



# Arkansas Water Plan Update

“A comprehensive program for the orderly development and management of the state’s water and related land resources.”

Arkansas Code section 15-22-503(a)

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Arkansas Natural Resources Commission



## **Legislative Involvement with the Plan**

- Assigned to ANRC in 1969
- Passed laws related to water data, water management, and water development
- Approved and financed update in 2011
- Will review portions subject to rulemaking

## **Current Status: Executive Summary Review**

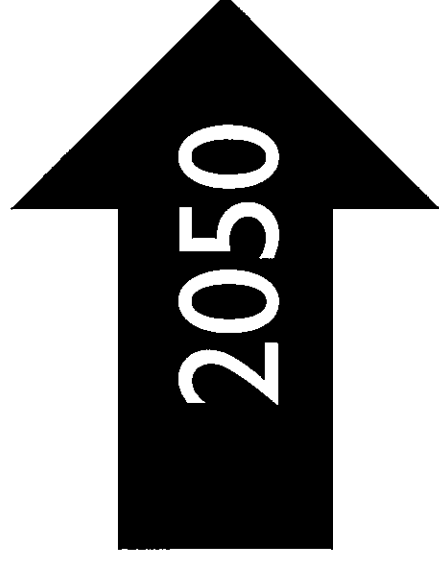
- Executive Summary published June 30
- Comments due October 24
- Final delivery to Natural Resources Commission end of November
- Seven public meetings scheduled
- Several presentations to organizations scheduled

# Upcoming Public Meetings

- September 3, **Stuttgart**, 10 a.m., Grand Prairie Center
- September 4, **Jonesboro**, 9 a.m. Chamber of Commerce
- September 5, **Russellville**, 10 a.m., Lake Point Conference Center
- Sept. 15, **Smackover**, 1 p.m., Ark. Museum of Natural Resources
- Sept. 16, **Texarkana**, 10 a.m., Southwest Ark. Electric Coop.
- September 17, **Little Rock**, 2 p.m. Central Ark. Main Library.
- Sept. 19, **Fayetteville**, 10 a.m., Whitaker Animal Sciences Center

# The Update Process

- **Demand** – How much needed, where, and when?
- **Supply** – How much available, where, and when?
- **Gaps** – Difference between demand and supply
- **Issues and Recommendations**
  - Challenges and responses



