Arkansas' Water Policy Issues - 2007

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UNDER
CONSTRUCTION

The Issues: Water Quality/Air Quality – Nutrient Management and Agriculture Point and Nonpoint Source Pollution:

Both Rural and Urban –
Defining direction

TMDLs
AFO/CAFOs
Nutrient Surplus Areas
Hypoxia
Watersource protection
Stormwater
Use/Rights
Groundwater
Case Law
Watershed Scale

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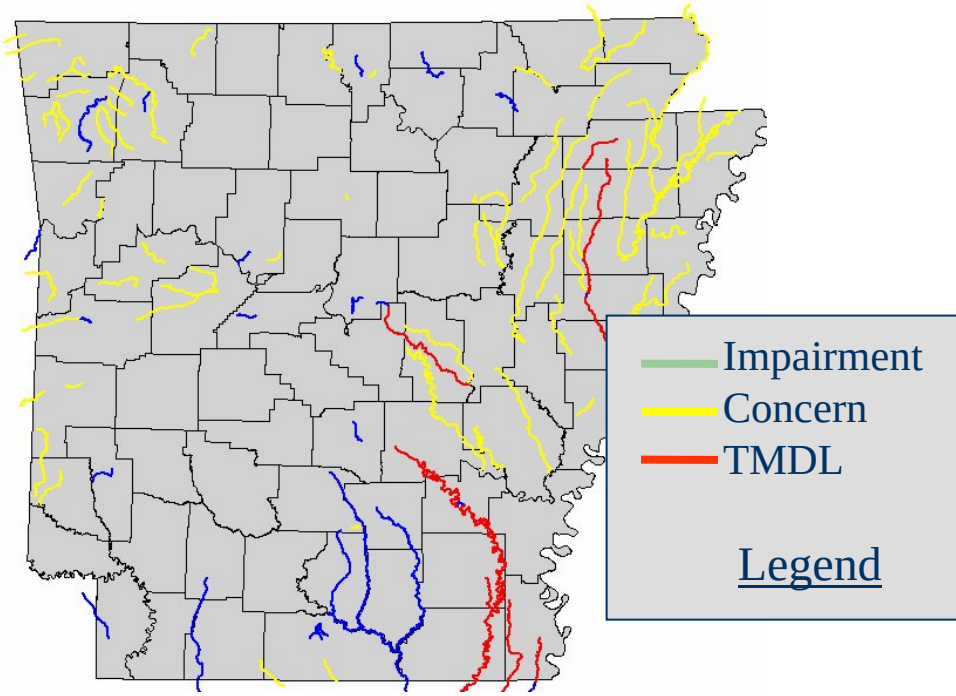
Total Maximum Daily Load (TMDL)

- Court Ordered process (consent decree)
- Timeline and impairment driven
- Requires a plan for correcting the identified problem(s)



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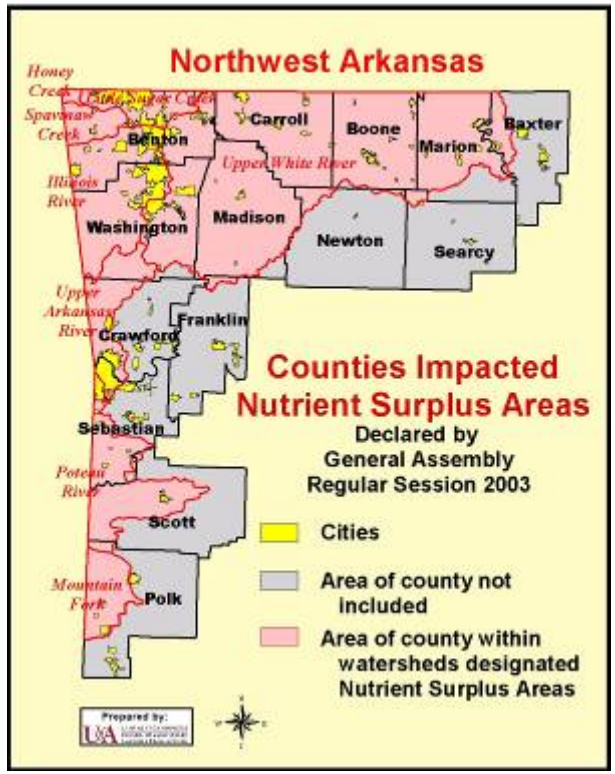
Nutrient Surplus Area Designation

