

2026 Arkansas Water Plan

Draft Issues, Recommendations, and Solution Strategies —

Statewide and Organized by Planning Region

July 2026

About this organization. This document reorganizes the 43 recommendations of the 2026 Arkansas Water Plan Update by their stated planning-region applicability. Items are grouped under six headings — Statewide, North, West Central, Southwest, South Central, and East — and, within each region, retained in their original section order (I–VI) with their original issue, recommendation, and solution-strategy numbering and text unchanged. Where a single issue contains recommendations with different applicability, the issue statement is repeated under each relevant region and shown only with the recommendations that apply there. Recommendations that apply to more than one region appear under each, with an italic applicability note for reference.

Recommendations:

Region	Number of Applicable Recommendations
Statewide	32
<u>Water Planning Regions</u>	<u>11</u>
- North	4
- West-central	6
- Southwest	7
- South-central	5
- East	6

Note: Statewide recommendations total 32 (AR-1 through AR-32); the 11 distinct region-specific (WPR-1 thru WPR-11) recommendations are counted once per region to which they apply, so the region rows above sum to more than 43.

STATEWIDE

Applicable Issues, Recommendations, and Solution Strategies

I. WATER CONSERVATION & SHORTAGES

I. A Issue

State and federal agencies, along with local partners, need improved coordination during drought, water shortages, and permitting non-riparian water use. The lack of a unified structure for drought response complicates early action and increases risk to public water systems, agriculture, and industry.

AR-1 Recommendation

Implement a statewide Drought Contingency Plan incorporating coordinated participation from industry, agriculture, utilities, emergency response, and local governments. The plan should include clear, multi-tiered drought levels and associated response actions for each water-use sector.

Applicability: Statewide

Solution Strategy

- The Arkansas Division of Emergency Management (ADEM) and the Arkansas Department of Agriculture (the Department) will jointly pursue a Hazard Mitigation Grant or alternative funding to support development and implementation of the plan.
- Update and implement actions identified in the 2018 Drought Contingency Response Network Report, including establishing a Drought Council, confirming network participants, developing mitigation strategies, and creating a public-facing Drought Resource Portal.
- Integrate drought monitoring into a user-friendly platform with alerts, conservation guidance, burn bans, radar, and forecast overlays.

I.B Issue

Arkansas lacks a statewide regulatory framework for water reuse, despite the growing importance of potable and non-potable reuse for conservation, industry support to implement projects, and need for drought resilience.

AR-2 Recommendation

Develop a comprehensive water reuse framework defining categories of reuse, treatment and disinfection standards based on end use, permitting procedures, reporting requirements, and interagency coordination.

Applicability: Statewide

Solution Strategy

- Enact enabling legislation establishing reuse categories and standards;
- Create permitting, oversight, and reporting requirements;
- Provide training and stakeholder engagement; and
- Explore tax incentives and federal funding to encourage adoption of reuse technologies.

I.C Issue

Ensuring sustainable management of both surface and groundwater will require implementation of large-scale water supply projects, conservation, and improved regional planning.

AR-3 Recommendation

Updated modeling shows regional differences in water availability. Arkansas should adopt region-specific water management strategies, including focusing surface water storage and conveyance infrastructure where demand and supply imbalances are most significant and may require intervention. Identify regions where groundwater use should be reduced or replaced with surface water or water reuse.

Applicability: Statewide

Solution Strategy

- Use interagency coordination to prioritize regional projects addressing water deficiencies.
 - Integrate regional water availability considerations into permitting and compliance decisions.
 - Develop interactive water planning tools for industries dependent on long-term secure supply.
 - Prioritize construction of major surface-water conveyance and storage infrastructure, including regional pipelines, interbasin transfers, and off-channel reservoirs.
-

II. WATER AND WASTEWATER INFRASTRUCTURE

II.A Issue

Arkansas' water and wastewater infrastructure is aging and significantly underfunded. Changes in population have direct impacts on infrastructure needs and fiscal sustainability. Workforce retention and operator shortages compound these challenges, leading to operational issues and deficiencies. Current funding mechanisms are not keeping pace with infrastructure needs, and new infrastructure projections estimate a need of \$20 billion over the next 20 years.

AR-4 Recommendation

Review current state infrastructure assessment programs to better identify emerging needs (e.g., Lead and Copper Rule, PFAS).

Applicability: Statewide

Solution Strategy

- Convene the Departments of Agriculture, Energy and Environment, Commerce, and Health to evaluate current funding programs and their respective prioritization metrics. For each program, develop assessment tools, permitting requirements, and project reviews, and make adaptive programmatic improvements.

AR-5 Recommendation

Facilitate routine regional planning events to better assess regional water and wastewater expansion needs based on population change and emerging industries. Use the information gathered from regional planning to expand awareness and inform policymakers.

Applicability: Statewide

Solution Strategy

- Use regional demographic analysis, domestic well reports and develop a statewide funding dashboard, complete an economic impact analysis, and facilitate advocacy from major water-use sectors to support programmatic improvements and future state-level funding mechanisms.

AR-6 Recommendation

Improve training access for water and wastewater providers and create a Fiscal Distress Management Oversight Program.

Applicability: Statewide

Solution Strategy

- Expand the administration of fiscal distress programs, clarify requirements to prevent long-term distress, increase provider training, and create incentives that support system sustainability. Amend existing law to establish clear oversight mechanisms, including technical assistance pathways and recovery planning requirements for distressed systems. Create a pathway to remove systems from fiscal distress through planning, partnerships, receivership, and regionalization.

