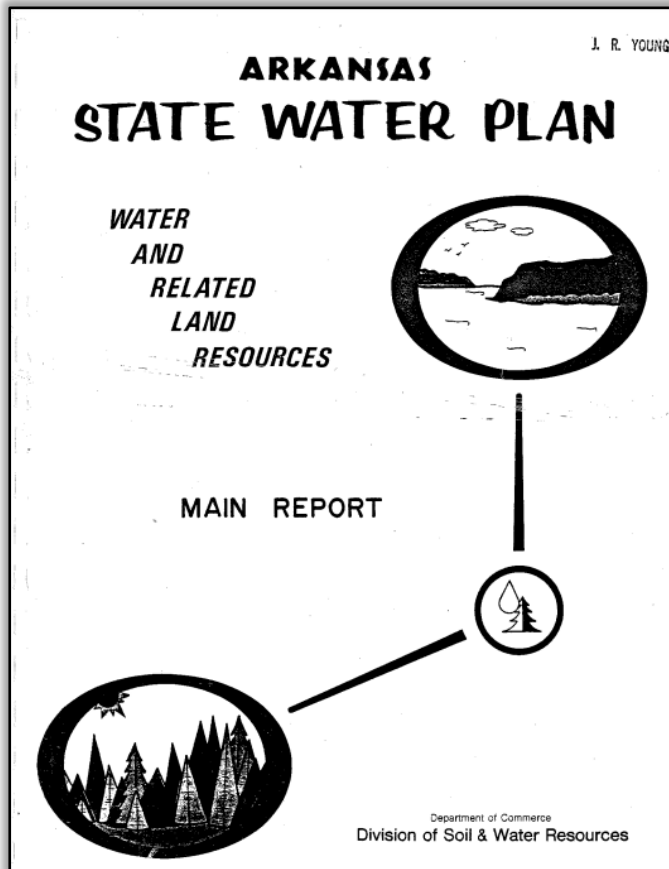


2026 Arkansas Water Plan Update



July 8, 2026
Virtual Stakeholder Meeting

Arkansas Water Plan History



- In 1969, the Arkansas General Assembly passed Act 217, (ACA § 15-22-503) which provided authority to the Arkansas Natural Resources Commission (Commission) for water planning at the state level and the development of the Arkansas State Water Plan.
- The first plan was published in 1975.
- In 1985, the legislature enacted Act 1051 (ACA § 15-22-301), which broadened the Commission's planning responsibilities (e.g., inventory of water resources, determining current and future needs of all water uses, excess surface water for beneficial use).
- Under the Transformation and Efficiencies Act of 2019, the Commission was transferred to the Arkansas Department of Agriculture.



Provisional Information and Data; Subject to Change

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

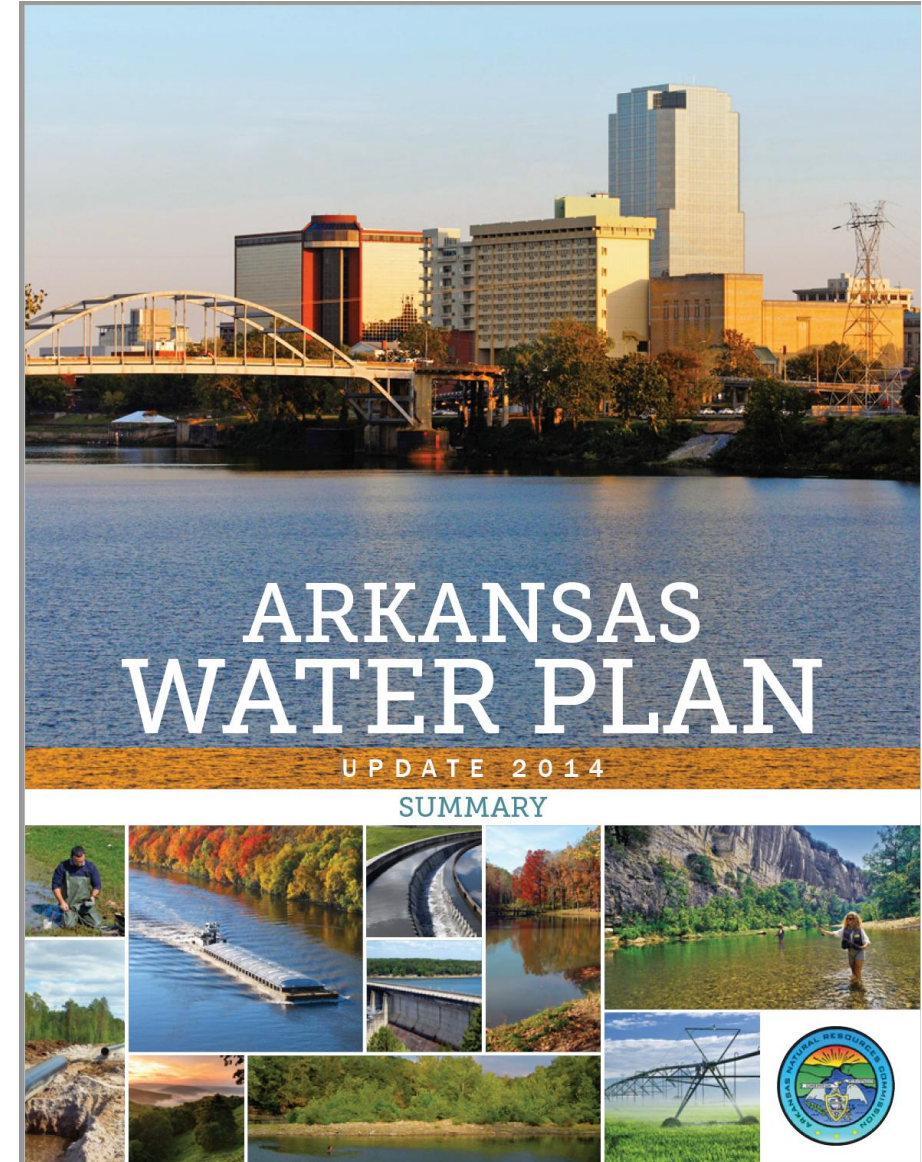
- To assess quantity and quality of water in Arkansas
- To be ready for growth, declines, and new challenges

- Structure (Basins / Geographical Regions)

- Supply
- Demands
- Infrastructure
- Issues
- Recommendations

- Public Involvement / Stakeholder Engagement

- Last update 2014



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Current Water Plan Update

Governor Sander's Executive Order 23-27

Phase I - Scoping Process (Completed 2024)

Data Collection

Vision, Goals, and Objectives / Need / Scope of Work
Gaps/Changes from 2014



Phase II – Updates to the Plan - (3rd Qtr. 2024 - 2026)

Updates to Water Supply / Demands / Forecasts
Project and Program Assessments
Water Management Policy

Plan Completion – Aug/Sept 2026



Provisional Information and Data; Subject to Change

Six Goals Frame the 2026 Update

1 Drinking Water

Provide drinking water that equitably and sustainably supports public health and well-being.

2 Sustainable Supply

Provide sustainable water for uses that deliver health, environmental, and economic benefits and support interstate agreements.

3 Best Available Science

Use the best available science, data, tools, and technologies to support water resource planning and management.

4 Infrastructure

Maintain and improve water supply, wastewater, stormwater, and flood-control infrastructure and plan for future needs.

5 Water Quality

Maintain, protect, and improve water quality to support designated uses of waterbodies.

6 Flood Resilience

Reduce the impacts of future flooding on people, property, infrastructure, industry, agriculture, and the environment.



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Water Plan Stakeholder Engagement

Phase I (Aug. 2023 – Sep. 2024)

- 7 Stakeholder Meetings (March and May 2024)
- One (1) survey

Phase II (Nov. 2024 – Sep. 2026)

- Fifteen (15) Water and Flood Plan stakeholder meetings;
- Thirty-seven (37) presentations;
- Four (4) surveys were conducted to gather data from stakeholders;
- Six meetings with industry leaders (i.e., energy, manufacturing, agriculture) to obtain water demand information;
- Estimated that these combined efforts have engaged over **3,500 stakeholders**.



Provisional Information and Data; Subject to Change

Water Plan Components

1. Water Quality – Michael Baker Int.
2. Water and Wastewater Infrastructure Assessment – Michael Baker Int.
3. Water Supply – US Army Corps of Engineers
4. Water Demand – US Army Corps of Engineers
5. Gap Analysis – US Army Corps of Engineers / Michael Baker Int.
6. Flooding / Dashboard – Olsson
7. Mitigation Strategies – US Army Corps of Engineers / Michael Baker Int.
8. Final Report– US Army Corps of Engineers / AR Dept. of Agriculture
 - Not inclusive of all studies or actions (e.g., Levee Inventory, NWA Water Reclamation, etc.)



Provisional Information and Data; Subject to Change

Provisional Information

Information
provided is
draft and
subject to
change



Data analysis
and stakeholder
input contributed
to information
being provided



Processing,
refining, and
public engagement
is ongoing



Final
product

1

Water and Wastewater Infrastructure Assessment

Aging systems, capital needs, and the funding gap



Water Infrastructure Assessment

Michael Baker
INTERNATIONAL

Data Collection and Quality Assurance Water & Wastewater Infrastructure Assessment

General Information
Water System Condition
Water System Operational Performance
Water System Resilience & Sustainability
Financial Needs Assessment
Health and Public Safety
Regulatory Requirements
Funding Mechanisms
Recommendations



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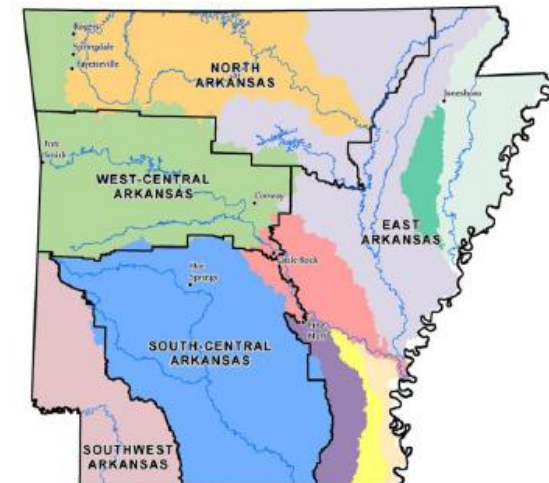
Pre-Final AWP Water Infrastructure Assessment Report

Master Planning Support Services for
Arkansas Department of Agriculture

Prepared For:
The US Army Corps of Engineers
Planning Assistance to the States (PAS) Program



US Army Corps
of Engineers®
Little Rock District



Prepared By:
Michael Baker International

February 6, 2026

Water Infrastructure Assessment Summary

Aging Infrastructure – Most of the water transmission and distribution pipes are more than 30 years old

Operational Inefficiencies – Average water loss across the state is 21.4%. Significantly above the national average of 14-16%

Constraints – Storage: Average Day Demand and Maximum Day Demand exceed available storage. Transmission lines are undersized, which limit flow and pressure

Workforce Shortage – Most survey respondents reported hiring challenges, primarily due to candidate shortages and uncompetitive pay



U.S. ARMY



US Army Corps
of Engineers®

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Wastewater Infrastructure Assessment Summary

Aging Infrastructure - >50% surveyed pumps/equipment exceeded expected service life

Infiltration and Inflow – 37 of 51 systems reported I/I >35%

Capacity Limitations – 17% of systems will not meet future design capacity due to population growth

Regulatory Compliance – 63% of systems reported at least one violation in last five years

Workforce Shortage – 50% of systems reported hiring or staffing shortages



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ARKANSAS WATER INFRASTRUCTURE NEEDS

Identified funding need continues to climb

CURRENT

\$20.1B

Water Plan Infrastructure
Assessment

2021 / 2022

\$13B

Drinking Water Needs Survey
& Clean Water Needs Survey

2014

\$9B

Arkansas Water Plan



+123%

more than doubled since 2014

Sources: Arkansas Water Plan; U.S. EPA Drinking Water (2021) & Clean Watersheds (2022) Needs Surveys; current Water Plan Infrastructure Assessment.

2

Water Quality

Statewide Surface and Groundwater Trends



AR Water Plan Water Quality Report Executive Summary

Michael Baker
INTERNATIONAL

Prepared by Michael Baker International and Olsson

Presents analysis of 20+ years of groundwater and surface water data

Thousands of surface water monitoring stations and wells

Surface Water

Chloride, copper, DO, *E. coli*, pH, sulfate, temperature, TDS, turbidity, zinc

Regional patterns

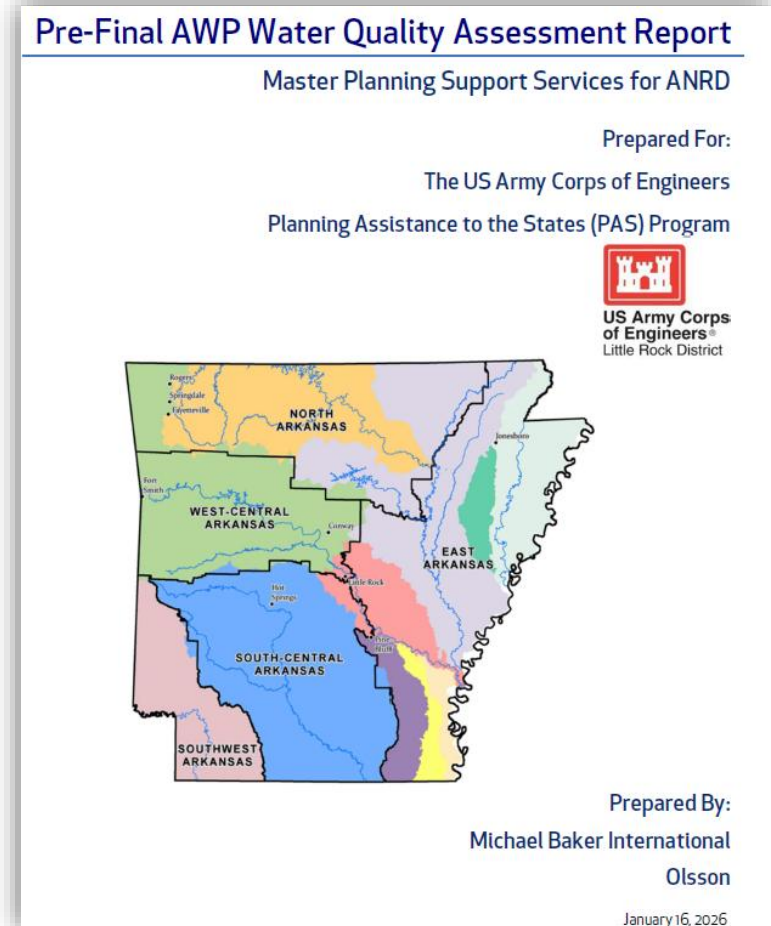
Groundwater

Arsenic, chloride, iron, manganese, nitrate, pH, sodium, sulfate, TDS

Regional patterns

Statewide Water Quality Index

Summarizes watershed condition via combined surface and groundwater analyses



US Army
Corps of Engineers

Provisional Information and Data; Subject to Change

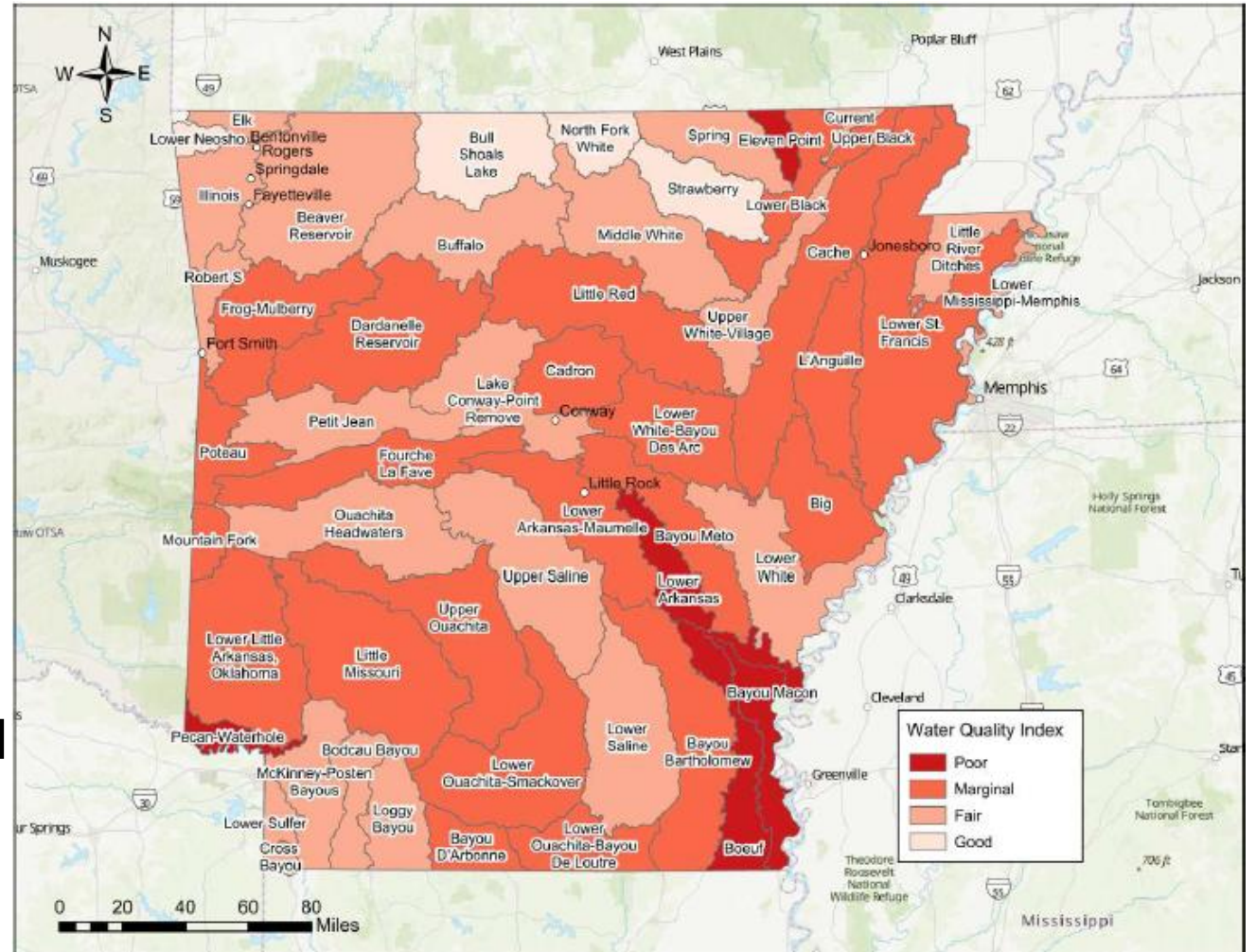
Surface Water Quality

Increasing trends in chloride and total dissolved solids observed in urbanized watersheds.

Declining dissolved oxygen levels detected in nutrient-enriched systems.

