4/24/2007	21.00	164.00	168.70	171.70	176.20	-4.70	-7.70	-12.20
Lee	01N02E01ADD1	344330	905016	207.00	4/24/2007	29.00	178.00	179.00	182.00	191.00	-1.00	-4.00	-13.00
Lee	01N02E11BAB1	344255	905208	202.00	4/22/2007	33.00	169.00	170.00	180.00		-1.00	-11.00	
Lee	01N02E12ABB1	344254	905040	206.00	4/24/2007	35.00	171.00	179.00	179.00	189.20	-8.00	-8.00	-18.20
Lee	01N02E22CBA1	344056	905318	200.00	4/24/2007	29.50	170.50	171.50	175.00	182.50	-1.00	-4.50	-12.00
Lee	01N02E33CBB1	343858	905434	186.00	4/24/2007	17.00	169.00	170.00	174.50	177.50	-1.00	-5.50	-8.50
Lee	01N02E33CCB1	343851	905433	185.00	4/24/2007	14.00	171.00	171.00	175.00	177.90	0.00	-4.00	-6.90
Lee	01N03E02BBC1	344339.29	904601.14	236.43	4/3/2007	52.70	183.73	187.86	182.97		-4.13	0.76	
Lee	01N03E7BBB1	344258	905044	200.00	4/3/2007	21.90	178.10	181.50			-3.40		
Lee	01N03E27ADD1	343952	904605	204.00	4/24/2007	15.00	189.00	188.00	193.50	197.00	1.00	-4.50	-8.00
Lee	01N03E35BBA1	343923	904549	202.00	4/3/2007	14.05	187.95	191.76	189.13		-3.81	-1.18	
Lee	02N01E21BAA1	344633	910005	185.00	4/18/2007	34.50	150.50	149.70	154.20	163.70	0.80	-3.70	-13.20
Lee	02N01E23BAA2	344631.74	905820.4	202.00	4/3/2007	51.10	150.90	151.82	154.43		-0.92	-3.53	
Lee	02N01E29ABC1	344542	910108	185.00	4/3/2007	45.30	139.70	134.00	132.10		5.70	7.60	
Lee	02N01W34DDC1	344410	910520	180.00	4/24/2007	60.00	120.00	128.00	135.50	162.00	-8.00	-15.50	-42.00
Lee	02N02E07ACA1	344752	905602	200.00	4/3/2007	47.50	152.50	153.60	154.20		-1.10	-1.70	
Lee	02N02E08ADC1	344807.34	905338.75	201.00	4/3/2007	44.30	156.70	157.54	160.99		-0.84	-4.29	
Lee	02N02E22BBB1	344628	905327	200.00	4/18/2007	35.00	165.00	172.00	168.00	175.00	-7.00	-3.00	-10.00
Lee	02N03E08AAD1	344810	904837	211.00	4/5/2007	45.00	166.00	167.11	166.55		-1.11	-0.55	
Lee	02N03E09DDD1	344723	904707	220.00	4/18/2007	52.00	168.00	169.00	171.50	179.00	-1.00	-3.50	-11.00
Lee	02N03E29CAD1	344500	904846	215.00	4/18/2007	42.00	173.00	165.00	171.00	186.00	8.00	2.00	-13.00
Lee	02N04E03ABD1	344855	903954	192.00	4/26/2007	26.00	166.00	167.50	169.00	173.30	-1.50	-3.00	-7.30
Lee	02N04E15DAC1	344636.73	903950.39	192.00	4/5/2007	21.00	171.00	174.38	173.43		-3.38	-2.43	
Lee	03N01E32BCC1	344951	910150	200.00	4/18/2007	62.00	138.00	138.00	141.00	146.00	0.00	-3.00	-8.00
Lee	03N01E15CC1	345206	905947	205.00	4/14/2007	62.98	142.02						
Lee	03N02E12CDC1	345239	905053	210.00	4/18/2007	47.00	163.00	169.00	165.00	174.50	-6.00	-2.00	-11.50
Lee	03N02E13BBA1	345237.4	905107.32	212.00	4/5/2007	49.00	163.00	162.02	163.24		0.98	-0.24	
Lee	03N02E29DAD1	345013.62	905429.78	205.00	4/5/2007	45.10	159.90	162.29	161.87		-2.39	-1.97	
Lee	03N03E05CDD1	345327	904837	204.00	4/24/2007	52.00	152.00	154.50	160.00	168.50	-2.50	-8.00	-16.50
Lee	03N03E18DAB1	345206	904919	196.00	4/24/2007	29.00	167.00	167.00	166.00	181.00	0.00	1.00	-14.00
Lee	03N03E32CAB1	344932.65	904926.23	204.00	4/5/2007	49.20	154.80	154.08	155.20		0.72	-0.40	
Lee	03N04E07CBB1	345245	904312	200.00	4/24/2007	33.00	167.00	170.00	168.50	185.50	-3.00	-1.50	-18.50
Lee	03N05E14DDA1	345148.08	903203.25	193.00	4/4/2007	14.30	178.70	179.44	179.04		-0.74	-0.34	
Lee	03N05E26ADC1	345020	903215	185.00	4/26/2007	7.00	178.00	178.00	178.50	180.00	0.00	-0.50	-2.00
								Declines/Wells:			**24/35**	**29/33**	**20/20**
								Average Change:			**-1.52**	**-3.20**	**-13.29**

Alluvial Aquifer
97-02-06-07 WL Change

County	Station ID	Latitude	Longitude	LSA	Date	07	WL	WL	WL	WL	06-07	02-07	97-07
					Measured	meas.	Alt. 07	Alt. 06	Alt. 02	Alt. 97	Change	Change	Change
Lincoln	07S06W03CCA2	340828	914114	190.00	5/9/2007	22.00	168.00	171.00	177.00	178.00	-3.00	-9.00	-10.00
Lincoln	07S07W36CBD1	340411	914529	183.00	5/9/2007	38.00	145.00	145.00	142.00	156.00	0.00	3.00	-11.00
Lincoln	08S04W06ABD1	340341	913116	171.00	5/9/2007	15.00	156.00	151.00	154.00	161.00	5.00	2.00	-5.00
Lincoln	08S04W31CBA1	335901.09	913149.69	161.90	3/9/2007	34.00	127.90	129.27			-1.37		
Lincoln	08S05W12DBA1	340229	913222	171.00	5/9/2007	24.00	147.00	149.00			-2.00		
Lincoln	08S05W21DCD1	340027	913533	169.00	5/9/2007	36.00	133.00	134.00	133.00		-1.00	0.00	
Lincoln	08S05W29ABC1	340021	913044	176.00	5/9/2007	40.00	136.00	135.00	134.00	141.00	1.00	2.00	-5.00
Lincoln	08S05W32DCC1	335840	913644	172.00	5/9/2007	45.00	127.00	129.00	128.00	138.00	-2.00	-1.00	-11.00
Lincoln	08S06W02ACB1	340338.84	913957.73	181.03	3/9/2007	43.60	137.43	138.78	139.64		-1.35	-2.21	
Lincoln	08S07W05DDD1	340301	914903	190.00	3/5/2007	30.40	159.60	160.04	161.32		-0.44	-1.72	
Lincoln	08S07W09BBD1	340248	914845	189.80	3/9/2007	31.50	158.30			161.78			-3.48
Lincoln	09S04W06CBB1	335721	913252	163.00	5/9/2007	42.00	121.00	123.00	131.00	137.00	-2.00	-10.00	-16.00
Lincoln	09S05W13CDB1	335505	913350	173.80	3/9/2007	44.30	129.50						
Lincoln	09S05W14ABC1	335553.02	913439.08	172.50	3/9/2007	39.00	133.50	135.29	135.88		-1.79	-2.38	
Lincoln	09S05W17BCB1	335551.59	913819.95	171.00	3/9/2007	38.10	132.90	129.91	131.31		2.99	1.59	
Lincoln	09S06W04BCD1	335821.38	914345.83	181.00	3/9/2007	42.40	138.60	142.88	142.15		-4.28	-3.55	
Lincoln	09S06W04BDD1	335759	914335	178.00	5/9/2007	36.00	142.00	142.00	140.00	150.00	0.00	2.00	-8.00
Lincoln	09S06W23CDB1	335439.57	914136.37	175.00	3/9/2007	30.10	144.90	145.27	145.73	151.00	-0.37	-0.83	-6.10
Lincoln	09S06W24DAA1	335452	913954	177.00	5/9/2007	30.00	147.00	146.00			1.00		
Lincoln	10S05W05CB	335529	913832	172.00	3/9/2007	27.60	144.40	145.65			-1.25		
Lincoln	10S05W06DCC1	335155.3	913907.96	175.00	3/9/2007	28.10	146.90	145.08	146.08		1.82	0.82	
								Declines/Wells:			**12/19**	**8/15**	**9/9**
								Average Change:			**-0.48**	**-1.29**	**-8.40**
Lonoke	01N07W27AAD1	344103	914410	220.00	3/14/2007	133.35	86.65		88.45			-1.80	
Lonoke	01N08W03DDA1	344411	915050	229.00	4/12/2007	135.20	93.80	89.80	99.50	108.70	4.00	-5.70	-14.90
Lonoke	01N08W26CCB1	344033	915042	212.00	3/14/2007	104.60	107.40		111.33			-3.93	
Lonoke	01N09W13DAB1	344235.17	915517.01	226.00	3/14/2007	88.00	138.00	139.26	140.25		-1.26	-2.25	
Lonoke	01N09W07DAA1	344330	900028	240.00	4/12/2007	49.00	191.00	193.00	190.80		-2.00	0.20	
Lonoke	01N09W25BAA1	344120	915537	228.00	4/12/2007	87.50	140.50		140.50	149.10		0.00	-8.60
Lonoke	01N10W11BBD1	344355	920321	240.00	3/10/2007	30.00	210.00		209.45			0.55	
Lonoke	01N10W15CDA1	344236	920414	240.00	4/12/2007	27.00	213.00	215.30	209.20	218.20	-2.30	3.80	-5.20
Lonoke	01S06W31ABB1	343459.39	914131.48	200.00	2/28/2007	79.50	120.50	121.87	121.63		-1.37	-1.13	
Lonoke	01S06W32BBB1	343501	914056	201.00	4/12/2007	78.00	123.00	124.00	121.70	125.60	-1.00	1.30	-2.60
Lonoke	01S07W12BCB1	343820	914308	211.00	3/14/2007	136.25	74.75						
Lonoke	01S07W19DC1	343609	914746	206.00	3/14/2007	83.68	122.32						
Lonoke	01S08W24CDD1	343605.64	914912.37	210.00	2/28/2007	82.65	127.35	129.00	130.65		-1.65	-3.30	

Alluvial Aquifer
97-02-06-07 WL Change

County	Station ID	Latitude	Longitude	LSA	Date Measured	07 meas.	WL Alt. 07	WL Alt. 06	WL Alt. 02	WL Alt. 97	06-07 Change	02-07 Change	97-07 Change
Lonoke	01S09W02DDD1	343857	915623	230.00	4/12/2007	85.50	144.50	147.00	141.50		-2.50	3.00	
Lonoke	01S09W36CCC1	343435.31	915618.98	220.00	2/28/2007	63.90	156.10	157.49	159.24	167.00	-1.39	-3.14	-10.90
Lonoke	01S10W01ACB1	343926.84	920214.96	236.00	2/28/2007	46.60	189.40	190.08	190.00		-0.68	-0.60	
Lonoke	01S10W11CCB1	343839	920337	235.00	3/20/2007	32.27	202.73	203.13			-0.40		
Lonoke	02N07W07DAA1	344845	914707	232.00	4/12/2007	132.00	100.00	91.80	99.40	110.10	8.20	0.60	-10.10
Lonoke	02N07W16BAB1	344815.2	914539.5	240.00	3/13/2007	140.20	99.80	102.36	104.91		-2.56	-5.11	
Lonoke	02N08W16ABC1	344806.48	915113.61	230.00	3/16/2007	123.30	106.70	101.61	111.60		5.09	-4.90	
Lonoke	02N08W34BA1	344543	915106	230.00	3/16/2007	130.00	100.00	101.21			-1.21		
Lonoke	02N09W02BDB1	344955.06	915840.93	251.00	3/16/2007	123.30	127.70	124.96	132.16		2.74	-4.46	
Lonoke	02N09W17CCB1	344746	920006	253.20	3/9/2007	82.80	170.40		169.32			1.08	
Lonoke	02N09W17CBC1	344753	920010	255.00	3/20/2007	84.95	170.05		165.01			5.04	
Lonoke	02N09W17CBC2	344751	920010	255.00	3/20/2007	82.95	172.05		169.08			2.97	
Lonoke	02N09W18DAA1	344755	920022	255.00	3/20/2007	84.65	170.35		170.65			-0.30	
Lonoke	02N09W18DAD2	344754	920020	255.00	3/20/2007	84.85	170.15		171.45			-1.30	
Lonoke	02N09W18DAD3	344754	920011	255.00	3/20/2007	85.90	169.10		164.58			4.52	
Lonoke	02N10W15ACC1	344807	920352	242.00	4/12/2007	32.50	209.50	210.50		211.80	-1.00		-2.30
Lonoke	02N10W23BCA1	344725	920321	242.00	3/16/2007	8.10	233.90		239.10			-5.20	
Lonoke	02S07W05CDC1	343326	914715	205.00	4/12/2007	70.20	134.80	134.60	138.10		0.20	-3.30	
Lonoke	02S07W20ACD1	343112	914655	201.00	4/12/2007	66.50	134.50	140.40	142.30		-5.90	-7.80	
Lonoke	02S08W06AAB1	343430	915447	221.00	3/16/2007	69.04	151.96	153.66			-1.70		
Lonoke	02S08W28CDC	343008	915237	211.00	3/16/2007	61.60	149.40	150.50			-1.10		
Lonoke	02S09W30CDD1	343014.34	920116.01	226.00	2/28/2007	38.20	187.80	186.56	189.44	189.90	1.24	-1.64	-2.10
Lonoke	02S09W35AB1	343008	915652	217.00	4/12/2007	52.00	165.00	167.00	166.00		-2.00	-1.00	
Lonoke	03N07W15DBC2	345252.79	914416.62	227.00	3/13/2007	83.00	144.00	144.57	147.78		-0.57	-3.78	
Lonoke	03N07W29ADA1	345128.53	914558.4	234.00	4/12/2007	96.00	138.00	139.08	146.27		-1.08	-8.27	
Lonoke	03N07W35CDC2	344957.16	914332.11	232.00	3/13/2007	116.70	115.30	115.90	118.75		-0.60	-3.45	
Lonoke	03N08W26CDC1	345100	915007	235.00	4/12/2007	108.20	126.80		127.50	136.90		-0.70	-10.10
Lonoke	03N08W32ABB2	345057	915258	250.00	4/10/2007	119.85	130.15	131.32	134.32		-1.17	-4.17	
Lonoke	03N08W32ABB3	345058.68	915255.43	250.00	3/13/2007	58.10	191.90	193.54	192.96		-1.64	-1.06	
Lonoke	03N10W34ABB1	345058	920356	257.00	3/16/2007	59.70	197.30		199.50			-2.20	
Lonoke	04N08W15BCB2	345832.92	915121.25	225.00	3/13/2007	34.60	190.40	190.14	192.92	194.00	0.26	-2.52	-3.60
								Declines/Wells:			**22/29**	**26/37**	**10/10**
								Average Change:			**-0.46**	**-1.62**	**-7.04**
Mississippi	10N08E21ABA1	352852	901415	224.00	4/20/2007	29.00	195.00	199.00	197.60	203.00	-4.00	-2.60	-8.00
Mississippi	10N08E21BDC1	352830	901407	224.00	4/20/2007	28.00	196.00	199.00	199.00	203.50	-3.00	-3.00	-7.50
Mississippi	10N08E22ABA2	352850.89	901312.16	224.00	4/4/2007	24.20	199.80	199.96	200.80		-0.16	-1.00	

Alluvial Aquifer
97-02-06-07 WL Change

County	Station ID	Latitude	Longitude	LSA	Date Measured	07 meas.	WL Alt. 07	WL Alt. 06	WL Alt. 02	WL Alt. 97	06-07 Change	02-07 Change	97-07 Change
Mississippi	10N09E08ACC1	352949.05	900925.66	230.00	4/4/2007	16.90	213.10	214.16	215.36		-1.06	-2.26	
Mississippi	11N09E34BBB1	353217.73	900715.17	235.00	4/4/2007	18.00	217.00	218.30	217.88		-1.30	-0.88	
Mississippi	11N10E09BCB1	353530	900202	236.00	4/20/2007	19.00	217.00	216.00	221.20	226.50	1.00	-4.20	-9.50
Mississippi	12N08E08BCB1	354047.06	901559.25	225.00	4/3/2007	8.60	216.40	214.93	218.56		1.47	-2.16	
Mississippi	12N08E27ACA1	353851	901104	225.00	4/3/2007	2.20	222.80						
Mississippi	12N08E28DDB1	353707	901406	225.00	4/20/2007	20.50	204.50	205.00	213.00	216.33	-0.50	-8.50	-11.83
Mississippi	12N09E12ABC1	354054	900449	232.00	4/19/2007	13.00	219.00	215.00	223.30	224.00	4.00	-4.30	-5.00
Mississippi	12N10E04CAA1	354124	900136	235.00	4/16/2007	11.00	224.00	215.00	225.60	230.17	9.00	-1.60	-6.17
Mississippi	12N10E07BCD1	354036	900404	234.00	4/19/2007	21.00	213.00	212.00	222.50	225.00	1.00	-9.50	-12.00
Mississippi	12N10E21DBA1	353842	900122	236.00	4/20/2007	20.00	216.00	219.00	221.10	227.33	-3.00	-5.10	-11.33
Mississippi	13N08E24ABB1	354428	901112	230.00	4/17/2007	8.50	221.50	221.00	219.00	224.00	0.50	2.50	-2.50
Mississippi	13N09E013DDA1	354437	900425	232.00	4/3/2007	6.00	226.00	224.45			1.55		
Mississippi	13N09E30CCD1	354247.81	901028.63	230.00	4/3/2007	10.20	219.80	217.12	223.09		2.68	-3.29	
Mississippi	13N10E34DBB1	354218	900024	235.00	4/3/2007	8.70	226.30	226.42	228.90		-0.12	-2.60	
Mississippi	14N08E12DAB1	355104.17	901051.94	235.00	4/4/2007	6.40	228.60	226.62	231.15		1.98	-2.55	
Mississippi	14N08E20DAA1	354921	901458	225.00	4/16/2007	5.00	220.00	220.00	221.00	222.33	0.00	-1.00	-2.33
Mississippi	14N08E26DCC1	354803	901235	230.00	4/16/2007	3.50	226.50	225.00	226.00	228.50	1.50	0.50	-2.00
Mississippi	14N10E18ABC1	355022.36	900345.36	236.00	4/4/2007	12.30	223.70	222.98	226.75		0.72	-3.05	
Mississippi	14N11E03BCB1	355158.11	895432.97	247.00	4/3/2007	5.50	241.50	241.74	243.13		-0.24	-1.63	
Mississippi	14N11E17CCB1	354955	895639	240.00	4/17/2007	5.00	235.00	232.00	232.10		3.00	2.90	
Mississippi	14N11E33CAA1	354727	895508	240.00	4/17/2007	12.50	227.50	225.00	232.20	232.50	2.50	-4.70	-5.00
Mississippi	14N12E05DCB1	355134	894936	250.00	4/3/2007	10.80	239.20		239.60			-0.40	
Mississippi	15N08E08DBC2	355604.96	901526.26	236.00	4/4/2007	10.50	225.50	224.03	228.13		1.47	-2.63	
Mississippi	15N10E21ABC1	355447	900135	240.00	4/17/2007	10.00	230.00	227.00	231.00	234.83	3.00	-1.00	-4.83
Mississippi	15N10E34AAC1	355259	900018	240.00	4/4/2007	8.50	231.50	231.45			0.05		
Mississippi	15N12E01BCD1	355704	894601	258.00	4/17/2007	8.00	250.00	247.00	245.40	252.00	3.00	4.60	-2.00
Mississippi	16N10E28BBD1	355906.13	900156.03	238.00	4/17/2007	10.00	228.00	226.65	232.72	232.33	1.35	-4.72	-4.33
Mississippi	16N11E23ADA1	355947.24	895231.23	255.00	4/4/2007	13.00	242.00	242.30	244.90		-0.30	-2.90	
								Declines/Wells:			**10/29**	**24/28**	**15/15**
								Average Change:			**0.90**	**-2.32**	**-6.29**
Monroe	01N01W21CDC2	344037.18	910706.66	181.00	3/8/2007	38.87	142.13	144.43	147.13		-2.30	-5.00	
Monroe	01N01W15CBD1	344139	910542	185.00	3/8/2007	48.78	136.22	135.86			0.36		
Monroe	01N02W12CBC1	344242.3	911031.9	182.00	3/8/2007	40.18	141.82	142.79			-0.97		
Monroe	01N03W23BAC1	344124	911743	170.00	4/5/2007	15.00	155.00	154.00	157.00	151.00	1.00	-2.00	4.00
Monroe	01N03W24BBB1	344135.21	911650.59	185.00	3/8/2007	28.90	156.10	156.37	153.89	162.50	-0.27	2.21	-6.40
Monroe	01N04W33BBB2	343959.52	912648.52	218.00	3/8/2007	104.20	113.80	122.85	124.18		-9.05	-10.38	

Alluvial Aquifer
97-02-06-07 WL Change

County	Station ID	Latitude	Longitude	LSA	Date	07	WL	WL	WL	WL	06-07	02-07	97-07
					Measured	meas.	Alt. 07	Alt. 06	Alt. 02	Alt. 97	Change	Change	Change
Monroe	01S01W13CDD1	343610.94	910340.54	178.00	3/8/2007	22.25	155.75	157.63	157.92		-1.88	-2.17	
Monroe	01S01W16DB	343615	910632	175.00	4/9/2007	19.00	156.00	153.00	158.50	160.00	3.00	-2.50	-4.00
Monroe	01S01W18DCD1	343617.76	910849.2	178.00	3/8/2007	23.90	154.10	154.95	154.75		-0.85	-0.65	
Monroe	01S02W20BBB1	343612.7	911456.1	170.00	3/8/2007	11.60	158.40	156.65	158.43	162.00	1.75	-0.03	-3.60
Monroe	01S03W20CCD1	343626	912121	210.00	4/5/2007	79.00	131.00	131.00			0.00		
Monroe	01S04W01BAB1	343905.86	912316.73	210.00	3/8/2007	77.70	132.30	141.30	133.09		-9.00	-0.79	
Monroe	02N01W19ADD1	344624	910814	188.00	4/9/2007	52.50	135.50	135.00	140.00	146.00	0.50	-4.50	-10.50
Monroe	02N01W19BBA1	344645.21	910912.46	191.00	3/8/2007	53.30	137.70	136.73	139.85		0.97	-2.15	
Monroe	02N03W35BCA1	344455	911745	188.00	4/9/2007	30.00	158.00	154.00	159.00	165.00	4.00	-1.00	-7.00
Monroe	02S01W01BCD1	343305	910408	176.00	4/9/2007	19.00	157.00	157.00	156.00	160.00	0.00	1.00	-3.00
Monroe	02S02W11DAC1	343208.97	911100.58	164.00	3/8/2007	9.50	154.50	153.84	157.47		0.66	-2.97	
Monroe	03N01W20ABA1	345201.18	910722.83	189.00	2/27/2007	48.10	140.90	140.93	142.72	139.00	-0.03	-1.82	1.90
Monroe	03N03W36AAA1	345026.65	911547.12	176.00	2/27/2007	19.90	156.10	153.80	157.09		2.30	-0.99	
Monroe	04N02W01BCC1	345929	911004	175.00	4/9/2007	39.00	136.00	135.50	138.00	150.00	0.50	-2.00	-14.00
Monroe	04N02W05BBB1	345957	911311	188.00	4/9/2007	15.00	173.00	173.00	175.00	175.00	0.00	-2.00	-2.00
Monroe	04N02W27CDD3	345540.22	911149.73	200.00	2/27/2007	46.25	153.75	154.50	154.85		-0.75	-1.10	
Monroe	04N02W28DDD3	345535.05	911220.68	192.00	2/27/2007	33.60	158.40	159.81	159.18		-1.41	-0.78	
								Declines/Wells:			**10/23**	**18/20**	**8/10**
								Average Change:			**-0.50**	**-1.98**	**-4.46**
Phillips	01S01E20DDB1	343529	910058	185.00	4/2/2007	27.00	158.00	159.00	168.20	167.83	-1.00	-10.20	-9.83
Phillips	01S02E09BDC1	343725	910047	185.00	4/2/2007	16.00	169.00	170.20			-1.20		
Phillips	01S02E09CBB1	343718.73	905434.06	185.00	3/27/2007	15.10	169.90	170.71	175.51	174.67	-0.81	-5.61	-4.77
Phillips	01S03E02CBB1	343809	904604	200.00	3/27/2007	16.90	183.10						
Phillips	01S03E02ADD1	343814	904511	200.00	4/2/2007	18.50	181.50	183.40	185.30	185.00	-1.90	-3.80	-3.50
Phillips	01S03E10ABB1	343741	904634	205.00	4/2/2007	20.50	184.50	187.00	192.00	189.33	-2.50	-7.50	-4.83
Phillips	01S03E20BDD1	343533	904846	210.00	4/2/2007	34.00	176.00	177.00	181.00	176.83	-1.00	-5.00	-0.83
Phillips	01S04E05DCD1	343802	904151	230.00	3/27/2007	50.00	180.00	181.09	187.00	186.00	-1.09	-7.00	-6.00
Phillips	02S01E28CCB1	342916.37	910058.18	174.00	3/27/2007	18.80	155.20	156.05	155.63		-0.85	-0.43	
Phillips	02S02E29DDD1	342901	905444	180.00	4/2/2007	28.50	151.50	152.40	156.50	157.00	-0.90	-5.00	-5.50
Phillips	02S02E33DCA1	342812	905347	185.00	3/27/2007	22.55	162.45						
Phillips	02S02E33ACC1	342824	905412	177.00	4/2/2007	26.50	150.50	151.00	154.30	154.00	-0.50	-3.80	-3.50
Phillips	02S03E34BCD1	342828	904653	165.00	4/3/2007	20.00	145.00	147.00	146.60	148.83	-2.00	-1.60	-3.83
Phillips	02S04E27AAC1	342931.57	904001.09	179.00	3/27/2007	10.20	168.80	170.41	171.00	169.00	-1.61	-2.20	-0.20
Phillips	03S02E35DDA1	342256.24	905129.93	163.00	3/27/2007	20.50	142.50	141.77	142.29		0.73	0.21	
Phillips	03S03E02DDD1	342706	904504	175.00	3/27/2007	21.70	153.30						
Phillips	03S03E04DAA1	342735	904710	171.00	3/27/2007	20.25	150.75	151.71			-0.96		

Alluvial Aquifer
97-02-06-07 WL Change

County	Station ID	Latitude	Longitude	LSA	Date	07	WL	WL	WL	WL	06-07	02-07	97-07
					Measured	meas.	Alt. 07	Alt. 06	Alt. 02	Alt. 97	Change	Change	Change
Phillips	03S04E02CAA1	342732	903918	176.00	3/27/2007	16.55	159.45	159.84		160.00	-0.39		-0.55
Phillips	04S01E01AAD1	342238	905700	156.00	4/3/2007	19.00	137.00	134.00	139.00	142.83	3.00	-2.00	-5.83
Phillips	04S01E12CAB1	342128	905748	150.00	3/27/2007	12.80	137.20						
Phillips	04S01E14CDD1	342014	905837	155.00	4/3/2007	15.00	140.00	140.00	142.90	142.33	0.00	-2.90	-2.33
Phillips	04S01E23CCA1	341931.3	905852.62	156.00	3/27/2007	14.70	141.30	142.60	142.55		-1.30	-1.25	
Phillips	04S01E29CBC1	341844	910148	150.00	4/3/2007	9.00	141.00			141.00			0.00
Phillips	04S02E01DBB1	342220	905053	163.00	4/3/2007	15.00	148.00	147.40	150.80	154.00	0.60	-2.80	-6.00
								Declines/Wells:			**15/19**	**15/16**	**14/15**
								Average Change:			**-0.72**	**-3.81**	**-3.83**
Poinsett	10N01E02AAA	353205	905654	235.00	4/2/2007	98.50	136.50	137.00	142.00	149.00	-0.50	-5.50	-12.50
Poinsett	10N01E14CC1	352909.77	905813.38	231.00	3/26/2007	93.50	137.50	138.59	143.52	149.76	-1.09	-6.02	-12.26
Poinsett	10N01E16CCB1	352921.87	910005.35	225.00	3/26/2007	75.20	149.80	150.01	154.18		-0.21	-4.38	
Poinsett	10N01E32CBB1	352657	910053	222.00	4/18/2007	76.00	146.00	148.00	172.00	178.00	-2.00	-26.00	-32.00
Poinsett	10N01E33ACB1	352746	905931	220.00	4/12/2007	79.50	140.50	143.00	146.00	154.00	-2.50	-5.50	-13.50
Poinsett	10N02E13BCC1	352948.52	905026.29	237.00	3/26/2007	104.10	132.90	133.76	137.79		-0.86	-4.89	
Poinsett	10N02E15CAA1	352939	905026	237.00	4/12/2007	105.00	132.00	132.50			-0.50		
Poinsett	10N02E33AAA1	352726	905231	236.00	3/26/2007	100.18	135.82	136.62			-0.80		
Poinsett	10N03E13BCB1	353001	904352	270.00	4/12/2007	130.00	140.00	128.00			12.00		
Poinsett	10N03E14DAB1	352947.21	904404.93	263.00	3/26/2007	119.00	144.00	144.37	148.38		-0.37	-4.38	
Poinsett	10N03E19BCB1	352906	904021	239.00	4/12/2007	100.00	139.00	139.50			-0.50		
Poinsett	10N03E20BBA1	352405	904810	235.00	4/12/2007	104.00	131.00	122.50			8.50		
Poinsett	10N03E26BBD1	352817	904449	257.00	4/12/2007	115.00	142.00	143.50			-1.50		
Poinsett	10N04E35BBA1	352745	903831	215.00	4/12/2007	18.00	197.00	194.00	195.00	199.00	3.00	2.00	-2.00
Poinsett	10N06E11AAA1	353045	902501	212.00	3/26/2007	13.30	198.70						
Poinsett	10N07E28CBB1	352743	902128	215.00	4/13/2007	30.00	185.00	186.50			-1.50		
Poinsett	11N01E17DDD1	353436.83	910013.21	230.00	3/25/2007	79.30	150.70	151.39	155.40	161.00	-0.69	-4.70	-10.30
Poinsett	11N01E26AA1	353340.33	905653.32	236.00	3/25/2007	94.40	141.60	141.28	143.97		0.32	-2.37	
Poinsett	11N01E34AAA	353256	905759	229.00	4/2/2007	89.00	140.00	140.50	145.00	153.00	-0.50	-5.00	-13.00
Poinsett	11N02E26AAB1	353350.31	905034.19	241.00	3/26/2007	114.40	126.60	133.45	136.93		-6.85	-10.33	
Poinsett	11N02E30BBB1	353352	905540	239.00	4/2/2007	103.00	136.00	136.50	141.00	147.00	-0.50	-5.00	-11.00
Poinsett	11N02E34CBA1	353238	905222	240.00	4/12/2007	111.00	129.00	131.00	146.00	150.00	-2.00	-17.00	-21.00
Poinsett	11N03E10DDA1	353545.69	904456.54	243.00	3/26/2007	105.35	137.65	138.22	141.00		-0.57	-3.35	
Poinsett	11N03E17AAA1	353534	904713	243.00	4/2/2007	107.00	136.00	138.00			-2.00		
Poinsett	11N04E13DDA1	353447	903631	210.00	4/13/2007	16.00	194.00	195.00			-1.00		
Poinsett	11N04E36ABA1	353251	903654	211.00	4/12/2007	18.00	193.00	193.00	192.00	197.00	0.00	1.00	-4.00
Poinsett	11N05E26BDB1	353318	903155	213.00	4/12/2007	10.00	203.00	201.00			2.00		

Alluvial Aquifer
97-02-06-07 WL Change

County	Station ID	Latitude	Longitude	LSA	Date	07	WL	WL	WL	WL	06-07	02-07	97-07
					Measured	meas.	Alt. 07	Alt. 06	Alt. 02	Alt. 97	Change	Change	Change
Poinsett	11N07E18CAB1	353435	902320	217.00	3/26/2007	14.00	203.00	201.63	202.66		1.37	0.34	
Poinsett	11N07E22ADD1	353349	901922	218.00	3/26/2007	23.85	194.15						
Poinsett	11N07E28CBB1	353250	902125	218.00	4/13/2007	23.50	194.50	198.00			-3.50		
Poinsett	12N01E07CDA1	354053.69	910141.25	236.00	3/25/2007	60.80	175.20	182.03	183.50	187.20	-6.83	-8.30	-12.00
Poinsett	12N01E22DAB1	353922	905809	235.00	4/2/2007	76.00	159.00	161.00	163.00	169.50	-2.00	-4.00	-10.50
Poinsett	12N02E25DCC1	353820	904944	245.00	4/2/2007	114.00	131.00	133.00	137.00	137.00	-2.00	-6.00	-6.00
Poinsett	12N02E26DDA1	353831	905024	245.00	3/25/2007	109.85	135.15	135.75			-0.60		
Poinsett	12N02E34CCC1	353724	905230	245.00	4/2/2007	113.50	131.50	132.50	136.00	143.00	-1.00	-4.50	-11.50
Poinsett	12N03E01CBD1	354154	904329	250.00	4/12/2007	95.00	155.00	157.00	159.00	163.00	-2.00	-4.00	-8.00
Poinsett	12N03E04DAD1	354158.01	904600.16	247.00	4/12/2007	106.00	141.00	143.48	146.19	153.00	-2.48	-5.19	-12.00
Poinsett	12N03E35DDA1	353735	904355	245.00	4/12/2007	104.00	141.00	142.00			-1.00		
Poinsett	12N03E36ACB1	353749	904318	250.00	3/26/2007	104.40	145.60	151.43	154.34		-5.83	-8.74	
Poinsett	12N04E08CDA	354053	904112	250.00	4/12/2007	90.00	160.00	162.00	164.00	169.00	-2.00	-4.00	-9.00
Poinsett	12N05E16ABA1	354039	903333	221.00	4/12/2007	11.50	209.50	209.00	211.00	217.00	0.50	-1.50	-7.50
Poinsett	12N05E34ABA1	353805.38	903230.45	215.00	3/26/2007	9.20	205.80	204.35	205.50	209.52	1.45	0.30	-3.72
Poinsett	12N07E04BAA1	354201.95	902059.69	223.00	3/26/2007	7.10	215.90	216.07	218.76		-0.17	-2.86	
Poinsett	12N07E10BCC1	354042	902022	228.00	4/13/2007	11.00	217.00	218.00		221.00	-1.00		-4.00
Poinsett	12N07E25DC1	353740	901802	226.00	3/26/2007	16.62	209.38	208.58			0.80		
Poinsett	11N06E34AB1	353224	902646	211.00	3/26/2007	14.07	196.93	197.78			-0.85		
								Declines/Wells:			**34/44**	**24/28**	**20/20**
								Average Change:			**-0.63**	**-5.35**	**-10.79**
Prairie	01N06W05CCB1	344352.97	914049.08	220.00	3/7/2007	118.60	101.40	102.20	103.85		-0.80	-2.45	
Prairie	01N06W26CDD1	344014.88	913707.61	218.00	3/7/2007	62.70	155.30	154.22	148.19		1.08	7.11	
Prairie	01N06W29DDD1	344017.54	913951.46	223.00	3/7/2007	118.00	105.00	106.45			-1.45		
Prairie	01S04W28BBC1	343529	912650	206.00	4/17/2007	100.00	106.00		106.50	110.70		-0.50	-4.70
Prairie	01S04W28BDB1	343522.68	912629.73	205.00	3/7/2007	98.00	107.00	107.72	121.83		-0.72	-14.83	
Prairie	01S05W31DDA1	343416	913431	206.00	3/7/2007	113.60	92.40	102.40	110.66		-10.00	-18.26	
Prairie	01S06W12BAB1	343826	913613	228.00	3/7/2007	119.36	108.64	108.64			0.00		
Prairie	02N04W02BCB1	344916.31	912418.61	188.00	3/8/2007	20.40	167.60	167.73	167.35		-0.13	0.25	
Prairie	02N04W32CCB1	344436.43	912737.79	221.00	3/7/2007	85.60	135.40	136.28	136.92		-0.88	-1.52	
Prairie	02N05W06BAB1	344957.63	913420.77	221.00	3/8/2007	90.17	130.83	131.81	132.60		-0.98	-1.77	
Prairie	02N05W13AAB1	344805.45	912854.34	223.00	3/7/2007	75.20	147.80	141.26	146.80		6.54	1.00	
Prairie	02N05W21CB1	344649	913300	225.00	3/8/2007	109.20	115.80	116.85			-1.05		
Prairie	02N05W24ACB	344659	912937	225.00	3/8/2007	89.70	135.30	134.30			1.00		
Prairie	02N05W29DDB2	344544	913308	228.00	3/7/2007	123.50	104.50	109.16	111.11		-4.66	-6.61	
Prairie	02N05W32AAA1	344534	913305	225.00	3/7/2007	144.80	80.20	95.10			-14.90		
Prairie	02N06W17ABB1	344809.48	913959.44	235.00	3/8/2007	125.60	109.40	110.74	112.82		-1.34	-3.42	

