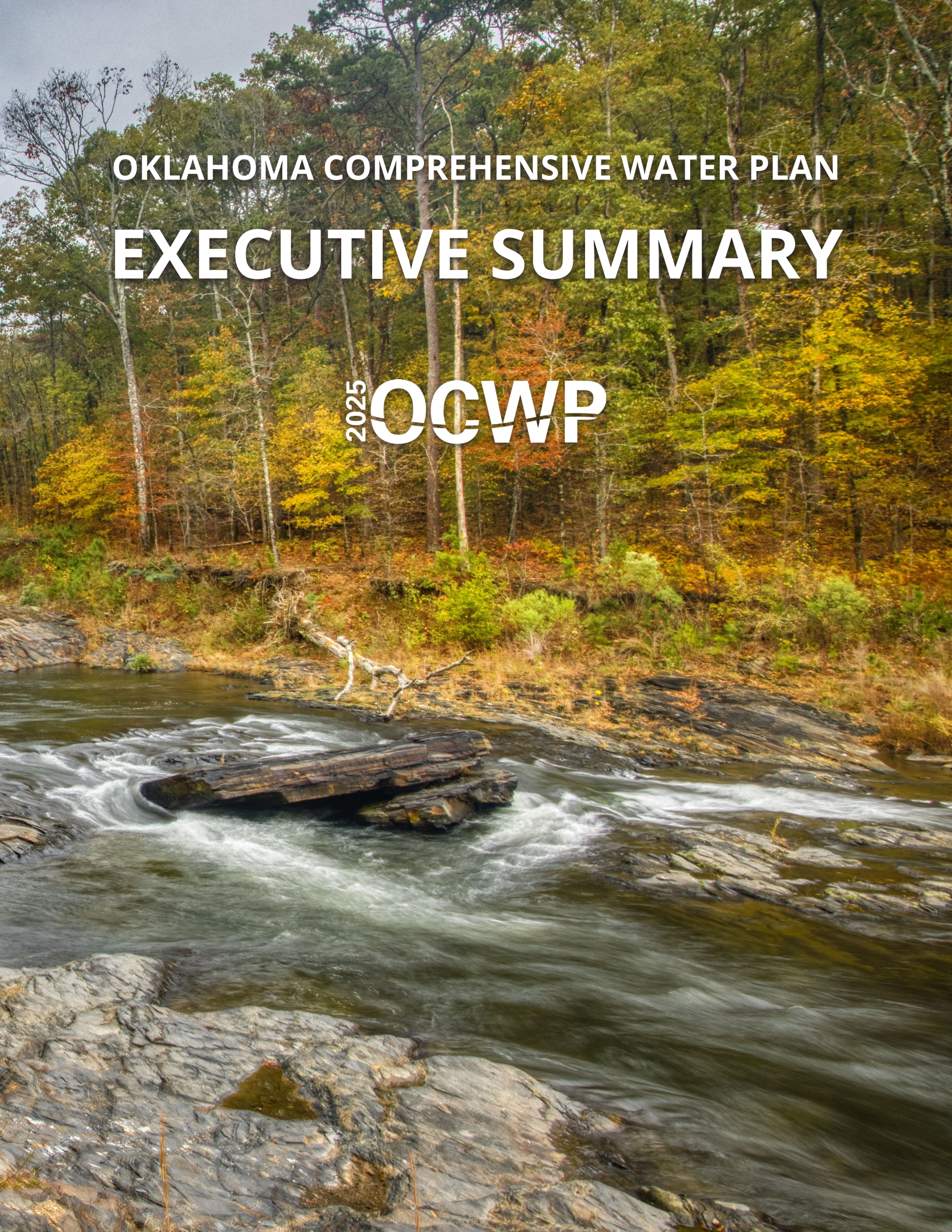


OKLAHOMA COMPREHENSIVE WATER PLAN

EXECUTIVE SUMMARY

2025 OCWP

2025 Oklahoma Comprehensive Water Plan

EXECUTIVE SUMMARY

Published by the Oklahoma Water Resources Board

OKLAHOMA
Water Resources Board

The OWRB would like to thank the multiple partners and individuals contributing to the development of the 2025 OCWP update through funding, technical assistance, and policy input. This work could not have been possible without the collaboration of state and federal agencies, tribal nations, master conservancy and irrigation districts, energy corporations, municipalities, industry associations, special interest groups, universities, and numerous Oklahoma citizens.

Oklahoma Comprehensive Water Plan

Water is Oklahoma's most critical natural resource. It nourishes communities, fuels agriculture and industry, generates power, and sustains the natural systems that define the state's beautiful and diverse landscape. A reliable water supply is essential for the economic growth of the state and the safety of its citizens. For decades, state leaders have recognized the opportunities offered by Oklahoma's valuable water resources, pairing sensible management and forward-looking investment with comprehensive planning, dam and levee construction, development of the state's navigation system, water system financing, and monitoring of rivers, lakes, and groundwater. These actions ensure sustained certainty for investment, economic growth, and environmental stability.

The Oklahoma Comprehensive Water Plan (OCWP) outlines the state's strategy for maintaining reliable water supplies. It identifies long-term needs by region, assesses potential challenges, highlights opportunities, and proposes strategies and sustained funding to develop key water resources that support Oklahoma's competitiveness in the national market and quality of life.

The 2025 OCWP update was created through extensive data collection, technical evaluations, stakeholder engagement, and policy development. This comprehensive approach ensures the plan is grounded in science, informed by real-world needs, and responsive to emerging challenges. Statewide recommendations are presented in this summary, followed by a discussion of local priorities, providing clear guidance for decision makers, while recognizing that water planning must be flexible and responsive to diverse conditions and developing economies.

Legislative Progress on OCWP Recommendations

OCWP recommendations offer a strategic roadmap to inform policy decisions and guide project implementation. Significant progress has been made on 2012 OCWP recommendations, driven by statutory rule changes, new legislation and funding, industry-led initiatives, collaboration, and other innovative strategies.

SB 122 (2012) provided Gross Production Tax funding for OCWP implementation, including water availability determinations used to allocate water rights; SB 857 (2015), SB 1132 (2018), and HB 3821 (2022) extended funding.

HB 3055 (2012) created the Water for 2060 Act, establishing a state water use-neutral goal and conservation advisory group.

HJR 1085/State Question 764 (2012) established the Water Infrastructure Credit Enhancement Reserve to provide additional security to further leverage OWRB infrastructure loan programs.

SB 1043 (2012) created a water reuse framework.

SB 1187 (2014) directed the Oklahoma Department of Environmental Quality (ODEQ) to issue permits for discharges to sensitive public and private waters, promoting reuse.

SB 1219 (2016) created an aquifer storage and recovery (ASR) framework for implementing rules by the OWRB and ODEQ; HB 1485 (2017) authorized ASR pilot studies.

SB 1294 (2018) authorized phased implementation of Maximum Annual Yield water use limitations and well spacing.

HB 3405 (2018) expanded sources of fresh groundwater to include marginal quality water of 5,000-10,000 ppm dissolved solids.

HB 2263 (2019) created the first-ever framework for forming and managing locally led groundwater irrigation districts.