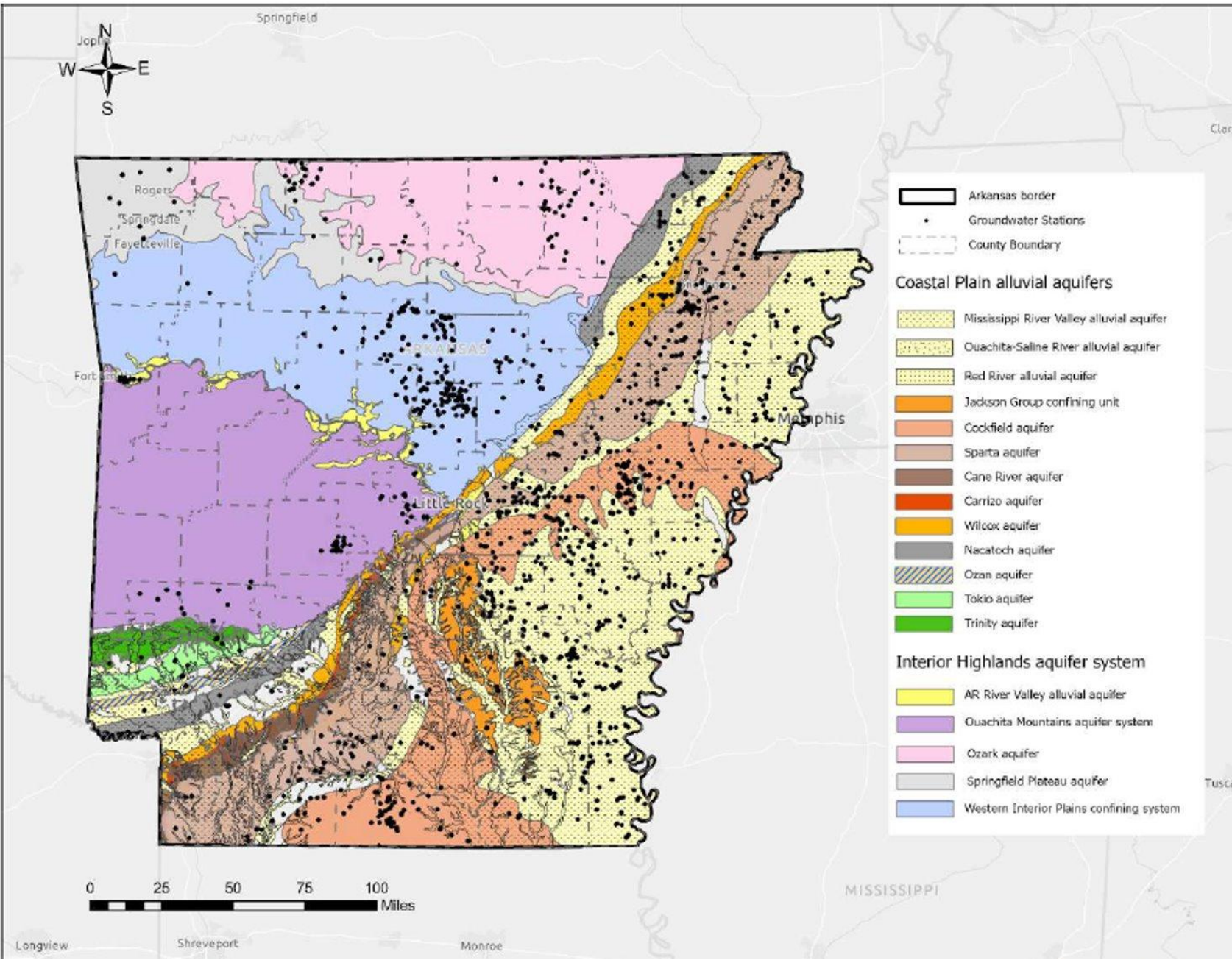
Seasonal variability significant for temperature and dissolved oxygen.

Impairments remain widespread
Approximately half of ADEQ assessed stream miles listed on the 2022 303(d) list.



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Groundwater Quality



Alluvial Aquifer Depth to Water Spring 2024

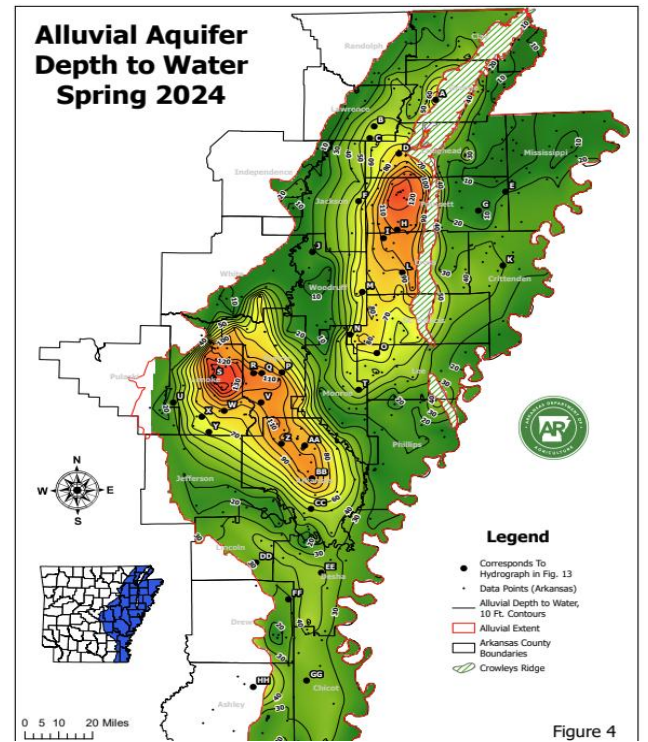


Figure 4

Sparta Aquifer Depth to Water Spring 2024

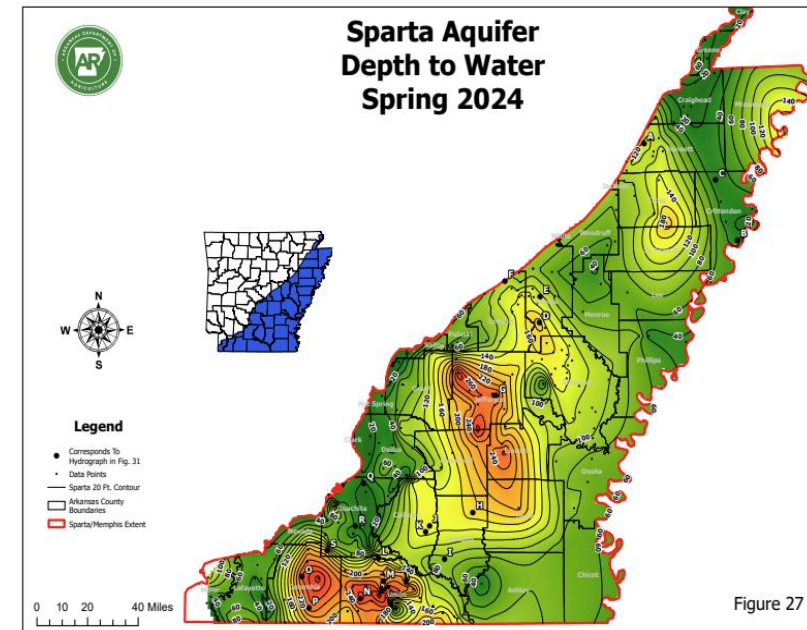
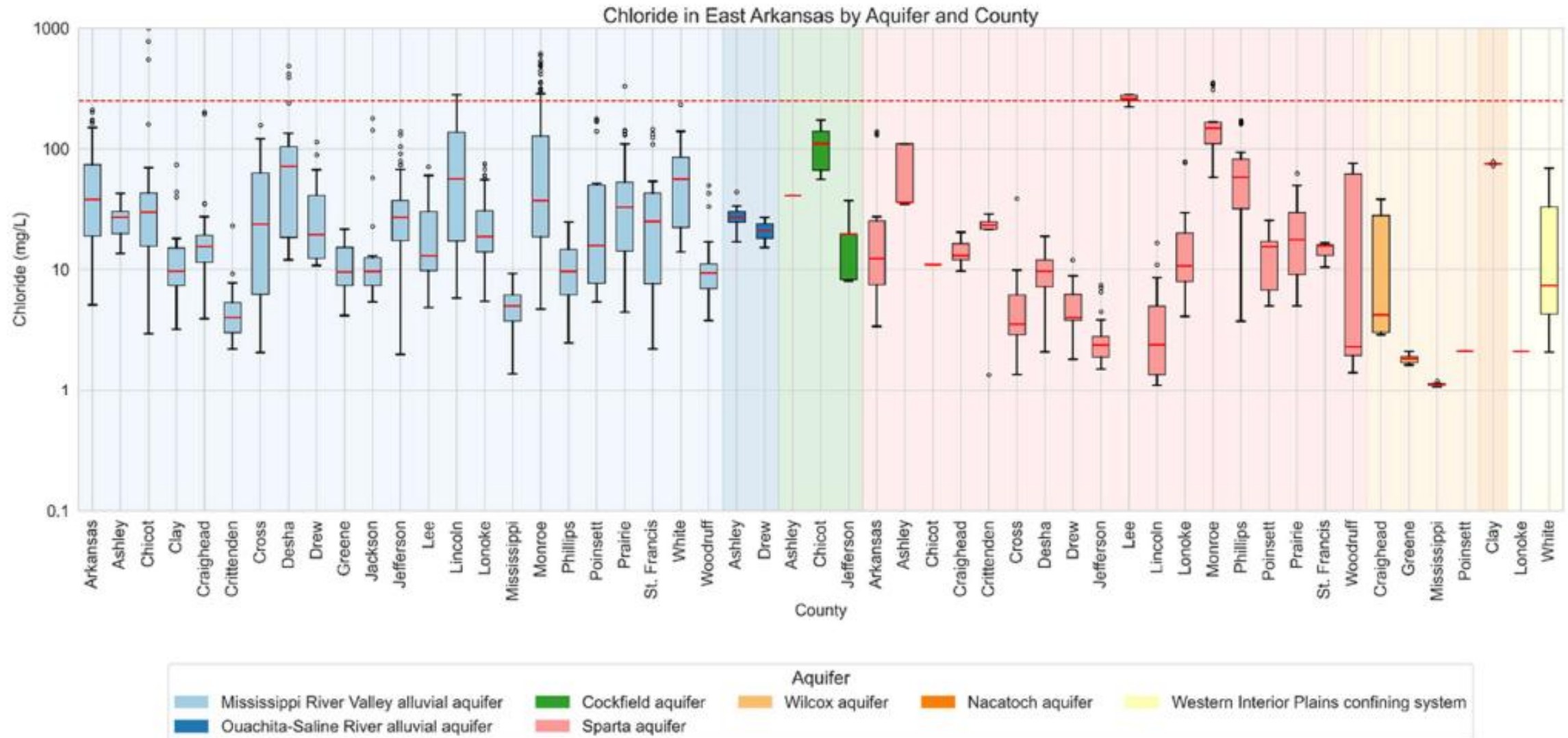


Figure 27

Chloride Exceeding EPA Standard (250 mg/L)



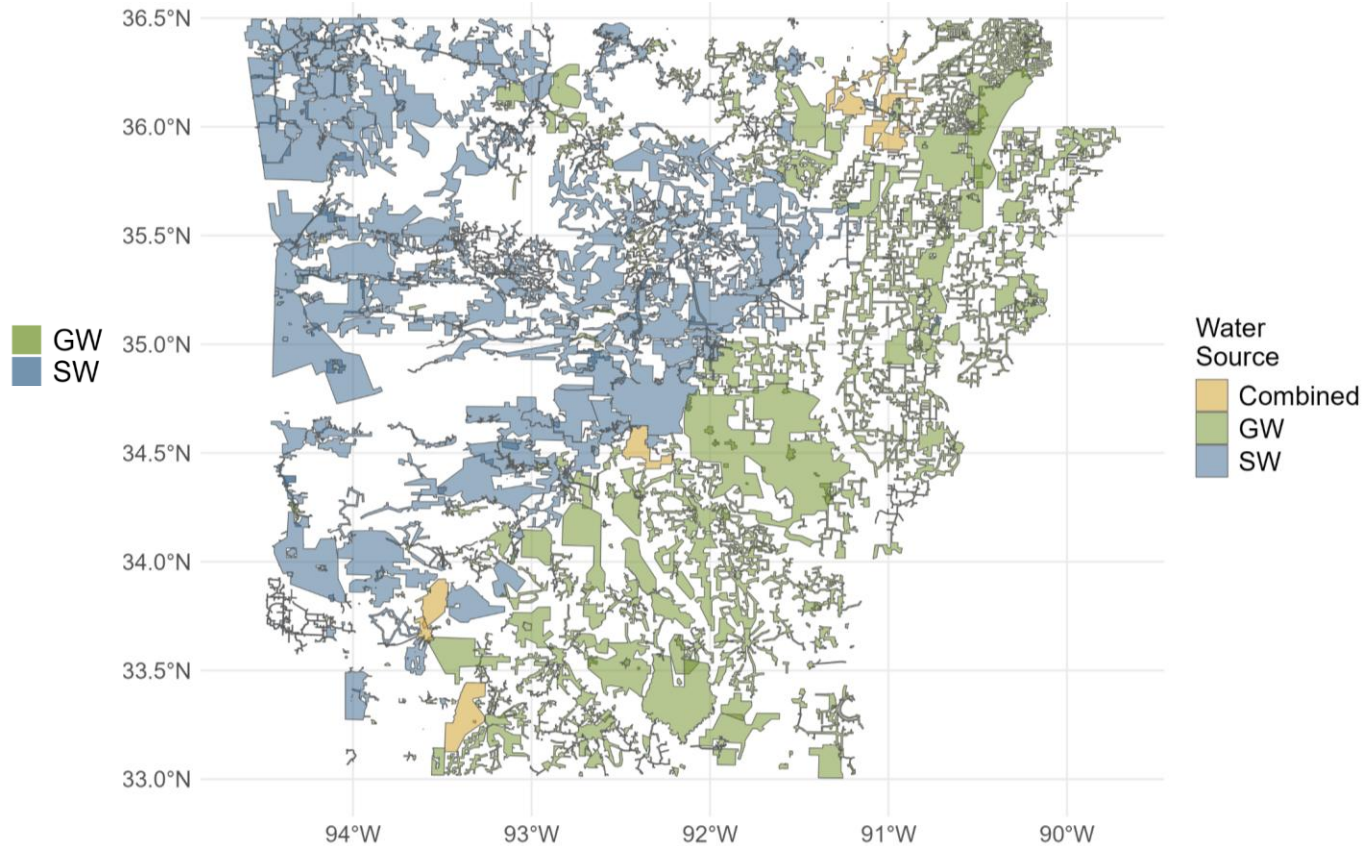
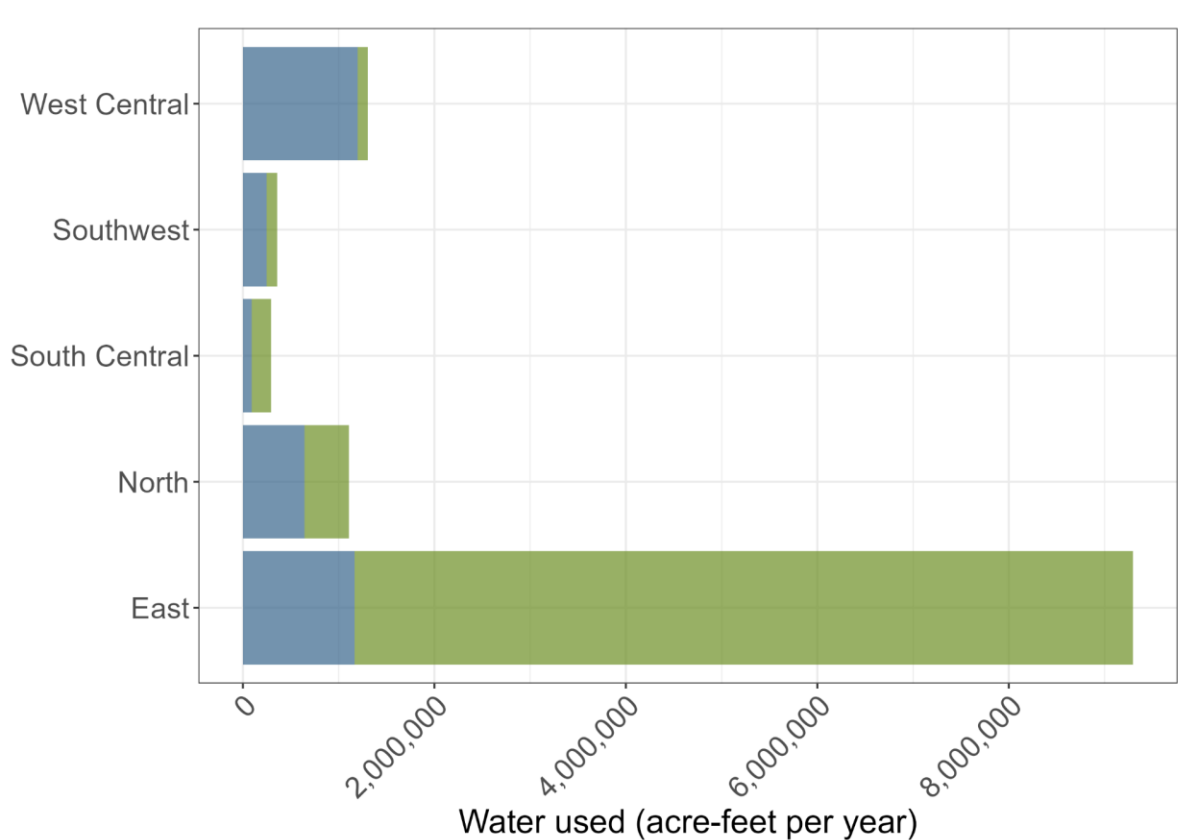
3

Water Supply

Surface water and groundwater — the supply side of the balance



Arkansas Water Use – Water Supply Sources



Provisional Information and Data; Subject to Change

Arkansas Has Abundant Water — Unevenly Distributed

- Surface water is divided among 7 major river basins — White, Arkansas, Ouachita, Red, Saint Francis, and Beouf-Tensas — fed by large federal reservoirs.
- Groundwater comes chiefly from the Mississippi River Valley Alluvial (MRVA), Sparta/Memphis, and Ozark Plateaus aquifers. Three areas are designated Critical Groundwater Areas.
- New supply science: machine-learning model extended daily streamflow to a uniform 1915–2024 record at every gage, enabling consistent, defensible 'Arkansas Method' allocation.
- Result: statewide excess surface water available for non-riparian use rose from an estimated 8.7 MAF/yr (2014) to 9.4 MAF/yr (2026) — a more accurate, not merely larger, figure.
- The challenge is location and timing: surface water is abundant where groundwater is most stressed only if it can be captured, stored, and conveyed.

7

major river basins

9.4 MAF

excess surface water / yr

3

Critical Groundwater Areas

1915–2024

uniform streamflow record

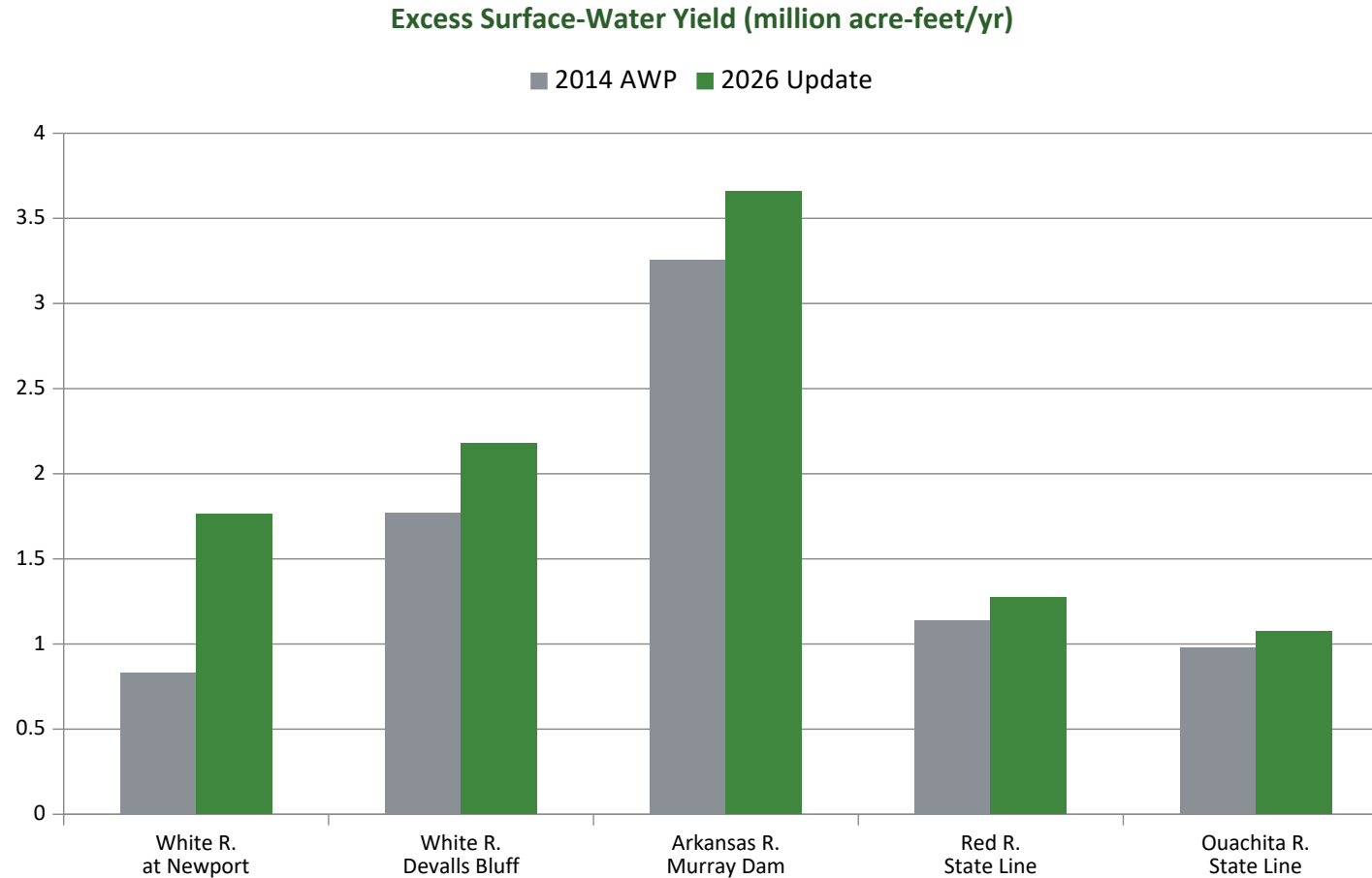
THE ARKANSAS METHOD

Up to 25% of a watershed's average annual yield may be allocated to non-riparian users — after protecting existing riparian rights, federal projects, reservoir yield, instream flows, and basin-of-origin needs (A.C.A. § 15-22-304).



