2025 Oklahoma Comprehensive Water Plan Overview

Oklahoma Governor's Water Conference & Research Symposium

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December 3, 2025

OKLAHOMA Water Resources Board

US Army Corps of Engineers®

Website: Oklahoma.gov/OWRB/Water-Planning
Facebook: Oklahoma Comprehensive Water Plan

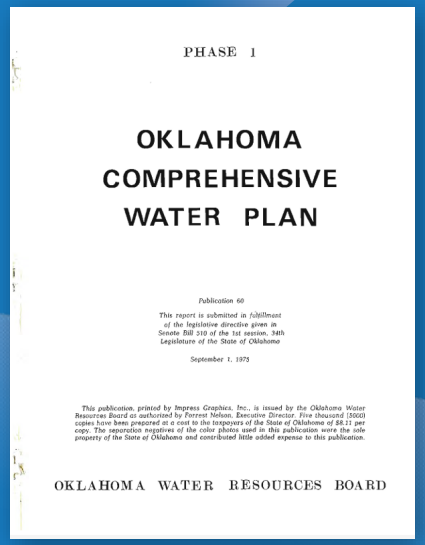
Legislative Direction and History of OCWP

OWRB's STATUTORY PLANNING AUTHORITY

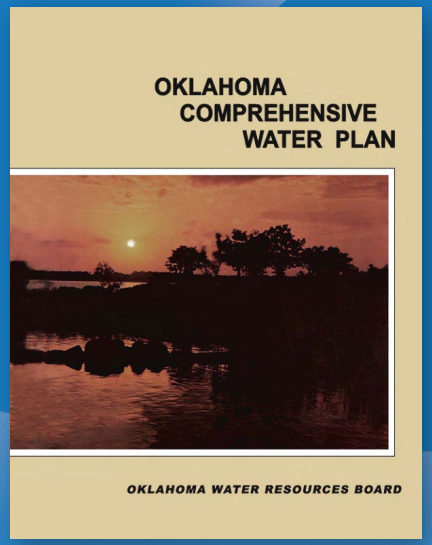
... authorized, empowered and directed to prepare a **comprehensive state water plan** and decennial updates thereof... and... to conduct surveys and **cooperate with other state and federal agencies**.

Title 82, Section 1086.2, Oklahoma Statutes

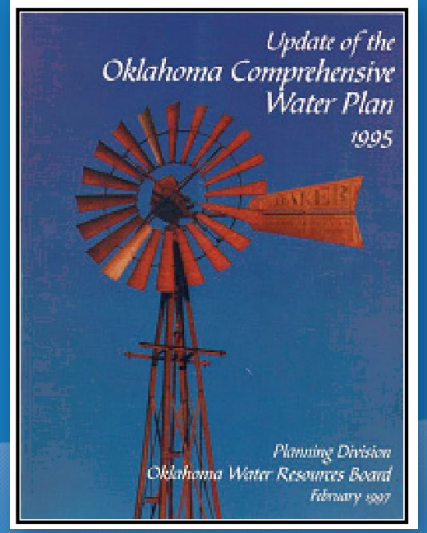
1975



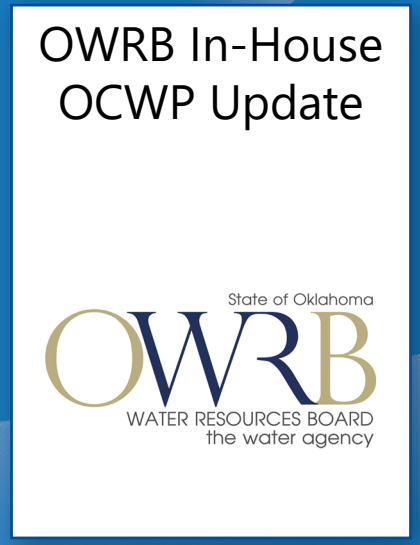
1980



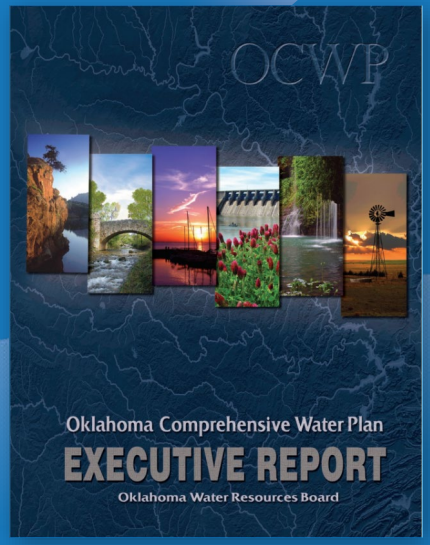
1995



2005



2012



Key Partners in the OCWP 2025 Update

2025 OCWP
Oklahoma Comprehensive Water Plan

OKLAHOMA Water Resources Board

carollo

FREESE AND NICHOLS

US Army Corps of Engineers

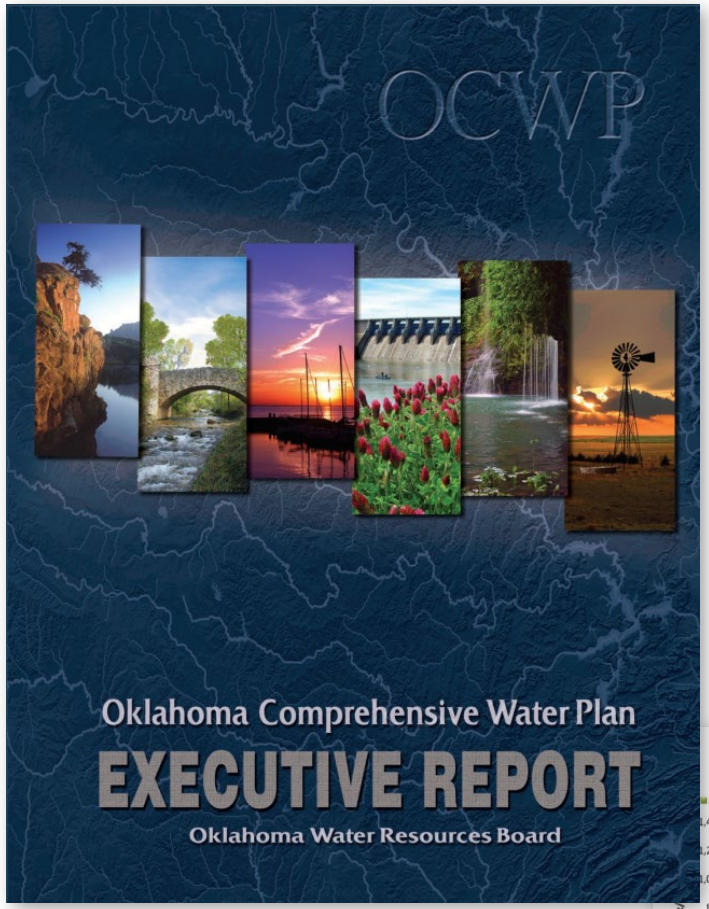
Michael Baker INTERNATIONAL

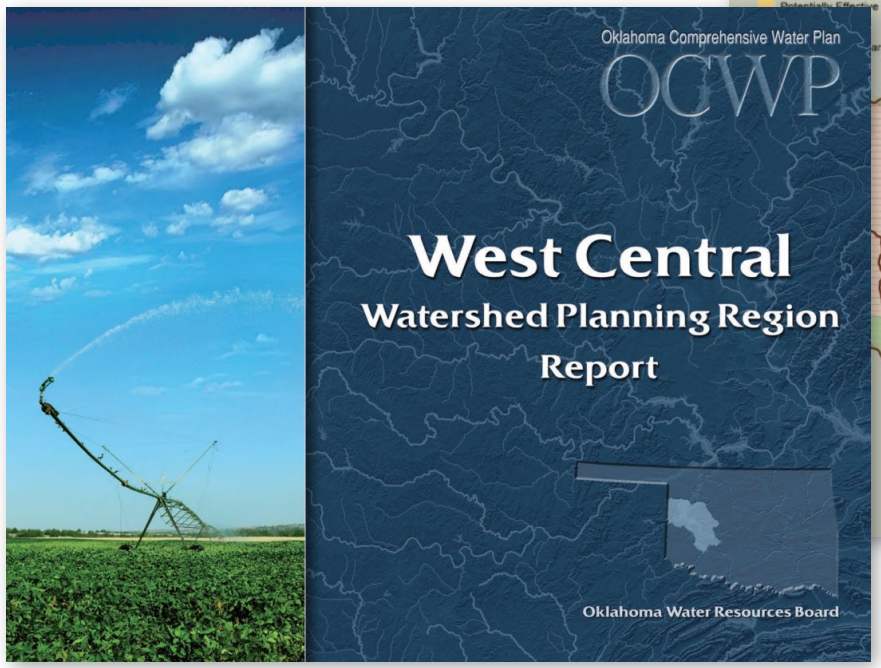
Numerous State Agencies

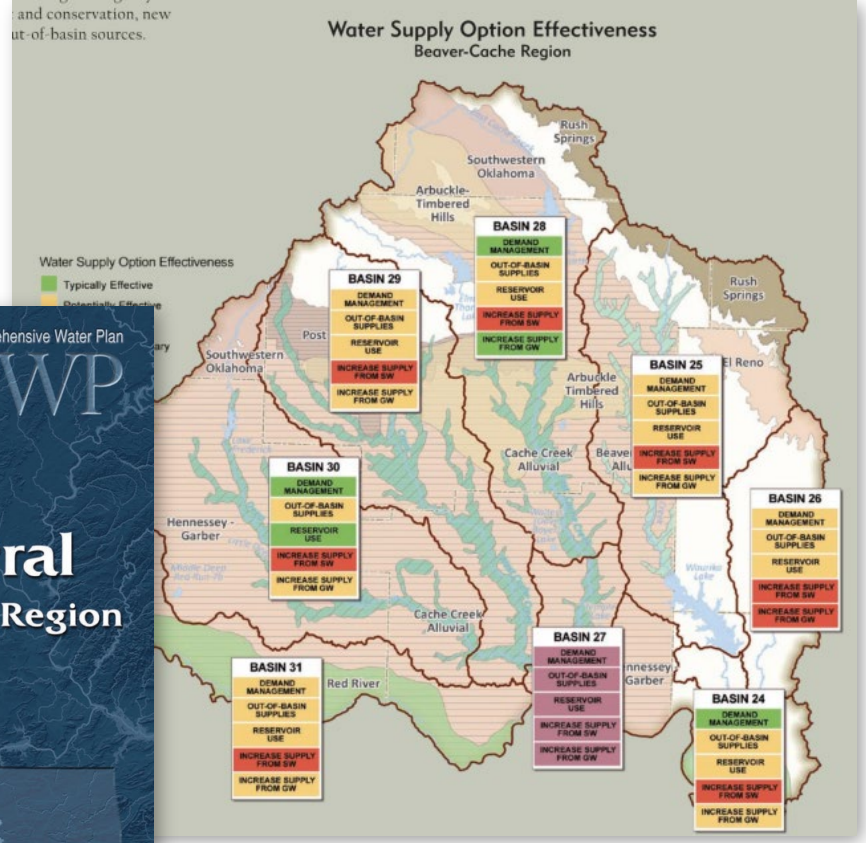
Other Federal Agencies

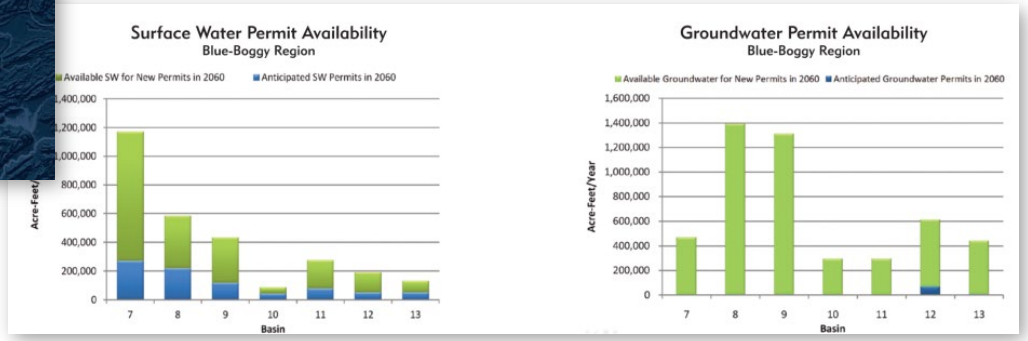
Chickasaw Nation
Choctaw Nation
Cherokee Nation
Other Tribal Nations

2012 OCWP Planning Resources

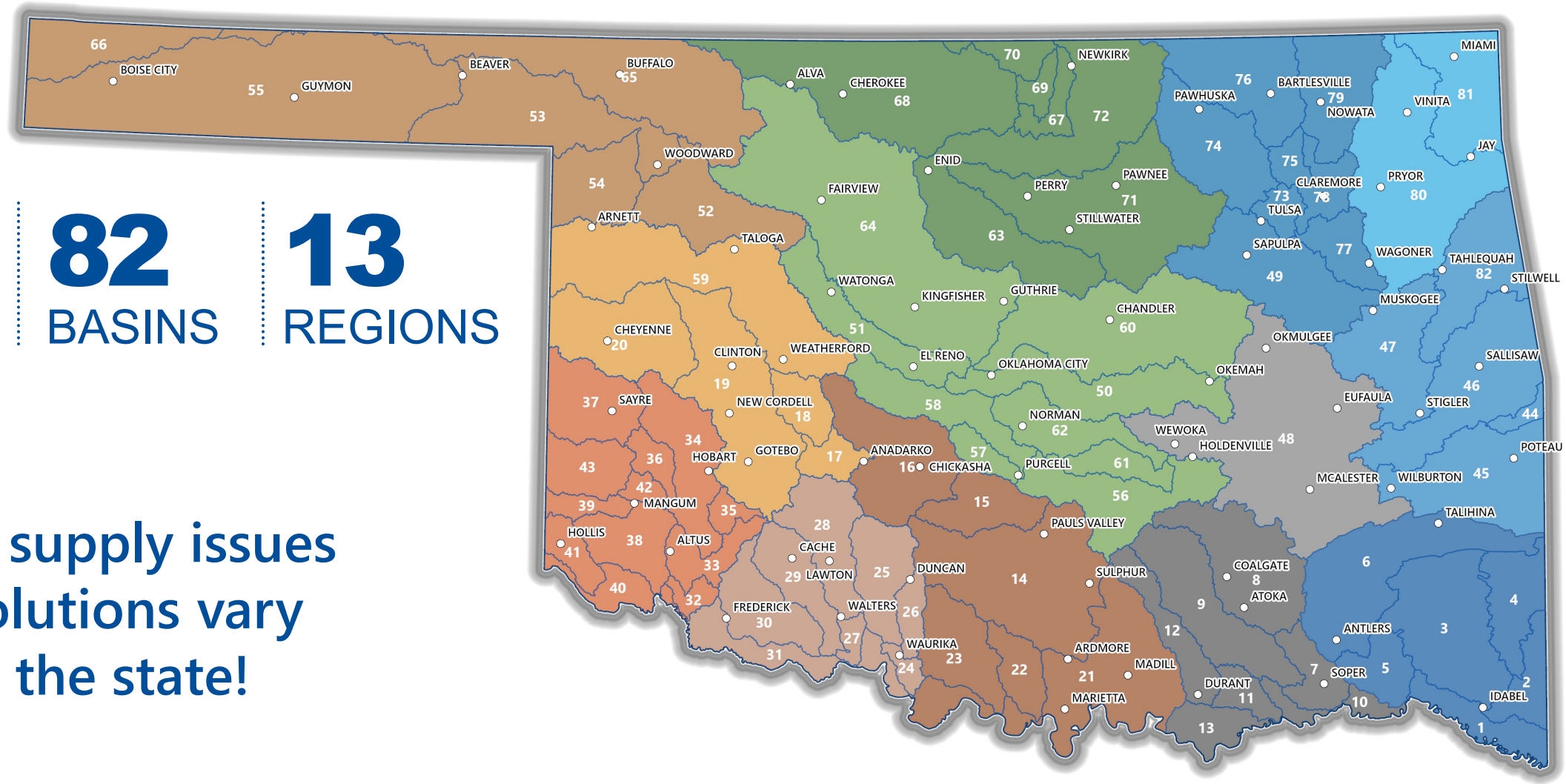






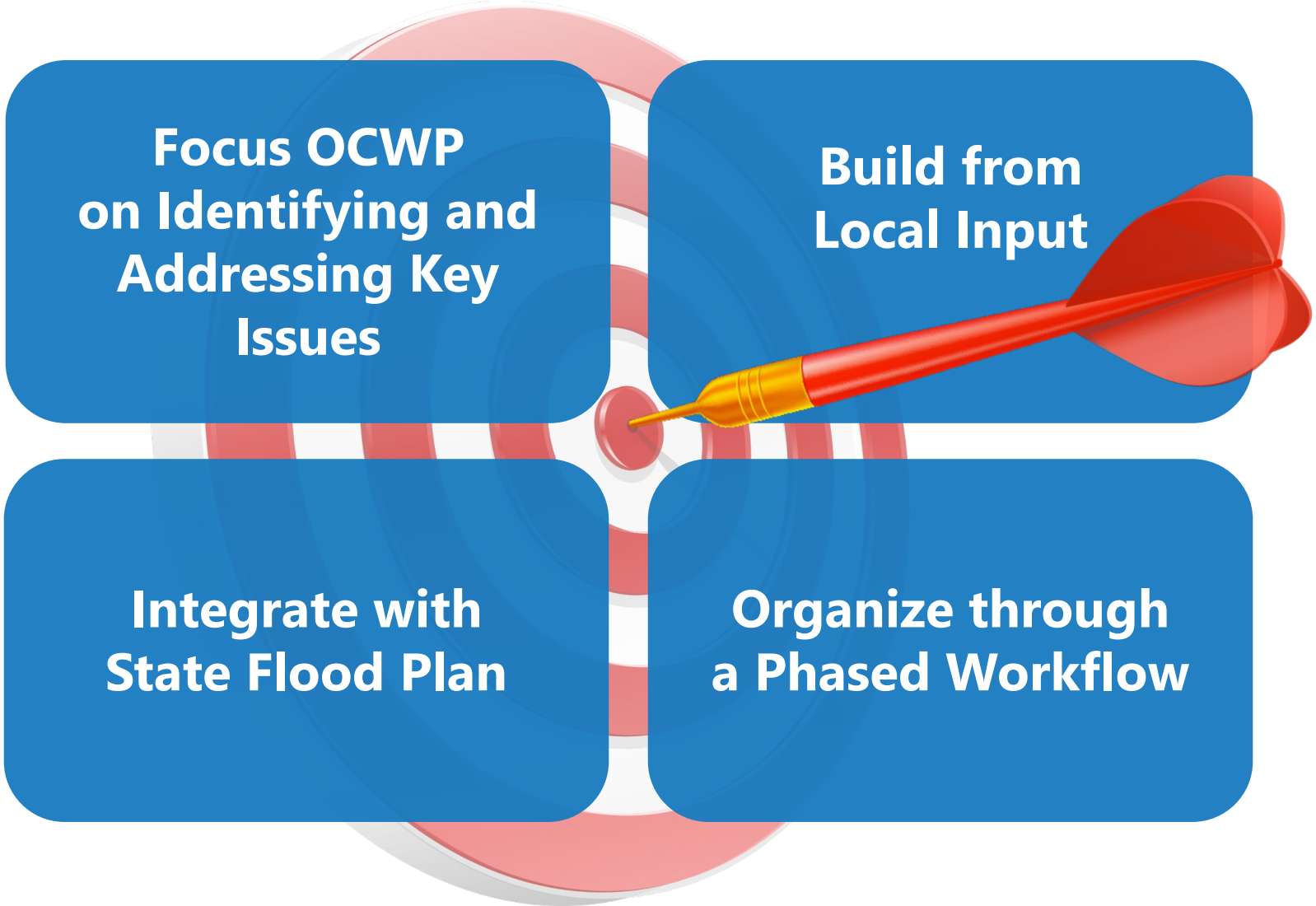


Defining and Addressing Oklahoma's Water Challenges



Water supply issues and solutions vary across the state!