SB 1875 (2020) established the Oil & Gas Produced Water and Waste Recycling Act to address ownership and disposal responsibilities.

SB 1269 (2020) directed the OWRB to develop the first-ever Statewide Flood Resiliency Plan and created a revolving fund.

HB 3382 (2022) established an enforcement and penalty system to address unauthorized water use, waste, and other violations.

HB 1006 (2022) authorized $20 million for the Emergency Drought Relief fund; HB 2959 (2022) authorized $3 million; HB 1004 (2023) authorized $23 million.

SB 4 (2022), SB 429 (2022), and SB 13 (2023) authorized $436.6 million in American Rescue Plan Act (ARPA) water projects; HB 2942 (2023), HB 2937 (2024), and HB 2789 (2025) authorized $44.8 million.

SB 1061 (2022) established funding for Phase II of the Arbuckle-Simpson Hydrology Study.

HB 2888 (2023) authorized a $38.6 million Northeast Oklahoma Infrastructure (NOI) grant for the Port of Inola.

HB 2053 (2023) allowed groundwater use during the legal appeal of an OWRB-approved permit.

HB 2293 (2023) created the Oklahoma Flood and Drought Management Task Force.

HB 1928 (2023) initiated a new Hazard Mitigation Financial Assistance low-interest loan program.

SB 1125 (2024) appropriated $13.7 million to OWRB infrastructure programs.

HB 2197 (2024) provided flexibility for water permittees to be excused from stream water permit “use-it-or-lose-it” provisions and oil and gas producers temporary use of water; tightened water use reporting and property right protections for prior appropriators.

HB 2789 (2025) reappropriated unused ARPA funds for infrastructure construction projects.

SB 1151 (2025) allocated $4.2 million for infrastructure projects from the Progressing Rural Economic Prosperity (PREP) Fund.

HB 1438 (2025) modified the antiquated cap on funding for Rural Economic Action Plan and Emergency Grant programs.

Focused Engagement

Public participation is foundational to the OCWP. Through regional meetings, statewide surveys, specialized workgroups, and additional stakeholder input, the OCWP identifies current and long-term infrastructure needs, regulatory priorities, research requirements, and data and funding needed to support statewide programs.

Local input helps validate OCWP technical data and analytical findings. At the same time, outreach efforts enhance transparency, strengthen decision-making, and guide effective water resource management.

Public meetings ensure community voices shape water policy.

Statewide surveys collect statistically significant data on water issues.

Specialized workgroups provide insights into complex issues and strategies.

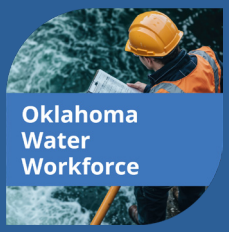
Stakeholder input ensures proposed strategies are effective and achievable.

Twenty-five in-person regional public meetings and several virtual webinars were held over three years to gather input on water resource needs and challenges. Stakeholders—including water providers, agricultural representatives, municipal leaders, and citizens—offered critical feedback that shaped the plan's development and priorities.

Specialized workgroups focused on technical and policy issues, while statewide surveys captured input from water and wastewater systems, as well as the broader public.

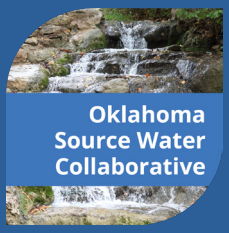
By incorporating the expertise and diverse perspectives of stakeholders, the OCWP provides a path for coordinated investment, targeted funding, and measurable progress toward more resilient water systems in every region. Continued coordination among local, state, regional, and tribal partners will ensure long-term water security.

Specialized Workgroups



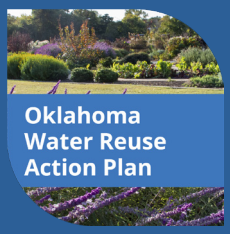
The Water Workforce workgroup was tasked with identifying solutions for training, education, and career pathways to build a resilient workforce capable of meeting the state's current and future water needs despite recruitment and retention challenges.

Irrigated Agriculture workgroups were created for the Northwest and Southwest regions to advance water-saving projects, data collection, education, and outreach, valuing landowner rights as well as farm and ranch income.



The Source Water Collaborative was a multi-agency initiative focused on the protection of Oklahoma's source water, cutting treatment costs, enhancing quality, and safeguarding water for communities, the recreation industry, and ecosystem stability.

The Oklahoma Water Reuse Action Plan workgroup was tasked with advancing water reuse viability for municipal, agricultural, and industrial users, identifying barriers, and proposing solutions to help offset projected increase in water demand.



Statewide Surveys

- **Water Supply Project Needs**
  Identifying water infrastructure and resource needs.
- **Wastewater Supply Project Needs**
  Identifying treatment and collection needs.
- **State Flood Plan Project Needs**
  Evaluating flood mitigation and protection needs.
- **Prioritizing Issues and Projects**
  Ranking water challenges and investment priorities.

Key Technical Findings

As part of the 2025 OCWP technical analyses, the state's 13 planning regions and 82 basins were evaluated for physical and legal water supply, consumptive demand, projected shortages, potential water management strategies, and infrastructure needs.

Supply & Demand

Bedrock groundwater is the primary water supply source in the Northwest and West Central regions, whereas the Southwest and Upper Arkansas regions rely on a relatively even mix of groundwater and surface water. Surface water is the dominant supply source across the remainder of the state.

Statewide water demand is projected to increase by 13% between 2020 and 2075. This growth is largely attributed to population increases, the sustained strength of Oklahoma's agricultural sector, and expanding industrial water use—trends that reinforce the need for forward-looking strategies to secure reliable supplies for multiple sectors.

At the regional scale, significant differences in projected demand reflect variations in geography, population density, and economic activity, highlighting the need for region-specific solutions. The challenges of groundwater depletion in the west differ substantially from surface water management priorities in other parts of the state.

Gaps & Depletions

By 2075, surface water gaps—where projected demand exceeds available supply—are anticipated in 50 of the state's 82 planning basins. The largest gaps are expected in the Central and Middle Arkansas regions, where population growth and competing demands place additional stress on limited resources.

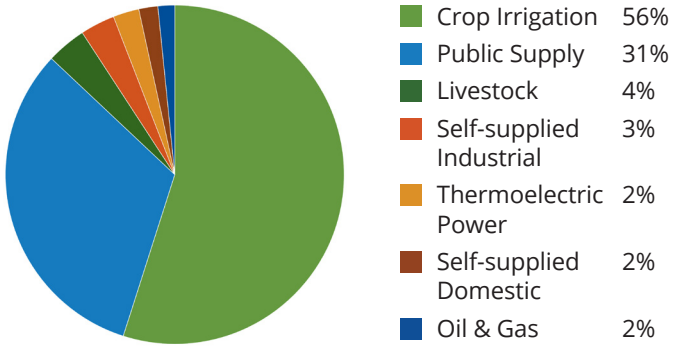
Groundwater depletions—where withdrawals exceed recharge—are projected in 40 of the 56 planning basins that use alluvial groundwater; the most significant depletions are projected to occur in the Central region.

Depletions are projected in 69 of the 80 planning basins that rely on bedrock groundwater; the most substantial depletions are expected in the Northwest region, where crop irrigation places high demands on groundwater.