Alluvial Aquifer
97-02-06-07 WL Change

County	Station ID	Latitude	Longitude	LSA	Date Measured	07 meas.	WL Alt. 07	WL Alt. 06	WL Alt. 02	WL Alt. 97	06-07 Change	02-07 Change	97-07 Change
Prairie	02S06W14BBB1	343213.38	913728.62	201.00	3/7/2007	74.60	126.40	126.71	125.35		-0.31	1.05	
Prairie	02N06W21DAA1	344653	913827	225.00	3/7/2007	116.10	108.90	108.80			0.10		
Prairie	02N06W24CAA1	344651	913551	233.00	3/8/2007	118.60	114.40	114.90			-0.50		
Prairie	03N04W03AAC1	345439.23	912424.37	187.00	3/7/2007	22.55	164.45	158.70	161.08		5.75	3.37	
Prairie	03N05W03BDD2	345444.06	913115.35	207.00	3/8/2007	64.80	142.20	139.30	142.88		2.90	-0.68	
Prairie	03N06W01BCB1	345454.54	913601.39	216.00	3/8/2007	78.20	137.80	136.92	138.61		0.88	-0.81	
Prairie	03N06W19BDD1	345207	914110	221.00	3/8/2007	84.10	136.90	134.27	137.27		2.63	-0.37	
Prairie	04N04W07ADC1	345850.31	912733.07	195.00	3/7/2007	23.00	172.00	168.27	170.48		3.73	1.52	
Prairie	04N05W07CDC1	345042.62	913440.92	212.00	3/7/2007	79.20	132.80	135.46	137.67		-2.66	-4.87	
Prairie	04N06W05CCC1	345933.76	914017.96	206.00	3/7/2007	61.50	144.50		144.98			-0.48	
Prairie	04N07W03DCB1	345942.1	914412.48	255.00	3/7/2007	87.70	167.30	167.67	169.07		-0.37	-1.77	
Prairie	04N07W28BBA1	345700.53	914544.88	258.00	3/7/2007	96.20	161.80	162.23	164.92		-0.43	-3.12	
Prairie	05N05W14DCD1	350252.43	913034.06	205.00	3/7/2007	33.90	171.10	165.38	169.00	171.60	5.72	2.10	-0.50
Prairie	05N05W28DDA1	350119	913228	191.00	4/17/2007	37.50	153.50		168.50	165.30		-15.00	-11.80
								Declines/Wells:			**16/27**	**16/23**	**3/3**
								Average Change:			**-0.40**	**-2.05**	**-5.67**
Pulaski	01S10W29CC1	343537.78	920707.66	239.00	3/27/2007	17.05	221.95	220.98	221.87		0.97	0.08	
Pulaski	02N10W05BCC1	344953	920635	239.00	4/3/2007	23.80	215.20						
Pulaski	02S10W14DC1	343204.71	920333.75	225.00	3/27/2007	22.30	202.70	200.10	199.03		2.60	3.67	
Pulaski	02S10W16CCA1	343216.99	920549.36	230.76	3/27/2007	20.35	210.41	203.49	208.78		6.92	1.63	
Pulaski	02S11W23BCB1	343150	921022	236.76	4/3/2007	23.00	213.76						
								Declines/Wells:			**0/3**	**0/3**	
								Average Change:			**3.50**	**1.79**	
Randolph	18N01E13BBA1	361230	905551	265.00	5/1/2007	17.50	247.50		249.60	257.30		-2.10	-9.80
Randolph	18N01E28AAD1	361040	905820	265.00	5/1/2007	15.00	250.00	243.00	249.30		7.00	0.70	
Randolph	18N01E34AAC1	360942.69	905729.13	266.00	5/1/2007	17.40	248.60	247.82	249.37		0.78	-0.77	
Randolph	18N02E03DAD1	361336	905043	280.00	5/1/2007	27.50	252.50		247.60	254.90		4.90	-2.40
Randolph	18N02E06BCB1	361400.42	905458.36	273.00	5/1/2007	17.00	256.00						
Randolph	18N02E17CBB1	361204	905356	265.00	5/1/2007	19.50	245.50	242.00	248.90	254.40	3.50	-3.40	-8.90
Randolph	18N02E20BDA1	361125	905332	274.00	5/1/2007	31.00	243.00	231.50	241.50	239.30	11.50	1.50	3.70
Randolph	18N02E22DCD1	361045.76	905104.7	273.00	3/21/2007	38.10	234.90	235.53	236.66		-0.63	-1.76	
Randolph	18N02E34BAB1	360933	905150	270.00	5/1/2007	34.50	235.50	239.00		242.70	-3.50		-7.20
Randolph	19N02E09ABD1	361826	905157	266.00	5/1/2007	18.5	247.50	254.77	264.60	259.40	-7.27	-17.10	-11.90

Alluvial Aquifer
97-02-06-07 WL Change

County	Station ID	Latitude	Longitude	LSA	Date Measured	07 meas.	WL Alt. 07	WL Alt. 06	WL Alt. 02	WL Alt. 97	06-07 Change	02-07 Change	97-07 Change
Randolph	19N02E09DCA1	361759	905158	267.00	4/4/2007	8.00	259.00						
Randolph	19N02E22DAB1	361622	905049	266.00	5/1/2007	16.00	250.00	250.50	265.70	261.90	-0.50	-15.70	-11.90
Randolph	19N03E33CCB1	361941	904552	285.00	5/1/2007	24.00	261.00						
Randolph	20N02E06DAD1	362410	905339	281.00	5/1/2007	14.00	267.00	259.00			8.00		
Randolph	20N02E12BAA1	362352	904848	281.00	5/1/2007	11.50	269.50	269.00	276.70	277.10	0.50	-7.20	-7.60
Randolph	20N02E14DAB1	362232	904930	274.00	5/1/2007	10.50	263.50	260.00	265.10	261.20	3.50	-1.60	2.30
Randolph	20N02E21CDD1	362117	905107	270.00	5/1/2007	11.00	259.00	258.00	263.80		1.00	-4.80	
Randolph	20N03E28BA1	362113.53	904537.97	276.00	4/4/2007	10.70	265.30	263.14	264.25		2.16	1.05	
								Declines/Wells:			**4/13**	**9/13**	**7/9**
								Average Change:			**2.00**	**-3.56**	**-5.97**
St. Francis	04N01W17CBC1	345735	910801	208.00	4/3/2007	59.82	148.18	148.92			-0.74		
St. Francis	04N01W20BBB1	345716	910759	200.00	5/10/2007	60.00	140.00	141.00	143.00	143.00	-1.00	-3.00	-3.00
St. Francis	04N01W20DA1	345646.5	910707.4	200.00	5/10/2007	70.00	130.00						
St. Francis	04N01W22BB1	345719.7	910554.36	200.00	5/10/2007	63.00	137.00						
St. Francis	04N01E27BC1	345609.71	910545.23	200.00	5/10/2007	72.00	128.00						
St. Francis	04N01W28CDD1	345535.26	910633.55	208.00	4/3/2007	72.10	135.90	136.58	140.00	145.30	-0.68	-4.10	-9.40
St. Francis	04N02E03DDD3	345848	905218	210.00	4/5/2007	44.80	165.20		167.74			-2.54	
St. Francis	04N02E11AD1	345827.58	904456.62	350.00	5/10/2007	45.00	305.00						
St. Francis	04N02E16ACD1	345733	905341	209.00	5/10/2007	51.00	158.00	168.00	160.00		-10.00	-2.00	
St. Francis	04N02E19BBB1	345701	905633	209.00	4/4/2007	61.00	148.00	148.84	152.92		-0.84	-4.92	
St. Francis	04N02E27AAA1	345604	905220	211.00	5/10/2007	49.00	162.00	163.00	165.00		-1.00	-3.00	
St. Francis	04N02E29BB1	345556.38	905435.04	212.00	5/10/2007	58.00	154.00						
St. Francis	05N01E15BCB1	350302.57	905942.41	209.00	4/4/2007	66.40	142.60	141.81	147.66		0.79	-5.06	
St. Francis	05N01E21AA1	350758.91	905932.26	208.00	5/10/2007	70.00	138.00						
St. Francis	05N01E27BBA1	350135.73	905928.78	209.00	4/4/2007	68.80	140.20	142.07	145.37		-1.87	-5.17	
St. Francis	05N02E04DA1	350442.08	905314.99	219.00	5/10/2007	63.00	156.00						
St. Francis	05N02E20ADC1	350156.9	905437.16	211.00	4/4/2007	55.70	155.30	156.21	157.43		-0.91	-2.13	
St. Francis	05N02E26CC1	350034.88	905208.56	215.00	5/10/2007	51.00	164.00						
St. Francis	05N03E20AAB2	350214.31	904800.83	250.00	4/4/2007	93.87	156.13	146.13	145.45		10.00	10.68	
St. Francis	05N03E32BA1	350610.48	904828.73	300.00	5/10/2007	49.00	251.00						
St. Francis	05N05E19DCA1	350128	903629	203.00	4/4/2007	32.36	170.64	170.23	168.77		0.41	1.87	
St. Francis	05N05E33BCC1	350004	903506	196.00	5/10/2007	30.00	166.00	167.00	168.00		-1.00	-2.00	
St. Francis	05N06E34CAB1	350025.57	902656.87	200.00	4/4/2007	28.10	171.90	172.31	171.95	177.94	-0.41	-0.05	-6.04
St. Francis	05N01E06DA1	350446	910156	211.00	5/10/2007	73.00	138.00	140.00			-2.00		
St. Francis	06N01E33ACA2	350552.33	905941.6	211.00	4/4/2007	67.10	143.90	143.86	146.58	152.46	0.04	-2.68	-8.56
St. Francis	06N02E13DCA1	350812.64	905002.71	231.00	4/4/2007	81.50	149.50	157.15	157.89		-7.65	-8.39	

Alluvial Aquifer
97-02-06-07 WL Change

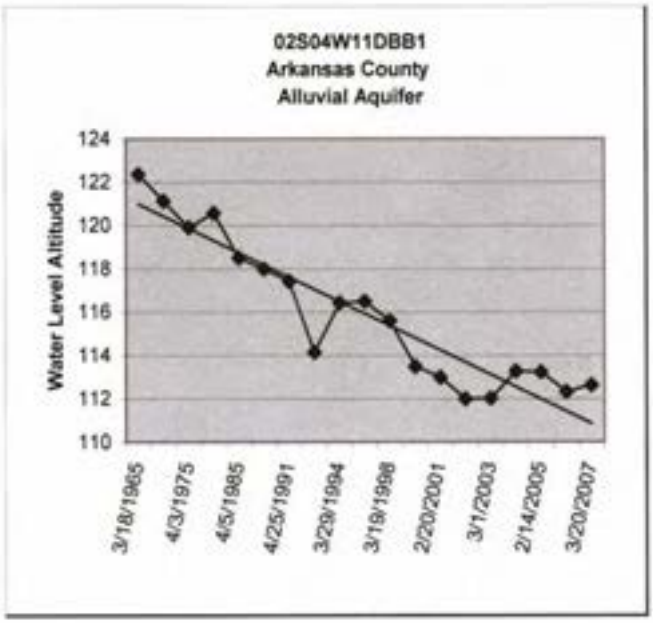
County	Station ID	Latitude	Longitude	LSA	Date Measured	07 meas	WL Alt. 07	WL Alt. 06	WL Alt. 02	WL Alt. 97	06-07 Change	02-07 Change	97-07 Change
St. Francis	06N02E15BDD1	350841.91	905247.31	214.64	4/4/2007	61.30	153.34	154.49	162.41		-1.15	-9.07	
St. Francis	06N02E16CC1	350824	905403	210.00	5/10/2007	68.00	142.00			152.90			-10.90
St. Francis	06N02E24AAA1	350755.19	905002.42	232.00	4/4/2007	74.00	158.00	160.54	161.74		-2.54	-3.74	
St. Francis	06N05E27BDD1	350654	903102	200.00	4/27/2007	39.10	160.90						
St. Francis	06N06E17DD1	350812	902853	200.00	5/10/2007	38.00	162.00	166.00			-4.00		
St. Francis	06N06E20ABB2	350747.06	902841.2	200.00	4/4/2007	36.30	163.70	163.25	166.00		0.45	-2.30	
								Declines/Wells:			**15/20**	**16/18**	**5/5**
								Average Change:			**-1.21**	**-2.64**	**-7.58**
White	05N07W09AAA1	350446.87	914441.48	205.00	2/22/2007	15.10	189.90	190.68	185.90	179.55	-0.78	4.00	10.35
White	05N07W10CCC1	350400.22	914436	203.00	2/22/2007	9.30	193.70	193.99	195.32		-0.29	-1.62	
White	05N08W16BD1	350346	915151	230.00	2/22/2007	31.80	198.20	199.50			-1.30		
White	05N08W21DB1	350301	915139	218.00	3/6/2007	22.80	195.20	197.10			-1.90		
White	06N06W04AAD1	351037	913839	217.00	2/22/2007	43.40	173.60	181.50			-7.90		
White	06N06W04BAA1	351047.21	913909.91	220.00	2/22/2007	34.75	185.25	184.53	182.03		0.72	3.22	
White	06N06W04BAD1	351037	913903	215.00	3/22/2007	37.80	177.20	174.20	174.00	171.60	3.00	3.20	5.60
White	06N06W13DBB1	350918	913552	213.00	3/22/2007	46.50	166.50	165.70	164.50	168.80	0.80	2.00	-2.30
White	06N06W18BBC1	350851.33	914151.92	210.00	2/22/2007	16.60	193.40	191.87	191.00		1.53	2.40	
White	06N06W18BCA1	350835	914150	210.00	3/22/2007	18.20	191.80	189.70	188.50	182.20	2.10	3.30	9.60
White	06N06W34AAB1	350623.57	913753.55	213.00	2/22/2007	61.25	151.75	152.37	153.14		-0.62	-1.39	
White	06N07W17DCC1	350822.47	914634.73	217.00	2/22/2007	12.70	204.30	201.30	203.06		3.00	1.24	
White	06N08W13ABA1	350907.73	914824.37	228.00	2/22/2007	10.20	217.80	214.40	219.80		3.40	-2.00	
White	06N08W26DDB1	350639	914931	230.00	3/6/2007	16.55	213.45	215.53	217.38		-2.08	-3.93	
White	07N05W01AAA1	351552	912858	205.00	2/22/2007	5.40	199.60	187.48	190.00		12.12	9.60	
White	07N05W26AAA1	351224	913003	200.00	2/22/2007	12.50	187.50	177.60	177.00		9.90	10.50	
White	07N05W32BAB1	351136.63	913406.19	213.70	2/22/2007	28.10	185.60	181.06	185.94		4.54	-0.34	
White	08N04W06CCB1	352028.21	912846.51	214.00	2/22/2007	16.10	197.90	193.50	197.98		4.40	-0.08	
White	08N05W32CBC1	351615.66	913416.96	199.00	2/22/2007	2.60	196.40	194.83	198.40		1.57	-2.00	
								Declines/Wells:			**7/19**	**7/16**	**1/4**
								Average Change:			**1.70**	**1.76**	**5.81**
Woodruff	04N03W03AB1	350020.93	911819.87	185.00	2/27/2007	13.40	171.60	170.39	172.87		1.21	-1.27	
Woodruff	05N01W13CDC1	350244	910331	210.00	3/15/2007	77.80	132.20	135.40	138.40	144.90	-3.20	-6.20	-12.70
Woodruff	05N01W31CCC1	350106	910900	210.00	4/19/2007	59.60	150.40	150.90	152.70	157.50	-0.50	-2.30	-7.10
Woodruff	05N03W25DDB1	350133	911531	190.00	4/30/2007	12.90	177.10	177.30	177.30	181.40	-0.20	-0.20	-4.30
Woodruff	05N03W35CC2	350021	911735	187.00	2/27/2007	10.25	176.75						

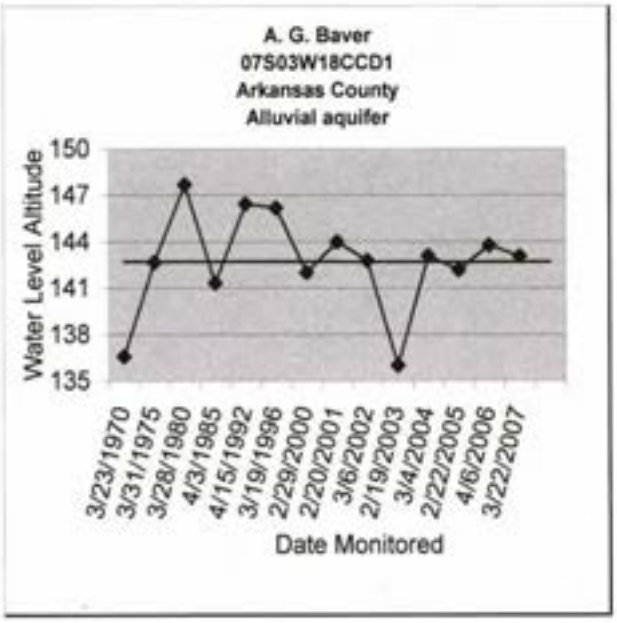
Alluvial Aquifer
97-02-06-07 WL Change

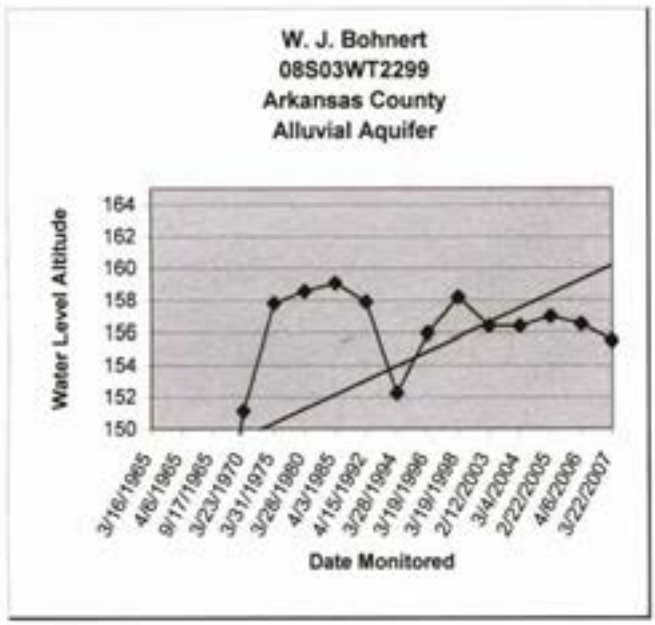
County	Station ID	Latitude	Longitude	LSA	Date	07	WL	WL	WL	WL	06-07	02-07	97-07
					Measured	meas.	Alt. 07	Alt. 06	Alt. 02	Alt. 97	Change	Change	Change
Woodruff	06N01W10BC1	350910	910542	220.00	4/30/2007	67.60	152.40	154.20			-1.80		
Woodruff	06N01W11AAB1	350944	910354	215.00	3/15/2007	63.10	151.90	153.70			-1.80		
Woodruff	06N01W33ADB2	350600	910559	216.00	3/15/2007	69.70	146.30		147.60			-1.30	
Woodruff	06N02W19AAA1	350802	911419	225.00	4/30/2007	45.40	179.60	179.50	178.50	182.50	0.10	1.10	-2.90
Woodruff	06N03W12BAA1	350955	911607	185.00	3/15/2007	6.00	179.00	178.95			0.05		
Woodruff	06N03W15BAB1	350903.06	911807.41	188.79	3/15/2007	4.60	184.19	182.16	184.41		2.03	-0.22	
Woodruff	06N03W31BCB1	350623	912144	185.00	3/15/2007	3.70	181.30	182.14	184.02		-0.84	-2.72	
Woodruff	07N01W04ACB1	351541	910626	225.00	4/30/2007	62.90	162.10	164.10	165.00	172.00	-2.00	-2.90	-9.90
Woodruff	07N03W06BAC1	351607	912109	211.00	3/21/2007	23.50	187.50	186.60	185.85	192.50	0.90	1.65	-5.00
Woodruff	07N03W19AAA1	351335	912025.42	202.59	3/15/2007	12.00	190.59	189.64	190.84		0.95	-0.25	
Woodruff	07N03W31BBA1	351152	912103	190.00	4/30/2007	5.40	184.60	178.10	180.60	184.10	6.50	4.00	0.50
Woodruff	08N01W06DDD1	352028	910747	218.00	2/23/2007	46.30	171.70	173.43	176.10		-1.73	-4.40	
Woodruff	08N02W27DDB1	351711	911107	213.00	4/30/2007	27.40	185.60	186.00	186.00	190.20	-0.40	-0.40	-4.60
Woodruff	08N02W31DDD1	351611	911411	194.55	2/23/2007	3.80	190.75	190.53	192.04	190.12	0.22	-1.29	0.63
Woodruff	08N03W04BBB1	352128	911919	221.00	2/23/2007	19.30	201.70	202.00			-0.30		
Woodruff	08N03W31AAD1	351655	912028	212.00	3/15/2007	23.00	189.00	190.05	187.71		-1.05	1.29	
Woodruff	09N03W21DBD1	352326.13	911841.57	220.00	4/30/2007	20.50	199.50						
Woodruff	09N03W29AAD1	352258	911921	220.00	2/23/2007	22.70	197.30	197.47	198.58		-0.17	-1.28	
Woodruff	09N03W32ACA1	352205	911936	217.00	4/30/2007	20.30	196.70	195.40	198.00		1.30	-1.30	
								Declines/Wells:			**12/21**	**14/18**	**7/9**
								Average Change:			**-0.03**	**-1.00**	**-5.04**
								Total Average Change:			**-0.44**	**-2.40**	**-7.46**
								Total Declines/Wells:			**407/620**	**383/516**	**224/289**
											65.6%	**74.2%**	**77.5%**

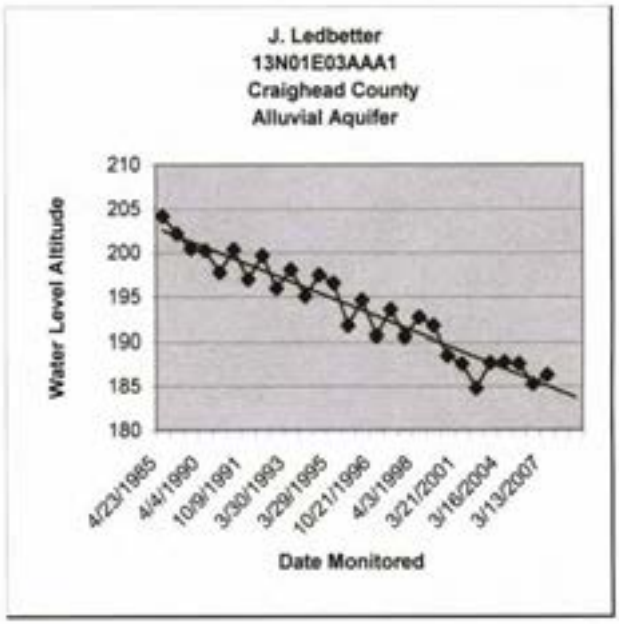
Appendix B

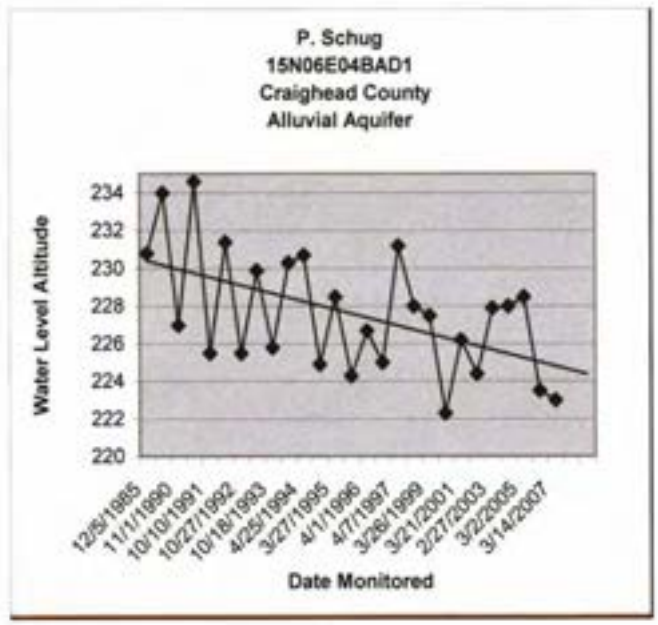
Selected Alluvial Aquifer Well Hydrographs

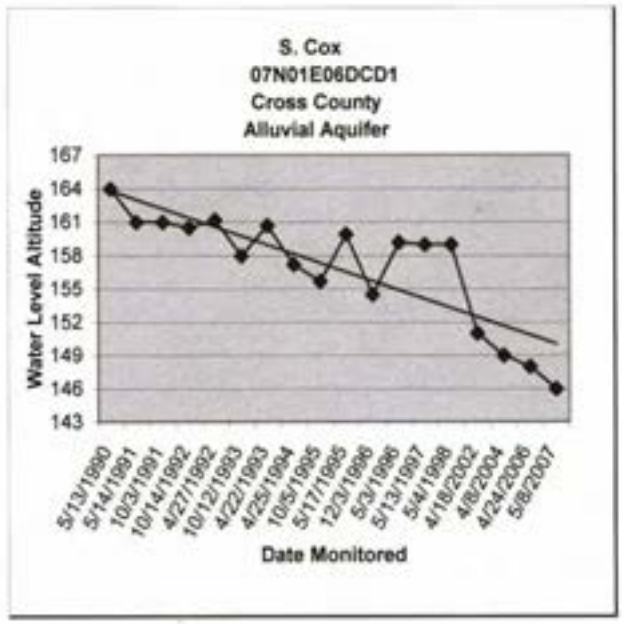

02S04W11DBB1
Arkansas County
Alluvial Aquifer
Water Level Altitude
124
122
120
118
116
114
112
110
3/18/1965
4/3/1975
4/5/1985
4/25/1991
3/29/1994
3/19/1998
2/20/2001
3/1/2003
2/14/2005
3/20/2007

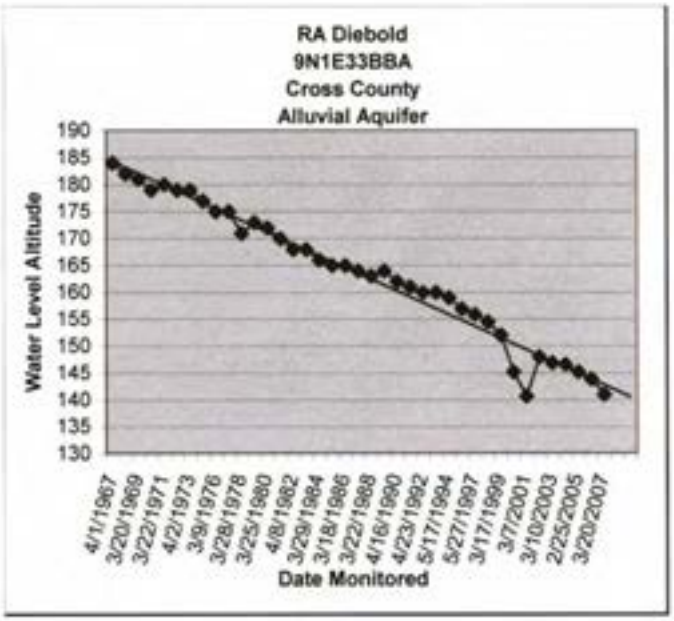

A. G. Baver
07S03W18CCD1
Arkansas County
Alluvial aquifer
Water Level Altitude
150
147
144
141
138
135
3/23/1970
3/31/1975
3/28/1980
4/3/1985
4/15/1992
3/19/1996
2/29/2000
2/20/2001
3/6/2002
2/19/2003
3/4/2004
2/22/2005
4/6/2006
3/22/2007
Date Monitored

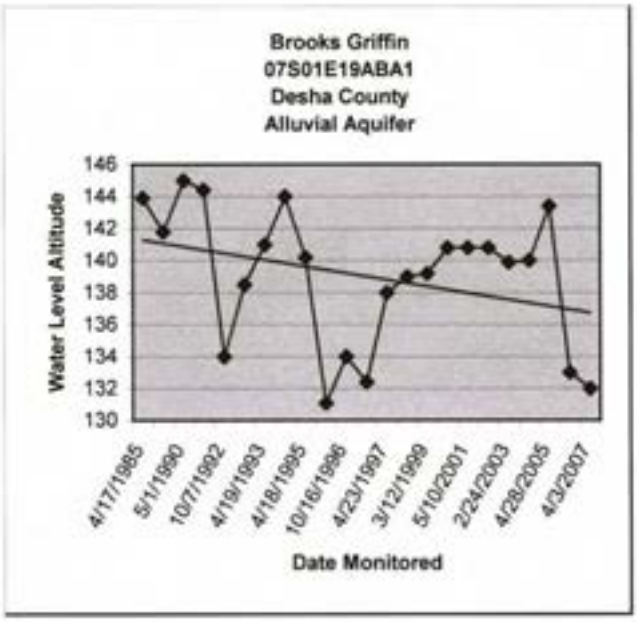

W. J. Bohnert
08S03WT2299
Arkansas County
Alluvial Aquifer
Water Level Altitude
164
162
160
158
156
154
152
150
3/16/1965
4/6/1965
9/17/1965
3/23/1970
3/31/1975
3/28/1980
4/3/1985
4/15/1992
3/28/1994
3/19/1996
3/19/1998
2/12/2003
3/4/2004
2/22/2005
4/6/2006
3/22/2007
Date Monitored

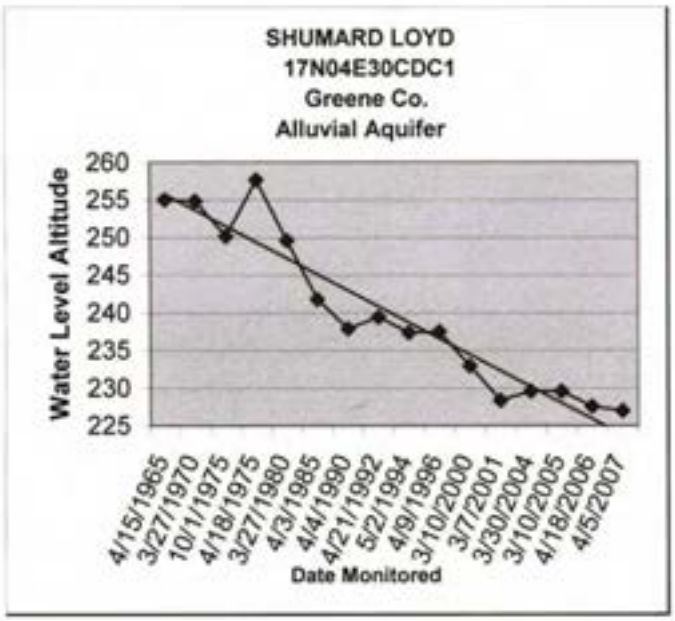

J. Ledbetter
13N01E03AAA1
Craighead County
Alluvial Aquifer
Water Level Altitude
210
205
200
195
190
185
180
4/23/1985
4/4/1990
10/9/1991
3/30/1993
3/29/1995
10/21/1996
4/3/1998
3/21/2001
3/16/2004
3/13/2007
Date Monitored

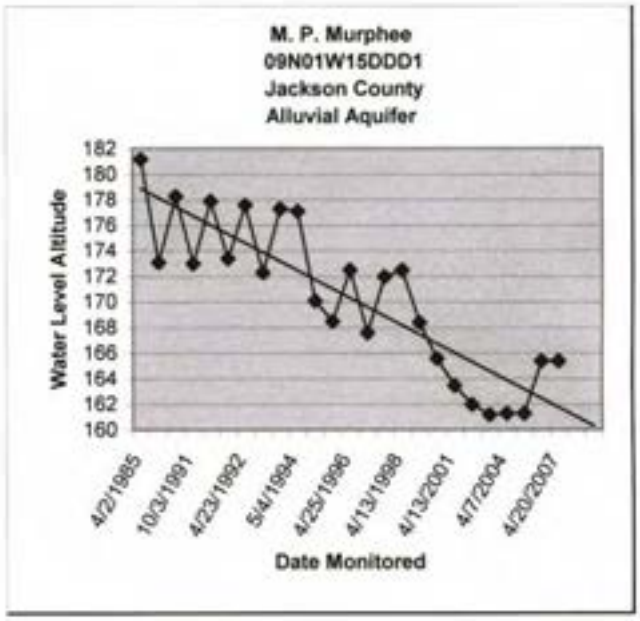

P. Schug
15N06E04BAD1
Craighead County
Alluvial Aquifer
Water Level Altitude
234
232
230
228
226
224
222
220
12/5/1985
11/1/1990
10/10/1991
10/27/1992
10/18/1993
4/25/1994
3/27/1995
4/1/1996
4/7/1997
3/26/1999
3/21/2001
2/27/2003
3/22/2005
3/14/2007
Date Monitored

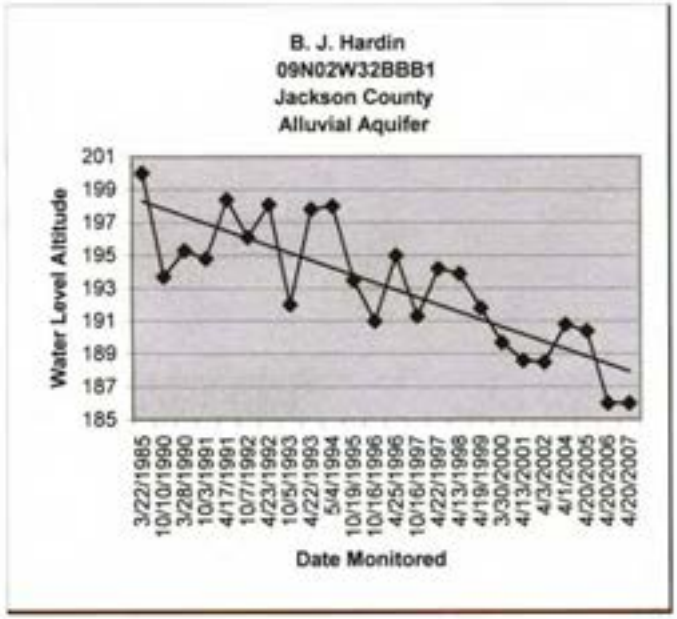

S. Cox
07N01E06DCD1
Cross County
Alluvial Aquifer
Water Level Altitude
167
164
161
158
155
152
149
146
143
5/13/1990
5/14/1991
10/3/1991
10/14/1992
4/27/1992
10/12/1993
4/22/1993
4/25/1994
10/5/1995
5/17/1995
12/3/1996
5/3/1996
5/13/1997
5/4/1998
4/18/2002
4/8/2004
4/24/2006
5/8/2007
Date Monitored

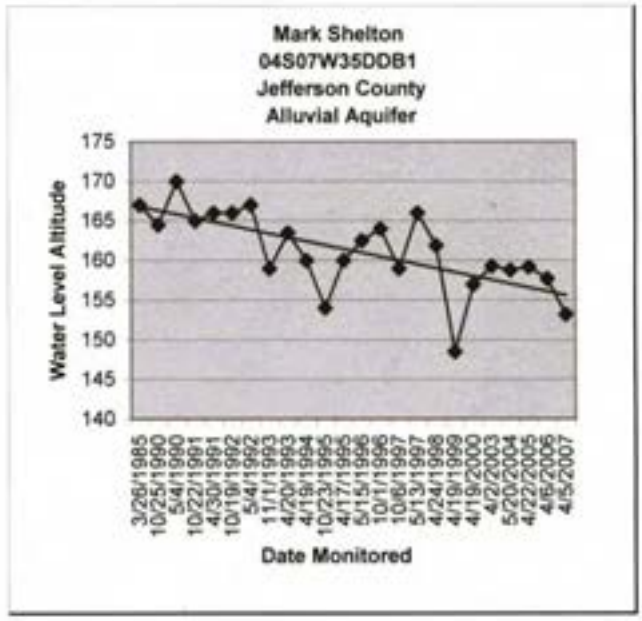

RA Diebold
9N1E33BBA
Cross County
Alluvial Aquifer
Water Level Altitude
190
185
180
175
170
165
160
155
150
145
140
135
130
4/1/1967
3/20/1969
3/22/1971
4/2/1973
3/9/1976
3/28/1978
3/25/1980
4/8/1982
3/29/1984
3/18/1986
3/22/1988
4/16/1990
4/23/1992
5/17/1994
5/27/1997
3/17/1999
3/7/2001
3/10/2003
2/25/2005
3/20/2007
Date Monitored

