

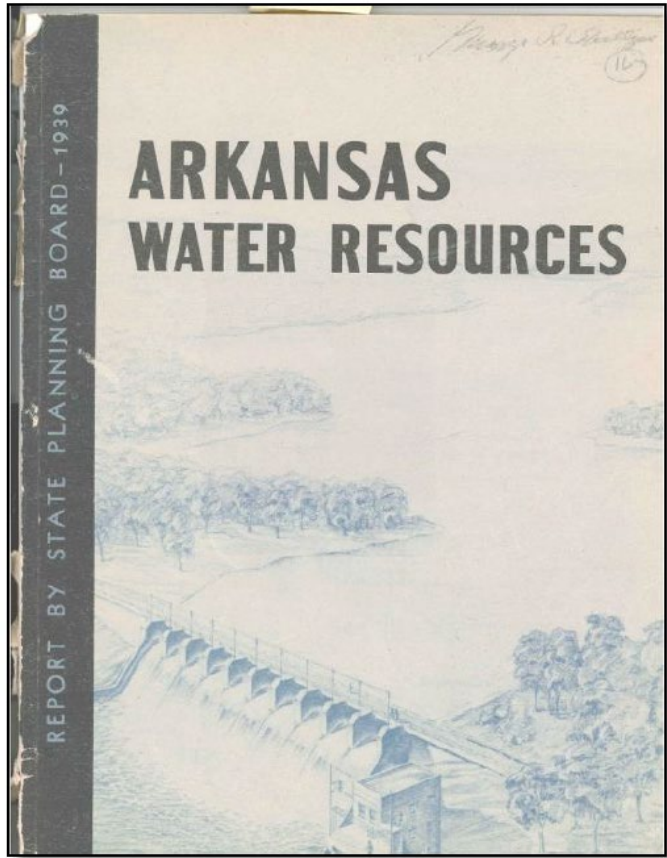


**NATURAL RESOURCES
DIVISION**

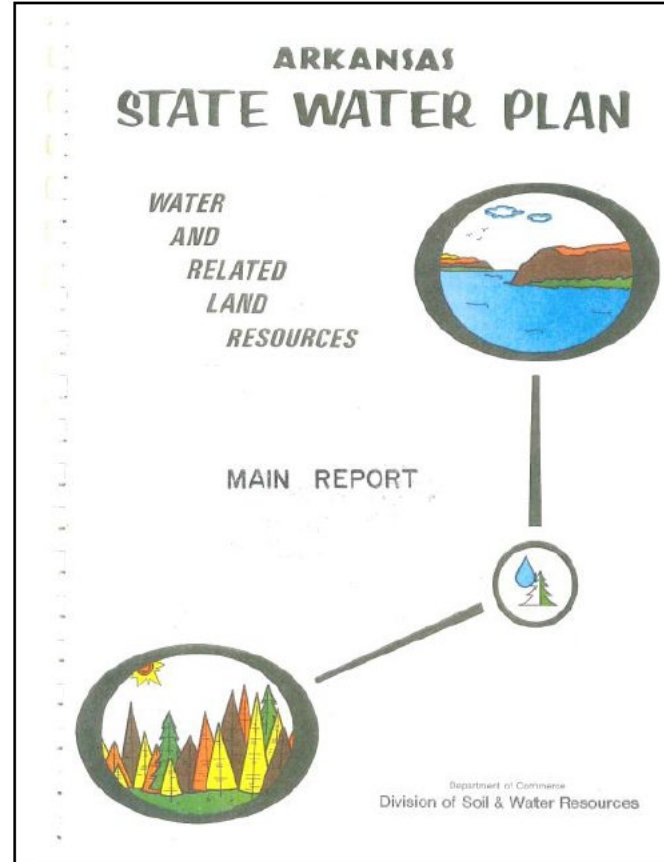
ARKANSAS STATE WATER PLAN

Chris Colclasure

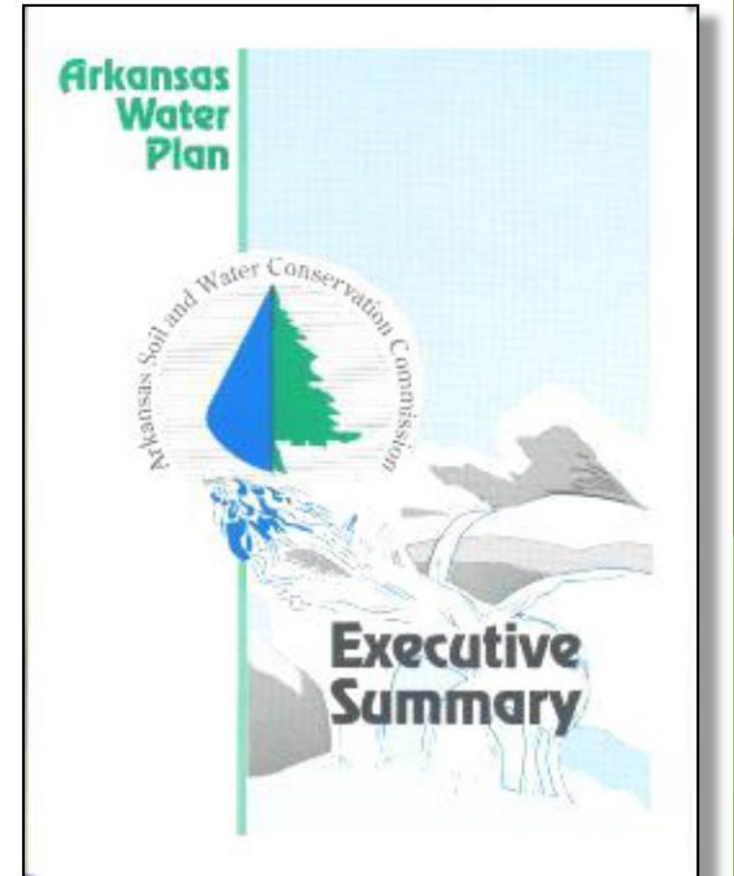
Arkansas Water Planning – 1930s to Present



1939



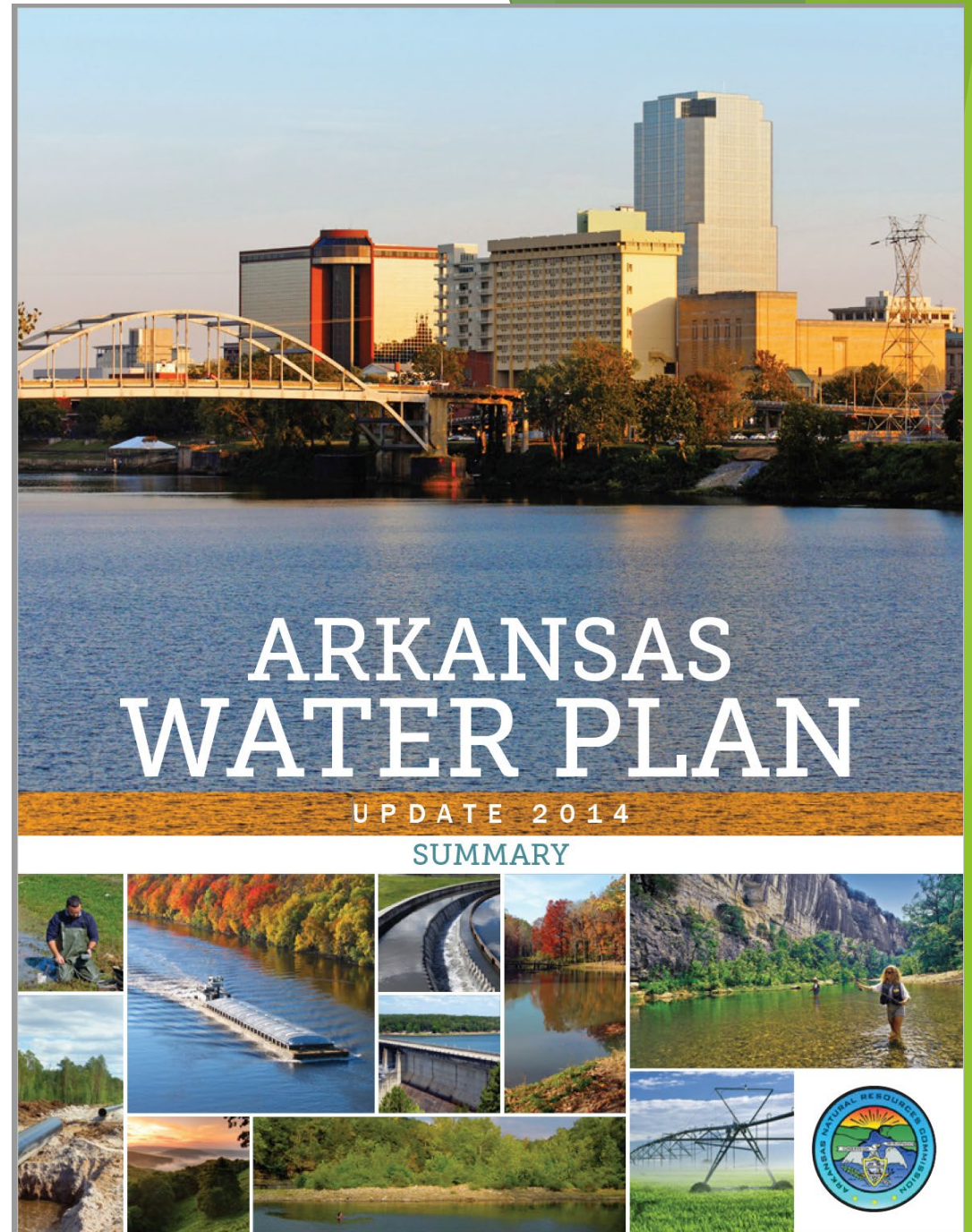
1975



1990

2014 Water Plan

- What is the Arkansas Water Plan
 - “A comprehensive program for the orderly development and management of the state’s water and related land resources”
Arkansas Code § 15-22-503(a)
- Purpose
 - To assess quantity and quality of water in Arkansas
 - To be ready for growth, declines, and new challenges
- Structure
 - Supply
 - Demands
 - Issues
 - Recommendations
- Public Involvement / Stakeholder Engagement
 - Approx. 250 Meetings and Presentations for the 2014 update



