

## Ensuring a Reliable Supply Policy Development

### Policy Development & Recommendations

Current and future policies regarding the management and protection of our water resources are critical to ensuring a reliable future supply. The OCWP identified eight priority issues that must be addressed systematically and proactively:

### Water Project & Infrastructure Financing

Addressing Oklahoma's projected \$82 billion water and wastewater infrastructure need between now and 2060.

### Regional Planning Groups

Creating non-regulatory Regional Planning Groups consisting of local stakeholders and agency representatives to assist in planning, to enable local stakeholders to establish priorities and solve problems at the local level, and to implement OCWP initiatives at the regional level.

### Excess and Surplus Water

Establishing a legal definition that will protect local water needs while addressing statewide demands to ensure that the area of origin (planning basins) will never be made water deficient.

### Instream/Environmental Flows

Recognizing nonconsumptive water needs and supporting recreational and local economic interests while assessing the suitability and structure of a potential instream flow program for Oklahoma.

### State/Tribal Water Consultation and Resolution

Building cooperation to avoid future conflict and remove uncertainties to water use by establishing a formal consultation process with the Governor and State Legislature.

### Water Conservation, Efficiency, Recycling, & Reuse

Identification of innovative solutions to forecasted water shortages with the goal of maintaining water use at current levels through 2060.

### Water Quality & Quantity Monitoring

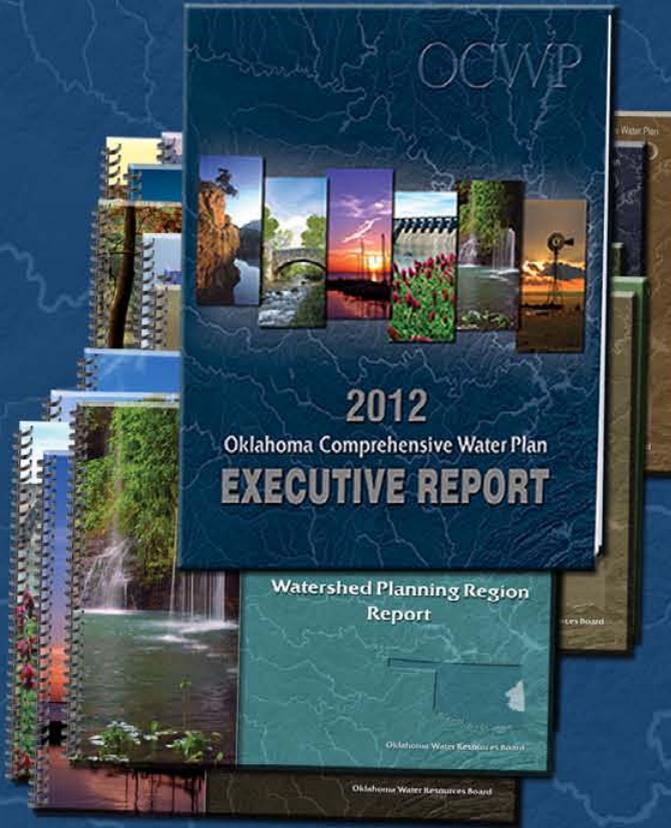
Creation of a permanent statewide water quality and quantity monitoring program to ensure better data for improved decision-making.

### Water Supply Reliability

Ensuring water availability for future growth through fair and sustainable water allocation backed by aquifer yield studies, stream water allocation models, and conservation-oriented permitting approaches.

## Oklahoma Comprehensive Water Plan

# OCWP



*A long-range strategy for establishing a reliable supply of water for all Oklahomans throughout the next 50 years and beyond.*

## What is the “Water Plan”?

Coordinated by the Oklahoma Water Resources Board, the *2012 Oklahoma Comprehensive Water Plan (OCWP) Update* is a 5-year intensive and multi-faceted analysis of Oklahoma's water resources. This update is the result of a statewide effort to be vigilant, proactive, inclusive, and bold in addressing and resolving circumstances that could threaten the reliability and utilization of water for all users and needs. The plan recognizes Oklahoma's hydrologic, economic, and environmental diversity, as well as past and current laws and programs that have resulted in successful development of the state's water resources. At the same time, there is a special focus on the state's potential to maximize both current and future development through aggressive water management and conservation strategies.

Unlike previous state water plans, the *2012 Update of the Oklahoma Comprehensive Water Plan* is more than just a single document, but rather a compilation of reports and other resources available to the public on the web. The *OCWP Executive Report* is available for download at [www.owrb.ok.gov](http://www.owrb.ok.gov) along with 13 Watershed Planning Region reports and 21 other supplemental and technical background reports, altogether totalling more than 3,500 pages of detailed information about Oklahoma water.

## OCWP Publications and Resources

[www.owrb.ok.gov/ocwp](http://www.owrb.ok.gov/ocwp)

### OCWP Executive Report

Report includes background information on water planning and management in Oklahoma, a statewide assessment of water supplies, future projections of demand, potential options to alleviate shortages, and policy recommendations.

### Watershed Planning Region Reports

Each report is a detailed resource for local water planning that includes regional characteristics, water supply/demand analysis results, forecasted water supply shortages, potential supply solutions and alternatives, and supporting technical information.

Beaver-Cache	Blue-Boggy
Central	Eufaula
Grand	Lower Arkansas
Lower Washita	Middle Arkansas
Panhandle	Southeast
Southwest	Upper Arkansas
West Central	

### OCWP Web-based Data Viewer

Data viewer allows the public to access all pertinent OCWP data through a GIS-based mapping application.