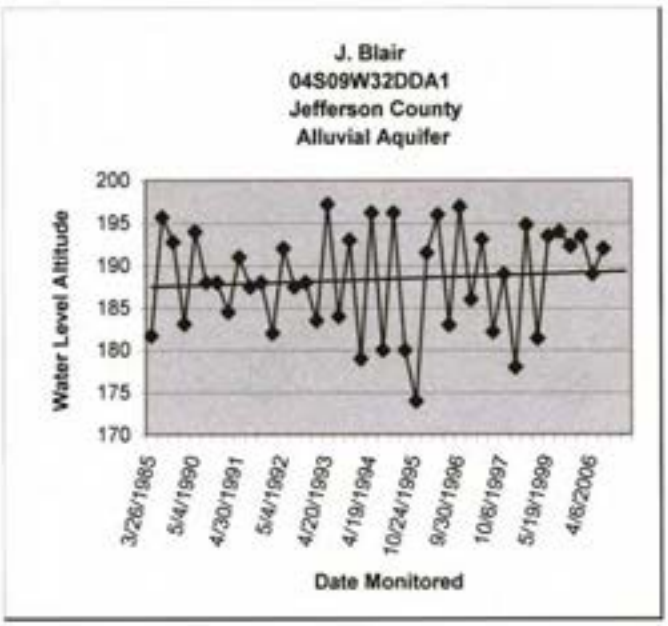

Brooks Griffin
07S01E19ABA1
Desha County
Alluvial Aquifer
Water Level Altitude
146
144
142
140
138
136
134
132
130
4/17/1985
5/1/1990
10/7/1992
4/19/1993
4/18/1995
10/16/1996
4/23/1997
3/12/1999
5/10/2001
2/24/2003
4/28/2005
4/3/2007
Date Monitored

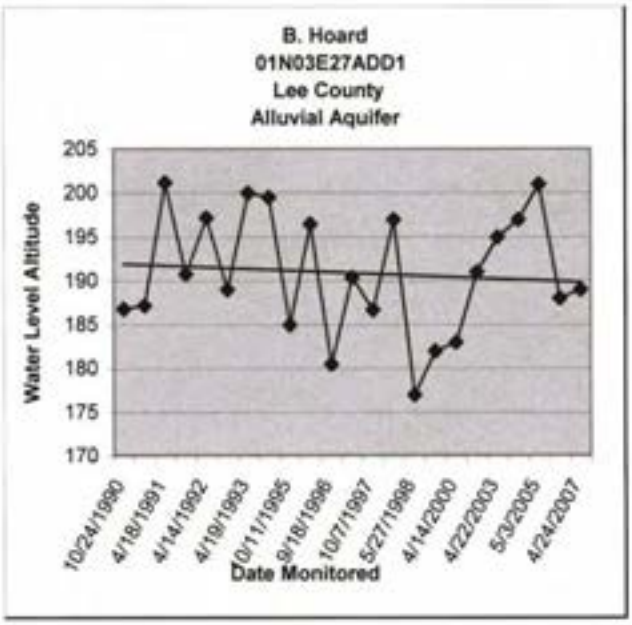

SHUMARD LOYD
17N04E30CDC1
Greene Co.
Alluvial Aquifer
Water Level Altitude
260
255
250
245
240
235
230
225
4/15/1965
3/27/1970
10/1/1975
4/18/1975
3/27/1980
4/3/1985
4/4/1990
4/21/1992
5/2/1994
4/9/1996
3/10/2000
3/7/2001
3/30/2004
3/10/2005
4/18/2006
4/5/2007
Date Monitored

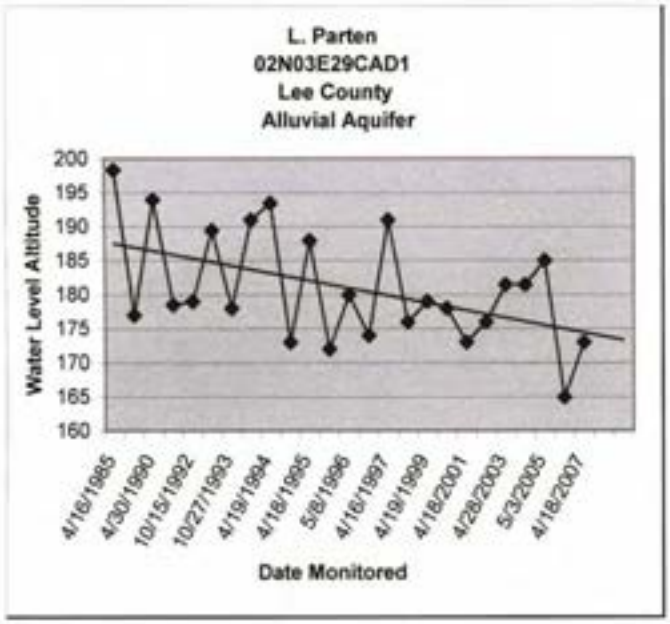

M. P. Murphee
09N01W15DDD1
Jackson County
Alluvial Aquifer
Water Level Altitude
182
180
178
176
174
172
170
168
166
164
162
160
4/2/1985
10/3/1991
4/23/1992
5/4/1994
4/25/1996
4/13/1998
4/13/2001
4/7/2004
4/20/2007
Date Monitored

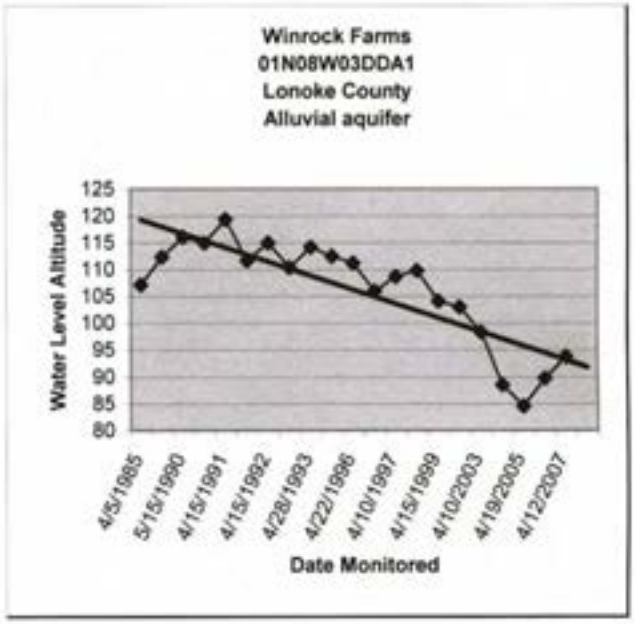

B. J. Hardin
09N02W32BBB1
Jackson County
Alluvial Aquifer
Water Level Altitude
201
199
197
195
193
191
189
187
185
3/22/1985
10/10/1990
3/28/1990
10/3/1991
4/17/1991
10/7/1992
4/23/1992
10/5/1993
4/22/1993
5/4/1994
10/19/1995
10/16/1996
4/25/1996
10/16/1997
4/22/1997
4/13/1998
4/19/1999
3/30/2000
4/13/2001
4/3/2002
4/1/2004
4/20/2005
4/20/2006
4/20/2007
Date Monitored

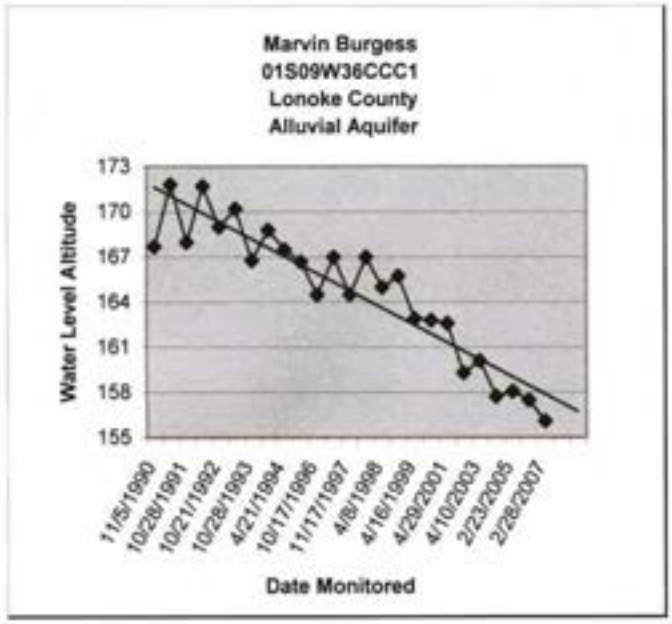

Mark Shelton
04S07W35DDB1
Jefferson County
Alluvial Aquifer
Water Level Altitude
175
170
165
160
155
150
145
140
3/26/1985
10/25/1990
5/4/1990
10/22/1991
4/30/1991
10/19/1992
5/4/1992
11/1/1993
4/20/1993
4/19/1994
10/23/1995
4/17/1995
5/15/1996
10/1/1996
10/6/1997
5/13/1997
4/24/1998
4/19/1999
4/19/2000
4/2/2003
5/20/2004
4/22/2005
4/6/2006
4/5/2007
Date Monitored

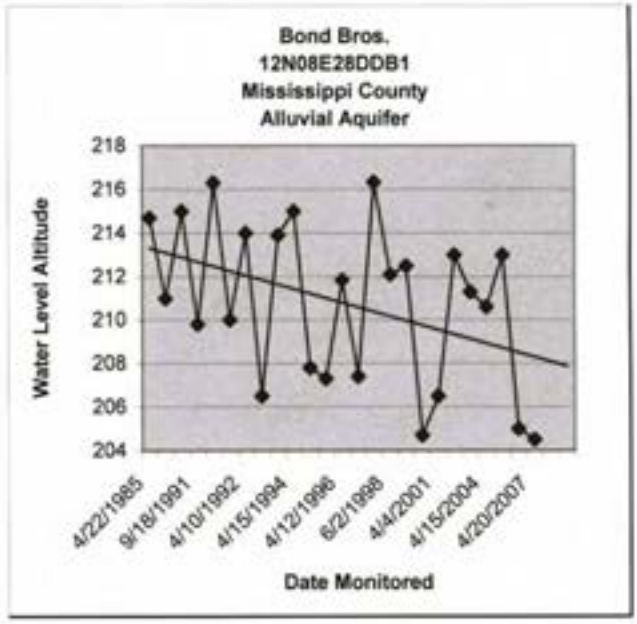

J. Blair
04S09W32DDA1
Jefferson County
Alluvial Aquifer
Water Level Altitude
200
195
190
185
180
175
170
3/26/1985
5/4/1990
4/30/1991
5/4/1992
4/20/1993
4/19/1994
10/24/1995
9/30/1996
10/6/1997
5/19/1999
4/6/2006
Date Monitored

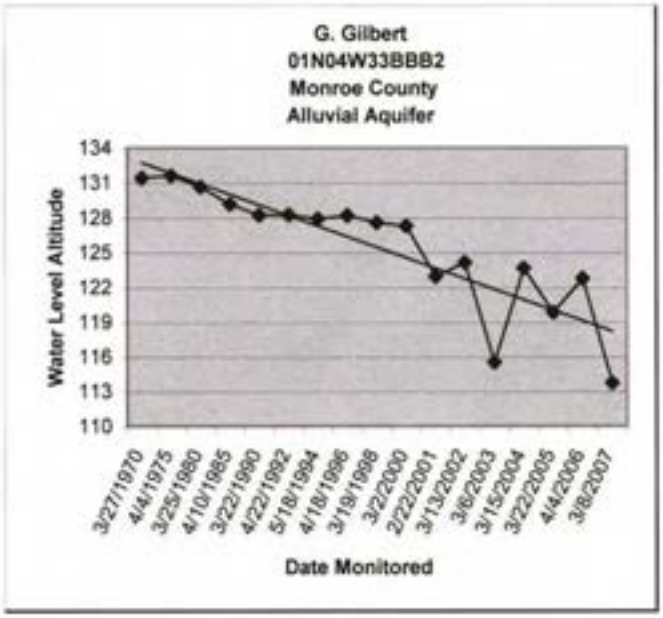

B. Hoard
01N03E27ADD1
Lee County
Alluvial Aquifer
Water Level Altitude
205
200
195
190
185
180
175
170
10/24/1990
4/18/1991
4/14/1992
4/19/1993
10/11/1995
9/18/1996
10/7/1997
5/27/1998
4/14/2000
4/22/2003
5/3/2005
4/24/2007
Date Monitored

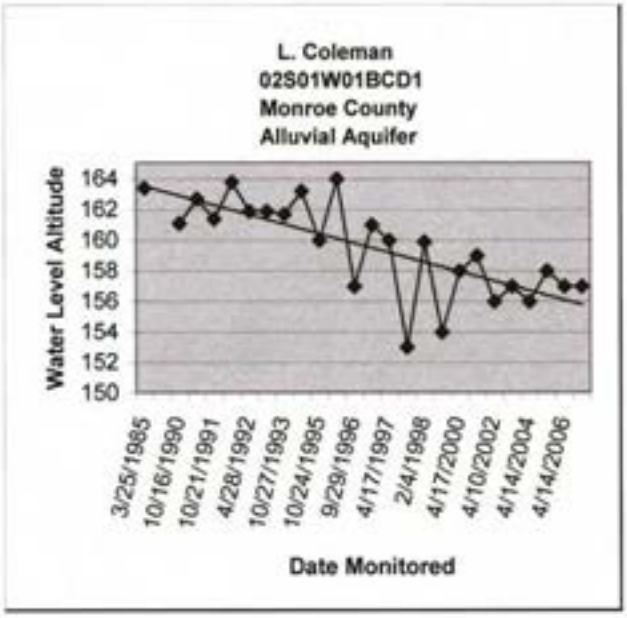

L. Parten
02N03E29CAD1
Lee County
Alluvial Aquifer
Water Level Altitude
200
195
190
185
180
175
170
165
160
4/16/1985
4/30/1990
10/15/1992
10/27/1993
4/19/1994
4/18/1995
5/8/1996
4/16/1997
4/19/1999
4/18/2001
4/28/2003
5/3/2005
4/18/2007
Date Monitored

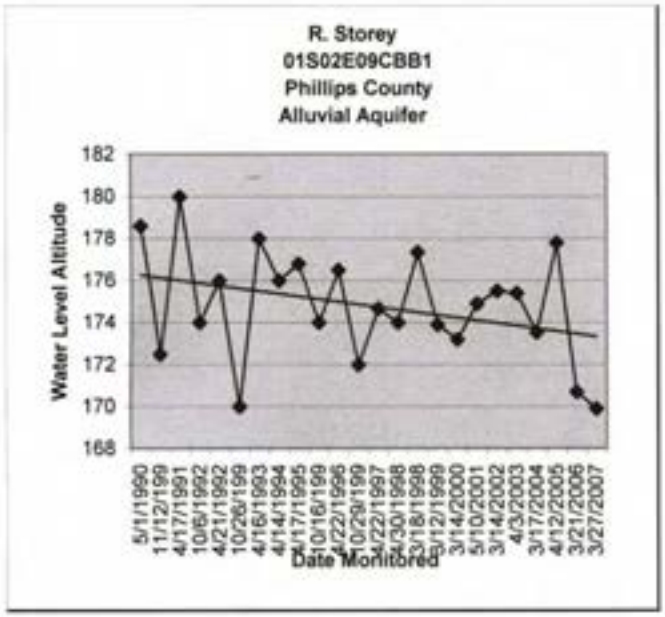

Winrock Farms
01N08W03DDA1
Lonoke County
Alluvial aquifer
Water Level Altitude
125
120
115
110
105
100
95
90
85
80
4/5/1985
5/15/1990
4/15/1991
4/15/1992
4/28/1993
4/22/1996
4/10/1997
4/15/1999
4/10/2003
4/19/2005
4/12/2007
Date Monitored

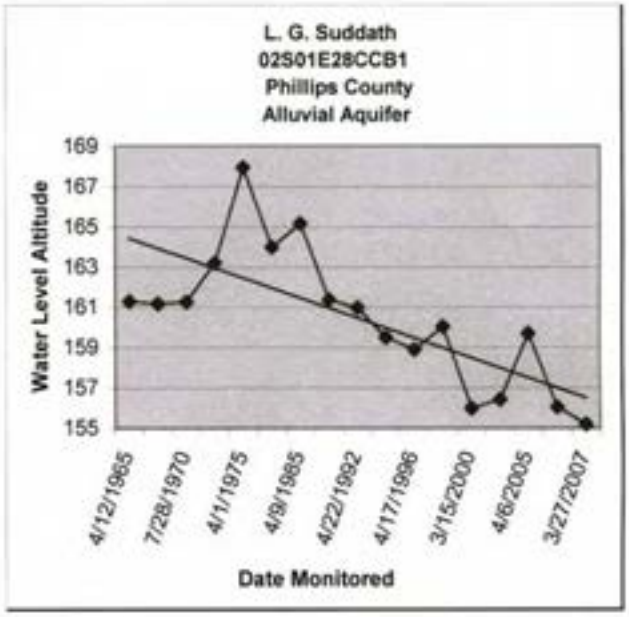

Marvin Burgess
01S09W36CCC1
Lonoke County
Alluvial Aquifer
Water Level Altitude
173
170
167
164
161
158
155
11/5/1990
10/28/1991
10/21/1992
10/28/1993
4/21/1994
10/17/1996
11/17/1997
4/8/1998
4/16/1999
4/29/2001
4/10/2003
2/23/2005
2/28/2007
Date Monitored

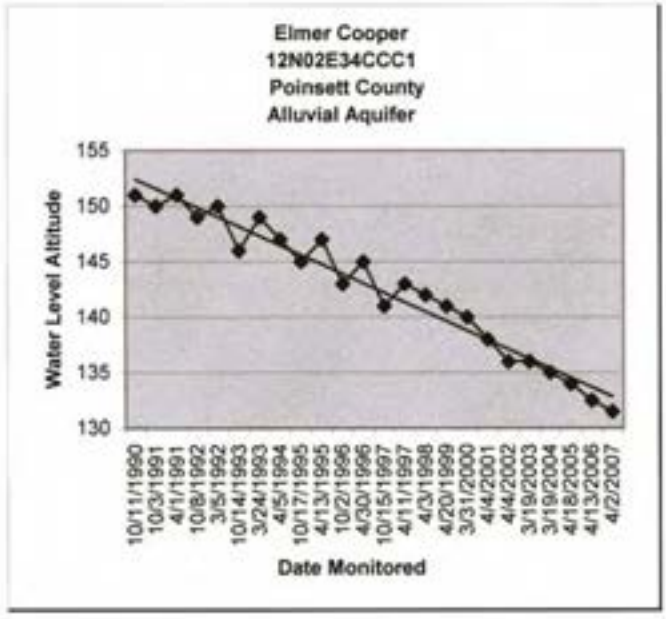

Bond Bros.
12N08E28DDB1
Mississippi County
Alluvial Aquifer
Water Level Altitude
218
216
214
212
210
208
206
204
4/22/1985
9/18/1991
4/10/1992
4/15/1994
4/12/1996
6/2/1998
4/4/2001
4/15/2004
4/20/2007
Date Monitored

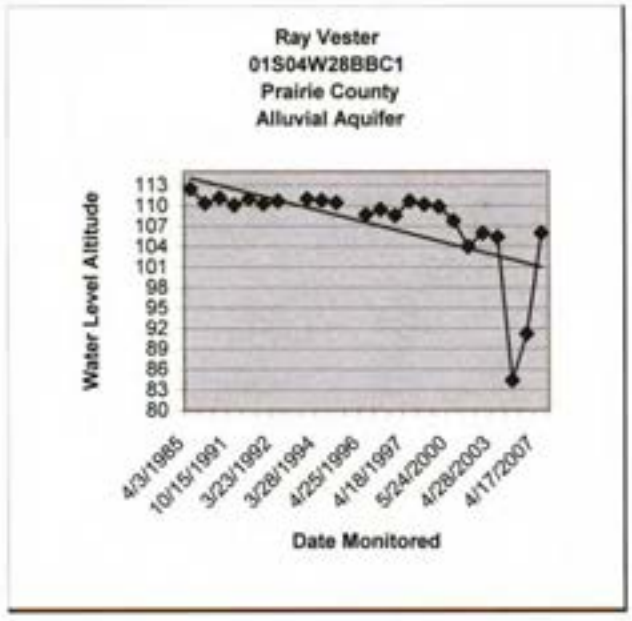

G. Gilbert
01N04W33BBB2
Monroe County
Alluvial Aquifer
Water Level Altitude
134
131
128
125
122
119
116
113
110
3/27/1970
4/4/1975
3/25/1980
4/10/1985
3/22/1990
4/22/1992
5/18/1994
4/18/1996
3/19/1998
3/2/2000
2/22/2001
3/13/2002
3/6/2003
3/15/2004
3/22/2005
4/4/2006
3/8/2007
Date Monitored

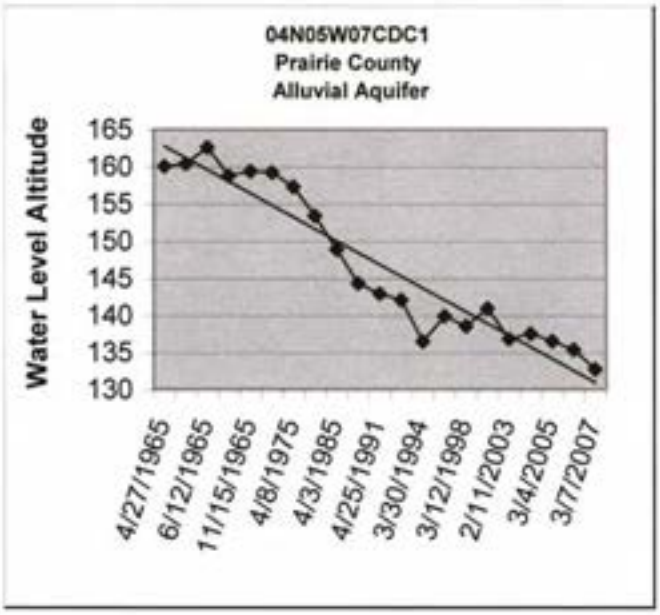

L. Coleman
02S01W01BCD1
Monroe County
Alluvial Aquifer
Water Level Altitude
164
162
160
158
156
154
152
150
3/25/1985
10/16/1990
10/21/1991
4/28/1992
10/27/1993
10/24/1995
9/29/1996
4/17/1997
2/4/1998
4/17/2000
4/10/2002
4/14/2004
4/14/2006
Date Monitored

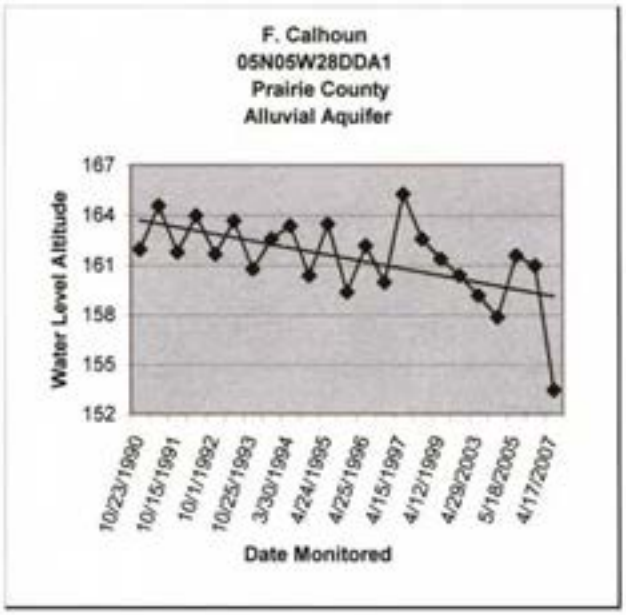

R. Storey
01S02E09CBB1
Phillips County
Alluvial Aquifer
Water Level Altitude
182
180
178
176
174
172
170
168
5/1/1990
11/12/199
4/17/1991
10/6/1992
4/21/1992
10/26/199
4/16/1993
4/14/1994
4/17/1995
10/16/199
4/22/1996
10/29/199
4/22/1997
4/30/1998
3/18/1998
10/12/1999
3/14/2000
5/10/2001
3/14/2002
4/3/2003
3/17/2004
4/12/2005
3/21/2006
3/27/2007
Date Monitored

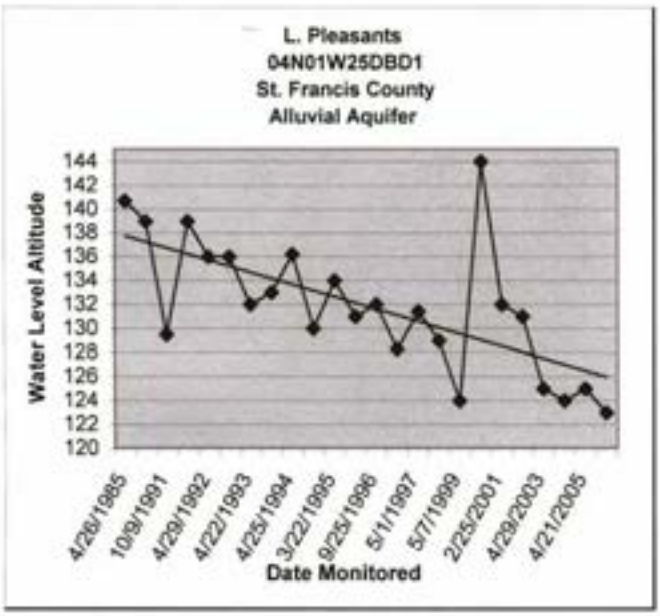

L. G. Suddath
02S01E28CCB1
Phillips County
Alluvial Aquifer
Water Level Altitude
169
167
165
163
161
159
157
155
4/12/1965
7/28/1970
4/1/1975
4/9/1985
4/22/1992
4/17/1996
3/15/2000
4/6/2005
3/27/2007
Date Monitored

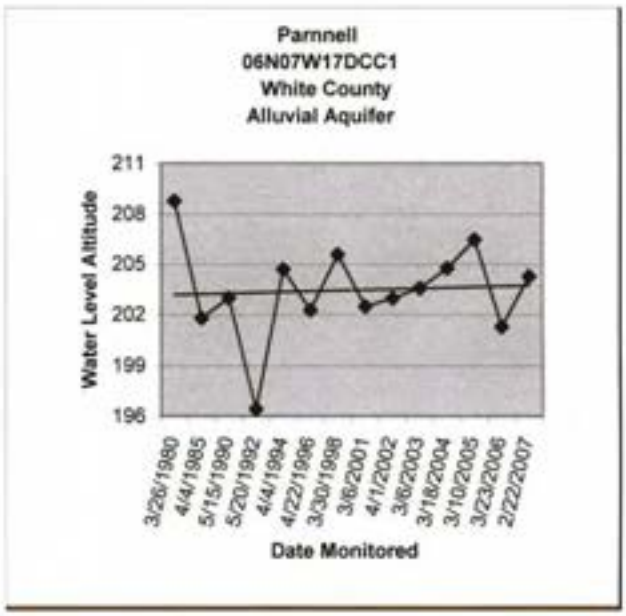

Elmer Cooper
12N02E34CCC1
Poinsett County
Alluvial Aquifer
Water Level Altitude
155
150
145
140
135
130
10/11/1990
10/3/1991
4/1/1991
10/8/1992
3/5/1992
10/14/1993
3/24/1993
4/5/1994
10/17/1995
4/13/1995
10/2/1996
4/30/1996
10/15/1997
4/11/1997
4/3/1998
4/20/1999
3/31/2000
4/4/2001
4/4/2002
3/19/2003
3/19/2004
4/18/2005
4/13/2006
4/2/2007
Date Monitored

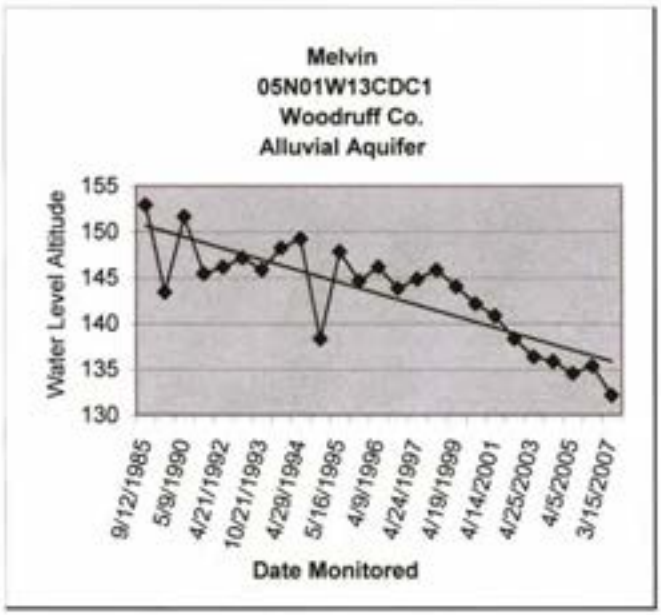

Ray Vester
01S04W28BBC1
Prairie County
Alluvial Aquifer
Water Level Altitude
113
110
107
104
101
98
95
92
89
86
83
80
4/3/1985
10/15/1991
3/23/1992
3/28/1994
4/25/1996
4/18/1997
5/24/2000
4/28/2003
4/17/2007
Date Monitored

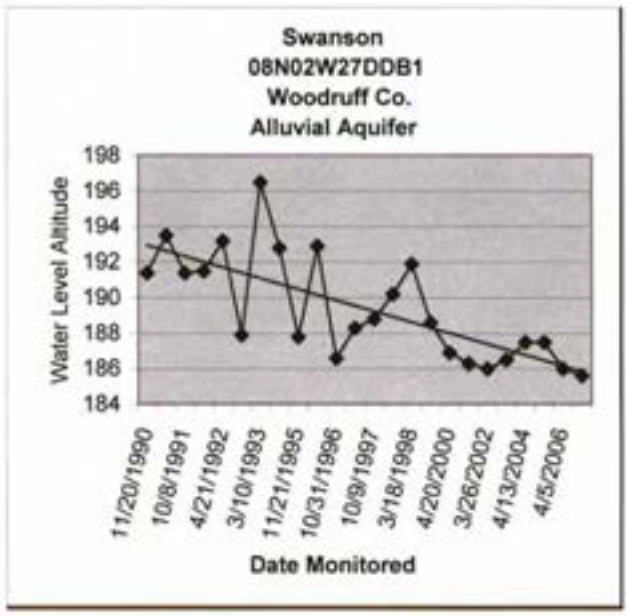

04N05W07CDC1
Prairie County
Alluvial Aquifer
Water Level Altitude
165
160
155
150
145
140
135
130
4/27/1965
6/12/1965
11/15/1965
4/8/1975
4/3/1985
4/25/1991
3/30/1994
3/12/1998
2/11/2003
3/4/2005
3/7/2007


F. Calhoun
05N05W28DDA1
Prairie County
Alluvial Aquifer
Water Level Altitude
167
164
161
158
155
152
10/23/1990
10/15/1991
10/1/1992
10/25/1993
3/30/1994
4/24/1995
4/25/1996
4/15/1997
4/12/1999
4/29/2003
5/18/2005
4/17/2007
Date Monitored


L. Pleasants
04N01W25DBD1
St. Francis County
Alluvial Aquifer
Water Level Altitude
144
142
140
138
136
134
132
130
128
126
124
122
120
4/26/1985
10/9/1991
4/29/1992
4/22/1993
4/25/1994
3/22/1995
9/25/1996
5/1/1997
5/7/1999
2/25/2001
4/29/2003
4/21/2005
Date Monitored


Parnnell
06N07W17DCC1
White County
Alluvial Aquifer
Water Level Altitude
211
208
205
202
199
196
3/26/1980
4/4/1985
5/15/1990
5/20/1992
4/4/1994
4/22/1996
3/30/1998
3/6/2001
4/1/2002
3/6/2003
3/18/2004
3/10/2005
3/23/2006
2/22/2007
Date Monitored


Melvin
05N01W13CDC1
Woodruff Co.
Alluvial Aquifer
Water Level Altitude
155
150
145
140
135
130
9/12/1985
5/9/1990
4/21/1992
10/21/1993
4/29/1994
5/16/1995
4/9/1996
4/24/1997
4/19/1999
4/14/2001
4/25/2003
4/5/2005
3/15/2007
Date Monitored


Swanson
08N02W27DDB1
Woodruff Co.
Alluvial Aquifer
Water Level Altitude
198
196
194
192
190
188
186
184
11/20/1990
10/8/1991
4/21/1992
3/10/1993
11/21/1995
10/31/1996
10/9/1997
3/18/1998
4/20/2000
3/26/2002
4/13/2004
4/5/2006
Date Monitored

Appendix C

Sparta / Memphis Aquifer Water Level Monitoring Data

Sparta Aquifer
97-02-06-07 WL Change

County	Station	Latitude	Longitude	LSD Alt	WL Date	07 WL Meas	WL ALT 2007	WL ALT 2006	WL ALT 2002	WL ALT 1997	06-07 Change	02-07 Change	97-07 Change
Arkansas	02S04W06CDB1	343311.54	912849.29	212.00	3/29/2007	159.24	52.76	51.80	44.80	63.66	0.96	7.96	-10.90
Arkansas	02S04W23DAA1	343044.22	912354.53	208.00	3/29/2007	144.91	63.09	59.50	53.00	83.91	3.59	10.09	-20.82
Arkansas	02S04W33BBB1	342922.14	912702.68	205.00	3/29/2007	168.78	36.22	47.30	36.50	57.72	-11.08	-0.28	-21.50
Arkansas	02S05W16CBB1	343143	913318	213.00	3/29/2007	172.95	40.05	39.20	34.10		0.85	5.95	
Arkansas	02S05W27BBB1	343028.45	913230.47	216.00	3/29/2007	178.79	37.21	37.95	36.50	49.46	-0.74	0.71	-12.25
Arkansas	02S05W34BDA1	342924.58	913148.02	216.00	3/29/2007	180.13	35.87	37.80	29.10		-1.93	6.77	
Arkansas	02S05W35AAB1	342929.98	913035.31	216.00	3/29/2007	174.89	41.11	42.60	34.10		-1.49	7.01	
Arkansas	03S03W18CCC1	342553	912251	196.00	3/20/2007	144.30	51.70	51.80			-0.10		
Arkansas	03S04W02CCB1	342747.58	912458.04	202.00	3/29/2007	153.40	48.60	50.50	42.50	61.03	-1.90	6.10	-12.43
Arkansas	03S04W26CDA1	342421.03	912438.3	203.00	3/27/2007	147.52	55.48		33.80	57.48		21.68	-2.00
Arkansas	03S05W02AAB1	342842.19	913033.71	210.00	3/29/2007	173.32	36.68	36.20		65.42	0.48		-28.74
Arkansas	03S05W13BDC1	342631.15	913004.57	210.00	3/28/2007	183.01	26.99	32.85	22.00	39.41	-5.86	4.99	-12.42
Arkansas	03S05W15CBB1	342633.21	913229.33	206.00	3/28/2007	179.22	26.78	34.40	25.90	43.67	-7.62	0.88	-16.89
Arkansas	03S05W28DAB1	342447.16	913240.25	204.00	3/28/2007	172.86	31.14						
Arkansas	03S06W30BBD1	342515.54	914216.15	191.00	3/28/2007	157.40	33.60	29.00	14.00	47.23	4.60	19.60	-13.63
Arkansas	04S01W04CBD1	342225.42	910808.42	196.00	3/27/2007	113.42	82.58	85.19	79.20		-2.61	3.38	
Arkansas	04S01W28BAA1	341929	910739	190.00	3/27/2007	106.52	83.48	85.70	83.30	94.34	-2.22	0.18	-10.86
Arkansas	04S02W09DDC	342123	911331	175.00	3/27/2007	66.48	108.52	109.30	110.60		-0.78	-2.08	
Arkansas	04S04W11BCC1	342156.96	912501.52	198.00	3/27/2007	155.10	42.90	45.60	38.00	54.42	-2.70	4.90	-11.52
Arkansas	04S04W19CBB1	342003.73	912928.89	195.00	3/28/2007	163.58	31.42			47.52			-16.10
Arkansas	04S04W22DAA1	342006.89	912515.15	195.00	3/27/2007	159.48	35.52	40.50	34.50	56.92	-4.98	1.02	-21.40
Arkansas	04S05W01BAA1	342322.23	912956.46	196.00	3/28/2007	156.85	39.15	22.50	26.80		16.65	12.35	
Arkansas	04S05W05ACC1	342302.67	913412.84	186.00	3/26/2007	159.40	26.60	28.30	22.10		-1.70	4.50	
Arkansas	04S05W15AAA1	342132.16	913133.29	201.00	3/28/2007	167.55	33.45	35.15	28.80		-1.70	4.65	
Arkansas	04S05W31DDA1	341819.25	913448.06	184.00	3/26/2007	33.80	150.20						
Arkansas	04S05W36DCC1	341752.00	913003.63	196.00	3/26/2007	166.15	29.85	36.05	18.40	47.91	-6.20	11.45	-18.06
Arkansas	05S01W17BAA1	341550.68	910745.34	176.00	3/27/2007	93.46	82.54	84.20			-1.66		
Arkansas	05S03W04ADB1	341734.14	912007.11	188.00	3/27/2007	140.31	47.69	52.10	39.90	64.02	-4.41	7.79	-16.33
Arkansas	05S04W26ACA1	341358	912435	188.00	3/26/2007	140.06	47.94	49.00	42.00	65.03	-1.06	5.94	-17.09
Arkansas	05S05W26CDD1	341324	913119	188.00	3/26/2007	38.04	149.96	150.55	149.20		-0.59	0.76	
Arkansas	05S05W36DAA	341247	912946	180.00	3/26/2007	145.24	34.76	38.00	34.00	53.01	-3.24	0.76	-18.25
Arkansas	06S02W06ABB1	341227.90	911620.01	181.00	3/27/2007	115.17	65.83	63.50	60.80	74.24	2.33	5.03	-8.41
Arkansas	06S02W17ADA1	341022.67	911453.14	188.00	3/27/2007	115.11	72.89	75.30	73.30		-2.41	-0.41	
Arkansas	06S02W22CDB1	340904	911331.06	186.00	3/27/2007	112.18	73.82	76.00	73.90		-2.18	-0.08	
Arkansas	06S03W27BAA1	340859.22	912008.98	181.00	3/27/2007	119.92	61.08	62.30	60.30	74.02	-1.22	0.78	-12.94
Arkansas	07S02W28ABA1	340339.67	911411.01	181.00	3/27/2007	106.08	74.92	76.10	75.90	94.22	-1.18	-0.98	-19.30