Provisional Information and Data; Subject to Change

Updated Methods Show More Surface Water Available



- The extended record corrects prior computational gaps and yields more stable long-term statistics.
- White River at Newport: +112%, largely from correctly including the Black River drainage area.
- Little Red River at Confluence: +630% (small base).
- Arkansas, Red, and Ouachita rivers: +9% to +12%.
- A few sites declined (e.g., Chemin-A-Haut Bayou, -42%), reflecting better low-flow characterization.



Provisional Information and Data; Subject to Change

Groundwater: The Resource Under Pressure — With Early Gains

- The dominant resource issue is unsustainable withdrawal from the MRVA aquifer for eastern Arkansas agriculture; the Sparta aquifer is a designated sustaining aquifer (Act 1426 of 2001).
- The 2014 Plan projected a potential groundwater gap exceeding 8 MAF/yr by 2050.
- Encouraging trend: per the 2025 Arkansas Groundwater Report, alluvial wells in decline fell from 74.1% (2004–2014) to 46.8% (2014–2024), with a slight average water-level rise of +0.22 ft.
- Drivers of improvement: large surface-water delivery projects plus on-farm conservation — NRCS funded \$1.27B statewide since 2014; the Groundwater Conservation Tax Credit expanded under Act 875 of 2021.
- Availability updates underway: 2019 USGS Ozark study integrated; a MERAS Cache River and Grand Prairie model update for the Alluvial and Sparta/Memphis aquifers will be incorporated into the final plan.

74.1% → 46.8%

alluvial wells in decline (2004–2014 vs 2014–2024)

>8 MAF

projected GW gap by 2050

+0.22 ft

avg water-level change

\$1.27B

NRCS conservation since 2014

86%

of ag demand from groundwater



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4

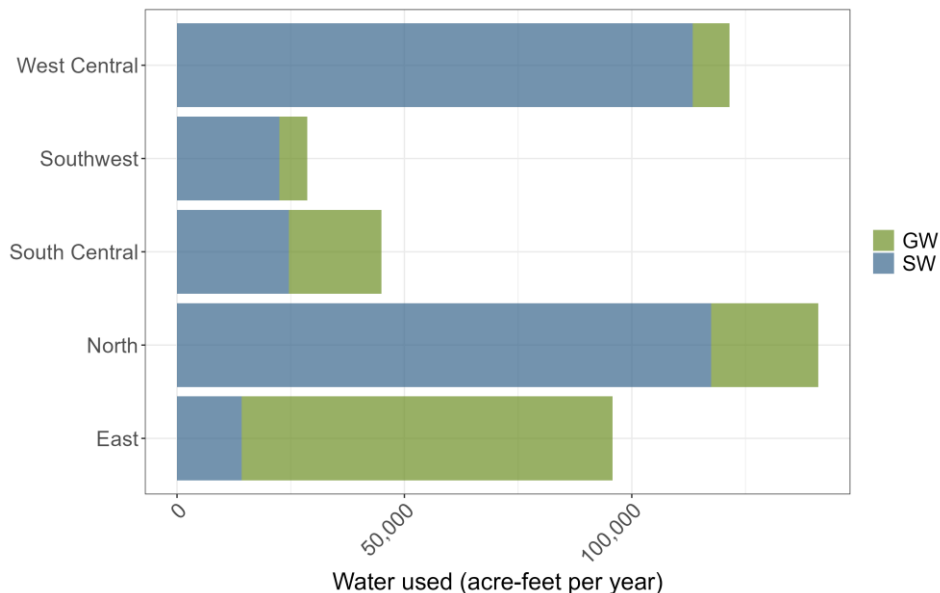
Water Demand

Who uses water, how much, and where it is growing

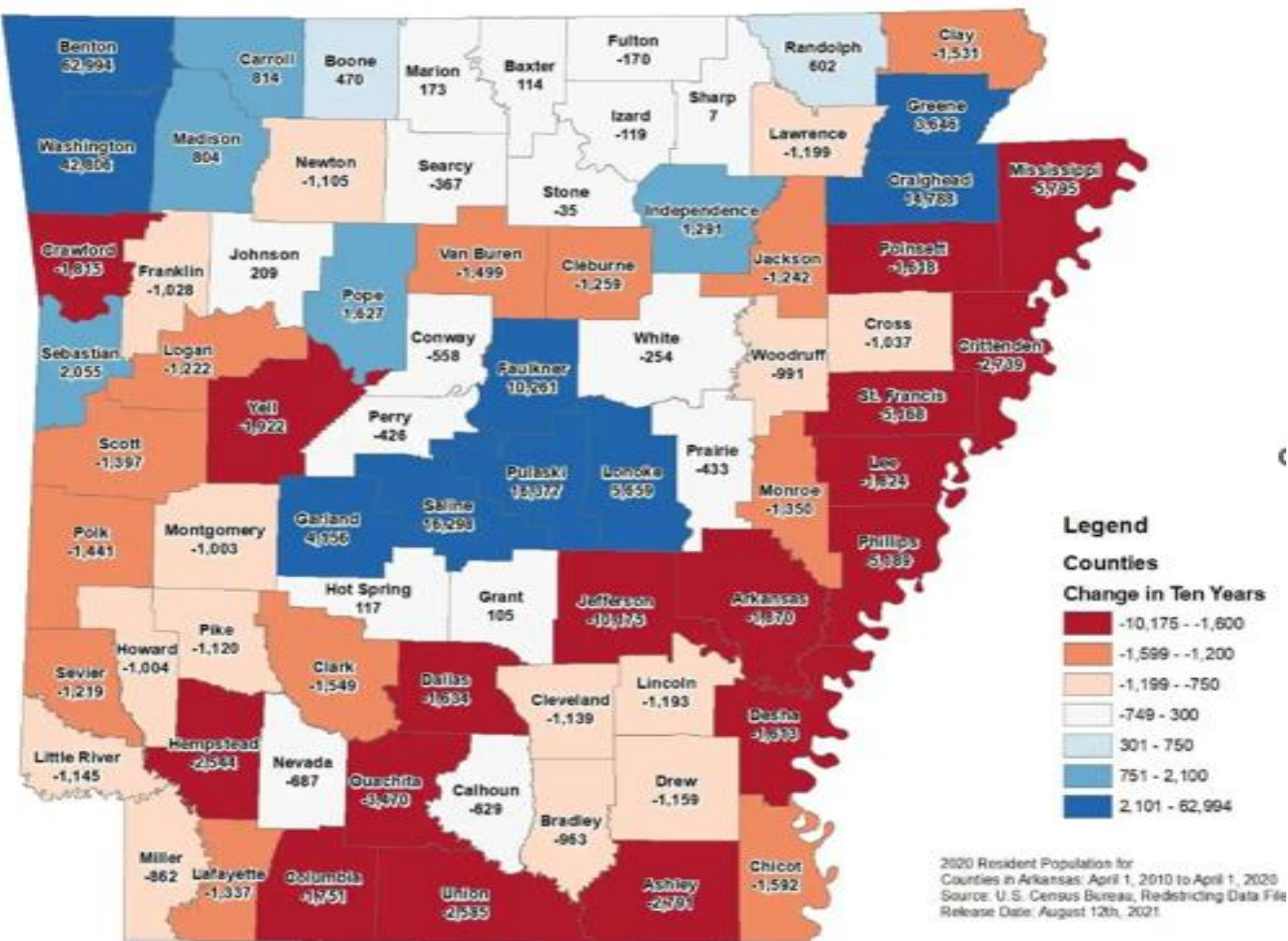


Population Change

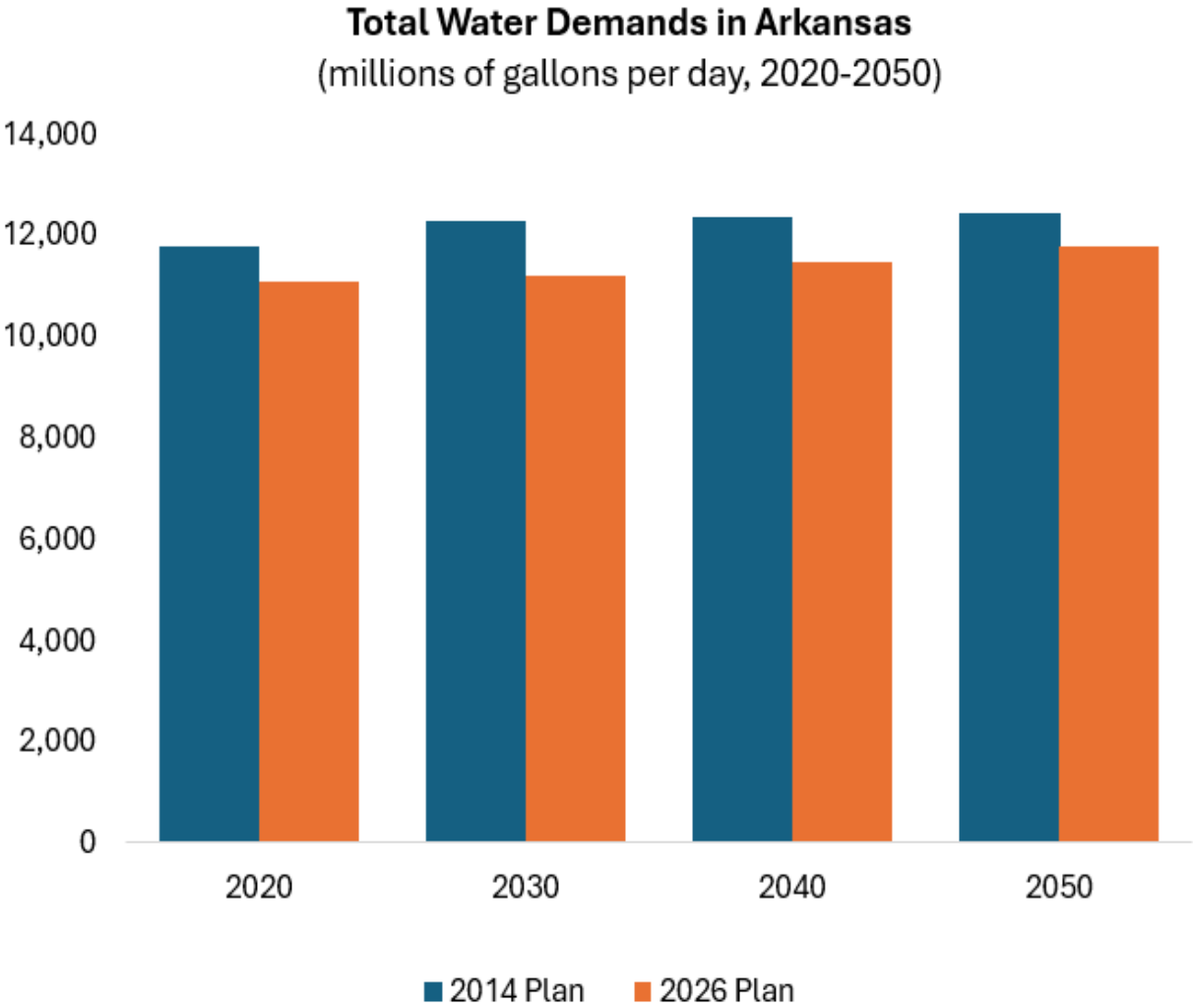
Domestic Use by Source



Change in County Population in Arkansas 2010 Census versus 2020 Census



2014 Plan	2020	2030	2040	2050
Crop Irrigation	9,507	9,941	10,020	10,040
Thermoelectric	1,274	1,337	1,349	1,355
Industrial	308	288	258	235
Municipal	424	450	483	524
Water Fowl Habitat and Management	259	259	259	259
Livestock and Aquaculture	132	132	132	132
Total	11,772	12,275	12,369	12,545
2026 Update	2020	2030	2040	2050
Crop Irrigation	8,668	8,668	8,668	8,668
Thermoelectric	1,210	1,293	1,493	1,693
Industrial	217	234	255	274
Municipal	395	421	444	467
Water Fowl Habitat and Management	259	259	259	259
Livestock and Aquaculture	414	437	478	523
Total	11,162	11,312	11,597	11,884
Percent Difference	2020	2030	2040	2050
Crop Irrigation	-9%	-13%	-13%	-14%
Thermoelectric	-5%	-3%	11%	25%
Industrial	-30%	-19%	-1%	17%
Municipal	-7%	-7%	-8%	-11%
Water Fowl Habitat and Management	0%	0%	0%	0%
Livestock and Aquaculture	214%	231%	262%	296%
Total	-5%	-8%	-6%	-5%



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5

The Gap

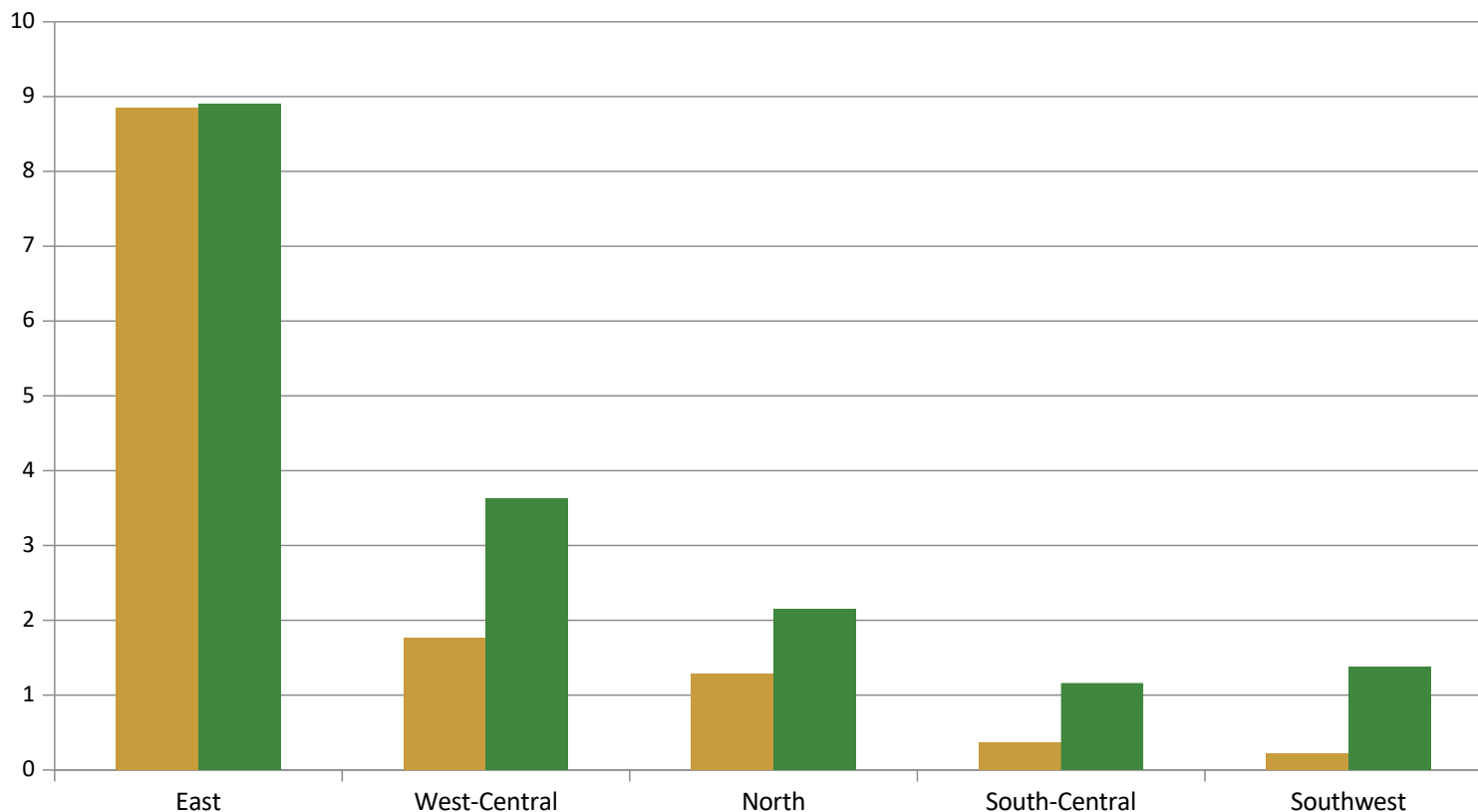
Where supply, demand, and infrastructure meet the recommendations



Every Region Has Enough Surface Water to Meet Demand

Demand vs. Available Excess Surface Water (MAF/yr)

Projected demand Excess surface water available



- Surface water available meets or exceeds demand in all five regions.
- The East is the tightest: 8.85 vs 8.90 MAF, and its demand is 86% groundwater, so the surface water must physically reach the fields.
- Abundant margins in the South-Central, Southwest, and North regions reflect large through-flowing rivers.
- Caveat: 'available' excess surface water is not yet captured or delivered — that is the infrastructure gap.

Presentation Overview

- **Updated Water Availability:** A detailed look at the new surface water assessments for 2026, highlighting the methodologies used and locations of USGS stream gages.
- **Future Water Demand:** An analysis of projected statewide and regional water demands, incorporating future growth in key sectors like municipalities, industry, data centers, and lithium extraction.
- **Closing the Gap:** A comprehensive gap analysis comparing the updated 2026 water availability with projected demands, presenting key findings for each of the state's five planning regions.
- **2014 Plan Comparison:** A comparative review of the updated 2026 findings against the 2014 Arkansas Water Plan, explaining the primary drivers for any changes in water availability and demand projections.