Executive Order 23-27 - August 21, 2023

STATE OF ARKANSAS
EXECUTIVE DEPARTMENT
PROCLAMATION

EO 23-27

EXECUTIVE ORDER TO CONDUCT A COMPREHENSIVE ANALYSIS AND REPORT OF ARKANSAS' WATER NEEDS AND UPDATE THE ARKANSAS WATER PLAN

WHEREAS: Pursuant to Ark. Code Ann. § 15-22-503, The Arkansas Natural Resources Commission is responsible for the preparation and development of a comprehensive program for the orderly development and management of the state's water and related land resources (referred to as the "Arkansas Water Plan");

WHEREAS: The purpose of the Arkansas Water Plan is to conserve and protect the state's water resources, with a long-term goal of sustainable use to maximize the environmental and economic benefit of the State of Arkansas, and the health and well-being of its citizens;

WHEREAS: The most recent Arkansas Water Plan was completed nearly a decade ago and there is urgent need to update the Plan in order to meet the changing needs of communities—large and small—across this state;

WHEREAS: Aging infrastructure and population change across the state have impacted drinking water, stormwater, sanitation capabilities, and other needs;

WHEREAS: The state must investigate all possible solutions to reduce groundwater depletion and provide a sustainable source of water for household, agricultural, and industrial uses;

WHEREAS: Arkansas is susceptible to frequent floods and depends upon flood mitigation programs and components such as dams, levees, and drainage improvements for protection;

WHEREAS: A comprehensive strategy, to include an updated Arkansas Water Plan, is necessary to address water demand projections, aging infrastructure, supply depletion, and flood mitigation capabilities by incorporating the most recent science and data.

NOW, THEREFORE, I, SARAH HUCKABEE SANDERS, acting under the authority vested in me as Governor of the State of Arkansas, do hereby order the following:

The Secretary of the Department of Agriculture (the "Secretary") and the Director of the Natural Resources Division of the Arkansas Department of Agriculture shall take the following steps to update the Arkansas Water Plan in compliance with Ark. Code Ann. § 15-22-501 *et. seq.*:

- a. Model and assess water availability, water demand projections, and water quality trends, and identify basins with projected challenges or opportunities where significant changes are known or expected from the 2014 Arkansas Water Plan;
- b. Evaluate, develop, and recommend water management strategies for all water-use sectors and develop innovative new funding mechanisms to support their implementation; and
- c. Conduct statewide engagement throughout the process to identify the most pressing current issues and develop the best practicable solutions in collaboration with representatives from all water use sectors, including, but not limited to, interested water planning groups, state and federal agencies, legislators, and local entities.

The update shall be completed in two separate phases.

- a. The first phase ("Phase I") shall be a review of the most recent Arkansas Water Plan to determine areas of significant change which shall be reevaluated or updated, including a review of the visions, goals, and objectives of the plan, the policy recommendations, and a review of the available water use demands and projections.
- b. Phase I shall be completed within 365 days of this Order. Upon completion of Phase I, the Secretary shall furnish to the Governor a Final Programmatic Work Plan, Schedule, and Anticipated Cost to complete Phase II of the update to the Arkansas Water Plan.
- c. The second phase ("Phase II") shall be based on the outcome of Phase I and shall include needed updates to reflect the current demands, forecasts, supply, availability, and quality of surface and groundwater; a resilience assessment; regional and basin level water management strategies; local project and program assessments; focus basins identification and solutions; a structural analysis of flood mitigation infrastructure and proposed solutions; and a comprehensive analysis of water management policies.
- d. Supplemental reports and analyses beyond the scope of the Arkansas Water Plan may be required in conjunction with the water plan update. An interim status report shall be due to the Governor by December 31, 2024, detailing the progress of the water plan update, any supplemental reports and analyses, and preliminary needs and recommendations.
- e. Each phase should include significant stakeholder engagement.

TESTIMONY WHEREOF, I have hereunto set my hand and cause the Great Seal of the State of Arkansas to be affixed this 21st day of August, in the year of our Lord 2023.



Attest:

John Thurston
John Thurston, Secretary of State

Sarah Huckabee Sanders
Sarah Huckabee Sanders, Governor



Our Charge

1. Model and assess water availability, water demand projections, and water quality trends, and identify basins with projected challenges or opportunities where significant changes are known or expected from the 2014 Arkansas Water Plan;
2. Evaluate, develop, and recommend water management strategies for all water-use sectors and develop innovative new funding mechanisms to support their implementation; and
2. Conduct statewide engagement throughout the process to identify the most pressing current issues and develop the best practicable solutions in collaboration with representatives from all water use sectors, including, but not limited to, interested water planning groups, state and federal agencies, legislators, and local entities.



Process

- Partner with the Corps of Engineers – Little Rock District
- Contract with Micheal Baker International / FTN & Assoc
- Phase I - Scoping Process (1st and 2nd Qtr. 2024)
 - Data Collection
 - Vision, Goals, and Objectives / Need / Scope of Work
 - Gaps/Changes from 2014
 - 7 Stakeholder Meetings (March and May 2024)
- Phase II – Updates to the Plan (TBD) - (3rd Qtr. 2024 - 2026)
 - Updates to Water Demands / Forecasts
 - Project and Program Assessments
 - Water Management Policy
 - Stakeholder Meetings
- Cost Est. \$4.8 million



Water Availability (Surface)

1 acre-foot = 325,851 gallons

USGS Historical Gaged Streamflow

(92,482,000 AFY)

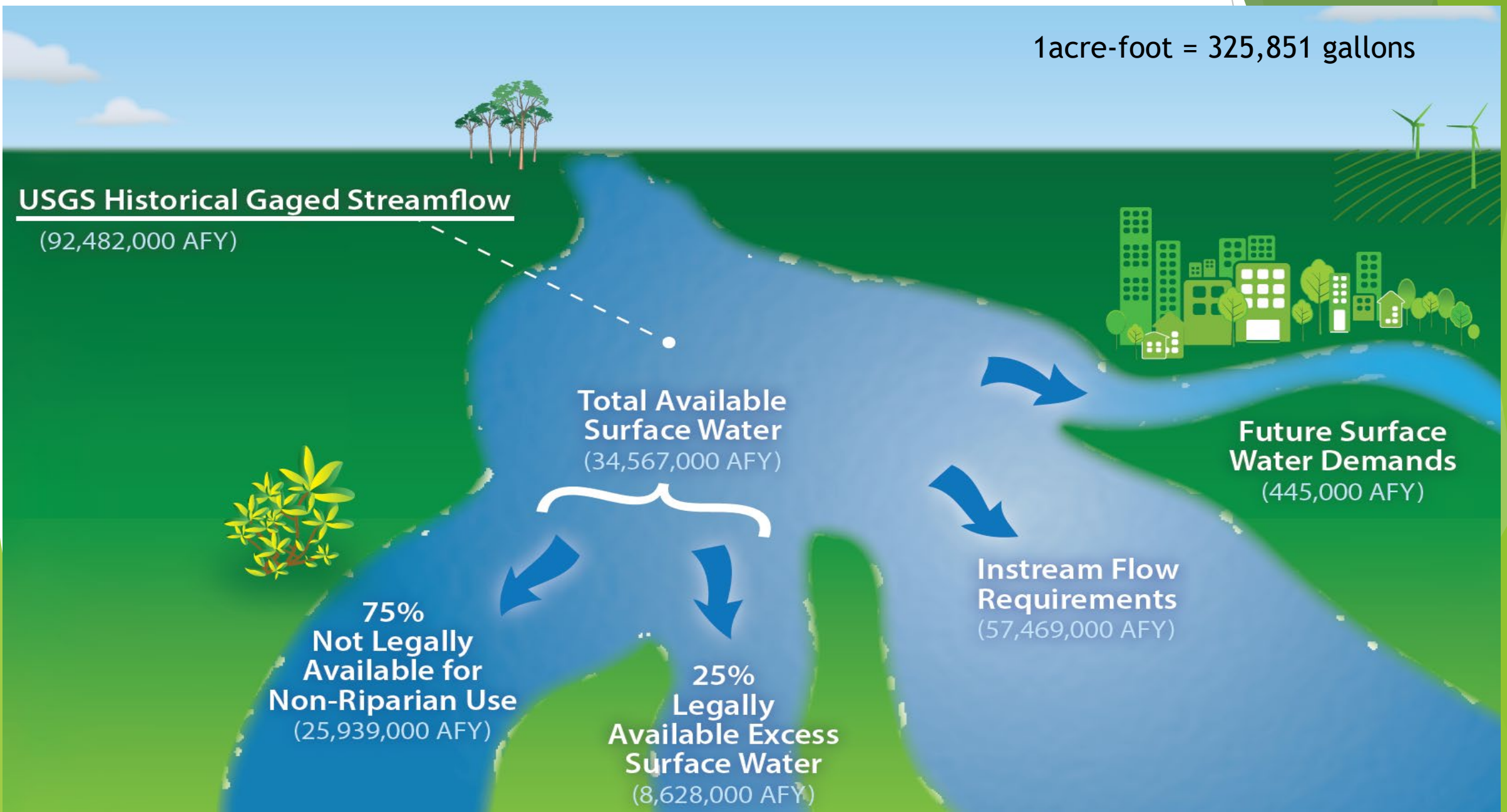
Total Available
Surface Water
(34,567,000 AFY)