Requirements:

- Planner/Applicator Certification (area)
- Poultry Grower Registration – 2500+birds (statewide)
- Sets nutrient limits for both N and P (area)
- Requires Nutrient Management Plans for sites larger than 2.5 acres (area)
- Application supervised by a certified applicator (area)
- Nutrients from all sources considered (area)



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Water Source Protection
(sourcewater)

- Private property rights vs. community interest

  Ex. (Little Rock vs. Deltic Timber)
- Considers pollution from all sources
- Homeland security and health driven
- Often urban vs. rural

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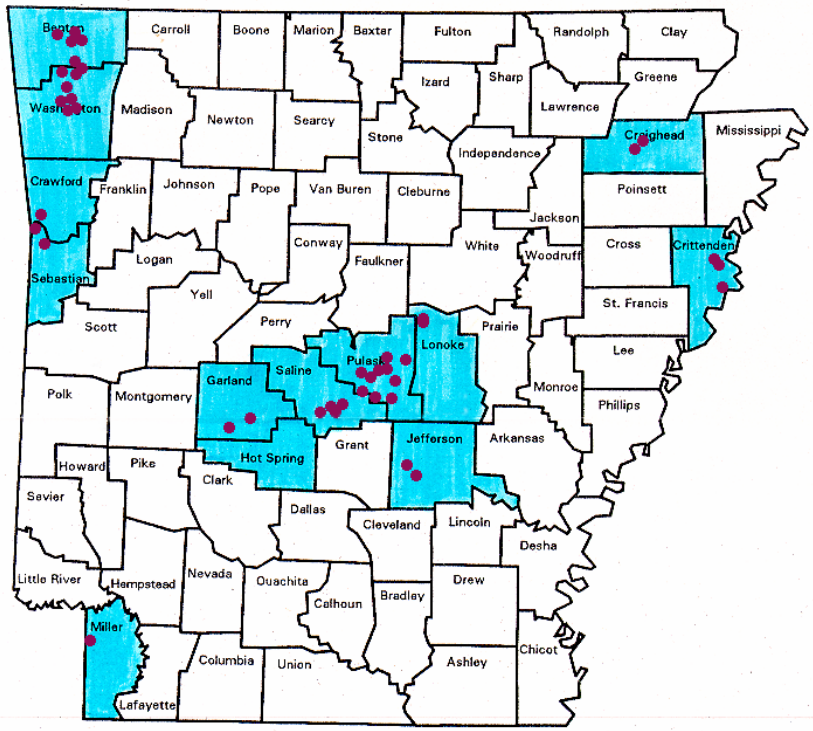
Stormwater:

- High population density directed
- Not just a city issue
- Focus:

  Education
  Public Involvement
  Enforcement/Illegal Discharg
  elimination
  Construction Site Mgmt – during and after construction
  Pollution prevention

MS4 Cities and Counties



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Water Use and Rights - Forces

- Public water supply watersheds
- In-stream needs for water – both quality and quantity
- Sensitive biological species
- Competing uses
- Meeting TMDL standards
- Irrigation districts