Approach for OCWP 2025



OCWP Technical Findings

OKLAHOMA Water Resources Board

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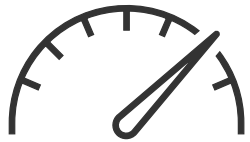
2025 OCWP

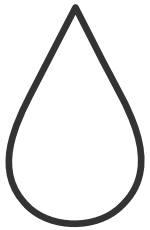
Technical Studies Support All OCWP 2025 Focus Areas

- **Identify** basins with projected water challenges or opportunities
- **Recommend** water management strategies
- Catalog immediate and future **infrastructure investment needs**
- **Advance** 2012 OCWP Policy Recommendations
- Integrate Oklahoma's first statewide **Flood Plan**
- Conduct **focused engagement** throughout the process
- Provide **accessible** OCWP deliverables

Baseline Scenario Data

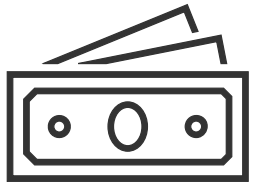


Water Demands



Physical Supply

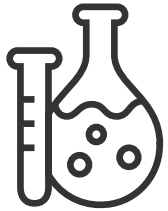
Water Shortages



Water Infrastructure Needs

Water Management Strategies

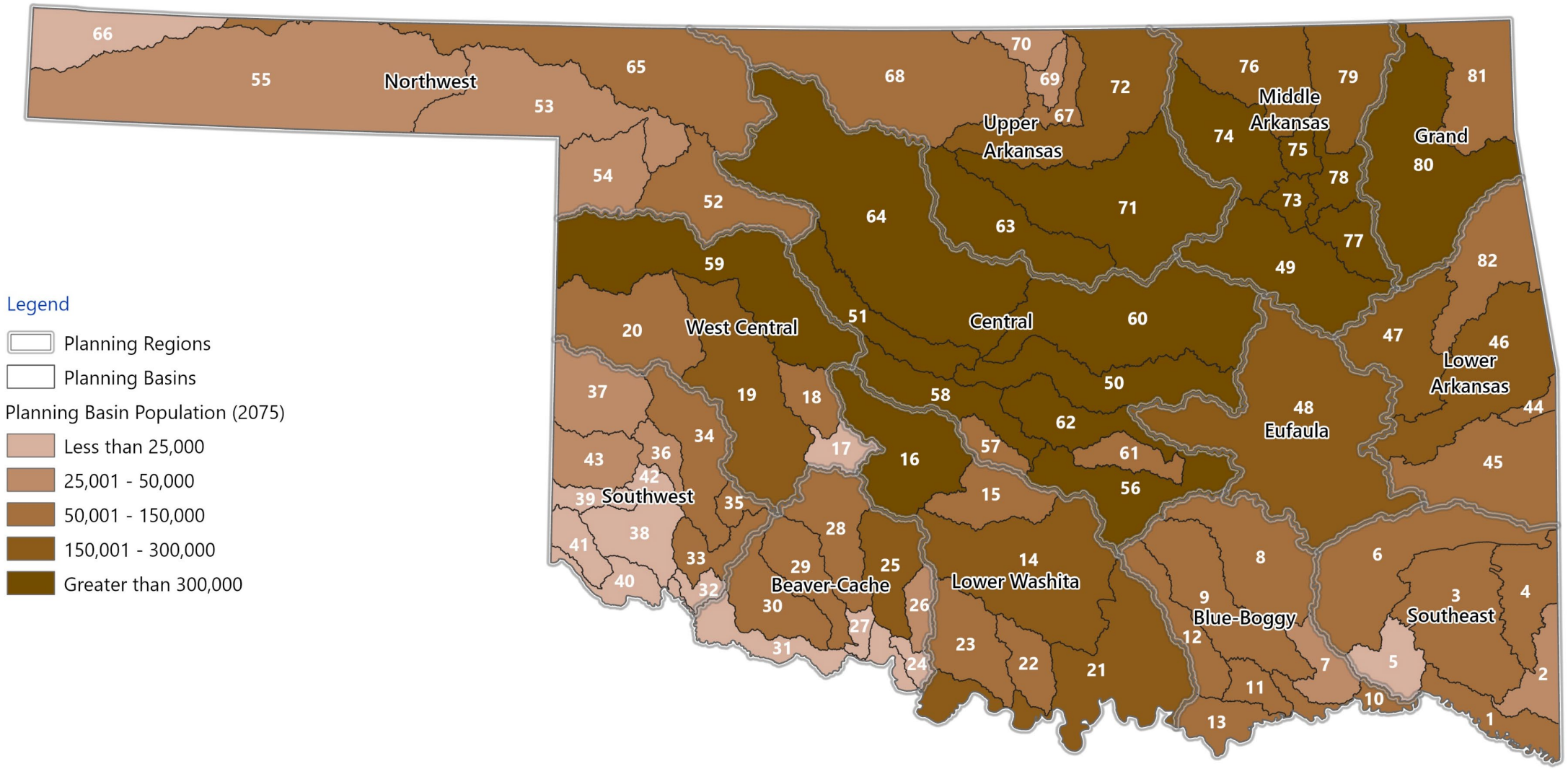
Legal Supply



Water Quality

All data presented today is in DRAFT form and subject to change.

Population Projections through 2075



All data presented today is in DRAFT form and subject to change.

Water Demand Forecasts Developed for 7 Sectors for the Baseline Scenario

- **Projections of water use through 2075**

Public Supply

Self-Supplied Domestic

Self-Supplied Industrial

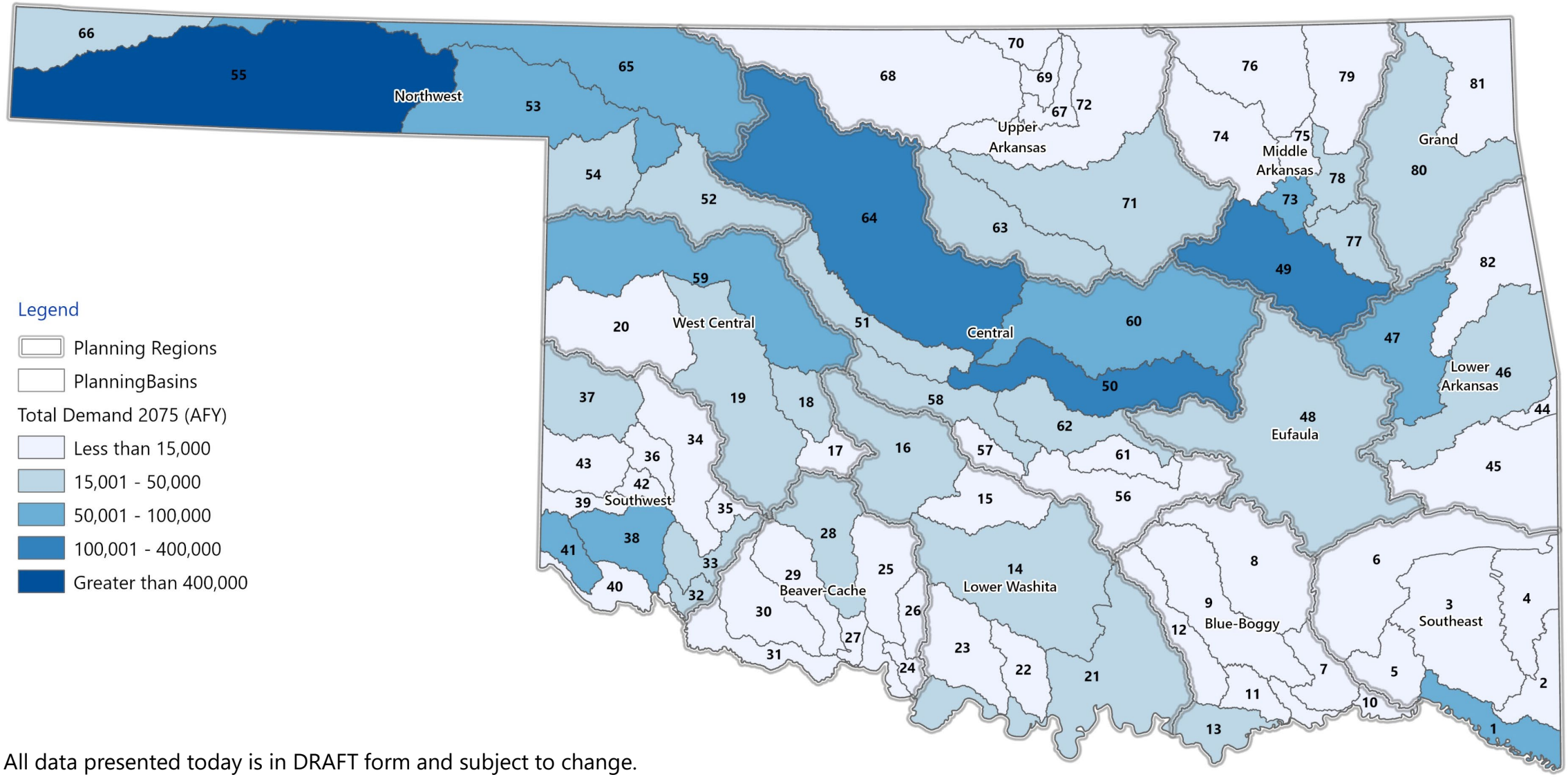
Crop Irrigation

Livestock

Thermoelectric Power

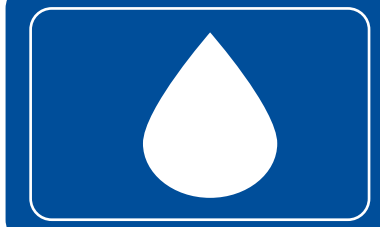
Oil & Gas

2075 Water Demand Projection (All Sectors)



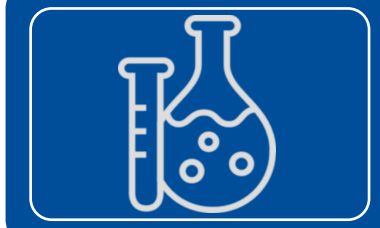
All data presented today is in DRAFT form and subject to change.

The 2025 OCWP assesses 4 types of water supply constraints



Physical availability (“wet water”)

Legal availability (permits)

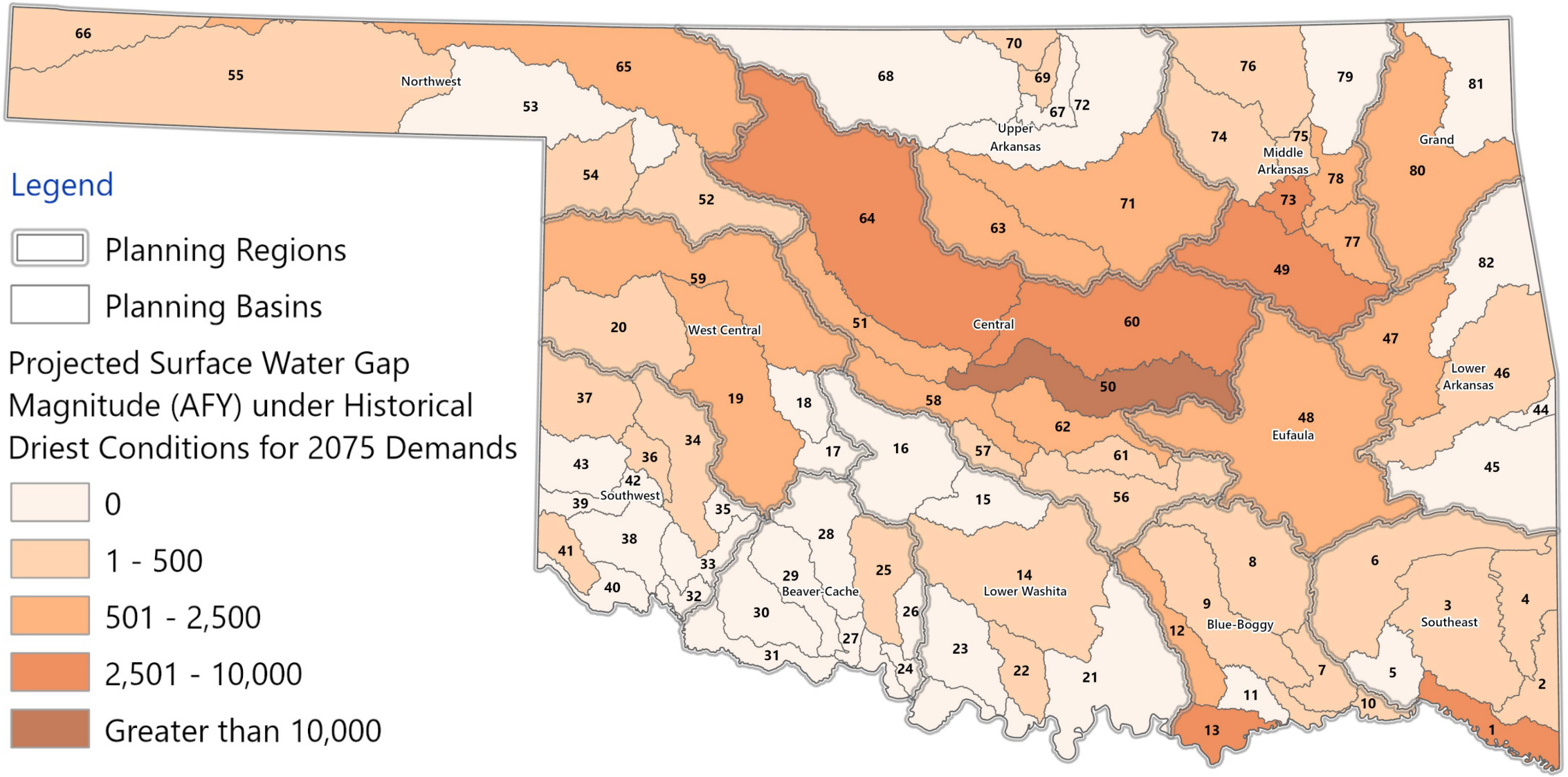


Water Quality

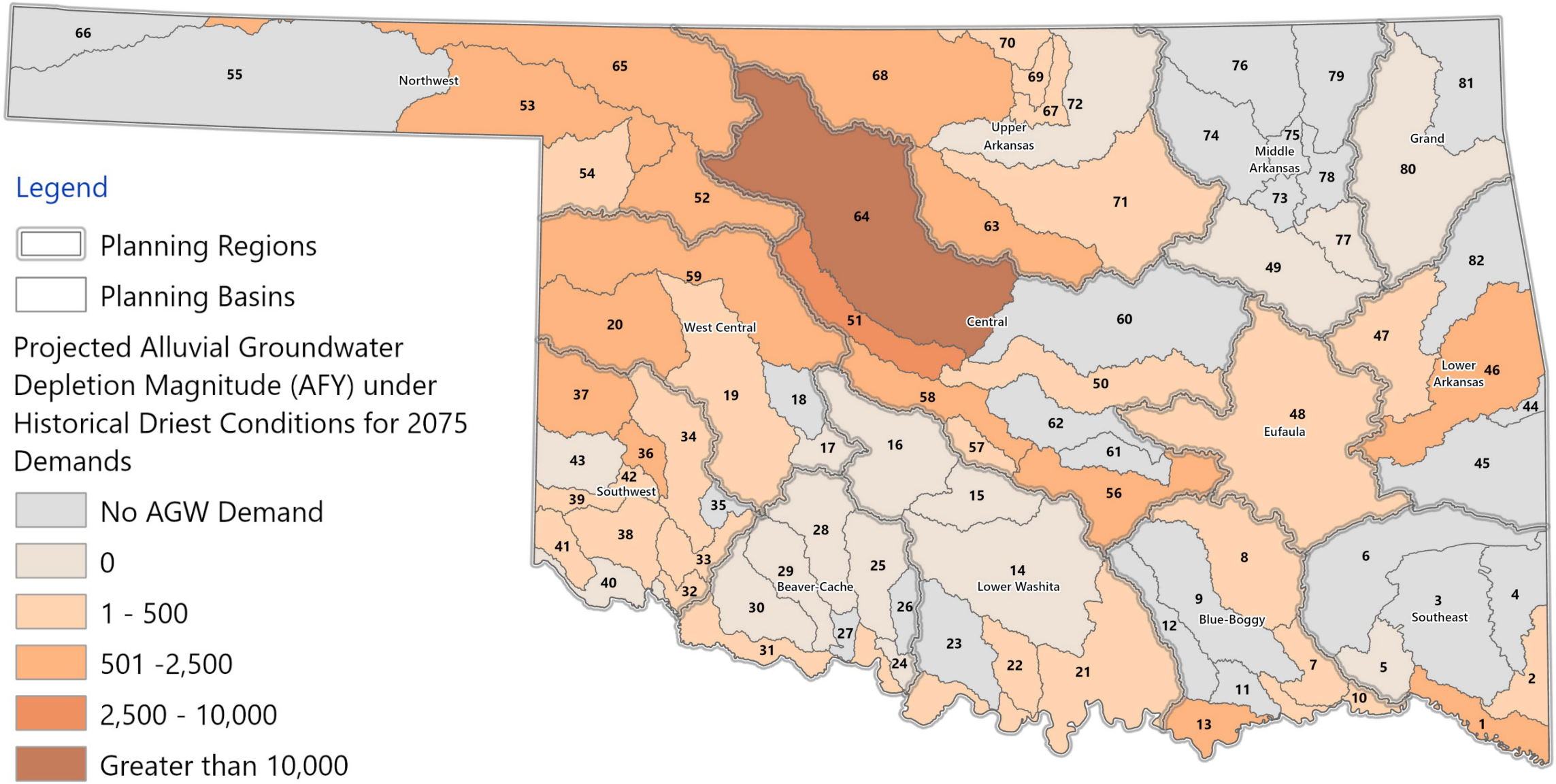
Infrastructure

What is a Physical Water Supply (“Wet Water”) Shortage?

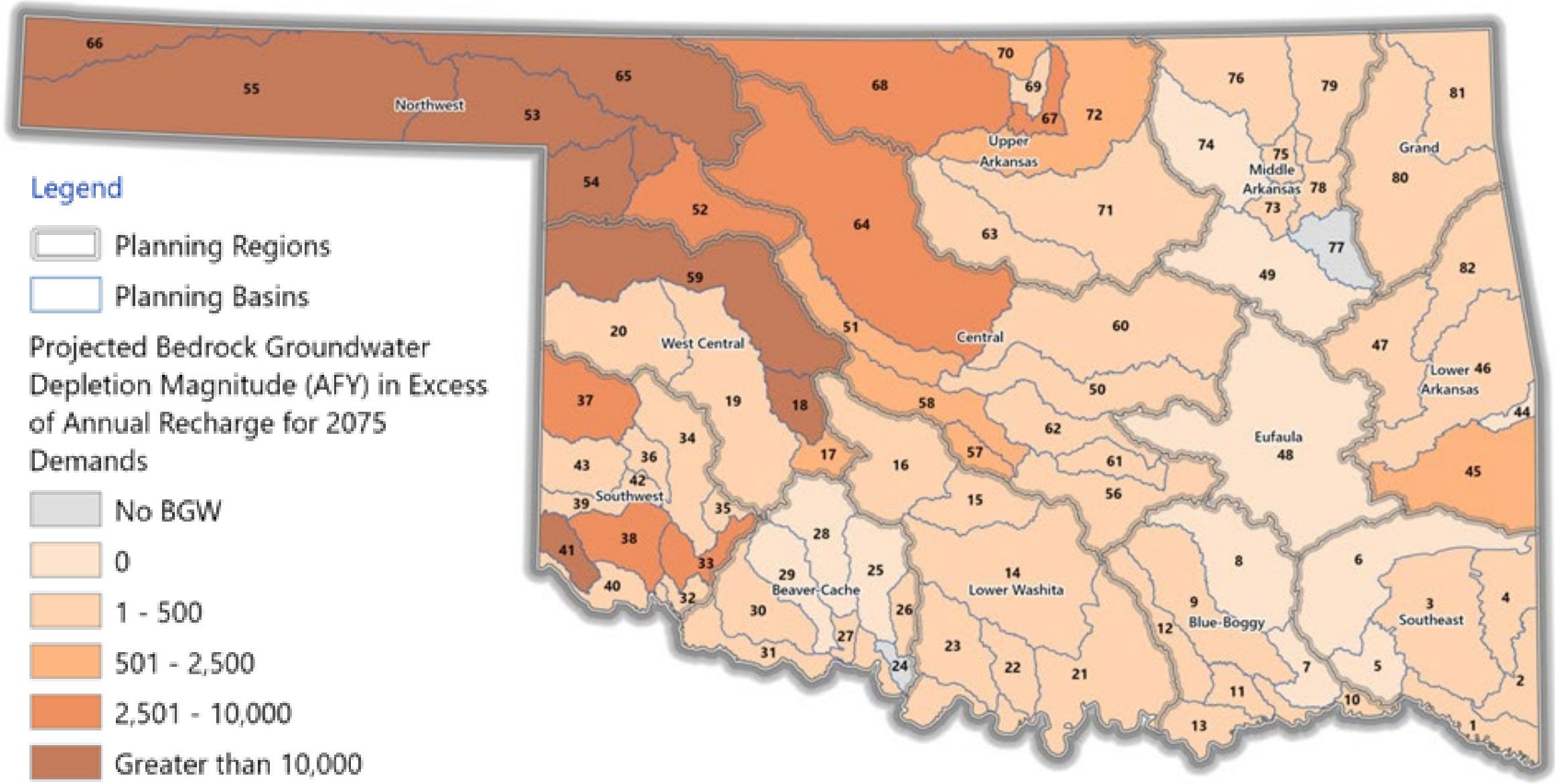
Surface Water: Projected physical water supply shortages in 2075