75%
Not Legally
Available for
Non-Riparian Use
(25,939,000 AFY)

25%
Legally
Available Excess
Surface Water
(8,628,000 AFY)

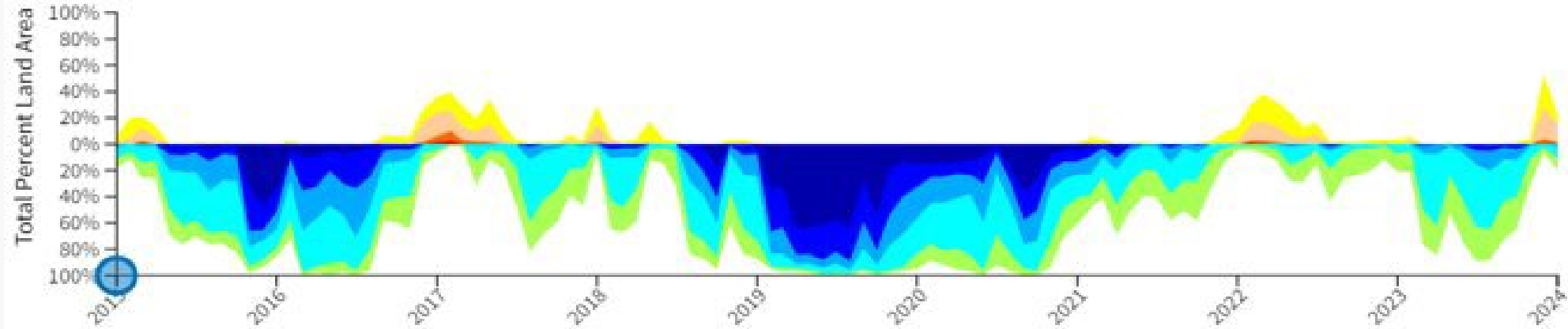
Instream Flow
Requirements
(57,469,000 AFY)

Future Surface
Water Demands
(445,000 AFY)



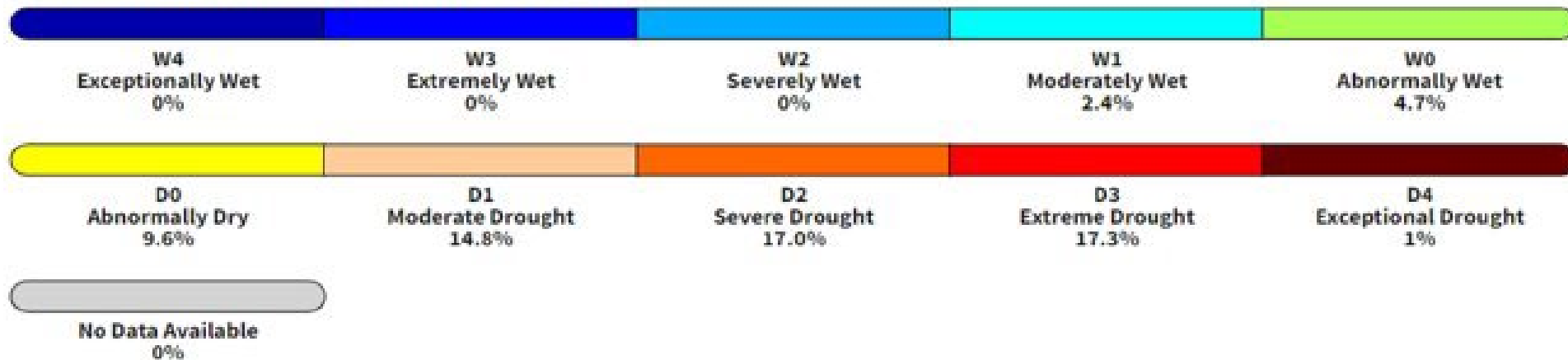
Precipitation

Standardized Precipitation Index for Arkansas



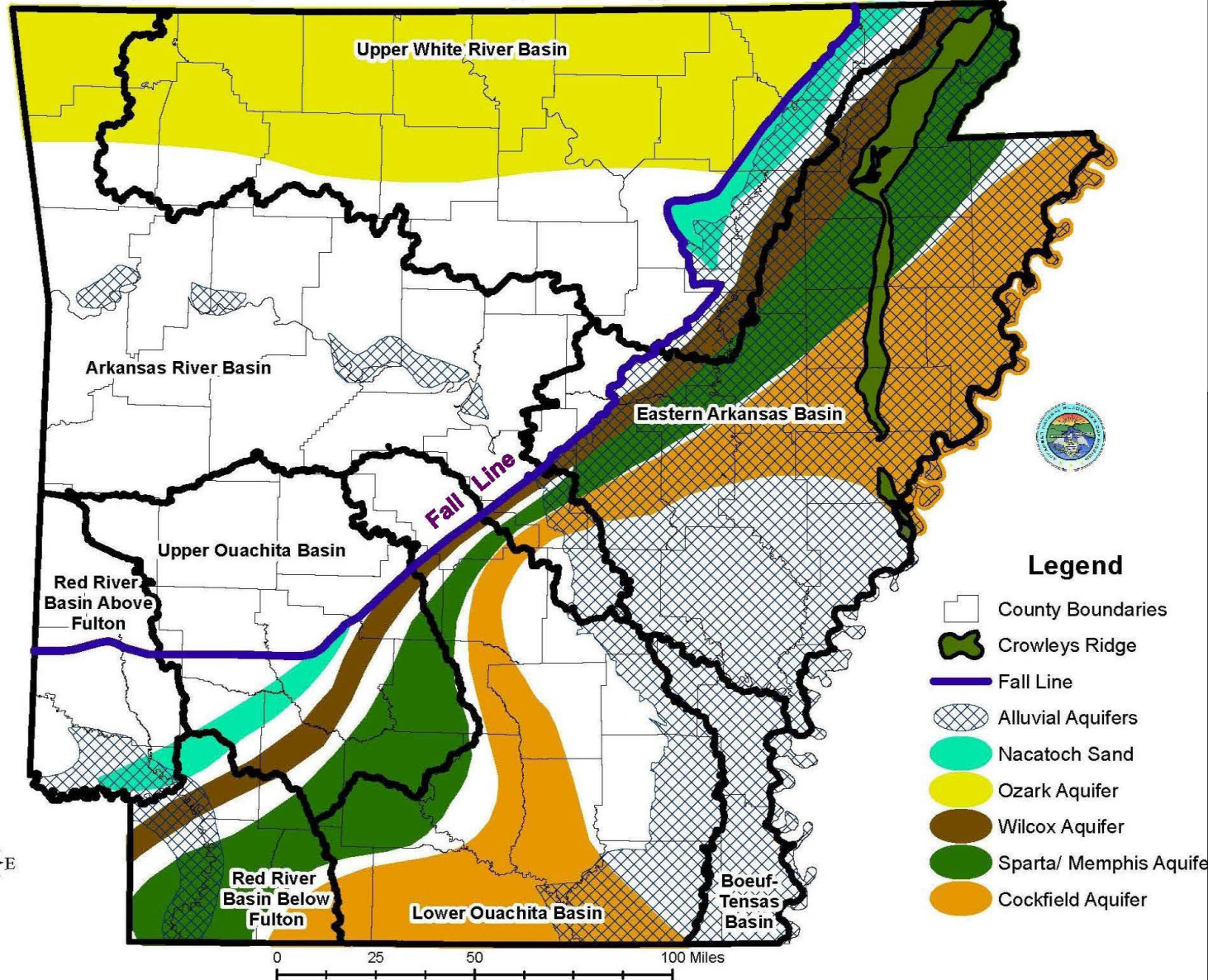
Stats Valid: September 2010

9-Month Standardized Precipitation Index (SPI)