AR-7 Recommendation

Strengthen recruitment efforts for water/wastewater operators. Establish a Technical Assistance Program to support water providers that have limited access to operators and technical staff.

Applicability: Statewide

Solution Strategy

- Develop talent pipelines through high schools and technical colleges, enhance partnerships with state agencies and trade organizations, create a unified job board, and encourage compensation that attracts qualified operators.
- Coordinate the Departments of Agriculture, Energy and Environment, Health and the Rural Water Association to provide comprehensive technical support.

AR-8 Recommendation

Implement continuous evaluation of funding programs.

Applicability: Statewide

Solution Strategy

- Require ongoing assessment of current funding programs in comparison with the emerging infrastructure needs to ensure adequate funding for water and wastewater infrastructure.

AR-9 Recommendation

Expand or create new funding mechanisms to meet statewide infrastructure needs.

Applicability: Statewide

Solution Strategy

- Research and establish a Texas SWIFT-modeled revolving revenue bond program with a minimum of \$50 million in annual loan capacity.
- Seek annual appropriations for the Water Development Fund similar to the Missouri Multipurpose Water Resources Program Fund.
- Seek additional General Obligation bond authority on or before 2039 and consider adding an evergreen provision.
- Maintain sufficient staffing to administer increased financing workloads.

AR-10 Recommendation

Support privatization and regionalization, where beneficial.

Applicability: Statewide

Solution Strategy

- Evaluate privatization options and requirements for water and wastewater systems.
- Establish technical support tools and state matching grants specifically supporting regionalization efforts.

AR-11 Recommendation

Enhance and preserve existing resiliency of water supply, distribution and storage systems.

Applicability: Statewide

Solution Strategy

- Promote green infrastructure/nature-based solutions to increase water retention/detention, reduce peak storm flows, and improve water quality, where applicable.
- Support rural infrastructure improvements via the Unpaved Roads Program by increasing best management practice implementation and reducing maintenance frequency and sediment loss.
- Identify financial support mechanisms for small systems (<1,000) to implement GIS-based system inventories to advance Act 605/925 Asset Management Plan development and capital improvement planning.
- Promote cybersecurity and pursue federal cybersecurity funding to protect critical systems.
- Promote and prioritize funding for leak detection, pressure monitoring, and SCADA/telemetry to find failures early and operate the network through disruptions. Require validated water-loss audits as a condition of funding and set loss-reduction targets.
- Convene the Departments of Agriculture, Energy and Environment, and Health to prioritize projects that fund emergency interconnections between neighboring systems, so a system that loses its source can be backfed.

III. DAM, LEVEE, DRAINAGE, NAVIGATION & IRRIGATION INFRASTRUCTURE

III.A Issue

Some drainage, levee, and improvement districts lack consistent training, financial capacity, and organization.

AR-12 Recommendation

Evaluate legislative changes requiring annual reporting, training, and improved fiscal accountability to ensure functionality.

Applicability: Statewide

Solution Strategy

- Establish mandatory financial and governance oversight, periodic rate studies, audits, and training for district boards.
- Explore regionalization options for districts based on population, landownership, and infrastructure needs.

AR-13 Recommendation

Inform infrastructure owners of funding opportunities and leverage federal funding.

Applicability: Statewide

Solution Strategy

- Actively pursue eligible programs including Corps Water Infrastructure Financing Program, Rehabilitation of High Hazard Potential Dam Grant Program, Hazard Mitigation Grant Program, Community Development Block Grant Program and Small Watershed Program PL566 and other programs to assist with infrastructure.

AR-14 Recommendation

Explore state matching fund opportunities to leverage federal funds.

Applicability: Statewide

Solution Strategy

- Research other state infrastructure programs to identify potential match opportunities for critical infrastructure such as high hazard dams.

III.B Issue

Limited and Inconsistent Revenue Sources. Floodplain management and long-term resilience efforts in Arkansas rely heavily on reactive and mostly post-disaster federal funding opportunities (e.g., FEMA Hazard Mitigation Assistance, HUD Community Development Block Grants, USDA / NRCS Watershed Programs (PL-566), and/or U.S. Army Corps of Engineers (USACE)). This fragmented funding structure creates uncertainty, inconsistencies based on federal agencies, delays in project implementation, and limits the State's ability to proactively address flood risks.

AR-15 Recommendation

Review and evaluate current state revenue streams and programs to potentially identify sources of funding and/or create dedicated and sustained funding source(s) at the state level to provide consistent funding opportunities and support floodplain management.

Applicability: Statewide

Solution Strategy

- Create a Resilience and Flood Mitigation Fund through legislative appropriations or constitutional amendment with recurring annual funding.
- Treat flood resilience as a core statewide investment priority rather than as part of broader water infrastructure, allowing flood programs to be considered alongside other state priorities during the budgeting process.
- Create state revolving loan programs like the Clean Water State Revolving Fund (CWSRF) and Drinking Water State Revolving Funds (DWSRF) for flood-related infrastructure to provide low-interest loans.
- Develop partnership-driven funding mechanisms to align common flood mitigation partners (e.g., Arkansas Division of Emergency Management, Arkansas Department of Transportation, Arkansas Game and Fish Commission, etc.).

III.C Issue

Outdated and Inconsistent Flood Risk Data and Mapping. Flood risk information in Arkansas (e.g., Flood Insurance Rate Maps (FIRMs), Base Level Engineering (BLE), etc.) is inconsistent, outdated, and not coordinated across various state agencies and programs. While the average age of FIRMs in Arkansas is approximately 17 years old, this can be misleading, as some FIRMs have been updated through re-delineation rather than new engineering studies, meaning the underlying hydrologic and hydraulic data may be significantly older. This age also does not account for the various communities that have no mapping established. Additionally, BLE coverage varies in age and quality and consists of differing standards reflecting analyses conducted at different times. Compounding this are gaps in stream gage data and precipitation gage networks, which reduce the reliability of flood risk information.