Sparta Aquifer
97-02-06-07 WL Change

County	Station	Latitude	Longitude	LSD Alt	WL Date	07 WL Meas	WL ALT 2007	WL ALT 2006	WL ALT 2002	WL ALT 1997	06-07 Change	02-07 Change	97-07 Change
Arkansas	07S03W06ABC1	340701.89	912247.68	185.00	3/26/2007	130.28	54.72	58.70	53.60	70.86	-3.98	1.12	-16.14
Arkansas	08S02W09BCC1	340031.06	911447.66	174.00	3/27/2007	100.92	73.08	73.80	74.00		-0.72	-0.92	
									Declines/Wells:		27/34	6/32	22/22
									Average Change:		-1.38	4.74	-15.36
Ashley	15S07W32CDD1	332117.77	915101.06	190.00	3/20/2007	148.25	41.75	51.30	55.80	36.72	-9.55	-14.05	5.03
Ashley	17S09W15ACC1	331333.66	920116.44	100.00	3/20/2007	17.59	82.41	79.70			2.71		
Bradley	12S09W31CCB1	333711.24	920444.21	231.00	3/19/2007	194.72	36.28	56.15	37.50		-19.87	-1.22	
Bradley	13S09W06ACA1	333647.9	920437.48	212.00	4/25/2007	220.18	-8.18						
Bradley	13S11W17BCD1	333453.65	921607.25	250.00	3/19/2007	202.22	47.78	58.80		54.31	-11.02		-6.53
Bradley	16S12W21CAA1	331839	922052	100.00	3/19/2007	79.02	20.98	21.80		28.44	-0.82		-7.46
									Declines/Wells:		3/3	1/1	2/2
									Average Change:		-10.57		
Calhoun	11S14W12CAC3	334630.25	922928.17	313.00	3/29/2007	138.00	175.00	182.78	167.00	171.57	-7.78	8.00	3.43
Calhoun	13S13W32CDA1	333226.81	922741.66	208.00	3/16/2007	194.83	13.17	22.25	33.70	35.19	-9.08	-20.53	-22.02
Calhoun	14S13W03CAB1	333145.32	922551.43	202.00	3/20/2007	167.59	34.41						
Calhoun	14S13W05BBD1	333206.66	922801.55	189.00	3/20/2007	156.80	32.20	29.80			2.40		
Calhoun	14S13W12CCB1	333040.05	922403.54	205.00	3/20/2007	171.60	33.40	27.96	32.80	34.78	5.44	0.60	-1.38
Calhoun	15S13W20BDC1	332410.97	922806.59	115.00	3/20/2007	24.42	90.58	90.80	71.40		-0.22	19.18	
Calhoun	15S13W32BBD1	332230	922821	102.00	1/29/2007	127.47	-25.47	-26.00	-16.00		0.53	-9.47	
									Declines/Wells:		3/6	2/5	2/3
									Average Change:		-1.45	-0.44	-6.66
Chicot	13S03W22DAD1	333312.37	912307.62	135.00	3/19/2007	70.10	64.90	63.50			1.40		
Chicot	15S03W07BCC1	332444.7	912723.3	129.00	3/20/2007	65.11	63.89						
Cleveland	09S09W04BBD1	335820.09	920236.95	281.00	3/21/2007	223.20	57.80						
Cleveland	09S11W01DCA1	335729.02	921133.93	230.00	3/21/2007	206.97	23.03	31.10	37.60	38.50	-8.07	-14.57	-15.47
Cleveland	09S11W11CDB1	335622.66	921250.52	233.00	3/21/2007	162.62	70.38	70.53	70.80	77.30	-0.15	-0.42	-6.92
Cleveland	10S09W23CDC1	334917.94	920020.5	220.00	3/21/2007	164.12	55.88	56.30		62.92	-0.42		-7.04
Cleveland	10S09W35ACD1	334758	915956	232.00	3/21/2007	156.42	75.58	54.10			21.48		

Sparta Aquifer
97-02-06-07 WL Change

County	Station	Latitude	Longitude	LSD Alt	WL Date	07 WL Meas	WL ALT 2007	WL ALT 2006	WL ALT 2002	WL ALT 1997	06-07 Change	02-07 Change	97-07 Change
Cleveland	10S12W12BDD1	335132.99	921743.38	220.00	3/21/2007	120.26	99.74			103.98			-4.24
Cleveland	11S11W16AAB1	334543.01	921423.47	303.00	3/21/2007	204.31	98.69	98.80		90.91	-0.11		7.78
								Declines/Wells:			4/5	2/2	4/5
								Average Change:			2.55		-5.18
Columbia	15S20W20CCB1	332453.37	931215.01	372.00	2/13/2007	216.34	155.66	155.25	151.50	158.08	0.41	4.16	-2.42
Columbia	16S20W08DCC1	332114.08	931141.34	402.00	3/16/2007	319.33	82.67	74.40		128.78	8.27		-46.11
Columbia	16S20W18ACD1	332052.93	931237.40	337.00	3/16/2007	263.82	73.18	66.80			6.38		
Columbia	16S21W20DAD1	331955.06	931736.47	350.00	2/13/2007	251.80	98.20						
Columbia	16S22W22CCD1	331947.61	932224.89	340.00	2/13/2007	142.79	197.21	205.80	200.80	209.22	-8.59	-3.59	-12.01
Columbia	17S19W15ABD1	331537	930328	325.00	3/16/2007	275.73	49.27	77.40	67.20	39.14	-28.13	-17.93	10.13
Columbia	17S19W17ACA1	331538.06	930536.26	275.00	2/8/2007	263.90	11.10	-0.65			11.75		
Columbia	17S19W18CBD1	331516.81	930655.59	305.00	2/8/2007	262.90	42.10	15.46	28.80	11.12	26.64	13.30	30.98
Columbia	17S19W19BCA1	331432.77	930704.56	301.00	3/21/2007	268.97	32.03						
Columbia	17S19W30ABB1	331406.12	930650.14	248.00	2/7/2007	216.07	31.93	32.10	28.50	30.03	-0.17	3.43	1.90
Columbia	17S20W13BCD1	331533	930807	312.00	2/8/2007	310.80	1.20	-11.40	-3.80	-0.76	12.60	5.00	1.96
Columbia	17S20W17CDA1	331519.76	931200.69	325.10	3/21/2007	313.96	11.14	25.52	21.70	16.41	-14.38	-10.56	-5.27
Columbia	17S20W36ABC1	331307.06	930754.88	335.00	3/21/2007	292.66	42.34		37.50	34.92		4.84	7.42
Columbia	17S21W01BBC1	331743.07	931423.65	305.00	2/7/2007	284.15	20.85	40.03	46.00	-21.37	-19.18	-25.15	42.22
Columbia	17S21W08DCA1	331613.42	931758.30	298.00	2/7/2007	116.60	181.40	179.00	170.60	149.90	2.40	10.80	31.50
Columbia	17S21W11DCC2	331608.55	931448.61	303.00	3/14/2007	276.11	26.89	13.17	18.20	2.48	13.72	8.69	24.41
Columbia	17S21W11DCC3	331609.3	931449.35	303.00	3/21/2007	277.89	25.11						
Columbia	17S21W17BAB1	331607	931818	311.00	2/7/2007	201.01	109.99	96.32	105.60	197.12	13.67	4.39	-87.13
Columbia	17S22W21ABD1	331516	932303	242.00	2/7/2007	83.44	158.56	158.90	161.60	157.45	-0.34	-3.04	1.11
Columbia	17S22W22ABC1	331521	932209	318.00	2/7/2007	135.37	182.63	180.87	182.60	179.90	1.76	0.03	2.73
Columbia	17S22W23BBB1	331519	932136	318.00	2/7/2007	128.10	189.90	176.50	174.10	180.32	13.40	15.80	9.58
Columbia	18S20W08CBC1	331114.79	931227.04	263.00	2/7/2007	281.84	-18.84	-19.46	25.50	104.71	0.62	-44.34	-123.55
Columbia	18S20W10CAA1	331054.37	931015.76	290.00	2/7/2007	271.20	18.80	14.29	14.50		4.51	4.30	
Columbia	18S21W17ACD1	331033.97	931758.51	315.00	3/21/2007	230.38	84.62		150.90			-66.28	
Columbia	18S22W27DDD1	330834.57	932158.59	312.00	2/7/2007	134.48	177.52	178.22	174.85		-0.70	2.67	
Columbia	19S20W09CBD1	330555.38	931128.72	332.00	3/21/2007	263.22	68.78		65.80	71.38		2.98	-2.60
Columbia	19S20W34BDD1	330239.09	931030.67	290.00	2/13/2007	201.00	89.00	78.22	74.00		10.78	15.00	
Columbia	19S21W16DBB1	330517.2	931724.2	284.00	2/13/2007	166.69	117.31		109.70	107.81		7.61	9.50
Columbia	19S23W10ABD1	330643.92	932833.33	242.00	3/15/2007	45.57	196.43	197.21			-0.78		
Columbia	19S23W11CDA2	330609.39	932744.02	248.00	3/15/2007	53.07	194.93	194.80	195.80	194.62	0.13	-0.87	0.31
Columbia	19S23W11DDB1	330604.93	932722.12	246.00	3/15/2007	53.82	192.18	188.84	193.10		3.34	-0.92	
Columbia	19S23W14BAB2	330555.24	932752.38	244.00	3/15/2007	52.58	191.42	193.83	194.60		-2.41	-3.18	
Columbia	20S22W03DCC1	330138.44	932236.27	214.00	3/15/2007	52.85	161.15						
Columbia	20S22W11ACD1	330109.20	932133.20	271.00	3/15/2007	108.04	162.96	156.70			6.26		

Sparta Aquifer
97-02-06-07 WL Change

County	Station	Latitude	Longitude	LSD Alt	WL Date	07 WL Meas	WL ALT 2007	WL ALT 2006	WL ALT 2002	WL ALT 1997	06-07 Change	02-07 Change	97-07 Change
								Declines/Wells:			9/26	10/25	7/20
								Average Change:			2.38	-2.91	-5.27
Craighead	13N03E23CDD1	354404.17	904432.83	248.00	4/18/2007	88.76	159.24	160.10	162.20	161.46	-0.86	-2.96	-2.22
Craighead	14N04E22CBD1	354928.92	903920.99	256.00	4/18/2007	57.38	198.62	196.80	201.90	201.72	1.82	-3.28	-3.10
Craighead	14N04E28DBD1	354836.94	903953.27	254.00	4/18/2007	62.48	191.52	199.80	196.40	199.85	-8.28	-4.88	-8.33
Craighead	14N05E36CBC1	354750.84	903100.18	220.00	4/18/2007	12.40	207.60	206.50	207.30	209.31	1.10	0.30	-1.71
Craighead	15N03E13ABA1	355614	904301	329.00	4/18/2007	-1.80	330.80	330.70	329.30	330.80	0.10	1.50	0.00
Craighead	15N04E20ADB1	355506.01	904043.21	438.00	4/18/2007	118.52	319.48	319.25	317.15	329.76	0.23	2.33	-10.28
Craighead	15N05E29DBB1	355359.83	903432.73	258.00	4/18/2007	23.89	234.11		227.80			6.31	
Craighead	15N06E18ACA1	355544.42	902858.20	230.00	4/18/2007	17.26	212.74	210.50	209.80	214.56	2.24	2.94	-1.82
								Declines/Wells:			2/7	3/8	6/7
								Average Change:			-0.52	0.28	-3.92
Crittenden	05N08E11CCA2	350344.68	901300.21	211.00	4/12/2007	27.91	183.09	182.00	185.40	191.03	1.09	-2.31	-7.94
Crittenden	06N07E01DAD2	350958.04	901738.42	209.00	4/12/2007	26.28	182.72	182.40	182.80	190.42	0.32	-0.08	-7.70
Crittenden	06N09E08DCC1	350849.72	900921.78	215.00	4/12/2007	8.39	206.61	205.90			0.71		
Crittenden	06N09E23AAB1	350744.84	900553.13	222.00	4/12/2007	54.51	167.49			199.44			-31.95
Crittenden	07N07E35BCC1	351629	901933	221.00	4/6/2007	35.02	185.98	186.00			-0.02		
Crittenden	07N09E14BAC1	351348.14	900628.23	217.00	4/12/2007	32.26	184.74	184.80		188.63	-0.06		-3.89
Crittenden	09N07E21BBB1	352341.22	902130.65	216.00	4/12/2007	24.87	191.13						
								Declines/Wells:			2/5	2/2	4/4
								Average Change:			0.41		-12.87
Cross	06N04E06ACA1	351004.29	904237.72	358.00	4/13/2007	206.34	151.66						
Cross	07N05E04ADD1	351538.11	903329.85	209.00	4/19/2007	35.51	173.49	174.30			-0.81		
Cross	09N01E16CAC1	352405.00	905950.75	234.00	4/13/2007	92.09	141.91	144.00	147.90	157.32	-2.09	-5.99	-15.41
Cross	09N01E25AAD1	352244.31	905554.00	227.00	4/13/2007	89.48	137.52	139.20	142.70		-1.68	-5.18	
Cross	09N03E22AAB2	352403.82	904518.39	277.00	4/17/2007	127.98	149.02	149.40	151.60		-0.38	-2.58	
Cross	09N03E22AAD1	352403.2	904511.77	278.00	4/17/2007	133.06	144.94		155.50	163.82		-10.56	-18.88
Cross	09N04E30DCA1	352231	904215	429.32	4/19/2007	271.73	157.59	150.12		172.35	7.47		-14.76
								Declines/Wells:			4/5	4/4	3/3
								Average Change:			0.50	-6.08	-16.35

Sparta Aquifer
97-02-06-07 WL Change

County	Station	Latitude	Longitude	LSD Alt	WL Date	07 WL Meas	WL ALT 2007	WL ALT 2006	WL ALT 2002	WL ALT 1997	06-07 Change	02-07 Change	97-07 Change
Dallas	07S14W30DCC1	340430.87	923359.85	335.00	3/13/2007	120.35	214.65	214.37	215.70		0.28	-1.05	
Dallas	07S14W31AAA1	340425.29	923334.44	330.00	3/13/2007	111.07	218.93		216.00	207.06		2.93	11.87
Dallas	07S16W20CAB1	340559	924541	322.00	3/13/2007	28.46	293.54	295.60	298.80	296.44	-2.06	-5.26	-2.90
Dallas	08S15W34BDC1	335853	923658	240.00	3/13/2007	26.67	213.33	209.77		212.33	3.56		1.00
Dallas	08S16W18ACC1	940152	922446	252.00	3/13/2007	16.86	235.14	228.95	234.90		6.19	0.24	
Dallas	08S16W27DDD1	335935	924307	272.00	3/13/2007	33.66	238.34	237.50	238.90	240.95	0.84	-0.56	-2.61
Dallas	09S13W35CCD1	335304	922413	200.00	3/13/2007	71.62	128.38	128.30	122.70	132.59	0.08	5.68	-4.21
Dallas	09S14W01BDC1	335753.63	922918.78	265.00	3/13/2007	82.92	182.08	185.70			-3.62		
Dallas	09S16W19CAA1	335605.48	924701.17	260.00	3/14/2007	7.31	252.69	249.00	254.70		3.69	-2.01	
Dallas	10S13W34ACA2	334829.46	922457.61	272.00	3/13/2007	151.38	120.62	119.55	121.40	123.93	1.07	-0.78	-3.31
Dallas	10S14W27CDB1	334907.60	923137.99	270.00	3/13/2007	33.44	236.56	246.70	242.50		-10.14	-5.94	
Dallas	10S15W18BCC1	335119.53	924120.08	328.00	3/14/2007	79.05	248.95	250.55			-1.60		
								Declines/Wells:			**4/11**	**6/9**	**4/6**
								Average Change:			**-0.16**	**-0.75**	**-0.03**
Desha	09S02W26AAC1	335346.00	911520.82	153.00	3/19/2007	72.64	80.36	79.60	80.40	89.41	0.76	-0.04	-9.05
Desha	09S04W28DDD1	335309.60	913006.71	165.00	3/19/2007	115.48	49.52	52.50	52.30	55.91	-2.98	-2.78	-6.39
Desha	10S02W26CCC2	334750.23	911623.99	148.00	3/19/2007	75.97	72.03	74.90		85.16	-2.87		-13.13
Desha	10S04W11CBC1	335034.41	912905.14	161.00	3/19/2007	105.61	55.39	61.20	58.00		-5.81	-2.61	
Desha	11S02W03CCA1	334615.78	911711.03	139.00	3/19/2007	74.73	64.27	68.50	74.00	81.87	-4.23	-9.73	-17.60
Desha	12S03W26CBB1	333748.60	912259.18	138.00	3/19/2007	100.29	37.71	40.40	36.00		-2.69	1.71	
Desha	12S03W34DAD1	333643.44	912305.04	147.00	3/19/2007	82.21	64.79	57.90	67.50	71.24	6.89	-2.71	-6.45
								Declines/Wells:			**5/7**	**5/6**	**5/5**
								Average Change:			**-1.56**	**-2.69**	**-10.52**
Drew	11S04W02ACA2	334631.87	912826.56	153.00	3/20/2007	96.09	56.91	56.10	55.90		0.81	1.01	
Drew	11S04W25CB2	334249.46	912706.98	148.00	3/20/2007	88.18	59.82	49.60	64.00	68.33	10.22	-4.18	-8.51
Drew	11S06W11DBC1	334606.63	914122.37	203.00	3/20/2007	150.59	52.41			60.52			-8.11
Drew	12S06W30BBD1	333807.15	914543.08	257.00	3/20/2007	226.62	30.38		39.20			-8.82	
Drew	12S06W32DAD1	333649.09	914401.96	227.00	3/20/2007	177.16	49.84	60.30	61.50	66.97	-10.46	-11.66	-17.13
Drew	13S05W36ACB1	333150.88	913407.59	169.00	3/20/2007	92.23	76.77	79.50		79.87	-2.73		-3.10
Drew	15S04W12DDA1	332429.38	912723.69	125.00	3/20/2007	63.68	61.32	61.80	64.10	67.97	-0.48	-2.78	-6.65
								Declines/Wells:			**3/5**	**4/5**	**5/5**
								Average Change:			**-0.53**	**-5.29**	**-8.70**

Sparta Aquifer
97-02-06-07 WL Change

County	Station	Latitude	Longitude	LSD Alt	WL Date	07 WL Meas	WL ALT 2007	WL ALT 2006	WL ALT 2002	WL ALT 1997	06-07 Change	02-07 Change	97-07 Change
Grant	03S13W12AAA1	342845.65	922106.24	361.00	3/22/2007	132.41	228.59	229.00		231.90	-0.41		-3.31
Grant	03S15W26DAA1	342600.52	923447.01	337.00	3/22/2007	11.02	325.98	328.90		325.34	-2.92		0.64
Grant	04S14W14CCC1	342201.17	922931.98	257.00	3/22/2007	83.59	173.41			166.38			7.03
Grant	05S13W03CAA1	341843.97	922400.47	260.00	3/22/2007	88.26	171.74	172.20		157.53	-0.46		14.21
Grant	05S13W03CDA4	341837.64	922401.95	281.00	3/22/2007	113.93	167.07	169.90		174.36	-2.83		-7.29
Grant	05S13W07ADB1	341810	922649.75	258.00	3/22/2007	81.75	176.25	176.10		167.22	0.15		9.03
Grant	05S13W30AAA1	341550.1	341550.1	330.00	3/22/2007	129.14	200.86						
Grant	05S14W06DCC1	341842.5	923326.69	293.00	3/22/2007	87.64	205.36	205.60	202.00	202.53	-0.24	3.36	2.83
Grant	05S15W05ABD1	341923.78	923826.87	232.00	3/22/2007	14.29	217.71	217.50		216.51	0.21		1.20
Grant	06S11W05ACD1	341340.82	921413.01	280.00	3/22/2007	216.06	63.94	83.90		83.88	-19.96		-19.94
Grant	06S15W26ACA1	341021.99	923537.59	280.00	3/22/2007	72.77	207.23	212.80		211.01	-5.57		-3.78
Grant	07S12W21BDB1	340558.11	921952.7	223.00	3/22/2007	4.12	218.88	219.86		218.84	-0.98		0.04
								Declines/Wells:			**8/10**		**4/11**
								Average Change:			**-3.30**		**0.06**
Hot Spring	05S16W35ACA1	341459.51	924151.12	342.00	3/13/2007	34.78	307.22		307.50	306.32		-0.28	0.90
Jefferson	03S08W19BAD1	342623.76	915443.67	217.00	3/27/2007	173.95	43.05	45.50	45.10	55.64	-2.45	-2.05	-12.59
Jefferson	03S08W19BBD1	342628.36	915504.54	215.00	3/27/2007	181.23	33.77	42.20	41.40	58.65	-8.43	-7.63	-24.88
Jefferson	03S08W19BDB1	342618.71	915455.22	215.00	3/27/2007	177.88	37.12		45.70	61.55		-8.58	-24.43
Jefferson	03S09W23BBD1	342626.95	915712.96	224.00	3/27/2007	186.85	37.15	55.60	44.00		-18.45	-6.85	
Jefferson	03S10W14CAD1	342659.22	920330.26	221.00	3/27/2007	120.60	100.40						
Jefferson	03S10W27AAD1	342502.05	920433.81	222.00	3/27/2007	136.63	85.37	96.20			-10.83		
Jefferson	03S11W22ABC1	342650.81	921058.27	310.00	3/27/2007	176.45	133.55			143.08			-9.53
Jefferson	04S07W17BCC1	342139.61	914741.85	200.00	4/3/2007	205.35	-5.35	23.50	15.90	32.43	-28.85	-21.25	-37.78
Jefferson	04S08W35BBD1	341909.06	915056.13	200.00	3/27/2007	215.50	-15.50			1.55			-17.05
Jefferson	04S10W17BDA1	342212.14	920645.6	265.00	3/29/2007	205.51	59.49		59.80			-0.31	
Jefferson	04S11W14BAD1	342219.74	921000.07	400.00	3/29/2007	313.67	86.33		90.20	100.67		-3.87	-14.34
Jefferson	05S08W30ADB1	341452.32	915440.2	221.00	4/3/2007	298.66	-77.66			-54.82			-22.84
Jefferson	05S09W24DBD1	341529.68	915555.60	208.17	4/3/2007	279.23	-71.06	-70.43	-69.83	-53.73	-0.63	-1.23	-17.33
Jefferson	05S09W31DDC1	341336.69	920109.42	227.00	3/28/2007	274.55	-47.55	-52.00			4.45		
Jefferson	05S09W19BAA3	341605	920131	226.00	3/29/2007	273.60	-47.60	-73.40			25.80		
Jefferson	05S09W35AAB1	341420.05	915653.1	205.00	4/3/2007	238.60	-33.60	-30.60	-84.20	-71.00	-3.00	50.60	37.40
Jefferson	05S10W11ACA1	341741.24	920321.58	235.00	3/29/2007	225.57	9.43						
Jefferson	05S10W16BAD1	341700.48	920548.64	277.00	3/29/2007	246.27	30.73	29.50	31.40	37.80	1.23	-0.67	-7.07
Jefferson	05S10W16DBB1	341634.59	920542.79	315.00	3/29/2007	312.25	2.75	22.55	15.60	32.69	-19.80	-12.85	-29.94
Jefferson	05S10W16DBD1	341634	920534	300.00	3/29/2007	311.38	-11.38	15.70	13.40	31.80	-27.08	-24.78	-43.18
Jefferson	06S08W16CCC1	341143.07	915517.06	202.42	3/30/2007	257.90	-55.48	-55.18		-39.18	-0.30		-16.30
Jefferson	06S08W25ADC1	341024.86	915116.18	203.48	4/3/2007	225.35	-21.87	-23.62	-24.32	-6.32	1.75	2.45	-15.55

Sparta Aquifer
97-02-06-07 WL Change

County	Station	Latitude	Longitude	LSD Alt	WL Date	07 WL Meas	WL ALT 2007	WL ALT 2006	WL ALT 2002	WL ALT 1997	06-07 Change	02-07 Change	97-07 Change
Jefferson	06S09W17CAD1	341158.70	920206.91	233.00	3/28/2007	263.78	-30.78	-49.60			18.82		
Jefferson	06S09W17CCA1	341151.82	920220.85	234.34	3/28/2007	257.38	-23.04			-27.10			4.06
Jefferson	06S10W23ACA2	341123.09	920503.93	235.00	3/28/2007	230.84	4.16	2.50	10.00		1.66	-5.84	
Jefferson	06S10W23DBA1	341104.56	920506.17	230.00	3/28/2007	248.12	-18.12		-12.00	13.83		-6.12	-31.95
Jefferson	07S07W24BAB1	340632.68	914522.99	188.00	3/28/2007	170.85	17.15	27.00		35.43	-9.85		-18.28
Jefferson	07S10W24CAC1	340548.70	920420.81	311.00	3/28/2007	258.80	52.20	23.00		32.99	29.20		19.21
									Declines/Wells:		11/18	14/17	16/20
									Average Change:		-2.60	-3.27	-14.86
Lafayette	16S23W12CAD1	332142.57	932608.59	322.00	3/14/2007	77.88	244.12	260.10	263.30		-15.98	-19.18	
Lafayette	16S24W26AAC1	331950.2	933302.96	267.00	3/14/2007	57.61	209.39	211.60	214.60		-2.21	-5.21	
Lafayette	17S23W19ACC1	331519.6	933127.61	291.00	3/14/2007	53.95	237.05		240.10			-3.05	
Lafayette	17S24W23BBD1	331525.67	933402.79	261.00	3/14/2007	35.42	225.58		229.50			-3.92	
Lafayette	18S23W29ACC1	330910.83	933039.27	255.00	3/15/2007	13.26	241.74	239.20	244.00		2.54	-2.26	
Lafayette	19S23W29BDB1	330351.94	933103.37	250.00	3/15/2007	43.16	206.84	209.00			-2.16		
Lafayette	19S25W13CAB1	330555.42	933922.02	255.00	3/15/2007	40.23	214.77						
Lafayette	20S23W05ADA1	330222.7	933026.3	242.00	3/15/2007	34.97	207.03						
Lafayette	20S23W05ADB1	330223.35	933036.08	242.00	3/15/2007	40.96	201.04	203.00	203.00		-1.96	-1.96	
									Declines/Wells:		4/5	6/6	
									Average Change:		-3.95	-5.93	
Lee	01N04E09CDD1	344209.69	904119.07	208.00	4/9/2007	62.21	145.79						
Lee	02N01E10CAD1	344743.36	905924.74	201.00	4/9/2007	54.44	146.56						
Lincoln	07S07W30CDC1	340443.93	915042.86	208.00	3/26/2007	190.05	17.95	31.90	27.30	37.42	-13.95	-9.35	-19.47
Lincoln	08S05W03BAA2	340309.54	913453.58	180.00	3/26/2007	152.46	27.54	36.30	37.30	50.27	-8.76	-9.76	-22.73
Lincoln	08S05W35ACC1	335906.6	913337.26	165.00	3/26/2007	152.15	12.85	42.70	42.00	52.36	-29.85	-29.15	-39.51
Lincoln	08S08W35DBB1	335858.35	915222.4	240.00	3/26/2007	228.88	11.12		23.00	34.42		-11.88	-23.30
Lincoln	08S08W35DCB1	335850.57	915217.37	270.00	3/26/2007	260.17	9.83						
Lincoln	09S07W07DAD1	335633.89	915128.31	300.00	3/26/2007	279.86	20.14		25.00	34.09		-4.86	-13.95
Lincoln	09S07W08BCC1	335643.5	915118	292.00	3/26/2007	259.39	32.61						
									Declines/Wells:		3/3	5/5	5/5
									Average Change:		-17.52	-13.00	-23.79
Lonoke	01N07W03BCC1	344425.34	914503.28	223.00	4/2/2007	131.22	91.78	93.50		105.81	-1.72		-14.03
Lonoke	01S08W02DBD1	343854.72	914959.73	210.00	4/3/2007	98.31	111.69	97.25			14.44		
Lonoke	02N07W06ACD1	344939.05	914737.03	241.00	4/4/2007	125.85	115.15						

Sparta Aquifer
97-02-06-07 WL Change

County	Station	Latitude	Longitude	LSD Alt	WL Date	07 WL Meas	WL ALT 2007	WL ALT 2006	WL ALT 2002	WL ALT 1997	06-07 Change	02-07 Change	97-07 Change
Lonoke	02N07W09AAA1	344906.42	914500.30	232.00	4/4/2007	101.45	130.55	131.70	134.10	137.96	-1.15	-3.55	-7.41
Lonoke	02N07W22DBA1	344651.49	914425.68	227.00	4/2/2007	131.71	95.29	97.15	102.40	109.53	-1.86	-7.11	-14.24
Lonoke	02N07W24DAC1	344650.23	914209.37	231.00	4/2/2007	149.65	81.35		84.20	102.80		-2.85	-21.45
Lonoke	02S07W08DCC1	343235.49	914700.29	202.00	4/4/2007	143.40	58.60		65.70			-7.10	
Lonoke	02S09W15BBB2	343246.5	915825.0	226.00	4/3/2007	81.97	144.03	154.00		166.90	-9.97		-22.87
Lonoke	03N07W03CAA1	345444.90	914426.30	235.00	4/4/2007	79.98	155.02	156.55	158.00	159.66	-1.53	-2.98	-4.64
Lonoke	03N08W11ACD1	345402.52	914934.74	248.00	1/24/2007	93.12	154.88						
Lonoke	03N08W22DAD1	345205.16	345205.16	233.00	1/24/2007	96.51	136.49						
Lonoke	03N08W22DAD2	345204.58	915023.87	233.00	1/24/2007	98.86	134.14						
Lonoke	03N08W22DDD2	345152.18	915025.08	235.00	1/24/2007	106.79	128.21	140.10			-11.89		
									Declines/Wells:		6/7	5/5	6/6
									Average Change:		-1.95	-4.72	-14.11
Miller	17S25W18CDB1	331604.95	934402.45	220.00	3/15/2007	7.04	212.96			209.97			2.99
Miller	19S27W10BBA1	330719	935345	320.00	3/15/2007	1.48	318.52						
Mississippi	11N09E26AAD3	353302.32	900523.06	240.00	4/18/2007	25.96	214.04						
Mississippi	11N09E26ABA2	353304.1	900539	236.00	4/18/2007	24.88	211.12						
Monroe	01N01W15CBD1	344139	910542	185.00	3/8/2007	63.10	121.90	122.80			-0.90		
Monroe	01N03W14CCB1	344143.93	911801.12	172.00	4/4/2007	75.96	96.04	101.80	103.30	108.00	-5.76	-7.26	-11.96
Monroe	03N01W33CDD1	345446.34	910635.08	210.00	4/4/2007	71.24	138.76	140.40	143.70		-1.64	-4.94	
Monroe	03N02W26DAB1	345043	911026	192.00	4/9/2007	49.02	142.98	142.96	144.40	149.95	0.02	-1.42	-6.97
Monroe	04N02W28DDD4	345535	911221	192.00	4/9/2007	32.68	159.32	159.60	161.70	165.53	-0.28	-2.38	-6.21
Monroe	04N02W30BAC1	345617.03	911503.95	180.00	4/9/2007	11.80	168.20	169.90	170.90	161.89	-1.70	-2.70	6.31
Monroe	04N02W30BAD1	345617.24	911514.62	182.00	4/9/2007	15.07	166.93	168.00			-1.07		
									Declines/Wells:		6/7	5/5	3/4
									Average Change:		-1.62	-3.74	-4.71
Ouachita	11S15W27ABD1	334440.87	923725.58	200.00	3/22/2007	69.34	130.66	127.80	130.80	133.78	2.86	-0.14	-3.12
Ouachita	11S17W14CAC1	334631.35	924927.46	146.00	3/22/2007	22.32	123.68	125.03	127.60		-1.35	-3.92	
Ouachita	11S17W36CCA1	334341.11	924834.21	133.00	4/26/2007	9.43	123.57		127.60	129.34		-4.03	-5.77
Ouachita	12S15W09BBA1	334223.32	923922.44	213.00	3/22/2007	52.90	160.10	149.85		158.80	10.25		1.30
Ouachita	12S16W25BDC1	333929.4	924210.82	140.00	3/21/2007	32.42	107.58	103.80	85.40		3.78	22.18	
Ouachita	12S16W26ABD1	333945.55	924304.12	134.00	3/21/2007	34.63	99.37	102.62	97.20		-3.25	2.17	
Ouachita	12S18W19CDC1	334018	925948	235.00	3/26/2007	30.63	204.37	207.60	202.00	204.44	-3.23	2.37	-0.07

Sparta Aquifer
97-02-06-07 WL Change

County	Station	Latitude	Longitude	LSD Alt	WL Date	07 WL Meas	WL ALT 2007	WL ALT 2006	WL ALT 2002	WL ALT 1997	06-07 Change	02-07 Change	97-07 Change
Ouachita	12S18W25CAB1	333937.19	925441.87	187.00	4/30/2007	78.56	108.44	107.60	116.50		0.84	-8.06	
Ouachita	12S19W09BAB1	334251.46	930351.94	290.00	3/26/2007	16.70	273.30	271.70	279.50	276.05	1.60	-6.20	-2.75
Ouachita	12S19W14AAA1	334143.44	930104.54	237.00	3/26/2007	7.45	229.55	230.60	233.80		-1.05	-4.25	
Ouachita	12S19W35BDD1	333901.13	930145.97	350.00	3/26/2007	160.25	189.75	190.90	196.10	287.91	-1.15	-6.35	-98.16
Ouachita	13S16W28ADD1	333416.22	924450.63	106.00	3/21/2007	33.28	72.72	76.25	80.00		-3.53	-7.28	
Ouachita	13S18W31BDD1	333340	925958	242.00	3/15/2007	71.18	170.82	170.30	173.40		0.52	-2.58	
Ouachita	13S19W28BCD1	333433.86	930417.81	230.00	3/26/2007	38.21	191.79	190.20	193.70	192.76	1.59	-1.91	-0.97
Ouachita	14S16W32BDB1	332815.62	924639.52	231.00	3/15/2007	25.76	205.24	193.86	213.40		11.38	-8.16	
Ouachita	14S17W02ABB1	333252	924926	120.00	4/26/2007	16.80	103.20	98.90		9.06	4.30		94.14
Ouachita	14S17W05CAD1	333238.01	925254.64	157.00	4/17/2007	37.24	119.76	117.66	121.60	121.17	2.10	-1.84	-1.41
Ouachita	14S17W19DBB1	333002.20	925345.44	259.00	3/21/2007	13.77	245.23	216.45	247.80		28.78	-2.57	
Ouachita	14S17W32CAD1	332803.41	925251.18	220.00	3/21/2007	79.06	140.94	138.74	137.30		2.20	3.64	
Ouachita	14S18W27BDC1	332917.60	925703.97	309.00	4/26/2007	43.30	265.70	265.94	267.10		-0.24	-1.40	
Ouachita	14S19W29ABB1	332941.45	930513.43	280.00	3/15/2007	88.16	191.84	192.80	192.30	193.82	-0.96	-0.46	-1.98
Ouachita	15S15W32DBB2	332233.72	924027.13	119.00	3/15/2007	169.42	-50.42	-54.50	-57.50		4.08	7.08	
Ouachita	15S16W23DAC1	332416.77	924314.16	170.00	4/26/2007	126.15	43.85						
Ouachita	15S18W36ADD1	332310.75	925436.06	160.00	3/21/2007	94.40	65.60	65.45	64.40		0.15	1.20	
Ouachita	15S19W10DCC1	332618.38	930318.37	210.00	4/26/2007	69.86	140.14	140.30	141.50	144.42	-0.16	-1.36	-4.28
Ouachita	15S19W21CDD2	332438.02	930431.9	280.00	4/17/2007	198.82	81.18	90.04	90.30	89.81	-8.86	-9.12	-8.63
								Declines/Wells:			**10/24**	**17/23**	**10/12**
								Average Change:			**2.11**	**-1.35**	**-2.64**
Phillips	01S02E32DDC1	343324.32	905455.41	211.00	4/10/2007	84.17	126.83	134.70	130.40	133.54	-7.87	-3.57	-6.71
Phillips	02S02E01ADC1	343323.48	905056.27	176.00	4/10/2007	35.17	140.83	145.00	137.90	141.08	-4.17	2.93	-0.25
Phillips	02S04E02DAA1	343242.68	903844.34	250.00	4/10/2007	132.52	117.48			126.46			-8.98
Phillips	02S04E02DBA1	343242.87	903906.98	250.00	4/10/2007	129.19	120.81	144.70	149.90		-23.89	-29.09	
Phillips	02S05E16BCB1	343108.32	903525.64	190.00	4/10/2007	35.11	154.89	156.00	158.10	161.75	-1.11	-3.21	-6.86
Phillips	02S05E29CCC1	342850.81	903635.44	179.00	4/10/2007	23.56	155.44	152.25	152.80	157.48	3.19	2.64	-2.04
Phillips	03S03E30DAA1	342402.88	904914.59	172.00	4/11/2007	35.05	136.95	130.10	129.10	137.35	6.85	7.85	-0.40
Phillips	04S02E25CCC1	341824.20	905121.49	166.00	4/10/2007	37.37	128.63	129.00	127.30	130.76	-0.37	1.33	-2.13
								Declines/Wells:			**5/7**	**3/7**	**7/7**
								Average Change:			**-3.91**	**-3.02**	**-3.91**
Poinsett	10N01E12BDC1	353026.35	905629.57	234.00	4/18/2007	100.38	133.62	136.50	133.80		-2.88	-0.18	
Poinsett	10N01E15DBB1	352930.54	905825.14	232.00	4/18/2007	96.92	135.08	136.10	134.80	147.01	-1.02	0.28	-11.93
Poinsett	10N01E33ABA1	352724.90	905924.05	221.00	4/18/2007	79.50	141.50	143.50	145.20		-2.00	-3.70	
Poinsett	10N03E02BCD1	353139.29	904446.6	251.00	4/18/2007	111.68	139.32		136.00			3.32	
Poinsett	10N03E23CAC1	352844	904433	258.00	4/18/2007	113.12	144.88	144.00			0.88		