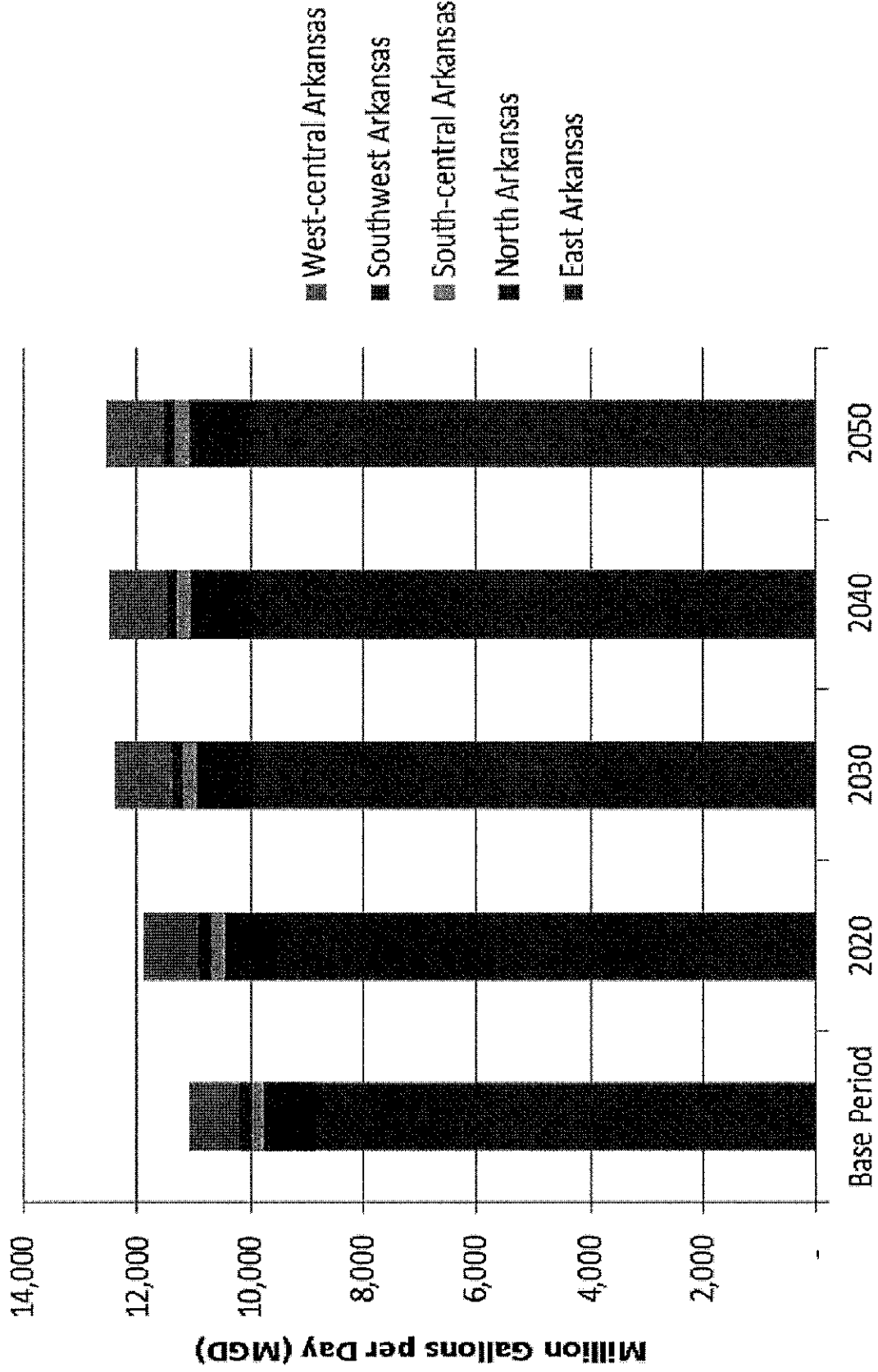
# Public Participation

- 1990 Update was drafted internally, then released
- This update has involved hundreds of people
- Volunteer demand, supply, and issues and recommendations workgroups
- Forty-one public meetings attended by commissioners
- Over 100 presentations to groups and in seven states
- Highlights:
  - Overflow crowd of over 175 people came to the Lonoke “Issues and Recommendations” meeting
  - Over 300 attended regional workgroup sessions in 2014
  - Over 1,000 people receive our e-mail newsletter and over 100 receive it by postal mail

# Demand Projections

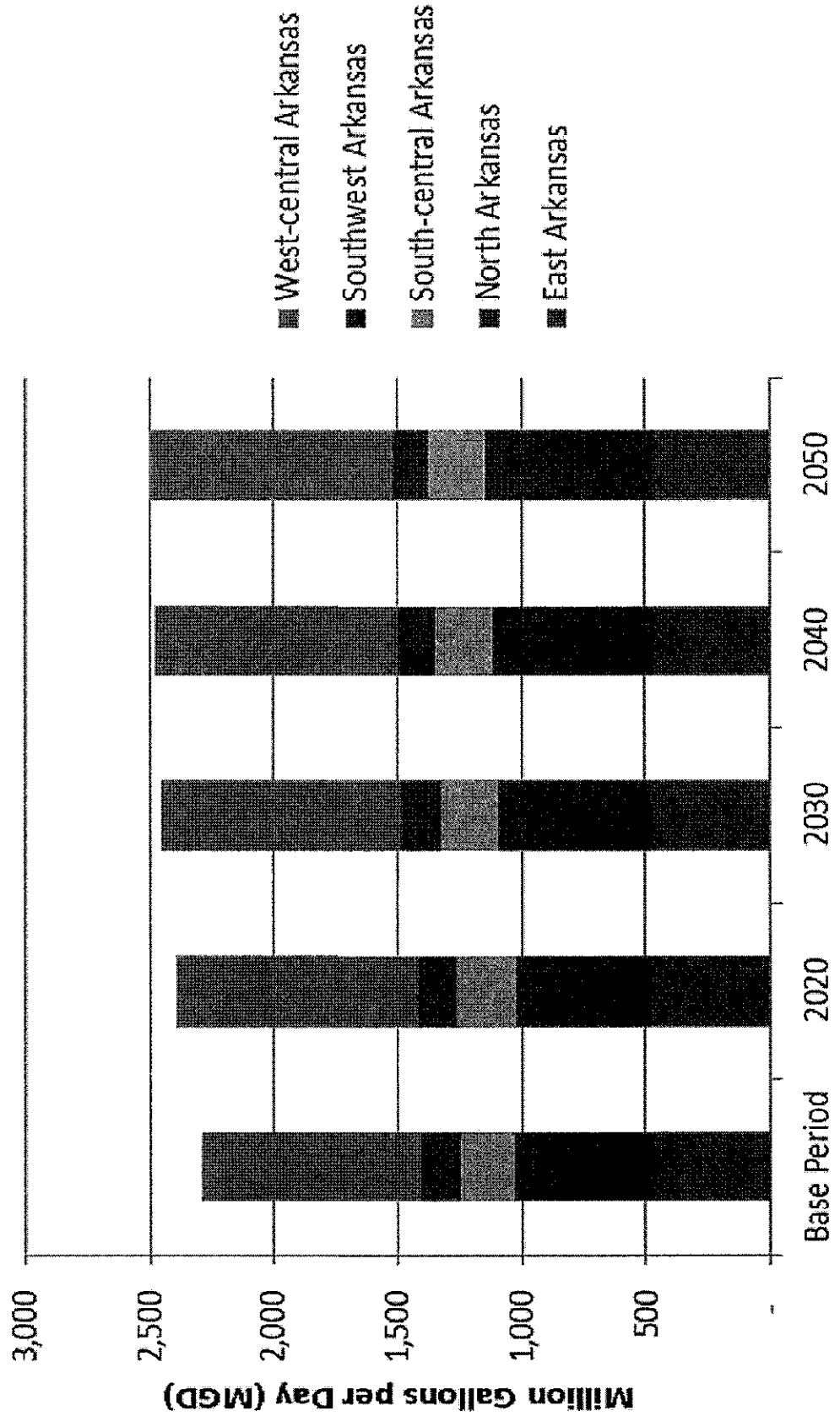
- Current demand is 12.426 million acre-feet per year
- Projected demand in 2050 - 14.033 million acre-ft. per year
- Largest demands:
  - Crop irrigation 80%
  - Thermoelectric power 11%
  - Public drinking water 3.5%