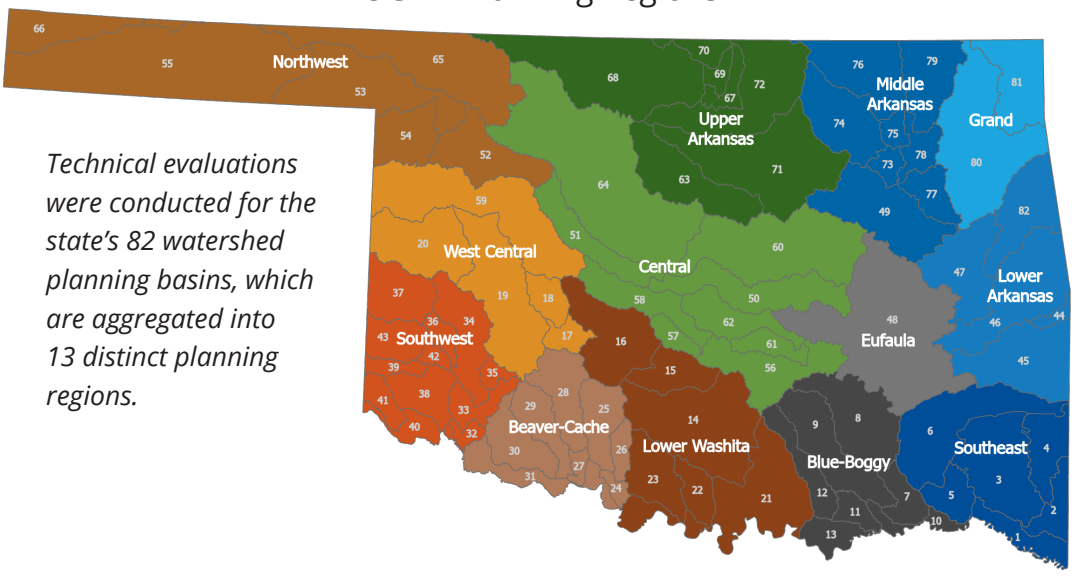
While certain basins are projected to have water supply challenges, these can be addressed through a variety of strategies including conservation, water loss reduction, water reuse, and water transfers, all of which help balance supplies to meet future needs and economic growth.

For more information on supply, demand, and management strategies at the region and basin level, see the OCWP Technical Summary Report and dashboards at oklahoma.gov/owrb/water-planning.

Current Demand
by Water Use Sector



OCWP Planning Regions



Technical evaluations were conducted for the state's 82 watershed planning basins, which are aggregated into 13 distinct planning regions.

Statewide Recommendations

Implementable water policy decisions must be grounded in sound science and broad public support to ensure they are effective, equitable, and sustainable over the long term. Building on this foundation and expanding on the issues highlighted in the 2012 plan, the 2025 OCWP identifies key focus areas and outlines recommendations for policy updates, project funding, and resource allocation.

Water Infrastructure & Workforce

Water and wastewater infrastructure support economic growth and ensure reliability, attracting business, enabling manufacturing expansion, supporting technology and innovation, sustaining healthcare facilities, and providing the foundation for community development. Like many other states, Oklahoma faces the combined pressures of aging assets, growing demand, compliance with public health regulations, and attracting a qualified workforce. The OCWP identified $24 billion in immediate need to keep Oklahoma ahead of the curve in mitigating these issues.

Many drinking water suppliers across Oklahoma struggle to maintain aging infrastructure, comply with public health regulations, and attract a qualified workforce. The greatest obstacle is funding: high upfront costs for engineering services, difficulty in securing the required local match, and escalating labor and material expenses often stall projects, leaving essential upgrades out of reach.

A strategic annual state investment would strengthen Oklahoma's economic foundations and ensure reliable water services for many systems. Additionally, according to the US Water Alliance, an estimated 15 to 20 jobs can be generated for every $1 million invested in water infrastructure, which would provide additional economic value to communities.

State Water Infrastructure Financing Program Capitalization

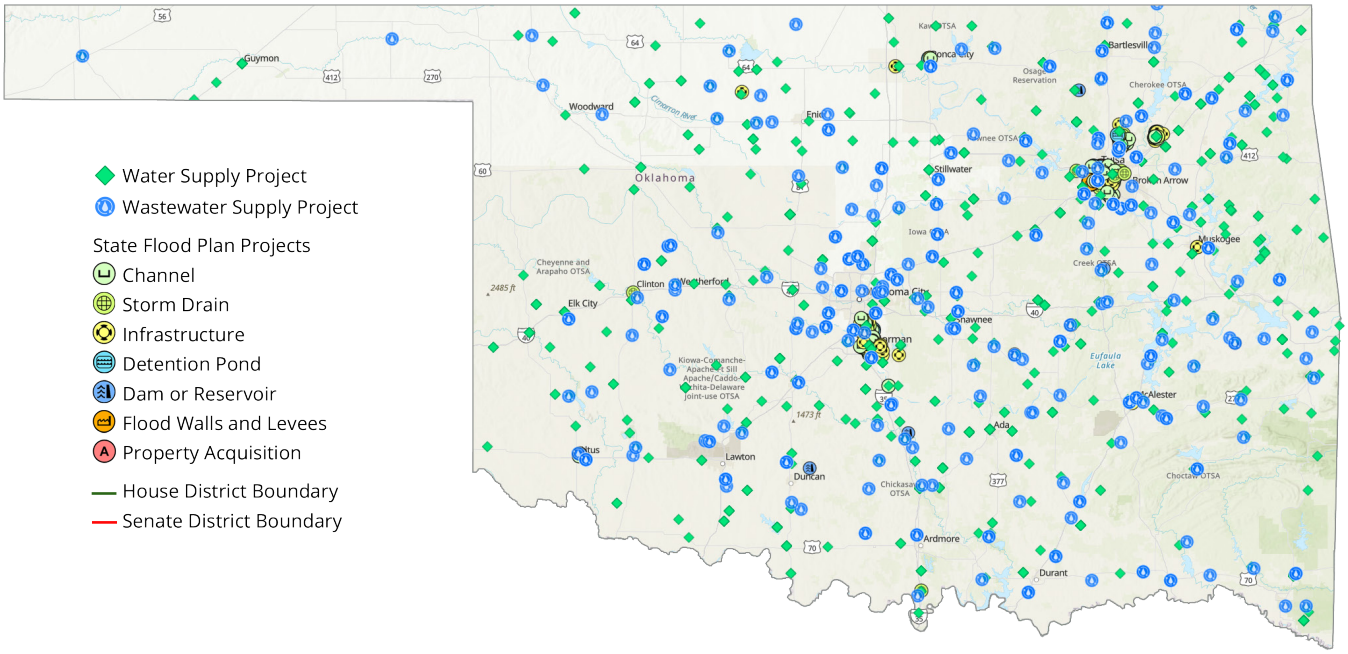
Oklahoma's proven infrastructure financing programs have funded thousands of projects in all 77 counties, delivering billions of dollars in investments and savings since 1990. Providing low-interest loans backed by the AAA credit rating of the OWRB has enabled communities with limited financial capacity to leverage the credit strength of high-performing financing systems.