Sparta Aquifer
97-02-06-07 WL Change

County	Station	Latitude	Longitude	LSD Alt	WL Date	07 WL Meas	WL ALT 2007	WL ALT 2006	WL ALT 2002	WL ALT 1997	06-07 Change	02-07 Change	97-07 Change
Poinsett	11N02E16CCC1	353448.21	905321.22	243.00	4/18/2007	108.69	134.31	135.70			-1.39		
Poinsett	11N3E25ACC1	353225	904316	273.00	4/18/2007	126.96	146.04	148.40			-2.36		
Poinsett	11N03E25BDD1	353324.54	904323.28	273.00	4/17/2007	121.45	151.55		144.60	149.97		6.95	1.58
Poinsett	12N03E12BBB1	354137.44	904340.09	246.00	4/18/2007	112.28	133.72		142.70			-8.98	
Poinsett	12N03E35BCC1	353744.78	904455.7	244.00	4/18/2007	100.53	143.47						
Poinsett	12N03E35DDA1	353727.35	904353.06	247.00	4/18/2007	102.95	144.05	144.10	146.50		-0.05	-2.45	
								Declines/Wells:			6/7	4/7	
								Average Change:			-1.26	-0.68	
Prairie	01N05W19CDC1	344113.1	913505.27	212.00	4/12/2007	145.15	66.85	61.80		212.00	5.05		
Prairie	01N06W02ABB1	344442.4	913700.96	223.00	4/12/2007	128.34	94.66	97.50	101.10	116.86	-2.84	-6.44	-22.20
Prairie	01N06W34CBB1	343943.01	913846.17	226.00	4/12/2007	169.70	56.30	62.35	61.80		-6.05	-5.50	
Prairie	01S05W06BCB1	343903.98	913531.63	220.00	4/12/2007	177.20	42.80	64.45	60.30	75.96	-21.65	-17.50	-33.16
Prairie	01S05W20ABB1	343639.91	913351.89	220.00	4/6/2007	154.65	65.35	53.00	53.00	73.66	12.35	12.35	-8.31
Prairie	01S06W11DBD1	343748.99	913654.24	226.00	4/12/2007	177.82	48.18	55.50		77.10	-7.32		-28.92
Prairie	01S06W12BAB1	343826	913613	228.00	3/8/2007	167.13	60.87	63.82			-2.95		
Prairie	02N04W19ACB1	344649.11	912801.56	211.00	4/11/2007	66.13	144.87			125.67			19.20
Prairie	02N05W24ACA1	344659	912937	225.00	3/8/2007	101.90	123.10	122.10			1.00		
Prairie	02N06W04DBB1	344928	913852	233.00	4/19/2007	106.45	126.55			136.34			-9.79
Prairie	02N06W19AAB1	344718.24	914049.95	236.00	4/11/2007	150.58	85.42	85.93	93.30		-0.51	-7.88	
Prairie	02N06W20BCB1	344706.57	914032.97	236.00	4/11/2007	147.18	88.82	78.20	96.80	106.35	10.62	-7.98	-17.53
Prairie	02N06W21DAD1	344644.15	913829.47	232.00	4/11/2007	132.92	99.08	110.00	106.40	114.81	-10.92	-7.32	-15.73
Prairie	02N06W22BDD1	344653.66	913800.68	233.00	4/11/2007	127.90	105.10		114.70	112.23		-9.60	-7.13
Prairie	02N06W24CAA1	344651	913551	232.90	3/8/2007	117.90	115.00	115.72			-0.72		
Prairie	03N05W03ADA2	345451.65	913042.51	205.00	4/6/2007	59.90	145.10	130.80			14.30		
Prairie	03N05W20CCC1	345144.72	913356.35	213.00	4/6/2007	71.89	141.11		142.60			-1.49	
Prairie	03N06W20CDD1	345140.24	914003.93	225.00	4/6/2007	85.88	139.12	139.28	154.30		-0.16	-15.18	
								Declines/Wells:			9/14	9/10	8/9
								Average Change:			-0.70	-6.65	-13.73
St. Francis	04N04E18BAB1	345743.38	904319.00	220.00	4/19/2007	65.29	154.71	152.85	151.80	156.43	1.86	2.91	-1.72
Union	16S14W15CAB1	331944.03	923218.09	94.00	3/8/2007	149.70	-55.70	-67.39	-54.10	-56.04	11.69	-1.60	0.34
Union	16S15W20DAA1	331859.92	923957.97	190.00	2/23/2007	254.70	-64.70	-84.50	-94.10	-74.87	19.80	29.40	10.17
Union	16S15W31ACC1	331717.09	924128.90	168.00	3/15/2007	265.72	-97.72	-130.25	-138.00		32.53	40.28	
Union	16S16W02ABC1	332205	924330	116.00	3/14/2007	162.53	-46.53	-51.81	-56.50	-54.83	5.28	9.97	8.30
Union	16S16W03CBB1	332138	924507	200.00	2/20/2007	222.50	-22.50	-24.97	-28.90		2.47	6.40	

Sparta Aquifer
97-02-06-07 WL Change

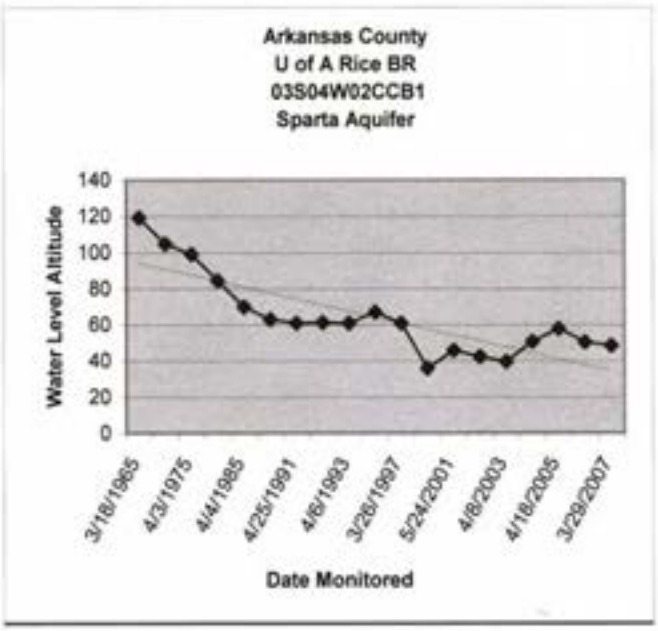
County	Station	Latitude	Longitude	LSD Alt	WL Date	07 WL Meas	WL ALT 2007	WL ALT 2006	WL ALT 2002	WL ALT 1997	06-07 Change	02-07 Change	97-07 Change
Union	16S18W34ABC2	331805	925709	250.00	2/23/2007	209.53	40.47	57.20	42.00	60.50	-16.73	-1.53	-20.03
Union	17S12W31DDD1	331206.4	922225.88	222.00	3/22/2007	228.07	-6.07						
Union	17S12W32BBC1	331202.09	922219.02	231.00	2/23/2007	241.54	-10.54	-16.54	-6.70	-5.98	6.00	-3.84	-4.56
Union	17S13W31BAC1	331200.17	922915.7	216.00	3/8/2007	309.04	-93.04		-76.60	-68.13		-16.44	-24.91
Union	17S14W10DCC1	331456.79	923203.26	186.00	2/20/2007	96.03	89.97	89.86	91.60		0.11	-1.63	
Union	17S14W15ABA1	331451.3	923159.8	169.00	2/20/2007	96.30	72.70	122.82			-50.12		
Union	17S14W22BAB1	331354.37	923224.17	201.00	3/14/2007	297.61	-96.61	-108.35			11.74		
Union	17S15W06BAA1	331645.6	924133.99	170.00	2/20/2007	242.48	-72.48	-80.50	-89.70		8.02	17.22	
Union	17S15W08CDD1	331504.77	924027.41	174.92	3/22/2007	289.65	-114.73	-128.28			13.55		
Union	17S15W18DBB1	331438.96	924129.21	182.93	3/14/2007	301.33	-118.40	-144.34	-173.57	-176.81	25.94	55.17	58.41
Union	17S15W28DBA1	331246.08	923909.78	235.00	3/14/2007	345.83	-110.83		-167.40			56.57	
Union	17S15W28DCC1	331223	923922	285.00	3/22/2007	422.88	-137.88	-155.39	-160.40	-84.26	17.51	22.52	-53.62
Union	17S15W29CDC1	331228.71	924039.39	220.00	3/22/2007	361.79	-141.79	-143.16	-172.80	-198.44	1.37	31.01	56.65
Union	17S15W31DCA1	331145.05	924116.74	272.00	3/7/2007	396.61	-124.61	-139.61	-174.75		15.00	50.14	
Union	17S15W31DDA1	331143.75	924104.87	261.00	3/14/2007	383.42	-122.42		-174.50			52.08	
Union	17S16W01BAA1	331649.04	924232.96	188.84	3/21/2007	271.73	-82.89	-116.91			34.02		
Union	17S16W02CCC1	331559.23	924403.41	178.00	3/22/2007	316.37	-138.37						
Union	17S16W02DCD1	331602.12	924325.72	218.00	3/22/2007	375.78	-157.78						
Union	17S16W12CDD1	331505.81	924232.01	221.60	3/22/2007	382.38	-160.78						
Union	17S16W24BDB1	331357.24	924248.47	205.00	3/9/2007	343.85	-138.85	-169.10	-190.00	-198.57	30.25	51.15	59.72
Union	17S17W25DBA2	331256	924837	250.00	3/14/2007	336.42	-86.42	-99.73			13.31		
Union	17S17W30DCD1	331257.41	925355.54	280.00	3/21/2007	323.53	-43.53	-31.70		-29.28	-11.83		-14.25
Union	18S11W09ABC1	331011.92	921443.35	135.00	3/22/2007	94.64	40.36		39.80	45.32		0.56	-4.96
Union	18S12W33BBB1	330650.66	922119.92	112.00	2/23/2007	139.56	-27.56	0.40	-25.10	-13.47	-27.96	-2.46	-14.09
Union	18S14W06CCD1	331040	923531	225.00	2/23/2007	342.80	-117.80	-118.10	-137.00	-146.00	0.30	19.20	28.20
Union	18S15W03DAB1	331103.78	923802.12	240.00	3/14/2007	346.05	-106.05	-109.73			3.68		
Union	18S15W07BAC2	331035	924139	283.00	3/21/2007	344.62	-61.62		-71.50			9.88	
Union	18S15W33ADA1	330659.32	923858.48	253.00	3/21/2007	359.87	-106.87	-121.39	-134.20	-115.00	14.52	27.33	8.13
Union	18S15W35DAC1	330635	923707	201.00	3/21/2007	283.78	-82.78	-91.97	-98.40	-104.39	9.19	15.62	21.61
Union	18S16W11DAC1	331011.23	924316.37	270.00	3/21/2007	412.75	-142.75	-151.40	-151.00	-146.72	8.65	8.25	3.97
Union	18S16W11AAB1	331041.13	924314.1	225.00	3/14/2007	337.30	-112.30						
Union	18S16W10CDD1	331000.38	924445.32	182.00	3/21/2007	314.68	-132.68						
Union	18S16W12ACB1	331028.75	924231.85	230.00	3/7/2007	433.04	-203.04	-205.35	-230.20		2.31	27.16	
Union	18S16W28BBB1	330809.22	924611.13	225.00	3/7/2007	319.20	-94.20	-103.27	-109.20	-114.88	9.07	15.00	20.68
Union	18S17W22BDD1	330855.91	925056.48	285.00	3/14/2007	340.69	-55.69	-66.02		-77.67	10.33		21.98
Union	18S18W11ACD2	331050.91	925615.1	239.00	3/21/2007	267.28	-28.28	-47.88			19.60		
Union	19S10W16CBC1	330329	920903	82.00	2/23/2007	88.33	-6.33	-8.51	-1.00	7.14	2.18	-5.33	-13.47
Union	19S11W23ACA1	330255.38	921228.80	142.00	2/23/2007	152.44	-10.44	-12.01	-8.20		1.57	-2.24	
Union	19S11W25AAA1	330217.84	921113.03	135.00	2/23/2007	151.20	-16.20	-18.26	-11.50	-1.00	2.06	-4.70	-15.20
Union	19S12W13AAA1	330411.26	921716.78	191.00	2/23/2007	142.37	48.63	33.78	30.80	50.83	14.85	17.83	-2.20

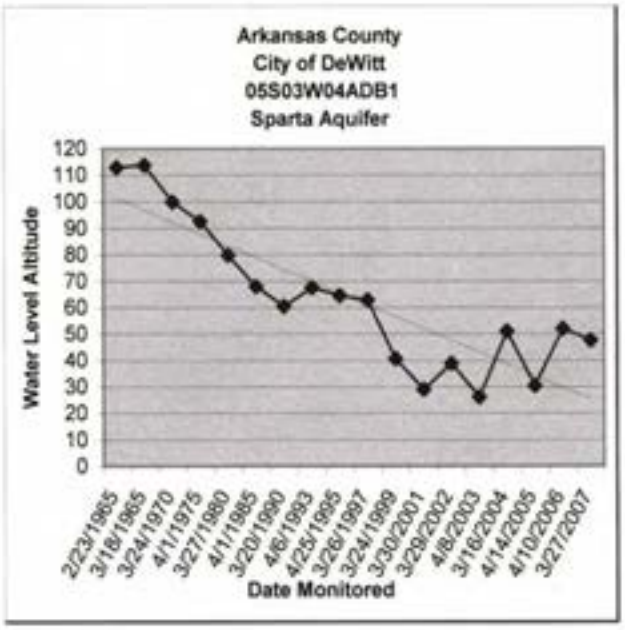
Sparta Aquifer
97-02-06-07 WL Change

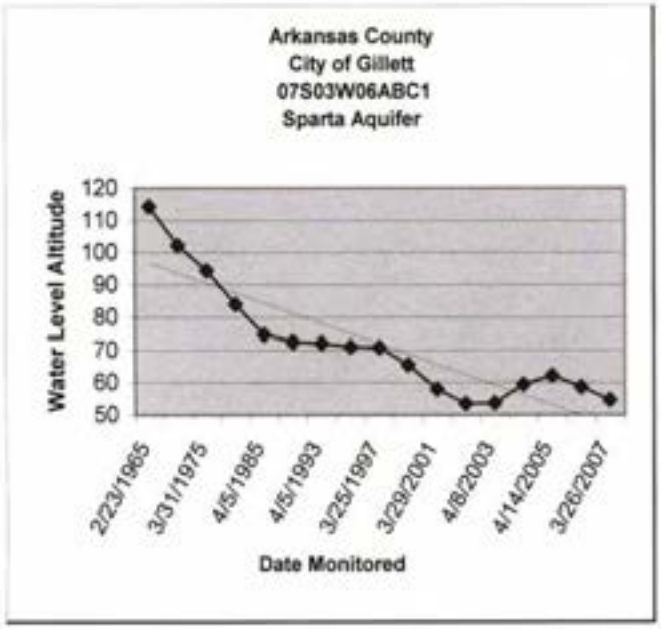
County	Station	Latitude	Longitude	LSD Alt	WL Date	07 WL Meas	WL ALT 2007	WL ALT 2006	WL ALT 2002	WL ALT 1997	06-07 Change	02-07 Change	97-07 Change
Union	19S15W01CCA1	330534.81	923645.01	188.00	3/7/2007	70.58	117.42	119.10	120.10	124.61	-1.68	-2.68	-7.19
Union	19S16W35DDC1	330108.86	924325.54	175.00	3/7/2007	235.15	-60.15	-64.50		-47.96	4.35		-12.19
Union	19S16W14ADA1	330451.70	925607.90	243.00	2/20/2007	192.07	50.93	50.00	57.90	75.14	0.93	-6.97	-24.21
								Declines/Wells:			**5/37**	**11/32**	**13/25**
								Average Change:			**6.59**	**16.04**	**3.49**
Woodruff	05N01W11ABA1	350425.81	910407.19	211.00	4/19/2007	60.00	151.00	160.40	154.20		-9.40	-3.20	
Woodruff	05N01W17DBB1	350310.68	910727.11	210.00	4/17/2007	47.36	162.64	163.65	164.50	169.19	-1.01	-1.86	-6.55
Woodruff	05N02W31DCB3	350026.9	911455.9	193.00	4/17/2007	16.24	176.76	178.45	178.70	177.87	-1.69	-1.94	-1.11
Woodruff	06N01W13ABA1	350851	910255	212.00	4/17/2007	68.46	143.54	141.35			2.19		
Woodruff	06N01W13ADC1	350827.39	910246.74	212.00	4/17/2007	68.38	143.62	145.20			-1.58		
Woodruff	07N01W12BCB1	351441.58	910326.17	222.00	4/17/2007	67.94	154.06	156.70	158.80		-2.64	-4.74	
Woodruff	08N01W12CDA1	351932	910310	225.00	4/17/2007	74.86	150.14	152.10			-1.96		
Woodruff	08N02W26ADC1	351725.76	911004.14	212.00	4/17/2007	33.83	178.17						
								Declines/Wells:			**6/7**	**4/4**	
								Average Change:			**-2.30**	**-2.94**	
								Total Declines/ Wells:			**145/260**	**127/219**	**134/179**
								Total Average Change:			**-0.06**	**0.52**	**-7.20**
											55.7%	**57.9%**	**74.8%**

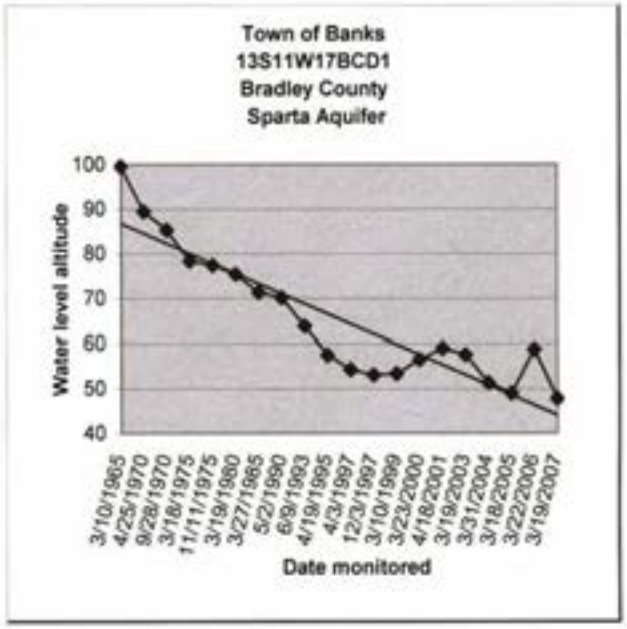
Appendix D

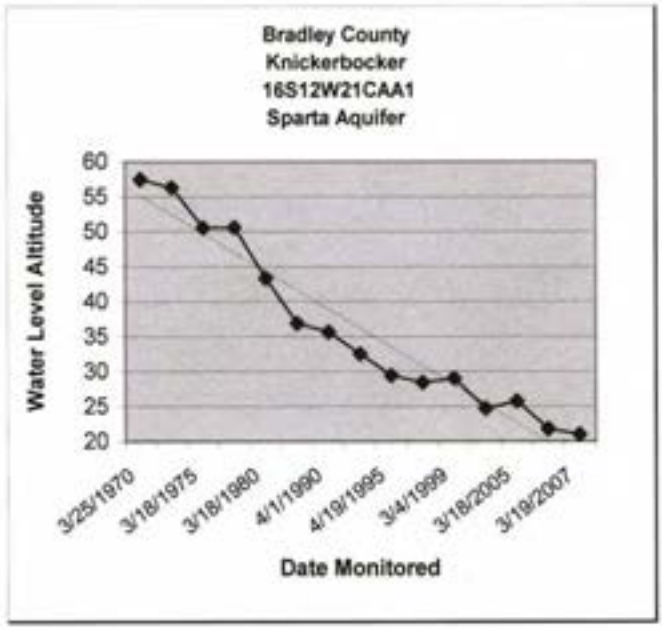
Selected Sparta / Memphis Aquifer Well Hydrographs

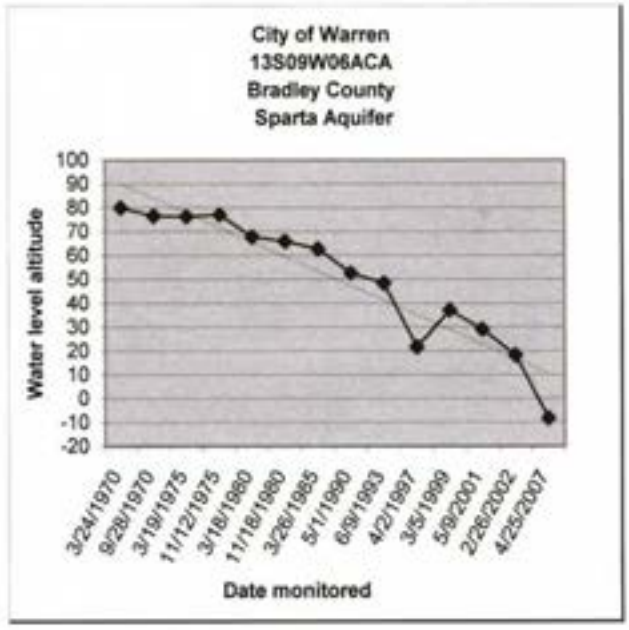

Arkansas County
U of A Rice BR
03S04W02CCB1
Sparta Aquifer
Water Level Altitude
140
120
100
80
60
40
20
0
3/18/1965
4/3/1975
4/4/1985
4/25/1991
4/6/1993
3/26/1997
5/24/2001
4/8/2003
4/18/2005
3/29/2007
Date Monitored


Arkansas County
City of DeWitt
05S03W04ADB1
Sparta Aquifer
Water Level Altitude
120
110
100
90
80
70
60
50
40
30
20
10
0
2/23/1965
3/18/1965
3/24/1970
4/1/1975
3/27/1980
4/1/1985
3/20/1990
4/6/1993
4/25/1995
3/26/1997
3/24/1999
3/30/2001
3/29/2002
4/8/2003
3/16/2004
4/14/2005
4/10/2006
3/27/2007
Date Monitored

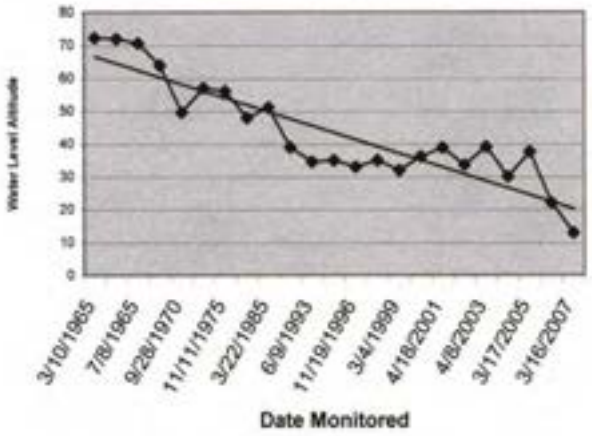

Arkansas County
City of Gillett
07S03W06ABC1
Sparta Aquifer
Water Level Altitude
120
110
100
90
80
70
60
50
2/23/1965
3/31/1975
4/5/1985
4/5/1993
3/25/1997
3/29/2001
4/8/2003
4/14/2005
3/26/2007
Date Monitored


Town of Banks
13S11W17BCD1
Bradley County
Sparta Aquifer
Water level altitude
100
90
80
70
60
50
40
3/10/1965
4/25/1970
9/28/1970
3/18/1975
11/11/1975
3/19/1980
3/27/1985
5/2/1990
6/9/1993
4/19/1995
4/3/1997
12/3/1997
3/10/1999
3/23/2000
4/18/2001
3/19/2003
3/31/2004
3/18/2005
3/22/2006
3/19/2007
Date monitored

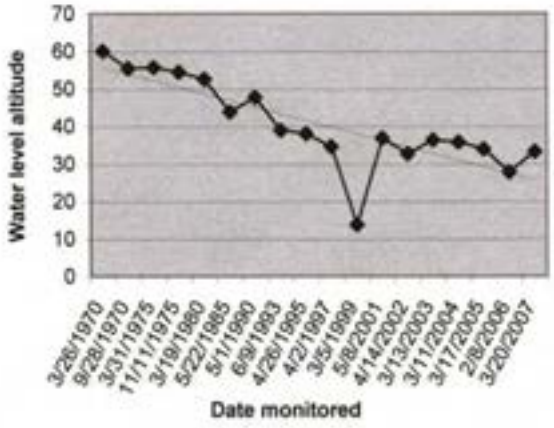

Bradley County
Knickerbocker
16S12W21CAA1
Sparta Aquifer
Water Level Altitude
60
55
50
45
40
35
30
25
20
3/25/1970
3/18/1975
3/18/1980
4/1/1990
4/19/1995
3/4/1999
3/18/2005
3/19/2007
Date Monitored


City of Warren
13S09W06ACA
Bradley County
Sparta Aquifer
Water level altitude
100
90
80
70
60
50
40
30
20
10
0
-10
-20
3/24/1970
9/28/1970
3/19/1975
11/12/1975
3/18/1980
11/18/1980
3/26/1985
5/1/1990
6/9/1993
4/2/1997
3/5/1999
5/9/2001
2/26/2002
4/25/2007
Date monitored

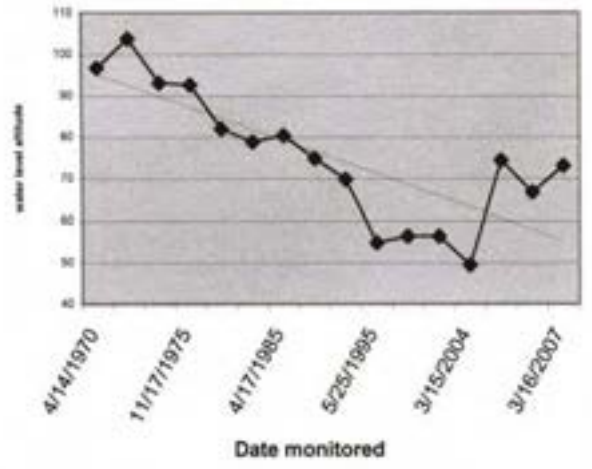
Calhoun County
City of Hampton
13S13W32CDA1
Sparta Aquifer



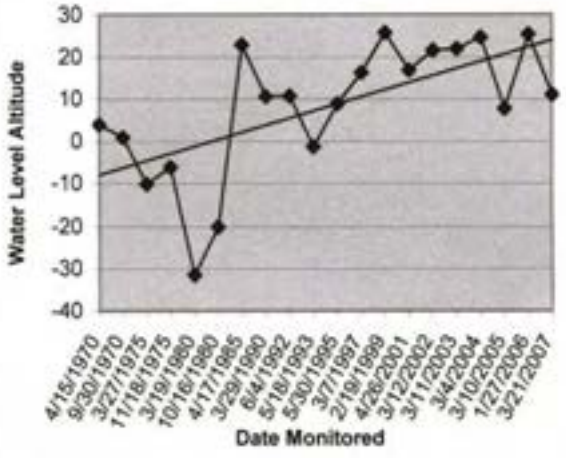
Town of Harrell
14S13W12CCB1
Calhoun County
Sparta Aquifer



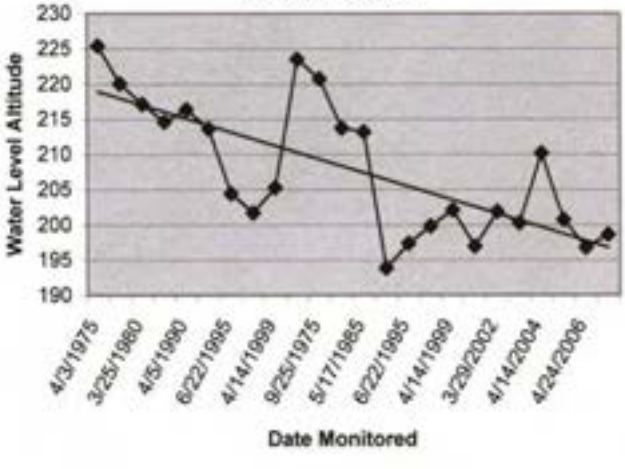
McNeil PS #2
16S20W18ACD1
Columbia County
Sparta Aquifer



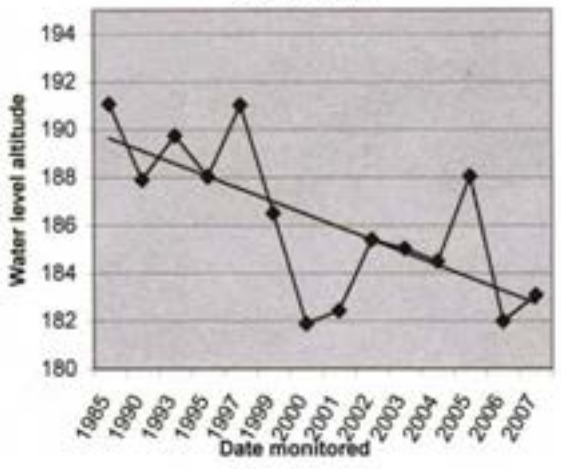
Magnolia PS #8
17S20W17DCA1
Columbia County
Sparta Aquifer

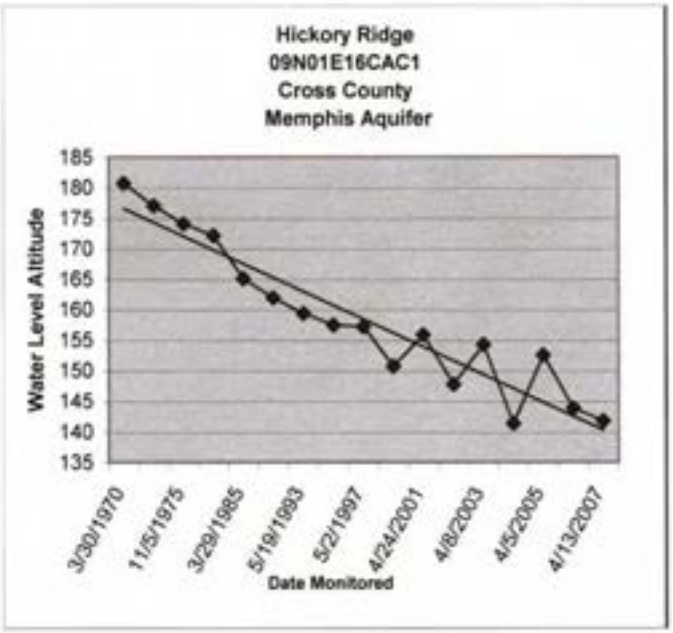


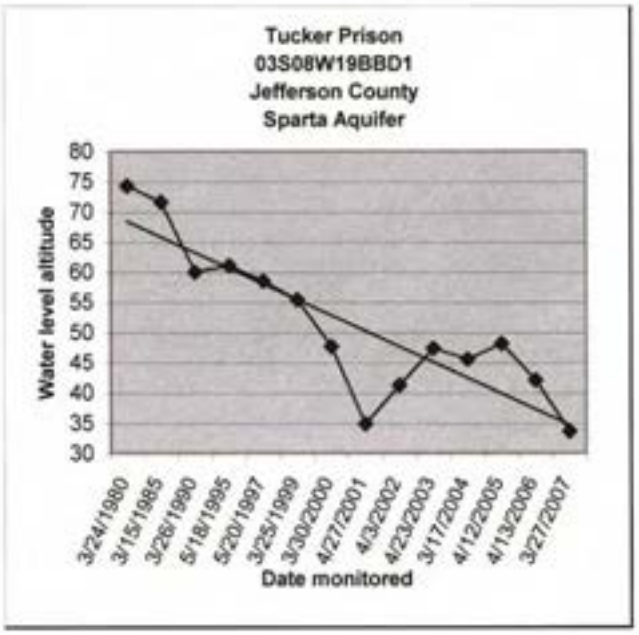
Jonesboro
14N04E22CBD1
Craighead County
Memphis Aquifer

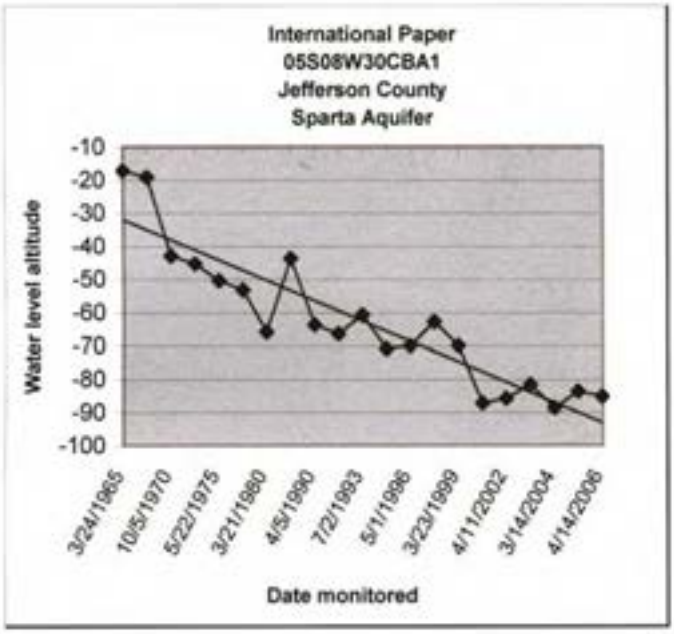


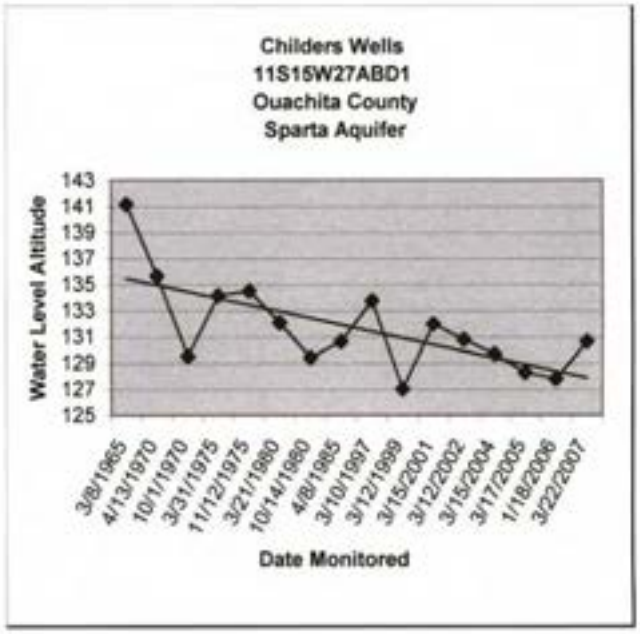
USGS
05N08E11CCA2
Crittenden County
Sparta Aquifer