AR-16 Recommendation

Establish a consistent, transparent, and repeatable framework to identify and prioritize flood mitigation projects statewide using watershed-based analysis, best available flood risk data, and documented prioritization criteria to regularly update floodplain risk data and mapping.

Applicability: Statewide

Solution Strategy

- Develop and maintain a statewide priority listing to update FIRMs and BLE coverage by incorporating available project data from various sources to streamline projects.'
- Establish a process for submitting flood risk or drainage improvement projects and data for prioritization through centralized platforms, such as the Arkansas Flood GIS Experience (State of Arkansas Flood Explorer – SAFE).
- Prioritize updating FIRMs and BLE data through routine hydrologic and hydraulic study updates.
- Develop and expand flood monitoring coverage through the expansion of stream and precipitation gage networks (e.g., statewide Mesonet) to improve data accessibility and collection initiatives through centralized platforms such as the Arkansas Flood GIS Experience.

III.D Issue

Limited Coordination and Capacity to Implement Flood Risk Reduction. Arkansas faces persistent challenges in translating flood risk information and planning into implemented mitigation projects and

long-term risk reduction. Coordination across agencies and local entities is inconsistent and difficult to navigate, with governance structures that are not fully aligned to support a consistent, statewide approach. This is further influenced by the fact that many communities may have limited technical, administrative, and financial capacity to advance projects, adopt higher development standards, or manage flood risk.

AR-17 Recommendation

Strengthen state agency coordination and local capacity to advance flood mitigation and risk-informed development. The Department and partners provide technical assistance, training, and outreach programs to build local capacity, support adoption of higher floodplain management standards, and ensure communities can effectively plan, fund, and implement projects that reduce long-term flood risk.

Applicability: Statewide

Solution Strategy

- Develop a state-led, multi-agency Flood Management Advisory Committee (FMAC) to improve coordination, align priorities, and promote implementation of flood risk reduction efforts and consistent statewide standards across state agencies, levee and drainage districts, and regional entities. As part of this effort, define clear roles and responsibilities across all parties to reduce duplication of efforts and gaps.
- Establish and sustain a coordinated, multi-tiered flood education and outreach program that builds flood risk awareness, supports informed decision-making, and strengthens flood risk management capacity across Arkansas. Potential groups to be targeted include youth, floodplain administrators, engineers, elected officials, planners, emergency managers, insurance agents, realtors, and developers.
- Establish and utilize a digital platform, such as the Arkansas Flood GIS Experience (State of Arkansas Flood Explorer – SAFE), to maintain statewide needs, progress, and efforts to manage flood risk.
- Establish standardized templates, tools, and guidance for flood risk management while expanding state and regional partnerships to increase targeted training opportunities.
- Evaluate and expand state-level staffing for flood risk management programs to strengthen capacity and workforce to maintain and manage items at a state level.

IV. SURFACE WATER QUANTITY

IV.A Issue

Arkansas law allows for up to twenty-five percent (25%) allocation of excess flows to non-riparian users. Issued non-riparian permits that remain underutilized may limit future growth.

AR-18 Recommendation

Assess growth patterns where surface water constraints may inhibit development by conducting a better evaluation of reported non-riparian surface water use. Additionally, establish a framework for the ongoing evaluation of reported non-riparian water use to ensure permit allocations consistently align with actual resource utilization.

Applicability: Statewide

Solution Strategy

- Review all existing non-riparian permits for utilization by 2028 to identify discrepancies between allocated and actual water use.
- Make actionable recommendations for the reduction or elimination of unused or underutilized permits to free up resources for future development.
- Implement improved tracking and data collection mechanisms to enable better, more accurate evaluations of reported non-riparian surface water use.
- Establish a standardized, recurring schedule for the ongoing evaluation of non-riparian water use to adapt to changing environmental and economic needs.

IV.B Issue

Arkansas contains highly diverse aquatic ecosystems requiring specific instream flow requirements.

AR-19 Recommendation

Advance the state of ecological flow science and improve methodologies used to evaluate and assign instream flow requirements.

Applicability: Statewide

Solution Strategy

- Promote use of open-bottom culverts to protect aquatic habitat through the Unpaved Roads Program; coordinate with Arkansas Game and Fish, US Fish and Wildlife Service, Division of Environmental Quality, Environmental Protection Agency, and The Nature Conservancy.

AR-20 Recommendation

Ensure authorization of excess water use does not impact instream ecological flow needs.

Applicability: Statewide

Solution Strategy

- Implement conditions that limit diversions for non-riparian permits during seasonal low-flow periods.

IV.C Issue

Emerging and expanding industries including but not limited to power generation, data centers, manufacturing and lithium extraction may significantly increase water demand.

AR-21 Recommendation

Act 707 of 2025 authorized a nuclear feasibility study. As recommendations from the completed study emerge, integrate expanded thermoelectric water demands into future allocation planning.

Applicability: Statewide

Solution Strategy

- Update and review thermoelectric water demands on a regular basis as the conversion of coal-fired power plants to natural gas continues and as recommendations regarding new nuclear facilities become available.

IV.D Issue

Out-of-state water demands may increase demands for interstate transfers of water requiring careful evaluation of Arkansas interests.

AR-22 Recommendation

Follow statutory criteria for any interstate transfer.