All potentially individual Right limiting

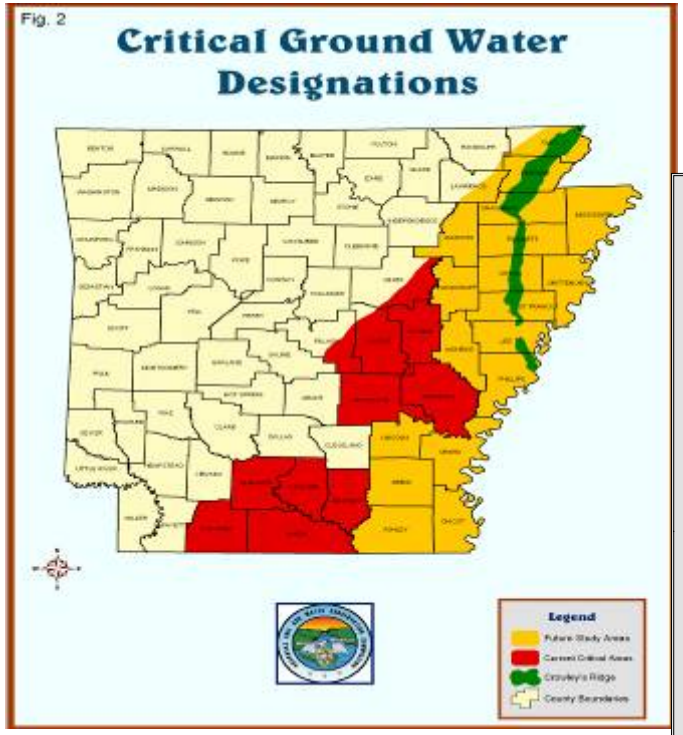
Groundwater:

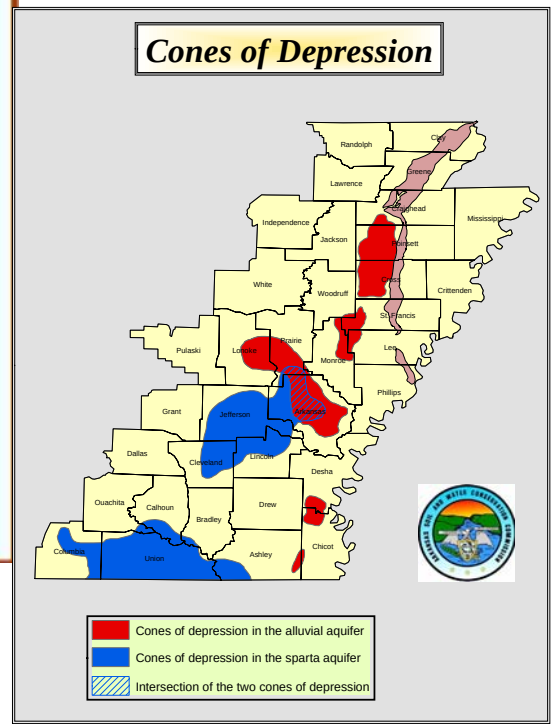
Primary Use?

Agriculture

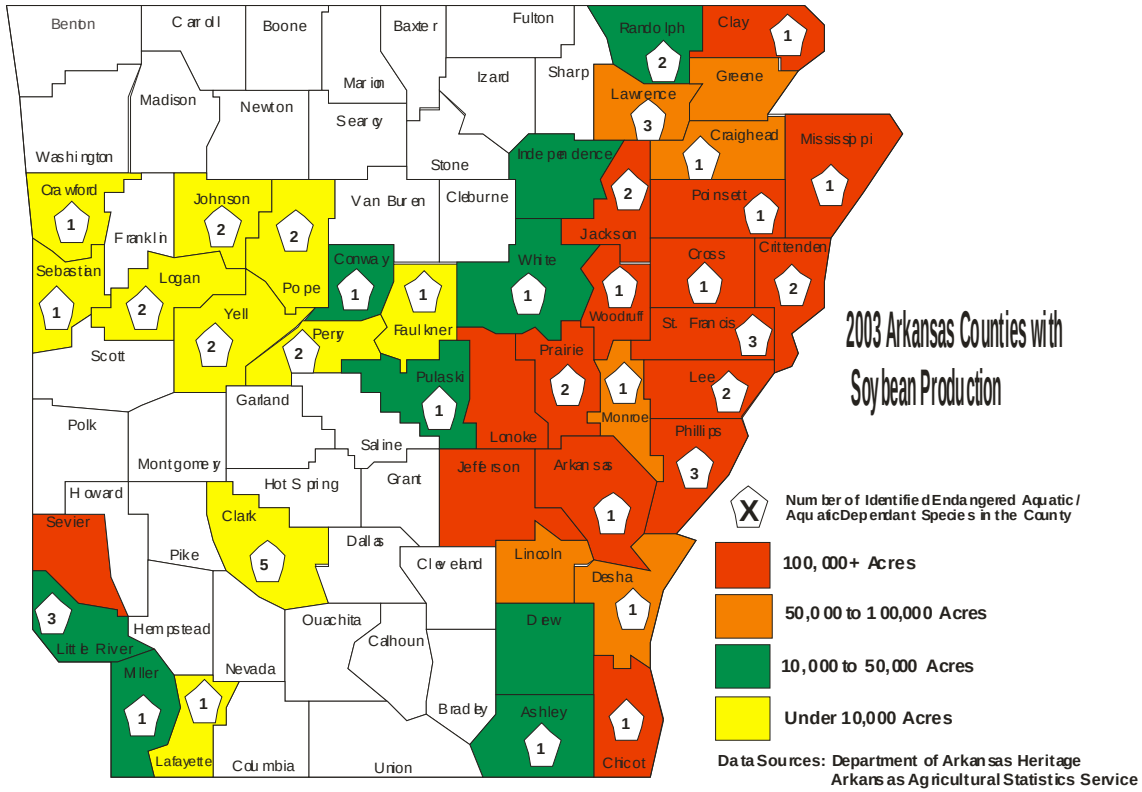
Primary Crop?