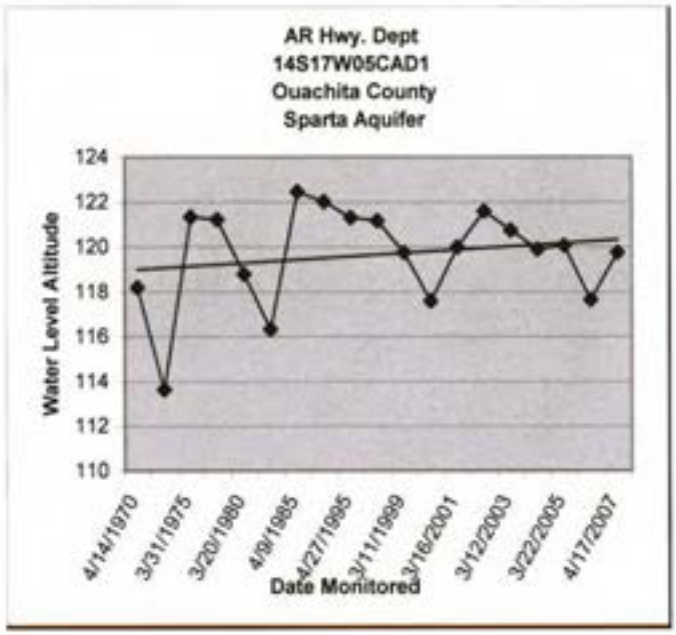


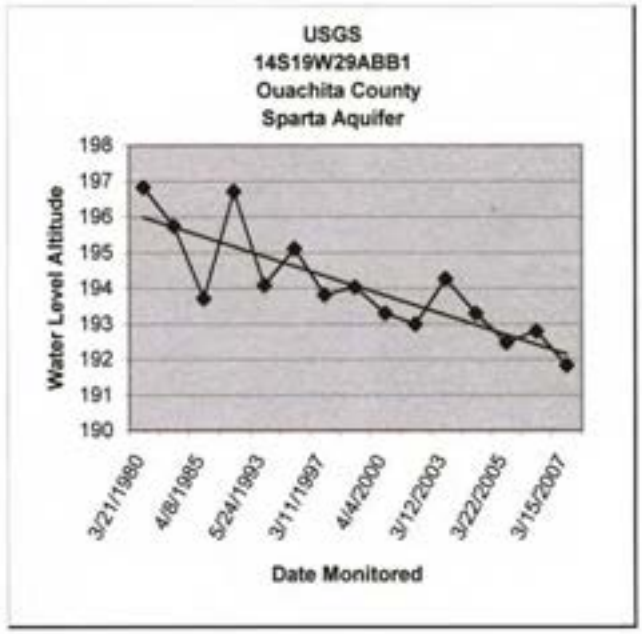

Hickory Ridge
09N01E16CAC1
Cross County
Memphis Aquifer
Water Level Altitude
185
180
175
170
165
160
155
150
145
140
135
3/30/1970
11/5/1975
3/29/1985
5/19/1993
5/2/1997
4/24/2001
4/8/2003
4/5/2005
4/13/2007
Date Monitored

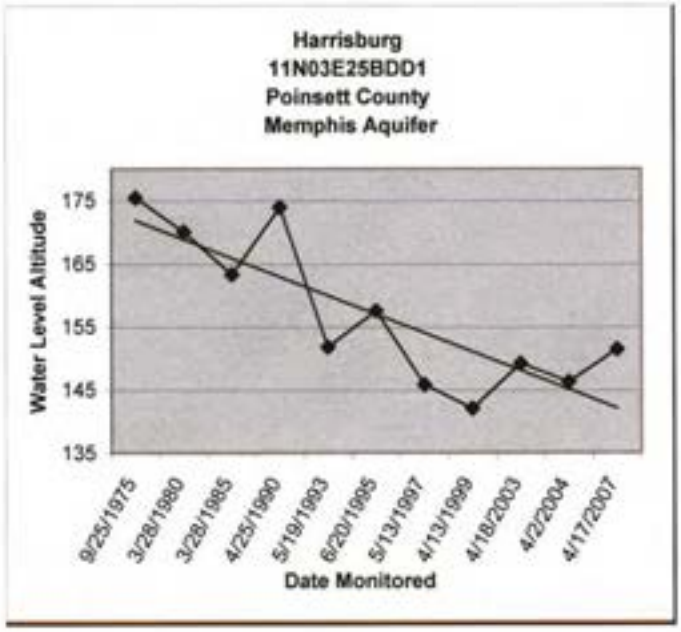

Tucker Prison
03S08W19BBD1
Jefferson County
Sparta Aquifer
Water level altitude
80
75
70
65
60
55
50
45
40
35
30
3/24/1980
3/15/1985
3/26/1990
5/18/1995
5/20/1997
3/25/1999
3/30/2000
4/27/2001
4/3/2002
4/23/2003
3/17/2004
4/12/2005
4/13/2006
3/27/2007
Date monitored

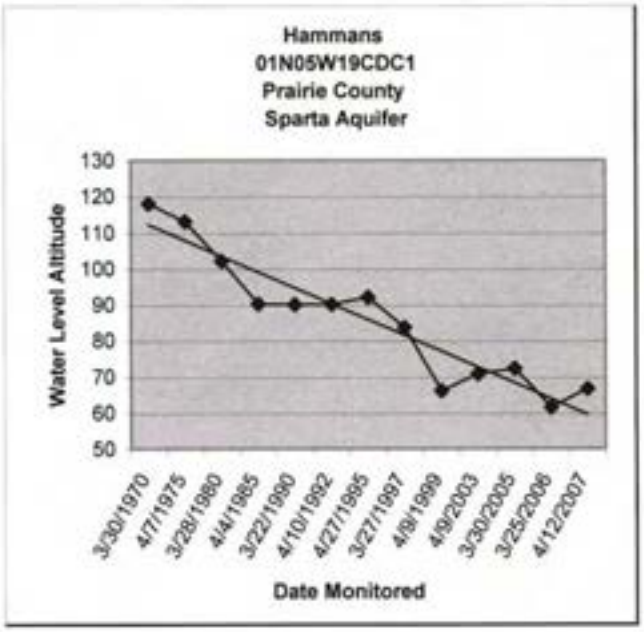

International Paper
05S08W30CBA1
Jefferson County
Sparta Aquifer
Water level altitude
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
3/24/1965
10/5/1970
5/22/1975
3/21/1980
4/5/1990
7/2/1993
5/1/1996
3/23/1999
4/11/2002
3/14/2004
4/14/2006
Date monitored

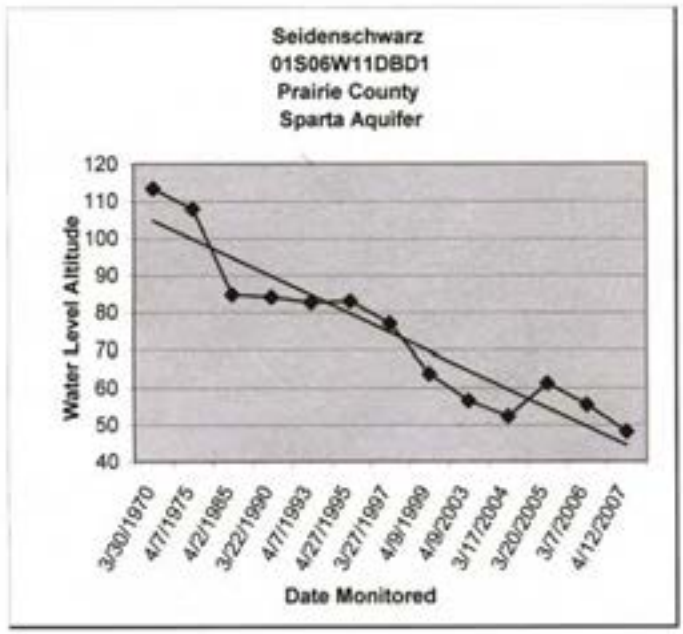

Childers Wells
11S15W27ABD1
Ouachita County
Sparta Aquifer
Water Level Altitude
143
141
139
137
135
133
131
129
127
125
3/8/1965
4/13/1970
10/11/1970
3/31/1975
11/12/1975
3/21/1980
10/14/1980
4/8/1985
3/10/1997
3/12/1999
3/15/2001
3/12/2002
3/15/2004
3/17/2005
1/18/2006
3/22/2007
Date Monitored

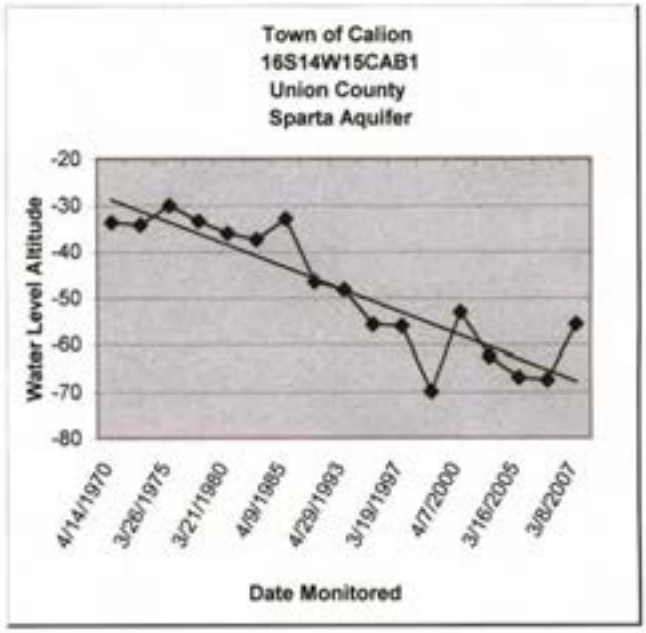

AR Hwy. Dept
14S17W05CAD1
Ouachita County
Sparta Aquifer
Water Level Altitude
124
122
120
118
116
114
112
110
4/14/1970
3/31/1975
3/20/1980
4/9/1985
4/27/1995
3/11/1999
3/16/2001
3/12/2003
3/22/2005
4/17/2007
Date Monitored

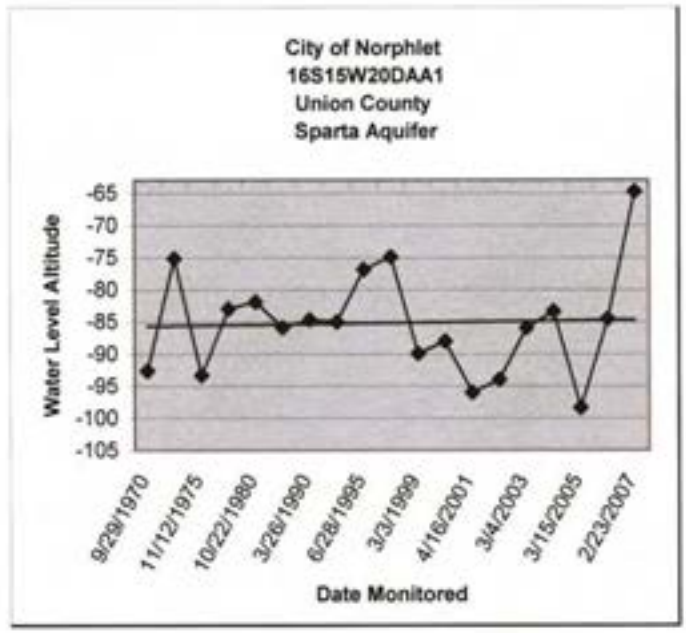

USGS
14S19W29ABB1
Ouachita County
Sparta Aquifer
Water Level Altitude
198
197
196
195
194
193
192
191
190
3/21/1980
4/8/1985
5/24/1993
3/11/1997
4/4/2000
3/12/2003
3/22/2005
3/15/2007
Date Monitored

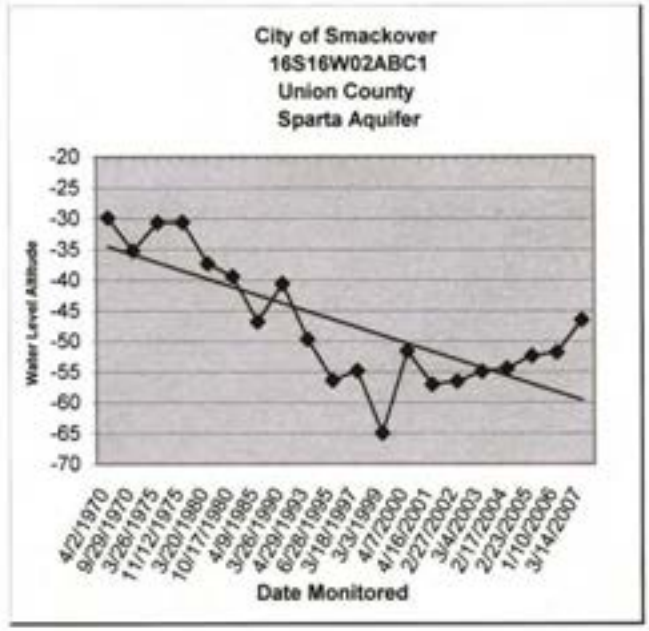

Harrisburg
11N03E25BDD1
Poinsett County
Memphis Aquifer
Water Level Altitude
175
165
155
145
135
9/25/1975
3/28/1980
3/28/1985
4/25/1990
5/19/1993
6/20/1995
5/13/1997
4/13/1999
4/18/2003
4/2/2004
4/17/2007
Date Monitored

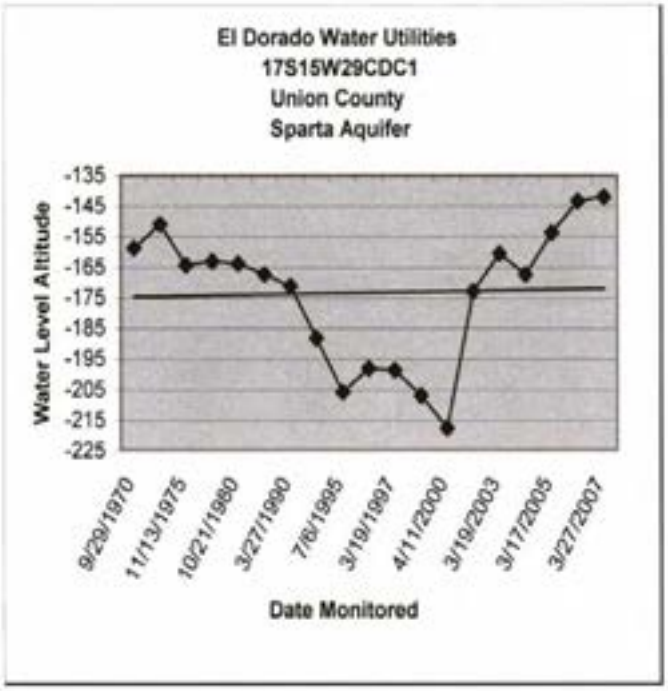

Hammans
01N05W19CDC1
Prairie County
Sparta Aquifer
Water Level Altitude
130
120
110
100
90
80
70
60
50
3/30/1970
4/7/1975
3/28/1980
4/4/1985
3/22/1990
4/10/1992
4/27/1995
3/27/1997
4/9/1999
4/9/2003
3/30/2005
3/25/2006
4/12/2007
Date Monitored

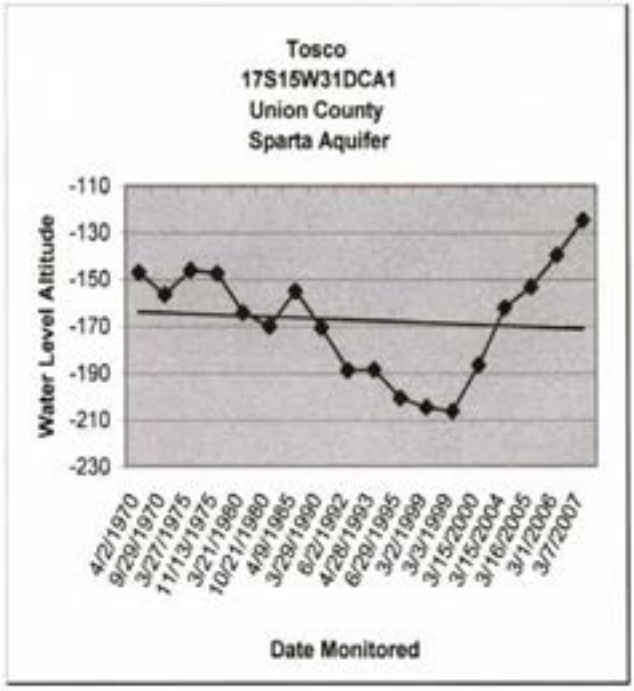

Seidenschwarz
01S06W11DBD1
Prairie County
Sparta Aquifer
Water Level Altitude
120
110
100
90
80
70
60
50
40
3/30/1970
4/7/1975
4/2/1985
3/22/1990
4/7/1993
4/27/1995
3/27/1997
4/9/1999
4/9/2003
3/17/2004
3/20/2005
3/7/2006
4/12/2007
Date Monitored

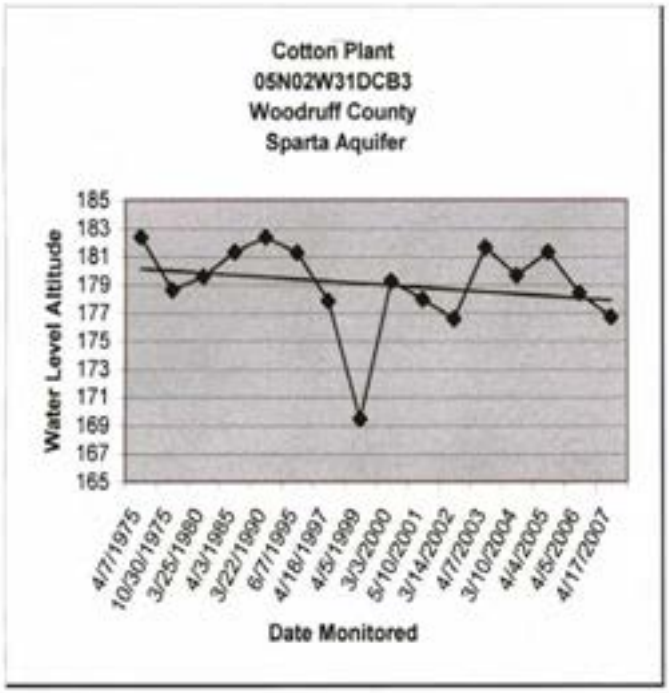

Town of Calion
16S14W15CAB1
Union County
Sparta Aquifer
Water Level Altitude
-20
-30
-40
-50
-60
-70
-80
4/14/1970
3/26/1975
3/21/1980
4/9/1985
4/29/1993
3/19/1997
4/7/2000
3/16/2005
3/8/2007
Date Monitored

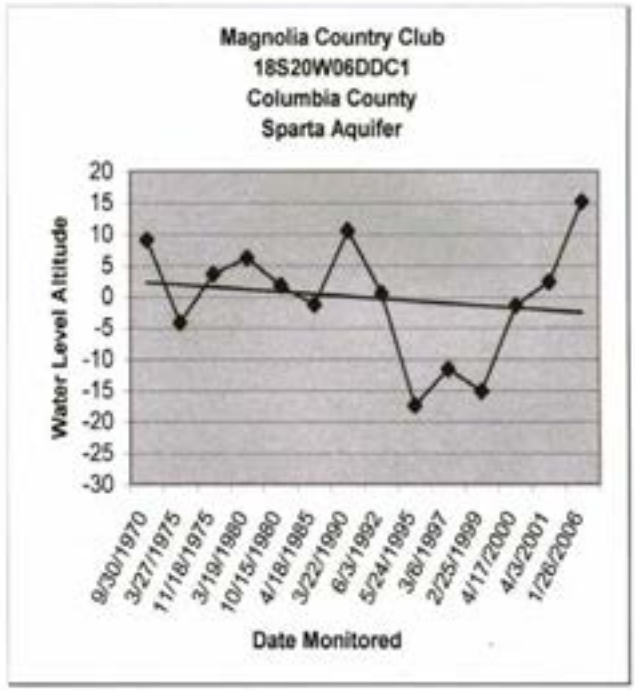

City of Norphlet
16S15W20DAA1
Union County
Sparta Aquifer
Water Level Altitude
-65
-70
-75
-80
-85
-90
-95
-100
-105
9/29/1970
11/12/1975
10/22/1980
3/26/1990
6/28/1995
3/3/1999
4/16/2001
3/4/2003
3/15/2005
2/23/2007
Date Monitored


City of Smackover
16S16W02ABC1
Union County
Sparta Aquifer
Water Level Altitude
-20
-25
-30
-35
-40
-45
-50
-55
-60
-65
-70
4/2/1970
9/29/1970
3/26/1975
11/12/1975
3/20/1980
10/17/1980
4/9/1985
3/26/1990
4/29/1993
6/28/1995
3/18/1997
3/3/1999
4/7/2000
4/16/2001
2/27/2002
3/4/2003
2/17/2004
2/23/2005
1/10/2006
3/14/2007
Date Monitored


El Dorado Water Utilities
17S15W29CDC1
Union County
Sparta Aquifer
Water Level Altitude
-135
-145
-155
-165
-175
-185
-195
-205
-215
-225
9/29/1970
11/13/1975
10/21/1980
3/27/1990
7/6/1995
3/19/1997
4/11/2000
3/19/2003
3/17/2005
3/27/2007
Date Monitored


Tosco
17S15W31DCA1
Union County
Sparta Aquifer
Water Level Altitude
-110
-130
-150
-170
-190
-210
-230
4/2/1970
9/29/1970
3/27/1975
11/13/1975
3/21/1980
10/21/1980
4/8/1985
3/29/1990
6/2/1992
4/28/1993
6/29/1995
3/2/1999
3/3/1999
3/15/2000
3/15/2004
3/16/2005
3/1/2006
3/7/2007
Date Monitored


Cotton Plant
05N02W31DCB3
Woodruff County
Sparta Aquifer
Water Level Altitude
185
183
181
179
177
175
173
171
169
167
165
4/7/1975
10/30/1975
3/25/1980
4/3/1985
3/22/1990
6/7/1995
4/18/1997
4/5/1999
3/3/2000
5/10/2001
3/14/2002
4/7/2003
3/10/2004
4/4/2005
4/5/2006
4/17/2007
Date Monitored


Magnolia Country Club
18S20W06DDC1
Columbia County
Sparta Aquifer
Water Level Altitude
20
15
10
5
0
-5
-10
-15
-20
-25
-30
9/30/1970
3/27/1975
11/18/1975
3/19/1980
10/15/1980
4/18/1985
3/22/1990
6/3/1992
5/24/1995
3/6/1997
2/25/1999
4/17/2000
4/3/2001
1/26/2006
Date Monitored

Appendix E

Comparative Table of Selected Spring/Fall Water Level Changes

Spring/Fall WL Changes on
Selected Alluvial Wells
2007

County	Station ID	Latitude	Longitude	LSA	Date	Depth To	WL	Date	Depth	WL	Spring/Fall
					Measured	Water	Alt. Spring '07	Measured	to Water	Alt. Fall '07	07 Change
Arkansas	03S03W18CCC1	342553	912251	196.00	3/20/2007	99.71	96.29	10/17/2007	100.49	95.51	-0.78
Arkansas	03S05W13AC1	342630	913007	211.00	3/20/2007	107.40	103.60	10/17/2007	107.09	103.91	0.31
Arkansas	04S04W35ABC1	341835	912437	197.00	4/19/2007	105.50	91.50	9/28/2007	106.40	90.60	-0.90
Arkansas	05S03W09CBA1	341624	912046	196.00	3/22/2007	113.19	82.81	10/17/2007	115.42	80.58	-2.23
Arkansas	06S03W32DDA	340740	912115	180.00	4/17/2007	56.14	123.86	10/17/2007	60.96	119.04	-4.82
								Avg. Change:			**-1.68**
Ashley	17S05W01AAC1	331529	913347	122.00	4/17/2007	18.00	104.00	9/21/2007	18.00	104.00	0.00
Ashley	18S04W23DDD1	330651	912941	103.00	4/17/2007	29.00	74.00	9/21/2007	31.00	72.00	-2.00
Ashley	18S05W11CCD1	330816	915337	118.00	4/17/2007	25.00	93.00	9/21/2007	29.00	89.00	-4.00
Ashley	18S05W22DDA1	330712	913555	125.00	4/17/2007	22.00	103.00	9/21/2007	26.00	99.00	-4.00
Ashley	19S04W14BBB1	330314	912940	107.00	4/17/2007	31.00	76.00	9/21/2007	34.00	73.00	-3.00
Ashley	19S05W22DCD1	330139	913615	107.00	4/17/2007	24.00	83.00	9/21/2007	29.00	78.00	-5.00
Ashley	19S05W08ACA1	330405	913815	111.00	4/17/2007	17.00	94.00	9/21/2007	19.00	92.00	-2.00
Ashley	19S05W16ABB1	330323	913718	116.00	4/17/2007	26.00	90.00	9/21/2007	29.00	87.00	-3.00
								Avg. Change:			**-2.88**
Chicot	13S03W27AAA1	333253	912310	138.00	4/12/2007	46.00	92.00	9/10/2007	48.00	90.00	-2.00
Chicot	14S02W18BBA1	332859	912038	130.00	4/12/2007	36.00	94.00	9/11/2007	35.00	95.00	1.00
Chicot	14S02W09BDD1	332859	911729	133.00	4/16/2007	31.00	102.00	9/12/2007	30.00	103.00	1.00
Chicot	15S03W18BBB1	332226	911919.83	125.00	4/5/2007	37.00	88.00	9/12/2007	42.00	83.00	-5.00
Chicot	15S02W20DDC1	332226.59	911919.83	110.00	4/16/2007	30.00	80.00	9/10/2007	33.00	77.00	-3.00
Chicot	17S03W18CBC1	331257	912736	117.00	4/5/2007	34.00	83.00	9/19/2007	37.00	80.00	-3.00
Chicot	18S01W33BDA1	330543	911245	115.00	4/5/2007	16.00	99.00	9/19/2007	18.00	97.00	-2.00
								Avg. Change:			**-1.86**
Clay	21N03E36CD	362450	904214	290.00	4/26/2007	18.00	272.00	10/29/2007	24.00	266.00	-6.00
Clay	21N04E09DBC1	362828	903853	291.00	4/26/2007	9.50	281.50	10/29/2007	15.50	275.50	-6.00
Clay	20N04E03AA1	362425	903725	290.00	4/26/2007	14.60	275.40	10/29/2007	19.20	270.80	-4.60
Clay	20N06E28CCD1	362005	902630	290.00	4/26/2007	18.00	272.00	10/29/2007	33.10	256.90	-15.10
Clay	20N06E09BB1	362327	902620	290.00	4/26/2007	20.00	270.00	10/29/2007	33.70	256.30	-13.70
Clay	21N07E01DDC1	362835	901607	303.00	4/26/2007	20.00	283.00	10/29/2007	34.00	269.00	-14.00
Clay	19N08E08DCA1	361729	901402	270.00	4/26/2007	4.80	265.20	10/29/2007	8.00	262.00	-3.20
Clay	19N07E25BCB1	361519	901700	268.00	4/25/2007	17.00	251.00	10/29/2007	20.00	248.00	-3.00
Clay	19N09E30BB1	361531	900921	265.00	4/25/2007	7.10	257.90	10/29/2007	9.00	256.00	-1.90

Spring/Fall WL Changes on
Selected Alluvial Wells
2007

County	Station ID	Latitude	Longitude	LSA	Date	Depth To	WL	Date	Depth	WL	Spring/Fall
					Measured	Water	Alt. Spring '07	Measured	to Water	Alt. Fall '07	07 Change
Clay	20N09E09ABC1	362306	900642	279.00	4/25/2007	6.20	272.80	10/29/2007	16.00	263.00	-9.80
Clay	20N05E22CAD1	362118	903132	290.00	4/25/2007	27.10	262.90	10/29/2007	31.10	258.90	-4.00
Clay	21N08E03CD1	362842	901211	308.00	4/25/2007	18.00	290.00	10/29/2007	30.90	277.10	-12.90
Clay	19N06E18DBC1	361642	902815	297.00	4/26/2007	36.60	260.40	10/29/2007	41.40	255.60	-4.80
Clay	20N08E22BDC1	362111	901220	275.00	4/25/2007	8.00	267.00	10/29/2007	12.00	263.00	-4.00
Clay	18N08E11BAA1	361253	901117	259.00	4/25/2007	7.40	251.60	10/29/2007	10.00	249.00	-2.60
Clay	19N05E15BBD1	361716	903152	289.00	4/26/2007	24.20	264.80	10/29/2007	39.20	249.80	-15.00
Clay	21N06E11BBB1	362839	902421	296.00	4/26/2007	12.00	284.00	10/29/2007	19.00	277.00	-7.00
Clay	21N09E31BDA1	362447	900851	284.00	4/25/2007	4.20	279.80	10/29/2007	13.10	270.90	-8.90
Clay	20N05E30CAC1	362003	903454	283.00	4/26/2007	16.80	266.20	10/29/2007	21.40	261.60	-4.60
Clay	19N04E19BAA1	361649	904125	279.00	4/26/2007	21.60	257.40	10/29/2007	27.10	251.90	-5.50
Clay	19N04E11DAA1	361805	903621	280.00	4/26/2007	21.00	259.00	10/29/2007	14.70	265.30	6.30
Clay	20N03E25BA	362112	904225	288.00	4/26/2007	20.50	267.50	10/29/2007	26.60	261.40	-6.10
Clay	21N05E22BAB1	362704	903132	288.00	4/26/2007	5.00	283.00	10/29/2007	13.00	275.00	-8.00
Clay	20N09E33DDC1	361904	900628	270.00	4/25/2007	6.80	263.20	10/29/2007	12.00	258.00	-5.20
								Avg. Change:			**-6.65**
Craighead	14N02E27AA	354918	905125	255.00	3/27/2007	79.25	175.75	9/11/2007	82.95	172.05	-3.70
Craighead	15N07E10DAB1	355622	901934	235.00	3/14/2007	10.00	225.00	10/3/2007	11.40	223.60	-1.40
Craighead	13N05E06DCC1	354637	903547	229.00	3/14/2007	21.00	208.00	10/2/2007	22.00	207.00	-1.00
Craighead	15N06E04BAD1	355744	902706	239.00	3/14/2007	16.00	223.00	10/3/2007	17.00	222.00	-1.00
Craighead	13N04E15DBA1	354521	903857	230.00	3/16/2007	26.10	203.90	10/1/2007	27.80	202.20	-1.70
Craighead	14N02E15DD1	354852	905044	255.00	3/13/2007	75.50	179.50	10/1/2007	77.80	177.20	-2.30
Craighead	15N02E12DCB1	355626	904930	250.00	3/14/2007	34.80	215.20	10/1/2007	37.80	212.20	-3.00
Craighead	14N01E10BAB1	355204	905828	246.00	3/13/2007	52.00	194.00	10/1/2007	57.60	188.40	-5.60
Craighead	13N02E02AAB1	354731	905032	251.00	3/13/2007	93.00	158.00	10/1/2007	94.00	157.00	-1.00
Craighead	13N01E03AAA1	354739	905753	240.00	3/13/2007	53.70	186.30	10/1/2007	57.50	182.50	-3.80
Craighead	14N01E31DCA1	354817	910121	251.00	3/13/2007	60.10	190.90	10/1/2007	56.20	194.80	3.90
Craighead	13N03E23CDA1	354419	904434	249.00	3/14/2007	81.60	167.40	10/2/2007	81.80	167.20	-0.20
Craighead	13N07E35BCD1	354233	901837	221.00	3/14/2007	14.00	207.00	10/3/2007	14.00	207.00	0.00
Craighead	13N04E26BCC1	354340	903829	225.00	3/14/2007	26.90	198.10	10/2/2007	30.00	195.00	-3.10
Craighead	14N01E03ACB1	355246	905816	249.00	3/13/2007	51.00	198.00	10/1/2007	51.90	197.10	-0.90
Craighead	13N02E03AAA1	354733	905129	250.00	3/13/2007	87.20	162.80	10/1/2007	91.20	158.80	-4.00
Craighead	13N01E21CAB1	354434	905945	240.00	3/13/2007	63.50	176.50	10/1/2007	69.20	170.80	-5.70
Craighead	13N03E28CDB1	354322	904652	250.00	3/14/2007	108.50	141.50	10/2/2007	117.50	132.50	-9.00
Craighead	13N01E26BC1	353832	905800	245.00	3/13/2007	69.00	176.00	10/1/2007	70.90	174.10	-1.90
Craighead	15N07E35DCB1	355241	901831	231.00	3/14/2007	14.00	217.00	10/3/2007	15.80	215.20	-1.80

Spring/Fall WL Changes on
Selected Alluvial Wells
2007

County	Station ID	Latitude	Longitude	LSA	Date Measured	Depth To Water	WL Alt. Spring '07	Date Measured	Depth to Water	WL Alt. Fall '07	Spring/Fall 07 Change
Craighead	15N05E22BAB1	355513	903241	260.00	3/14/2007	35.20	224.80	10/3/2007	38.00	222.00	-2.80
Craighead	13N05E02CCC1	354648	903202	230.00	3/14/2007	13.00	217.00	10/2/2007	14.90	215.10	-1.90
Craighead	14N07E14DDC1	354956	901831	230.00	3/14/2007	14.00	216.00	10/3/2007	14.00	216.00	0.00
Craighead	13N07E05ABB1	354716	902158	225.00	3/14/2007	5.00	220.00	10/3/2007	12.50	212.50	-7.50
Craighead	13N05E24BAC1	354451	903045	225.00	3/14/2007	12.80	212.20	10/2/2007	14.20	210.80	-1.40
Craighead	13N07E02CAB1	354642	901901	226.00	3/14/2007	11.40	214.60	10/3/2007	10.70	215.30	0.70
Craighead	13N03E35AAA1	354308	904401	249.00	3/13/2007	93.00	156.00	10/2/2007	98.00	151.00	-5.00
Craighead	13N06E21AD1	354421	902743	220.00	3/14/2007	9.00	211.00	10/3/2007	11.50	208.50	-2.50
								Avg. Change:			**-2.41**
Crittenden	08N07E32DAA1	351618	902146	215.00	3/21/2007	30.50	184.50	10/19/2007	33.20	181.80	-2.70
Crittenden	08N07E35BCB1	351630	901933	221.00	4/6/2007	31.24	189.76	9/12/2007	33.98	187.02	-2.74
Crittenden	09N08E08CCB1	352501	901608	214.00	3/21/2007	25.70	188.30	10/19/2007	29.60	184.40	-3.90
Crittenden	06N07E13BAA1	350849.58	901807.57	205.00	3/20/2007	22.30	182.70	10/25/2007	24.30	180.70	-2.00
Crittenden	08N06E01DCC1	352021	902408	215.00	3/21/2007	34.20	180.80	10/19/2007	34.90	180.10	-0.70
Crittenden	05N07E34CDD1	350010	902028	205.00	3/20/2007	17.60	187.40	10/25/2007	21.60	183.40	-4.00
Crittenden	05N07E09BCA1	350410	902138	206.00	3/20/2007	24.50	181.50	10/25/2007	25.90	180.10	-1.40
Crittenden	09N07E02CDB1	352537	901905	225.00	3/20/2007	32.50	192.50	10/19/2007	36.11	188.89	-3.61
Crittenden	07N06E24CCC1	351227	902445	213.00	3/21/2007	36.00	177.00	10/25/2007	38.60	174.40	-2.60
Crittenden	07N06E30AAA1	351227	902923	210.00	3/21/2007	40.80	169.20	10/25/2007	40.60	169.40	0.20
Crittenden	07N08E04BDC1	351525	902138	211.00	3/20/2007	21.00	190.00	10/19/2007	22.60	188.40	-1.60
Crittenden	09N07E31BAB1	352159.85	902326.57	221.00	3/21/2007	33.10	187.90	10/19/2007	34.50	186.50	-1.40
Crittenden	08N08E06ABB1	352103	901644	223.00	3/21/2007	29.80	193.20	10/19/2007	32.30	190.70	-2.50
								Avg. Change:			**-2.23**
Cross	06N02E11DDB1	350923	905132	200.00	5/8/2007	64.00	136.00	10/29/2007	66.00	134.00	-2.00
Cross	06N02E12AAA1	350934	904952	235.00	5/8/2007	80.50	154.50	10/29/2007	82.00	153.00	-1.50
Cross	06N04E01DDB1	351028	903656	205.00	5/10/2007	36.00	169.00	10/30/2007	38.50	166.50	-2.50
Cross	06N05E02BAB1	351039	903202	205.00	5/10/2007	40.00	165.00	10/30/2007	43.00	162.00	-3.00
Cross	07N01E05BCD1	351550	910726	215.00	5/8/2007	74.00	141.00	10/29/2007	74.00	141.00	0.00
Cross	07N01E06DCD1	351532	910152	220.00	5/8/2007	74.00	146.00	10/27/2007	74.00	146.00	0.00
Cross	07N02E02BBB1	351544	905140	220.00	5/4/2007	74.00	146.00	10/27/2007	76.50	143.50	-2.50
Cross	07N02E10BBB1	351455	905205	225.00	5/4/2007	85.00	140.00	10/29/2007	88.50	136.50	-3.50
Cross	07N02E15ACA1	351959	904623	218.00	5/4/2007	82.50	135.50	10/29/2007	85.00	133.00	-2.50
Cross	07N02E28CCC1	351709	903947	210.00	5/4/2007	71.50	138.50	10/29/2007	73.50	136.50	-2.00
Cross	07N02E29DDC1	351138.09	905409.17	220.00	5/8/2007	72.00	148.00	10/29/2007	75.00	145.00	-3.00