Applicability: Statewide

Solution Strategy

- Evaluate excess flows, demands, and net benefits to Arkansas before considering interstate transfers.

IV.E Issue

While reporting requirements do exist for non-riparian surface water use permit holders, there is no procedure outlined for auditing the accuracy of all self-reported data.

AR-23 Recommendation

Create more robust automated tools for evaluation of self-reported data.

Applicability: Statewide

Solution Strategy

- Establish “reasonable use ranges” for specific use categories (e.g., Commercial, Industrial, Mining, Power Supply, Water Supply, and Irrigation District) and reported usage needs.
- Create an automated process to determine whether a specific reported value falls within the “reasonable use range” for a specific use.
- Flag non-riparian water users based on variability within reported use over time and whether the respective user’s reported values fall within the “reasonable use range”.
- Create an automated report that identifies specific users who are flagged based on the above criteria and follow up to determine compliance with State regulations related to reporting requirements.
- Conduct audits at locations which are flagged.

V. GROUNDWATER QUANTITY

V.A Issue

Sustainable groundwater management requires expanded conservation, on-farm storage, and conversion to surface water.

AR-24 Recommendation

Establish sustainability baselines for aquifer management.

Applicability: Statewide

Solution Strategy

- Develop water efficiency goals with producers, expand cost-sharing for efficiency technologies, and promote adoption of water-saving practices.
- Establish region-specific groundwater withdrawal reduction targets for the Alluvial and Sparta aquifers based on updated demand modeling.

V.B Issue

Groundwater reporting remains inaccurate across regions.

AR-25 Recommendation

Improve Water Use Database accuracy and expand training.

Applicability: Statewide

Solution Strategy

- Eliminate “same as last year” reporting; enforce metering in sustaining aquifers (Sparta Aquifer); expand smart-meter, telemetry, and irrigation sensor adoption; and apply fines consistently to ensure compliance.
- Modify water well contractor reporting to better identify which aquifer is being accessed for current metering requirements.
- Establish “reasonable use ranges” for specific use categories (e.g., Rice, Soybeans, Corn) and reported usage needs (e.g., acres planted).
- Create an automated process to determine whether a specific reported value falls within the “reasonable use range” for a specific use.
- Flag groundwater users based on variability within reported use over time and whether the respective user’s reported values fall within the “reasonable use range”.
- Create an automated report that identifies specific users who are flagged based on the above criteria and follow up to determine compliance with State regulations related to reporting requirements.
- Potentially conduct audits at locations which are flagged.

V.C Issue

Lithium extraction may increase groundwater withdrawals in the Sparta Aquifer.

AR-26 Recommendation

Provide technical assistance upon request in identifying surface water sources to reduce groundwater demands.

Applicability: Statewide

Solution Strategy

- Identify available reservoirs or non-riparian supplies for industrial use.

V.D Issue

Data centers may increase groundwater strain in critical groundwater areas.

AR-27 Recommendation

Protect stressed aquifers while allowing reasonable water use for data center development.

Applicability: Statewide

Solution Strategy

- Consider legislative recommendations that would limit groundwater withdrawals for non-essential industrial cooling in designated critical groundwater areas.
- Require efficient cooling technologies, closed-loop systems, and non-potable or reclaimed water where ground water and surface water sources are stressed.

VI. WATER QUALITY

VI.A Issue

Sediment, nutrients, and nonpoint source pollution continue to impair water quality and threaten beneficial uses.

AR-28 Recommendation

Advance the Arkansas Nonpoint Source Pollution Management Plan.

Applicability: Statewide

Solution Strategy

- Leverage state and federal funding to support best management practices, watershed restoration, and targeted nonpoint source reduction in priority watersheds.
- Nutrient trading has been contemplated as a possible tool for improving local water quality. As opportunities present themselves, evaluate water quality and nutrient trading benefits from the implementation of nonpoint source conservation practices.

AR-29 Recommendation

Increase Unpaved Roads Program funding and training.

Applicability: Statewide

Solution Strategy

- Use state, Clean Water Act Section 319(h) funds and other federal opportunities to reduce sedimentation and improve rural transportation infrastructure.

AR-30 Recommendation

Prioritize nutrient and water quality impaired watersheds for septic remediation.

Applicability: Statewide

Solution Strategy

- Identify potential funding mechanisms to increase septic remediation.
- Expand existing septic remediation programs to additional priority watersheds.

AR-31 Recommendation

Prioritize and expand source water protection for drinking water supplies.

Applicability: Statewide

Solution Strategy

- Encourage utilities to establish source watershed plans for source water protection.
- Identify potential funding mechanisms to improve source water protection through land management practices, conservation easements, and other measures.
- Expand existing septic remediation programs in source water protection areas.
- Support retail water providers reliant on surface water sources in evaluating and implementing source water protection fees. Fees can be leveraged for conservation practices, land use protection and restoration.

AR-32 Recommendation

Advance the creation, protection, and restoration of riparian corridors, which are critical to protecting water quality.

Applicability: Statewide

Solution Strategy

- Review legislation establishing the Private Land Wetland and Riparian Tax Credit and revise to include transferability to create a marketplace for tax credit sales and transfers.

DRAFT

Water Planning Regions (WPR)

Applicable Issues, Recommendations, and Solution Strategies

Recommendations:

Region	Number of Applicable Recommendations
Water Planning Regions	11
- North	4
- West-central	6
- Southwest	7
- South-central	5
- East	6

Note: *Statewide recommendations total 32 (AR-1 thru AR-32); the 11 distinct region-specific (WPR-1 thru WPR-11) recommendations are counted once per region to which they apply, so the region rows above sum to more than 43.*

NORTH WPR

Applicable Issues, Recommendations, and Solution Strategies

II. WATER AND WASTEWATER INFRASTRUCTURE

II.B Issue

Rapid population and economic growth in Northwest Arkansas is increasing pressure on wastewater collection and treatment systems. Growth occurring without coordinated infrastructure planning leads to inefficient or prematurely oversized facilities, higher long-term costs, and challenges meeting nutrient reduction and water quality requirements.