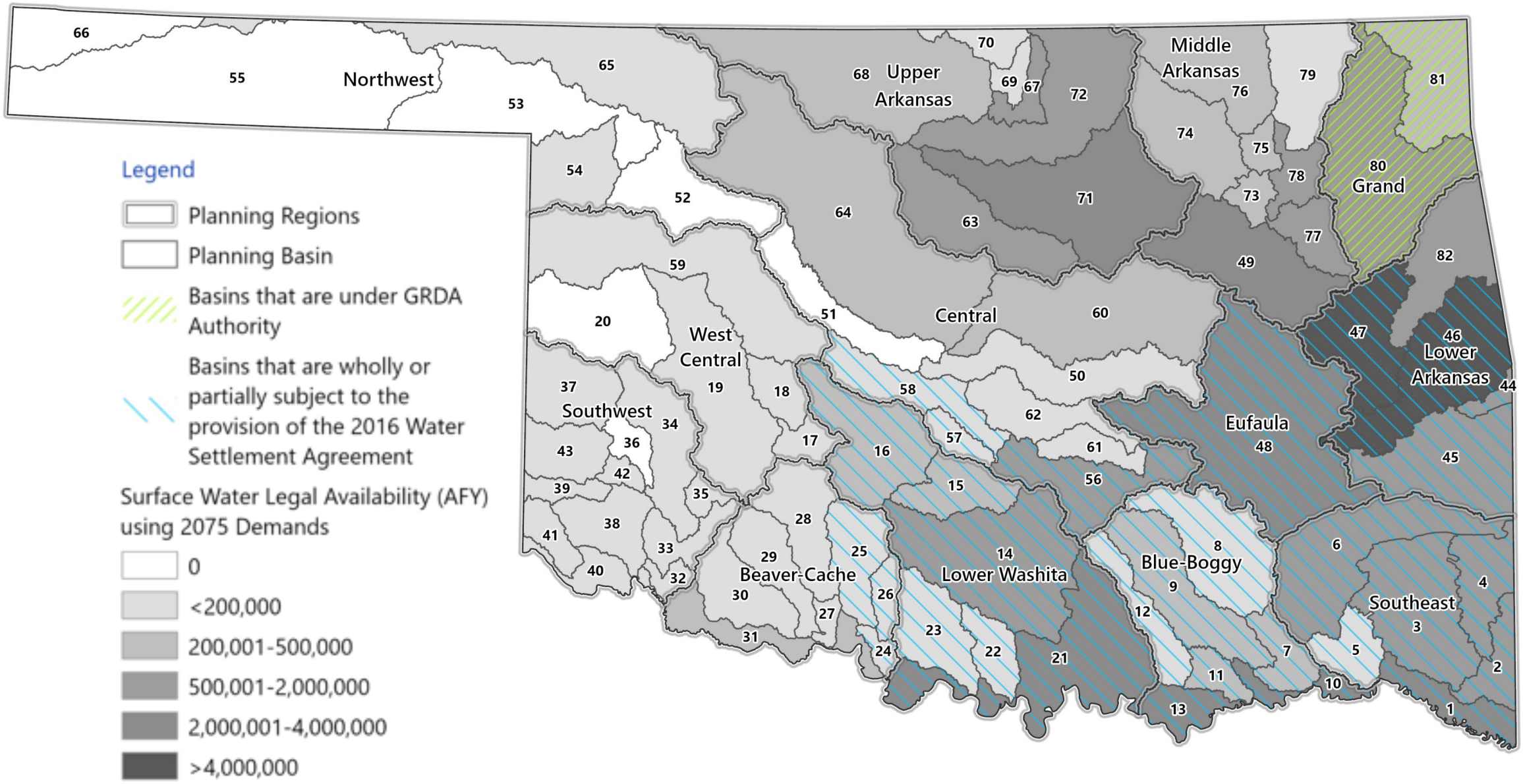
Alluvial Groundwater: Projected physical water supply shortages in 2075



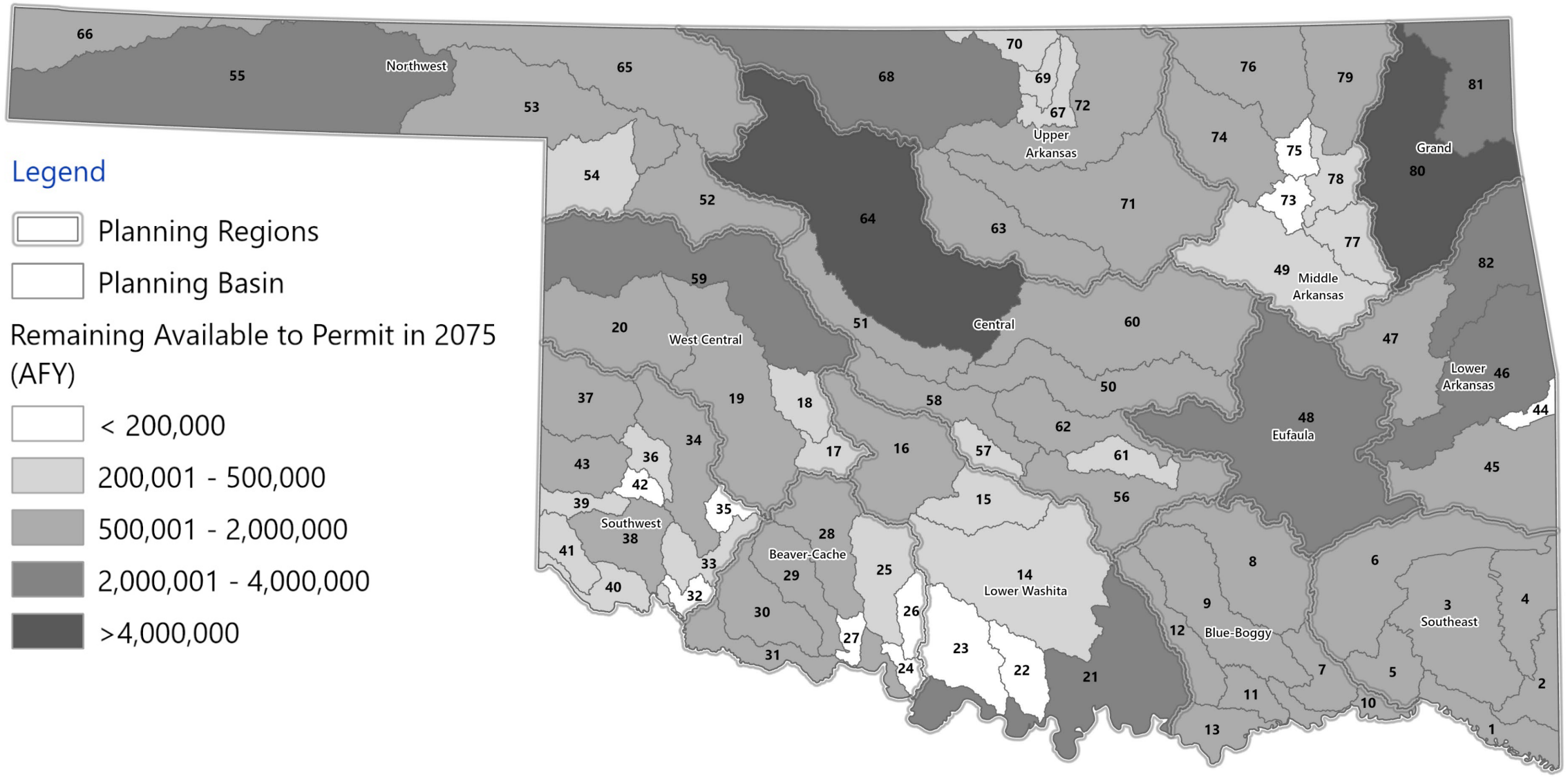
Bedrock Groundwater: Projected physical water supply shortages in 2075



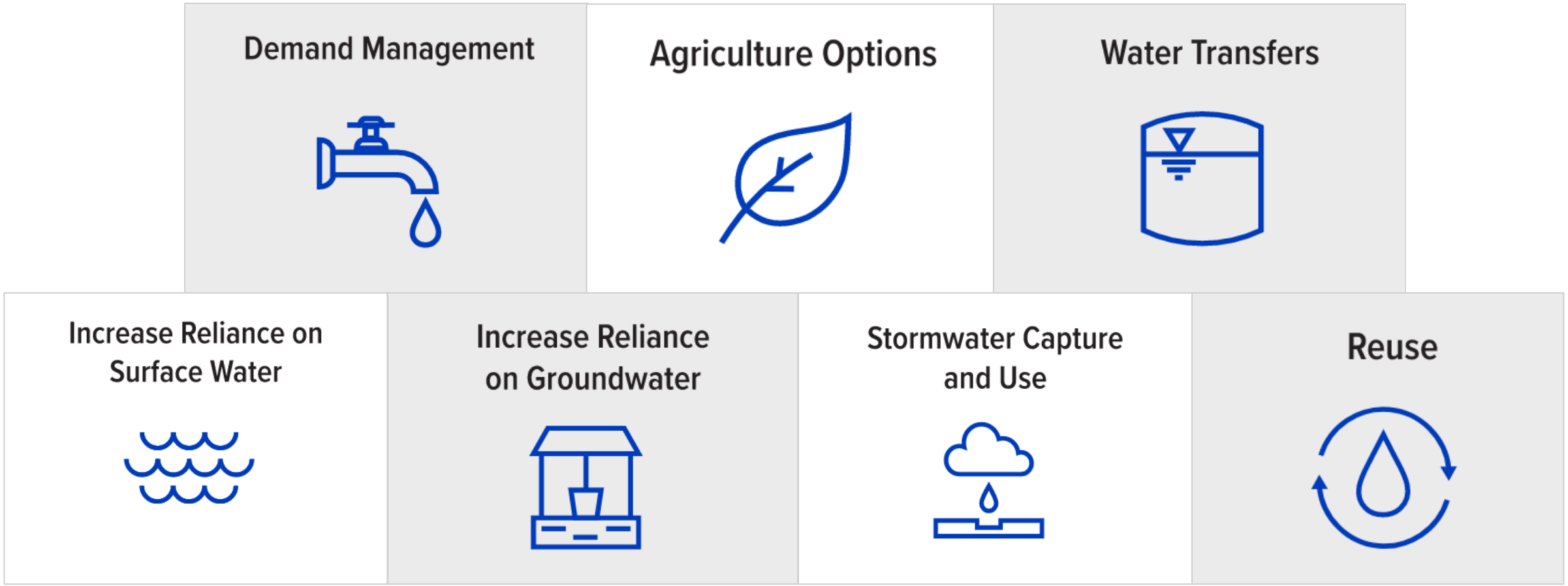
Projected legal availability of surface water (2075 demands)



Projected legal availability of groundwater (2075 demands)



Water Management Strategies:
Effectiveness of 7 categories of potential solutions in each of Oklahoma's 82 Basins



Water Management Strategies:
Effectiveness of 7 categories of potential solutions in each of Oklahoma's 82 Basins

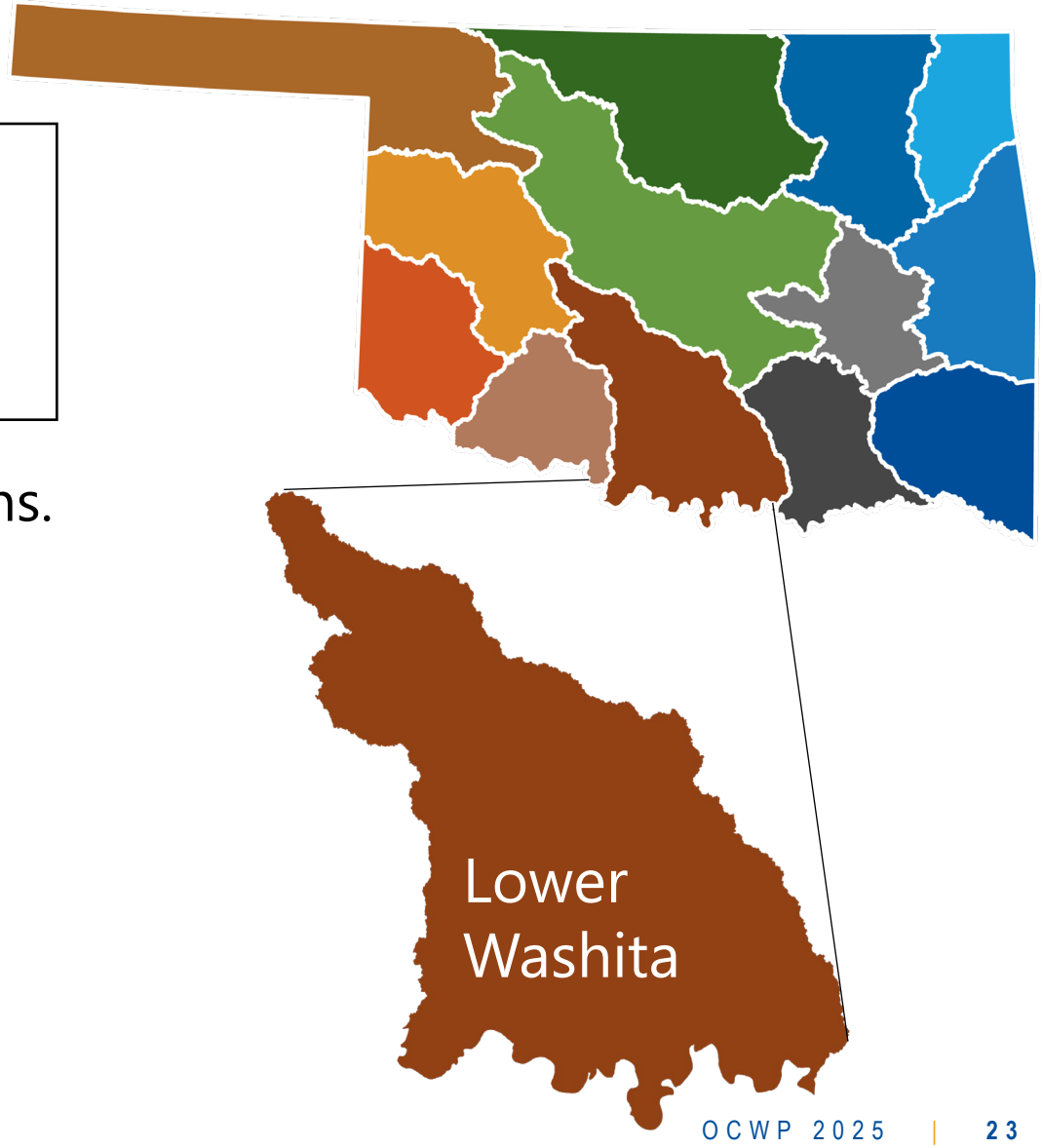
WMS Tier 1 Category	Demand Sectors	64
Demand Management	**PS, SSI, OG, TE**	Partially Effective - Shortages Remain
Agricultural Options	**CI, LS**	Partially Effective - Shortages Remain
Increase Reliance on In-Basin Surface Water	**All**	Ineffective at Meeting Future Demands
Increase Reliance on In-Basin Groundwater	**All**	May Increase Shortages - Use with Other Strategies
Stormwater Capture & Use	**PS, SSI**	Potentially Effective with Local Variability
Reuse	**PS, SSI**	Effective at Meeting Future Demands
Water Transfers	**All**	Effective at Meeting Future Demands

Water Quality Dashboards

TRENDS DASHBOARD

What stories does Water Quality tell?

Each region has its own characteristics and water quality concerns due to its local geology and ecology. Water use also plays a role in how water resources are distributed.



Stories highlight concerns for each of the 13 regions.

For example, in the Lower Washita:

Groundwater

Major aquifers exhibit elevated levels of nitrates, total dissolved solids, and salinity.

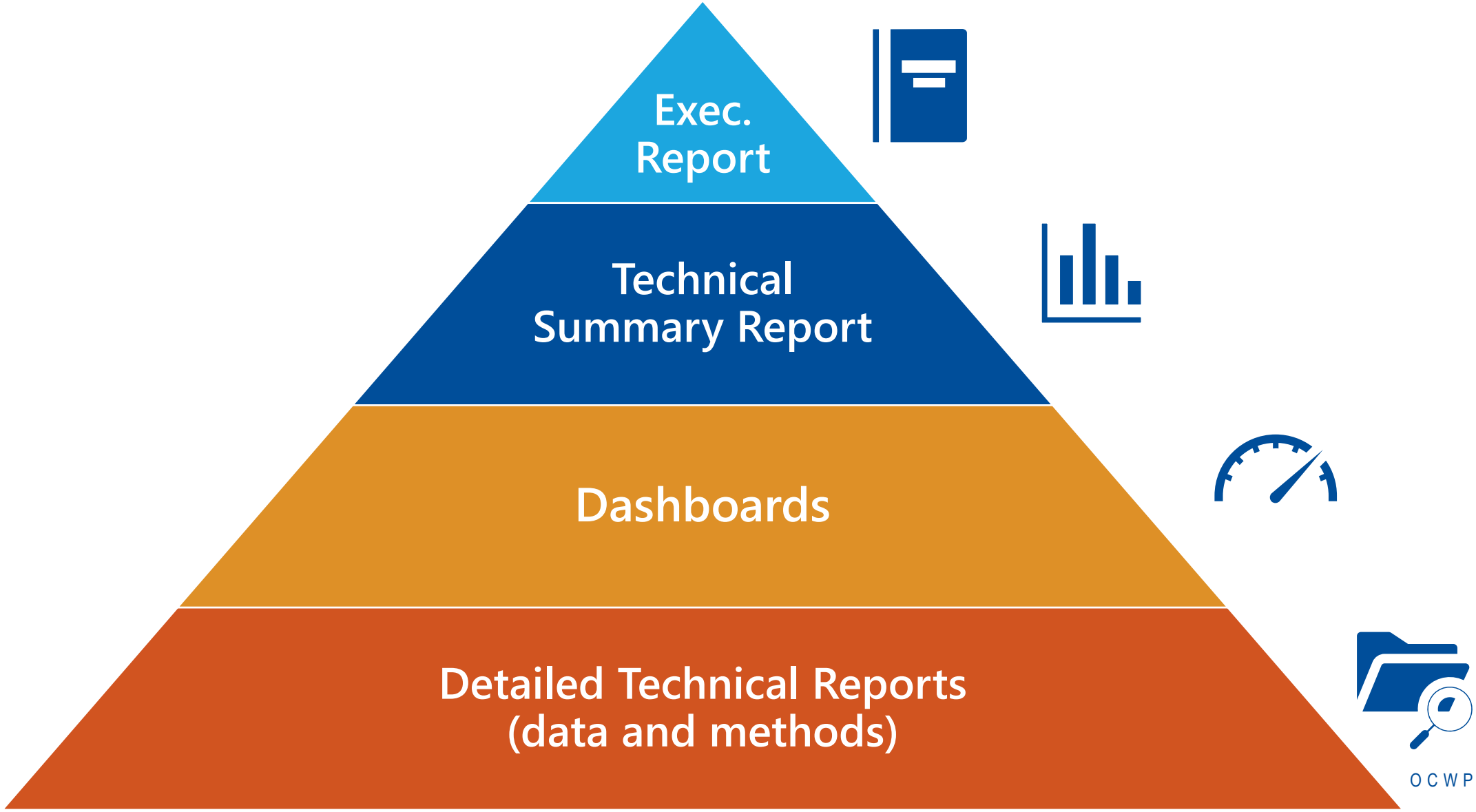
Lakes

Lakes are impacted by elevated levels of nutrients, chlorophyll-a, and turbidity.