Rice





Aquatic Endangered Species



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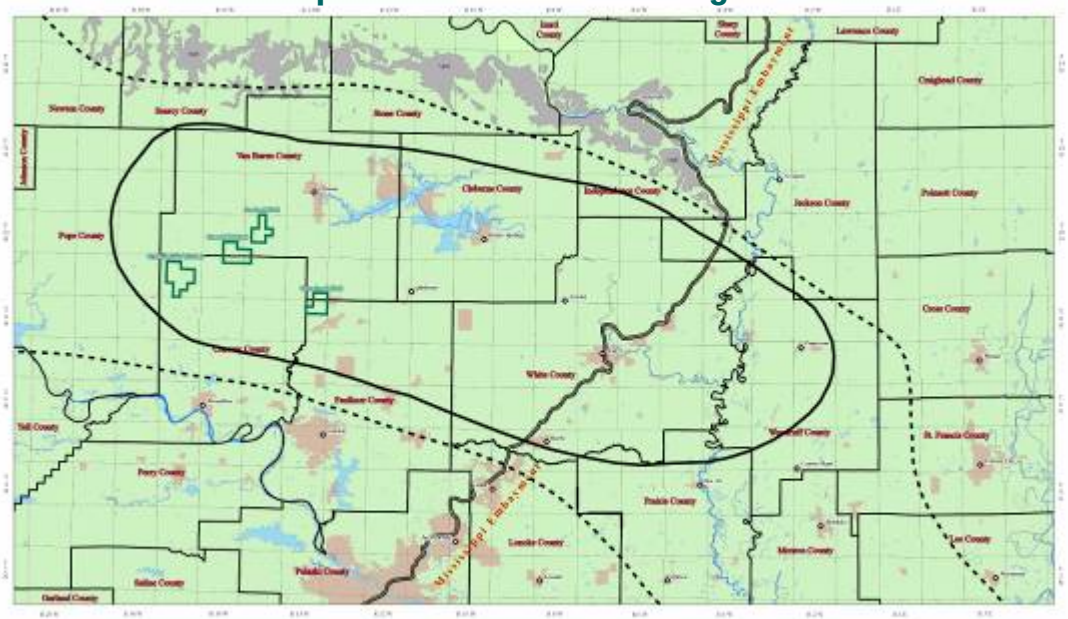
Fayetteville Shale a New Water Use Competitor

map source Arkansas Geologic Commission



High Water Demand – virtually unknown to landowners and rural communities – In the recent drought circumstance communities are unprepared to serve the need.