WPR-1 Recommendation

Strengthen coordinated growth and wastewater infrastructure planning to maximize use of existing assets, strategically expand capacity, and maintain regional water quality while supporting sustainable development.

Applicability: North, West Central

Solution Strategy

- Integrate local and regional planning and require utilities to maintain updated capital improvement programs and ensure local planning efforts inform a broader regional wastewater strategy.
- Coordinate system expansion and promote shared investment, service agreements, and joint evaluation of future infrastructure needs to avoid duplicative or inefficient construction.
- Protect water quality through periodic assessments of regional treatment capacity and nutrient management needs; incorporate watershed-scale considerations into planning and permitting.

II.C Issue

Multiple independent utilities operate wastewater systems across Northwest Arkansas, resulting in varying standards, investment schedules, and planning approaches. As the region expands, better coordination is needed to ensure infrastructure investments are efficient, complementary, and aligned with regional growth and environmental objectives.

WPR-2 Recommendation

Establish stronger regional collaboration mechanisms to improve planning, financing, construction, and operation of wastewater infrastructure across Northwest Arkansas.

Applicability: North, West Central

Solution Strategy

- Expand utility collaboration through standardized interlocal agreements, consistent and timely development of Master Plans, cost-sharing tools, and shared asset management approaches; evaluate opportunities for regional treatment, conveyance, or operational partnerships.
- Empower the Northwest Arkansas Regional Planning Commission to provide a standing structure for utilities, local governments, and stakeholders to coordinate long range planning, develop shared goals, and prioritize regionally beneficial projects.
- Promote consistent standards to increase uniformity in design criteria, material specifications, and construction practices; coordinate watershed protection practices; and share technical guidance across utilities.

IV. SURFACE WATER QUANTITY

IV.C Issue

Population growth and limited groundwater resources increase pressure on existing federally controlled reservoirs storage for drinking water supplies near growing population centers.

WRP-3 Recommendation

Initiate the White River Comprehensive Basin Study and reservoir water allocations, as necessary.

Applicability: North, West Central, Southwest

Solution Strategy

- Support the White River Comprehensive Basin Study through data sharing and state funded match opportunities. Communicate and partner, as needed, with local sponsors to support water allocation studies in federally controlled reservoirs.

IV.D Issue

Drinking water reservoirs are aging and may be losing safe yield resulting from loss of capacity due to sedimentation.

WRP-4 Recommendation

Initiate comprehensive, statewide safe-yield evaluations for drinking water reservoirs to ensure long-term water security. These evaluations should thoroughly assess capacity loss and overall infrastructure health to maintain reliable water supplies.

Applicability: North, West Central, Southwest

Solution Strategy

- Partner with the US Army Corps of Engineers, Arkansas Department of Health and reservoir owners to identify and evaluate drinking water reservoirs for long-range water supplies.
- Conduct detailed evaluations of existing impoundment infrastructure to identify any malfunctioning components or necessary upgrades.
- Collect bathymetric surveys to accurately measure current reservoir capacity and determine the volume of water storage lost to sedimentation.
- Utilize historical streamflow and climate data to model and accurately evaluate safe yield of each reservoir under various environmental conditions.
- Synthesize the infrastructure, bathymetric, and climate data to formulate actionable recommendations that secure the long-term viability of these water supplies.

WEST CENTRAL WPR

Applicable Issues, Recommendations, and Solution Strategies

I. WATER CONSERVATION & SHORTAGES

I.C Issue

Ensuring sustainable management of both surface and groundwater will require implementation of large-scale water supply projects, conservation, and improved regional planning.

WRP-5 Recommendation

Accelerate adoption of soil health conservation practices on private lands to improve soil water holding capacity, reduce overall water use, and limit sediment runoff.

Applicability: West Central, Southwest, South Central, East

Solution Strategy

- The Department and collaborators should work to advance public-private partnerships and market-based incentives to expand soil health programs that support long-term water conservation goals.

II. WATER AND WASTEWATER INFRASTRUCTURE

II.B Issue

Rapid population and economic growth in Northwest Arkansas is increasing pressure on wastewater collection and treatment systems. Growth occurring without coordinated infrastructure planning leads to inefficient or prematurely oversized facilities, higher long-term costs, and challenges meeting nutrient reduction and water quality requirements.

WRP-1 Recommendation

Strengthen coordinated growth and wastewater infrastructure planning to maximize use of existing assets, strategically expand capacity, and maintain regional water quality while supporting sustainable development.

Applicability: North, West Central

Solution Strategy

- Integrate local and regional planning and require utilities to maintain updated capital improvement programs and ensure local planning efforts inform a broader regional wastewater strategy.
- Coordinate system expansion and promote shared investment, service agreements, and joint evaluation of future infrastructure needs to avoid duplicative or inefficient construction.
- Protect water quality through periodic assessments of regional treatment capacity and nutrient management needs; incorporate watershed-scale considerations into planning and permitting.

II.C Issue

Multiple independent utilities operate wastewater systems across Northwest Arkansas, resulting in varying standards, investment schedules, and planning approaches. As the region expands, better coordination is needed to ensure infrastructure investments are efficient, complementary, and aligned with regional growth and environmental objectives.