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Terms Used

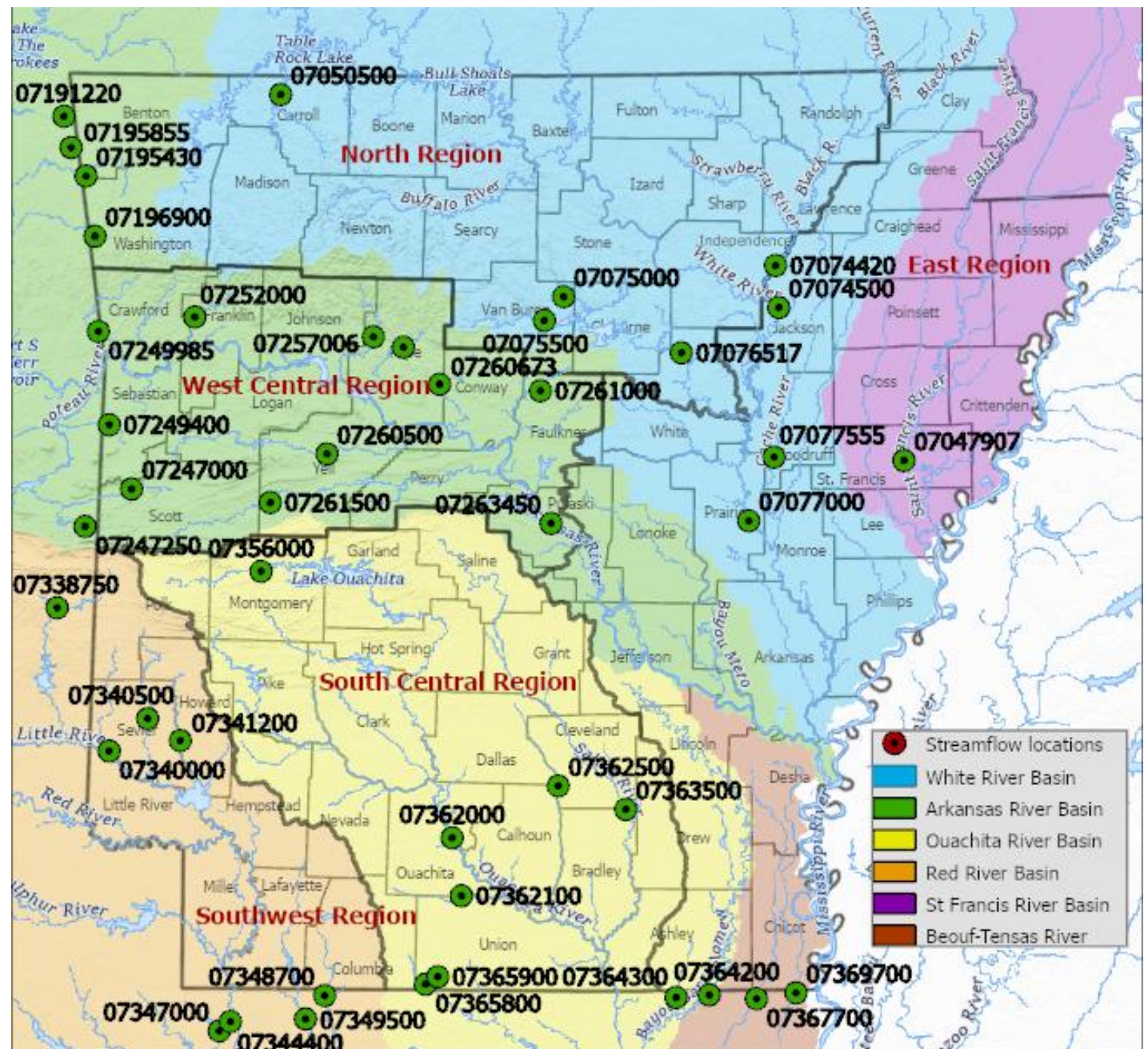
- **Originating**
 - Water that does not come from a different planning region.
 - State boundaries are ignored (IE, no attempt is made to remove water that originates in Missouri, Oklahoma, etc).
 - Originating water in the Eastern Planning Region removes water from White River at Newport, Little Red River, and Arkansas River at Murray Dam.
- **Non-originating**
 - Water that does come from a different planning region.
 - State boundaries are ignored (IE, no attempt is made to remove water that originates in Missouri, Oklahoma, etc).
 - Non-originating water in the Eastern Planning Region includes water from the whole White River and Arkansas River basins.
- **Available**
 - Quantity of surface water flowing in a stream after subtracting flows for fish and wildlife, 7Q10, Interstate Compacts, Navigation, and etc.
- **Excess**
 - Portion of available surface water in a stream that can be allocated by Ark Dept of Agriculture (25% of Available)



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Surface Water

- USGS streamgage locations used for determination of SW flow quantities



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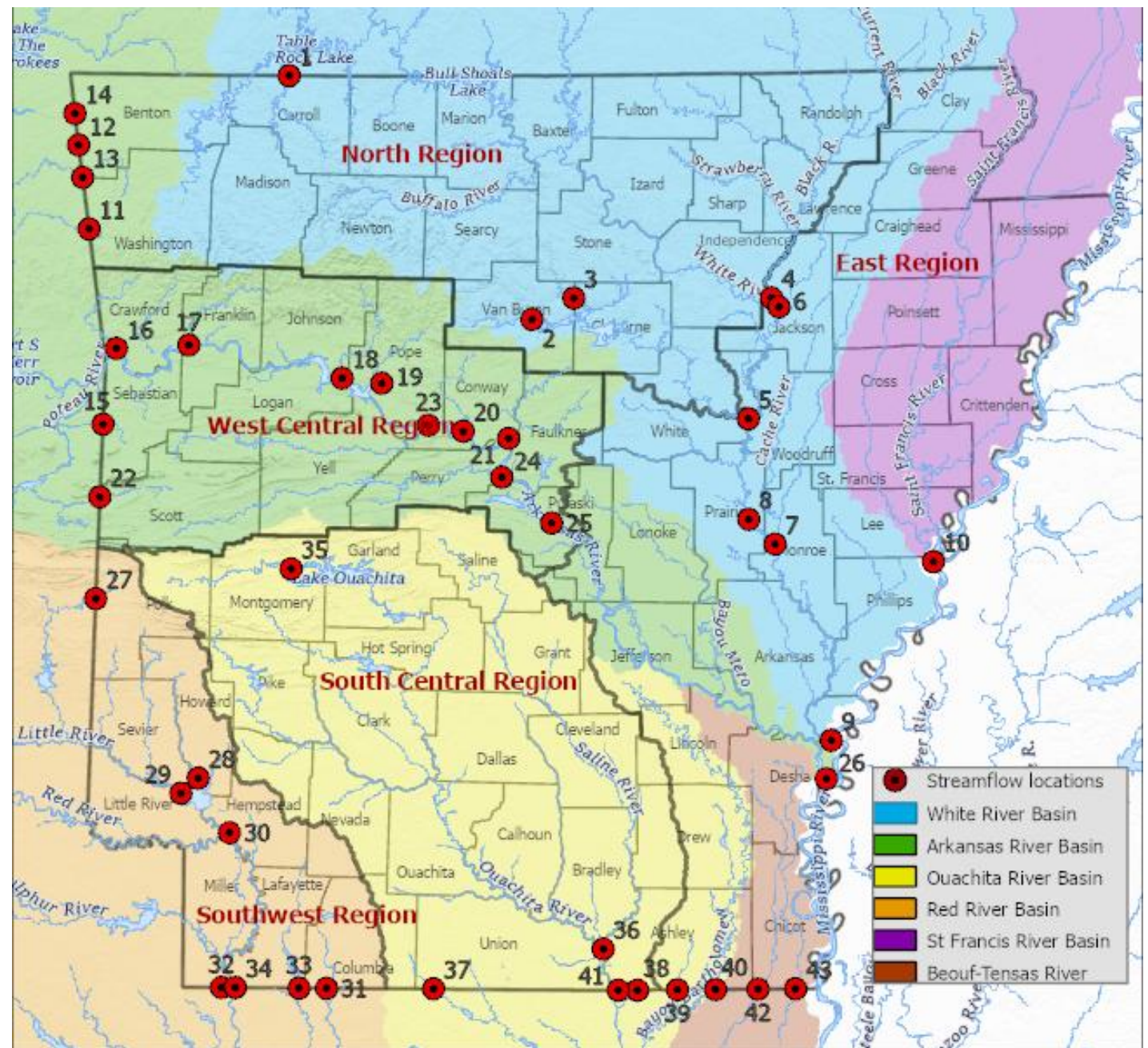


US Army Corps
of Engineers

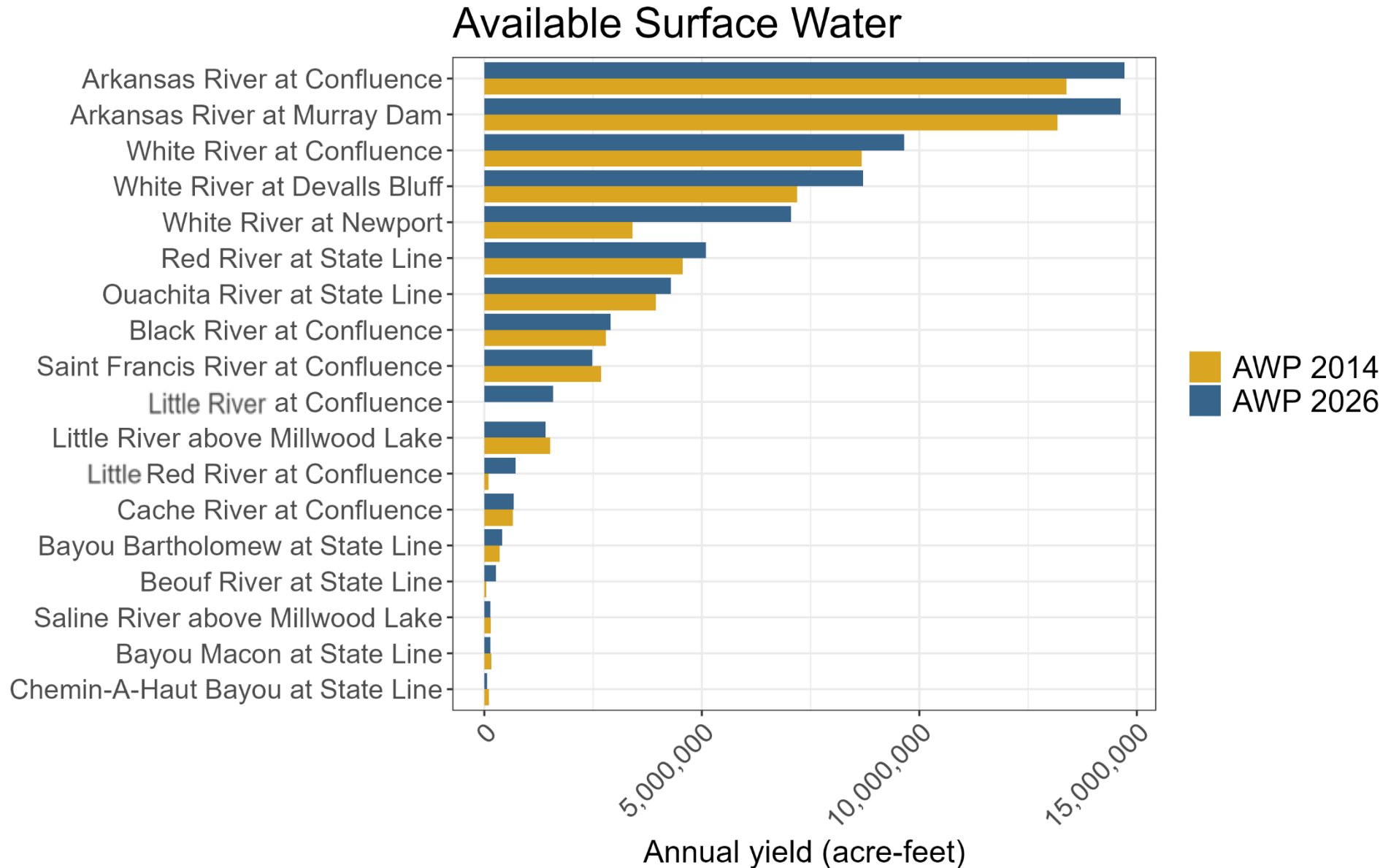
Provisional Information and Data; Subject to Change

Surface Water

- Locations where flows were computed for determination of SW quantities at Arkansas State boundary, confluence of a stream/river, boundary between Planning Regions, or confluence with other water body (IE where a stream flows into a reservoir).

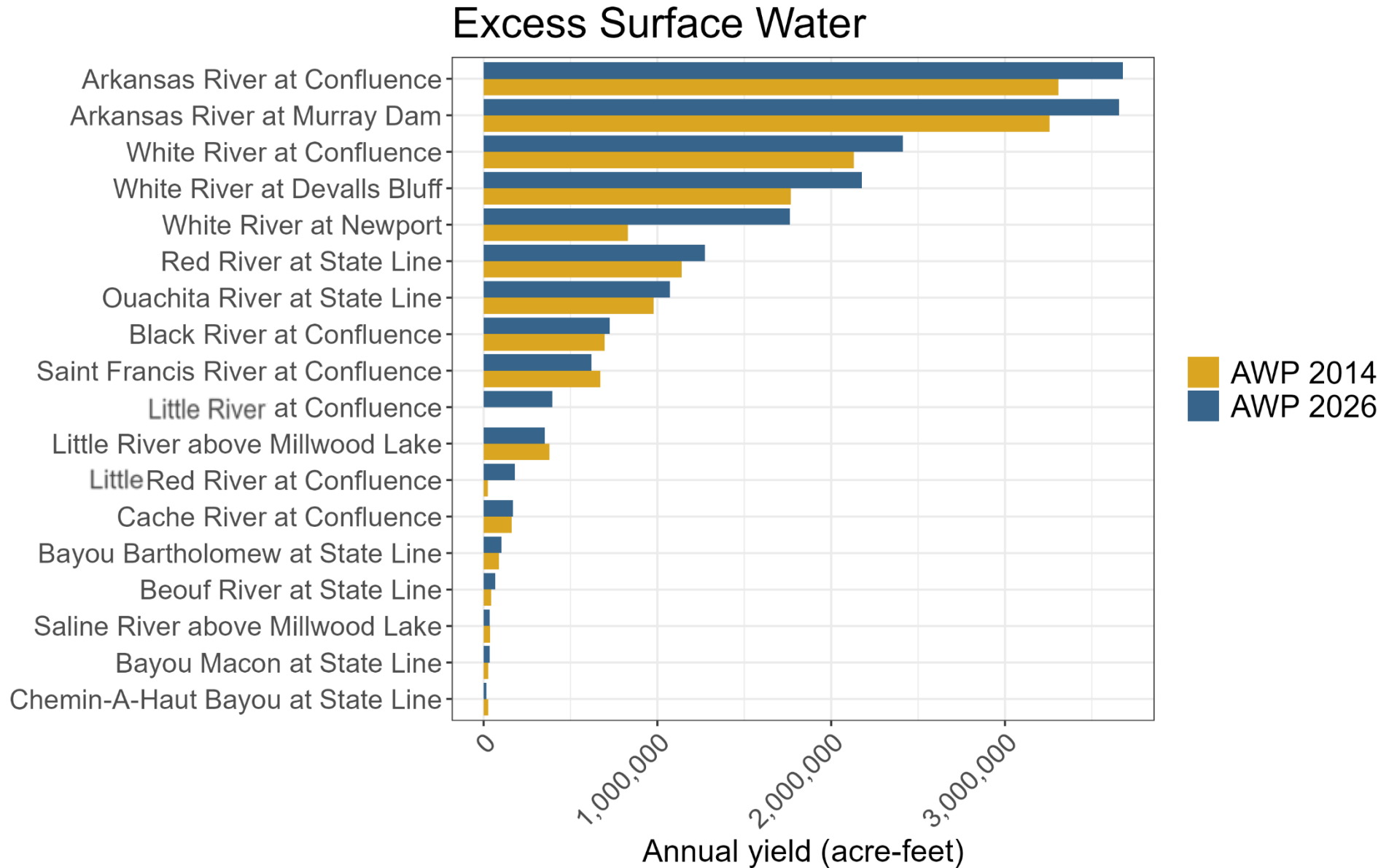


Surface Water



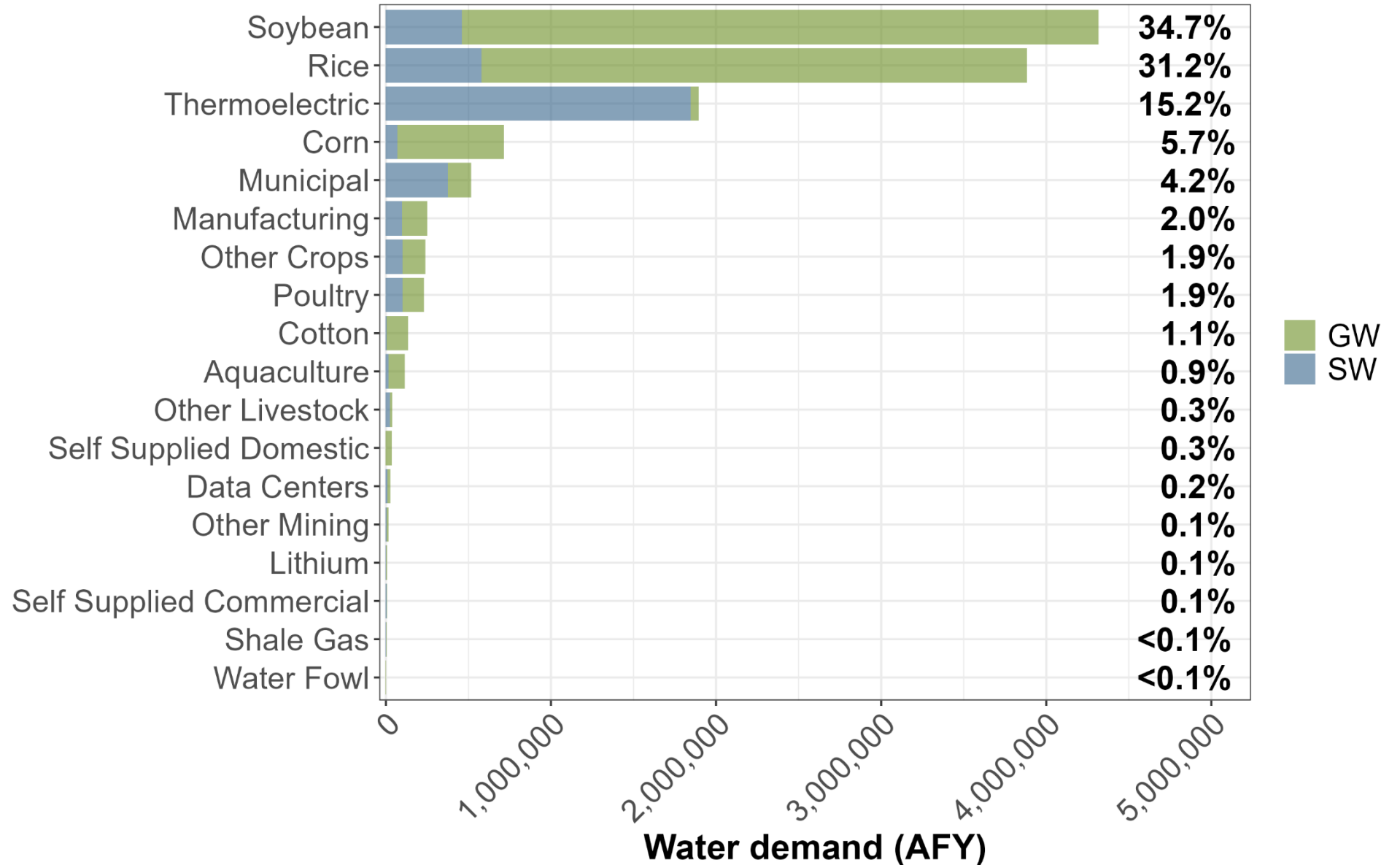
Provisional Information and Data; Subject to Change