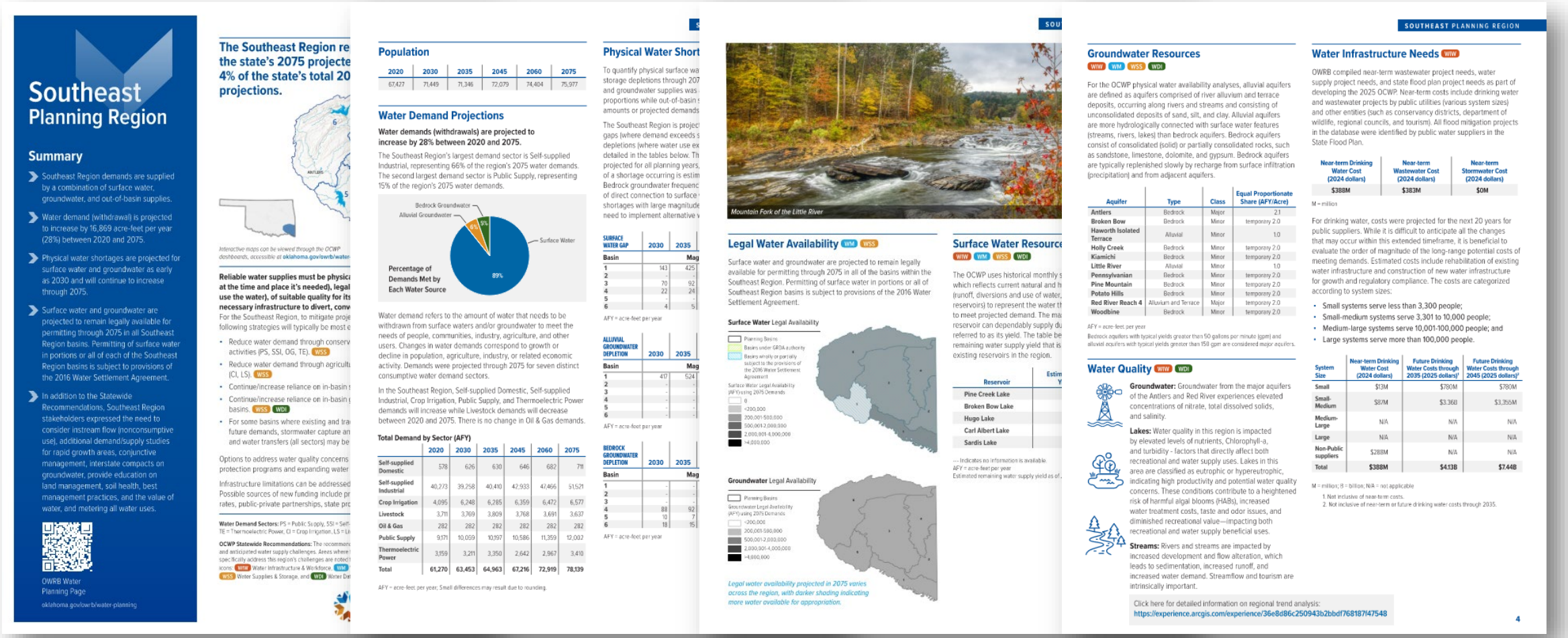
Streams

Streams and rivers face erosion, increased sedimentation and growing nutrient concentrations concerns.

OCWP provides planning insights for a range of audiences



Region Fact Sheets summarize data and policy for easy understanding by a wide audience



Southeast Planning Region

Summary

- Southeast Region demands are supplied by a combination of surface water, groundwater, and out-of-basin supplies.
- Water demand (withdrawal) is projected to increase by 16,869 acre-feet per year (28%) between 2020 and 2075.
- Physical water shortages are projected for surface water and groundwater as early as 2030 and will continue to increase through 2075.
- Surface water and groundwater are projected to remain legally available for permitting through 2075 in all Southeast Region basins. Permitting of surface water in portions or all of each of the Southeast Region basins is subject to provisions of the 2016 Water Settlement Agreement.
- In addition to the Statewide Recommendations, Southeast Region stakeholders expressed the need to consider instream flow (nonconsumptive use), additional demand/supply studies for rapid growth areas, conjunctive management, interstate compacts on groundwater, provide education on land management, soil health, best management practices, and the value of water, and metering all water uses.

OWRB Water Planning Page

oklahoma.gov/owrb/water-planning

The Southeast Region re… the state's 2075 projecte… 4% of the state's total 20… projections.

Population

2020	2030	2035	2045	2060	2075
67,427	71,449	71,346	72,079	74,404	75,977

Water Demand Projections

Water demands (withdrawals) are projected to increase by 28% between 2020 and 2075.

Total Demand by Sector (AFY)

	2020	2030	2035	2045	2060	2075
Self-supplied Domestic	578	626	630	646	682	711
Self-supplied Industrial	40,273	39,258	40,410	42,933	47,466	51,521
Crop Irrigation	4,095	6,248	6,285	6,359	6,472	6,577
Livestock	3,711	3,769	3,809	3,768	3,691	3,637
Oil & Gas	282	282	282	282	282	282
Public Supply	9,171	10,059	10,197	10,586	11,359	12,002
Thermoelectric Power	3,159	3,211	3,350	2,642	2,967	3,410
Total	61,270	63,453	64,963	67,216	72,919	78,139

AFY = acre-feet per year; Small differences may result due to rounding.

Physical Water Short…

SURFACE WATER GAP

Basin	2030	2035	Mag
1	143	425	
2	-	-	
3	70	92	
4	22	24	
5	-	-	
6	4	5	

AFY = acre-feet per year

ALLUVIAL GROUNDWATER DEPLETION

Basin	2030	2035	Mag
1	417	524	
2	-	-	
3	-	-	
4	-	-	
5	-	-	
6	-	-	

AFY = acre-feet per year

BEDROCK GROUNDWATER DEPLETION

Basin	2030	2035	Mag
1	-	-	
2	-	-	
3	-	-	
4	88	92	
5	10	7	
6	18	15	

AFY = acre-feet per year

Mountain Fork of the Little River

Legal Water Availability WIW WSS

Surface water and groundwater are projected to remain legally available for permitting through 2075 in all of the basins within the Southeast Region. Permitting of surface water in portions or all of Southeast Region basins is subject to provisions of the 2016 Water Settlement Agreement.

Surface Water Legal Availability

Groundwater Legal Availability

Legal water availability projected in 2075 varies across the region, with darker shading indicating more water available for appropriation.

Surface Water Resource… WIW WM WSS WDI

Reservoir	Estim… Y…
Pine Creek Lake	
Broken Bow Lake	
Hugo Lake	
Carl Albert Lake	
Sardis Lake	

--- Indicates no information is available.
AFY = acre-feet per year
Estimated remaining water supply yield as of…

SOUTHEAST PLANNING REGION

Groundwater Resources WIW WM WSS WDI

For the OCWP physical water availability analyses, alluvial aquifers are defined as aquifers comprised of river alluvium and terrace deposits, occurring along rivers and streams and consisting of unconsolidated deposits of sand, silt, and clay. Alluvial aquifers are more hydrologically connected with surface water features (streams, rivers, lakes) than bedrock aquifers. Bedrock aquifers consist of consolidated (solid) or partially consolidated rocks, such as sandstone, limestone, dolomite, and gypsum. Bedrock aquifers are typically replenished slowly by recharge from surface infiltration (precipitation) and from adjacent aquifers.

Aquifer	Type	Class	Equal Proportionate Share (AFY/Acre)
Antlers	Bedrock	Major	2.1
Broken Bow	Bedrock	Minor	temporary 2.0
Haworth Isolated Terrace	Alluvial	Minor	1.0
Holly Creek	Bedrock	Minor	temporary 2.0
Kiamichi	Bedrock	Minor	temporary 2.0
Little River	Alluvial	Minor	1.0
Pennsylvanian	Bedrock	Minor	temporary 2.0
Pine Mountain	Bedrock	Minor	temporary 2.0
Potato Hills	Bedrock	Minor	temporary 2.0
Red River Reach 4	Alluvium and Terrace	Major	temporary 2.0
Woodbine	Bedrock	Minor	temporary 2.0

AFY = acre-feet per year

Bedrock aquifers with typical yields greater than 50 gallons per minute (gpm) and alluvial aquifers with typical yields greater than 150 gpm are considered major aquifers.

Water Quality WIW WDI

Groundwater: Groundwater from the major aquifers of the Antlers and Red River experiences elevated concentrations of nitrate, total dissolved solids, and salinity.

Lakes: Water quality in this region is impacted by elevated levels of nutrients, Chlorophyll-a, and turbidity - factors that directly affect both recreational and water supply uses. Lakes in this area are classified as eutrophic or hypereutrophic, indicating high productivity and potential water quality concerns. These conditions contribute to a heightened risk of harmful algal blooms (HABs), increased water treatment costs, taste and odor issues, and diminished recreational value—impacting both recreational and water supply beneficial uses.

Streams: Rivers and streams are impacted by increased development and flow alteration, which leads to sedimentation, increased runoff, and increased water demand. Streamflow and tourism are intrinsically important.

Water Infrastructure Needs WIW

OWRB compiled near-term wastewater project needs, water supply project needs, and state flood plan project needs as part of developing the 2025 OCWP. Near-term costs include drinking water and wastewater projects by public utilities (various system sizes) and other entities (such as conservancy districts, department of wildlife, regional councils, and tourism). All flood mitigation projects in the database were identified by public water suppliers in the State Flood Plan.

Near-term Drinking Water Cost (2024 dollars)	Near-term Wastewater Cost (2024 dollars)	Near-term Stormwater Cost (2024 dollars)
$388M	$383M	$0M

M = million

For drinking water, costs were projected for the next 20 years for public suppliers. While it is difficult to anticipate all the changes that may occur within this extended timeframe, it is beneficial to evaluate the order of magnitude of the long-range potential costs of meeting demands. Estimated costs include rehabilitation of existing water infrastructure and construction of new water infrastructure for growth and regulatory compliance. The costs are categorized according to system sizes:

- Small systems serve less than 3,300 people;
- Small-medium systems serve 3,301 to 10,000 people;
- Medium-large systems serve 10,001-100,000 people; and
- Large systems serve more than 100,000 people.

System Size	Near-term Drinking Water Cost (2024 dollars)	Future Drinking Water Costs through 2035 (2025 dollars)[1]	Future Drinking Water Costs through 2045 (2025 dollars)[2]
Small	$13M	$780M	$780M
Small-Medium	$87M	$3.36B	$3.355M
Medium-Large	N/A	N/A	N/A
Large	N/A	N/A	N/A
Non-Public suppliers	$288M	N/A	N/A
Total	$388M	$4.13B	$7.44B

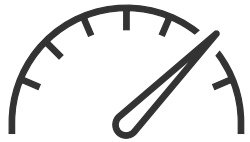
M = million; B = billion; N/A = not applicable

1. Not inclusive of near-term costs.
2. Not inclusive of near-term or future drinking water costs through 2035.

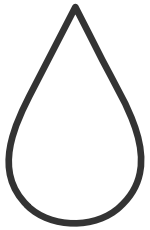
Click here for detailed information on regional trend analysis:
https://experience.arcgis.com/experience/36e8d86c250943b2bbdf768187147548

4

Dashboards provide statewide summaries, regional statistics, and basin-level details

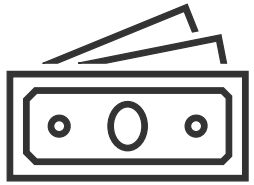


Water Demands



Physical Supply

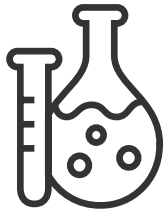
Water Shortages



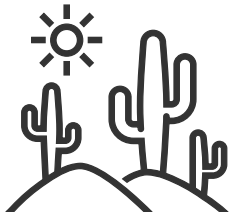
Water Infrastructure Needs

Water Management Strategies

Legal Supply



Water Quality



Weather Extremes (demand and supply)

2025 OCWP - Water Demand Dashboard

Oklahoma Comprehensive Water Plan

Select a Planning Region: Central | Select a Planning Basin: 64 - Middle Cimarron Ri... | Select a Planning Year: 2075 | Select a Water Source: Total

Water Demands

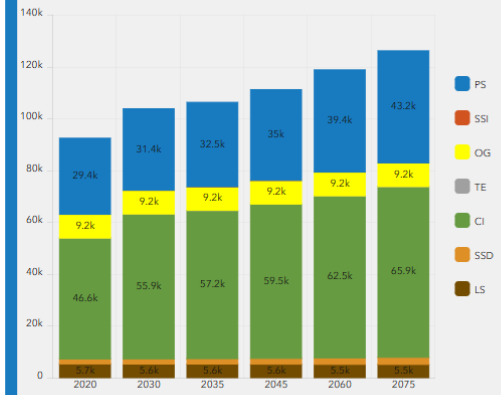
not connected to a public water system. This does not include well water used for crop irrigation. ODOC Population Projections were used in conjunction with per capita water use data was used to develop these demand projections.

- **Crop Irrigation (CI)** - Water use for agricultural crop production to supplement natural rainfall. The projected number of irrigated acres and water use per irrigated acre of crop were used for demand projections.
- **Thermoelectric Power (TE)** - Water use associated with power plants to cool equipment and condense steam to drive generators. Projected energy generation and water use per plant and/or kWh were used to project the consumptive demands for this sector.
- **Self-Supplied Industrial (SSI)** - Water needed by large industrial users who do not receive water from a public water supplier. Demand projections for this sector were based upon employment projections and water use per facility.
- **Livestock (LS)** - Water required for animal nutrition, cooling, sanitation, and waste removal. Demand projections are based upon projected livestock count and per animal water use.
- **Oil & Gas (OG)** - Water use associated with oil and gas production. Examples include enhanced recovery of petroleum, drilling or completion of a well, and rig wash. The historic maximum number of wells drilled, and water use per well drilled were used for projection development. It is assumed that maximum drilling activity has already been reached, so projections are held constant between 2020 and 2075.

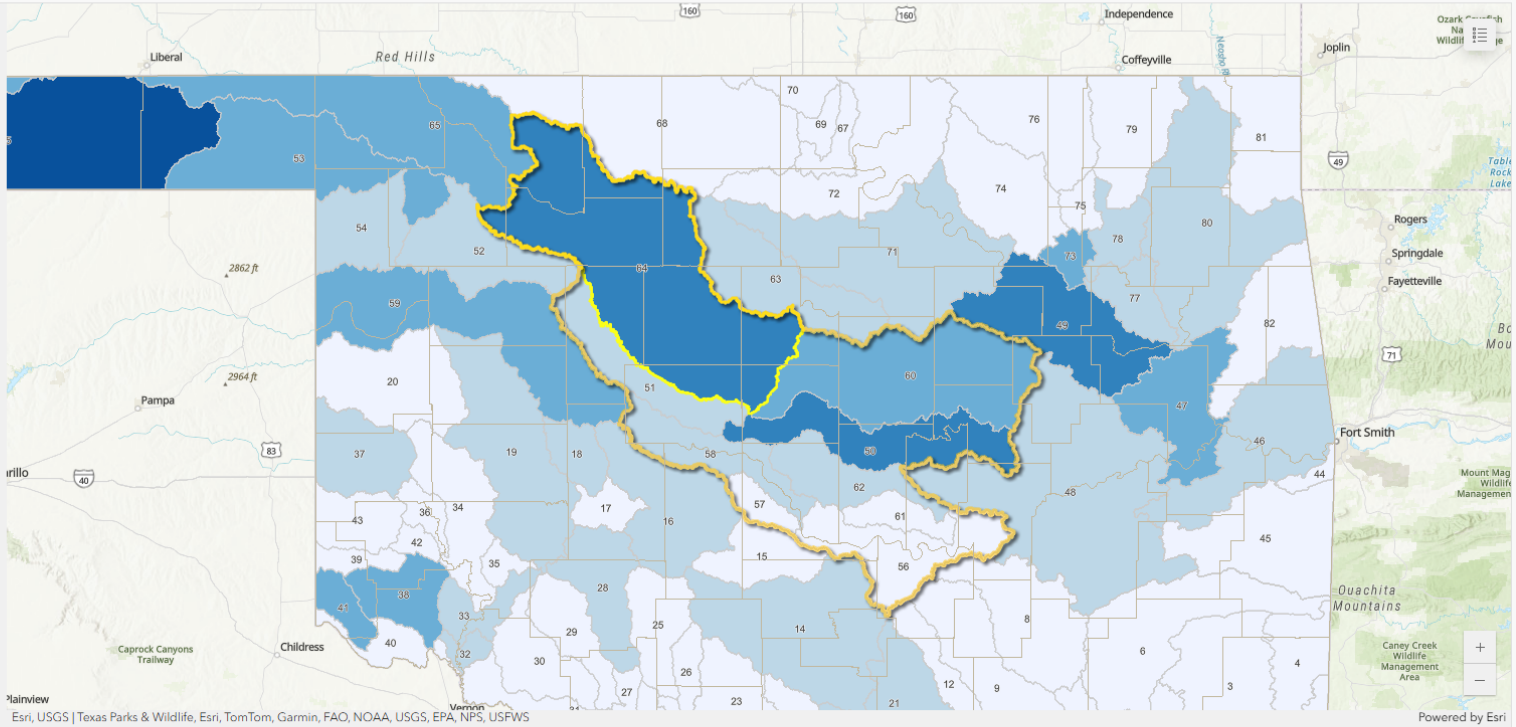
Please review the surface water (SW), alluvial groundwater (AGW), and bedrock groundwater (BGW) tabs for more information, or read the Water Demand Forecast Report (*Coming Soon*) on OWRB's website. Note that all data is in draft form, and the OCWP Team is working to finalize it.

Dashboard text last updated on October 6, 2025. Dashboard data last updated on August 18, 2025.

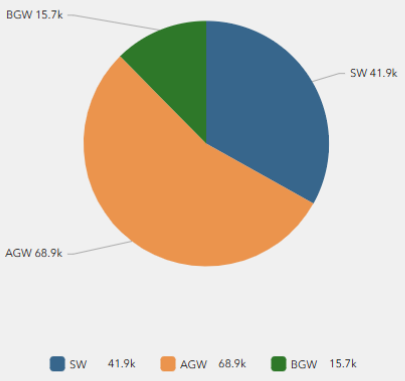
Total Demand by Sector (AFY)



64 - Middle Cimarron River



Demand by Source (AFY)



64 - Middle Cimarron River for 2075

64 - Middle Cimarron River Total Demand by Sector (2075)

Oil & Gas (OG)	Public Supply (PS)	Self-Supplied Domestic (SSD)	Self-Supplied Industrial (SSI)	Livestock (LS)	Crop Irrigation (CI)	Thermoelectric Power (TE)
9,154 AFY	43,228 AFY	2,745 AFY	0 AFY	5,482 AFY	65,858 AFY	0 AFY

64 - Middle Cimarron River Percent Change in Total Demand by Sector (2020 to 2075)

Oil & Gas (OG)	Public Supply (PS)	Self-Supplied Domestic (SSD)	Self-Supplied Industrial (SSI)	Livestock (LS)	Crop Irrigation (CI)	Thermoelectric Power (TE)
0%	47 %	44%	No Value	-4 %	41 %	No Value

Overview | Population | Total Demand | SW Demand | AGW Demand | BGW Demand | Oil & Gas | Public Supply | Self-Supplied Domestic | Crop Irrigation | Thermoelectric Power | Livestock | Self-Supplied Industrial

2025 OCWP - Water Supply

Oklahoma Comprehensive Water Plan

Select a Planning Region: Central

Select a Planning Basin: 64 - Middle Cimarron Ri...

Select a Planning Year: 2075

Physical Supply

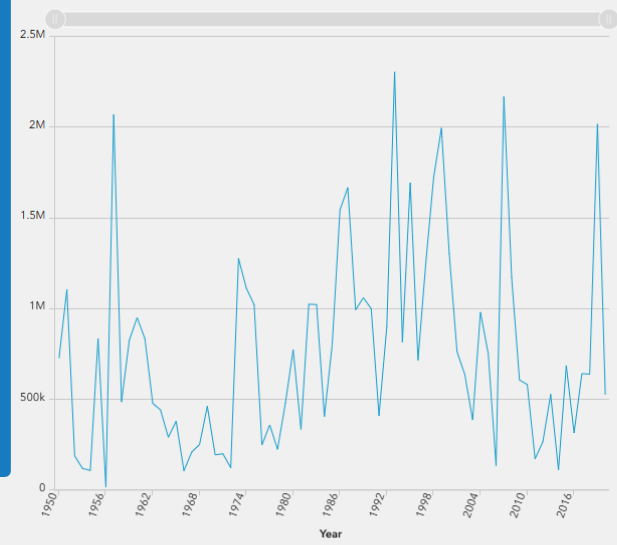
An inter-basin (or out-of-basin) transfer is where water is withdrawn from one Planning Basin and used in another. Existing inter-basin supplies are implicitly represented in the streamflow record. Future inter-basin supplies are limited to existing permitted amounts or the Basin's demands, whichever is smaller.

The Average and Minimum Surface Water Supply at the State's Downstream Points is the sum of water available to permit at the bottom of Basins 1, 2, 44, 46, and 66.

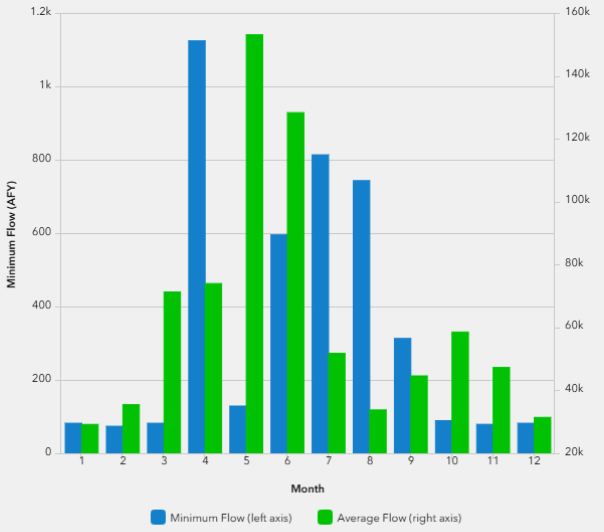
Statewide 2075 results automatically populate upon opening of the dashboard. Navigate to the "Select a Planning Region" drop down to view the results for any Region across the State. Next, navigate to the "Select a Planning Basin" drop down to view the results of a Basin in the selected Region. Select the planning year (2020, 2030, 2035, 2045, 2060, 2075) that you would like to evaluate in the upper right corner of dashboard.