WRP-2 Recommendation

Establish stronger regional collaboration mechanisms to improve planning, financing, construction, and operation of wastewater infrastructure across Northwest Arkansas.

Applicability: North, West Central

Solution Strategy

- Expand utility collaboration through standardized interlocal agreements, consistent and timely development of Master Plans, cost-sharing tools, and shared asset management approaches; evaluate opportunities for regional treatment, conveyance, or operational partnerships.
- Empower the Northwest Arkansas Regional Planning Commission to provide a standing structure for utilities, local governments, and stakeholders to coordinate long range planning, develop shared goals, and prioritize regionally beneficial projects.
- Promote consistent standards to increase uniformity in design criteria, material specifications, and construction practices; coordinate watershed protection practices; and share technical guidance across utilities.

III. DAM, LEVEE, DRAINAGE, NAVIGATION & IRRIGATION INFRASTRUCTURE

III.F Issue

Arkansas relies on its navigation systems to support major economic sectors such as agriculture, manufacturing, and energy. Aging lock and dam infrastructure, sedimentation, and inconsistent funding for maintenance pose risks to commercial navigation reliability. These challenges also impact flood risk management, water supply, and hydropower operations. Coordinated planning is needed to maintain safe, dependable navigation channels and ensure long-term economic viability.

WPR-6 Recommendation

Strengthen statewide and regional coordination to support the modernization, maintenance, and long-term resilience of Arkansas' navigation infrastructure, including locks, dams, and associated channel improvements, in partnership with local stakeholders and federal agencies.

Applicability: West Central, East

Solution Strategy

- Support funding for dredging priorities, sediment management, and lock/dam modernization schedules.
- Support federal investments under nationwide inland waterway infrastructure programs.
- Encourage the adoption of green infrastructure where applicable.
- Identify and prioritize state-supported navigation infrastructure needs, including riverbank stabilization, channel deepening, and improved sediment removal strategies.

IV. SURFACE WATER QUANTITY

IV.C Issue

Population growth and limited groundwater resources increase pressure on existing federally controlled reservoirs storage for drinking water supplies near growing population centers.

WPR-3 Recommendation

Initiate the White River Comprehensive Basin Study and reservoir water allocations, as necessary.

Applicability: North, West Central, Southwest

Solution Strategy

- Support the White River Comprehensive Basin Study through data sharing and state funded match opportunities. Communicate and partner, as needed, with local sponsors to support water allocation studies in federally controlled reservoirs.

IV.D Issue

Drinking water reservoirs are aging and may be losing safe yield resulting from loss of capacity due to sedimentation.

WPR-4 Recommendation

Initiate comprehensive, statewide safe-yield evaluations for drinking water reservoirs to ensure long-term water security. These evaluations should thoroughly assess capacity loss and overall infrastructure health to maintain reliable water supplies.

Applicability: North, West Central, Southwest

Solution Strategy

- Partner with the US Army Corps of Engineers, Arkansas Department of Health and reservoir owners to identify and evaluate drinking water reservoirs for long-range water supplies.
- Conduct detailed evaluations of existing impoundment infrastructure to identify any malfunctioning components or necessary upgrades.
- Collect bathymetric surveys to accurately measure current reservoir capacity and determine the volume of water storage lost to sedimentation.
- Utilize historical streamflow and climate data to model and accurately evaluate safe yield of each reservoir under various environmental conditions.
- Synthesize the infrastructure, bathymetric, and climate data to formulate actionable recommendations that secure the long-term viability of these water supplies.

SOUTHWEST

Applicable Issues, Recommendations, and Solution Strategies

I. WATER CONSERVATION & SHORTAGES

I.C Issue

Ensuring sustainable management of both surface and groundwater will require implementation of large-scale water supply projects, conservation, and improved regional planning.

WPR-5 Recommendation

Accelerate adoption of soil health conservation practices on private lands to improve soil water holding capacity, reduce overall water use, and limit sediment runoff.

Applicability: West Central, Southwest, South Central, East

Solution Strategy

- The Department and collaborators should work to advance public-private partnerships and market-based incentives to expand soil health programs that support long-term water conservation goals.

III. DAM, LEVEE, DRAINAGE, NAVIGATION & IRRIGATION INFRASTRUCTURE

III.A Issue

Agricultural irrigation infrastructure is dependent upon voluntary, on-farm improvements.

WPR-7 Recommendation

Evaluate and improve the Groundwater Conservation Tax Credit Program supporting irrigation and conservation investments. Identify mechanisms to improve incentive-based programs to support implementation of on-farm water storage.

Applicability: East, Southwest, South Central

Solution Strategy

Continue implementing the program, expand conservation-focused education and marketing through partner organizations.

Create a marketplace for tax credit sales or transfers to enhance participation and minimize decreased participation in low-income years.

Through Master Irrigator or similar program, identify partners to evaluate establishment of a Water Saving Certification program that could potentially increase cost-share rates, lowered agricultural loan interest rates and promote public recognition of producer achievements.

IV. SURFACE WATER QUANTITY

IV.C Issue

Population growth and limited groundwater resources increase pressure on existing federally controlled reservoirs storage for drinking water supplies near growing population centers.

WPR-3 Recommendation

Initiate the White River Comprehensive Basin Study and reservoir water allocations, as necessary.

Applicability: North, West Central, Southwest

Solution Strategy

Support the White River Comprehensive Basin Study through data sharing and state funded match opportunities. Communicate and partner, as needed, with local sponsors to support water allocation studies in federally controlled reservoirs.

