



Attachment 3. Consolidated List of Water Issues In Arkansas

A preliminary set of water issues were identified from:

1. 1990 Arkansas Water Plan
2. 2013 Arkansas Water Plan public meetings
3. ANRC Commissioners and staff
4. Conservation District assessments, and
5. Winthrop Rockefeller Foundation Water Issues in Arkansas Report

This preliminary set of issues is listed below, by general categories, with a designation of its regional applicability:

1. St – Statewide
2. E – East Arkansas Planning Region
3. N – North Arkansas Planning Region
4. WC – West Central Arkansas Planning Region
5. SC – South Central Arkansas Planning Region
6. SW – Southwest Arkansas Planning Region

An asterisk (*) means this issue was identified in the 1990 Water Plan and is still an issue.

This preliminary list was supplemented with issues identified at the Statewide Issues and Recommendations Workgroup meeting in January. The issues identified at the Statewide January meeting were synthesized and integrated into the consolidated list of issues included below. The consolidated workgroup issues are listed below under the subheading of Workgroup Issues. The sector(s) raising these issues at the Statewide meeting were:

- Ag = Agriculture Irrigation and Livestock/Poultry/Aquaculture
FWR = Fish and Wildlife and Recreation
TI = Thermoelectric and Industry
PWWP = Public Water/Wastewater Providers
MC = Municipal and County Governments
N = Navigation
CD = Conservation Districts

The sector(s) designations are noted with each Workgroup issue listed below. The list of issues on the following pages will serve as the starting point for discussion at the February Regional Workgroup meetings.



SURFACE WATER QUANTITY

1. Site specific and seasonally available stream flows may effect the amount of water reliably available for direct diversion from surface sources to satisfy beneficial out of stream uses (e.g. agriculture, livestock, industry, recreation) while sustaining the fish and wildlife resources. (St).*
2. New impoundments are needed to provide adequate surface water supply (SC).
3. Surface water resource development may be in conflict with efforts dedicated to the preservation and conservation of outstanding water resource waters streams (St).*
4. Quantification of in-stream water needs for navigation, current and forecasted riparian use, interstate compacts, fish and wildlife, and aquifer recharge based on sound science is needed for all Arkansas streams (St).
5. Authorization of excess water use should not result in adverse impacts to instream needs (St).*
6. Reallocation of storage for water supply is needed in federal projects (e.g., reservoirs) (St).

Additional Workgroup Issues

1. More surface water storage, particularly on-farm/off-channel storage is needed to off-set groundwater use (Ag, FWR).
2. Surface water use should be a priority over groundwater withdrawals (Ag, MC).
3. Water from areas with surplus water should not be distributed to deficit areas without considering the economic and development implications (Ag).
4. The 25% value for estimating excess surface water should be re-evaluated (Ag), with explicit fish and wildlife considerations (FWR).
5. Water supply storage in Corps reservoirs is not fully committed (TI).
6. High quality water is being depleted for uses that do not require that quality of water (PWWP).
7. Transfers of water out of state should not be considered above that needed to satisfy interstate compacts (PWWP).
8. Economic costs and benefits need to be considered with every water alternative, including restrictions/regulations (Ag).



GROUNDWATER QUANTITY

1. Ground water levels are declining severely in the alluvial aquifer in the Grand Prairie Region and the area west of Crowleys Ridge (E).*
2. Ground water levels are declining in parts of the Sparta Sand aquifer of the Gulf Coastal Plain (SC).*
3. The most extensive ground water problem in the Interior Highlands of Arkansas is the naturally occurring low yield of water and poor quality in shallow formations. Individuals cannot afford deep wells (N).*
4. More accurate water measurements are needed to estimate agricultural irrigation water use (E).*
5. Overdrafting of groundwater aquifers can lead to permanent loss of storage because the aquifers collapse. (St)
6. Reporting groundwater use is inconsistent, which adds uncertainty to estimating supply and demand (St).
7. Surface water and groundwater are not being managed conjunctively (St).

Additional Workgroup Issues

1. Groundwater depletion is critical and affecting surface water resources (FWR, N).
2. Important groundwater sources of drinking water (e.g., Sparta) are being depleted for other uses, and there is competition among sectors for high quality water (PWWP, MC).
3. Greater emphasis is needed on the interstate aquifers among AR, TN, MS (CD).

WATER CONSERVATION & SHORTAGES

1. The state needs to be more proactive in addressing potential shortages before the need for allocation is required and establish a pre-shortage allocation process (St).*
2. Coordination between state agencies (ANRC, ADEQ, AGFC, AHD, ANHC) during times of drought, shortages (formal or informal declarations) and when permitting non-riparian uses needs explicit incorporation into the water plan.
3. Water supply sources (both groundwater and surface water) need to be identified to support economic expansion across the state (St).*
4. Water conservation practices are not being aggressively pursued as an alternative to development to meet future needs (St).*
5. There is inadequate water supply during summer months for watering livestock (N, E).

Additional Workgroup Issues

1. Water reuse and recycling needs greater emphasis (MC).
2. Water conservation practices need to be emphasized (Ag, FWR).