Estimated water use may exceed 10 million gallons per well per frac

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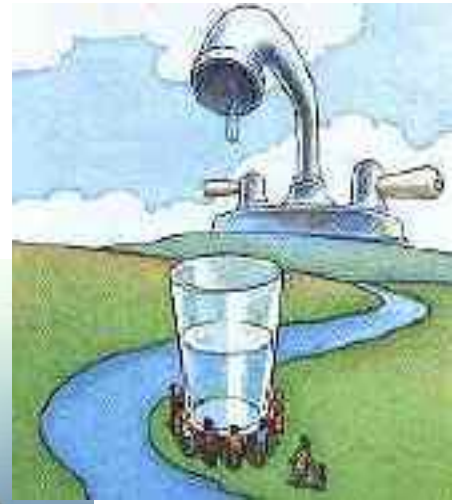
Arkansas Water Use Priority

- Domestic Consumption (Health) First
- All other beneficial uses equal (Court Tested)



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Agriculture Water Demand

4.5 million irrigated acres – 74% of total row crop acres

- Corn: 350,000 acres – 80%
- Cotton: 1 million acres - 75%
- Soybeans: 3 million acres - 62%
- Rice: 1.5 million acres - all
- Milo: 250,000 acres – 50%

Not the only agriculture developing irrigation capacity!

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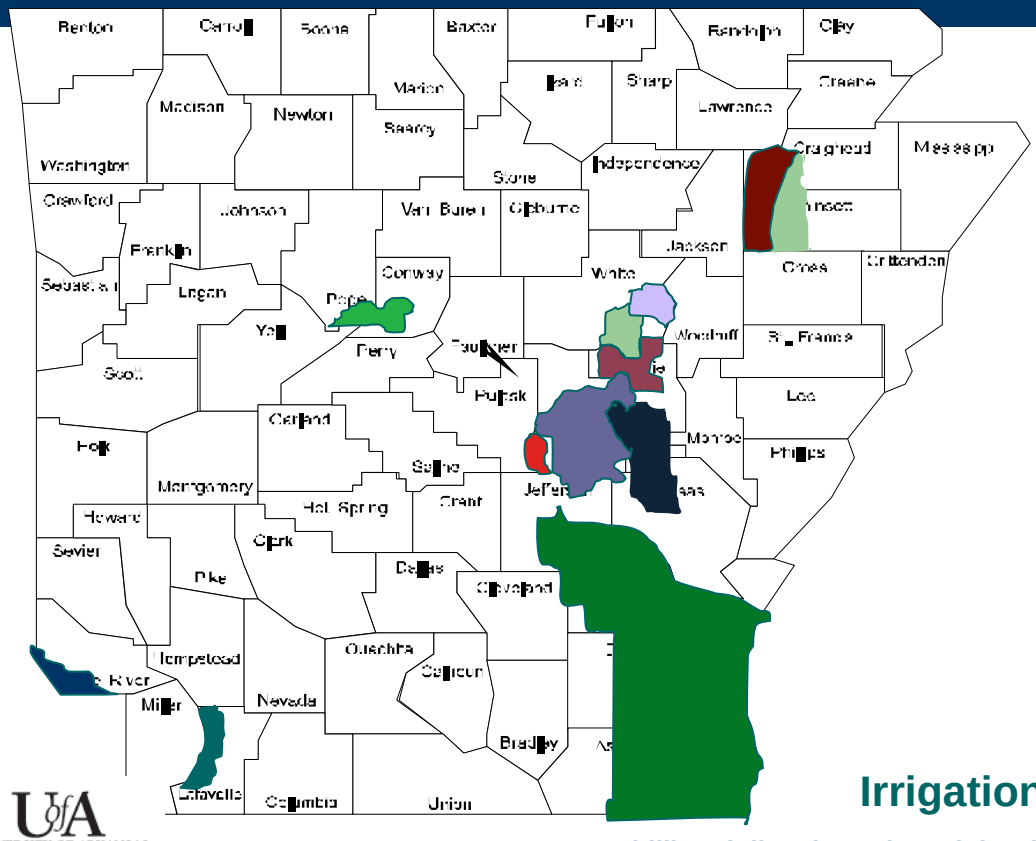
Identified Irrigation Districts (2006)



Twelve Districts in some stage of development

- Bayou de View
- Bayou Meto
- Buoef-Tensas
- Grand Prairie
- L'Anguille River
- Little Red River
- Lone Star
- Maniece Bayou
- North Prairie
- Plum Bayou
- Point Remove
- Walnut Bayou

Irrigation Project Scope

1.5 billion dollars in projected development cost

Converts over 2 million irrigated acres from groundwater to surface water source

Current total irrigated acres in AR - 4.15 million acres (NASS 2002 Census of Agriculture)