Surface Water



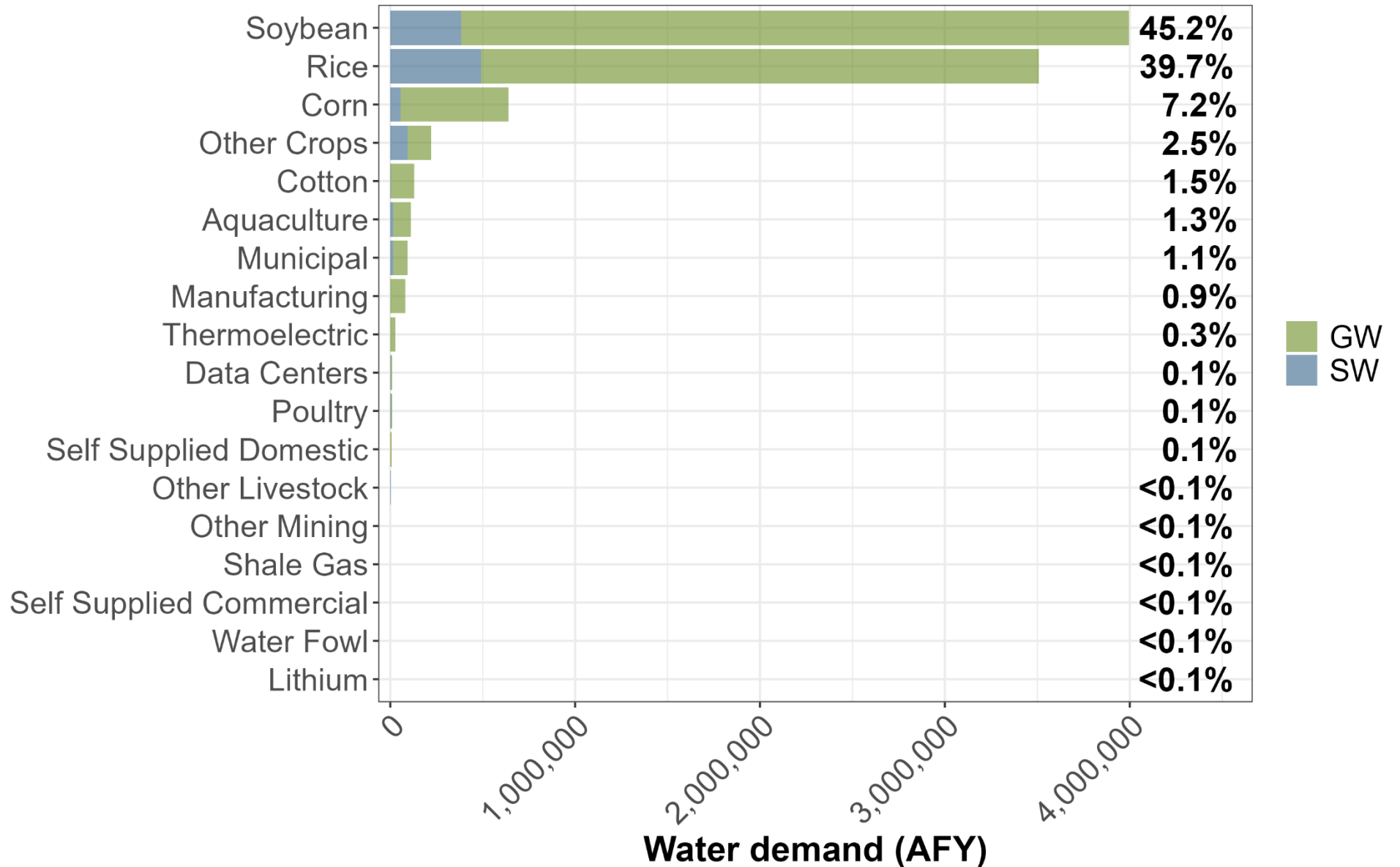
Provisional Information and Data; Subject to Change

Statewide - Projected Demands



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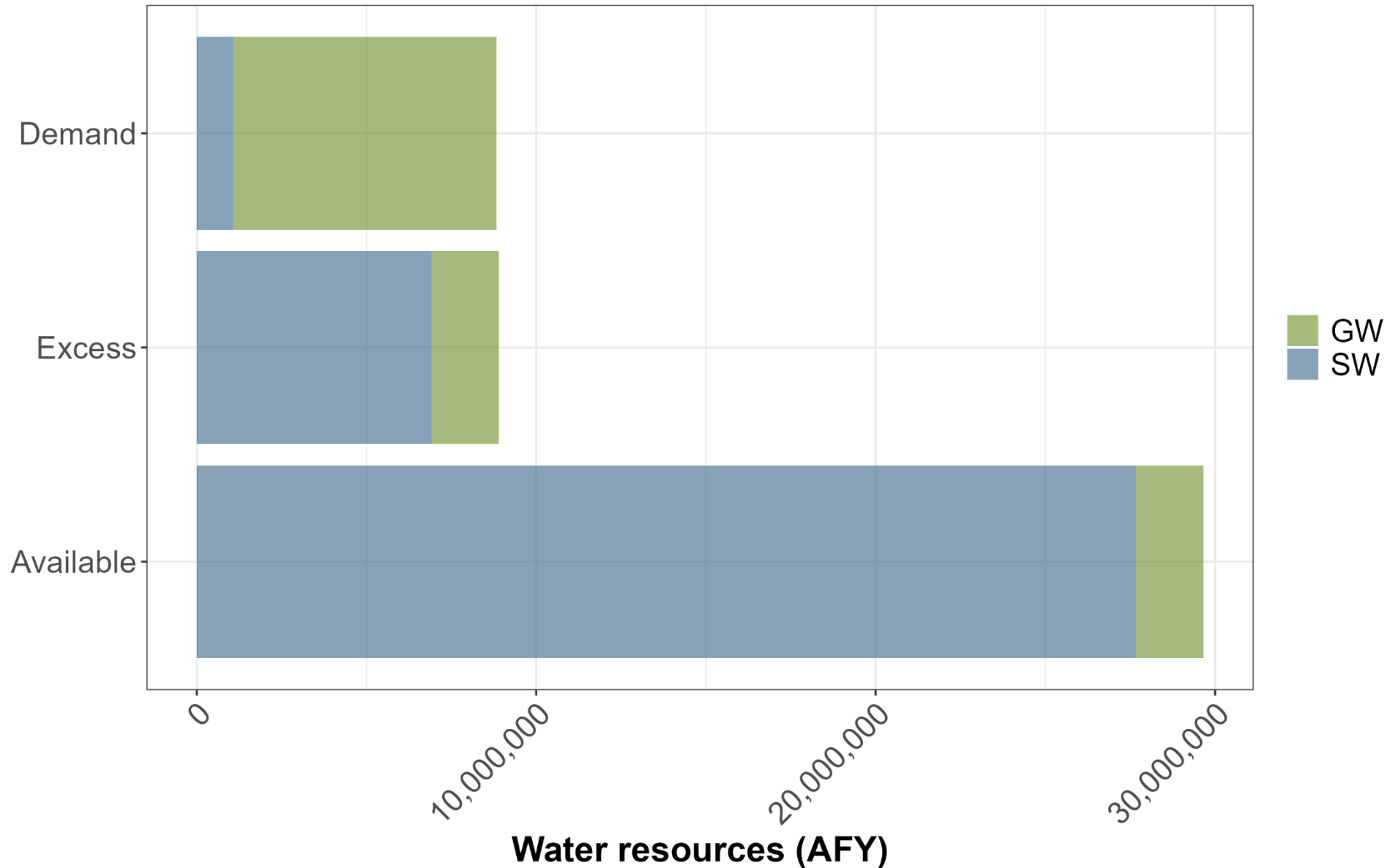
East Region – Projected Demands



Provisional Information and Data; Subject to Change

East Region – Non-originating SW

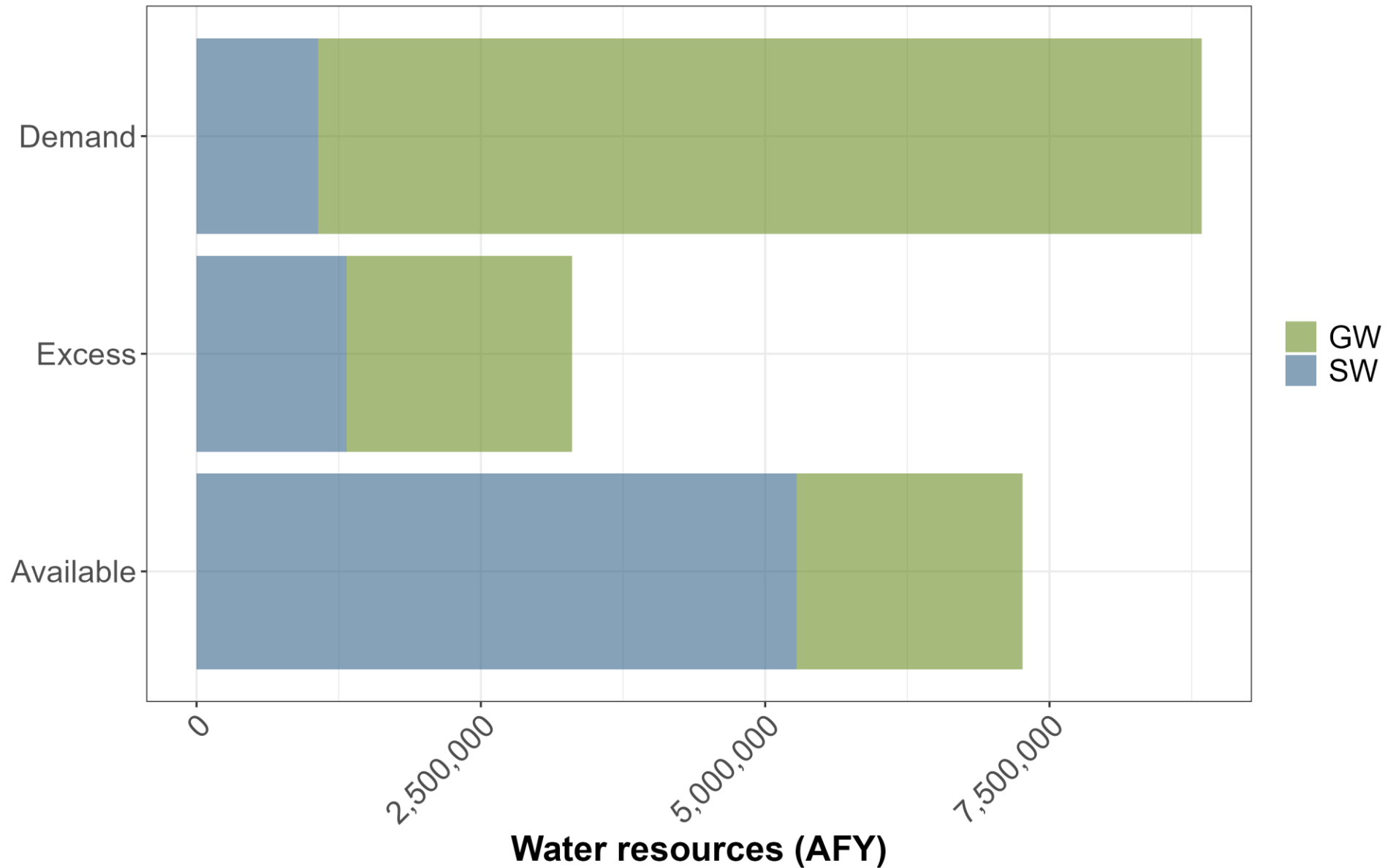
- “Available” includes all flows from White River, Little Red River, and Arkansas River
- “Excess” flows that can be allocated by Ark Dept of Agriculture
- Contains all flows for White River, Arkansas River, and Little Red River basins



Provisional Information and Data; Subject to Change

East Region – Originating SW

- “Available” includes all flows from White River, Little Red River, and Arkansas River
- “Excess” flows that can be allocated by Ark Dept of Agriculture
- Removes boundary flows for White River, Arkansas River, and Little Red River basins



Provisional Information and Data; Subject to Change

East Region

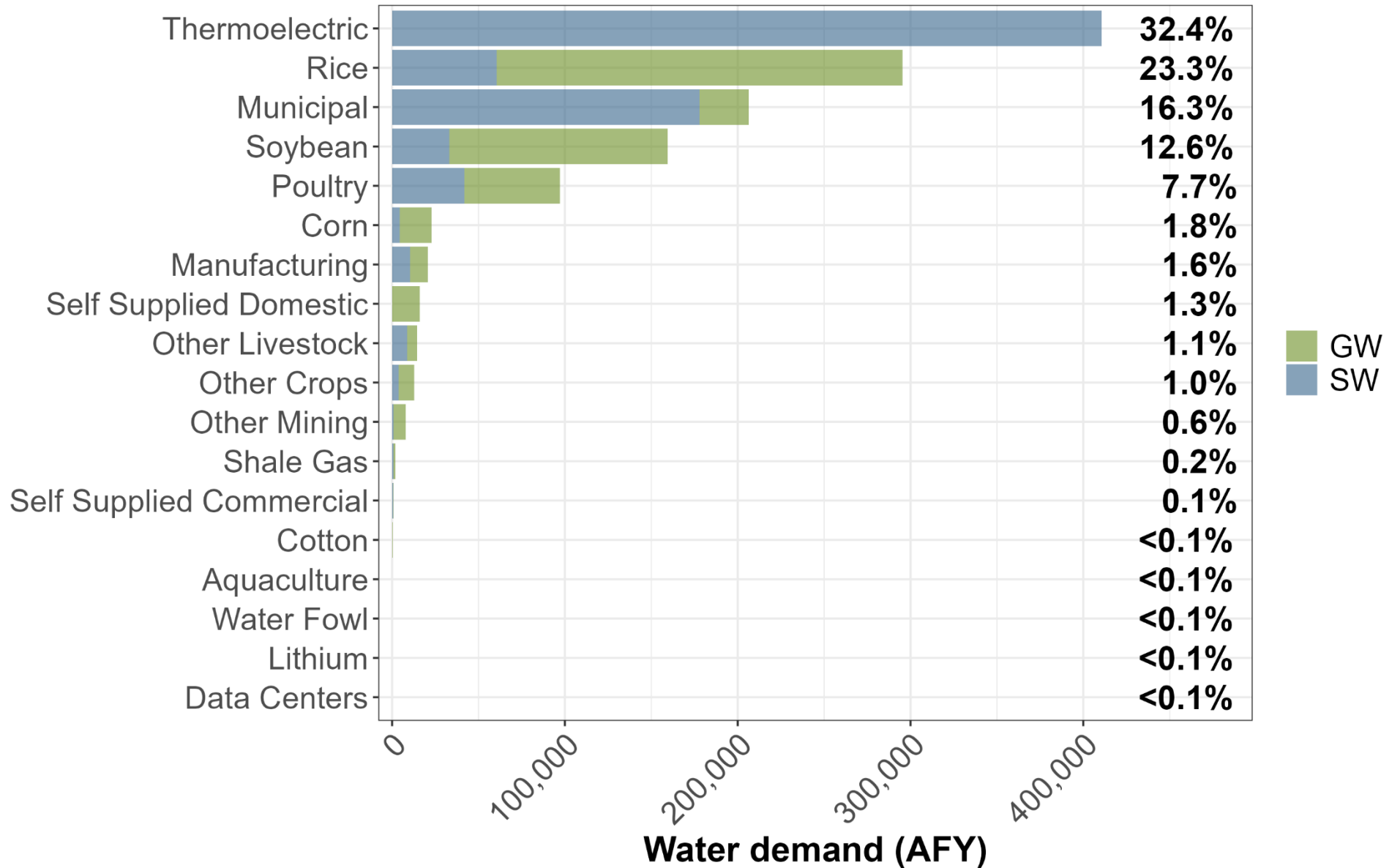
	Groundwater (AFY)	Surface water (AFY)	2026 Total (AFY)	2014 Total (AFY)
Demand	7,770,000	1,070,000	8,840,000	11,222,400
Available (Non-originating)	1,980,000	27,700,000	29,700,000	27,383,680
Excess (Non-originating)	1,980,000	6,920,000	8,900,000	8,189,158
Available (Originating)	1,980,000	5,280,000	7,260,000	
Excess (Originating)	1,980,000	1,320,000	3,300,000	

- Updated analyses show sufficient water available within the Eastern Planning Region to cover the projected demand
- Differences from the 2014 Water Plan are primarily driven by;
 - Updated water demand for irrigation was held constant from base period instead of increased through 2050
 - New methods for surface water availability based on extending periods of record for streamflow at monitoring locations showed more excess surface water available
 - These projections include potential data centers and increased industrial/manufacturing demands



Provisional Information and Data; Subject to Change

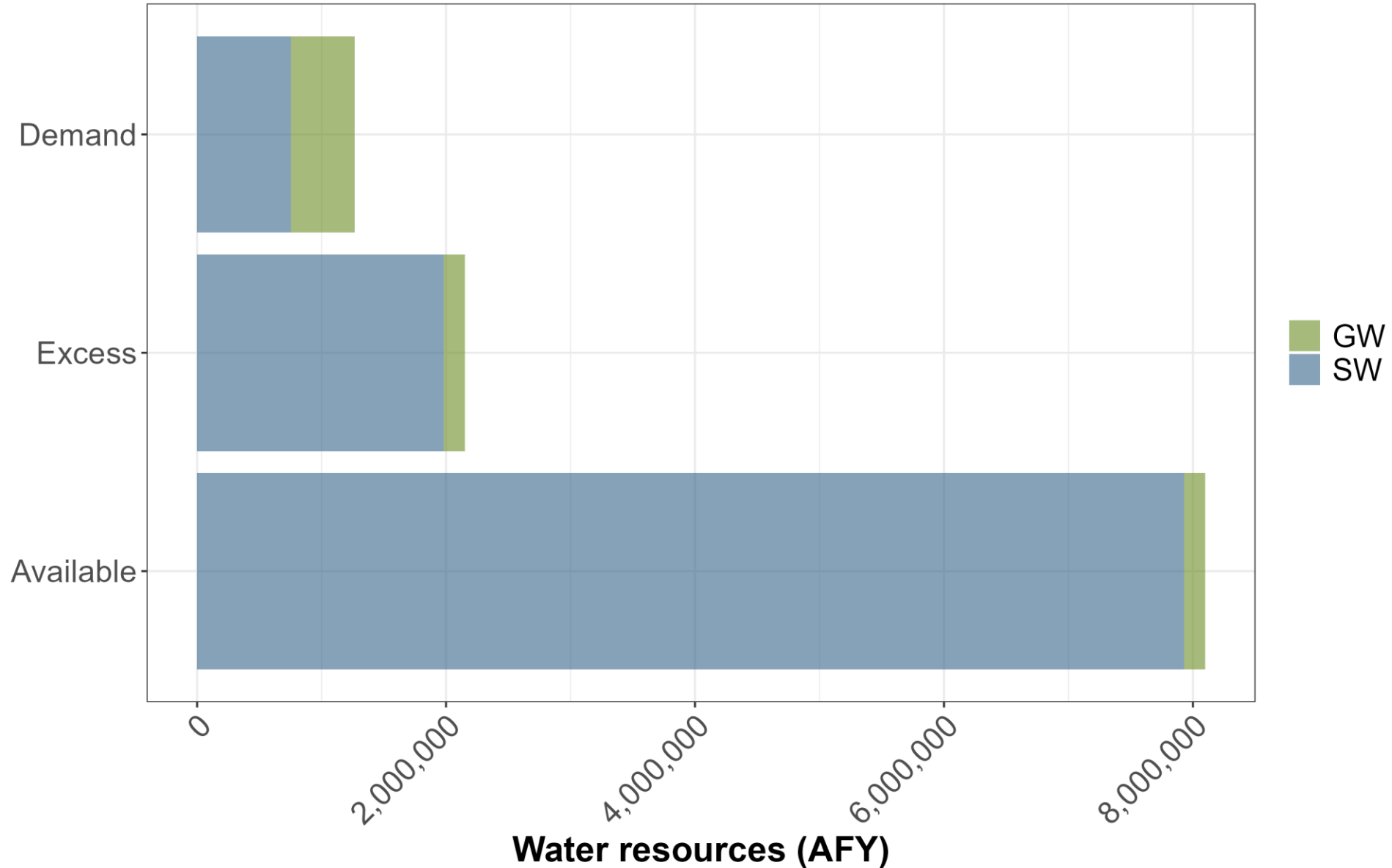
North Region – Projected Demands



Provisional Information and Data; Subject to Change

North Region

- White River at Newport, Little Red River at Confluence, Illinois River and Flint Creek at AR State Boundary
- “Available” includes all flows from White River, Little Red River, and Arkansas River
- “Excess” flows that can be allocated by Ark Dept of Agriculture