Spring/Fall WL Changes on
Selected Alluvial Wells
2007

County	Station ID	Latitude	Longitude	LSA	Date Measured	Depth To Water	WL Alt. Spring '07	Date Measured	Depth to Water	WL Alt. Fall '07	Spring/Fall 07 Change
Cross	07N02E02CD	351510	905113	225.00	3/20/2007	82.22	142.78	9/11/2007	84.19	140.81	-1.97
Cross	07N03E05DDA1	351548	904738	255.00	5/7/2007	103.00	152.00	10/29/2007	106.00	149.00	-3.00
Cross	07N04E04DBB1	351534	904021	205.00	5/7/2007	30.00	175.00	10/29/2007	32.00	173.00	-2.00
Cross	07N04E07AAA1	351457	904234	215.00	5/10/2007	46.50	168.50	10/27/2007	51.00	164.00	-4.50
Cross	07N04E27ADB1	351221	903908	200.00	5/10/2007	25.00	175.00	10/30/2007	78.50	121.50	-53.50
Cross	07N05E02BAA1	351600	903103	210.00	5/7/2007	41.50	168.50	10/30/2007	44.50	165.50	-3.00
Cross	07N05E09BAA1	351506	903347	210.00	5/10/2007	32.50	177.50	10/30/2007	36.00	174.00	-3.50
Cross	08N01E02DDC1	352045	905801	220.00	5/8/2007	85.00	135.00	10/31/2007	86.50	133.50	-1.50
Cross	08N01E17CAD1	351926	910056	220.00	5/8/2007	76.00	144.00	10/27/2007	78.00	142.00	-2.00
Cross	08N02E29ABD1	351704	905421	225.00	5/4/2007	71.50	153.50	10/29/2007	85.00	140.00	-13.50
Cross	08N05E17AAC1	351922	903448	210.00	5/10/2007	25.00	185.00	10/27/2007	33.50	176.50	-8.50
Cross	09N01E04CDB1	352617	905913	225.00	5/7/2007	90.00	135.00	10/31/2007	91.00	134.00	-1.00
Cross	09N02E32BBB1	352148	905431	225.00	5/7/2007	96.00	129.00	10/29/2007	99.00	126.00	-3.00
Cross	09N03E03DCC1	352619	904529	250.00	5/7/2007	108.00	142.00	10/27/2007	109.50	140.50	-1.50
Cross	09N03E17DCD1	352422	904753	245.00	5/7/2007	102.50	142.50	10/29/2007	104.00	141.00	-1.50
Cross	09N04E01AAC1	352552	903742	205.00	5/10/2007	15.00	190.00	10/31/2007	17.00	188.00	-2.00
Cross	09N04E03DBB1	352614	903918	215.00	5/10/2007	25.50	189.50	10/29/2007	27.00	188.00	-1.50
Cross	09N04E33DBB1	352205	904041	205.00	5/10/2007	37.00	168.00	10/31/2007	36.50	168.50	0.50
Cross	09N05E10DBC1	352451	903312	210.00	5/10/2007	21.50	188.50	10/29/2007	24.00	186.00	-2.50
Cross	9N01E36AAB1	352155	905605	225.00	5/7/2007	86.50	138.50	10/29/2007	89.00	136.00	-2.50
Cross	09N05E32BDB1	352150.53	903512.11	210.00	5/10/2007	30.00	180.00	10/27/2007	33.00	177.00	-3.00
Cross	09N09E20AAA1	352333	905414	230.00	5/7/2007	93.00	137.00	10/29/2007	96.00	134.00	-3.00
Cross	08N01E16DBB1	351855	905933	225.00	5/7/2007	85.50	139.50	10/31/2007	88.50	136.50	-3.00
Cross	08N02E17AAA1	351923	905354	225.00	5/4/2007	87.00	138.00	10/29/2007	89.00	136.00	-2.00
Cross	08N02E12DCC1	351938	905002	230.00	5/4/2007	89.50	140.50	10/29/2007	93.50	136.50	-4.00
Cross	09N01E12BBC1	352505	905653	226.00	3/20/2007	91.27	134.73	9/11/2007	93.82	132.18	-2.55
Cross	08N03E09CAC1	351959	904623	265.00	5/7/2007	114.00	151.00	10/27/2007	116.50	148.50	-2.50
Cross	9N02E30CBB1	352243	905551	225.00	5/7/2007	89.00	136.00	10/31/2007	91.00	134.00	-2.00
								Avg. Change:			**-4.01**
Desha	11S02W15BAD1	334446	911635	148.00	4/3/2007	36.00	112.00	9/20/2007	36.00	112.00	0.00
Desha	09S01W15CBB1	335501	911055	152.00	4/3/2007	39.00	113.00	9/20/2007	39.00	113.00	0.00
Desha	10S02W11ADD1	335045	911517	146.00	4/3/2007	30.00	116.00	9/20/2007	29.00	117.00	1.00
Desha	09S02W17CBC1	355502	911920	153.00	4/3/2007	43.00	110.00	9/20/2007	35.00	118.00	8.00
Desha	09S04W02CDA1	335823	912821	163.00	4/3/2007	42.00	121.00	9/20/2007	36.00	127.00	6.00
Desha	09S01W08BDA1	335608	911234	156.00	4/3/2007	30.00	126.00	9/20/2007	30.00	126.00	0.00
Desha	12S01W23DBC1	333803	911019	146.00	4/3/2007	32.00	114.00	9/20/2007	28.00	118.00	4.00

Spring/Fall WL Changes on
Selected Alluvial Wells
2007

County	Station ID	Latitude	Longitude	LSA	Date Measured	Depth To Water	WL Alt. Spring '07	Date Measured	Depth to Water	WL Alt. Fall '07	Spring/Fall 07 Change
Desha	13S02W05CDD1	333535	911938	146.00	4/3/2007	40.00	106.00	9/20/2007	48.00	98.00	-8.00
Desha	13S02W32DBD1	333126	911917	135.00	4/3/2007	44.00	91.00	9/20/2007	44.00	91.00	0.00
Desha	13S03W11CAB1	333503	912241	142.00	4/3/2007	52.00	90.00	9/20/2007	55.00	87.00	-3.00
Desha	11S03W21ABB1	334416	912412	139.00	4/3/2007	34.00	105.00	9/20/2007	36.00	103.00	-2.00
Desha	07S01E19ABA1	340428	910303	154.00	4/3/2007	22.00	132.00	10/26/2007	25.00	129.00	-3.00
								Avg. Change:			**0.25**
Drew	11S04W35DC1	334144	912842	154.00	3/1/2007	28.66	125.34	9/12/2007	30.25	123.75	-1.59
Drew	13S06W21DAA1	333324	914258	207.00	4/10/2007	87.00	120.00	9/14/2007	72.00	135.00	15.00
Drew	12S04W25DBB1	333739	912738	149.00	4/13/2007	26.00	123.00	9/14/2007	36.00	113.00	-10.00
Drew	13S04W09ACD1	333512	913034	145.00	4/16/2007	20.00	125.00	9/17/2007	20.00	125.00	0.00
Drew	14S04W03CBA1	333039	912944	140.00	4/10/2007	29.00	111.00	9/17/2007	28.00	112.00	1.00
								Avg. Change:			**0.88**
Greene	17N07E01BBA1	360822	901745	248.00	4/19/2007	6.60	241.40	10/26/2007	11.00	237.00	-4.40
Greene	16N03E29ACC1	355926	904722	257.00	4/19/2007	29.00	228.00	10/26/2007	43.20	213.80	-14.20
Greene	18N07E17BAB1	361203	902105	262.00	4/19/2007	9.10	252.90	10/26/2007	17.20	244.80	-8.10
Greene	16N06E21BAA1	360031	902705	249.00	4/19/2007	27.20	221.80	10/26/2007	32.10	216.90	-4.90
Greene	18N07E05DAB1	361317	902034	275.00	4/19/2007	14.20	260.80	10/26/2007	22.70	252.30	-8.50
Greene	19N05E34AAD1	361437	903102	282.00	4/19/2007	41.30	240.70	10/26/2007	27.10	254.90	14.20
Greene	16N06E09ABB1	360215	902651	261.00	4/19/2007	52.50	208.50	10/26/2007	47.00	214.00	5.50
Greene	17N03E26CBB1	360422	904626	260.00	4/19/2007	39.80	220.20	10/26/2007	38.90	221.10	0.90
Greene	17N03E02DCC1	360806	904352	267.00	4/19/2007	29.80	237.20	10/26/2007	35.40	231.60	-5.60
Greene	17N06E15ABC1	360631	902546	268.00	4/19/2007	31.30	236.70	10/26/2007	36.10	231.90	-4.80
Greene	16N03E05BBB1	360316	904750	257.00	4/19/2007	33.90	223.10	10/26/2007	38.40	218.60	-4.50
Greene	16N03E16DDD1	360049	904547	258.00	4/19/2007	29.60	228.40	10/26/2007	32.80	225.20	-3.20
Greene	17N04E07DDA1	360712	904129	271.00	4/19/2007	40.20	230.80	10/26/2007	50.90	220.10	-10.70
Greene	17N04E28DAA1	360431	903917	319.00	4/5/2007	83.33	235.67	9/12/2007	87.99	231.01	-4.66
Greene	18N03E24ACA1	361141	904234	271.00	4/19/2007	34.20	236.80	10/26/2007	36.10	234.90	-1.90
Greene	18N04E04AAC1	361356	903854	273.00	4/19/2007	32.70	240.30	10/26/2007	36.00	237.00	-3.30
Greene	19N03E33DDD1	361418	904516	276.00	4/19/2007	44.50	231.50	10/26/2007	47.40	228.60	-2.90
Greene	18N06E23ACB1	361056	902357	277.00	4/19/2007	16.10	260.90	10/26/2007	20.80	256.20	-4.70
								Avg. Change:			**-3.65**
Jackson	11N01W10DA	353358	910428	231.00	3/25/2007	54.53	176.47	9/11/2007	57.39	173.61	-2.86

Spring/Fall WL Changes on
Selected Alluvial Wells
2007

County	Station ID	Latitude	Longitude	LSA	Date Measured	Depth To Water	WL Alt. Spring '07	Date Measured	Depth to Water	WL Alt. Fall '07	Spring/Fall 07 Change
Jackson	14N01W26BCB1	354922	910407	245.00	4/12/2007	43.30	201.70	10/17/2007	46.40	198.60	-3.10
Jackson	14N01W08AAA1	355216	910623	252.00	4/12/2007	36.00	216.00	10/23/2007	37.60	214.40	-1.60
Jackson	14N01W19BBB1	355032	910823	246.00	4/12/2007	32.00	214.00	10/23/2007	23.00	223.00	9.00
Jackson	14N02W22BBC1	355026	911145	250.00	4/12/2007	28.00	222.00	10/23/2007	31.40	218.60	-3.40
Jackson	11N02W23ADC1	353357	911002	221.00	4/20/2007	26.00	195.00	10/23/2007	30.20	190.80	-4.20
Jackson	09N02W32BBB1	352215	911344	220.00	4/20/2007	34.00	186.00	10/23/2007	31.00	189.00	3.00
Jackson	10N01W10ABA1	353055	910445	223.00	4/20/2007	59.20	163.80	10/23/2007	62.60	160.40	-3.40
Jackson	11N01W25BDA1	353322	910228	227.00	4/20/2007	66.20	160.80	10/23/2007	64.00	163.00	2.20
Jackson	12N01W30CCC2	353812	910821	227.00	4/12/2007	33.00	194.00	10/23/2007	35.70	191.30	-2.70
Jackson	13N03W36ABB1	354337	911532	241.00	4/12/2007	16.60	224.40	10/17/2007	20.20	220.80	-3.60
Jackson	09N01W30BAC1	352258	910813	218.00	4/20/2007	44.50	173.50	10/23/2007	40.50	177.50	4.00
Jackson	12N01W11BCB1	354127	910416	233.00	4/12/2007	38.20	194.80	10/23/2007	34.00	199.00	4.20
Jackson	11N03W05ABA1	353722	912012	224.00	4/12/2007	21.10	202.90	10/23/2007	24.40	199.60	-3.30
								Avg. Change:			**-0.41**
Jefferson	03S10W35BCA2	342537	900241	215.00	4/5/2007	13.70	201.30	9/14/2007	18.50	196.50	-4.80
Jefferson	03S10W26BBB2	342427	920249	215.00	4/5/2007	18.50	196.50	9/14/2007	26.00	189.00	-7.50
Jefferson	04S09W32DDA1	341859	920008	212.00	4/5/2007	20.00	192.00	9/14/2007	22.00	190.00	-2.00
Jefferson	03S09W14BCD1	342712	915712	224.00	4/5/2007	43.00	181.00	9/14/2007	43.50	180.50	-0.50
Jefferson	03S09W36ACC1	342428	915555	214.00	4/5/2007	30.00	184.00	9/14/2007	27.50	186.50	2.50
Jefferson	04S07W35DDB1	341836	914347	185.00	4/5/2007	31.80	153.20	9/14/2007	30.00	155.00	1.80
Jefferson	05S07W28CCC1	341412	914651	195.00	4/5/2007	16.50	178.50	9/14/2007	20.50	174.50	-4.00
								Avg. Change:			**-2.07**
Lawrence	15N01E32BAA1	355352	910027	254.00	5/1/2007	52.25	201.75	9/12/2007	55.28	198.72	-3.03
Lawrence	15N01E09ABD1	355714	905900	259.00	5/1/2007	54.30	204.70	9/12/2007	57.50	201.50	-3.20
Lawrence	16N02E34CBB1	355831	905208	255.00	3/15/2007	47.70	207.30	10/1/2007	51.70	203.30	-4.00
Lawrence	17N02E04DCA1	360758	905224	270.00	3/17/2007	42.30	227.70	10/1/2007	46.10	223.90	-3.80
Lawrence	17N01E02BBA1	360901	905707	260.00	3/18/2007	15.00	245.00	10/1/2007	17.80	242.20	-2.80
Lawrence	17N01W36AAB1	360435	910158	257.00	3/19/2007	13.20	243.80	10/1/2007	17.50	239.50	-4.30
Lawrence	16N01W30DDC1	355936.93	910723.26	255.00	3/20/2007	16.10	238.90	10/1/2007	26.30	228.70	-10.20
								Avg. Change:			**-4.48**
Lee	01N02E33CBB1	343858	905434	186.00	4/24/2007	17.00	169.00	10/29/2007	25.00	161.00	-8.00
Lee	01N02E33CCB1	343851	905433	185.00	4/24/2007	14.00	171.00	10/29/2007	24.00	161.00	-10.00

Spring/Fall WL Changes on
Selected Alluvial Wells
2007

County	Station ID	Latitude	Longitude	LSA	Date Measured	Depth To Water	WL Alt. Spring '07	Date Measured	Depth to Water	WL Alt. Fall '07	Spring/Fall 07 Change
Lee	01N01E09CCC1	344215	910054	182.00	4/24/2007	35.50	146.50	10/29/2007	50.50	131.50	-15.00
Lee	03N01E32BCC1	344951	910150	200.00	4/18/2007	62.00	138.00	10/29/2007	67.00	133.00	-5.00
Lee	03N01E15CC1	345206	905947	205.00	4/4/2007	62.98	142.02	9/12/2007	65.50	139.50	-2.52
Lee	03N02E12CDC1	345239	905053	210.00	4/18/2007	47.00	163.00	10/29/2007	48.00	162.00	-1.00
Lee	01N02E22CBA1	344056	905318	200.00	4/24/2007	29.50	170.50	10/29/2007	40.50	159.50	-11.00
Lee	03N05E26ADC1	345020	903215	185.00	4/26/2007	7.00	178.00	10/29/2007	12.00	173.00	-5.00
Lee	01N01E24CBD1	344033	905729	185.00	4/24/2007	21.00	164.00	10/29/2007	30.30	154.70	-9.30
Lee	01N02E11BAB1	344255	905208	202.00	4/22/2007	33.00	169.00	10/29/2007	37.00	165.00	-4.00
Lee	01N02E12ABB1	344254	905040	206.00	4/24/2007	35.00	171.00	10/29/2007	46.00	160.00	-11.00
Lee	03N03E05CDD1	345327	904837	204.00	4/24/2007	52.00	152.00	10/29/2007	52.00	152.00	0.00
Lee	03N04E07CBB1	345245	904312	200.00	4/24/2007	33.00	167.00	10/29/2007	33.00	167.00	0.00
Lee	02N03E29CAD1	344500	904846	215.00	4/18/2007	42.00	173.00	10/29/2007	49.00	166.00	-7.00
Lee	03N03E18DAB1	345206	904919	196.00	4/24/2007	29.00	167.00	10/29/2007	33.00	163.00	-4.00
Lee	01N02E01ADD1	344330	905016	207.00	4/24/2007	29.00	178.00	10/29/2007	48.00	159.00	-19.00
Lee	02N01W34DDC1	344410	910520	180.00	4/24/2007	60.00	120.00	10/29/2007	58.00	122.00	2.00
Lee	02N01E21BAA1	344633	910005	185.00	4/18/2007	34.50	150.50	10/29/2007	39.30	145.70	-4.80
Lee	02N02E22BBB1	344628	905327	200.00	4/18/2007	35.00	165.00	10/29/2007	38.00	162.00	-3.00
Lee	01N01E21CCC1	344030	910055	209.00	4/18/2007	54.00	155.00	10/29/2007	59.00	150.00	-5.00
Lee	02N03E09DDD1	344723	904707	220.00	4/18/2007	52.00	168.00	10/29/2007	54.00	166.00	-2.00
								Avg. Change:			**-5.93**
Lincoln	10S05W05CB	335529	913832	170.00	3/9/2007	27.60	142.40	9/12/2007	29.03	140.97	-1.43
Lincoln	07S06W03CCA2	340828	914114	190.00	5/9/2007	22.00	168.00	9/24/2007	25.00	165.00	-3.00
Lincoln	08S04W06ABD1	340341	913116	171.00	5/9/2007	15.00	156.00	9/24/2007	17.00	154.00	-2.00
Lincoln	08S05W12DBA1	340229	913222	171.00	5/9/2007	24.00	147.00	9/24/2007	25.00	146.00	-1.00
Lincoln	08S05W21DCD1	340027	913533	169.00	5/9/2007	36.00	133.00	9/24/2007	40.00	129.00	-4.00
Lincoln	08S05W29ABC1	340021	913044	176.00	5/9/2007	40.00	136.00	9/24/2007	45.00	131.00	-5.00
Lincoln	08S05W32DCC1	335840	913644	172.00	5/9/2007	45.00	127.00	9/24/2007	49.00	123.00	-4.00
Lincoln	09S04W06CBB1	335721	913252	163.00	5/9/2007	42.00	121.00	9/24/2007	44.00	119.00	-2.00
Lincoln	09S06W24DAA1	335452	913954	177.00	5/9/2007	30.00	147.00	9/24/2007	35.00	142.00	-5.00
Lincoln	09S06W04BDD1	335759	914335	178.00	5/9/2007	36.00	142.00	9/24/2007	40.00	138.00	-4.00
Lincoln	07S07W36CBD1	340411	914529	183.00	5/9/2007	38.00	145.00	9/24/2007	42.00	141.00	-4.00
								Avg. Change:			**-3.22**
Lonoke	01S10W11CCB1	343839	920337	235.00	3/20/2007	32.27	202.73	10/17/2007	34.52	200.48	-2.25
Lonoke	01S07W19DC1	343609	914746	206.00	3/14/2007	83.68	122.32	10/17/2007	86.12	119.88	-2.44

Spring/Fall WL Changes on
Selected Alluvial Wells
2007

County	Station ID	Latitude	Longitude	LSA	Date Measured	Depth To Water	WL Alt. Spring '07	Date Measured	Depth to Water	WL Alt. Fall '07	Spring/Fall 07 Change
Lonoke	02N08W34BA1	344543	915106	230.00	3/16/2007	130.00	100.00	10/15/2007	133.99	96.01	-3.99
Lonoke	02S08W06AAB1	343430	915447	221.00	3/16/2007	69.04	151.96	10/17/2007	69.89	151.11	-0.85
Lonoke	02S08W28CDC	343008	915237	211.00	3/16/2007	61.60	149.40	10/17/2007	62.98	148.02	-1.38
Lonoke	01N08W03DDA1	344411	915050	229.00	4/12/2007	135.20	93.80	10/19/2007	138.00	91.00	-2.80
Lonoke	02N07W07DAA1	344845	914707	232.00	4/12/2007	132.00	100.00	10/19/2007	135.00	97.00	-3.00
Lonoke	01N09W07DAA1	344330	900028	240.00	4/12/2007	49.00	191.00	10/19/2007	54.00	186.00	-5.00
Lonoke	01N09W25BAA1	344120	915537	228.00	4/12/2007	87.50	140.50	10/19/2007	86.00	142.00	1.50
Lonoke	01N10W15CDA1	344236	920414	240.00	4/12/2007	27.00	213.00	10/19/2007	27.00	213.00	0.00
Lonoke	01S09W36CCC1	343435.31	915618.98	220.00	4/12/2007	65.00	155.00	10/19/2007	66.00	154.00	-1.00
Lonoke	01S06W32BBB1	343501	914056	201.00	4/12/2007	78.00	123.00	10/19/2007	78.00	123.00	0.00
Lonoke	01S09W02DDD1	343857	915623	230.00	4/12/2007	85.50	144.50	10/19/2007	89.00	141.00	-3.50
Lonoke	02N10W15ACC1	344807	920352	242.00	4/12/2007	32.50	209.50	10/19/2007	35.00	207.00	-2.50
Lonoke	02S09W35ABB1	343008	915652	216.00	4/12/2007	52.00	164.00	10/19/2007	55.00	161.00	-3.00
Lonoke	02S07W05CDC1	343326	914715	205.00	4/12/2007	70.20	134.80	10/19/2007	68.00	137.00	2.20
Lonoke	03N08W26CDC1	345100	915007	235.00	4/12/2007	108.20	126.80	10/19/2007	115.00	120.00	-6.80
								Avg. Change:			**-2.05**
Mississippi	14N11E33CAA1	354727	895508	240.00	4/17/2007	12.50	227.50	10/25/2007	17.00	223.00	-4.50
Mississippi	15N12E01BCD1	355704	894601	258.00	4/17/2007	8.00	250.00	10/25/2007	14.00	244.00	-6.00
Mississippi	16N10E28BBD1	355906.13	900156.03	238.00	4/17/2007	10.00	228.00	10/25/2007	12.00	226.00	-2.00
Mississippi	15N10E21ABC1	355447	900135	240.00	4/17/2007	10.00	230.00	10/25/2007	17.00	223.00	-7.00
Mississippi	13N08E24ABB1	354428	901112	230.00	4/17/2007	8.50	221.50	10/25/2007	10.50	219.50	-2.00
Mississippi	12N10E04CAA1	354124	900136	235.00	4/16/2007	11.00	224.00	10/25/2007	23.00	212.00	-12.00
Mississippi	12N10E21DBA1	353842	900122	236.00	4/20/2007	20.00	216.00	10/26/2007	21.00	215.00	-1.00
Mississippi	11N10E09BCB1	353530	900202	236.00	4/20/2007	19.00	217.00	10/26/2007	23.00	213.00	-4.00
Mississippi	10N08E21ABA1	352852	901415	224.00	4/20/2007	29.00	195.00	10/26/2007	30.00	194.00	-1.00
Mississippi	10N08E21BDC1	352830	901407	224.00	4/20/2007	28.00	196.00	10/26/2007	28.00	196.00	0.00
Mississippi	12N08E28DDB1	353707	901406	225.00	4/20/2007	20.50	204.50	10/26/2007	23.00	202.00	-2.50
Mississippi	12N09E12ABC1	354054	900449	232.00	4/19/2007	13.00	219.00	10/26/2007	26.00	206.00	-13.00
Mississippi	12N10E07BCD1	354036	900404	234.00	4/19/2007	21.00	213.00	10/26/2007	25.00	209.00	-4.00
Mississippi	14N08E20DAA1	354921	901458	225.00	4/16/2007	5.00	220.00	10/25/2007	6.00	219.00	-1.00
Mississippi	14N08E26DCC1	354803	901235	230.00	4/16/2007	3.50	226.50	10/25/2007	7.00	223.00	-3.50
Mississippi	14N11E17CCB1	354955	895639	240.00	4/17/2007	5.00	235.00	10/25/2007	13.00	227.00	-8.00
								Avg. Change:			**-4.47**
Monroe	01N01W15CBD1	344139	910542	185.00	3/8/2007	48.78	136.22	9/11/2007	51.64	133.36	-2.86

Spring/Fall WL Changes on
Selected Alluvial Wells
2007

County	Station ID	Latitude	Longitude	LSA	Date Measured	Depth To Water	WL Alt. Spring '07	Date Measured	Depth to Water	WL Alt. Fall '07	Spring/Fall 07 Change
Monroe	04N02W05BBB1	345957	911311	188.00	4/9/2007	15.00	173.00	10/19/2007	17.00	171.00	-2.00
Monroe	04N02W01BCC1	345929	911004	175.00	4/9/2007	39.00	136.00	10/19/2007	41.60	133.40	-2.60
Monroe	02N01W19ADD1	344624	910814	188.00	4/9/2007	52.50	135.50	10/19/2007	57.00	131.00	-4.50
Monroe	01S01W16DB	343615	910632	175.00	4/9/2007	19.00	156.00	10/19/2007	23.00	152.00	-4.00
Monroe	02S01W01BCD1	343305	910408	176.00	4/9/2007	19.00	157.00	10/19/2007	22.00	154.00	-3.00
Monroe	01S02W20BBB1	343612.7	911456.1	170.00	4/5/2007	12.00	158.00	10/19/2007	15.00	155.00	-3.00
Monroe	1N03W23BAC1	344124	911743	170.00	4/5/2007	15.00	155.00	10/19/2007	16.00	154.00	-1.00
Monroe	02N03W35BCA1	344455	911745	188.00	4/9/2007	30.00	158.00	10/19/2007	35.00	153.00	-5.00
								Avg. Change:			**-3.11**
Phillips	01S03E10ABB1	343741	904634	205.00	4/2/2007	20.50	184.50	10/26/2007	32.00	173.00	-11.50
Phillips	01S03E02ADD1	343814	904511	200.00	4/2/2007	18.50	181.50	10/26/2007	27.00	173.00	-8.50
Phillips	01S04E05DCD1	343802	904151	230.00	4/2/2007	50.50	179.50	10/26/2007	57.00	173.00	-6.50
Phillips	01S01E20DDB1	343529	910058	185.00	4/2/2007	27.00	158.00	10/25/2007	32.00	153.00	-5.00
Phillips	01S03E20BDD1	343533	904846	210.00	4/2/2007	34.00	176.00	10/26/2007	46.00	164.00	-12.00
Phillips	01S02E09BDC1	343725	910047	185.00	4/2/2007	16.00	169.00	10/25/2007	30.00	155.00	-14.00
Phillips	02S02E33ACC1	342824	905412	177.00	4/2/2007	26.50	150.50	10/26/2007	32.00	145.00	-5.50
Phillips	02S02E29DDD1	342901	905444	180.00	4/2/2007	28.50	151.50	10/26/2007	35.00	145.00	-6.50
Phillips	02S03E34BCD1	342828	904653	165.00	4/3/2007	20.00	145.00	10/26/2007	23.00	142.00	-3.00
Phillips	02S04E27AAC1	342931.57	904001.09	179.00	4/2/2007	10.00	169.00	10/26/2007	14.00	165.00	-4.00
Phillips	03S04E02CAA1	342732	903918	176.00	4/2/2007	17.50	158.50	10/26/2007	21.00	155.00	-3.50
Phillips	04S01E14CDD1	342014	905837	155.00	4/2/2007	15.00	140.00	10/26/2007	19.00	136.00	-4.00
Phillips	04S02E01DBB1	342220	905053	163.00	4/3/2007	15.00	148.00	10/26/2007	23.00	140.00	-8.00
Phillips	04S01E01AAD1	342238	905700	156.00	4/3/2007	19.00	137.00	10/26/2007	19.00	137.00	0.00
Phillips	04S01E29BBC1	341844	910148	150.00	4/3/2007	9.00	141.00	10/26/2007	16.00	134.00	-7.00
								Avg. Change:			**-6.60**
Poinsett	11N01E17DDD1	353436.83	910013.21	230.00	4/2/2007	81.00	149.00	10/2/2007	85.00	145.00	-4.00
Poinsett	12N07E25DC1	353740	901802	226.00	3/26/2007	16.62	209.38	9/11/2007	22.64	203.36	-6.02
Poinsett	11N06E34AB1	353224	902646	211.00	3/26/2007	14.07	196.93	9/11/2007	18.87	192.13	-4.80
Poinsett	12N01E22DAB1	353922	905809	235.00	4/2/2007	76.00	159.00	10/2/2007	79.50	155.50	-3.50
Poinsett	10N01E33ACB1	352746	905931	220.00	4/12/2007	79.50	140.50	10/2/2007	84.00	136.00	-4.50
Poinsett	12N03E04DAD1	354158.01	904600.16	247.00	4/12/2007	106.00	141.00	10/3/2007	108.00	139.00	-2.00
Poinsett	12N03E01CBD1	354154	904329	250.00	4/12/2007	95.00	155.00	10/4/2007	94.00	156.00	1.00
Poinsett	12N02E25DCC1	353820	904944	245.00	4/2/2007	114.00	131.00	10/4/2007	112.00	133.00	2.00
Poinsett	11N02E30BBB1	353352	905540	239.00	4/2/2007	103.00	136.00	10/2/2007	109.00	130.00	-6.00

Spring/Fall WL Changes on
Selected Alluvial Wells
2007

County	Station ID	Latitude	Longitude	LSA	Date	Depth To	WL	Date	Depth	WL	Spring/Fall
					Measured	Water	Alt. Spring '07	Measured	to Water	Alt. Fall '07	07 Change
Poinsett	12N05E16ABA1	354039	903333	221.00	4/12/2007	11.50	209.50	10/3/2007	13.00	208.00	-1.50
Poinsett	11N04E36ABA1	353251	903654	211.00	4/12/2007	18.00	193.00	10/4/2007	20.00	191.00	-2.00
Poinsett	10N04E35BBA1	352745	903831	215.00	4/12/2007	18.00	197.00	10/4/2007	19.00	196.00	-1.00
Poinsett	12N07E10BCC1	354042	902022	228.00	4/13/2007	11.00	217.00	10/3/2007	10.00	218.00	1.00
Poinsett	11N01E34AAA1	353256	905759	229.00	4/2/2007	89.00	140.00	10/2/2007	94.00	135.00	-5.00
Poinsett	10N01E02AAA1	353205	905654	235.00	4/2/2007	98.50	136.50	10/2/2007	104.50	130.50	-6.00
Poinsett	12N04E08CDA1	354053	904112	250.00	4/12/2007	90.00	160.00	10/4/2007	90.00	160.00	0.00
Poinsett	12N03E35DDA1	353735	904355	245.00	4/12/2007	104.00	141.00	10/3/2007	107.00	138.00	-3.00
Poinsett	11N03E17AAA1	353534	904713	243.00	4/2/2007	107.00	136.00	10/4/2007	105.00	138.00	2.00
Poinsett	10N02E15CAA1	352939	905026	237.00	4/12/2007	105.00	132.00	10/2/2007	110.00	127.00	-5.00
Poinsett	10N03E19BCB1	352906	904021	239.00	4/12/2007	100.00	139.00	10/2/2007	105.00	134.00	-5.00
Poinsett	10N03E20BBA1	352405	904810	235.00	4/12/2007	104.00	131.00	10/2/2007	110.00	125.00	-6.00
Poinsett	10N03E26BBD1	352817	904449	257.00	4/12/2007	115.00	142.00	10/2/2007	120.00	137.00	-5.00
Poinsett	10N03E13BCB1	353001	904352	270.00	4/12/2007	130.00	140.00	10/2/2007	135.00	135.00	-5.00
Poinsett	10N02E33AAA1	352726	905231	236.00	3/26/2007	100.18	135.82	9/11/2007	103.33	132.67	-3.15
Poinsett	11N04E13DDA1	353447	903631	210.00	4/13/2007	16.00	194.00	10/3/2007	19.00	191.00	-3.00
Poinsett	11N05E26BDB1	353318	903155	213.00	4/12/2007	10.00	203.00	10/3/2007	14.00	199.00	-4.00
Poinsett	11N07E28CBB1	353250	902125	218.00	4/13/2007	23.50	194.50	10/4/2007	26.00	192.00	-2.50
Poinsett	10N07E28CBB1	352743	902128	215.00	4/13/2007	30.00	185.00	10/4/2007	31.00	184.00	-1.00
Poinsett	10N01E32CBB1	352657	910053	222.00	4/18/2007	76.00	146.00	10/2/2007	80.00	142.00	-4.00
Poinsett	11N02E34CBA1	353238	905222	240.00	4/12/2007	111.00	129.00	10/2/2007	112.00	128.00	-1.00
Poinsett	12N02E26DDA1	353831	905024	245.00	3/25/2007	109.85	135.15	9/11/2007	111.86	133.14	-2.01
Poinsett	12N02E34CCC1	353724	905230	245.00	4/2/2007	113.50	131.50	10/2/2007	115.00	130.00	-1.50
								Avg. Change:			**-2.86**
Prairie	01S06W12BAB1	343826	913613	228.00	3/7/2007	119.36	108.64	10/17/2007	119.65	108.35	-0.29
Prairie	02N05W21CB1	344649	913300	225.00	3/8/2007	109.20	115.80	10/15/2007	108.60	116.40	0.60
Prairie	02N05W24ACB	344659	912937	225.00	3/8/2007	89.70	135.30	10/15/2007	93.20	131.80	-3.50
Prairie	02N06W21DAA1	344653	913827	234.00	3/7/2007	116.10	117.90	10/15/2007	115.70	118.30	0.40
Prairie	02N06W24CAA1	344651	913551	223.00	3/8/2007	118.60	104.40	10/15/2007	114.60	108.40	4.00
Prairie	05N05W28DDA1	350119	913228	191.00	4/17/2007	37.50	153.50	10/12/2007	40.00	151.00	-2.50
Prairie	01S04W28BBC1	343529	912650	206.00	4/17/2007	100.00	106.00	10/12/2007	101.00	105.00	-1.00
								Avg. Change:			**-0.33**
Randolph	18N02E17CBB1	361204	905356	265.00	5/1/2007	19.50	245.50	10/2/2007	21.00	244.00	-1.50
Randolph	18N01E13BBA1	361230	905551	265.00	5/1/2007	17.50	247.50	10/2/2007	17.00	248.00	0.50

Spring/Fall WL Changes on
Selected Alluvial Wells
2007

County	Station ID	Latitude	Longitude	LSA	Date Measured	Depth To Water	WL Alt. Spring '06	Date Measured	Depth to Water	WL Alt. Fall '06	Spring/Fall 06 Change
Randolph	18N01E28AAD1	361040	905820	265.00	5/1/2007	15.00	250.00	10/3/2007	18.00	247.00	-3.00
Randolph	19N02E09DCA1	361759	905158	267.00	5/1/2007	18.50	248.50	10/3/2007	14.00	253.00	4.50
Randolph	19N03E33CCB1	361941	904552	285.00	5/1/2007	24.00	261.00	10/3/2007	27.50	257.50	-3.50
Randolph	19N02E22DAB1	361622	905049	266.00	5/1/2007	16.00	250.00	10/3/2007	14.00	252.00	2.00
Randolph	20N02E21CDD1	362117	905107	270.00	5/1/2007	11.00	259.00	10/3/2007	10.00	260.00	1.00
Randolph	18N02E03DAD1	361336	905043	280.00	5/1/2007	27.50	252.50	10/2/2007	33.50	246.50	-6.00
Randolph	20N02E14DAB1	362232	904930	274.00	5/1/2007	10.50	263.50	10/3/2007	20.00	254.00	-9.50
Randolph	20N02E06DAD1	362410	905339	281.00	5/1/2007	14.00	267.00	10/3/2007	18.00	263.00	-4.00
Randolph	18N02E06BCB1	361400	905458	273.00	5/1/2007	17.00	256.00	10/3/2007	19.00	254.00	-2.00
Randolph	18N02E34BAB1	360933	905150	270.00	5/1/2007	34.50	235.50	10/2/2007	37.50	232.50	-3.00
Randolph	18N02E20BDA1	361125	905332	274.00	5/1/2007	31.00	243.00	10/2/2007	34.00	240.00	-3.00
Randolph	20N02E12BAA1	362352	904848	281.00	5/1/2007	11.50	269.50	10/2/2007	14.00	267.00	-2.50
								Avg. Change:			**-2.14**
St. Francis	04N01W17CBC1	345735	910801	208.00	4/3/2007	59.82	148.18	9/11/2007	62.84	145.16	-3.02
St. Francis	04N01W22BB1	345719	910554	200.00	5/10/2007	63.00	137.00	11/6/2007	73.00	127.00	-10.00
St. Francis	04N01E27BC1	345609.71	910545.23	200.00	5/10/2007	72.00	128.00	11/6/2007	74.00	126.00	-2.00
St. Francis	04N02E29BB1	345556.38	905435.04	212.00	5/10/2007	58.00	154.00	11/6/2007	62.00	150.00	-4.00
St. Francis	05N01E6DA1	350446	910156	211.00	5/10/2007	73.00	138.00	11/6/2007	84.00	127.00	-11.00
St. Francis	04N01W20BBB1	345716	910759	200.00	5/10/2007	60.00	140.00	11/6/2007	63.00	137.00	-3.00
St. Francis	05N02E26CC1	350034.88	905208.56	215.00	5/10/2007	51.00	164.00	11/6/2007	53.50	161.50	-2.50
St. Francis	05N03E32BA1	350610.48	904828.73	300.00	5/10/2007	49.00	251.00	11/6/2007	51.00	249.00	-2.00
St. Francis	06N01E33AC1	350552	905941.6	211.00	5/10/2007	68.00	143.00	11/6/2007	69.00	142.00	-1.00
St. Francis	06N02E16CC1	350824	905403	210.00	5/10/2007	68.00	142.00	11/6/2007	73.50	136.50	-5.50
St. Francis	04N02E27AAA1	345604	905220	211.00	5/10/2007	49.00	162.00	11/6/2007	54.00	157.00	-5.00
St. Francis	04N02E16ACD1	345733	905341	209.00	5/10/2007	51.00	158.00	11/6/2007	54.00	155.00	-3.00
								Avg. Change:			**-4.34**
White	06N06W13DBB1	350918	913552	213.00	3/22/2007	46.50	166.50	10/24/2007	46.50	166.50	0.00
White	06N06W18BCA1	350835	914150	210.00	3/22/2007	18.20	191.80	10/24/2007	21.00	189.00	-2.80
White	06N06W04BAD1	351037	913903	221.00	3/22/2007	37.80	183.20	10/24/2007	38.00	183.00	-0.20
								Avg. Change:			**-1.00**
Woodruff	05N03W25DDB1	350133	911531	190.00	4/30/2007	12.90	177.10	10/31/2007	13.90	176.10	-1.00
Woodruff	06N01W10BC1	351711	911107	213.00	4/30/2007	67.60	145.40	10/31/2007	69.60	143.40	-2.00