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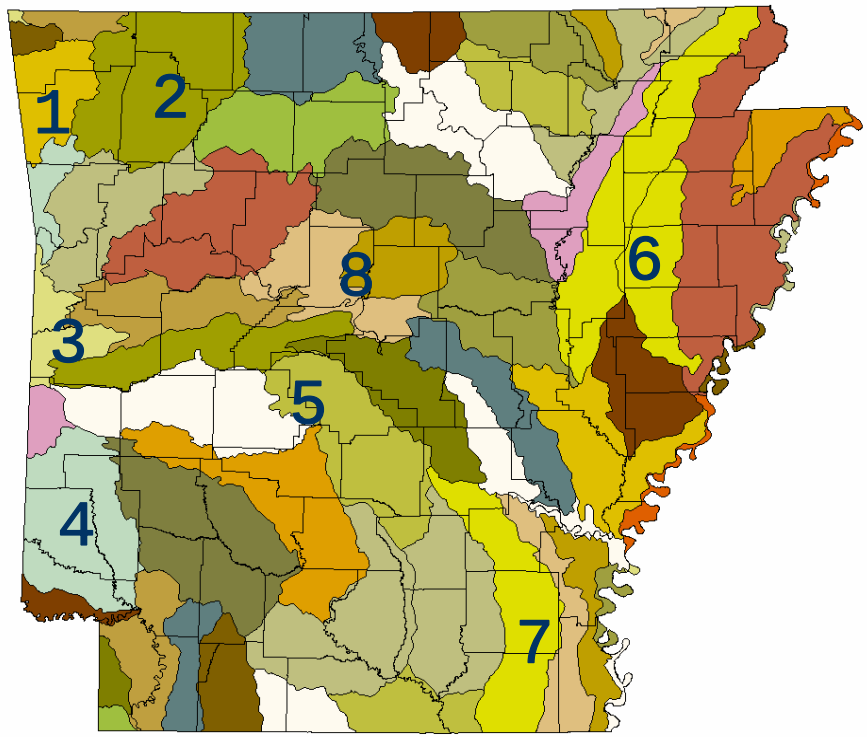
Priority Watersheds - 2007

2005 State 319 program priorities - Arkansas Natural Resources Commission.

Illinois River
Upper White River (Beaver Reservoir)
Poteau River
Lower Little River
Upper Saline River
L'Anguille River
Bayou Bartholomew
Lake Conway/Point Remove



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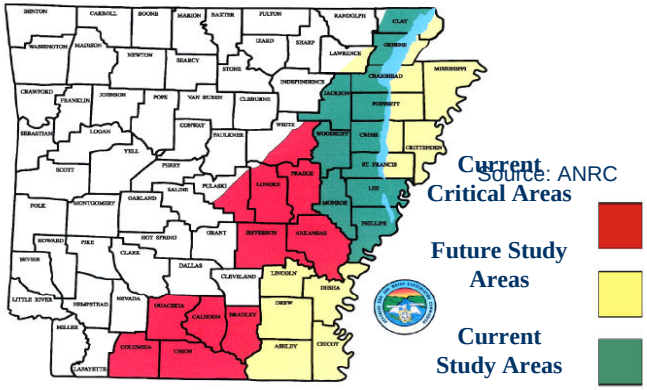
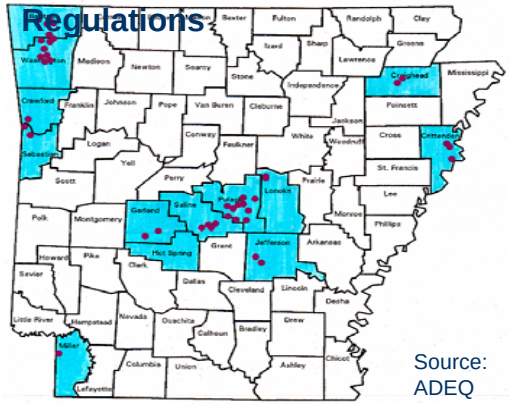
Geography of Arkansas Water Policy Issues