Dashboard text last updated on October 23, 2025. Dashboard data last updated on August 18, 2025.

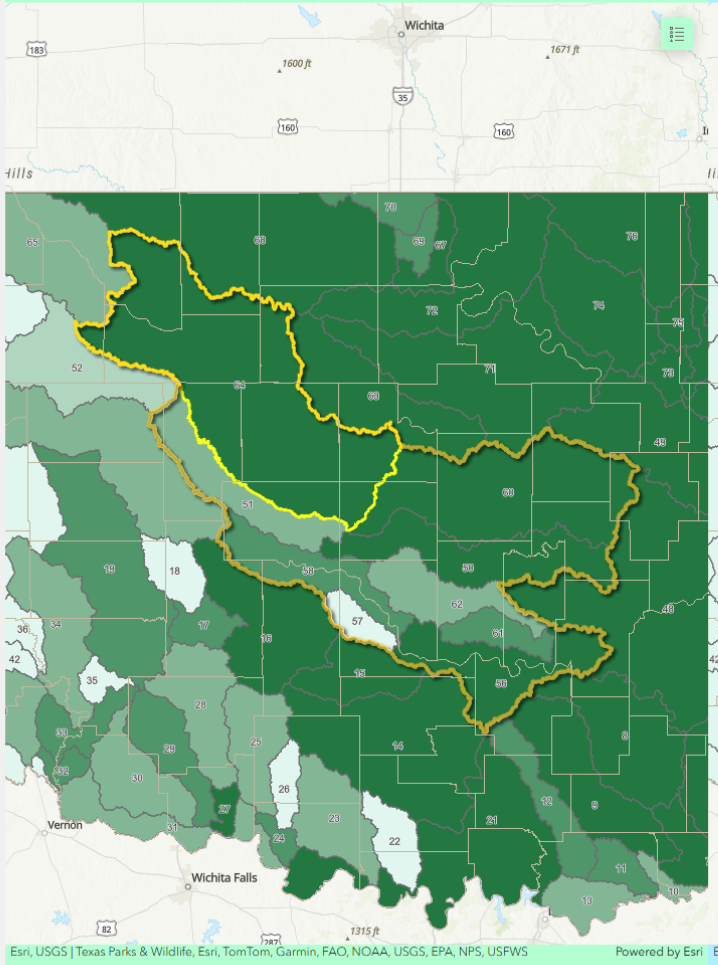
Annual Historical Streamflow at the Basin Outlet (1950-2020 Water Years)



Monthly Historical Streamflow at the Basin Outlet (1950-2020 Water Years)



Average Streamflow

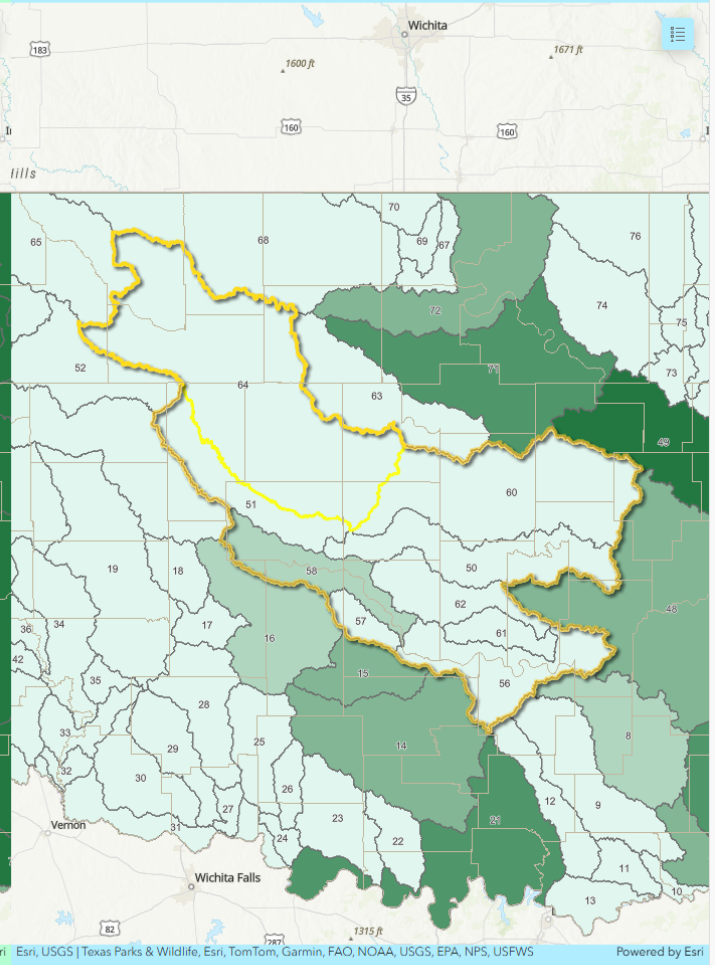


2075 Average Surface Water Supply

762,705 AFY

64 - Middle Cimarron River

Minimum Streamflow



2075 Minimum Surface Water Supply

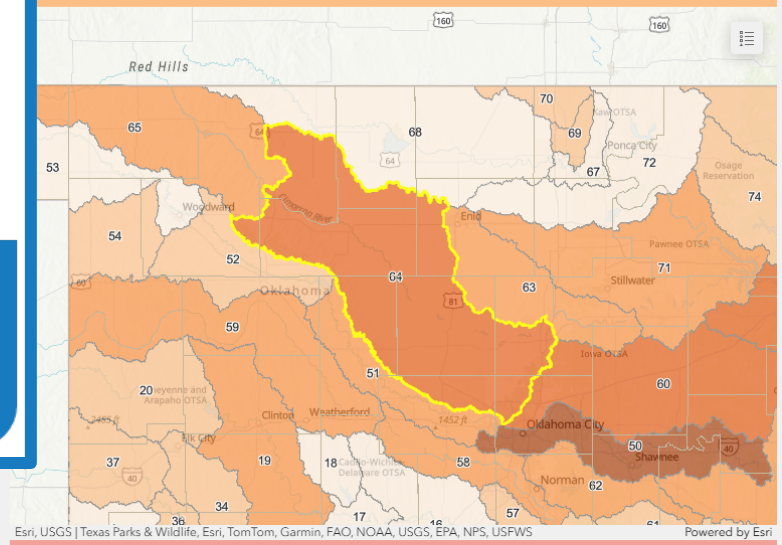
18,768 AFY

64 - Middle Cimarron River

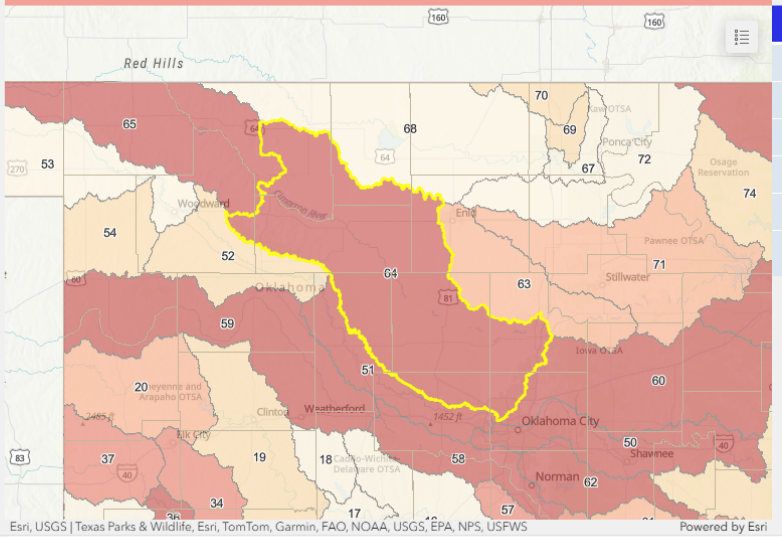
Overview | Physical SW | Physical AGW | Physical BGW | Legal Water | Water Transfers

Water Shortages

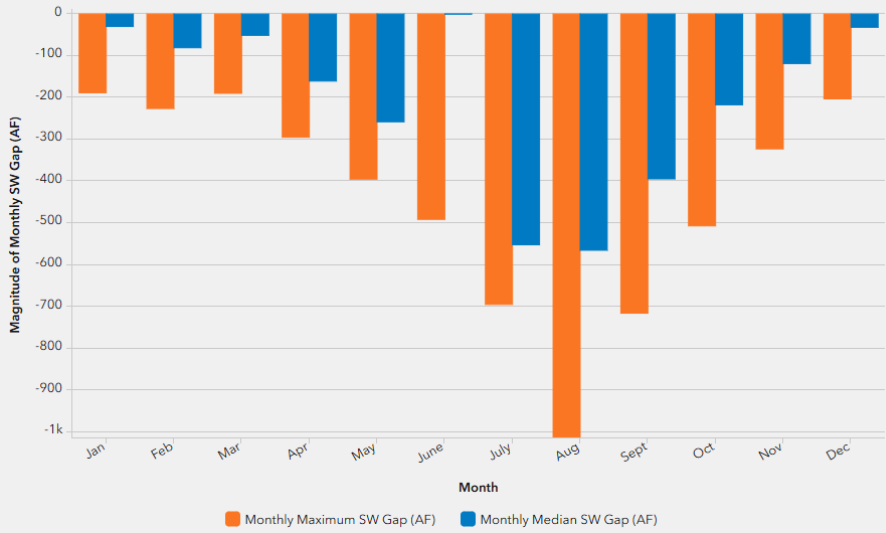
Maximum Annual SW Gap (AFY) (2075 Demand)



Probability (%) of a SW Gap of any Magnitude (2075 Demand)



Monthly Surface Water Gap for 64 - Middle Cimarron River (2075 Demand)



Monthly shortages may not sum to equal the maximum annual SW gap or AGW/BGW depletion presented for any given Planning Basin in the same Planning Year. A median gap of zero in a given month does not necessarily indicate an absence of gaps. Rather, it indicates gaps are expected less than half the time in that month for the selected conditions

64 - Middle Cimarron River

Planning Year	Maximum Annual SW Gap (AFY)	Probability (%) of a SW Gap of Any Magnitude
2030	393	65%
2035	684	96%
2045	1,422	82%
2060	2,782	87%
2075	4,590	89%

Surface Water Gap Magnitude (AFY) Based on 2075 Demand

4,590 AFY

64 - Middle Cimarron River

Probability (%) of a Surface Water Gap Based on 2075 Demand

89%

64 - Middle Cimarron River

2025 OCWP - Effectiveness in Meeting Future Water Demands

Oklahoma Comprehensive Water Plan

Select a Water Manage...
Reuse

Select a Planning Basin
All Planning Basins

Water Management Strategies

and livestock production.

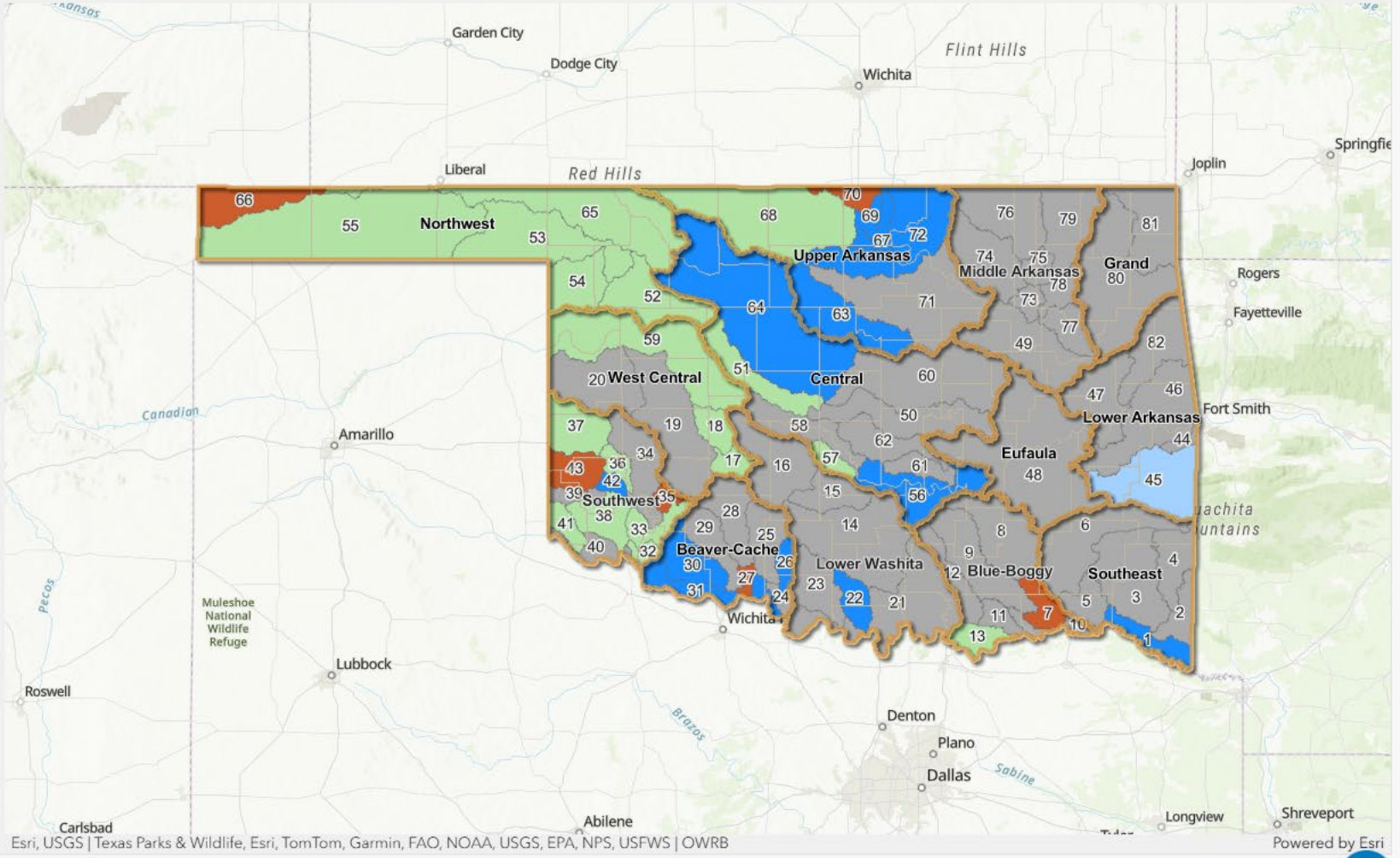
- **Water Transfers**: Obtaining water resources from external suppliers or regions.
- **Increase Reliance on Surface Water**: Developing or utilizing above-ground water resources.
- **Increase Reliance on Groundwater**: Developing or utilizing underground water resources.
- **Stormwater Capture and Use**: Collecting and beneficially using post-precipitation runoff.
- **Reuse**: Reclaiming and treating water for beneficial purposes.

On the map, results automatically populate for the Demand Management WMS when you open the dashboard. Navigate to the "Select a Water Management Strategy" drop down to change the WMS results displayed. Populate the effectiveness scores for a Planning Basin of your choosing by navigating to the "Select a Planning Basin" drop down.

Reuse

WMS Effectiveness

- Effective at Meeting Future Demands
- Potentially Effective with Local Variability
- Effective When Paired with Demand Management / Agriculture Options
- Partially Effective - Shortages Remain
- May Increase Shortages - Use with Other Strategies
- Ineffective at Meeting Future Demands
- No Shortage or Needs Met by Other Strategies



Strategy | Basin

2025 OCWP - Drinking Water Infrastructure Needs

Oklahoma Comprehensive Water Plan

Select a System Size: All System Sizes | Select a Planning Region: Statewide | Select a Planning Year: Near-term

Water Infrastructure Needs

- collectors. Individual project costs for dams and reservoirs were added to the source category cost if they were provided by one of the sampled systems.
- **Storage** projects include all finished water storage and onsite raw water storage.

On the map, statewide results for all systems sizes automatically populate when you open the dashboard. Navigate to the "Select a System Size" drop down to change the needs results displayed. Populate the estimated needs for a Planning Region of your choosing by navigating to the "Select a Planning Region" drop down. "M" equates to a million (e.g. 1M represents 1,000,000).

OWRB Activities and Infrastructure Needs by Legislative District

As a part of the 2025 OCWP work, water, wastewater, and stormwater/floodwater projects were collected from public providers, priority project lists from Oklahoma Department of Environmental Quality, Intended Use Plan from OWRB, unfunded American Rescue Plan Act projects, response to the EPA Drinking Water Infrastructure Needs Survey and Clean Watersheds Needs Survey, and others. The survey compiled responses received between 2020 and 2025. Nearly 400 unique water suppliers are reflected in the survey of water, wastewater, and stormwater/floodwater projects.

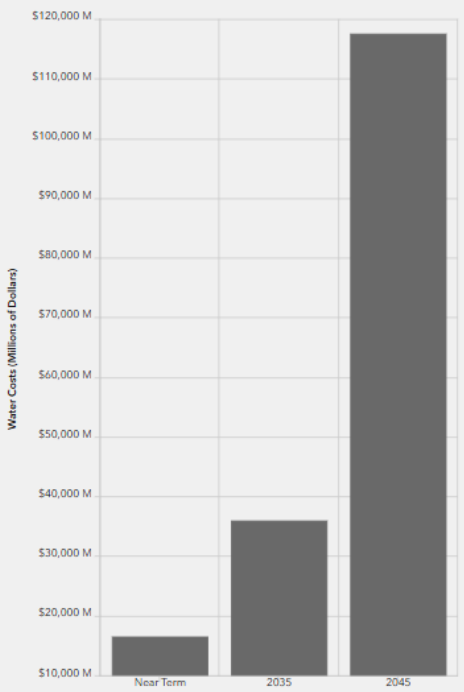
The fundamental difference between these two dashboards is that the Legislative Dashboard does NOT include information on all utilities nor did all utilities that submitted information include costs through 2045. This dashboard estimates infrastructure needs for all drinking water providers across the state through 2045 by using statistically significant sampling and simplifying assumptions.

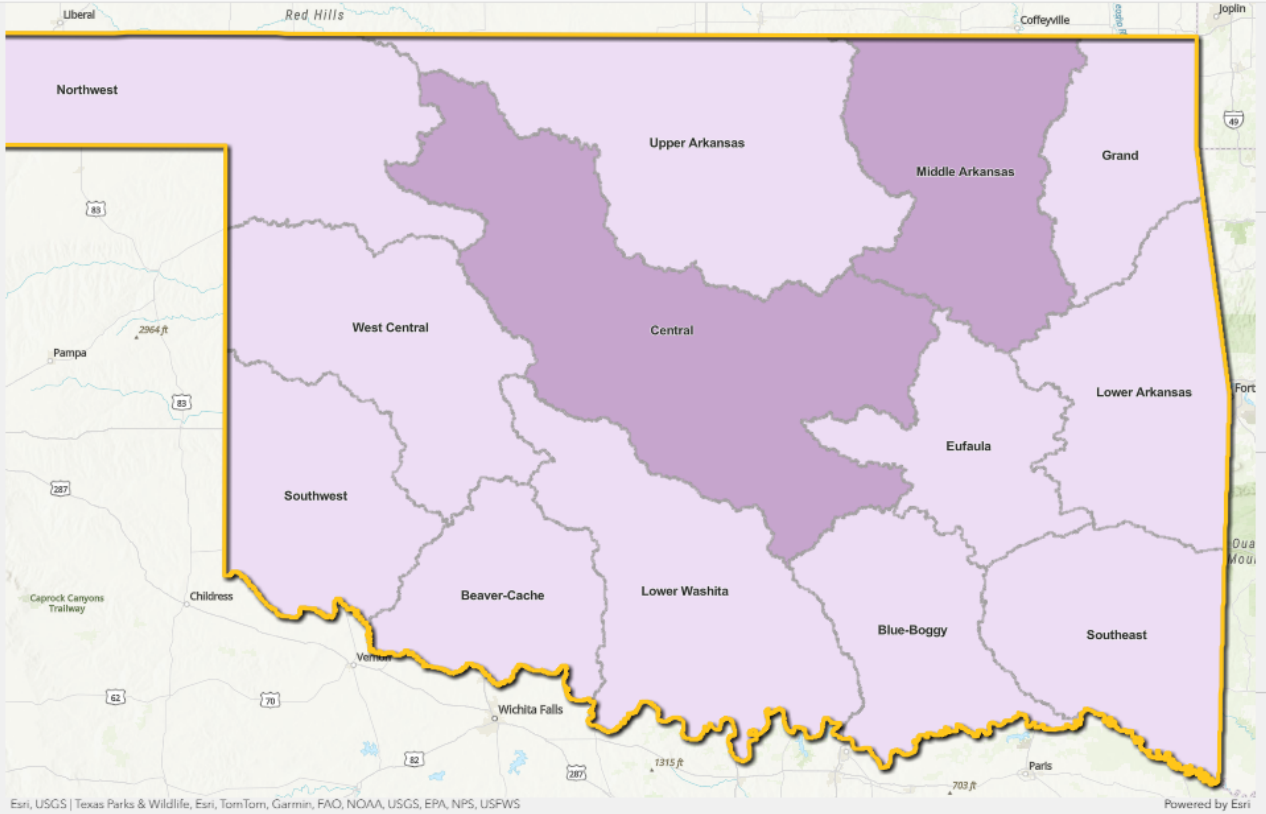
Learn more about the results and their development in the 2025 OCWP Technical Summary Report (*Coming Soon*) on OWRB's website. Please note that all data is in draft form, and the OCWP Team is working to finalize it.