Over the past three years, Oklahoma's comprehensive investment strategy has delivered remarkable results through strategic state appropriations and local, tribal, and federal partnerships, which have generated more than $1 billion in total infrastructure investment statewide. However, even with these substantial investments, the challenges facing water utilities and rural water districts vastly exceed available funding capacity. The scale of Oklahoma's $24 billion infrastructure need requires a proportional response that leverages proven programs while eliminating critical funding barriers.

A substantial annually recurring state investment would 1) provide the flexibility to meet demand for Oklahoma's existing water infrastructure programs; 2) enable the launch of new low-interest loan and grant products that eliminate funding gaps for construction project planning and design; 3) guarantee fixed-interest rates shielded from market volatility; and 4) leverage state funds with local and tribal partners for technical assistance and construction. New appropriations would be 100% pass-through: the OWRB would deploy earnings from existing and new programs to administer the proposed programs.

OWRB Activities and Infrastructure Needs by Legislative District

Senate District — Select District | House District — Select District | OCWP Planning Region — Select Region | County — Select County | Tribal Boundary — Select Tribe



Wastewater Project Needs Survey	Water Supply Project Needs Survey	State Flood Plan Project Needs Survey
$6.9B	**$16.6B**	**$709.3M**
for 922 projects	for 2.3k projects	for 210 projects

The Systems & Workers Behind Safe Water

Providing clean, safe water to every home and business depends on extensive infrastructure and a highly skilled workforce to operate and maintain it. Demand on public water systems is projected to increase by 18% by 2075 due to population growth and economic development. At the same time, much of Oklahoma's water workforce is approaching retirement. As a result, investments in water infrastructure must also prioritize competitive wages and workforce development. Strategic, sustained funding is essential to expand system capacity, maintain reliability, attract and retain qualified operators, and ensure safe, dependable water supplies for future generations.

Region	Average Operator Wages
Northwest	$16.52/hour
Northeast	$14.49/hour
Southwest	$15.93/hour
Southeast	$18.38/hour

National Average: $26.78/hour

$24+ Billion
in immediate water-related infrastructure needs identified

18% Increase
in projected public water supply sector demand by 2075

1 in 3 Employees
in the water sector workforce eligible for retirement this decade

Initial program focus could include three key areas: 1) dedicating funds for Oklahoma's Rural Economic Action Plan (REAP) point-based grant program, designed to assist smaller communities that lack sufficient fiscal capacity; 2) strengthening OWRB technical assistance and outreach programs; and 3) creating a new, unsecured low-interest revolving loan program and a new construction planning and design grant program to assist communities with securing state and federal construction dollars.

Workforce Development & Technical Assistance

Across Oklahoma and the nation, water-related industries are facing workforce shortages in critical positions, including water and wastewater system operators, specialized auditors, engineers, and licensed water well drillers. Workforce challenges threaten business development, long-term system reliability, and public health. Traditionally low wages have made careers in water plants less attractive to potential recruits, while the industry's low visibility means many qualified candidates may never consider these jobs. Addressing these challenges requires investment in recruitment strategies and comprehensive programs that provide professional training and career pathways for both new and existing employees.

Workforce challenges are closely tied to system sustainability. Many communities undercharge for water and sewer services, creating funding shortfalls that contribute to infrastructure deterioration and wage stagnation. Local political resistance, inexperienced board members, and inadequate financial management practices can further trap systems in cycles of deferred maintenance and costly emergency repairs.

Expanding the reach of technical assistance programs can help address both workforce and infrastructure challenges. Programs that provide resources for rate studies, educate board members on fiduciary responsibilities and long-term planning, deliver managerial support for strategic decision-making, and promote financial best practices—such as asset management and capital improvement planning—can strengthen system reliability while supporting a well-trained, resilient water workforce.

Actions

Dedicated funding through general revenues, Progressing Rural Economic Prosperity (PREP) funds, or other sources is recommended to support the following priority areas:

1. Establish a recurring fund (e.g. "Water for Oklahoma Fund") to address Oklahoma's infrastructure needs and priorities by supporting existing, proven loan and grant programs, developing new financing products, and leveraging state dollars for technical assistance and regional planning. Initial budget request: $50 million (recurring), 100% pass-through.

2. Explore and develop new revenue streams and partnerships—such as cost-share initiatives to leverage state investment, gambling revenues, impact fees, tribal match grants, and local tourism taxes—to expand infrastructure investment. Action needed: legislation.

3. Address the critical workforce shortage in water-related industries through targeted new outreach and education assistance programs, tax relief in specific fields, and coordination with the Economic Development, Workforce and Tourism Committee, Oklahoma Workforce Commission, State Chamber, and trade organizations. Estimated cost: TBD based on program scope and design (see Water Workforce workgroup recommendations).

Water Supplies & Storage

Through strategic investments in water supplies and storage, Oklahoma's leaders have historically not only secured abundant and reliable water supplies for communities across the state, but have strengthened protection against severe flooding that threatens lives, property, and local economies.

Dam Safety, Flood Planning, & Drought Management

The Oklahoma Dam Safety Program oversees over 4,700 dams statewide, including approximately 2,100 upstream flood control structures, which are managed and maintained cooperatively by the Oklahoma Conservation Commission (OCC), local conservation districts, and the US Department of Agriculture's Natural Resources Conservation Service (NRCS). Collectively, they prevent an estimated $96 million in flood damage each year by protecting homes, businesses, infrastructure, and agricultural land. In addition to flood protection, the reservoirs created by these structures provide reliable municipal and rural water supplies, energy production, irrigation, recreational opportunities, tourism destinations, and habitats for fish and wildlife.

With an average age of 62 years, a significant number of these dams have already reached or exceeded their original design life. Many publicly owned dams are now rated in poor or unsatisfactory condition, posing heightened risks to downstream communities. Increased investment in operation, maintenance, and rehabilitation is urgently needed.

Oklahoma's broader flood management efforts also face significant funding challenges. The Oklahoma State Flood Plan has insufficient resources to address the state's flood management needs, while the Oklahoma Flood and Drought Management Task Force remains unfunded. Increased funding for both the State Flood Plan—including an interface for the collection of flood-related data—and the Task Force is essential to strengthen the state's capacity to manage water- and drought-related risks, including reduced water supplies, wildfire hazards, and agricultural industry stresses.

Adequate resources would enable the state to hire critical staff, close data and planning gaps, improve flood protection infrastructure, and enhance coordination among local, state, tribal, and federal agencies.

Together, investments in dam safety, flood planning, and drought management will protect lives and property, ensure reliable water supplies, and build long-term resilience against Oklahoma's growing flood and drought challenges.

Aging Dams Affect All Oklahomans

3M+	Top 5	400+	62 Years
Oklahomans Rely on Surface Water	Nationally for Number of State Regulated Dams	Regulated High Hazard Potential Dams	Average Age of Oklahoma Dams

Water Conservation, Efficiency, & Reuse

As a recommendation of the 2012 OCWP, efforts in water conservation, efficiency, and reuse showed potentially significant long-term water savings. The resulting legislation through the 2012 Water for 2060 Act set ambitious goals to ensure Oklahoma's water future, recognizing the need to support economic and population growth.