IV.D Issue

Drinking water reservoirs are aging and may be losing safe yield resulting from loss of capacity due to sedimentation.

WPR-4 Recommendation

Initiate comprehensive, statewide safe-yield evaluations for drinking water reservoirs to ensure long-term water security. These evaluations should thoroughly assess capacity loss and overall infrastructure health to maintain reliable water supplies.

Applicability: North, West Central, Southwest

Solution Strategy

- Partner with the US Army Corps of Engineers, Arkansas Department of Health and reservoir owners to identify and evaluate drinking water reservoirs for long-range water supplies.
- Conduct detailed evaluations of existing impoundment infrastructure to identify any malfunctioning components or necessary upgrades.
- Collect bathymetric surveys to accurately measure current reservoir capacity and determine the volume of water storage lost to sedimentation.
- Utilize historical streamflow and climate data to model and accurately evaluate safe yield of each reservoir under various environmental conditions.
- Synthesize the infrastructure, bathymetric, and climate data to formulate actionable recommendations that secure the long-term viability of these water supplies.

V. GROUNDWATER QUANTITY

V.A Issue

Sustainable groundwater management requires expanded conservation, on-farm storage, and conversion to surface water.

WPR-8 Recommendation

Improve data on the production and irrigation practices for major crops in Arkansas beyond rice. This information is crucial for interpreting water use trends across the state's agriculture sector.

Applicability: East, South Central, Southwest

Solution Strategy

- Support and expand Master Irrigators/Crop per Drop and expand crop production practice surveys and use information gained for education and program design.
- Leverage the framework of the successful "Trends in Arkansas Rice Production" survey.
- Involve cooperative extension agents in counties that produce corn, soybean, and cotton to estimate agronomic practices.
- Use the surveys to gather expert estimates of acres produced under various irrigation methods and water sources.

- Utilize the collected survey data as metadata to help interpret broader water use trends to be used for future evaluations and projections of groundwater and surface water used for irrigation.

V.C Issue

Lithium extraction may increase groundwater withdrawals in the Sparta Aquifer.

WPR-9 Recommendation

Develop new monitoring and sustainability models for the Sparta Aquifer in areas with limited data.

Applicability: Southwest, South Central

Solution Strategy

- Deploy new monitoring wells, model high-withdrawal scenarios, incentivize recycling and/or reuse, and explore surface-water alternatives.

VI. WATER QUALITY

VI.B Issue

Manganese and iron are becoming an increasingly prevalent groundwater quality management issue for public water utilities.

WPR-10 Recommendation

Complete a thorough evaluation of groundwater quality, aquifer levels, and mineral treatment issues across the state.

Applicability: East, Southwest, South Central

Solution Strategy

- The Department and partners should initiate a groundwater investigation that reviews aquifer conditions through time coupled with groundwater quality to evaluate trends.
- Increase groundwater quality monitoring to gather additional spatial and temporal information around mineral concentrations and impacts to drinking water quality.
- Prioritize funding for treatment improvements for public water utilities.
- Assess increasing the treatment standards for iron and manganese, in coordination with the Arkansas Department of Health.

SOUTH CENTRAL

Applicable Issues, Recommendations, and Solution Strategies

I. WATER CONSERVATION & SHORTAGES

I.C Issue

Ensuring sustainable management of both surface and groundwater will require implementation of large-scale water supply projects, conservation, and improved regional planning.

WPR-5 Recommendation

Accelerate adoption of soil health conservation practices on private lands to improve soil water holding capacity, reduce overall water use, and limit sediment runoff.

Applicability: West Central, Southwest, South Central, East

Solution Strategy

- The Department and collaborators should work to advance public-private partnerships and market-based incentives to expand soil health programs that support long-term water conservation goals.

III. DAM, LEVEE, DRAINAGE, NAVIGATION & IRRIGATION INFRASTRUCTURE

III.A Issue

Agricultural irrigation infrastructure is dependent upon voluntary, on-farm improvements.

WPR-7 Recommendation

Evaluate and improve the Groundwater Conservation Tax Credit Program supporting irrigation and conservation investments. Identify mechanisms to improve incentive-based programs to support implementation of on-farm water storage.

Applicability: East, Southwest, South Central

Solution Strategy

- Continue implementing the program, expand conservation-focused education and marketing through partner organizations.
- Create a marketplace for tax credit sales or transfers to enhance participation and minimize decreased participation in low-income years.
- Through Master Irrigator or similar program, identify partners to evaluate establishment of a Water Saving Certification program that could potentially increase cost-share rates, lowered agricultural loan interest rates and promote public recognition of producer achievements.

V. GROUNDWATER QUANTITY

V.A Issue

Sustainable groundwater management requires expanded conservation, on-farm storage, and conversion to surface water.

WPR-8 Recommendation

Improve data on the production and irrigation practices for major crops in Arkansas beyond rice. This information is crucial for interpreting water use trends across the state's agriculture sector.

Applicability: East, South Central, Southwest

Solution Strategy

- Support and expand Master Irrigators/Crop per Drop and expand crop production practice surveys and use information gained for education and program design.
- Leverage the framework of the successful "Trends in Arkansas Rice Production" survey.
- Involve cooperative extension agents in counties that produce corn, soybean, and cotton to estimate agronomic practices.
- Use the surveys to gather expert estimates of acres produced under various irrigation methods and water sources.
- Utilize the collected survey data as metadata to help interpret broader water use trends to be used for future evaluations and projections of groundwater and surface water used for irrigation.

V.C Issue

Lithium extraction may increase groundwater withdrawals in the Sparta Aquifer.