2025 OCWP Projected Drinking Water Infrastructure Needs Workbook

2025 OCWP Water Demand Dashboard

Statewide - All Systems





All System Sizes
Cost
- $3,000M or less
- $3,000+M - $8,000M
- $8,000+M - $12,000M
- Greater than $12,000M

Small Systems
Cost
- $100M or less
- $100+M - $1,000M
- $1,000+M - $2,000M
- Greater than $2,000M
- No systems of this size

Small-Medium Systems
Cost
- $100M or less
- $100+M - $1,000M
- $1,000+M - $2,000M
- Greater than $2,000M
- No systems of this size

Medium-Large Systems
Cost
- $50M or less
- $50+M - $500M

$16,585M

($16.585B)

Statewide All Systems in Near Term

Type	Cost	Year
All	$16,585M	Near Term
Distribution and Transmission	$7,505M	Near Term
Source	$3,668M	Near Term
Storage	$239M	Near Term
Treatment	$5,173M	Near Term

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Stakeholder Engagement

OKLAHOMA
Water Resources Board

US Army Corps
of Engineers®

2025 OCWP

Goals for OCWP Regional Meetings

Why and how we gathered input

Identify the most pressing local water issues and policy needs.

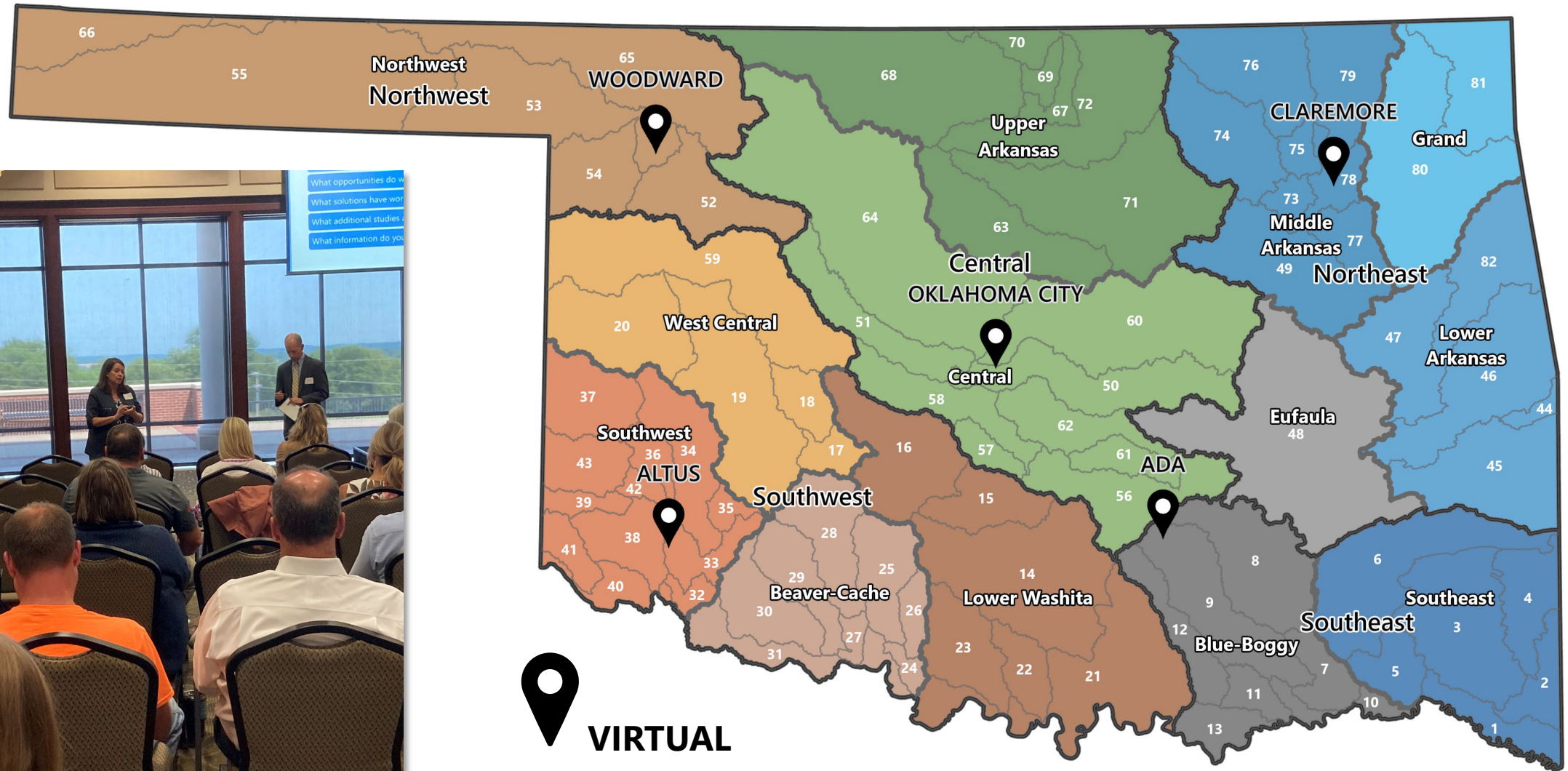
Guide the identification and deployment of solutions to those issues and needs.

Chart a course toward reliable, resilient water management locally and statewide.

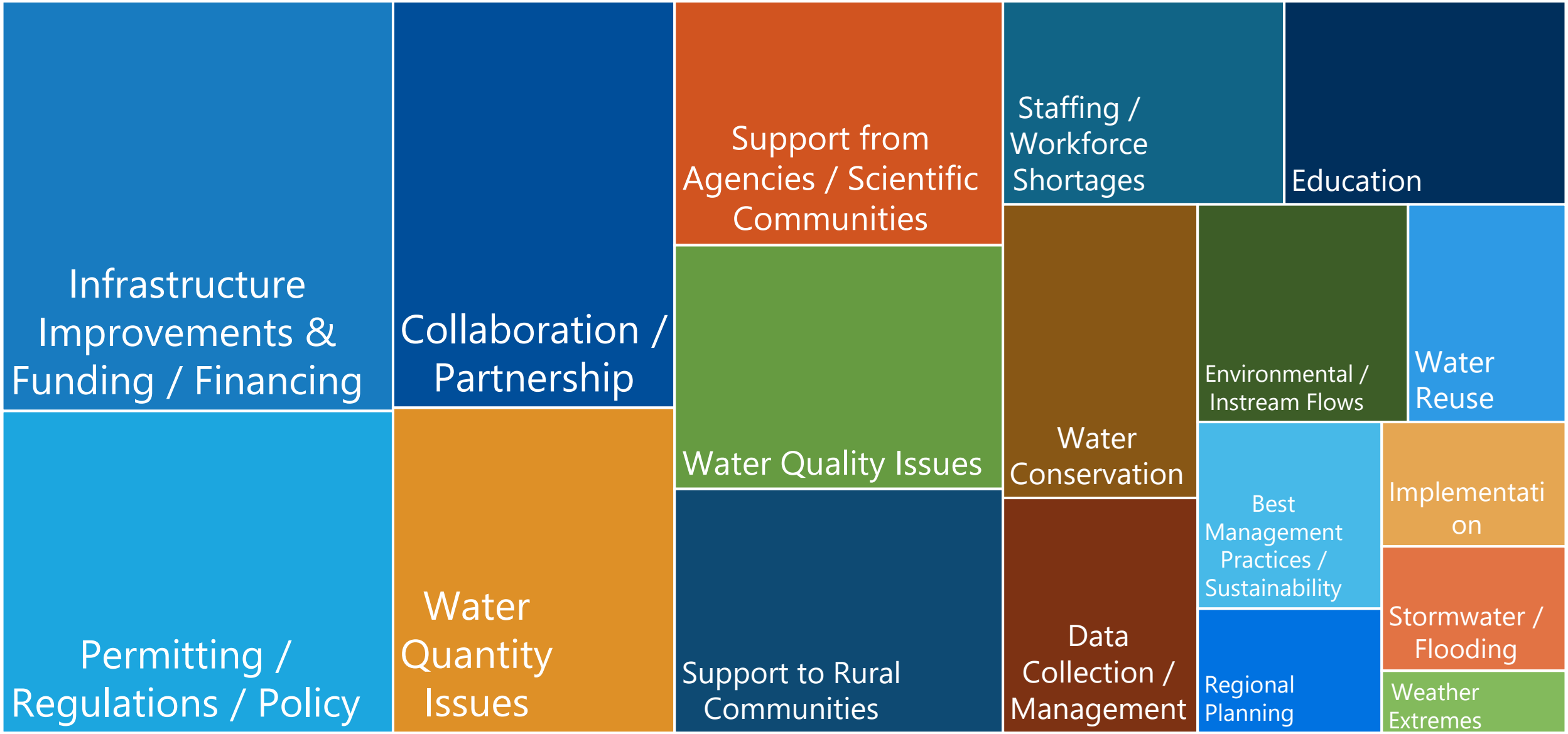
Regional Meetings: Round 1

AUGUST 2023

Listening sessions



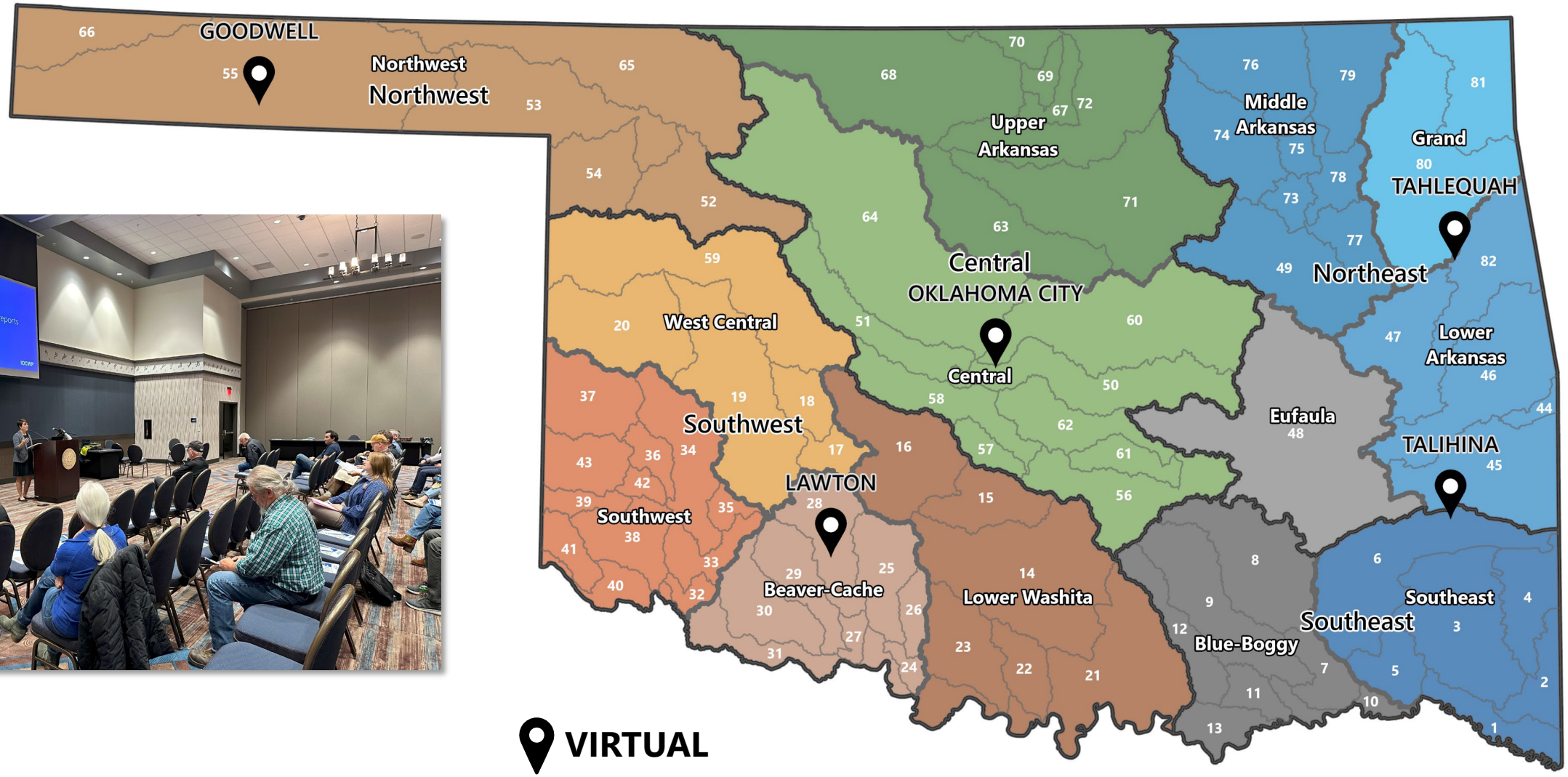
Priority topics raised in Round 1 carried throughout the OCWP process



Regional Meetings: Round 2

DECEMBER 2023

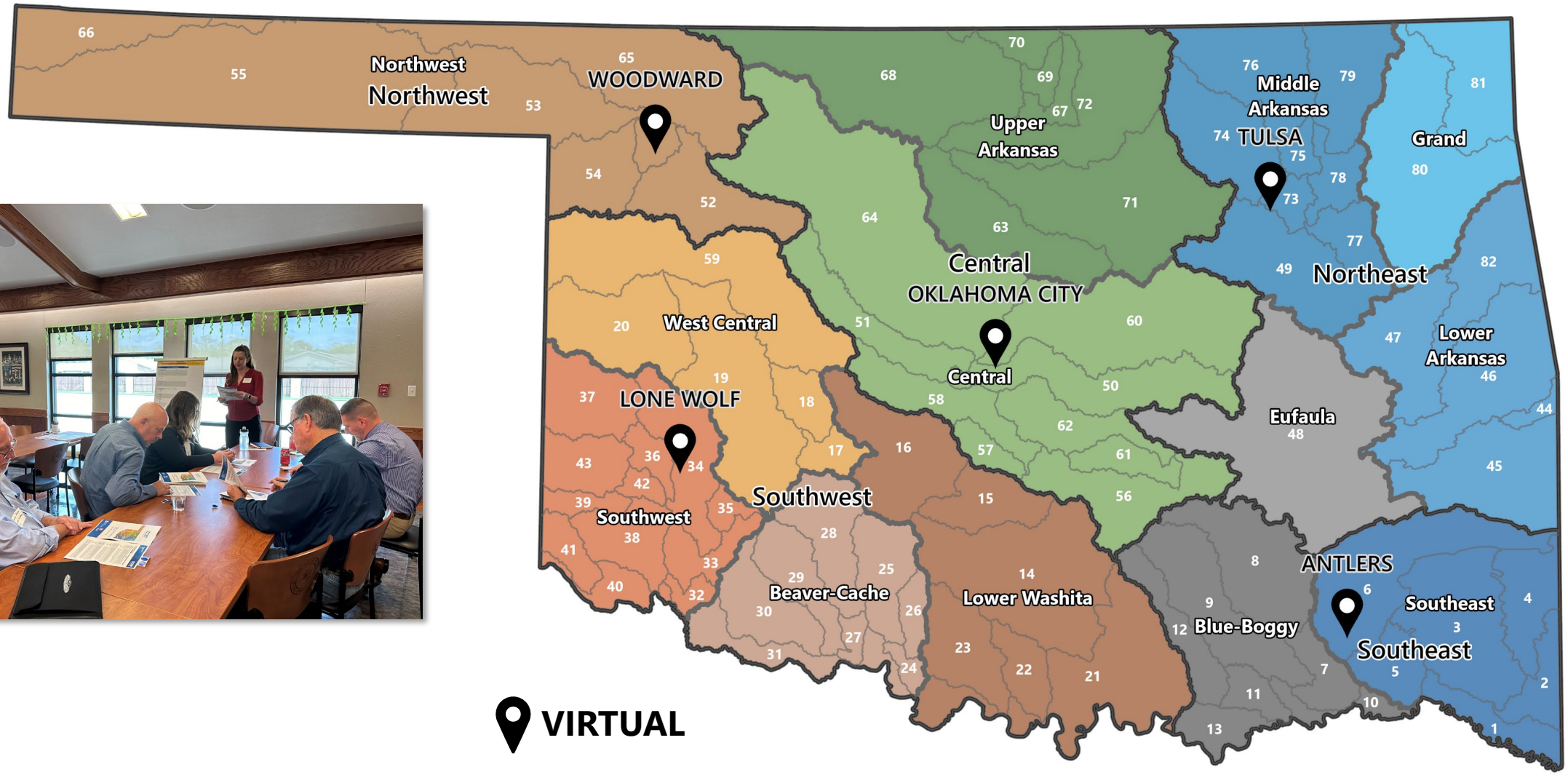
Explore topics from Round 1



Regional Meetings: Round 3

APRIL
2024

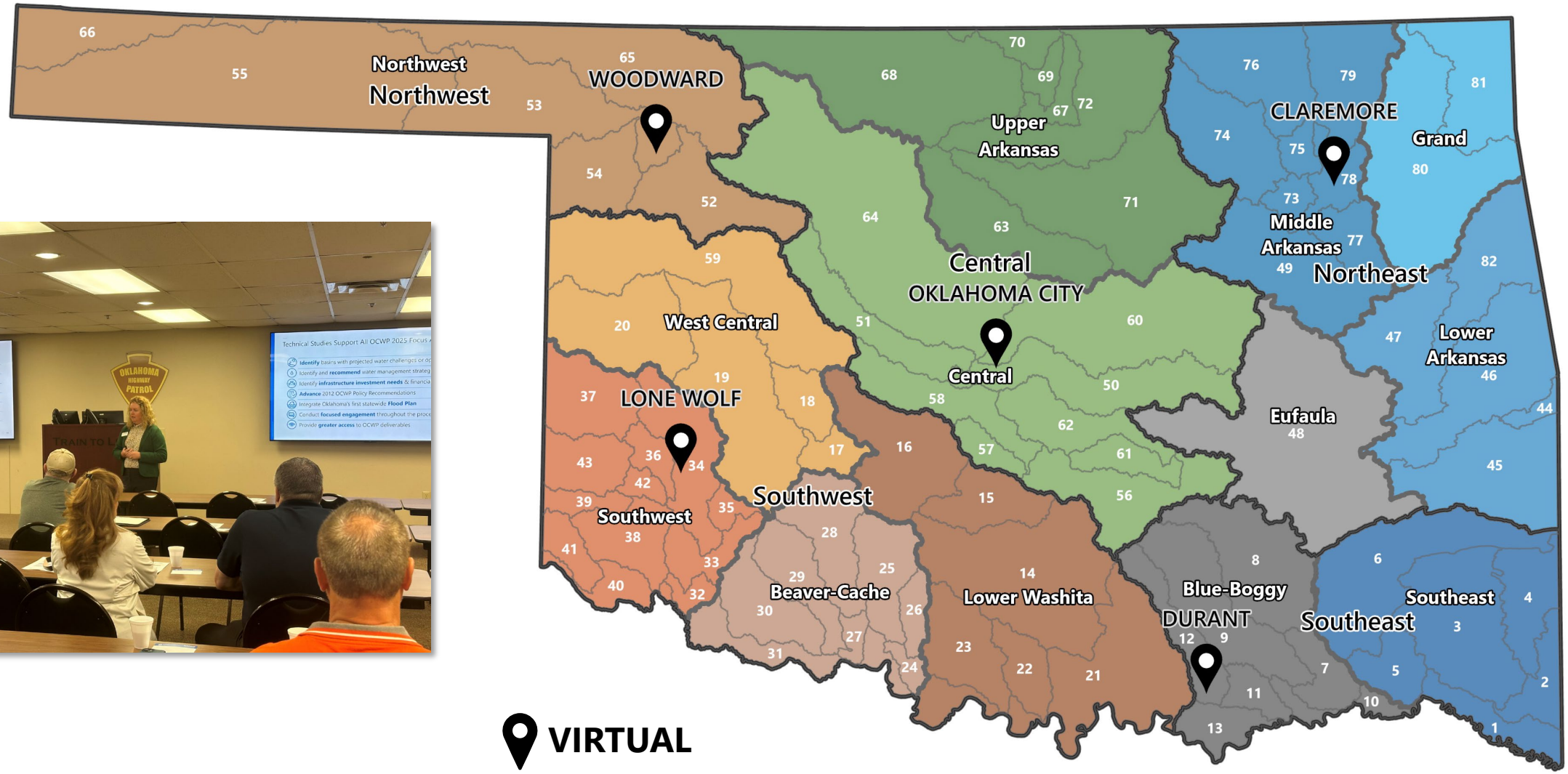
Regional projections for supply/demand/water quality