# Total Water Demands by Water Planning Region





# Total Water Demands by Water Planning Region without Irrigation



# Supply Projections

- We have very abundant surface water supplies
- Water quality is generally good
- Groundwater supplies are abundant, but:
  - 2010 demand was 8.7 million acre-feet per year
  - It is projected to grow by 2050
  - Groundwater can supply only 1.9 million acre-feet per year at a sustainable pumping rate—the rate that roughly equals recharge

# Infrastructure Need Projections

- We surveyed water and wastewater providers
- Between now and the mid 2020s, building, replacing, and maintaining infrastructure is expected to cost:
  - \$5.74 billion for water providers
  - \$3.76 billion for wastewater utilities

# Priority Issues and Recommendations

Priority Issue	Recommendations
Conjunctive Water Management and Groundwater Decline	<ul style="list-style-type: none"> <li>• Develop and implement strategies based on storing surface water during months when excess water is available</li> <li>• Encourage and increase irrigation water use efficiencies</li> </ul>
Drought Contingency Response	<ul style="list-style-type: none"> <li>• Develop a drought contingency response network</li> <li>• Ensure stream flow gaging is adequate and paid for</li> </ul>
Excess Surface Water Available for Non-Riparian Use	<ul style="list-style-type: none"> <li>• Remove the 25% limitation for estimating excess water available for non-riparian transfer</li> <li>• Through adaptive management, use the Arkansas method for fish and wildlife flow needs until improved methods available</li> <li>• Engage stakeholders through an open and transparent process</li> </ul>

# Priority Issues and Recommendations (cont.)

Priority Issue	Recommendations
<p>Funding Water Resources Development Projects</p>	<ul style="list-style-type: none"> <li>Continue bond issues under the Water, Waste Disposal, and Pollution Abatement Facilities General Obligation Bond Program at the appropriate times</li> </ul>
<p>Improving Water Quality through Nonpoint Source Management</p>	<ul style="list-style-type: none"> <li>Propose funding specifically for nonpoint source pollution management programs and practices</li> <li>ANRC interact with ADEQ better on impaired stream issues</li> <li>Leverage funding from multiple sources</li> </ul>

# Priority Issues and Recommendations (cont.)

Priority Issue	Recommendations
Public Awareness, Outreach, and Education	<ul style="list-style-type: none"> <li>• Keep working to educate the public on water issues—most people take water completely for granted</li> <li>• Continue work with Conservation Districts</li> </ul>
Public Water and Wastewater Infrastructure	<ul style="list-style-type: none"> <li>• Develop sustainability plans for long-term maintenance, replacement, and financing of facilities and equipment</li> <li>• Improve training programs for boards, managers, and operators</li> </ul>

# Priority Issues and Recommendations (cont.)

Priority Issue	Recommendations
<p>Reallocation of Water Storage in Federal Reservoirs</p>	<ul style="list-style-type: none"> <li>• Pursue administrative reallocation of water stored in federal reservoirs</li> </ul>
<p>Tax Incentives And Credits For Integrated Irrigation Water Conservation</p>	<ul style="list-style-type: none"> <li>• Determine current efficiencies and develop goals</li> <li>• Evaluate effectiveness of existing tax credits and incentives</li> </ul>
<p>Water Use Reporting</p>	<ul style="list-style-type: none"> <li>• Review water use reporting process for agricultural irrigation</li> <li>• Improve Quality Assurance/Quality Control</li> <li>• Refine crop water need numbers</li> <li>• Develop awareness, outreach, and education to stress the importance of accurate water use reporting and the benefits of conservation</li> </ul>



# People Have Questioned

- Forecasted increased demands, especially crop acreages
- Water Use Reporting Program data quality
- “New” areas of projected groundwater decline
- Groundwater model consistency and accuracy
- Disproportionate input from some participants



## Thank you!

- Website and e-mail signup  
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