WATER QUALITY

1. There are a significant number of stream miles that have impaired uses throughout the State (St).
2. Erosion (sheet, rill, gully, streambank, unpaved roads) is a major contributor to water quality problems statewide (St).
3. Much of the problem in water-quality degradation is from nonpoint source pollution (St).*
4. Municipal and industrial point sources are sources of impairment (St).
5. Saltwater intrusion is a significant problem in several aquifers of Arkansas (E, SC).*
6. Poorly constructed and abandoned oil, gas, and water wells threaten the water quality of our ground water throughout the State (St).*
7. There is insufficient water quality data to manage water resources and identify possible problem areas (St).*
8. Inadequate nutrient management is contributing to water quality problems (N, E).*

Additional Workgroup Issues

1. Nutrient management areas should be considered in the plan (Ag).
2. Outstanding natural resource waters need protection (FWR).
3. Water quality, in its broadest context, is as important as water quantity and should be considered in the Water Plan (Ag, FWR).
4. Increased development and changing land use are impacting water quality and quantity (PWWP, CD).
5. Water supplies are vulnerable to unsewered sources of wastewater (PWWP).
6. Salt water intrusion is impacting groundwater quality (PWWP).
7. Greater attention needs to be given to contaminants of emerging concern (PWWP).
8. Incremental costs and benefits associated with water quality improvements should be estimated (TI).

INFRASTRUCTURE ISSUES

1. The Arkansas Natural Resources Commission lacks the authority to require conformance with the Plan (St).*
2. A process is needed for statewide prioritization of infrastructure projects (St).*
3. Impaired drainage and floodwater damages are continuing to affect agricultural production in Arkansas (E).*
4. There is insufficient infrastructure to deliver and distribute water from areas of surplus to areas in need (St).
5. Growth without adequate planning contributes to both flooding and water quality problems (St).



Additional Workgroup Issues

1. Rural utilities are resource-limited – trained people and funds (PWWP).
2. Maintaining and replacing aging infrastructure, including dams, drainage, and levees, is an issue across the state (MC, PWWP, CD).

FUNDING AND INCENTIVE ISSUES

1. Arkansas communities need additional funding sources for construction of water and sewer projects to supplement FHA and other federal funding sources. (St).*
2. Funding sources will be required for infrastructure to redirect water to areas of need (St).*
3. Current state financial assistance programs contain restrictions on type of assistance available to local sponsor and type of water resources projects which may be funded (St).*
4. Sufficient funding to repair, replace, and maintain dams, levees, PL566 structures, and aging infrastructure is not available (St).

Additional Work Group Issues

1. Funding of under construction and on-going water projects should be a priority (Ag).
2. Incentives for stream restoration need to be developed (FWR).
3. Funds are limited for maintenance and replacement of aging infrastructure (PWWP).
4. Utility rates are not based on the actual value of water (PWWP).
5. Federal fund restrictions limit their use for utilities, municipalities, and counties (MC).
6. Incentives are needed to encourage implementation of additional voluntary conservation and management practices (CD), including water enterprise zones (FWR).

WATER LAW & REGULATIONS

1. Conflicts are occurring between meeting in-state water needs with those needs of other states as agreed to through Arkansas's interstate compacts (St).*
2. Some levee and drainage districts fail to perform routine maintenance after debt service is retired (St).*
3. Federal regulatory procedures related to endangered species are an impediment to implementing water resources projects (St).
4. A modernized structure is needed for statewide water management in Arkansas (St).
5. Other states are trying to buy or take Arkansas's water (St).

Additional Workgroup Issues

1. Voluntary practices should be favored over regulated practices (Ag).
2. Greater enforcement of environmental regulations, particularly permitted activities/discharges, is needed (FWR).
3. Outstanding natural resource waters need special protection (FWR).



4. Interagency inconsistencies need to be addressed (TI).
5. Drinking water uses are being removed from streams (PWWP).
6. Smaller wastewater treatment facilities are not being maintained (PWWP).
7. There is no expedient process for approving and constructing additional storage reservoirs (PWWP).
8. There is no protection of groundwater sources for drinking water (PWWP).
9. Federal and state regulations can impede regional utility projects (MC).
10. Endangered Species Act regulatory complexity is difficult for municipalities and counties to address (MC).
11. Consistent, enforceable building standards and codes are needed to ensure compatibility among utilities (MC).
12. Jurisdictional silos limit opportunities for cooperation and coordination (MC).

WORKGROUP MEASUREMENT AND ASSESSMENT ISSUES

1. More frequent updates of the Water Plan should be considered (Ag).
2. A more comprehensive groundwater/surface water monitoring network across the state is needed for both supply and demand estimates (Ag, FWR).
3. Quantitative estimates of the value of water (both quantity and quality) need to be developed for various sectors (FWR).
4. The 25% estimate used to calculate excess water needs to be evaluated and the appropriate number, if it is not 25%, documented (FWR).
5. Demand estimates should consider only the water consumed, not withdrawn (TI).
6. There is no one source for information on water (TI).
7. Greater accuracy and consistency is needed for water use measurements of both surface and groundwater use (Ag, CD).

WORKGROUP PLANNING ISSUES

1. A comprehensive, continuous planning process is needed, but not conducted, so it is difficult to practice adaptive management (PWWP).
2. Additional planning, restoration, and state money is needed to remove streams from the impaired category (303(d) list) (CD).
3. Drought contingency plans are needed (Ag).
4. Joint water management planning is needed among agencies within planning regions (CD).
5. Better methods must be developed to allow the best available technical, social, and economic sciences to inform and influence water management decision-making and policy development for water resources (St).



PUBLIC AWARENESS OF RESOURCE ISSUES

1. Lack of understanding and knowledge about water resources is the greatest statewide issue (St).
2. Currently there is no methodology to quantify economic impact or a monetary value to water quality. If a methodology was developed/available, the “value” of water quality would be better understood by the general public (St).
3. Sound stewardship of water and water resources is needed to ensure there is adequate water to meet desired uses (St).

Additional Workgroup Issues

1. Greater awareness, outreach, and education on water are needed (FWR).
2. Outreach and education training is needed across all sectors, particularly on water and water resources (CD).
3. There is no single source with links or access to information related to water and water resources anywhere in the State. Information is scattered across agencies, organizations, universities, and the web (St).