Regional Meetings: Round 4

OCTOBER 2024

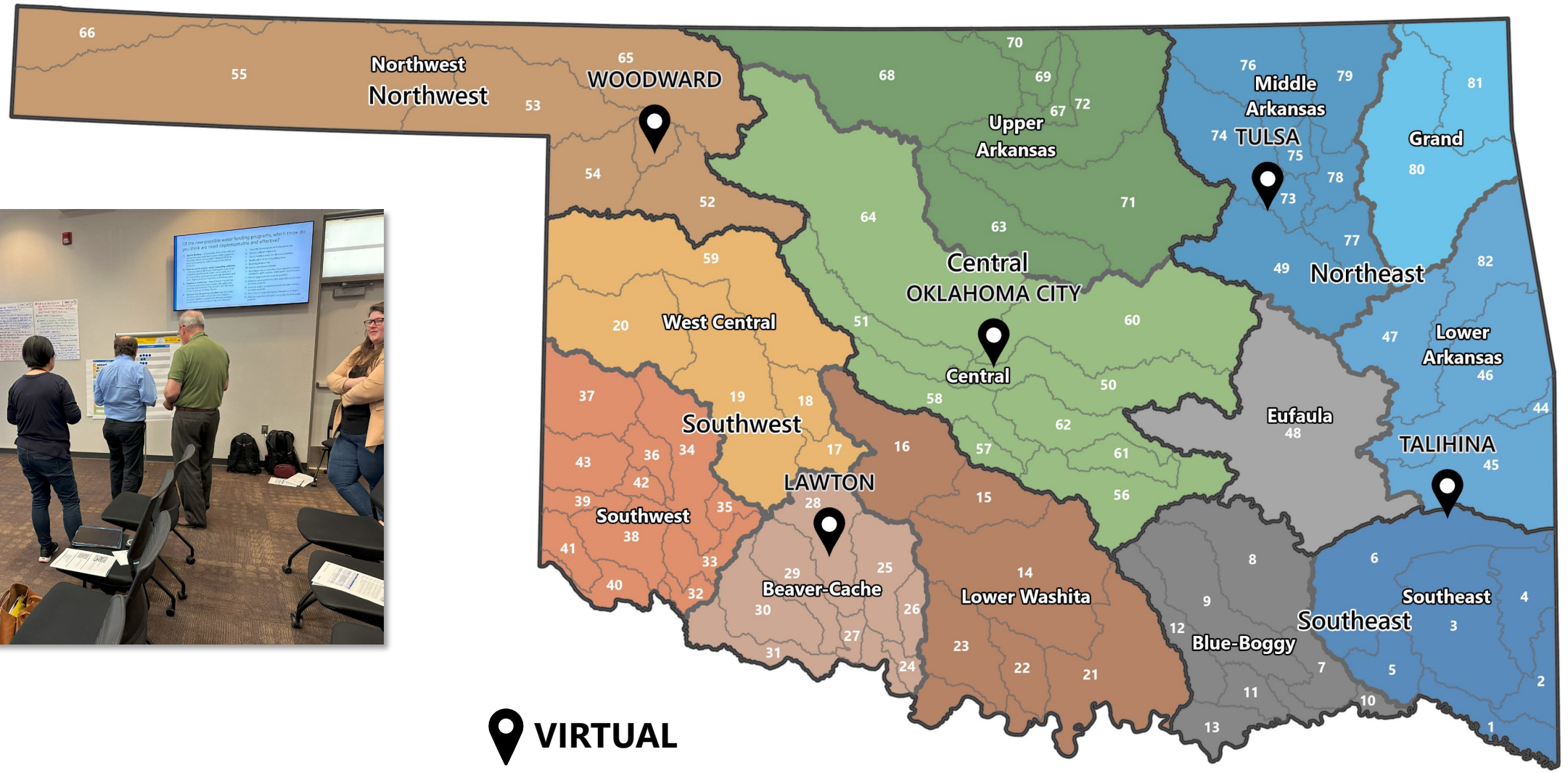
Policy needs and feasibility of Water Management Strategies



Regional Meetings: Round 5

MARCH 2025

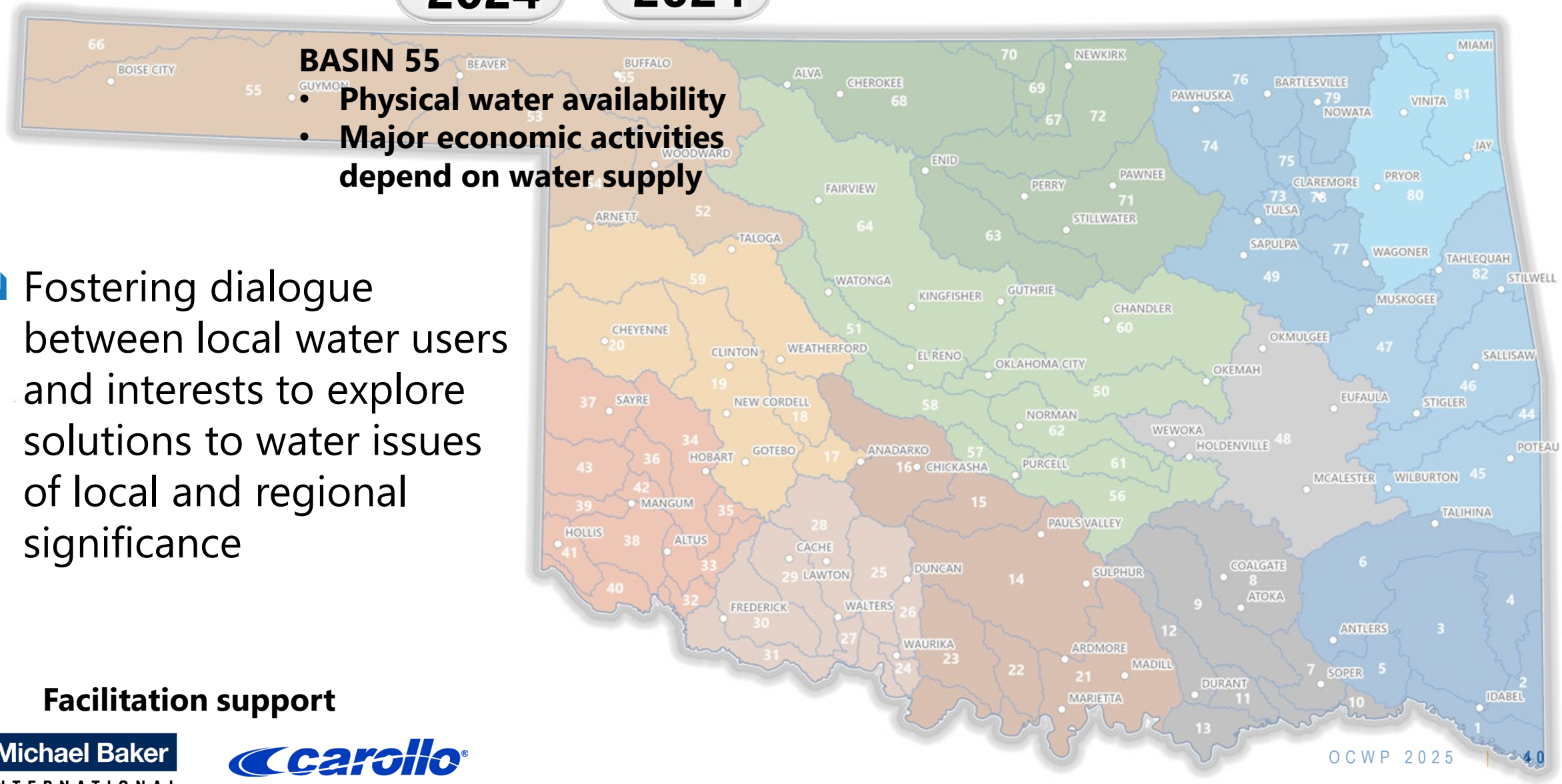
Preliminary draft recommendations



Focus Basins

JULY 2024

SEPT 2024



- Fostering dialogue between local water users and interests to explore solutions to water issues of local and regional significance

Facilitation support

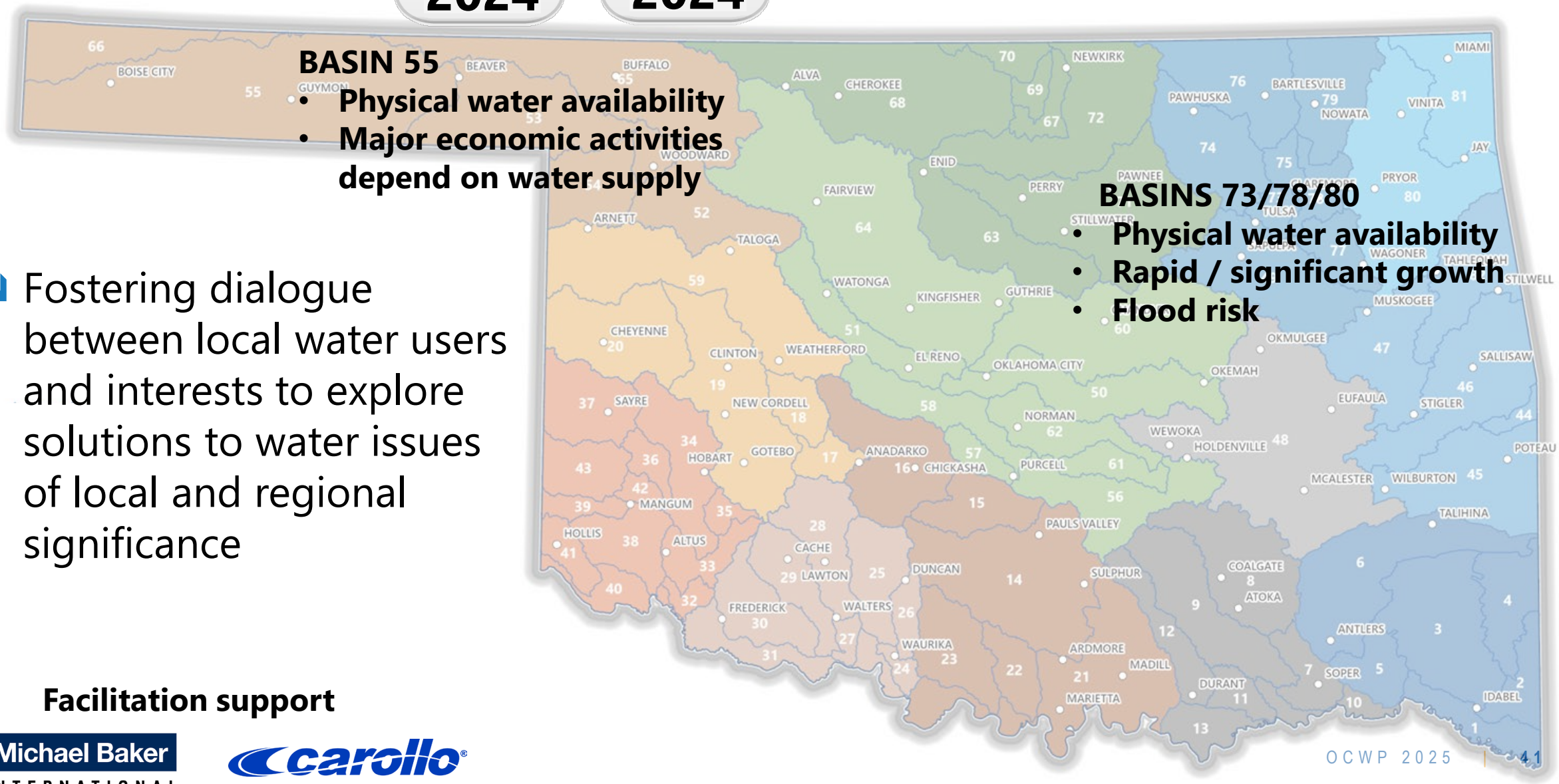
Michael Baker INTERNATIONAL

carollo

Focus Basins

JULY 2024

SEPT 2024



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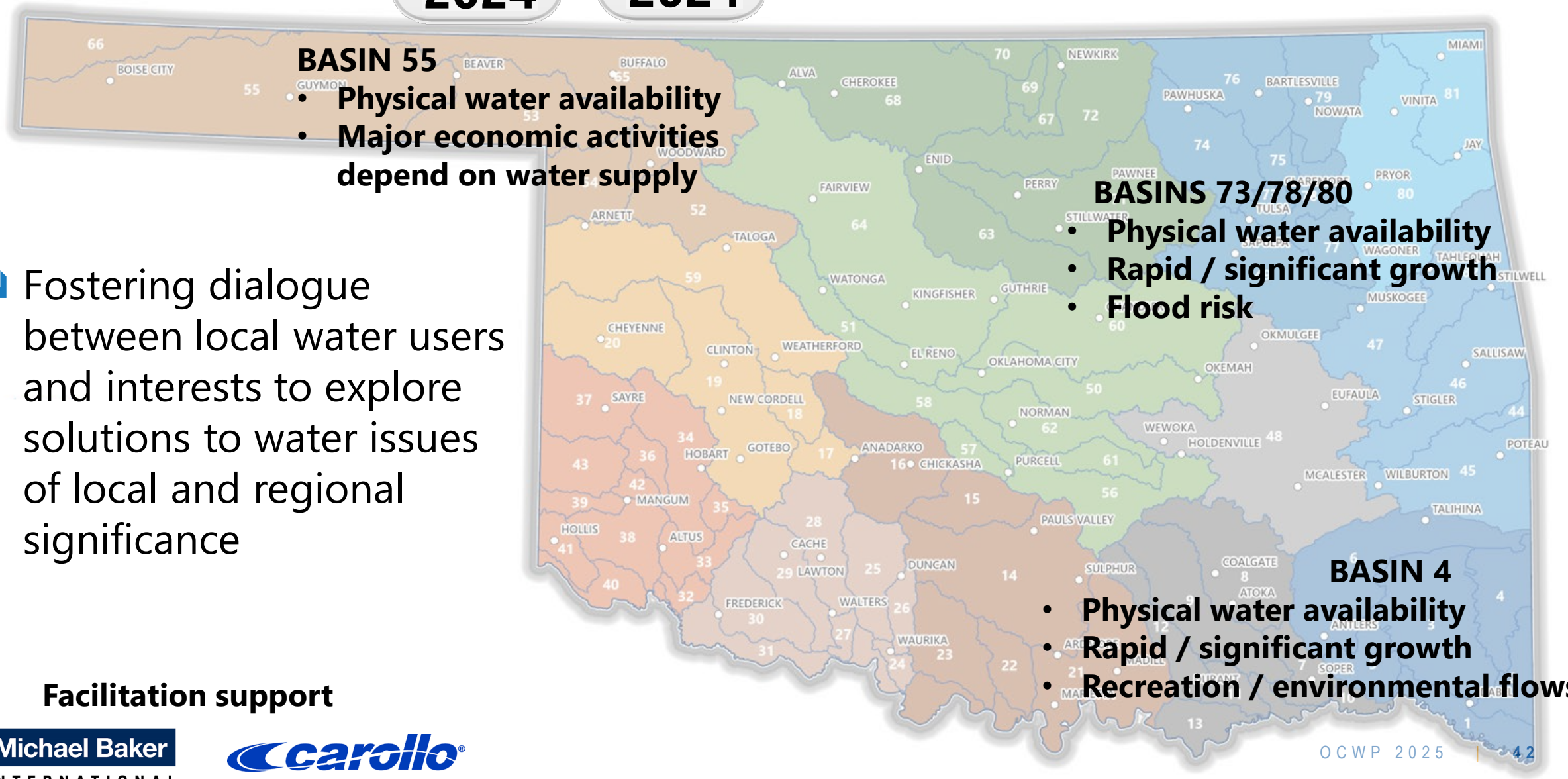

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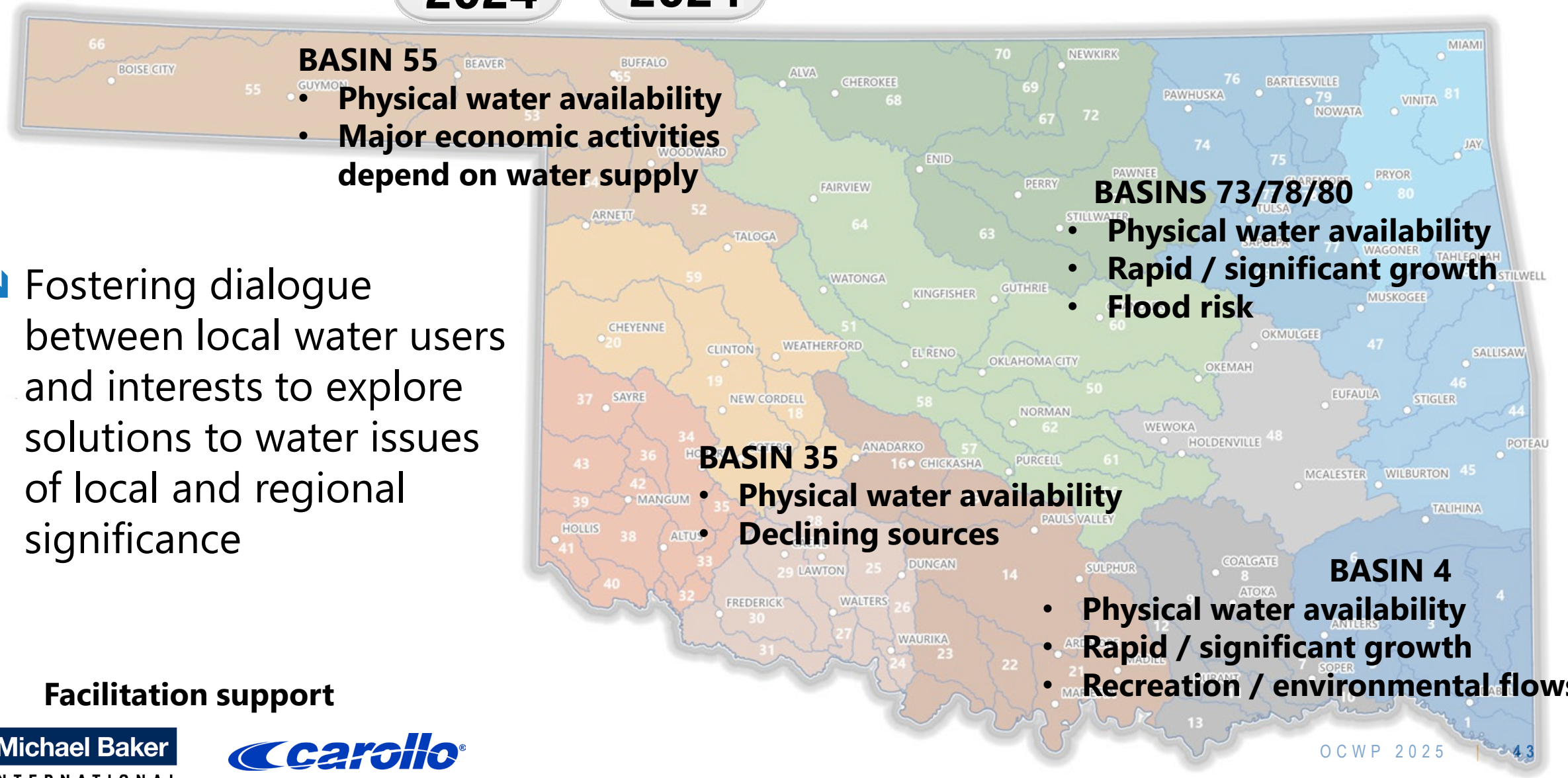
carollo