Focusing their efforts on crop irrigation, energy production and industry, and public water supply, the Water for 2060 Advisory Council recommended state investment in new financing programs for water system loss reduction and water-efficient crop irrigation, public education, best practice guidance, recognition programs, improved information sharing, and industrial use of marginal quality water sources.

In addition to consumptive water uses, water conservation initiatives support important non-consumptive values of Oklahoma's abundant streams, lakes, and wetlands, including healthy ecosystems and water-related recreation and tourism activities. The tourism and recreation sectors produce economic benefits through fees, generating local jobs and tax revenues, which provide opportunities for activities like fishing, boating, swimming, and hunting.

A 2012 recommendation called for an advisory group to evaluate the suitability and structure of a potential instream flow program, with the ultimate goal of managing available water resources for multiple uses. Although the diverse group did not reach a final consensus, members generally agreed that a one-size statewide approach was not

appropriate and that existing water rights must be protected.

Members also emphasized that in assessing any specific stream, the quantity and timing of water needed to support identified uses or ecological values must be determined. They further agreed that the economic impacts of competing water interests should be quantified and weighed when managing Oklahoma's lakes and streams.

State investment in voluntary conservation incentives, enhancing stream flows, and studying the quantities and timing of water needs has proven successful in Oklahoma and other western states and may offer the best opportunity for broad support across various economic sectors. Examples include conservation infrastructure grants, water system leak reduction, excused non-use of water rights for stream flow benefits, awareness initiatives, consumptive water source switch, point-of-diversion changes, and other measures.

Additional Sources & Storage

Innovative supply options, including water reuse, aquifer storage and recovery, stormwater capture, and marginal quality water use, have been identified as legitimate and significant strategies for increasing supply. Legislative progress was made to expand source water options into areas such as water reuse and produced water use with passage of Senate Bill 1187 in 2014 and Senate Bill 1875 in 2020. The state should continue this progress to provide additional alternatives for water supply and use.

For traditional storage, approximately 80% of the total water supply yield for all existing water supply reservoirs in the state is already permitted. Additional long-term traditional water supply storage should be given timely investigation, considering the growing importance of available water, increasing costs, and site availability.

Source Water Protection

Source water protection is a proven strategy for preserving the availability and reliability of public water supplies by preventing degradation of source water quality. Effective protection measures reduce treatment costs, improve system efficiency, and safeguard water resources that support economic activities, such as industry, commerce, recreation, and tourism.

In conjunction with development of the 2025 OCWP update, the Oklahoma Source Water Collaborative was created in 2021, bringing together agencies and organizations to identify ongoing source water protection efforts, prioritize source waters in need of additional protection, and discuss funding opportunities to improve water quality and increase public awareness.

Actions

Dedicated funding through general revenues or expansion of OWRB and OCC's current apportionments of the gross production tax is recommended to support the following areas:

1. Implement the Oklahoma State Flood Plan by funding program enhancements, including education and outreach initiatives, and provide funding for the state matching requirement of federal grants to address State Flood Plan infrastructure project needs. Estimated cost: $1.7 million for flood plan implementation (recurring), $5 million for infrastructure federal grant matching (recurring for 8 years).

2. Fund Oklahoma's upstream flood-control watershed dam rehabilitation program to restore and extend the life of these critical infrastructure assets. Estimated cost: $15 million (one-time).

3. Develop ongoing voluntary agricultural water conservation programs and support for local water planning, basin-specific technical studies, and stakeholder engagement. Estimated cost: $5.5 million (recurring); Oklahoma Emergency Drought Committee agricultural cost-share grant: $5 million (recurring).

4. Fund a voluntary water conservation initiative program targeting specific basins that support water-related tourism, recreation economies, and critical ecological habitats. The program will also assess the quantity and timing of water needed to support designated uses or ecological values on specific streams and the economic impacts of competing water uses. Estimated cost: $500,000 (recurring).

5. Perform a preliminary screening of off-channel reservoir sites, possible reservoir expansions, and modernization of proposed federal and state reservoir location reports, including sizing and updated costs for construction, operation,

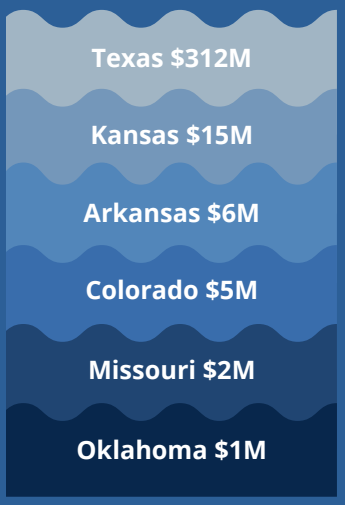
Oklahoma Flood Plan

Flooding has resulted in over $3.6 billion in damages since 2019. It is Oklahoma's most costly natural disaster. In the past 25 years, all 77 counties have experienced flood damage that has displaced families, destroyed infrastructure, and disrupted livelihoods. With a 1 in 4 chance that any property will flood during a typical 30-year mortgage, the need for coordinated flood planning has never been greater.

After historic flooding, the 2020 Oklahoma Legislature passed Senate Bill 1269, directing the OWRB to develop a comprehensive state flood plan and establishing the Flood Resiliency State Revolving Fund. The plan identifies more than $700 million in flood mitigation projects and proposes strategies to improve resource management between local communities and federal and state agencies.

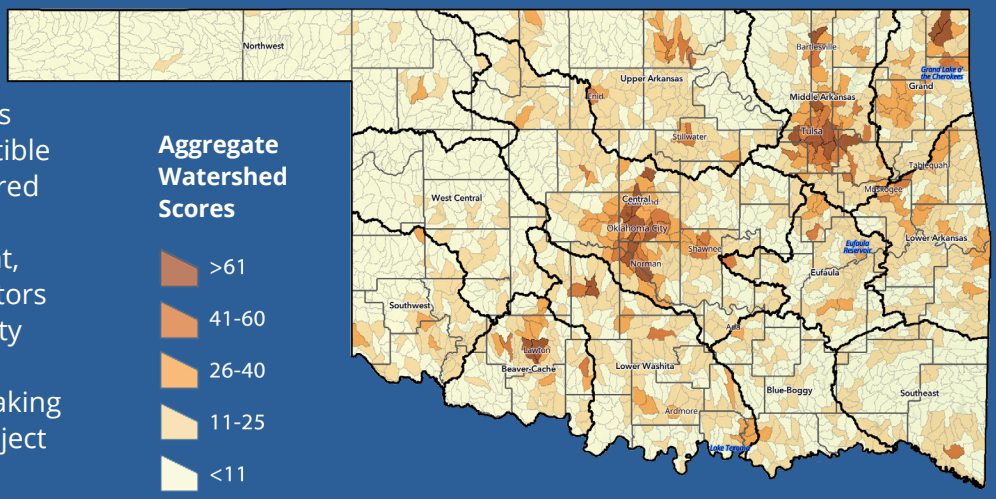
An initial state investment of approximately $40 million over the next 8 years would establish a foundation for the Flood Resiliency State Revolving Loan Program, allowing it to be leveraged as federal match and used to support mitigation projects in communities that lack the financial capacity to address these needs.