Spring/Fall WL Changes on
Selected Alluvial Wells
2007

County	Station ID	Latitude	Longitude	LSA	Date Measured	Depth To Water	WL Alt. Spring '06	Date Measured	Depth to Water	WL Alt. Fall '06	Spring/Fall 06 Change
Woodruff	08N03W04BBB1	352128	911919	221.00	2/23/2007	19.30	201.70	9/11/2007	20.21	200.79	-0.91
Woodruff	09N03W32ACA1	352205	911936	217.00	4/30/2007	20.30	196.70	10/31/2007	21.00	196.00	-0.70
Woodruff	07N03W31BBA1	351152	912103	190.00	4/30/2007	5.40	184.60	10/31/2007	13.70	176.30	-8.30
Woodruff	07N01W04ABC1	351541	910626	225.00	4/30/2007	62.90	162.10	10/31/2007	65.60	159.40	-2.70
Woodruff	07N03W06BAC1	351607	912109	211.00	3/21/2007	23.50	187.50	10/31/2007	24.58	186.42	-1.08
Woodruff	05N01W31CCC1	350106	910900	210.00	4/19/2007	59.60	150.40	10/31/2007	61.50	148.50	-1.90
Woodruff	06N04W22BDA1	350807	912428	186.00	4/30/2007	3.40	182.60	10/31/2007	6.50	179.50	-3.10
Woodruff	05N01W13CDC1	350244	910331	210.00	4/19/2007	74.30	135.70	10/31/2007	78.30	131.70	-4.00
Woodruff	08N02W27DDB1	351711	911107	213.00	4/30/2007	27.40	185.60	10/31/2007	28.90	184.10	-1.50
Woodruff	09N03W21DBD1	352326.1	911841.57	220.00	4/30/2007	20.50	199.50	10/31/2007	21.30	198.70	-0.80
Woodruff	06N01W11AAB1	350944	910354	215.00	2/23/2007	63.10	151.90	9/11/2007	65.62	149.38	-2.52
								Avg. Change:			**-2.35**
								Total Average Change:			**-3.28**
								Declines/ Wells:			**301/357**
											84.31%

Appendix F

Water Quality Data from Selected ANRC Wells

Arkansas Water Resources
Center Water Quality Lab

ANRC Monitoring
Enhancement Wells
Water Quality Analysis

Well ID	Units	AR1-01	AR2-02	AR3-03	AR4-04	PR1-01	PR2-02	PR3-03	LO1-01
Location	Latitude	342036	341343	342552	342736	345718	344254	345844	345059
	Longitude	910743	911102	912252	912251	914728	912850	914629	915309
Sampling date	mo/dy/yr	06/05/02	06/05/02	06/11/02	06/11/02	06/04/02	06/04/02	06/06/02	06/06/02
Sample	Characteristics	UnFiltered	UnFiltered	UnFiltered	UnFiltered	UnFiltered	UnFiltered	UnFiltered	UnFiltered
Parameter	Aquifer	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial
Calcium	mg/L	82.19	73.46	93.36	86.63	61.10	129.53	54.94	17.56
Magnesium	mg/L	20.45	22.15	25.51	32.08	15.04	40.79	12.90	6.56
Sodium	mg/L	11.26	14.84	52.79	53.57	13.14	45.44	18.68	13.34
Potassium	mg/L	1.1	1.8	2.7	4.6	1.0	2.6	1.2	0.9
Iron	mg/L	0.045	1.753	1.663	1.507	0.026	4.384	0.027	3.373
Lead	mg/L	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Manganese	mg/L	0.018	0.193	0.236	0.172	0.005	0.190	0.001	2.054
Copper	mg/L	-	-	-	-	-	-	-	
Zinc	mg/L	0.014	0.021	0.036	0.020	0.019	0.041	0.019	0.022
Alkalinity	mg/L as $CaCO_3$	281	264	407	385	197	364	206	62
Bicarbonate#	mg/L	340	320	491	466	240	441	250	76
Carbonate#	mg/L	0.94	1.12	2.72	2.14	0.42	1.28	0.79	0.01
Chloride	mg/L	13.66	12.79	45.42	35.62	11.37	66.30	14.86	11.57
Sulfate	mg/L	17.08	9.50	13.46	27.09	2.46	117.92	1.83	25.01
Bromide	mg/L	0.156	0.040	0.112	0.110	0.105	0.401	0.146	0.108
Fluoride	mg/L	0.050	0.220	0.190	0.210	0.05	0.18	0.19	0.28
Nitrate***	mg/L as N	0.083	0.037	0.016	0.017	0.076	0.000	0.231	0.019
Ammonia	mg/L	-	-	-	-	-	-	-	-
Orthophosphate **	mg/L	0.0719	0	0	0	0.1399	0	0.636	0
pH	standard units	7.78	7.88	8.08	8.00	7.58	7.80	7.84	6.36
Conductivity	uS/cm	573	541	880	844	405	1044	439	212
Turbidity	NTU	-	-	-	-	-	-	-	-
TSS	mg/L	0.40	0.30	1.12	0.56	0.65	8.00	0.18	0.60
TDS	mg/L	361	335	561	491	263	729	279	173
Total Coliform	MPN/100 ml	3	>200.5	3	15	<1	<1	70	<1
E. coli	MPN/100 ml	<1	>200.5	<1	<1	<1	<1	<1	<1
	* Exceeded holding time			SW, SP, and BN wells are ANRC wells, other wells are private					
	**Orthophosphate is measured by IC, therefore sample Filtered in instrument through 0.20 um pore-size membrane								
	***Nitrate was analyzed for samples collected before 10/12/03 and nitrate+nitrite thereafter and both are reported as N								
	- Not analyzed								
	? Questionable data								
	# Bicarbonate and carbonate concentrations were calculated from measured alkalinity and pH								
	## pH value is calculated value from bicarbonate and carbonate concentrations								

Arkansas Water Resources
Center Water Quality Lab

ANRC Monitoring
Enhancement Wells
Water Quality Analysis

Well ID	LO2-SW1	LO3-SW2	PR4-SW3	PR5-SW4	PR6-SW5	PR7-SW6	PR8-SW7	AR7-SW8	MN1-SW10
Location	343007	343430	344653	344651	344649	344659	343826	340740	344139
	915237	915447	913827	913551	913300	912937	913613	912115	910542
Sampling date	06/19/02	06/18/02	03/04/03	02/16/03	03/05/03	02/19/03	05/28/03	06/11/03	06/18/03
Sample	UnFiltered	UnFiltered	UnFiltered	UnFiltered	UnFiltered	UnFiltered	UnFiltered	UnFiltered	UnFiltered
Parameter	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial
Calcium	112.51	107.62	127.273	103.829	99.998	86.387	89.612	162.130	142.411
Magnesium	29.50	24.83	25.569	22.113	22.403	22.950	26.064	39.511	53.309
Sodium	47.12	33.09	29.09	26.57	37.99	21.34	51.330	79.52	43.89
Potassium	1.8	1.6	1.43	1.37	2.12	1.77	1.390	2.702	1.978
Iron	10.918	9.775	2.198	2.020	2.162	0.965	1.463	3.352	4.917
Lead	0.01	0.01	0.013	0.004	0.004	0.965	0.001	0	0
Manganese	0.297	0.215	0.308	0.193	0.191	0.166	0.185	0.324	0.317
Copper	-	-	-	-	-	-	-	-	-
Zinc	0.022	0.027	0.013	0.017	0.011	0.014	0.000	0.000	0.000
Alkalinity	338	282	368	124?	270	124?	274	432	432
Bicarbonate#	411	340	447	149?	329	149?	334	526	526
Carbonate#	0.56	1.80	1.03	1.062?	0.42	0.948?	0.11	0.44	0.57
Chloride	48.94	32.73	21.99	28.13	57.34	4.71	28.125	156.971	71.918
Sulfate	92.64	105.01	88.20	32.93	78.52	32.58	85.398	38.482	92.961
Bromide	0.216	0.162	0.17	0.076	0.45	0.00	0.213	0.285	0.410
Fluoride	0.12	0.11	0.13	0.09	0.14	0.14	0.149	0.000	0.047
Nitrate***	0.026	0.037	0.03	0.02	0.08	0.14	1.894*	0.008*	0.058*
Ammonia	-	-	-	-	-	-	-	-	-
Orthophosphate **	-	-	0.0332	0	0	0.013	0.0509	0	0
pH	7.47	8.06	7.70	8.19	7.44	8.14	6.85##	7.26	7.370
Conductivity	929	818	880	288	820	279	770	1296	1133
Turbidity	-	-	-	-	-	-	-	-	-
TSS	17.20	42.24	15.0	7.8	30.1	13.8	-	-	-
TDS	539	765	569	463	514	401	511*	824*	773*
Total Coliform	12	>200.5	59.000	>200.5	165	95	-	-	-
E. coli	<1	2	<1	<1	<1	<1	-	-	-
	** Exceeded holding time		SW, SP, and BN wells are ANRC wells, other wells are private						
	**Orthophosphate is measured by IC, therefore sample Filtered in instrument through 0.20 um pore-size membrane								
	***Nitrate was analyzed for samples collected before 10/12/03 and nitrate+nitrite thereafter and both are reported as N								
	- Not analyzed								
	? Questionable data								
	# Bicarbonate and carbonate concentrations were calculated from measured alkalinity and pH								
	## pH value is calculated value from bicarbonate and carbonate concentrations								

Arkansas Water Resources
Center Water Quality Lab

ANRC Monitoring
Enhancement Wells
Water Quality Analysis

Well ID	LO4-SW9	AR1-01	AR2-02	AR3-03	AR4-04	AR5-05	AR6-06	PR2-02	PR3-03
Location	343841	342036	341343	342552	342736	341245	341318	344254	345844
	920337	910743	911102	912255	912251	912947	912909	912850	914629
Sampling date	06/25/03	10/15/03	10/15/03	10/16/03	0/16/2003	10/15/03	10/15/03	10/16/03	10/16/03
Sample	UnFiltered	UnFiltered	UnFiltered	UnFiltered	UnFiltered	UnFiltered	UnFiltered	UnFiltered	UnFiltered
Parameter	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial
Calcium	52.696	82.420	88.772	103.951	88.957	9.510	3.660	137.119	54.770
Magnesium	14.520	19.636	24.898	28.119	32.907	2.649	0.975	44.008	12.030
Sodium	69.30	11.250	27.750	58.650	53.460	180.320	37.770	47.120	20.870
Potassium	2.244	1.220	2.390	2.890	4.530	4.680	3.730	2.900	1.410
Iron	10.605	0.017	2.012	2.674	2.545	0.116	0.130	9.284	0.100
Lead	0	0.001	0.015	0.000	0.004	0.003	0.004	0.006	0.003
Manganese	0.296	0.021	0.232	0.263	0.194	0.033	0.125	0.221	0.000
Copper	-	0.003	0.253	0.001	0.000	0.060	0.001	0.007	0.001
Zinc	0.000	0.000	0.117	0.000	0.000	0.184	0.151	0.028	0.000
Alkalinity	242	250	302	404	390	394	98	376	204
Bicarbonate#	295	304	368	492	475	476	119	458	248
Carbonate#	0.09	0.30	0.45	0.47	0.60	2.33	0.34	0.30	0.42
Chloride	19.874	12.053	30.795	43.985	34.880	13.350	3.971	94.911	13.336
Sulfate	0.000	21.532	16.916	13.801	20.000	0.034	0.083	115.448	1.826
Bromide	0.000	0.154	0.147	0.138	0.132	0.068	0.038	0.672	0.132
Fluoride	0.069	0.078	0.082	0.082	0.130	0.753	0.137	0.042	0.115
Nitrate***	0.140*	0.000	0.000	0.000	0.000	0.051	0.000	0.000	0.008
Ammonia	-	0.010	0.374	0.672	0.859	1.083	0.383	0.910	0.012
Orthophosphate **	0	0.094	0.021	0.000	0.000	0.115	0.130	0.000	0.084
pH	6.830	7.320	7.420	7.310	7.430	8.020	7.790	7.150	7.560
Conductivity	606	547.000	686.000	900.000	860.000	766.000	202.000	1152.000	446.000
Turbidity	-	1.000	8.000	16.000	20.000	0.000	0.000	48.000	0.000
TSS	-	-	-	-	-	-	-	-	-
TDS	390*	-	-	-	-	-	-	-	-
Total Coliform	-	-	-	-	-	-	-	-	-
E. coli	-	-	-	-	-	-	-	-	-

** Exceeded holding time

SW, SP, and BN wells are ANRC wells, other wells are private

**Orthophosphate is measured by IC, therefore sample Filtered in instrument through 0.20 um pore-size membrane

***Nitrate was analyzed for samples collected before 10/12/03 and nitrate+nitrite thereafter and both are reported as N

- Not analyzed

? Questionable data

Bicarbonate and carbonate concentrations were calculated from measured alkalinity and pH

pH value is calculated value from bicarbonate and carbonate concentrations

Arkansas Water Resources
Center Water Quality Lab

ANRC Monitoring
Enhancement Wells
Water Quality Analysis

Well ID	LO2-SW1	LO3-SW2	AR1-01	AR2-02	AR3-03	AR4-04	AR5-05	AR6-06	PR2-02
Location	343007	343430	342036	341343	342552	342736	341245	341318	344254
	915237	915447	910743	911102	912252	912251	912947	912909	912850
Sampling date	10/14/03	10/13/03	10/15/03	10/15/03	10/16/03	10/16/03	10/15/03	10/15/03	10/16/03
Sample	UnFiltered	UnFiltered	Filtered	Filtered	Filtered	Filtered	Filtered	Filtered	Filtered
Parameter	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial
Calcium	118.360	121.914	78.789	84.787	99.957	86.265	9.496	3.579	133.538
Magnesium	27.336	32.048	19.125	24.214	27.272	32.102	2.688	0.958	43.302
Sodium	28.380	36.480	11.210	27.230	56.810	52.620	176.550	37.440	46.720
Potassium	1.890	2.140	1.230	2.340	2.950	4.430	4.610	3.700	2.900
Iron	12.166	11.308	0.028	0.800	2.407	2.252	0.122	0.028	3.373
Lead	0.010	0.005	0.002	0.009	0.003	0.007	0.002	0.003	0.005
Manganese	0.207	0.442	0.021	0.224	0.266	0.197	0.034	0.013	0.213
Copper	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.000	0.000
Zinc	0.000	0.000	0.003	0.000	0.000	0.000	0.191	0.140	0.002
Alkalinity	288	320	-	-	-	-	-	-	-
Bicarbonate#	351	390	-	-	-	-	-	-	-
Carbonate#	0.16	0.17	-	-	-	-	-	-	-
Chloride	32.795	125.213	-	-	-	-	-	-	-
Sulfate	104.071	139.343	-	-	-	-	-	-	-
Bromide	0.175	0.303	-	-	-	-	-	-	-
Fluoride	0.108	0.113	-	-	-	-	-	-	-
Nitrate***	0.000	0.000	-	-	-	-	-	-	-
Ammonia	0.435	0.340	-	-	-	-	-	-	-
Orthophosphate **	0.000	0.000	-	-	-	-	-	-	-
pH	6.990	6.960	-	-	-	-	-	-	-
Conductivity	846.000	961.000	-	-	-	-	-	-	-
Turbidity	93.000	84.000	-	-	-	-	-	-	-
TSS	-	-	-	-	-	-	-	-	-
TDS	-	-		-	-	-	-	-	-
Total Coliform	-	-	-	-	-	-	-	-	-
E. coli	-	-	-	-	-	-	-	-	-
	** Exceeded holding time		SW, SP, and BN wells are ANRC wells, other wells are private						
	**Orthophosphate is measured by IC, therefore sample Filtered in instrument through 0.20 um pore-size membrane								
	***Nitrate was analyzed for samples collected before 10/12/03 and nitrate+nitrite thereafter and both are reported as N								
	- Not analyzed								
	? Questionable data								
	# Bicarbonate and carbonate concentrations were calculated from measured alkalinity and pH								
	## pH value is calculated value from bicarbonate and carbonate concentrations								

Arkansas Water Resources
Center Water Quality Lab

ANRC Monitoring
Enhancement Wells
Water Quality Analysis

Well ID	PR3-03	L02-SW1	AR8 SW11	AR3 SW12	AR3 03	L05 SW13	PN1 SW14	PN2 SW15	CH1-SW16	JK1-SW17
Location	345844	343007	342630	342553	342552	344543	353740	353224	354916	353550
	914629	915237	913007	912251	912252	915106	901802	902646	905125	910428
Sampling date	10/16/03	10/14/03	04/20/04	04/21/04	04/21/04	04/23/04	04/27/04	04/28/04	05/04/04	05/06/04
Sample	Filtered	Filtered	Filtered	Filtered	Filtered	Filtered	Filtered	Filtered	Filtered	Filtered
Parameter	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial
Calcium	54.972	116.256	74.207	95.838	99.280	46.182	74.608	89.638	59.962	81.302
Magnesium	12.209	26.999	20.171	29.312	28.924	13.117	12.612	22.795	17.115	23.199
Sodium	20.870	28.390	33.30	63.33	56.87	63.85	7.30	10.35	28.85	24.10
Potassium	1.420	2.050	1.89	3.04	2.92	1.01	2.08	1.19	2.00	2.35
Iron	0.000	11.961	1.908	0.384	1.190	1.954	14.620	9.903	0.878	2.575
Lead	0.000	0.006	0.008	0.006	0.013	0.001	0.008	0	0.004	0.001
Manganese	0.001	0.204	0.140	0.224	0.223	0.100	0.532	0.744	0.245	0.634
Copper	0.001	0.010	0.006	0.005	0.009	0.002	0.001	0.003	0.005	0.002
Zinc	0.000	0.020	0.123	0.046	0.105	0.017	0.015	0.021	0.010	0.015
Alkalinity	-	-	280	398	414	246	240	256	268	256
Bicarbonate#	-	-	341	484	503	294	292	312	326	310
Carbonate#	-	-	0.47	0.81	1.01	2.96	0.29	0.31	0.70	1.08
Chloride	-	-	17.598	44.796	45.785	16.365	2.412	8.511	26.649	15.171
Sulfate	-	-	10.593	15.224	13.936	30.995	16.651	51.682	49.327	61.752
Bromide	-	-	0.000	0.112	0.116	0.083	0.008	0.000	0.231	0.113
Fluoride	-	-	0.069	0.070	0.066	0.143	0.099	0.093	0.0637	0.0554
Nitrate***	-	-	0.089	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Ammonia	-	-	0.383	0.622	0.635	0.103	0.616	0.092	0.278	0.402
Orthophosphate **	-	-	0.0398	0.046	0	0.025	0.0265	0	0.0261	0
pH	-	-	7.45	7.53	7.61	8.31	7.30	7.30	7.64	7.85
Conductivity	-	-	611	885	924	563	480	578	713	653
Turbidity	-	-	36	15	14	24	42	48	3	11
TSS	-	-	-	-	-	-	-	-	-	-
TDS	-	-	-	-	-	-	-	-	-	-
Total Coliform	-	-	-	-	-	-	-	-	-	-
E. coli	-	-	-	-	-	-	-	-	-	-

** Exceeded holding time

SW, SP, and BN wells are ANRC wells, other wells are private

**Orthophosphate is measured by IC, therefore sample Filtered in instrument through 0.20 um pore-size membrane

***Nitrate was analyzed for samples collected before 10/12/03 and nitrate+nitrite thereafter and both are reported as N

- Not analyzed

? Questionable data

Bicarbonate and carbonate concentrations were calculated from measured alkalinity and pH

pH value is calculated value from bicarbonate and carbonate concentrations

Arkansas Water Resources
Center Water Quality Lab

ANRC Monitoring
Enhancement Wells
Water Quality Analysis

Well ID	W01-SW18	CS1-SW19	SF1-SW20	LN1-SW21	DR1-SW22	WO2-SW24	CS2-SW25	PN3-SW26	PN4-SW27	CD1-SW23
Location	352128	351508	345735	335228	334144	350944	352505	353831	352726	351630
	911919	905113	910801	913833	912842	910354	905653	905024	905231	901933
Sampling date	05/07/04	05/11/04	05/12/04	05/18/04	05/19/04	6/8/2005	6/9/2005	6/14/2005	6/15/2005	6/16/2005
Sample	Filtered	Filtered	Filtered	Filtered	Filtered	Filtered	Filtered	Filtered	Filtered	Filtered
Parameter	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial	Alluvial
Calcium	60.176	126.640	64.047	22.647	30.074	60	110	152	105	64
Magnesium	13.885	56.522	19.662	6.884	10.267	16	32	35	30	19
Sodium	19.40	30.98	15.04	14.87	12.08	12	37	38	36	14
Potassium	2.22	1.77	1.53	1.95	1.62	1	2	2	2	4
Iron	3.427	0.427	0.626	16.362	23.765	0.52	2.2	4.3	2	6.7
Lead	0.005	0.003	0.003	0.007	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	1.530	0.239	0.904	0.617	0.414	0.38	0.37	0.64	0.42	0.320
Copper	0.001	0.006	0.001	0.003	0.000	0.004	0.002	0.002	<0.001	0.001
Zinc	0.012	0.029	0.017	0.038	0.008	0.058	0.021	0.029	0.025	0.010
Alkalinity	192	472	316	100	116	204	410	490	388	260
Bicarbonate#	233	571	382	122	141	249	499	597	473	317
Carbonate#	0.71	2.19	1.64	0.03	0.06	0.2	0.3	0.2	0.3	0.2
Chloride	6.061	15.948	17.538	1.986	7.148	9.18	15.55	17.53	30.63	3.47
Sulfate	54.832	54.722	23.360	1.129	7.894	1.56	35.28	66.74	19.25	2.61
Bromide	0.000	0.169	0.115	0.006	0.000	0.450	0.116	0.136	0.205	0.034
Fluoride	0.0700	0.0525	0.0776	0.062	0.092	0.16	0.17	0.08	0.14	0.24
Nitrate***	0.000	0.000	0.000	0.000	0.000	0.014	0.016	0.031	0.031	0.036
Ammonia	0.196	0.152	0.164	0.287	0.222	0.302	0.284	0.484	0.219	0.726
Orthophosphate **	0	0	0.1059	0.0282	0	<0.13	<0.13	<0.13	<0.13	<0.13
pH	7.79	7.89	7.94	6.62	6.94	7.14	7.18	6.87	7.12	7.10
Conductivity	480	1007	688	214	277	457	860	1049	835	506
Turbidity	16	12	20	91	37	36	16	13	13	36
TSS	-	-	-	-	-	-	-	-	-	-
TDS	-	-	-	-	-	-	-	-	-	-
Total Coliform	-	-	-	-	-	-	-	-	-	-
E. coli	-	-	-	-	-	-	-	-	-	-

** Exceeded holding time

SW, SP, and BN wells are ANRC wells, other wells are private

**Orthophosphate is measured by IC, therefore sample Filtered in instrument through 0.20 um pore-size membrane

***Nitrate was analyzed for samples collected before 10/12/03 and nitrate+nitrite thereafter and both are reported as N

- Not analyzed

? Questionable data

Bicarbonate and carbonate concentrations were calculated from measured alkalinity and pH

pH value is calculated value from bicarbonate and carbonate concentrations

Arkansas Water Resources
Center Water Quality Lab

ANRC Monitoring
Enhancement Wells
Water Quality Analysis

Well ID	AR5-05	PR5-SW4D	PR7-SW6D	AR6-06	CD1-SW23D	MN1-SW10D	PR8-SW7D	AR30SW12D		
Location	341245	344651	344659	341318	351630	344139	343826	342553		
	912947	913551	912937	912909	901933	910542	913613	912251		
Sampling date	06/12/02	03/12/03	03/27/03	06/12/02	09-28-2004	09-28-2004	09-28-2004	11/11/2005		
Sample	UnFiltered	UnFiltered	UnFiltered	UnFiltered	Filtered	Filtered	Filtered	Filtered		
Parameter	Sparta	Sparta	Sparta	Sparta	Sparta	Sparta	Sparta	Sparta		
Calcium	3.57	64.419	48.524	3.38	19	52	87	33		
Magnesium	0.97	16.300	10.774	0.93	9.4	14	20	7		
Sodium	60.74	44.95	52.85	37.23	7.6	100	36	61		
Potassium	2.9	3.86	3.68	3.4	7.6	6.6	4.3	7		
Iron	0.042	2.310	1.226	0.057	16*	1*	2	0.16		
Lead	0.00	0	0.005	0.00	0.001*	<0.001*	<0.001*	<0.001		
Manganese	0.023	0.050	0.063	0.011	0.24*	0.074*	0.094*	0.052		
Copper	-	-	-	-	0.004*	0.006*	0.002*	0.003		
Zinc	0.158	0.037	0.012	0.155	0.028*	0.011*	0.015*	0.061		
Alkalinity	140	280	240	96	102	372	294	222[a]		
Bicarbonate#	170	334	289	117	-	-	-	267		
Carbonate#	0.47	3.44	1.96	0.19	-	-	-	2.0		
Chloride	3.89	21.99	24.01	4.23	1.27	28.21	23.73	6.09		
Sulfate	1.39	7.64	1.01	0.11	6.90	0.77	11.76	0.28		
Bromide	0.000	0.093	0.225	0.000	-			NA		
Fluoride	0.400	0.14	0.20	0.310	0.06	0.16	0.14	0.07		
Nitrate***	0.000	0.01	0.77	0.000	0	0	0	<0.013		
Ammonia	-	-	-	-	0.513	1.466	0.361	1.300		
Orthophosphate **	0.1357	0	0.047	0.1054	0	0.0216	0	0.07		
pH	7.78	8.35	8.17	7.56	-	-	-	8.2[a]		
Conductivity	280	616	536	195	-	-	-	428		
Turbidity	-	-	-	-	-	-	-	-		
TSS	0.00	11.44	21.68	0.08	-	-	-	-		
TDS	159	346	291	113	-	-	-	-		
Total Coliform	59	-	-	1	-	-	-	-		
E. coli	<1	-	-	<1	-	-	-	-		
	** Exceeded holding time. The metal analyses were conducted within 180 days and the holding time is 6 months, thus these analyses may be									
	viewed as having been analyzed within holding time.									
	**Orthophosphate is measured by IC, therefore sample Filtered in instrument through 0.20 um pore-size membrane									
	- Not analyzed		SW, SP, and BN wells are ANRC wells, other wells are private							

Arkansas Water Resources
Center Water Quality Lab

ANRC Monitoring
Enhancement Wells
Water Quality Analysis

Well ID	0A1-SP7	0A2-SP8	0A2-SP8	0A2-SP8	CT1-SW34	AH1-SW35	DS1-SW36	WA1-BN1
Location	333234	333819	333819	333819	331818	331640	334916	360737
	925055	930006	930006	930006	912334	913958	911825	941803
Sampling date	05/30/07	06/01/07	06/01/07	06/01/07	06/06/07	06/07/07	06/08/07	06/15/07
Sample	Unfiltered	Unfiltered	Filtered	Filtered	Filtered	Filtered	Filtered	Filtered
Parameter	Sparta	Sparta	Sparta	Sparta	Alluvial	Alluvial	Alluvial	Boone
Calcium	17	3.3	3.0	3.0	304	25	94	51
Magnesium	4.3	1.7	1.4	1.4	146	6.2	30	3.9
Sodium	19	2.5	2.5	2.5	376	30	60	14
Potassium	3.7	2.1	1.8	1.7	3.9	0.89	2.8	2.9
Iron	3.9	5.9	3.0	3.0	5.1	0.12	6.5	0.03
Lead	0.011	0.006	<0.005	<0.005	<0.02	<0.005	<0.005	<0.01
Manganese	0.11	0.25	0.16	0.16	1.2	0.02	1.1	0.06
Copper	0.011	0.005	<0.005	<0.005	<0.02	<0.005	<0.005	0.010
Zinc	0.063	0.055	0.076	0.075	0.030	0.012	0.014	<0.010
Alkalinity	88*	12*	16*	NA	450	116	332	152
Bicarbonate#	107*	15*	20*	NA	547	141	404	183
Carbonate#	0.12*	< 0.01*	< 0.01*	NA	1.19	0.11	0.54	0.98
Chloride	3.23	3.18	3.18	NA	947*	19.81	82.57	10.13
Sulfate	7.62	2.56	2.55	NA	447*	3.34	28.55	3.89
Bromide	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	0.02	0.03	0.05	NA	3.22	0.28	0.14	0.45
Nitrate***	0.011*	0.007*	0.014*	NA	0.015	0.535	0.009	0.459
Ammonia	0.62	0.24	<0.01	NA	0.64	<0.01	0.56	0.11
Orthophosphate **	0.38*	0.06*	0.04*	NA	0.02*	0.13*	0.03*	0.01
pH	7.4*	5.7*	6.2*	NA	7.7*	7.2*	7.5*	8.1*
Conductivity	177*	42*	47*	NA	3720*	306*	904*	247
Turbidity	NA	NA	NA	NA	NA	NA	NA	NA
TSS	NA	NA	NA	NA	NA	NA	NA	NA
TDS	NA	NA	NA	NA	NA	NA	NA	NA
Total Coliform	NA	NA	NA	NA	NA	NA	NA	>2420
E. coli	NA	NA	NA	NA	NA	NA	NA	23
	* Exceeded holding time			SW, SP, and BN wells are ANRC wells, other wells are private				
	***Orthophosphate is measured by IC, therefore sample filtered in instrument through 0.20 um pore-size							
	membrane							
	# Bicarbonate and carbonate concentrations were calculated from measured alkalinity and pH							
	NA = not analyzed							

Appendix G

Ozark Aquifer Water Level Data

Ozark Aquifer
Water Level Data
'01-'04-'07

County	Station	Latitude	Longitude	Depth	LS ALT.	Code	Date	2007 WL meas	2007 WL	01 WL ALT	04 WL ALT	2004-2007 WL Change	2001-2007 WL Change
Baxter	19N11W31DAA1	361609.67	0921143.33	193	640	367CTTR	3/8/2007	83.62	556.38	555.03	552.01	4.37	1.35
Baxter	19N14W29DBC1	361714.18	0923025.53	1625	720	367GNTR	3/8/2007	58.39	661.61	663.73	663.45	-1.84	-2.12
Baxter	20N11W35CCA1	362113.76	0921422.92	295	600	367CTTR	2/22/2007	32.24	567.76	564.56	559.06	8.70	3.20
Baxter	20N12W23CBA1	362309.28	0921418.72	550	600	367RBDX	2/22/2007	85.46	514.54	547.47	542.96	-28.42	-32.93
Baxter	20N13S14ABC1	362435.41	0922026.15	493	580	367CTTR	2/22/2007	29.03	550.97	545.61	540.60	10.37	5.36
Baxter	20N13W13ABD1	362430.93	0921911.63	209	620	367CTTR	3/8/2007	67.63	552.37	547.98	540.76	11.61	4.39
Baxter	21N12W33ACB1	362700.02	0921558.31	500	610	367RBDX	2/22/2007	31.47	578.53	567.07	557.86	20.67	11.46
									Declines/Wells:			2/7	2/7
									AverageChange:			3.64	-1.33
Benton	19N29W07DAA1	361953.87	0940618.46	1659	1210	367GNTR	2/26/2007	140.92	1069.08	1065.32	1059.27	9.81	3.76
Benton	20N33W14ACD1	362456.00	0942723.10	1600	1185	367GNTR	2/26/2007	419.66	765.34	758.22	758.17	7.17	7.12
Benton	21N29W35DDB2	362635.83	0940137.97	1769	1405	367GNTR	2/26/2007	348.82	1056.18	1062.85	1063.51	-7.33	-6.67
									Declines/Wells:			1/3	1/3
									Average Change:			3.22	1.40
Boone	18N19W19BCC1	361149.75	0930257.77	1649	1150	367GNTR	2/28/2007	238.18	911.82	925.34	927.73	-15.91	-13.52
Boone	21N18W20CCD1	362702.95	0925502.67	1415	880	371POTS	2/27/2007	240.00	640.00	642.76	637.88	2.12	-2.76
									Declines/Wells:			1/2	2/2
									Average Change:			-6.90	-8.14
Carroll	19N23W08ADD1	361917.69	0932633.25	2300	1355	367GNTR	2/27/2007	247.31	1107.69	1101.27	1098.05	9.64	6.42
Carroll	20N26W16DCA1	362339.53	0934457.65	1332	1198	367GNTR	2/27/2007	137.38	1060.62	1061.60	1064.14	-3.52	-0.98
Carroll	20N26W23ACA1	362312.82	0934253.17	1713	1335	371POTS	2/27/2007	287.85	1047.15	1047.90	1048.05	-0.90	-0.75
Carroll	21N26W10CDC1	362938.61	0934411.55	1122	1090	367GNTR	2/27/2007	161.14	928.86	992.70	993.46	-64.60	-63.84
									Declines/Wells:			3/4	3/4
									Average Change:			-14.84	-14.79
Fulton	19N06W23AAD1	361727.77	0913503.45	1630	680	367GNTR	3/8/2007	205.88	474.12	453.33	458.86	15.26	20.79

* Data collected by USGS

Ozark Aquifer
Water Level Data
'01-'04-'07

County	Station	Latitude	Longitude	Depth	LS ALT.	Code	Date	2007 WL meas	2007 WL	01 WL ALT	04 WL ALT	2004-2007 WL Change	2001-2007 WL Change
Izard	17N11W13AAD1	360753	0920626	1729	538	367RBDX	3/1/2007	47.69	490.31	498.21	498.70	-8.39	-7.90
Marion	19N15W20ACC1	361633.53	0923526.60	900	684	367RBDX	2/23/2007	102.60	581.40	517.19	503.55	77.85	64.21
Marion	19N16W33CCB1	361442.14	0924124.33	753	841	367RBDX	2/23/2007	276.35	564.65	553.61	546.10	18.55	11.04
Marion	19N18W36BDC1	361512.25	0925049.70	1392	755	367RBDX	2/28/2007	38.82	716.18	719.57	718.83	-2.65	-3.39
Marion	20N17W19ABC2	362225.43	0924918.58	180	862	367CTTR	2/23/2007	20.71	841.29	836.68	831.78	9.51	4.61
										Declines/Wells:		1/4	1/4
										Average Change:		25.82	19.12
Newton	16N21W34ABC1	360014.42	0931130.23	190	870	364EVRN	3/9/2007	60.56	809.44	804.21	809.60	-0.16	5.23
Randolph	18N02W02CAC1	361350.03	0910943.81	128	361	367CRJF	3/7/2007	53.32	307.68	308.62	309.69	-2.01	-0.94
Searcy	14N15W15AAC1	355125.65	0923401.13	3534	1060	367GNTR	2/28/2007	354.28	705.72	719.17	708.48	-2.76	-13.45
Searcy	15N16W09BBA1	355749.78	0924133.48	950	925	368PWLL	2/28/2007	201.32	723.68	789.57	787.94	-64.26	-65.89
Searcy	15N16W34BAD1	355416.32	0924024.71	485	1000	364PLTN	2/28/2007	183.01	816.99	815.33	813.33	3.66	1.66
										Declines/Wells:		2/3	2/3
										Average Change:		-21.12	-25.89
Sharp	15N05W06DDD1	355812.22	0913317.54	482	645	364EVRN	3/7/2007	104.73	540.27	541.68	543.26	-2.99	-1.41
Sharp	16N06W27ACC1	360023	0913654	1000	650	367CTTR	3/7/2007	95.83	554.17	555.13	557.05	-2.88	-0.96
Sharp	17N05W12BDC1	360817.71	0912804.43	425	417	367CTTR	3/7/2007	60.42	356.58	358.58	360.27	-3.69	-2.00
Sharp	17N06W29ABC1	360604	0913854	900	525	367CTTR	3/7/2007	83.60	441.40	442.87	444.83	-3.43	-1.47
Sharp	18N06W10CBC1	361325.14	0913637.77	1525	625	367GNTR	3/7/2007	141.79	483.21	478.84	483.12	0.09	4.37
Sharp	19N04W15BAA1	361813.01	0912336.97	611	584	367RBDX	3/7/2007	53.63	530.37	528.35	528.72	1.65	2.02
										Declines/Wells:		4/6	4/6
										Average Change:		-1.88	0.09
Washington	15N31W17BBD1	355902.73	0941807.14	2097	1195	367GNTR	2/26/2007	38.78	1156.22	1150.93	1152.05	4.17	5.29
Washington	15N31W30CAD1	355652.45	0941857.56	2485	1165	367GNTR	2/26/2007	19.81	1145.19	1149.98	1149.68	-4.49	-4.79
										Declines/Wells:		1/2	1/2
										Average Change:		-0.16	0.25
										Total Declines/Wells:		17/35	18/35
										Total Average Change:		-0.14	-1.81
												48.57%	51.42%

* Data collected by USGS