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North Region

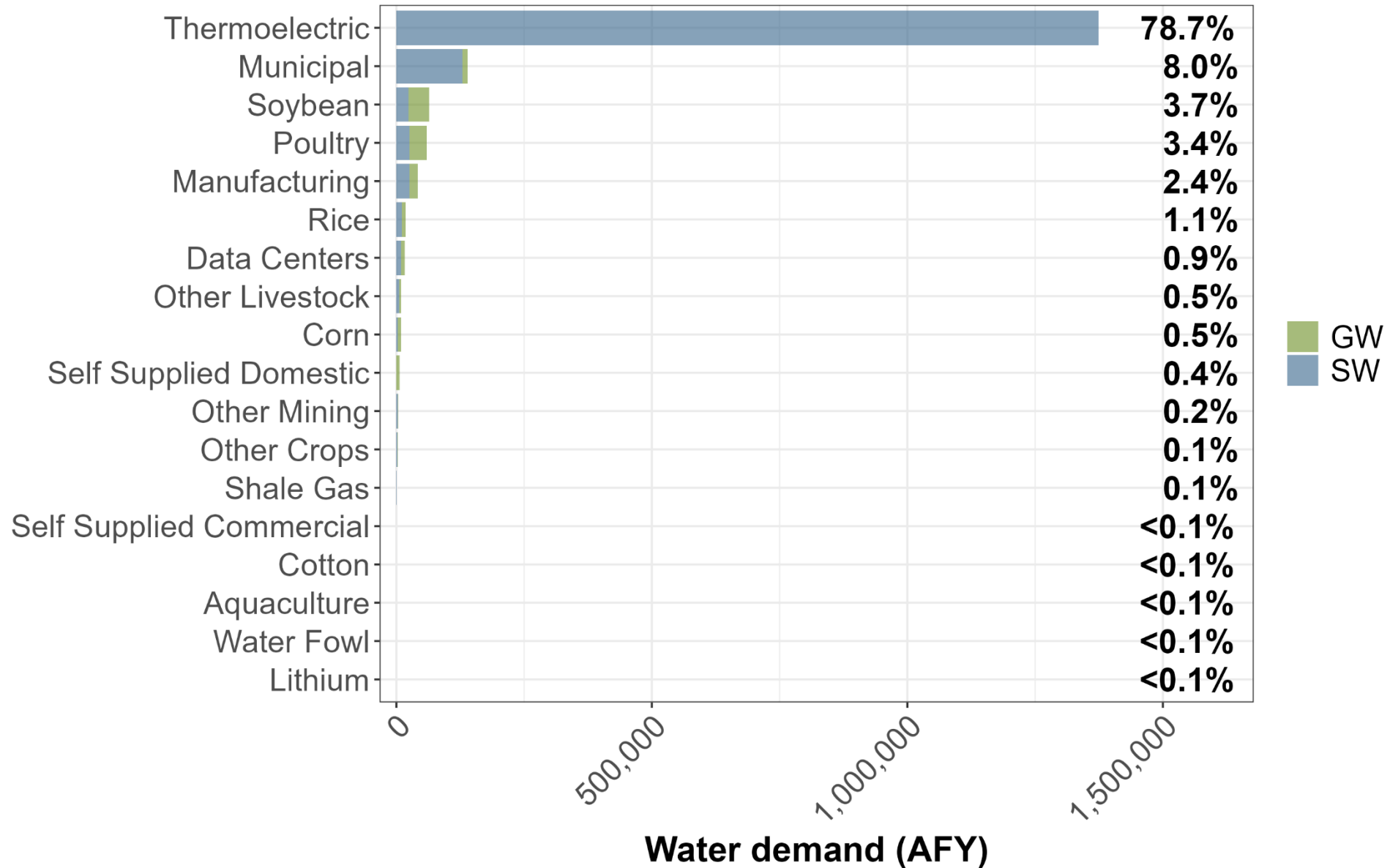
	Groundwater (AFY)	Surface water (AFY)	2026 Total (AFY)	2014 Total (AFY)
Demand	514,000	754,000	1,280,000	1,212,960
Available (Originating)	1,680,000	7,930,000	8,100,000	21,631,219
Excess (Originating)	1,680,000	1,980,000	2,150,000	5,466,891

- Updated analyses show sufficient water available within the Northern Planning Region to cover the projected demand
- Differences from the 2014 Water Plan are primarily driven by;
 - Updated water demand for irrigation was held constant from base period instead of increased through 2050
 - New methods for surface water availability based on extending periods of record for streamflow monitoring locations showed more excess surface water available
 - The 2014 Water Plan included available and excess flows for the entire White River Basin. This update includes flows computed at White River at Newport, which is at the boundary of the Northern and Eastern Planning Regions.
 - The 2026 Water Plan updates include modest estimates of GW availability from the Ozarks Aquifer based on values from USGS reports (Clark et al, 2019; Hays et al, 2016)



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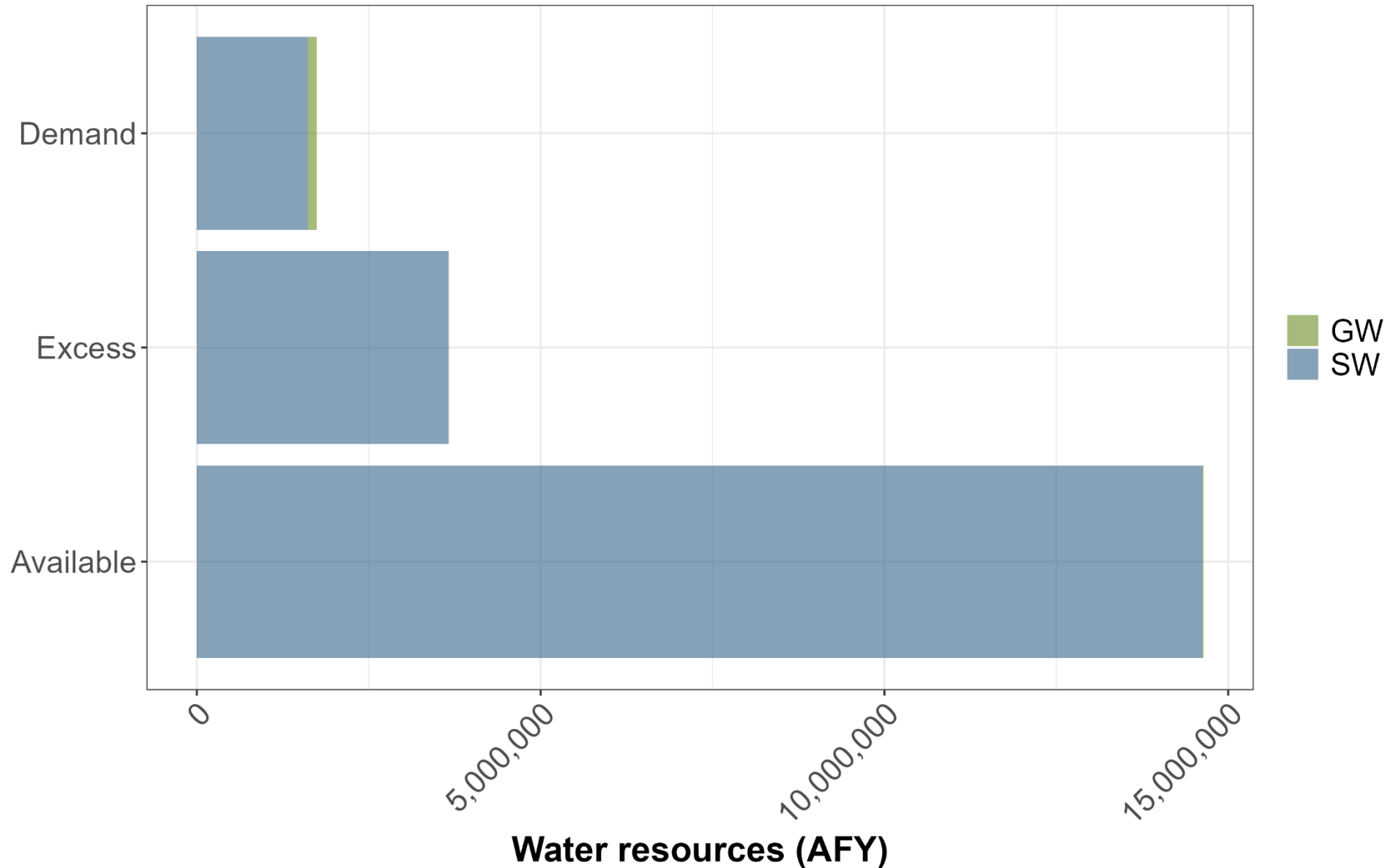
West Central Region - Projected Demands



Provisional Information and Data; Subject to Change

West Central Region - Non-originating SW

- Flows computed from Arkansas River at Murray Dam
- Flows associated with Illinois River basin and Lee Creek basin in the Northern Planning Region are kept.
- “Available” includes all flows from White River, Little Red River, and Arkansas River
- “Excess” flows that can be allocated by Ark Dept of Agriculture



Provisional Information and Data; Subject to Change

West Central Region

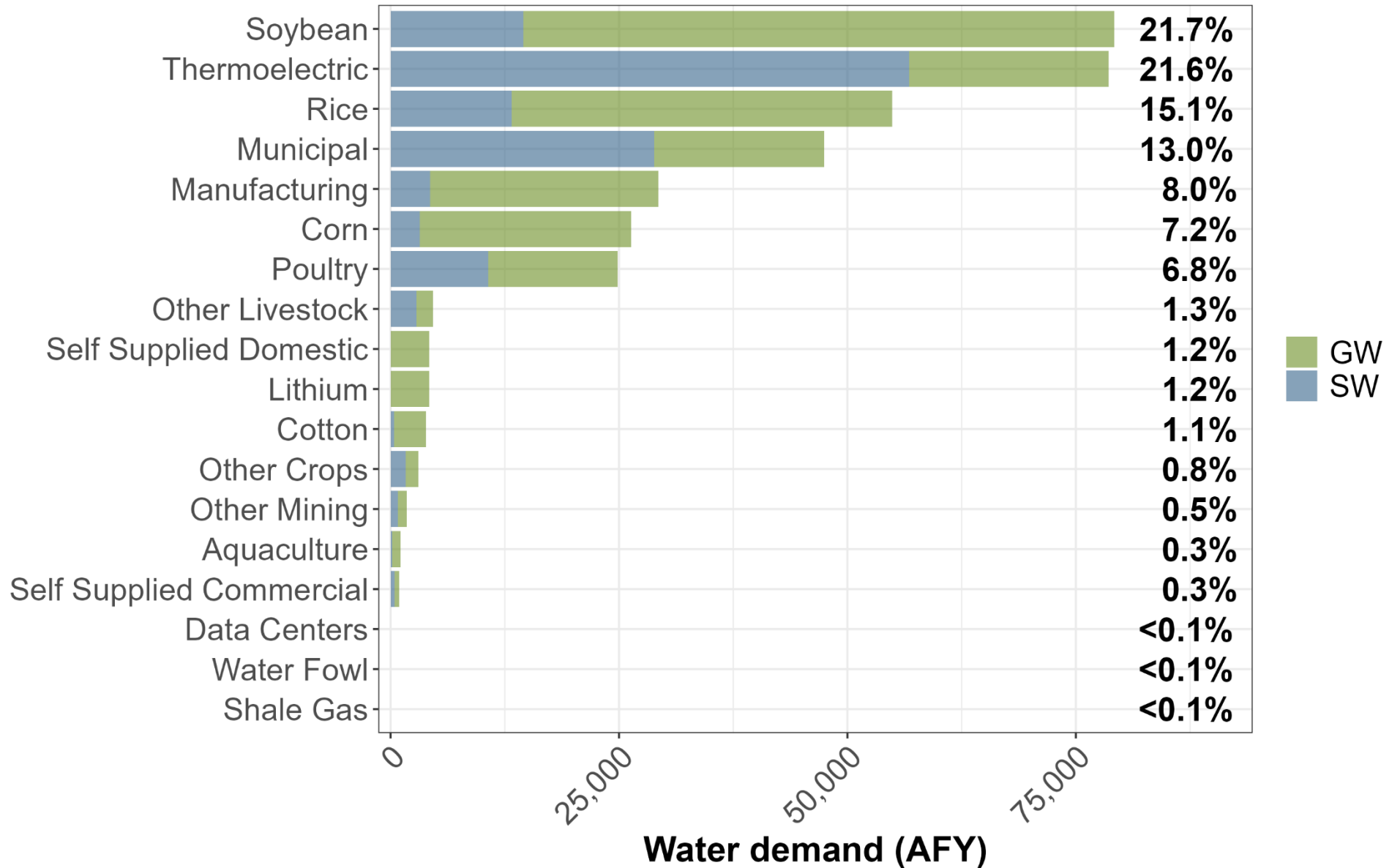
	Groundwater (AFY)	Surface water (AFY)	2026 Total (AFY)	2014 Total (AFY)
Demand	134,000	1,610,000	1,750,000	1,123,360
Available (Non-originating)	9,864	14,500,000	14,500,000	13,230,466
Excess (Non-originating)	9,864	3,620,000	3,630,000	3,307,616

- Updated analyses show sufficient water available within the West Central Planning Region to cover the projected demand
- Differences from the 2014 Water Plan are primarily driven by;
 - Updated water demand for irrigation was held constant from base period instead of increased through 2050
 - New methods for surface water availability based on extending periods of record for streamflow monitoring locations showed more excess surface water available.
 - These projections include potential data centers and increased thermoelectric demands



Provisional Information and Data; Subject to Change

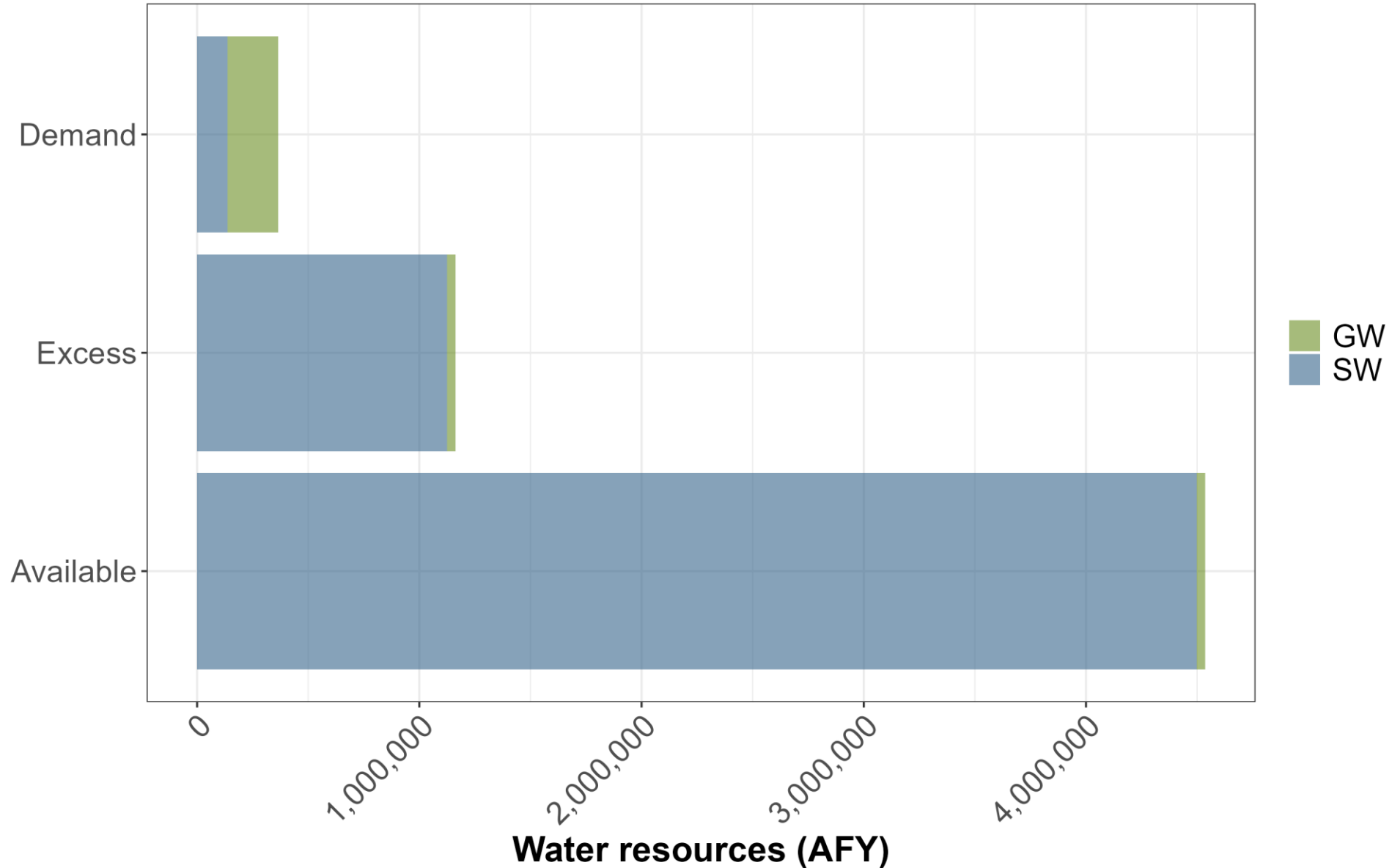
South Central Region – Projected Demands



Provisional Information and Data; Subject to Change

South Central Region – Originating SW

- Flows computed from Ouachita River and Tribs at State Line
- “Available” includes all flows from White River, Little Red River, and Arkansas River
- “Excess” flows that can be allocated by Ark Dept of Agriculture



Provisional Information and Data; Subject to Change

South Central Region

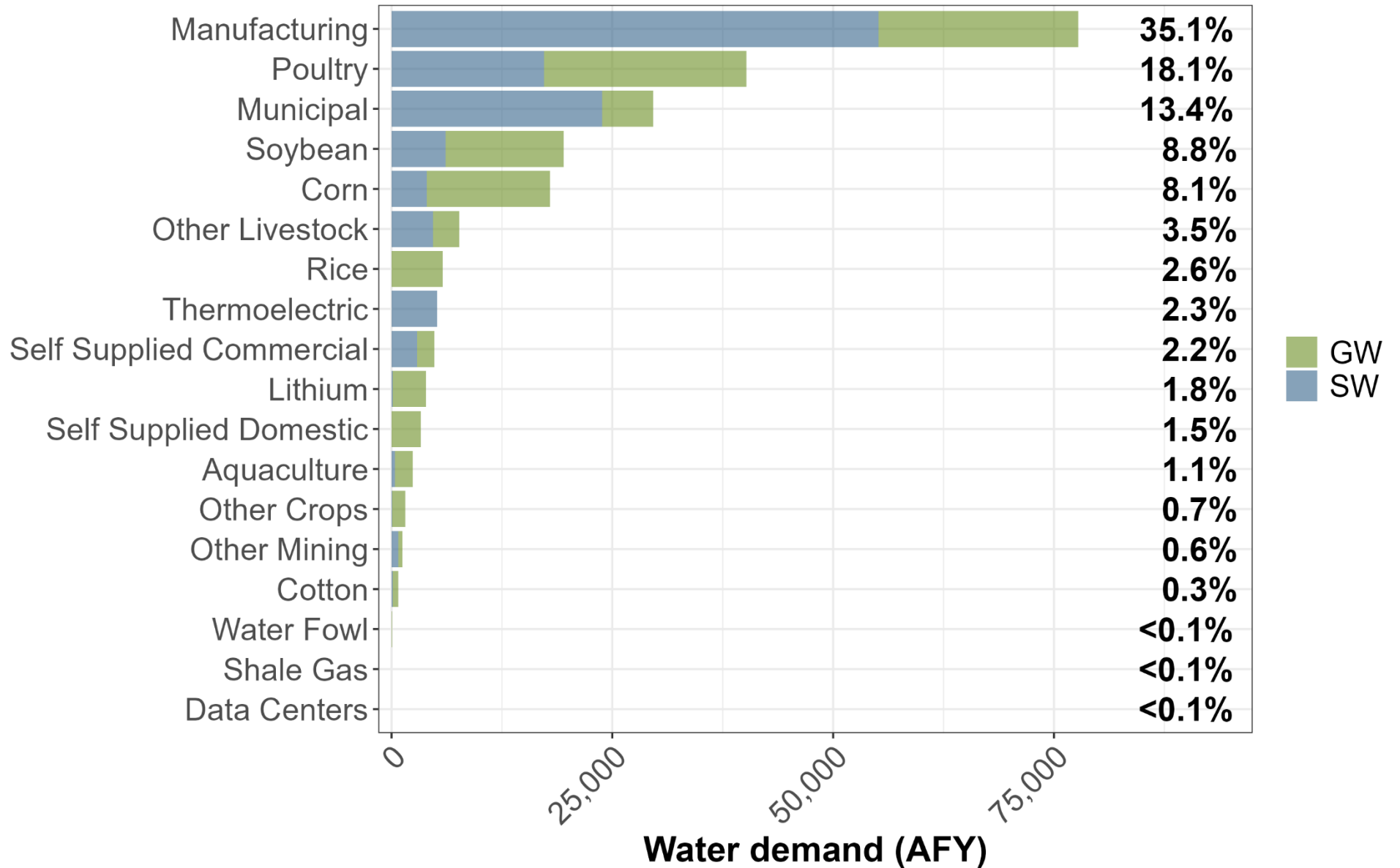
	Groundwater (AFY)	Surface water (AFY)	2026 Total (AFY)	2014 Total (AFY)
Demand	232,000	139,000	370,000	262,080
Available (Non-originating)	38,600	4,500,000	4,540,000	17,336,943
Excess (Non-originating)	38,600	1,120,000	1,160,000	4,334,236

- Updated analyses show sufficient water available within the South Central Planning Region to cover the projected demand
- Differences from the 2014 Water Plan are primarily driven by;
 - Updated water demand for irrigation was held constant from base period instead of increased through 2050
 - New methods for surface water availability based on extending periods of record for streamflow monitoring locations showed more excess surface water available.
 - 2014 Water Plan included SW from the Arkansas River Basin. The table above uses flows from the Ouachita River and its tributaries at the Arkansas State boundary.