2025 Stormwater & Flood Management Investment



Quantifying Flood Risk

The Oklahoma Flood Plan identifies watersheds that are highly susceptible to flood risk. Communities are scored based on high-risk flood areas, population, structural development, flooding history, and resilience factors like insurance coverage. Community scores are aggregated to rank watersheds, informing decision making and prioritization of mitigation project funding.



and maintenance. Leverage this screening effort to conduct targeted, timely investigations to evaluate additional sources and increased storage opportunities in basins with projected shortages. The studies will identify feasible groundwater basins for aquifer storage and recovery, in-basin marginal quality water sources and potential uses. Estimated cost: $170,000 (one-time).

6. Implement Oklahoma Water Reuse Action Plan (OWRAP) recommendations and continue evaluating statutory limitations, funding incentives, partnerships, and guidance that can support innovative strategies for developing non-potable and potable water reuse systems. Estimated cost: TBD based on program scope and design (see OWRAP recommendations).

7. Dedicate recurring funding for water quality and quantity protection and restoration: soil health restoration, flood reduction, invasive woody plant species removal; and outreach expansion through the Oklahoma Source Water Collaborative, and support for Oklahoma's 319 Nonpoint Source Program. (See Oklahoma Source Water Collaborative recommendations.) Estimated cost: $4.9 million (recurring).

Water Management & Policy

The OWRB is responsible for managing and administering Oklahoma's water resources, including the legal allocation of water, protection of the interests of landowners, ensuring compliance with water use permits, and regulating well drilling to prevent groundwater contamination while maintaining water availability. Together, these activities form the foundation of Oklahoma's comprehensive approach to water management, supporting public health, economic development, and the protection of water quality.

Locally led regional water planning is recognized as an important way to increase stakeholder engagement and support collaborative, non-regulatory approaches to water management. Regional planning groups provide input on local water supply and conservation priorities, infrastructure needs, and management strategies, ensuring statewide policies reflect local conditions and challenges.

Water Rights Administration

In recent years, progress has been made in modernizing Oklahoma's water rights administration and well driller licensing. With limited new funding, the OWRB has added staff to improve permit application processing, legal procedures, and responses to concerns and disputes between water users. The OWRB has utilized its gross production tax apportionment to conduct maximum annual yield studies to improve the accuracy of water availability determinations and basin life expectancy estimates, as well as lake firm yield analyses to prevent overallocation of water resources while ensuring continued statutory compliance.

Additional funding is needed to support further modernization and continued restoration of the program's full core capacity. Expanded funding for water rights administration would advance Oklahoma's pro-business initiative by expediting permitting, improving responsiveness, facilitating business-led advisory opportunities, and enhancing self-service platforms. Increased core capacity would strengthen public information and education on Oklahoma water laws, ensuring timely, accurate water availability information for site location and growth through more efficient completion of maximum annual yield studies and firm yield analyses.

New legislation has established frameworks for water reuse and aquifer storage and recovery, enhanced enforcement against illegal water use and permit non-compliance, and instituted water well drilling pre-registration requirements to ensure proper spacing and groundwater protection for neighboring landowners. Further progress in the thoughtful modernization of Oklahoma water law can help ensure long-term groundwater reliability by implementing well-spacing minimums in all basins and strengthening the well drillers' indemnity fund to protect private property by addressing poorly constructed or abandoned wells and preventing pollution of shared groundwater resources.

Locally Led Regional Water Planning & Management

The OCWP has long supported increasing local input through voluntary regional water planning. The 2025 OCWP update recommends creating a statutory framework, including authorities and responsibilities, for regional water management and planning groups. Establishing a competitive cost-share fund could incentivize regional cooperation and optimize long-term planning. Regional planning groups should organize around shared water resources rather than political boundaries to be most effective.

Other Western states administer successful regional planning programs that provide local authority, including water supply evaluation and planning, regional irrigation and groundwater management, local infrastructure assessment, water supply banking, and conservation funding initiatives. States use these strategies to apply additional conservation incentives or protections to basins facing water-level decline or shortages, while others provide engineering and technical assistance directly to communities, regional groups, industry, and agricultural producers.

Water use estimation and reporting by permitted users could be improved through alternative technology-based accounting methodologies for greater accuracy, flexible multiyear permits to address seasonal variability year over year, and new voluntary initiatives, such as a mobile metering incentive program. For example, funding could be

Modernizing Oklahoma's Water Management

Water rights administration in Oklahoma ensures the fair and legal allocation of surface and groundwater resources across the state for economic and community benefit while protecting private landowner interests.

Additional funding will support Oklahoma businesses through continued modernization to expedite the water permitting process, improve public-facing online products, and identify water availability that provides data-driven certainty for site location and resources planning.

Local and regional input is foundational to the OCWP. A statutory framework for regional planning groups would amplify the input provided at the local level by empowering groups to perform assessments and address local issues. These regional groups could be leveraged to implement improvements to water use accounting and reporting through cost-share grants or other voluntary initiatives.

Full Restoration of Core Capacity

Water Availability Determinations

Water Law Modernization

Regional Planning Framework

Improved Water Use Accounting

provided through a cost-share grant for permanent individual meters or shared mobile meters administered by local extension offices or irrigation and OCC conservation districts. As a stipulation for participation, users could periodically calibrate the flow rate at the well to identify water loss and ensure accurate use reporting.

Actions

Dedicated funding through general revenues or expansion of OWRB and OCC's current apportionments of the gross production tax is recommended to support the following priority areas:

1. Increase dedicated, recurring funding to modernize and improve Oklahoma's water rights administration program. Estimated cost: $907,000 (recurring).

2. Complete maximum annual yield studies for unstudied groundwater basins and those requiring 20-year updates to allow proper water management and prevent overallocation. Action needed: continued gross production tax allocation.

3. Modernize water law to improve groundwater management and ensure long-term resource reliability (e.g., well spacing minimums, well drillers' indemnity fund, and other needed protections to prevent waste and safeguard private property). Action needed: legislation.

4. Establish a statutory framework for regional water management districts, including authority and responsibilities, provide funding for technical assistance and administration, and establish regional water planning grants to assist districts with technical or engineering studies, stakeholder engagement, and interlocal agreements. Action needed: legislation. Estimated cost: TBD based on statutory framework legislation.

5. Improve agriculture water use accounting and reporting by permitted water right holders. Explore needed statutory or agency rule amendments, alternative technology-based accounting methodologies, flexibility in water use through a multiyear water permit that allows permit exceedances based on need in a given year, and voluntary or incentive-based programs such as mobile metering incentives. Estimated cost: $1,350,000 (one-time) and $550,000 (recurring).

Who Relies on Water Data?