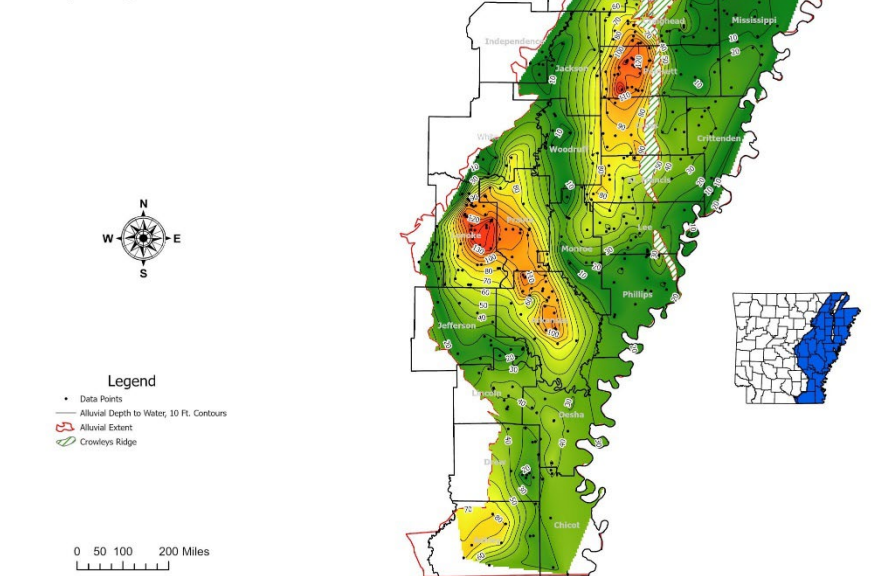


Groundwater

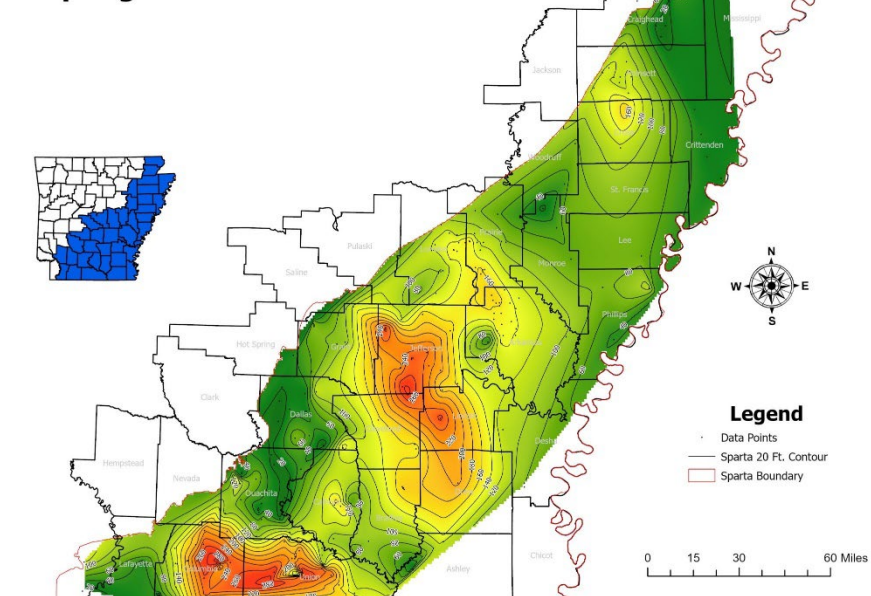
Principal Aquifers and Hydrologic Basins in Arkansas



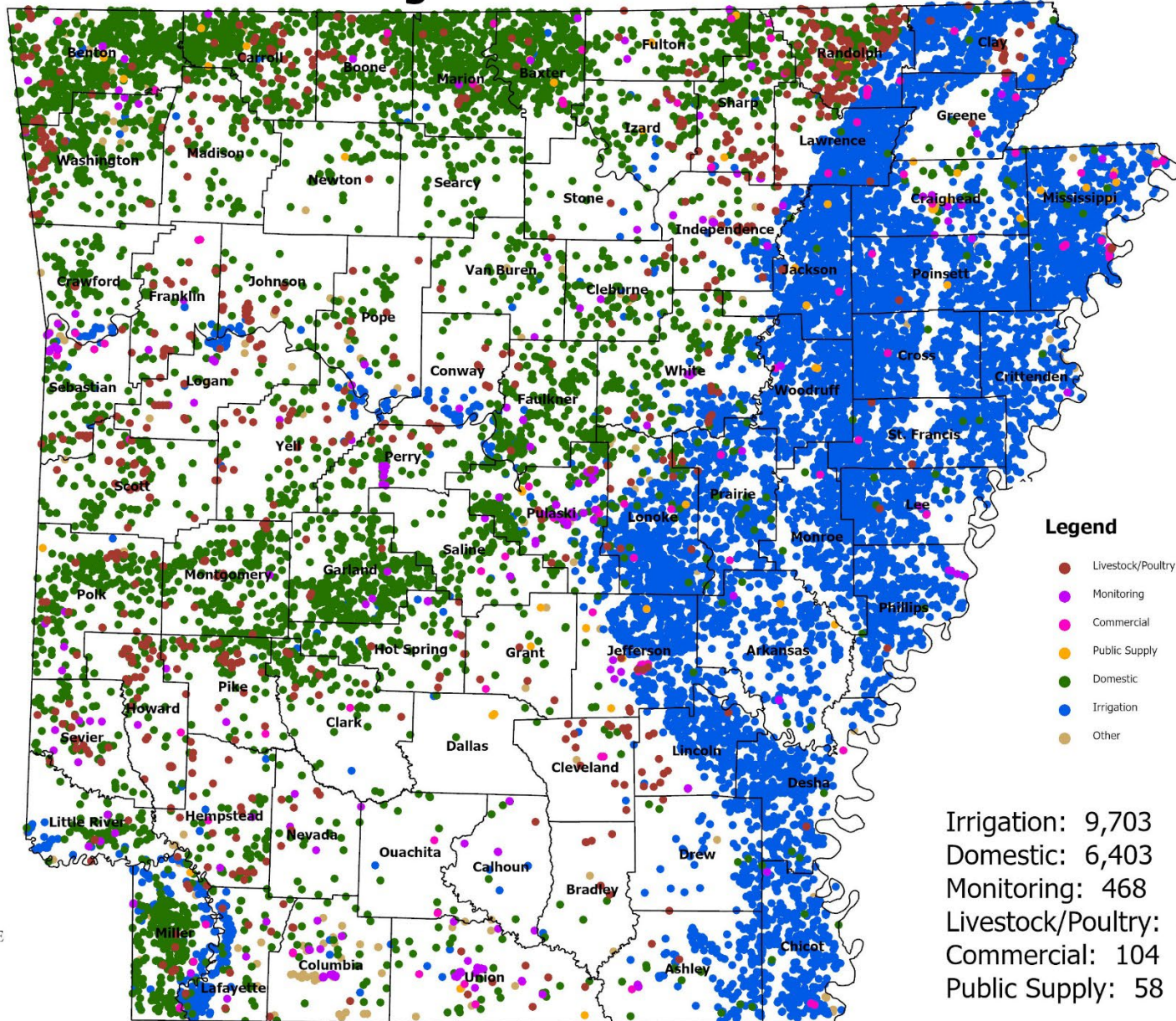
Alluvial Aquifer Depth to Water Spring 2023



Sparta Aquifer Depth to Water Spring 2023



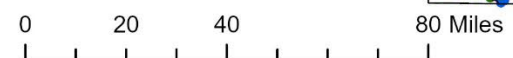
Wells Drilled January 2014 through December 2023



Legend

- Livestock/Poultry
- Monitoring
- Commercial
- Public Supply
- Domestic
- Irrigation
- Other

Irrigation: 9,703
Domestic: 6,403
Monitoring: 468
Livestock/Poultry: 1,055
Commercial: 104
Public Supply: 58

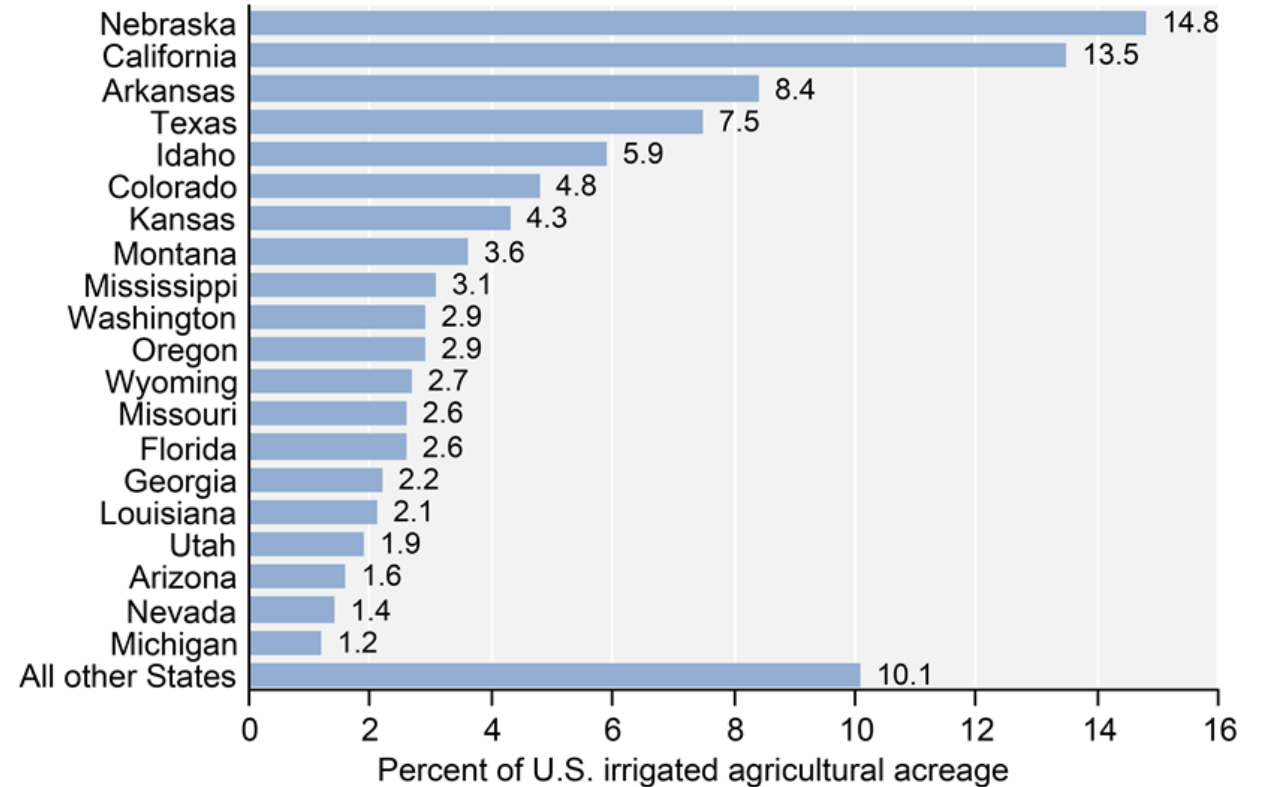


Arkansas Water Use Demands

2014 Water Plan

- 71% of statewide water demand is supplied from groundwater
- Largest demands:
 - Crop irrigation 80%
 - Thermoelectric power 11%
 - Municipal drinking water 3.5%
- Similar projections thru 2050