Provisional Information and Data; Subject to Change

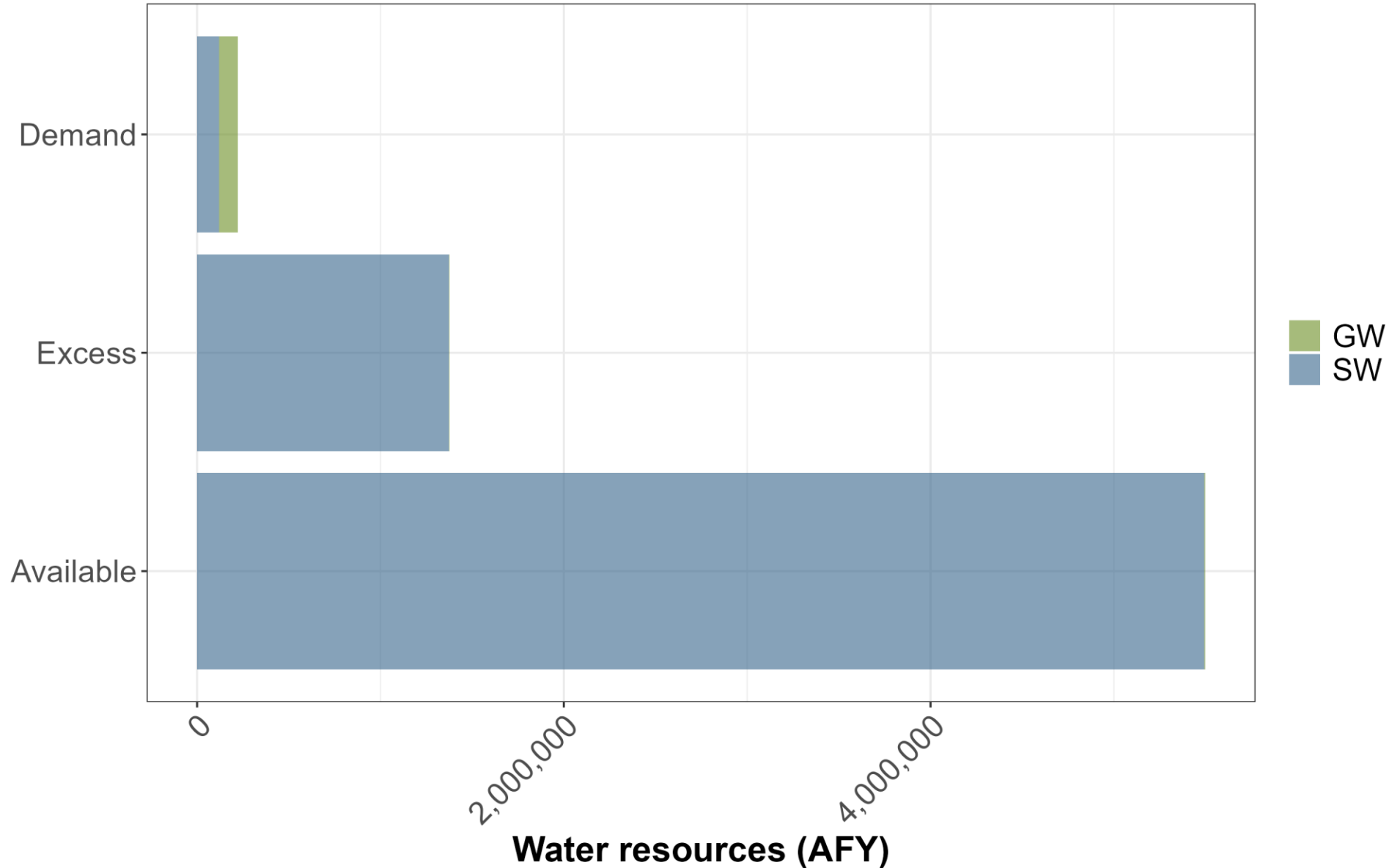
Southwest Region - Projected Demands



Provisional Information and Data; Subject to Change

Southwest Region – Non-originating

- Flows computed from Red River and Tribs at State Line
- “Available” includes all flows from White River, Little Red River, and Arkansas River
- “Excess” flows that can be allocated by Ark Dept of Agriculture



Provisional Information and Data; Subject to Change

Southwest Region

	Groundwater (AFY)	Surface water (AFY)	2026 Total (AFY)	2014 Total (AFY)
Demand	101,000	121,000	222,000	217,280
Available (Originating)	3,600	5,490,000	5,550,000	4,866,664
Excess (Originating)	3,600	1,370,000	1,380,000	1,221,666

- Updated analyses show sufficient water available within the Southwest Planning Region to cover the projected demand
- Differences from the 2014 Water Plan are primarily driven by;
 - Updated water demand for irrigation was held constant from base period instead of increased through 2050
 - New methods for surface water availability based on extending periods of record for streamflow monitoring locations showed more excess surface water available.



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From Gaps to Recommendations: 43 Across Six Issue Areas

Gap / Issue Area	Recs	Representative Solution Strategies
Water Conservation & Shortages	5	Statewide Drought Contingency Plan; water reuse framework; soil health; complete Bayou Meto / White River projects
Water & Wastewater Infrastructure	10	Continuous funding evaluation; SWIFT-model bond program; operator pipeline; fiscal-distress oversight; regional NWA planning
Dam, Levee, Drainage, Navigation & Irrigation	8	District reporting/training; leverage federal dam/levee funds; Resilience & Flood Mitigation Fund; navigation modernization
Surface Water Quantity	8	Review non-riparian permits; instream-flow science; White River Basin Study; reservoir safe-yield evaluations
Groundwater Quantity	6	Aquifer sustainability baselines; metering & reporting accuracy; Sparta monitoring; manage data-center withdrawals
Water Quality	6	Advance NPS Management Plan; Unpaved Roads Program; source-water protection; riparian corridors; Fe/Mn study

TOTAL 43 A coordinated strategy for long-term water security, economic growth, and resilience

6

Flood-Related Infrastructure

Dams, levees, drainage, navigation — and flood risk



The 2019 Flood Exposed a Fragmented Levee System

- The May–June 2019 Arkansas River Flood — the largest since the MKARNS opened — caused a federal disaster declaration and widespread levee damage.
- At the time, only 20 of 93 levee systems complied with a 2017 state reporting law; many districts were inactive or lacked oversight.
- The Arkansas Levee Task Force (EO 19-10) issued 17 recommendations; \$10M in state grants supported repair within declared-disaster areas.
- The 2024–2026 Levee Inventory & Assessment (with USACE) confirmed 109 systems in the National Levee Database, with up to 34 additional levees identified for inclusion; a separate state database tracks 85.
- Many drainage, levee, and improvement districts still lack consistent training, financial capacity, and governance — a recurring recommendation theme.

20 of 93

levee systems compliant (2017)

109

systems in National Levee DB

17

Levee Task Force recommendations

\$10M

state levee repair grants

GOVERNANCE GAP

Inconsistent district reporting, assessments, and board capacity limit readiness — addressed by recommended annual reporting, training, audits, and regionalization options.



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Flood Risk Data, Dedicated Funding, and Navigation Gaps

- Flood risk data is outdated and inconsistent: FIRMs average ~17 years old (some older underneath via redelineation), Base Level Engineering varies in age and standard, and stream/precipitation gage gaps reduce reliability.
- Funding is mostly reactive and post-disaster (FEMA HMA, HUD CDBG, NRCS PL-566, USACE) — fragmented, uncertain, and slow.
- Navigation: aging locks and dams, sedimentation, and inconsistent maintenance funding threaten the commercial reliability of the MKARNS that supports agriculture, manufacturing, and energy.
- Recommended direction: a centralized platform (Arkansas Flood GIS Experience / Statewide Arkansas Flood Explorer), expanded gage and Mesonet coverage, and prioritized FIRM/BLE updates.

PROPOSED STRUCTURAL FIXES

- Dedicated Resilience & Flood Mitigation Fund (recurring appropriation or amendment)
- Flood-focused state revolving loan program (CWSRF/DWSRF model)
- Multi-agency Flood Management Advisory Committee (FMAC)
- Statewide priority list to update FIRMs & BLE
- Expanded monitoring via SAFE / statewide Mesonet



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Statewide Arkansas Flood Explorer

SAFE

Impacts Report

Users Guide

Flood Plan PDF

County Dashboard

Contact Us



Basemaps



Legend



Boundaries



Emergency Mang.



Infrastructure



Flood



Agriculture



Print

Analysis Tools



Chris

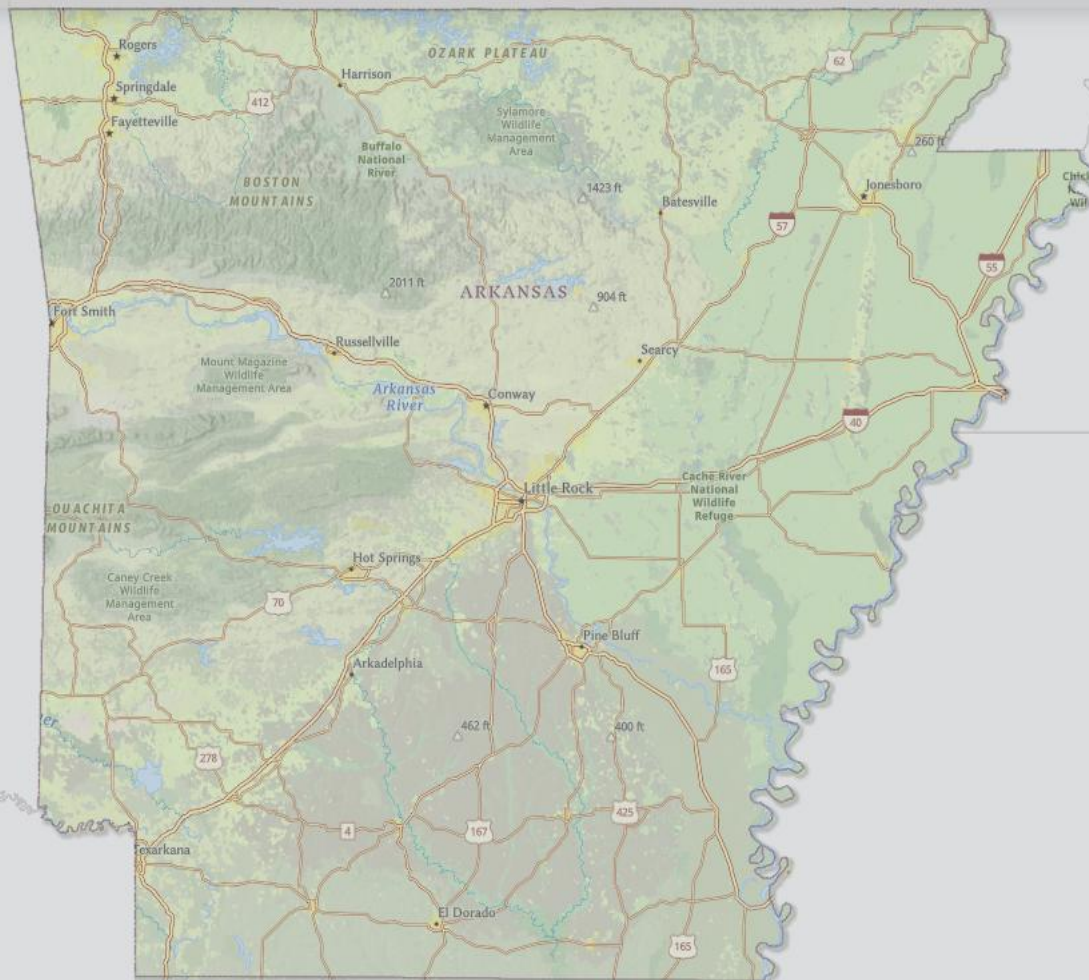
Dashboard Suggestions

Please give your suggestions for the Flood Plan Dashboard.

Topics*

☐ Data/Layers

☐ Report content



Selected features: 0

7

Draft Issues, Recommendations, and Strategies

Where practical application and solutions are generated to promote success



Overview — 43 Draft Recommendations Across Six Themes

THE SIX ISSUE THEMES

I	Water Conservation & Shortages
II	Water & Wastewater Infrastructure
III	Dam, Levee, Drainage, Navigation & Flood
IV	Surface Water Quantity
V	Groundwater Quantity
VI	Water Quality

RECOMMENDATIONS

Statewide		32
Water Planning Regions		11
North		4
West Central		6
Southwest		7
South Central		5
East		6

Note. Statewide recommendations (AR1 thru AR32) items total 32. The 11 distinct region-specific recommendations (WPR1 thru WPR11).



Provisional Information and Data; Subject to Change

Water Conservation & Shortages

AR-1

Water Conservation & Shortages

Drought response lacks a unified structure for agencies and local partners.

Implement a statewide Drought Contingency Plan with multi-tiered levels and sector response actions.

***Strategy:** ADEM + Department pursue mitigation-grant funding; stand up a Drought Council and public Drought Resource Portal; integrate monitoring and alerts.*

AR-2

Water Conservation & Shortages

Arkansas has no statewide regulatory framework for water reuse.

Develop a comprehensive reuse framework: categories, treatment standards, permitting, reporting, coordination.

***Strategy:** Enabling legislation; permitting/oversight/reporting; training and engagement; tax incentives and federal funding.*

AR-3

Water Conservation & Shortages

Modeling shows regional differences in water availability.

Adopt region-specific management; target storage and conveyance where supply–demand gaps are largest.

***Strategy:** Interagency project prioritization; integrate availability into permitting; planning tools; pipelines, interbasin transfers, off-channel reservoirs.*



Provisional Information and Data; Subject to Change

Water & Wastewater Infrastructure

AR-4

Water & Wastewater Infrastructure

Infrastructure is aging and underfunded — a projected \$20B need over 20 years.

Review state infrastructure assessment programs for emerging needs (Lead & Copper Rule, PFAS).

Strategy: Convene Agriculture, E&E, Commerce, Health to evaluate funding programs and prioritization metrics.

AR-6

Water & Wastewater Infrastructure

Some systems face long-term fiscal distress.

Improve provider training and create a Fiscal Distress Management Oversight Program.

Strategy: Amend law for oversight, technical assistance, recovery planning, receivership, regionalization.

AR-8

Water & Wastewater Infrastructure

Funding programs may lag emerging needs.

Implement continuous evaluation of funding programs.

Strategy: Ongoing assessment of current programs against emerging infrastructure needs.

AR-10

Water & Wastewater Infrastructure

Fragmented small systems raise costs.

Support privatization and regionalization where beneficial.

Strategy: Evaluate options and requirements; state matching grants for regionalization.

AR-5

Water & Wastewater Infrastructure

Population change drives shifting regional needs.

Hold routine regional planning events to assess expansion needs and inform policymakers.

Strategy: Regional demographic analysis, statewide funding dashboard, economic impact analysis.

AR-7

Water & Wastewater Infrastructure

Operator shortages compound operational deficiencies.

Strengthen operator recruitment; establish a Technical Assistance Program.

Strategy: Talent pipelines via high schools/technical colleges; unified job board; competitive pay; multi-agency support.

AR-9

Water & Wastewater Infrastructure

Current mechanisms cannot meet statewide needs.

Expand or create new funding mechanisms.

Strategy: Texas SWIFT-modeled revolving bond program (≥\$50M/yr); annual Water Development Fund appropriations; new GO bond authority by 2039.

AR-11

Water & Wastewater Infrastructure

Supply, distribution, and storage resiliency must be preserved.

Enhance and preserve existing system resiliency.

Strategy: Green infrastructure; GIS asset management (Act 605/925); cybersecurity; leak detection/SCADA and water-loss audits; emergency interconnections.



Provisional Information and Data; Subject to Change

Dam, Levee, Drainage, Navigation & Flood

AR-12

Dam, Levee, Drainage, Navigation & Flood

Drainage, levee, and improvement districts lack consistent training and fiscal capacity.

Evaluate legislation requiring annual reporting, training, and fiscal accountability.

***Strategy:** Mandatory oversight, rate studies, audits, board training; explore district regionalization.*

AR-14

Dam, Levee, Drainage, Navigation & Flood

State match can unlock federal dollars.

Explore state matching-fund opportunities.

***Strategy:** Research other states' match programs for critical infrastructure such as high-hazard dams.*

AR-16

Dam, Levee, Drainage, Navigation & Flood

Flood risk data and mapping are outdated and inconsistent (avg FIRM ~17 yrs).

Establish a watershed-based framework to prioritize and update flood data and mapping.

***Strategy:** Statewide FIRM/BLE priority list; SAFE platform submissions; H&H study updates; expand stream and precipitation gages (Mesonet).*

AR-13

Dam, Levee, Drainage, Navigation & Flood

Owners are often unaware of funding opportunities.

Inform infrastructure owners of funding and leverage federal programs.

***Strategy:** Pursue CWIFP, High Hazard Potential Dam, HMGP, CDBG, and PL-566 programs.*

AR-15

Dam, Levee, Drainage, Navigation & Flood

Flood funding relies on reactive, post-disaster federal sources.

Identify or create dedicated, sustained state funding for floodplain management.