Water quality and quantity data guide decisions that protect public health, ensure reliable supplies, and safeguard our water. Monitoring enables infrastructure planning, drought and flood mitigation, and effective emergency responses. Open data tools make this information accessible, promoting transparency and informing the following stakeholders and industries:

Municipal & Industrial Suppliers

Agricultural Producers

Location & Business Planners

Energy Producers

Emergency Responders & Forecasters

Rural Water & Conservancy Districts

Transportation & Navigation

Interstate Compacts

Water Data & Information

Accurate and accessible water quality and quantity data are vital for effective management, public health, economic growth, and long-term security. Without reliable information, decision-makers face uncertainty, risking inadequate supplies, declining quality, and reduced reliability for sectors like agriculture, industry, and public water suppliers. In Oklahoma, major data gaps limit the assessment of water availability and risks from drought, flooding, and pollution. Investing in monitoring, analysis, and accessibility will close these gaps and strengthen future water management.

Targeted Regional & Local Studies

Targeted monitoring programs, studies, and data management are necessary to support local and regional water planning for diverse economic sectors—including agriculture, tourism, public supply, energy production, and industry—and to help identify emerging water needs in high-growth areas. Building on basin-level OCWP analyses, these activities should be prioritized in collaboration with the Oklahoma Department of Commerce and other state agencies, regional chambers of commerce, industry groups, local stakeholders, and others. Timely and reliable information enables communities, planners, and businesses to anticipate long-term changes and guide planning, conservation efforts, and economic development.

Focused surface watershed and aquifer basin investigations allow the diagnosis of water challenges, such as declining groundwater levels, nutrient enrichment, or degraded river, lake, and stream conditions. Investment in surface water and groundwater monitoring networks is also needed to expand data collection and trend analysis into areas of the state with little or no coverage, including public supply lakes that have never been monitored.

Many public water supply lakes are reaching the end of their design life, with sedimentation significantly reducing their storage capacity and supply reliability. Of the more than 300 public supply lakes, 64 have never been evaluated. Firm yield studies can provide communities with up-to-date information vital for water rights allocation, planning, and flood and drought response.

Routine ambient monitoring programs implemented by the OWRB, OCC, and other entities are generally

insufficient to help agencies and partners fully understand local water source impairments or to collaboratively design and monitor OCC restoration programs. Targeted studies and improved data management will fill these gaps and provide actionable information that enables communities, resource managers, and businesses to anticipate long-term changes and apply findings to planning, conservation, and economic development.

Comprehensive Stream Gauging

Oklahoma's water management is jeopardized by a lack of investment in the state's stream gauging network. This crucial gauge data is necessary for flood forecasting, drought preparedness, water allocation and permitting, and interstate river compact compliance. With over half of the state's stream systems unmonitored, Oklahoma needs to invest in stream gauging now to restore capacity and enable science-based decision making.

The path forward requires reactivating essential, federally supported United States Geological Survey (USGS) Cooperative Program gauges and continued funding for the OWRB's network to integrate streams, lakes, and groundwater monitoring. Building this resilient, modern system will strengthen Oklahoma's proactive water governance and deliver information to the public.

Oklahoma Hydronet & Water Data Infrastructure Modernization

Oklahoma's Hydronet is being developed as a transformative, statewide network that provides real-time, comprehensive information on soil moisture, groundwater levels, and water reservoirs. Built by leveraging existing state programs and partnerships with Oklahoma State University, OWRB, Oklahoma Mesonet, and federal collaborators, Hydronet represents a modernized and cost-effective approach to water monitoring. Sustained state investment is crucial for maintaining this system, expanding it into previously unserved areas, and ensuring the long-term reliability of all its components.

OWRB groundwater and lake monitoring programs provide real-time coverage in aquifers and municipal supply lakes that currently lack monitoring. Continued support and expansion of these programs will improve Oklahoma's ability to detect early signs of stress and quantify both seasonal and long-term depletions in groundwater and surface water storage. This information is essential for anticipating shortages, prioritizing responses, and supporting communities that rely on fluctuating supplies.

The OWRB also seeks to modernize data portals, deploy AI, and develop usable and interactive data products to ensure that Hydronet and other monitoring networks can access water data through user-friendly tools that deliver practical information. Data should be as accessible as possible for farmers and ranchers, business and industry, municipal suppliers and planners, rural water districts and development groups, policymakers, and water scientists.

Actions

Dedicated funding through general revenues or expansion of OWRB and OCC's current apportionments of the gross production tax is recommended to support the following priority areas:

1. Appropriate funding for targeted regional and local water availability and water quality studies and monitoring programs to identify sources of impact and develop restoration or regulatory actions. Estimated cost: $2,500,000 (recurring) to OWRB and OCC.

2. Restore eroded funding and increase statewide coverage of the state's comprehensive stream gauging network, essential for water rights administration and interstate river compact compliance. Estimated cost: $450,000 (recurring).

3. Sustain state investment in the Oklahoma Hydronet; expand to unmonitored areas and ensure long-term reliability of components. Estimated cost: $965,000; $475,000 (recurring) pass-through to Oklahoma State University.

Local Priorities

Oklahoma's diverse geography and economies create a wide range of water and infrastructure needs. Reliable water is essential not only for sustaining communities, but also for supporting agriculture, industry, power generation, recreation, and ecological health across the state. Water policy and planning must be flexible and responsive to local priorities, recognizing unique challenges and opportunities.

OCWP stakeholder meetings focused on identifying local water opportunities and concerns, exchanging ideas, and exploring how the OCWP can best support regional planning efforts. Follow-up stakeholder meetings, specialized workgroups, and extensive technical data gathering and analysis further clarified key issues and priorities.

These efforts provided the foundation for tailored strategies, actionable plans, and informed decision-making to support coordinated investments, long-term resilience, and sustainable water management across Oklahoma. By combining stakeholder input, technical expertise, and a focus on regional needs, the OCWP ensures that water planning aligns with both current demands and future growth.

Northwest Oklahoma

Water demand in Northwest Oklahoma, driven primarily by crop irrigation, relies almost entirely on the Ogallala Aquifer, which supplies 91% of its water. Extending groundwater supplies is critical for long-term security and growth.

Stakeholders expressed interest in developing a regional economic action plan, investing in technology and research, creating interconnections between water systems, exploring irrigation districts, and incentives for water metering or measuring to inform water conservation, reforming federal crop insurance requirements, and developing broader education programs for best production/irrigation practices.

Cost-share programs that convert existing irrigation systems to low-energy precision application or sub-surface drip systems could cut water use by up to 19%, offering a significant step toward sustainable water management and long-term regional resilience.

Southwest Oklahoma

Southwest Oklahoma includes the Lower Washita, West Central, Southwest, and Beaver-Cache planning regions. Major water suppliers are working to implement a regional water plan and diversify water sources to support the region's agriculture production, Fort Sill and Altus Air Force Bases, oil and gas production, and other major regional employers.

Stakeholders emphasized long-term planning for regional economic growth, including interconnections between water systems where feasible, diversifying surface and groundwater supplies, and developing new water sources such as water reuse, aquifer storage, and brackish water. Support was also expressed for irrigation districts, drought-tolerant crops, invasive woody plant species removal, and broader education programs for best production/irrigation practices including adoption of water-efficient technologies.