State shares of U.S. irrigated agricultural land, 2017

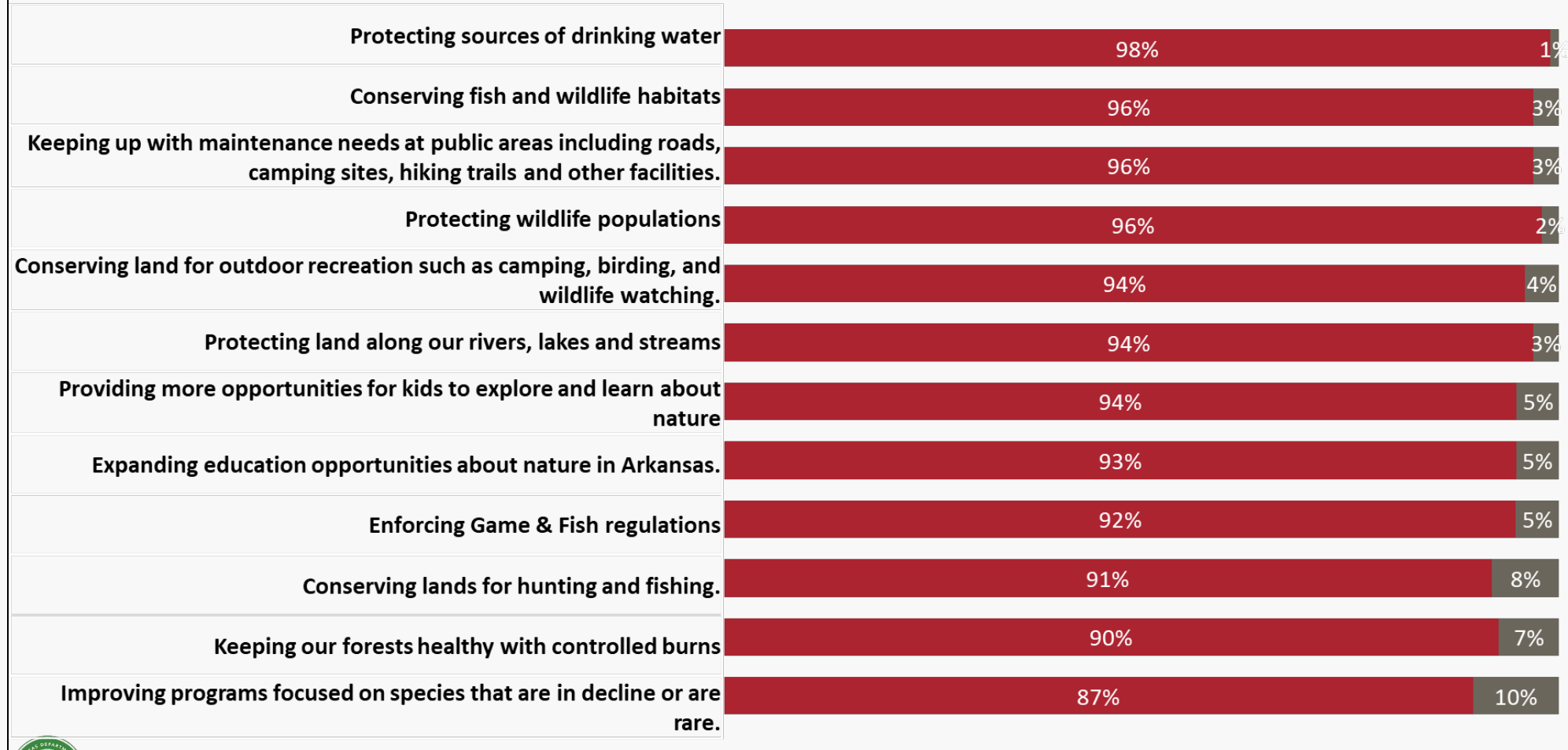


Note: The 20 leading States account for 89.9 percent of all irrigated acres in 2017, including harvested cropland, pasture, and other lands (but excluding horticulture under protection).
Source: USDA, Economic Research Service using USDA, National Agricultural Statistics Service, 2017 Census of Agriculture.



Public Input

I'm now going to read a list of issues impacting conservation here in Arkansas. For each one, please tell me how important you believe the issue is to you as it relates to conservation.