***Strategy:** Resilience & Flood Mitigation Fund; treat flood resilience as a core priority; state revolving loans; partnership funding.*

AR-17

Dam, Levee, Drainage, Navigation & Flood

Coordination and local capacity to implement mitigation are limited.

Strengthen agency coordination and local capacity for risk-informed development.

***Strategy:** Multi-agency Flood Management Advisory Committee (FMAC); education program; SAFE platform; standardized tools; added state staffing.*



Provisional Information and Data; Subject to Change

Surface Water Quantity

AR-18

Surface Water Quantity

Underutilized non-riparian permits (up to 25% of excess flows) may limit future growth.

Evaluate reported non-riparian use; align allocations with actual use.

Strategy: Review all permits by 2028; reduce/eliminate unused permits; improve tracking; recurring evaluation schedule.

AR-20

Surface Water Quantity

Excess-water authorization could impair ecological flows.

Ensure excess-use authorization does not impact instream flow needs.

Strategy: Condition non-riparian permits to limit diversions during seasonal low-flow periods.

AR-22

Surface Water Quantity

Out-of-state demand may drive interstate transfer requests.

Follow statutory criteria for any interstate transfer.

Strategy: Evaluate excess flows, demands, and net benefit to Arkansas before considering transfers.

AR-19

Surface Water Quantity

Diverse aquatic ecosystems need specific instream flows.

Advance ecological flow science and assessment methods.

Strategy: Open-bottom culverts via Unpaved Roads Program; coordinate AGFC, USFWS, DEQ, EPA, and TNC.

AR-21

Surface Water Quantity

Power, data centers, manufacturing, and lithium may raise demand.

Integrate expanded thermoelectric demand (Act 707 of 2025 nuclear study) into allocation planning.

Strategy: Update thermoelectric demand as coal-to-gas conversion continues and nuclear options develop.

AR-23

Surface Water Quantity

No procedure exists to audit self-reported non-riparian data.

Create more robust automated tools to evaluate self-reported data.

Strategy: Define 'reasonable use ranges' by category; automated flagging of outliers; conduct audits at flagged locations.



Provisional Information and Data; Subject to Change

Groundwater Quantity

AR-24

Groundwater Quantity

Sustainable groundwater needs conservation, on-farm storage, and surface-water conversion.

Establish sustainability baselines for aquifer management.

***Strategy:** Efficiency goals with producers; cost-sharing; region-specific withdrawal-reduction targets for the Alluvial and Sparta aquifers.*

AR-25

Groundwater Quantity

Groundwater reporting remains inaccurate across regions.

Improve Water Use Database accuracy and expand training.

***Strategy:** End 'same as last year' reporting; enforce metering in the Sparta; smart meters/telemetry; reasonable-use ranges, flagging, and audits.*

AR-26

Groundwater Quantity

Lithium extraction may increase Sparta Aquifer withdrawals.

Provide technical assistance to identify surface-water sources that reduce groundwater demand.

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

AR-27

Groundwater Quantity

Data centers may strain critical groundwater areas.

Protect stressed aquifers while allowing reasonable water use for data centers.

***Strategy:** Consider limits on non-essential industrial cooling in critical areas; require closed-loop/efficient cooling and reclaimed water.*



Provisional Information and Data; Subject to Change

Water Quality

AR-28

Water Quality

Sediment, nutrients, and nonpoint source pollution impair water quality.

Advance the Arkansas Nonpoint Source Pollution Management Plan.

Strategy: Leverage state/federal funds for BMPs and watershed restoration; evaluate nutrient trading in priority watersheds.

AR-29

Water Quality

Unpaved roads contribute sedimentation.

Increase Unpaved Roads Program funding and training.

Strategy: Use Clean Water Act §319(h) and other federal funds to reduce sedimentation and improve rural roads.

AR-30

Water Quality

Failing septic systems in nutrient priority watersheds.

Prioritize impaired watersheds for septic remediation.

Strategy: Identify funding mechanisms; expand existing septic remediation programs to additional priority watersheds.

AR-31

Water Quality

Drinking-water sources need stronger protection.

Prioritize and expand source water protection.

Strategy: Encourage source watershed plans; conservation easements; support source water protection fees for surface-water providers.

AR-32

Water Quality

Riparian corridors are critical to protecting water quality.

Advance creation, protection, and restoration of riparian corridors.

Strategy: Revise the Private Land Wetland & Riparian Tax Credit to allow transferability and a credit marketplace.



Provisional Information and Data; Subject to Change

North Water Planning Region (WPR)

WPR-1

Applies: North, West Central
Issue Theme II. Water & Wastewater Infrastructure

Rapid NWA growth pressures wastewater systems and water quality.

Strengthen coordinated growth and wastewater infrastructure planning.

Strategy: *Integrate local/regional planning and CIPs; shared investment and service agreements; periodic capacity and nutrient assessments.*

WPR-2

Applies: North, West Central
Issue Theme II. Water & Wastewater Infrastructure

Many independent NWA utilities use varying standards and schedules.

Establish stronger regional collaboration mechanisms.

Strategy: *Standardized interlocal agreements, master plans, cost-sharing; empower the NWA Regional Planning Commission; consistent design standards.*

WPR-3

Applies: N, WC, SW
Issue Theme IV. Surface Water Quantity

Growth and limited groundwater pressure federally controlled reservoir storage.

Initiate the White River Comprehensive Basin Study and reservoir allocations.

Strategy: *Support the study through data sharing and state-funded match; partner with local sponsors on allocation studies.*

WPR-4

Applies: N, WC, SW
Issue Theme IV. Surface Water Quantity

Aging drinking-water reservoirs may lose safe yield to sedimentation.

Conduct statewide safe-yield evaluations for drinking-water reservoirs.

Strategy: *Partner with USACE, ADH, and owners; bathymetric surveys; model safe yield under varied conditions.*



Provisional Information and Data; Subject to Change

West-central WPR

WPR-5

Applies: WC, SW, SC, East

Issue Theme IV. Water Conservation & Shortages

Sustainable management needs projects, conservation, and regional planning.

Accelerate soil-health conservation practices on private lands.

Strategy: Advance public-private partnerships and market-based incentives to expand soil-health programs.

WPR-2

Applies: North, West Central

Issue Theme II. Water & Wastewater Infrastructure

Many independent NWA utilities use varying standards and schedules.

Establish stronger regional collaboration mechanisms.

Strategy: Standardized interlocal agreements, master plans, cost-sharing; empower the NWA Regional Planning Commission; consistent design standards.

WPR-3

Applies: N, WC, SW

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Growth and limited groundwater pressure federally controlled reservoir storage.

Initiate the White River Comprehensive Basin Study and reservoir allocations.

Strategy: Support the study through data sharing and state-funded match; partner with local sponsors on allocation studies.

WPR-1

Applies: North, West Central

Issue Theme II. Water & Wastewater Infrastructure

Rapid NWA growth pressures wastewater systems and water quality.

Strengthen coordinated growth and wastewater infrastructure planning.

Strategy: Integrate local/regional planning and CIPs; shared investment and service agreements; periodic capacity and nutrient assessments.

WPR-6

Applies: West Central, East

Issue Theme III. Dam, Levee, Drainage, Nav & Flood

Aging lock/dam and navigation infrastructure risks commercial navigation.

Strengthen coordination to modernize navigation infrastructure.

Strategy: Support dredging, sediment management, and lock/dam modernization; back federal inland-waterway investment; riverbank stabilization.

WPR-4

Applies: N, WC, SW

Issue Theme IV. Surface Water Quantity

Aging drinking-water reservoirs may lose safe yield to sedimentation.

Conduct statewide safe-yield evaluations for drinking-water reservoirs.

Strategy: Partner with USACE, ADH, and owners; bathymetric surveys; model safe yield under varied conditions.



Provisional Information and Data; Subject to Change

Southwest WPR

WPR-5

Applies: WC, SW, SC, East
Issue Theme I. Water Conservation & Shortages

Sustainable management needs projects, conservation, and regional planning.

Accelerate soil-health conservation practices on private lands.

Strategy: Advance public-private partnerships and market-based incentives to expand soil-health programs.

WPR-3

Applies: N, WC, SW
Issue Theme IV. Surface Water Quantity

Growth and limited groundwater pressure federally controlled reservoir storage.

Initiate the White River Comprehensive Basin Study and reservoir allocations.

Strategy: Support the study through data sharing and state-funded match; partner with local sponsors on allocation studies.

WPR-8

Applies: East, SC, SW
Issue Theme V. Groundwater Quantity

Water-use trends need data on crops beyond rice.

Improve data on production and irrigation practices for major crops.

Strategy: Expand Master Irrigators / Crop per Drop; extension surveys for corn, soybean, and cotton practices.

WPR-10

Applies: East, SW, SC
Issue Theme VI. Water Quality

Manganese and iron are an increasing groundwater quality concern for utilities.

Evaluate groundwater quality, aquifer levels, and mineral treatment statewide.

Strategy: Launch a groundwater investigation; expand monitoring; fund treatment; assess Fe/Mn standards with ADH.

WPR-7

Applies: East, SW, SC
Issue Theme III. Dam, Levee, Drainage, Nav & Flood

Agricultural irrigation depends on voluntary on-farm improvements.

Evaluate and improve the Groundwater Conservation Tax Credit Program.

Strategy: Continue the program and education; create a tax-credit marketplace; pilot a Water Saving Certification via Master Irrigator.

WPR-4

Applies: N, WC, SW
Issue Theme IV. Surface Water Quantity

Aging drinking-water reservoirs may lose safe yield to sedimentation.

Conduct statewide safe-yield evaluations for drinking-water reservoirs.

Strategy: Partner with USACE, ADH, and owners; bathymetric surveys; model safe yield under varied conditions.

WPR-9

Applies: East, SC, SW
Issue Theme V. Groundwater Quantity

Lithium extraction may increase Sparta Aquifer withdrawals.

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

Strategy: Deploy new monitoring wells; model high-withdrawal scenarios; incentivize reuse; explore surface-water alternatives.



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South-central WPR

WPR-5

Applies: WC, SW, SC, East
Issue Theme I. Water Conservation & Shortages

Sustainable management needs projects, conservation, and regional planning.

Accelerate soil-health conservation practices on private lands.

Strategy: *Advance public-private partnerships and market-based incentives to expand soil-health programs.*

WPR-7

Applies: East, SW, SC
Issue Theme III. Dam, Levee, Drainage, Nav & Flood

Agricultural irrigation depends on voluntary on-farm improvements.

Evaluate and improve the Groundwater Conservation Tax Credit Program.

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Applies: SW, SC
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Develop new monitoring and sustainability models for the Sparta in data-limited areas.

Strategy: *Deploy new monitoring wells; model high-withdrawal scenarios; incentivize reuse; explore surface-water alternatives.*

WPR-10

Applies: East, SW, SC
Issue Theme VI. Water Quality

Manganese and iron are an increasing groundwater quality concern for utilities.

Evaluate groundwater quality, aquifer levels, and mineral treatment statewide.

Strategy: *Launch a groundwater investigation; expand monitoring; fund treatment; assess Fe/Mn standards with ADH.*



Provisional Information and Data; Subject to Change

East WPR

WPR-5

Applies: WC, SW, SC, East
Issue Theme I. Water Conservation & Shortages

Sustainable management needs projects, conservation, and regional planning.

Accelerate soil-health conservation practices on private lands.

Strategy: Advance public-private partnerships and market-based incentives to expand soil-health programs.

WPR-11

Applies: East
Issue Theme I. Water Conservation & Shortages

Critical eastern areas face heavy groundwater extraction.

Complete and expand the Bayou Meto and White River irrigation projects, including on-farm storage.

Strategy: Continue matching federal investment via bonding, grants, loans, and private funds; educate growers on tax credits, land leveling, tailwater recovery, and surface-water conversion.

WPR-7

Applies: East, SW, SC
Issue Theme III. Dam, Levee, Drainage, Nav & Flood

Agricultural irrigation depends on voluntary on-farm improvements.

Evaluate and improve the Groundwater Conservation Tax Credit Program.

Strategy: Continue the program and education; create a tax-credit marketplace; pilot a Water Saving Certification via Master Irrigator.

WPR-6

Applies: West Central, East
Issue Theme III. Dam, Levee, Drainage, Nav & Flood

Aging lock/dam and navigation infrastructure risks commercial navigation.

Strengthen coordination to modernize navigation infrastructure.

Strategy: Support dredging, sediment management, and lock/dam modernization; back federal inland-waterway investment; riverbank stabilization.

WPR-8

Applies: East, SC, SW
Issue Theme V. Groundwater Quantity

Water-use trends need data on crops beyond rice.

Improve data on production and irrigation practices for major crops.

Strategy: Expand Master Irrigators / Crop per Drop; extension surveys for corn, soybean, and cotton practices.

WPR-10

Applies: East, SW, SC
Issue Theme VI. Water Quality

Manganese and iron are an increasing groundwater quality concern for utilities.

Evaluate groundwater quality, aquifer levels, and mineral treatment statewide.

Strategy: Launch a groundwater investigation; expand monitoring; fund treatment; assess Fe/Mn standards with ADH.



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8

Stakeholder Input & Final Report



Water Plan Stakeholder Engagement

Phase I (Aug. 2023 – Sep. 2024)

- 7 Stakeholder Meetings (March and May 2024)
- One (1) survey

Phase II (Nov. 2024 – Sep. 2026)

- Fifteen (15) Water and Flood Plan stakeholder meetings;
- Thirty-seven (37) public presentations;
- Four (4) surveys were conducted to gather data from stakeholders;
- Open email and comments;
- Six meetings with industry leaders (i.e., energy, manufacturing, agriculture) to obtain water demand information;
- Estimated that these combined efforts have engaged over **3,500 stakeholders**.



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Arkansas Water Plan Update

Stakeholder Input on Water Infrastructure, Water Quality, Supply and Demand

1 Nature-Based Solutions as a Core Strategy

- Elevate wetlands, floodplains & forests from BMPs to a core strategy
- Single projects deliver water quality, flooding, groundwater & habitat gains
- High return: est. \$4–\$30 in benefits per \$1 invested

3 Diversify Funding & Regenerative Markets

- Pair public dollars with private capital via outcomes-based finance
- Enable water-quality trading & credit retirement
- State validation of methods to unlock investor payment for outcomes

5 Invest in Water Infrastructure

- Finish Grand Prairie, Bayou Meto & Plum Bayou surface-water projects
- Confront the ~\$20B capital gap; loans/grants for rural systems
- Recognize drainage ditches as critical infrastructure

2 Reverse Groundwater Decline

- Acknowledge past efforts
- Close the gap to safe yield in the Alluvial Aquifer
- Adopt Groundwater Resilience Irrigation Targets (GRIT) as benchmarks
- Scale pump controllers; set goals for the cones of depletion

4 Accelerate Voluntary Conservation

- Acknowledge investments to date
- Fund conservation districts for staff & cost-share
- Leverage federal programs (EQIP, RCPP, WRE)
- Strengthen the state Water Conservation Tax Credit & U of A Extension

6 Coordinate Plan Implementation

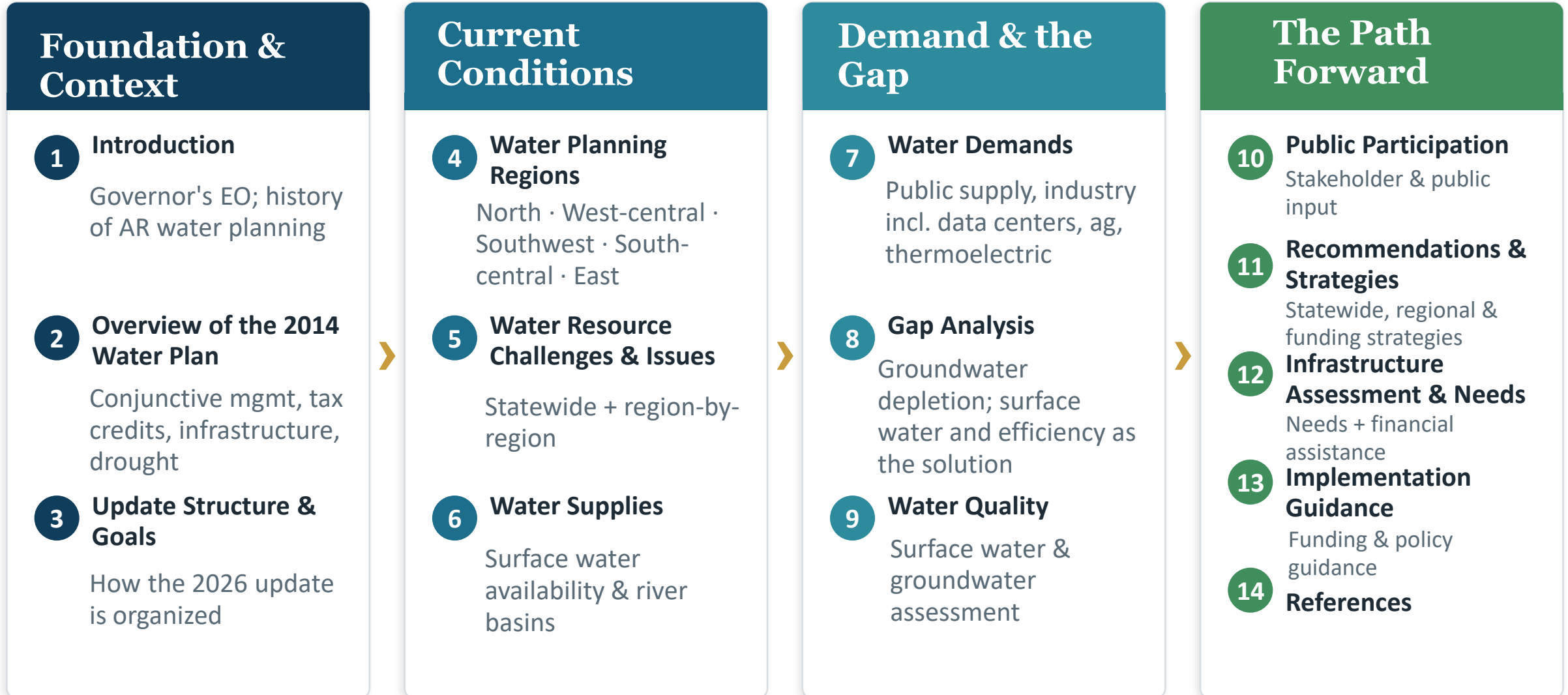
- Create a standing interagency implementation team
- Report on 2014 Plan progress; align with the Flood Plan
- Integrate water-quality science: nutrients & biodiversity



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Arkansas Water Plan Update — Plan at a Glance

Condensed structure of the draft 2026 Plan



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Next Steps and Stakeholder Engagement

Presentations, Reports, and Recordings available:

<https://agriculture.arkansas.gov/natural-resources/arkansas-water-plan/>

Stakeholder Input Due:

August 7, 2026

Agri.WaterPlan@arkansas.gov

Stakeholder Input Requested

The Department requests that any stakeholder input or suggestions on the provisional information below be submitted via email to agri.waterplan@arkansas.gov by **March 20, 2026**. The Department anticipates additional stakeholder engagement opportunities in early summer 2026.

- Infrastructure and Water Quality Stakeholder Meeting (February 24, 2026)
 - [Presentation \(PPT\)](#)
 - [Recording](#)
- Water Supply and Demand Stakeholder Meeting (February 25, 2026)
 - [Presentation \(PPT\)](#)
 - [Recording](#)

Timeline:

- **July 8** – Virtual Stakeholder Meeting
- **August 7** – Stakeholder Input Due
- **September 30** – Draft Submission to Governor's Office



Provisional Information and Data; Subject to Change

Questions / Feedback

Chris Colclasure
501-682-3961

Chris.Colclasure@arkansas.gov

Tate Wentz
501-682-3692

Tate.Wentz@arkansas.gov

Arkansas Department of Agriculture – Natural Resources Division

<https://www.agriculture.arkansas.gov/natural-resources/>

Submit Feedback and Comments

Agri.WaterPlan@arkansas.gov