Protection of water rights and reliability have also been significant issues in the Southwest. Following the 2023 Upper Red River Basin Study, unprecedented state water policy changes were enacted that established mechanisms to administer seniority between reservoir and stream water use permits during drought periods, aimed at protecting public water supply and irrigation rights in Tom Steed and Altus-Lugert reservoirs. Some stakeholders emphasized the need to continue exploring solutions to the potential impacts of upstream alluvial groundwater use scenarios on surface water availability under current state water law. The ongoing Upper Washita River Basin Study will produce similar data and analysis for consideration for Fort Cobb and Foss reservoirs.

Northeast Oklahoma

Northeast Oklahoma, including the Middle Arkansas, Lower Arkansas, Eufaula, and Grand planning regions, contains major population centers, industries, and many of the state's most notable reservoirs and rivers. Reliable water supplies are vital for drinking water, agriculture, manufacturing, power generation, and emerging industries such as data centers and AI facilities. In addition, the McClellan-Kerr Arkansas River Navigation System is responsible for transporting millions of tons of goods into and out of the state. The Grand River Dam Authority balances generating hydroelectric power, supplying water, and maintaining scenic stretches of the Illinois River and its tributaries. Water resources in this region also sustain a thriving recreation and tourism economy, which relies on healthy lakes, streams, and rivers.

Important local issues include protecting communities through flood and drought infrastructure, supporting technical assistance for smaller systems, and regionalizing systems where feasible to address workforce challenges and aging infrastructure. Stakeholders also emphasized strengthening source water protection, expanding water quality monitoring and data sharing, and preventing water supply degradation to combat higher treatment costs. Planning must balance economic growth with the protection of scenic rivers and recreational resources.

Central Oklahoma

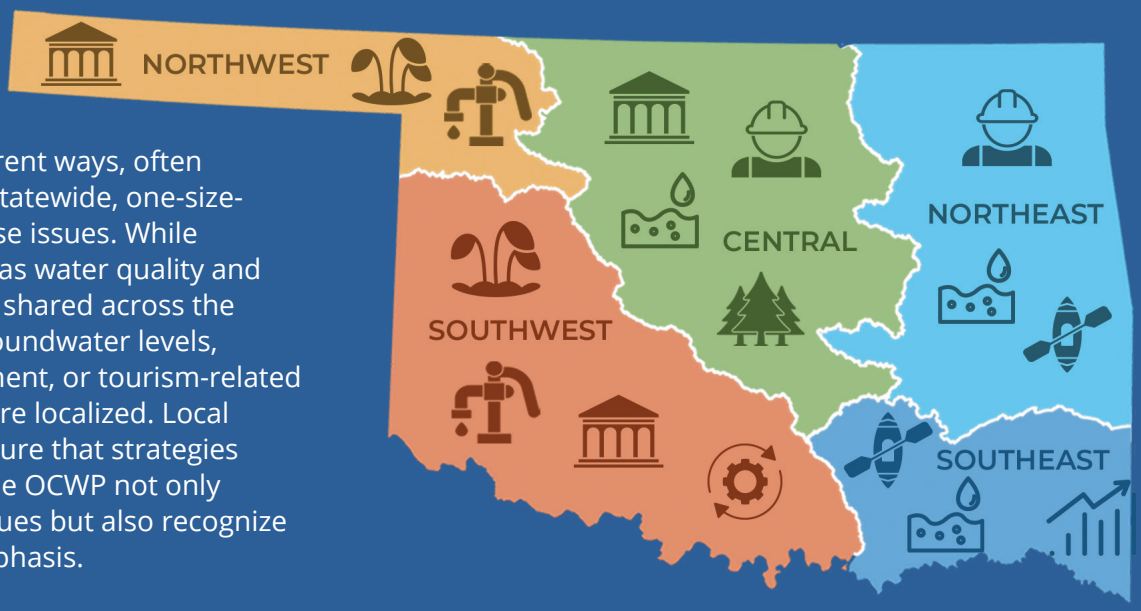
Central Oklahoma, including the Central and Upper Arkansas regions, contains the Oklahoma City metro and is the state's fastest-growing area. Anticipated economic and population growth in the area highlights the need for long-term water supply and quality for municipal and rural suppliers, agricultural production, and oil and gas development, as well as industrial, healthcare, technology, aerospace, and military uses, including Tinker Air Force Base.

Stakeholders emphasized infrastructure investment, workforce development, regional planning, effective water management, and public education on water's value. They also stressed the importance of protecting water quality to manage expensive water treatment costs, sustain public health, and support recreation and economic growth.

Stable funding mechanisms are needed to support initiatives such as invasive woody plant species removal, water conservation, lake storage assessments, aquifer storage and recovery, brackish water use, and water reuse.

What We Heard from Local Stakeholders

Across Oklahoma, stakeholders experience water challenges and opportunities in different ways, often meaning there is no statewide, one-size-fits-all solution to these issues. While some concerns, such as water quality and growing demand, are shared across the state, others—like groundwater levels, conjunctive management, or tourism-related water needs—are more localized. Local perspectives help ensure that strategies developed through the OCWP not only address statewide issues but also recognize localized areas of emphasis.



Water for Tourism

Water Quality

Conjunctive Management

Growing Demand

Water Workforce

Federal Water Policies

Soil Health

Groundwater Levels

Invasive Species

Southeast Oklahoma

Southeast Oklahoma, including the Blue-Boggy and Southeast regions, relies heavily on surface water. Abundant water resources, natural landscapes, and growing communities make strategic planning essential for long-term economic development. Reliable water supports households, businesses, and a rapidly expanding tourism sector, which contributes significantly to Oklahoma's $11.8 billion statewide tourism economy. Recreation such as fishing, boating, and hiking depends on both water quantity and quality, linking water management to economic stability, healthy stream systems, and diverse ecology.

Enormous growth in the tourism and recreation industry has highlighted the need to strengthen local and regional collaboration and to evaluate the economic contributions of streams with both consumptive and non-consumptive needs. Strategies to balance competing demands will require careful analysis of major uses, consideration for developing new water storage, and increased efficiency by water suppliers and users.

Opportunities for voluntary conservation, such as cost-share irrigation efficiency improvements, municipal water loss reduction, and public education on the value of water, are fundamental to addressing future water needs.

Looking Ahead

Oklahoma is prepared to meet the challenges of a changing future by carefully managing water resources and investing in water infrastructure. Reliable water supports agriculture, energy, industry, recreation, and growing communities, while driving economic growth, protecting public health, and sustaining natural areas and scenic landscapes. These efforts also help maintain lakes and rivers, support wildlife, and provide recreational opportunities that enhance local quality of life.

The 2025 update of the OCWP advances efforts to secure Oklahoma's water future through comprehensive data collection, scientific analysis, and public engagement. Its recommendations provide a focused framework for addressing water infrastructure, resource management, and planning needs statewide, helping communities and industries plan for growth, build resilience, and meet future water demands efficiently and equitably.

Meeting future water needs will require collaboration, innovation, and shared commitment. By strengthening partnerships among state and local governments, community leaders, tribal nations, industries, and citizens, we can protect our investments from droughts, floods, and other water-related risks. Coordinated efforts will also support economic development, attract outside investment, increase Oklahoma's competitiveness, ensure reliable services for residents, and maintain healthy ecosystems across the state. With sustained commitment and proactive planning, we can secure a water future that ensures Oklahoma has the water resources to grow and thrive.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