Focus Basins

JULY 2024

SEPT 2024



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Facilitation support

Michael Baker INTERNATIONAL

carollo

Surveys provided ongoing opportunities for stakeholder input

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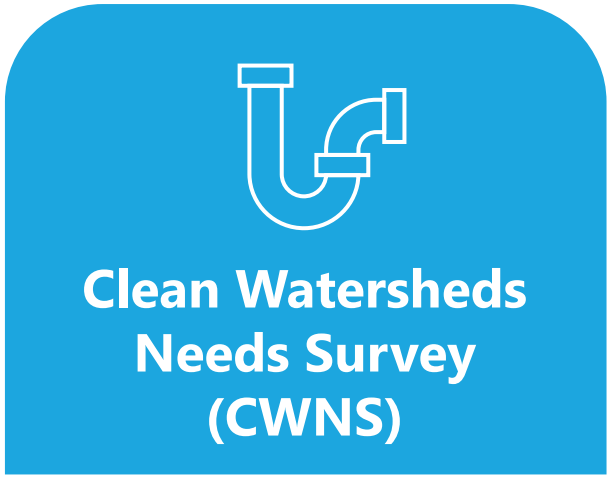
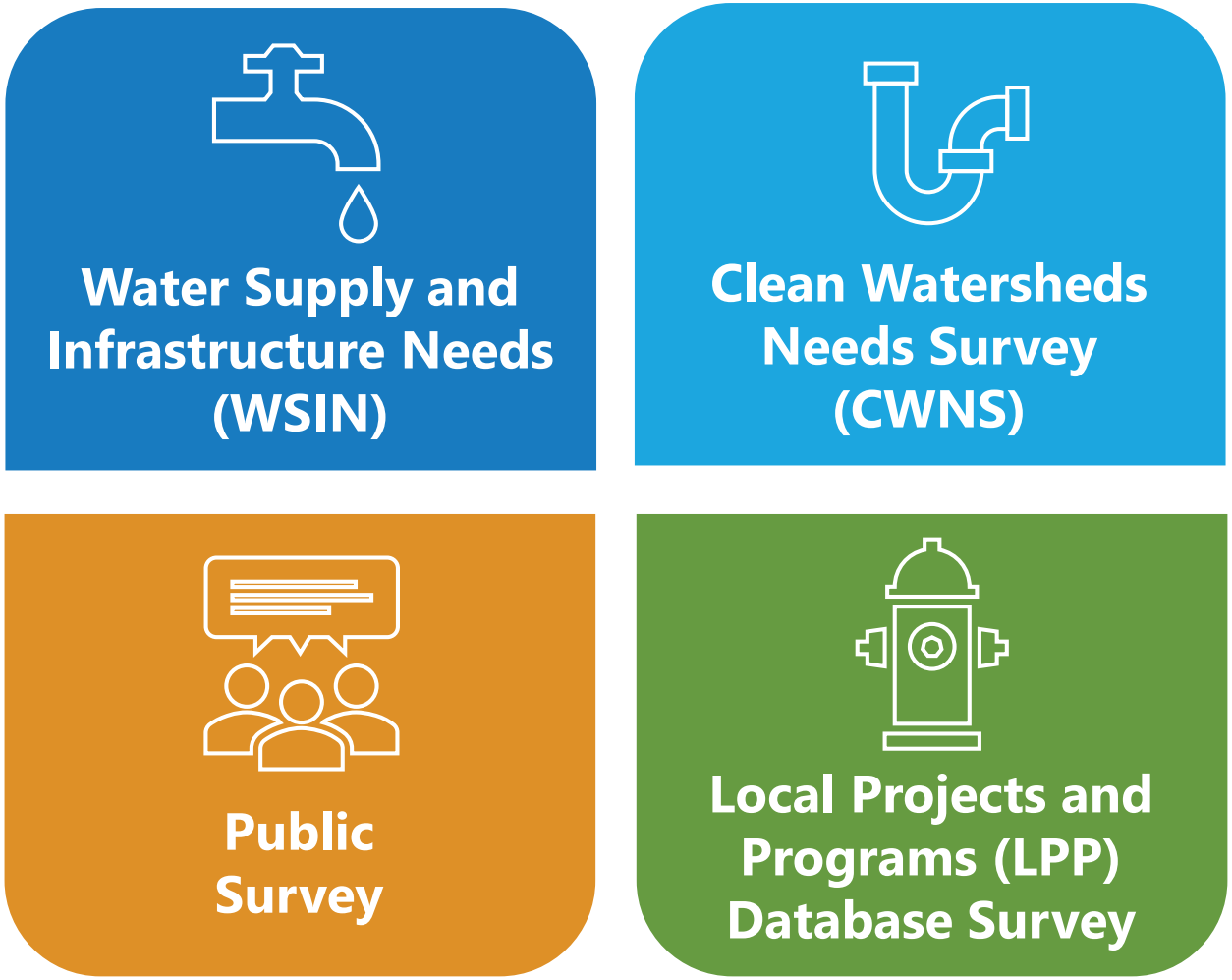


Surveys provided ongoing opportunities for stakeholder input



Workgroups focus on advancing key needs and strategies for Oklahoma's water future

Workgroups

Oklahoma Source Water Collaborative

Workgroups focus on advancing key needs and strategies for Oklahoma's water future

Workgroups

Oklahoma Source Water Collaborative

Oklahoma Water Reuse Action Plan

Workgroups focus on advancing key needs and strategies for Oklahoma's water future

Workgroups

Oklahoma Source Water Collaborative

Oklahoma Water Reuse Action Plan

Water Workforce

Workgroups focus on advancing key needs and strategies for Oklahoma's water future

Workgroups

Oklahoma Source Water Collaborative

Oklahoma Water Reuse Action Plan

Water Workforce

Irrigated Agriculture

OCWP Preliminary Recommendations

OKLAHOMA Water Resources Board

US Army Corps of Engineers®

2025 OCWP

OCWP Recommendations

Public input through regional meetings, surveys, written comments, etc.

Feedback from related state environmental agencies, tribal nations, workgroups, and organizations

Policy assessment

Water demand, physical supply, legal analysis, water quality, etc.

Other technical and supplemental studies

2025 Oklahoma Comprehensive Water Plan Update

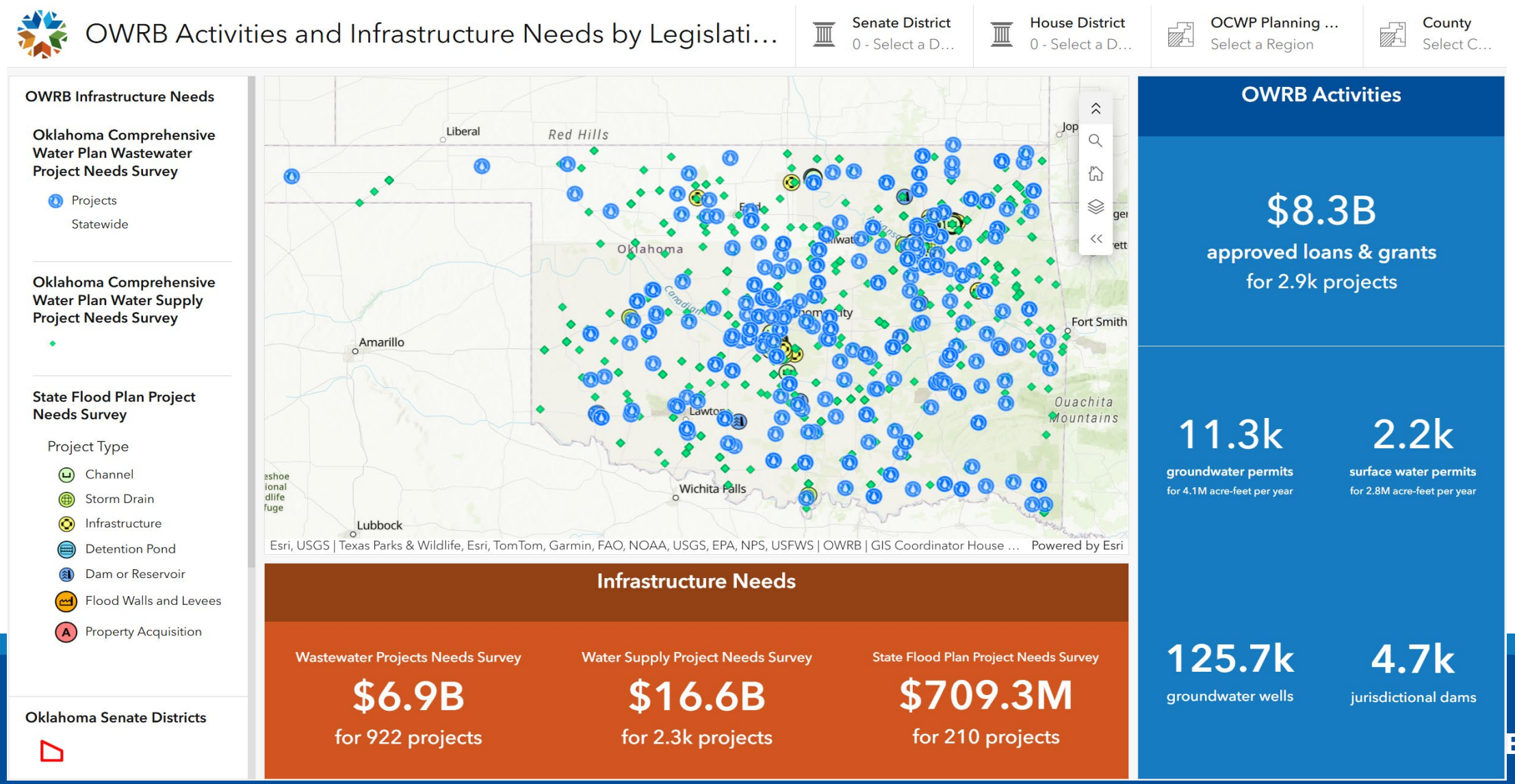
Focus Areas for Policy Recommendations:

- Water Infrastructure & Workforce
- Water Supplies and Storage
- Water Management & Policy
- Water Data & Information

Ultimate Goal: Water Security for the future!

Preliminary policy recommendations will be detailed in the OCWP Executive Summary. The following slides contain highlights from each focus area.

2024 Infrastructure Needs Surveys: >$24B



Board

OCWP Recommendations— Preliminary

Water Infrastructure & Workforce

1. Establish a recurring **"Water for Oklahoma Fund" to address $24 billion infrastructure financing need (**water, wastewater, stormwater, and conservation/water loss).
   - Fully leverage existing, proven loan and grant programs and new water system "gap" assistance program (e.g. planning and design to meet eligibility requirements), local/tribal cost share, etc.
   - Expand technical assistance programs and leverage other non-state programs (e.g. CFO-to-Go, assessment of emerging industries, water loss, rate studies, capital planning)
   - FY 27 Budget request: **$50 million**; 100% pass through
2. Expand State investment by developing **new capitalization source and partnerships** (e.g. cost-share to leverage state investment, gambling revenues, impact fees, tribal match grants, local tourism tax).
3. Address **critical water workforce shortage.** Partnership with Oklahoma Workforce Commission, trade organizations, OSU well drillers- gw university.

New Texas Water Fund Legislation

Special fund created outside the general revenue fund that enables the Texas Water Development Board (TWDB) to provide funding through existing financial assistance programs and the newly created New Water Supply Fund for Texas (2023 SB 28 and SJR 75)

SB 30 authorized a one-time, **$1 billion** supplemental appropriation of GR; Proposition 6 received over 77 % voter approval

Equivalent to ~$130 million in Oklahoma based on population

State Priorities for Use of Funds

1. Development of **new sources** of water supply;
2. Water infrastructure projects for "at risk" **rural and <150k pop.**;
3. Projects for which all required **permitting** has been **substantially completed**;
4. The statewide **water public awareness** program;
5. Water **conservation** strategies;
6. **Water loss mitigation** projects.

TWDB authorized to transfer money to the following programs:

- New Water Supply for Texas Fund
- State Water Implementation Fund for Texas (SWIFT) and State Water Implementation Revenue Fund
- Texas Water Fund administrative fund
- Flood Infrastructure Fund
- Clean Water or Drinking Water SRF
- Rural Water Assistance Fund
- statewide water public awareness account
- Texas Water Development Fund II water financial assistance; participation; and economically distressed areas accounts
- Agricultural Water Conservation Fund

OCWP Recommendations— Preliminary

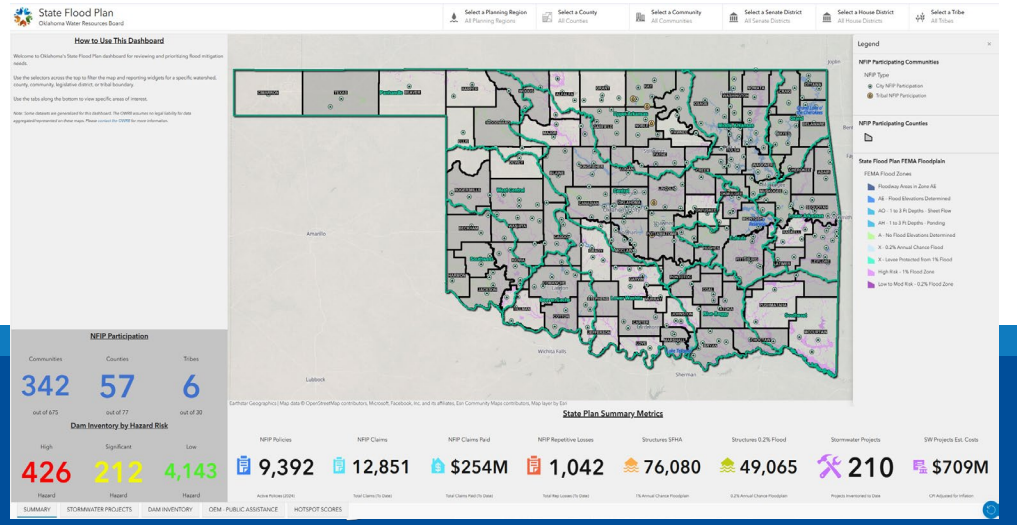
Water Supplies & Storage

1. Strengthen **Oklahoma's dam safety** program, implement **Oklahoma State Flood Plan/Flood, Drought Task Force recommendations,** expand owner training, Hazard Mitigation Revolving Fund Loan Program

2. Fund OCC's **upstream flood control watershed dam rehabilitation** program to restore and extend life of critical flood control infrastructure.

3. Support **voluntary agriculture water conservation** and **support local economic drivers** through water planning services, basin-specific technical studies, and stakeholder engagement.

4. Support a **voluntary tourism and recreation-related water conservation** targeting **specific stream segments** and **support local economic drivers**; assess quantity and timing of water conservation efforts, water use options, and economic impacts of competing water uses.

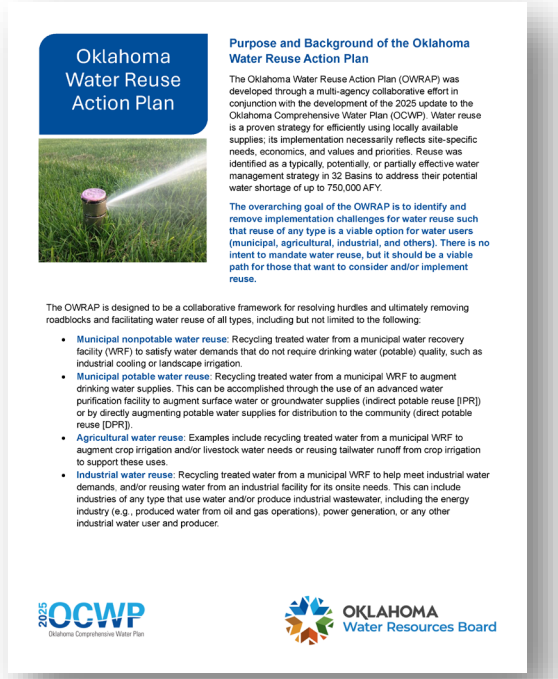


OCWP Recommendations— Preliminary

Water Supplies & Storage

5. Implement **Oklahoma Water Reuse Action Plan (OWRAP) advisory group recommendations**, evaluate statutory limitations, incentives, partnerships, and guidance on innovative strategies for developing new sources (e.g. water reuse, aquifer storage & recovery, and marginal quality water).

6. Dedicate recurring funding for **water quality and quantity protection and restoration:** Restore soil health, reduce flooding, and remove woody invasive species; expand outreach through Oklahoma Source Water Collaborative, support Oklahoma's 319 Nonpoint Source Program.


Oklahoma Water Reuse Action Plan

Purpose and Background of the Oklahoma Water Reuse Action Plan

The Oklahoma Water Reuse Action Plan (OWRAP) was developed through a multi-agency collaborative effort in conjunction with the development of the 2025 update to the Oklahoma Comprehensive Water Plan (OCWP). Water reuse is a proven strategy for efficiently using locally available supplies; its implementation necessarily reflects site-specific needs, economics, and values and priorities. Reuse was identified as a typically, potentially, or partially effective water management strategy in 32 Basins to address their potential water shortage of up to 750,000 AFY.

The overarching goal of the OWRAP is to identify and remove implementation challenges for water reuse such that reuse of any type is a viable option for water users (municipal, agricultural, industrial, and others). There is no intent to mandate water reuse, but it should be a viable path for those that want to consider and/or implement reuse.

The OWRAP is designed to be a collaborative framework for resolving hurdles and ultimately removing roadblocks and facilitating water reuse of all types, including but not limited to the following:

- **Municipal nonpotable water reuse:** Recycling treated water from a municipal water recovery facility (WRF) to satisfy water demands that do not require drinking water (potable) quality, such as industrial cooling or landscape irrigation.
- **Municipal potable water reuse:** Recycling treated water from a municipal WRF to augment drinking water supplies. This can be accomplished through the use of an advanced water purification facility to augment surface water or groundwater supplies (indirect potable reuse [IPR]) or by directly augmenting potable water supplies for distribution to the community (direct potable reuse [DPR])
- **Agricultural water reuse:** Examples include recycling treated water from a municipal WRF to augment crop irrigation and/or livestock water needs or reusing tailwater runoff from crop irrigation to support these uses.
- **Industrial water reuse:** Recycling treated water from a municipal WRF to help meet industrial water demands, and/or reusing water from an industrial facility for its onsite needs. This can include industries of any type that use water and/or produce industrial wastewater, including the energy industry (e.g., produced water from oil and gas operations), power generation, or any other industrial water user and producer.

2025 OCWP Oklahoma Comprehensive Water Plan

OKLAHOMA Water Resources Board

7. Evaluate potential **new water sources** and **opportunities to increase water storage** in basins with projected shortages. Identify feasible basins for aquifer storage and recovery, marginal quality water sources and best uses; update reservoir site location report, perform preliminary screening for new reservoirs, reservoir capacity expansion, including cost updates.

OCWP Recommendations— Preliminary

Water Management & Policy

1. Increase dedicated, recurring funding to modernize and improve **Oklahoma's water rights administration program.**
2. Complete **groundwater maximum annual yield studies** for all basins statewide to allow proper water management and prevent over-allocation.
3. **Modernize water laws** to improve groundwater mgmt. and ensure long-term reliability (e.g. establish statutory **water well spacing minimums for all basins** to prevent waste and safeguard private property.
4. **Improve agriculture water management and use accounting** by permitted water right holders (e.g. technology-based accounting methods or voluntary programs that increase conservation, such as mobile metering incentives, and allow flexibility in water use.
5. Establish a statutory framework and funding for **regional water management districts**, including technical support, administration, stakeholder engagement, legal.

Designated Water Districts or Management Areas

Explore designated water districts, measurement districts, irrigation districts, gw management areas, etc.

- Non-regulatory or regulatory to provide local planning, infrastructure needs evaluation, aquifer level monitoring, water use oversight and reporting, water supply banking, or local conservation funding initiatives
- Some states use these to place additional protections on specific basins (e.g. showing excessive decline or well to well impact, frequent water shortages or user disputes)
- Could be initiated by request from groundwater users or OWRB
- Could adopt hearing process with public input similar to MAY process

Explore local OWRB officer or engineer/consultant dedicated to specific basins.

Western State Groundwater Management Districts

- Groundwater Management Districts with local control – Kansas, Texas, Nebraska, Colorado, Idaho, California
- Wyoming – Water Control Areas (stricter regulations)
- New Mexico – Critical Management Areas and Active Water Resource Management Areas (AWRM) (stricter regulations)
- Montana – Controlled Groundwater Areas (CGWAs) for higher restrictions
- Idaho – local groundwater districts and Groundwater Managements Areas/Critical Groundwater Areas (GMAs/CGWAs)
- Utah – Groundwater Management Areas (GMAs) and Critical Management Areas (CMAs)
- Nevada – Groundwater Management Areas (GMAs) with tailored regulations and Active Management Areas (AMAs)
- Arizona – Active Management Areas (AMAs) to achieve a safe yield
- Oregon – Critical Groundwater Areas GCAs (restrictions in place for conservation)

OCWP Recommendations— Preliminary

Water Data & Information

Accurate, accessible water quality and quantity data are essential for effective management, public health protection, economic investment, and long-term water security.

1. Fully fund **targeted regional and local water availability and water quality studies and monitoring programs** to track trends and diagnose impairments and restoration actions.
2. Restore eroded funding and increase statewide coverage of Oklahoma's **comprehensive stream gauging network**, essential for water rights administration, interstate river compact compliance, etc.
3. Expand the **Oklahoma Hydronet,** the state's comprehensive, real-time water data and information source, through modernizing instrumentation coverage and public facing platforms and products. Estimated cost: $965,000, with $475,000 passthrough to OSU.

2025 OCWP Funding Requests (OWRB/OCC)

Water Infrastructure & Workforce: Oklahoma Water Fund	$50,000,000
Water Supplies and Storage: Flood Plan, dam safety, upstream watershed dam rehabilitation, local soil and water conservation programs, woody invasive species, unpaved road erosion (OWRB/OCC)	9,626,000
Water Management & Policy: Water rights administration	907,000
Water Monitoring Network, Data, & Information: stream gauging network, Oklahoma Hydronet (OSU/Mesonet/OWRB), targeted regional studies	3,315,000
New Water District Tech. Assistance/Voluntary Metering Program	1,900,000
Total Investment	**~$65,700,000**

Questions? Comments? Get Involved!

OKLAHOMA Water Resources Board

US Army Corps of Engineers

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