Critical Groundwater Designations 2006



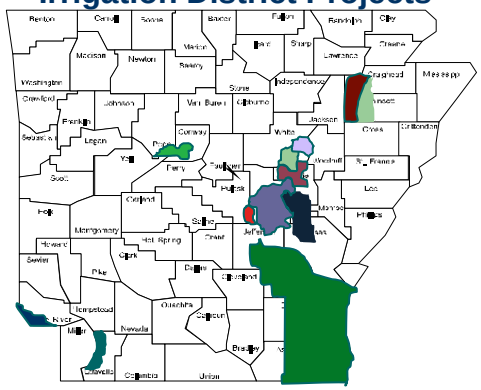
Source: ANRC

Municipal Stormwater Regulations

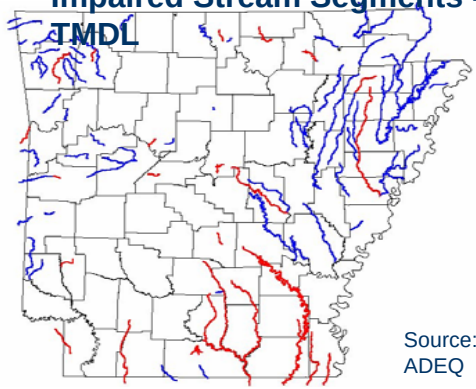


Source: ADEQ

Irrigation District Projects



Impaired Stream Segments - TMDL



Source: ADEQ

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Individual Water Rights Increasingly Subject to Society Pressures and Competition –

Questions that must be answered –

Can a Riparian Rights Doctrine be maintained in this era of competing uses and needs?

Should Riparian Rights be protected?

What's the most efficient system of water allocation?

Can efficiency and social acceptance be achieved in concert?

How can any change in rights be made without a property right "takings"?

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Sources:

- Allen Beall etal. – University of Colorado – Denver
- AR State Agencies – ANRC; ADEQ; AGFC
- Roy Carriker – University of Florida
- Charles DuMars – University of New Mexico School of Law
- Jamie Hartshorn – CA Farm Water Coalition
- Jake Looney – University of Arkansas Law School – Fayetteville (Emeritus)
- Peter Rogers – Harvard University
- Phil Tacker – UA Division of Agriculture
- Otis Templar – Texas Tech University
- NASS Agriculture Statistics (2002)
- University of Arizona – Water Law Primer – author unknown

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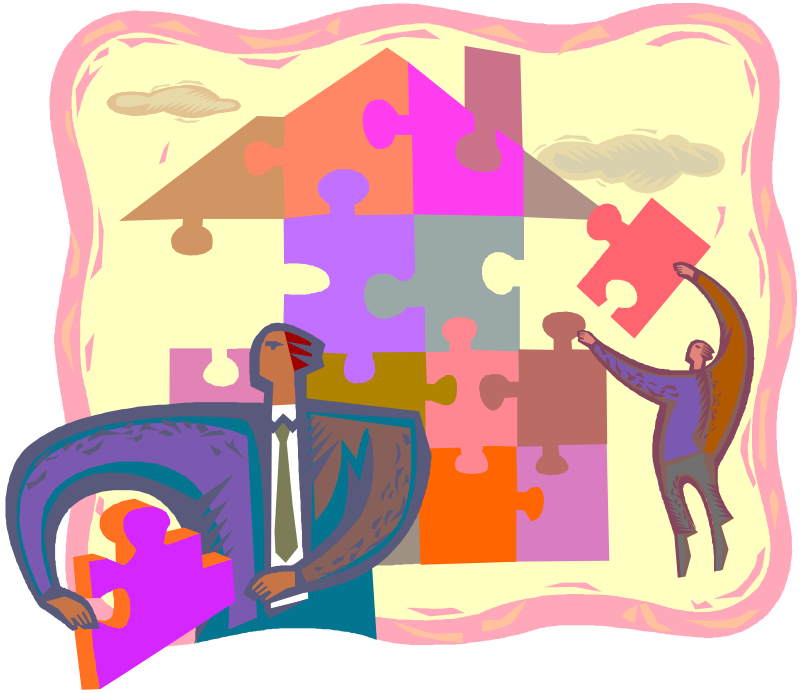
Questions???



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