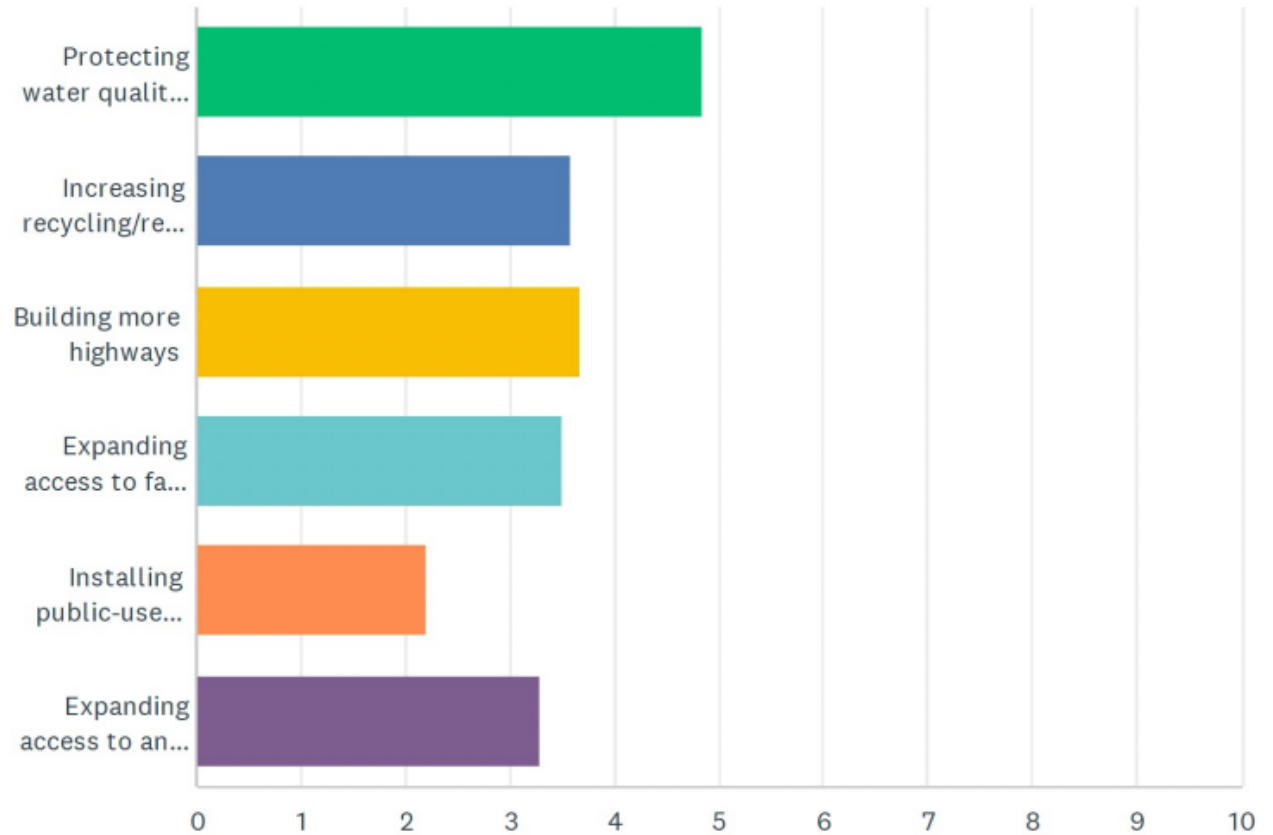


Source: Gilmore Strategy Group



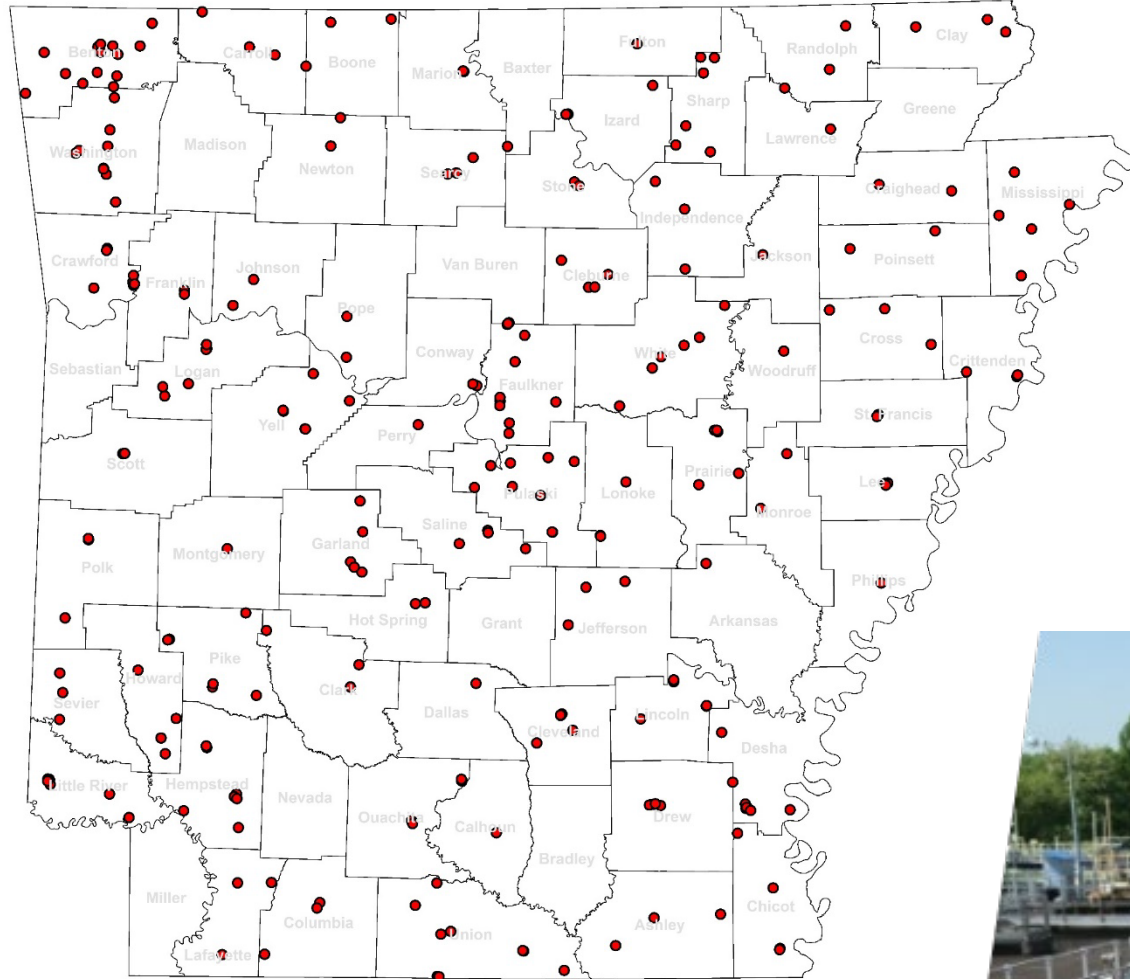
Northwest Arkansas' population, which is near 550,000 today, should approach 1 million people by 2045. When thinking about our long-term future, how would you prioritize work in these areas? Please rank the following priorities, with 1 being the most important and 6 being the least important.

Answered: 3,476
Skipped: 676



	1	2	3	4	5	6	TOTAL	SCORE
Protecting water quality of streams and lakes	42.30% 1,439	24.54% 835	16.87% 574	9.05% 308	4.91% 167	2.32% 79	3,402	4.83
Increasing recycling/reducing waste	7.14% 243	22.08% 751	23.37% 795	23.57% 802	16.96% 577	6.88% 234	3,402	3.58
Building more highways	26.79% 917	15.31% 524	12.39% 424	11.77% 403	11.57% 396	22.17% 759	3,423	3.67
Expanding access to fast, reliable internet services	8.85% 303	17.38% 595	23.16% 793	24.18% 828	17.79% 609	8.64% 296	3,424	3.49
Installing public-use electric vehicle charging stations in the region	2.69% 92	5.20% 178	9.34% 320	14.16% 485	28.85% 988	39.77% 1,362	3,425	2.19
Expanding access to and options for public transportation (buses)	13.48% 464	15.75% 542	15.02% 517	16.73% 576	19.15% 659	19.87% 684	3,442	3.28

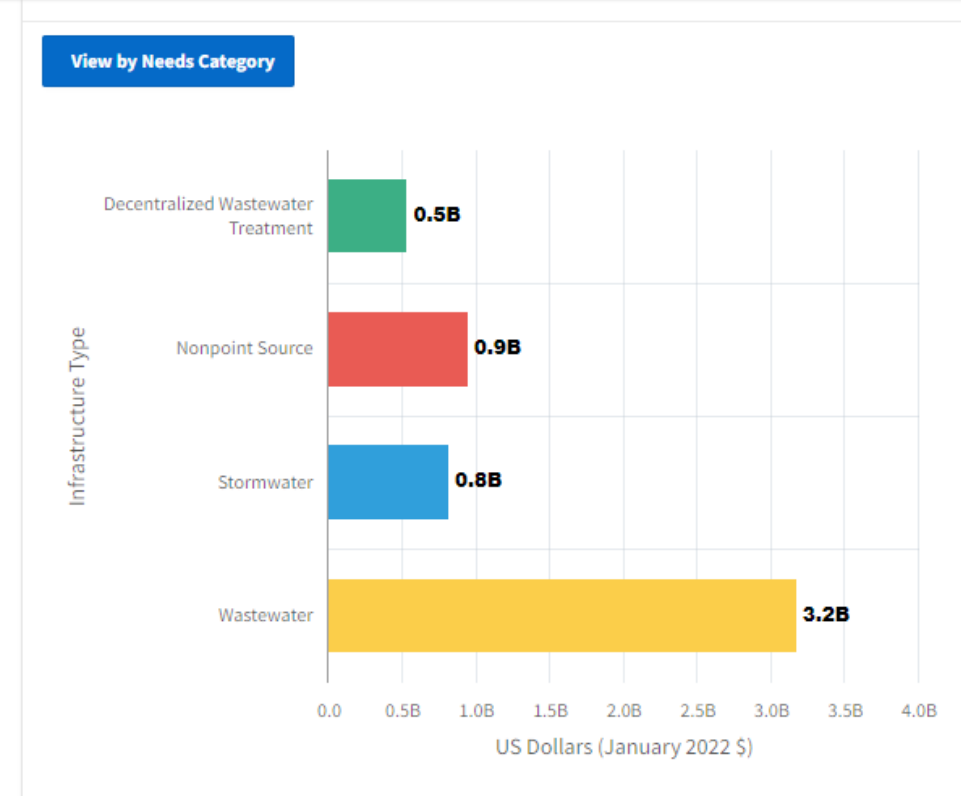
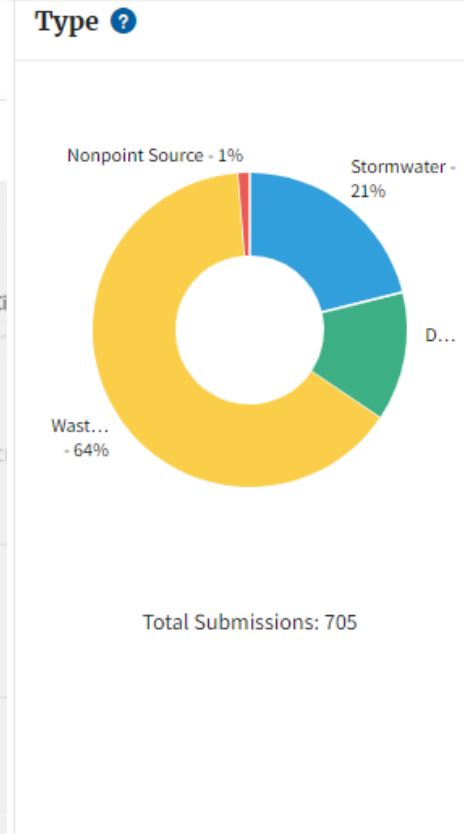
Water and Wastewater Infrastructure



FY23 Awards = \$1.173 Billion – 302 Projects

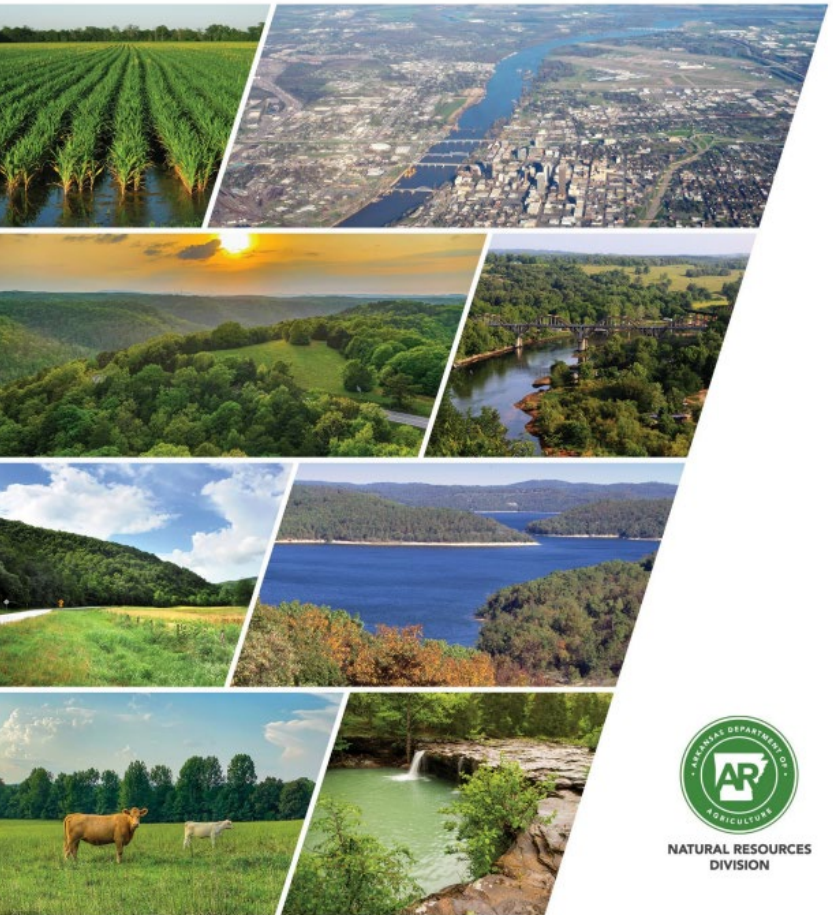
2022 Clean Water Needs Survey (EPA)