WPR-9 Recommendation

Develop new monitoring and sustainability models for the Sparta Aquifer in areas with limited data.

Applicability: Southwest, South Central

Solution Strategy

- Deploy new monitoring wells, model high-withdrawal scenarios, incentivize recycling and/or reuse, and explore surface-water alternatives.

VI. WATER QUALITY

VI.B Issue

Manganese and iron are becoming an increasingly prevalent groundwater quality management issue for public water utilities.

WPR-10 Recommendation

Complete a thorough evaluation of groundwater quality, aquifer levels, and mineral treatment issues across the state.

Applicability: East, Southwest, South Central

Solution Strategy

VI.B.1.a The Department and partners should initiate a groundwater investigation that reviews aquifer conditions through time coupled with groundwater quality to evaluate trends.

VI.B.1.b Increase groundwater quality monitoring to gather additional spatial and temporal information around mineral concentrations and impacts to drinking water quality.

VI.B.1.c Prioritize funding for treatment improvements for public water utilities.

VI.B.1.d Assess increasing the treatment standards for iron and manganese, in coordination with the Arkansas Department of Health.

EAST

Applicable Issues, Recommendations, and Solution Strategies

I. WATER CONSERVATION & SHORTAGES

I.C Issue

Ensuring sustainable management of both surface and groundwater will require implementation of large-scale water supply projects, conservation, and improved regional planning.

WPR-5 Recommendation

Accelerate adoption of soil health conservation practices on private lands to improve soil water holding capacity, reduce overall water use, and limit sediment runoff.

Applicability: West Central, Southwest, South Central, East

Solution Strategy

- The Department and collaborators should work to advance public-private partnerships and market-based incentives to expand soil health programs that support long-term water conservation goals.

WPR-11 Recommendation

Complete and expand the Bayou Meto and White River irrigation projects, including expanded on-farm storage, to reduce groundwater extraction in critical areas.

Applicability: East

Solution Strategy

- Continue matching federal investment through state bonding, available grants and loans and private funds; provide education to growers on tax credits and the benefits of impoundments, land leveling, tailwater recovery, and surface water conversion.

III. DAM, LEVEE, DRAINAGE, NAVIGATION & IRRIGATION INFRASTRUCTURE

III.A Issue

Agricultural irrigation infrastructure is dependent upon voluntary, on-farm improvements.

WPR-7 Recommendation

Evaluate and improve the Groundwater Conservation Tax Credit Program supporting irrigation and conservation investments. Identify mechanisms to improve incentive-based programs to support implementation of on-farm water storage.

Applicability: East, Southwest, South Central

Solution Strategy

Continue implementing the program, expand conservation-focused education and marketing through partner organizations.

Create a marketplace for tax credit sales or transfers to enhance participation and minimize decreased participation in low-income years.

Through Master Irrigator or similar program, identify partners to evaluate establishment of a Water Saving Certification program that could potentially increase cost-share rates, lowered agricultural loan interest rates and promote public recognition of producer achievements.

III.B Issue

Arkansas relies on its navigation systems to support major economic sectors such as agriculture, manufacturing, and energy. Aging lock and dam infrastructure, sedimentation, and inconsistent funding for maintenance pose risks to commercial navigation reliability. These challenges also impact flood risk management, water supply, and hydropower operations. Coordinated planning is needed to maintain safe, dependable navigation channels and ensure long-term economic viability.

WPR-6 Recommendation

Strengthen statewide and regional coordination to support the modernization, maintenance, and long-term resilience of Arkansas' navigation infrastructure, including locks, dams, and associated channel improvements, in partnership with local stakeholders and federal agencies.

Applicability: West Central, East

Solution Strategy

- Support funding for dredging priorities, sediment management, and lock/dam modernization schedules.
- Support federal investments under nationwide inland waterway infrastructure programs.
- Encourage the adoption of green infrastructure where applicable.
- Identify and prioritize state-supported navigation infrastructure needs, including riverbank stabilization, channel deepening, and improved sediment removal strategies.

V. GROUNDWATER QUANTITY

V.A Issue

Sustainable groundwater management requires expanded conservation, on-farm storage, and conversion to surface water.

WPR-8 Recommendation

Improve data on the production and irrigation practices for major crops in Arkansas beyond rice. This information is crucial for interpreting water use trends across the state's agriculture sector.

Applicability: East, South Central, Southwest

Solution Strategy

- Support and expand Master Irrigators/Crop per Drop and expand crop production practice surveys and use information gained for education and program design.
- Leverage the framework of the successful "Trends in Arkansas Rice Production" survey.
- Involve cooperative extension agents in counties that produce corn, soybean, and cotton to estimate agronomic practices.
- Use the surveys to gather expert estimates of acres produced under various irrigation methods and water sources.
- Utilize the collected survey data as metadata to help interpret broader water use trends to be used for future evaluations and projections of groundwater and surface water used for irrigation.

VI. WATER QUALITY

VI.B Issue

Manganese and iron are becoming an increasingly prevalent groundwater quality management issue for public water utilities.

WPR-10 Recommendation

Complete a thorough evaluation of groundwater quality, aquifer levels, and mineral treatment issues across the state.

Applicability: East, Southwest, South Central

Solution Strategy

- The Department and partners should initiate a groundwater investigation that reviews aquifer conditions through time coupled with groundwater quality to evaluate trends.
- Increase groundwater quality monitoring to gather additional spatial and temporal information around mineral concentrations and impacts to drinking water quality.
- Prioritize funding for treatment improvements for public water utilities.
- Assess increasing the treatment standards for iron and manganese, in coordination with the Arkansas Department of Health.