Total Needs [?](#)
\$5,453,124,384



Water Quality

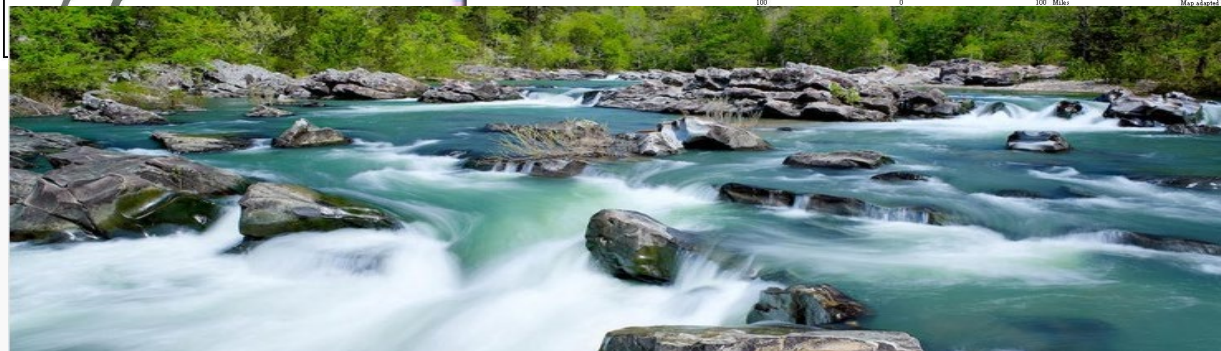
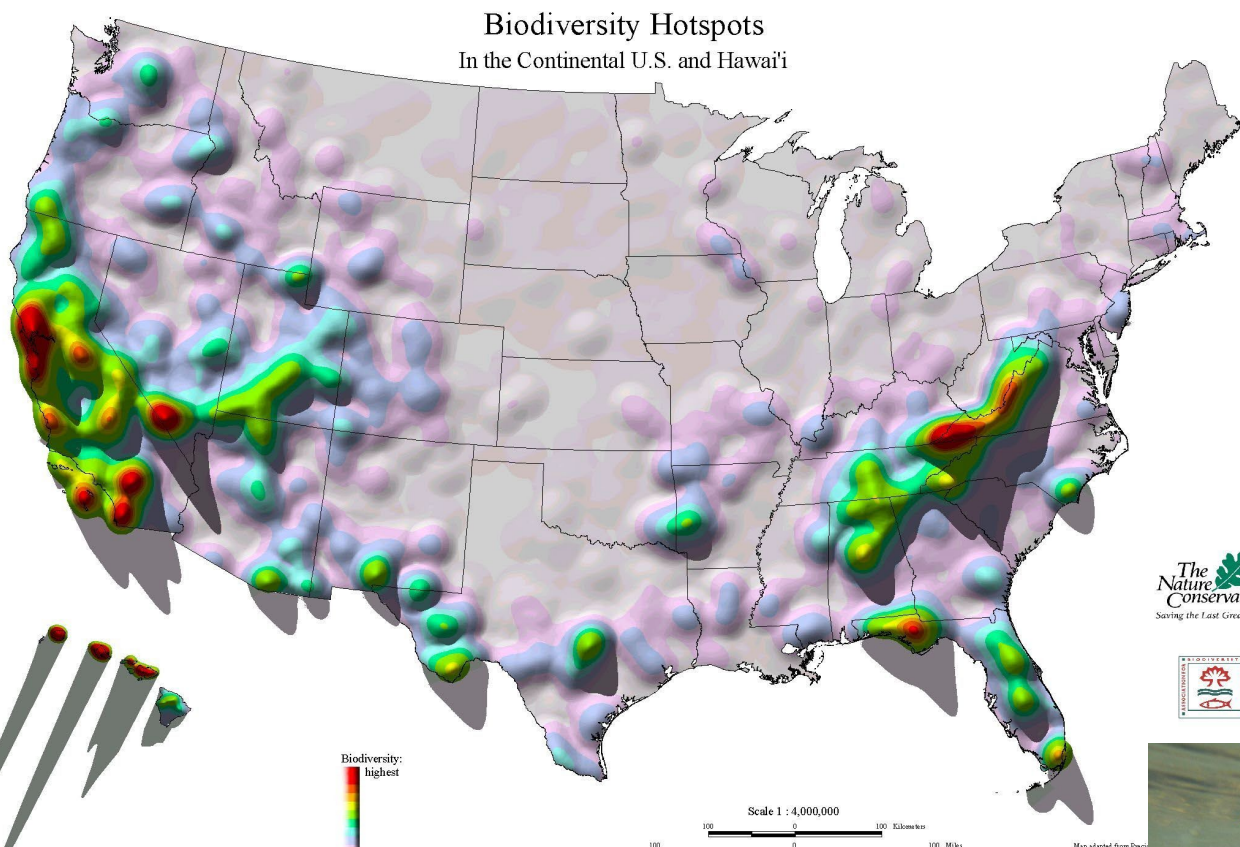
2022 Arkansas Nutrient Reduction Strategy (ANRS)



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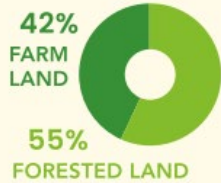
Fish and Wildlife



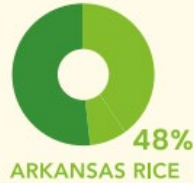
Industry / Economics

 **\$19 BILLION EACH YEAR**

Agriculture is our largest industry, contributing more than **\$19 BILLION** annually to Arkansas's economy



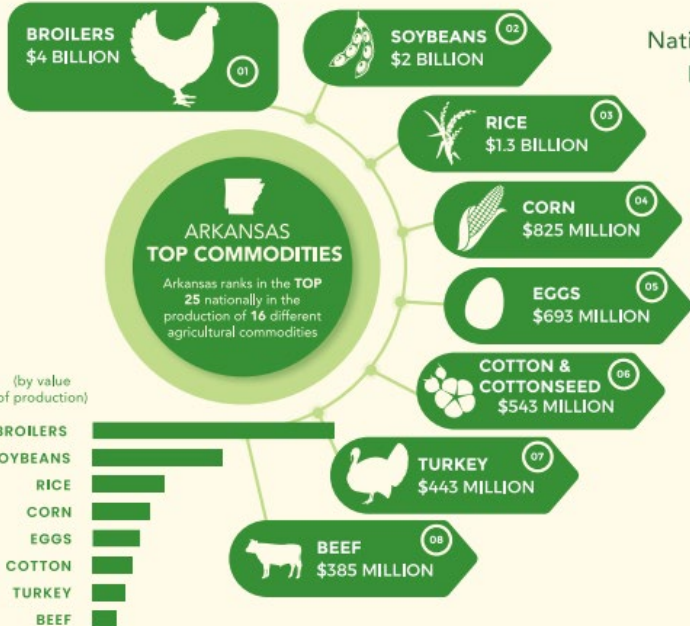
ARKANSAS RICE accounts for **48%** of total U.S. Rice Production and **58%** of the entire U.S. Long Grain Production



243,165 JOBS in Arkansas created by the Agriculture Industry



AGRICULTURE



Nationally ranked **#1** in **RICE** production, valued at **\$1.3 Billion** annually

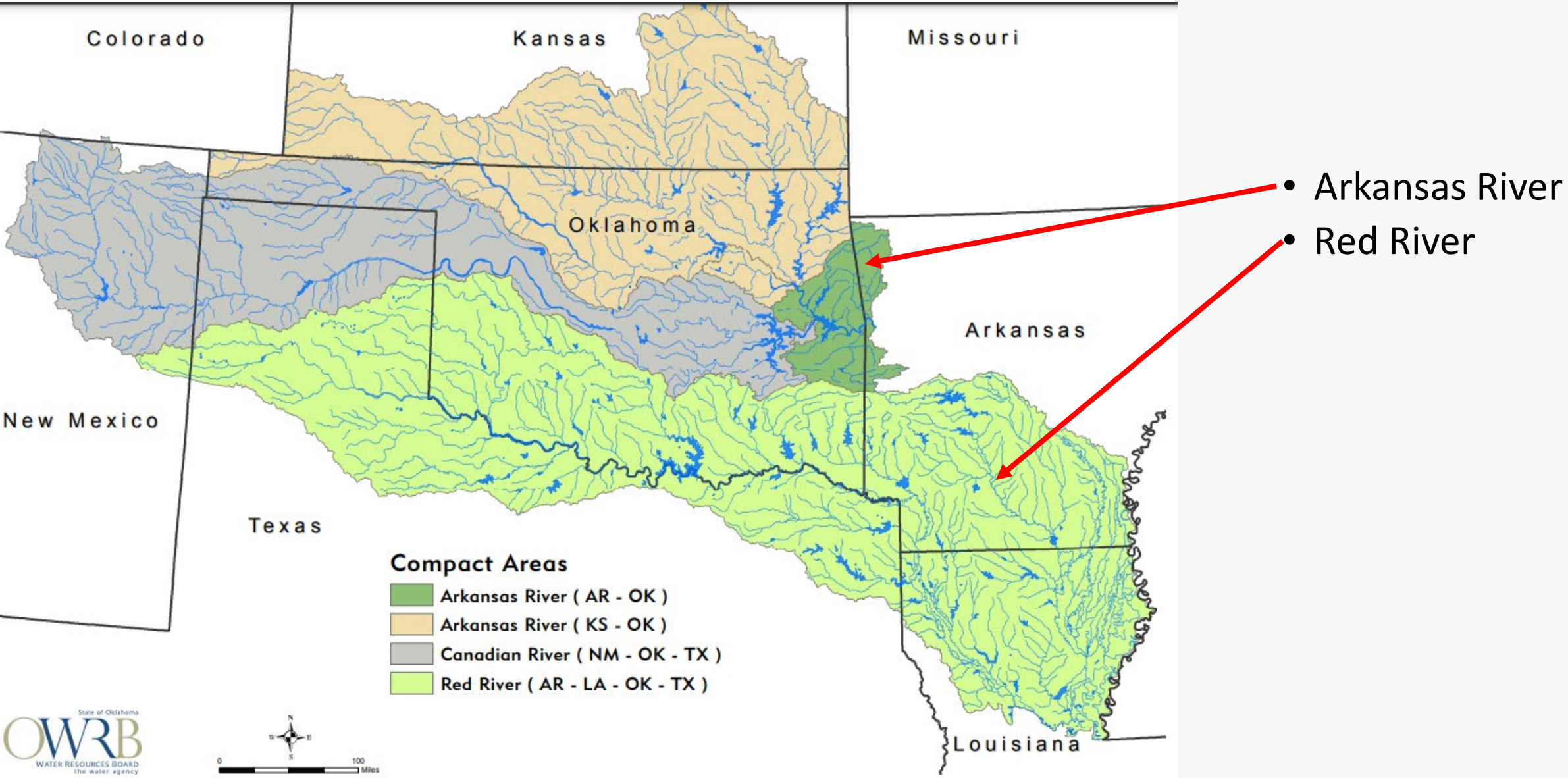


AR TOP COMMODITIES RANKED NATIONALLY

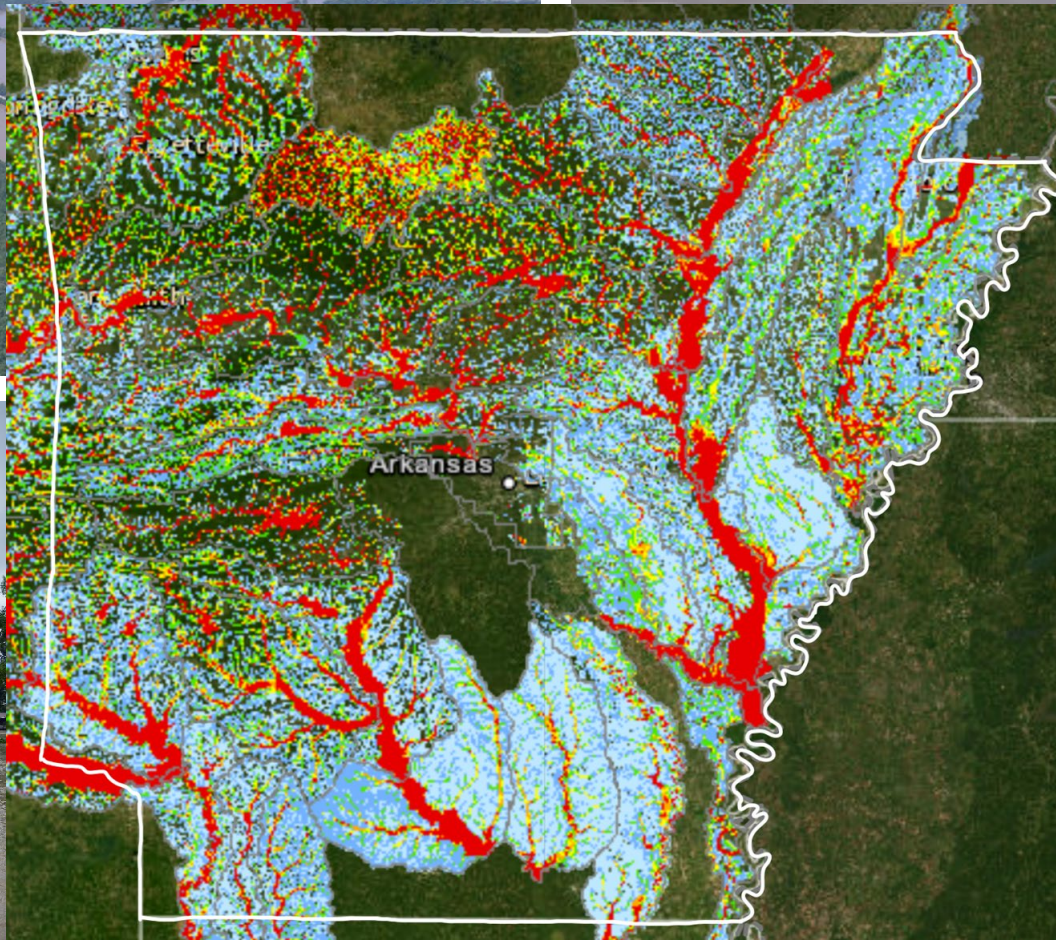
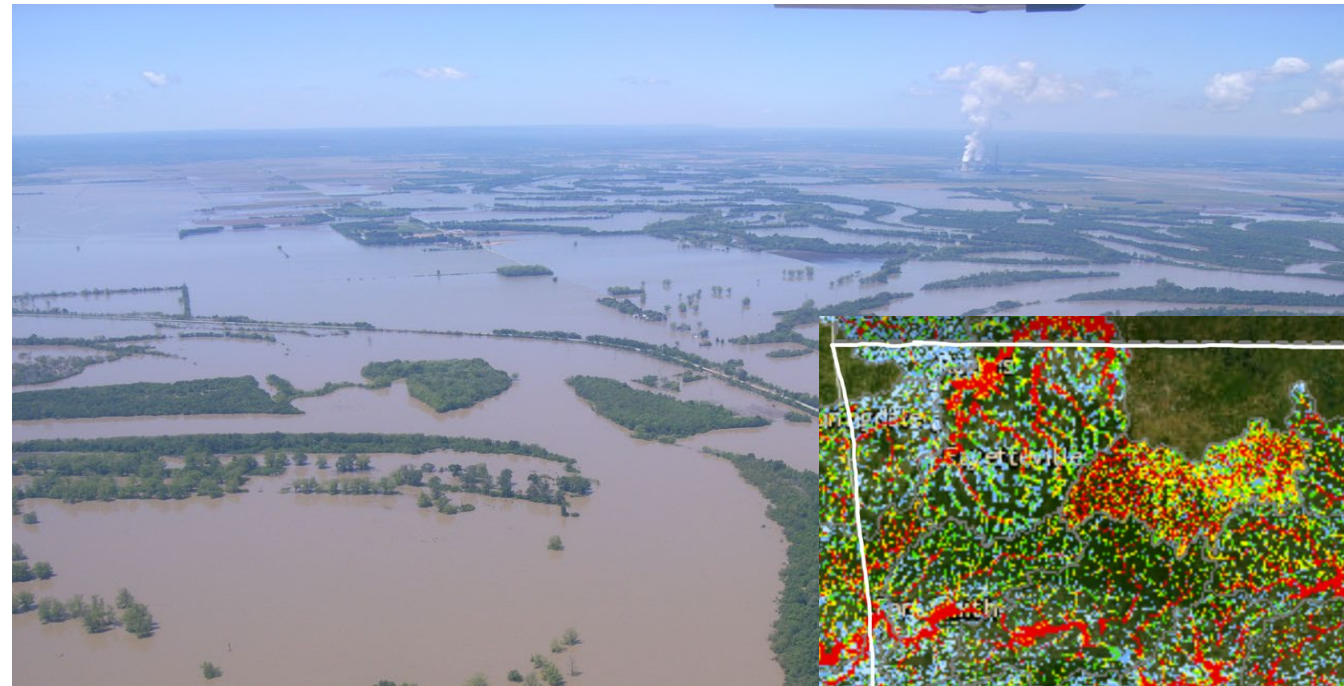
- #1 in Rice
- #3 in Broilers
- #3 in Turkeys Raised
- #3 in Cotton
- #3 in Cottonseed
- #4 in Catfish
- #7 in Peanuts
- #8 in Eggs
- #11 in Beef Cattle
- #11 in Soybeans



Multi-state Compacts – Water Quantity & Quality



Flood Planning



QUESTIONS?