### OCWP Study Workgroup & Supplemental Reports

Water Policy & Related Recommendations for OK  
Climate Issues & Recommendations  
Agricultural Water Issues & Recommendations  
Water Quality Issues & Recommendations  
Instream Flow Issues & Recommendations  
Tribal Water Issues & Recommendations  
Marginal Quality Water Issues & Recommendations  
Artificial Aquifer Recharge Issues & Recommendations  
Infrastructure Financing Needs & Opportunities  
Water Conveyance Study

### Technical Background Reports

Reservoir Viability Study  
Drinking Water Infrastructure Needs Assessment  
Water Supply Permit Availability Report  
Physical Water Supply Availability Report  
Provider Survey Summary Report  
Conjunctive Water Management in OK and Other States  
Water Demand Forecast Report  
Climate [Change] Impacts to Streamflow  
Conservation & Climate Change (Demand Addendum)  
Oklahoma Statewide Water Quality Trends Analysis  
Programmatic Workplan

# Ensuring a Reliable Supply

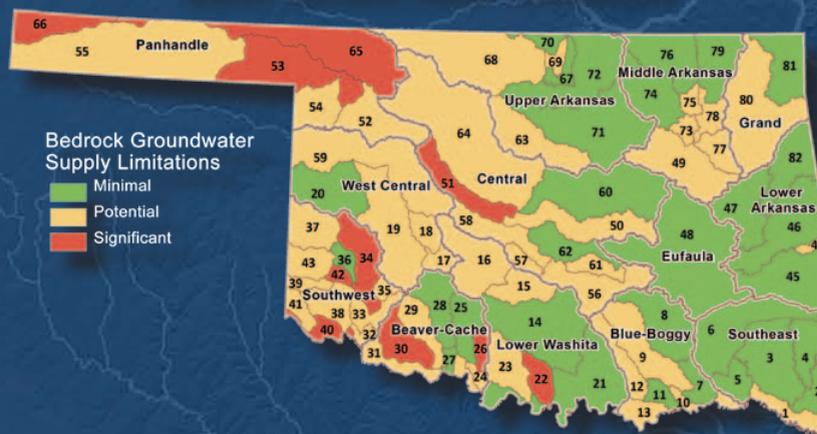
## Technical Analysis

OCWP technical analysis included projections of future consumptive demands for seven water use sectors, projections of future groundwater and surface water supplies (both physical and legal quantities), projections of future shortages (both amounts and probabilities), and an assessment of the potential viability of water supply options for all 82 OCWP watershed basins.

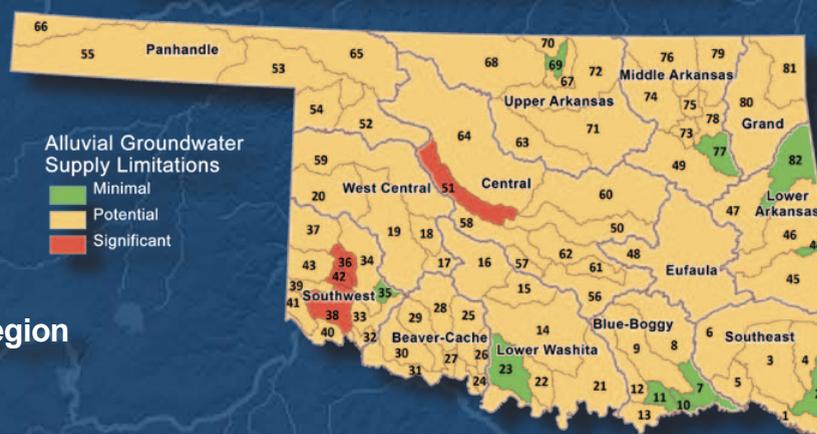
Total water demand statewide is projected to increase from almost 1.9 million acre-feet per year (AFY) in 2010 to 2.5 million AFY in 2060. In 2010, crop irrigation accounted for 40% of the total demand and Municipal and Industrial (M&I) demand accounted for 32%. Those percentages remain relatively constant throughout the forecast period. Particularly pronounced growth rates are forecasted for the thermoelectric power and oil and gas sectors.

A characterization of the state's bedrock and alluvial groundwater and surface water supplies included an evaluation of the extent to which either source was limited in its ability to meet 2060 demands. Several parameters were considered, including future physical availability, permit availability, and current water quality characteristics.

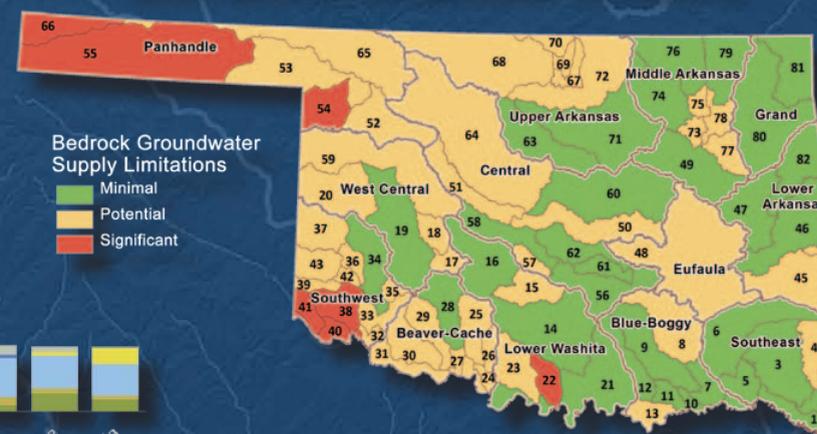
## Basin Surface Water Limitations



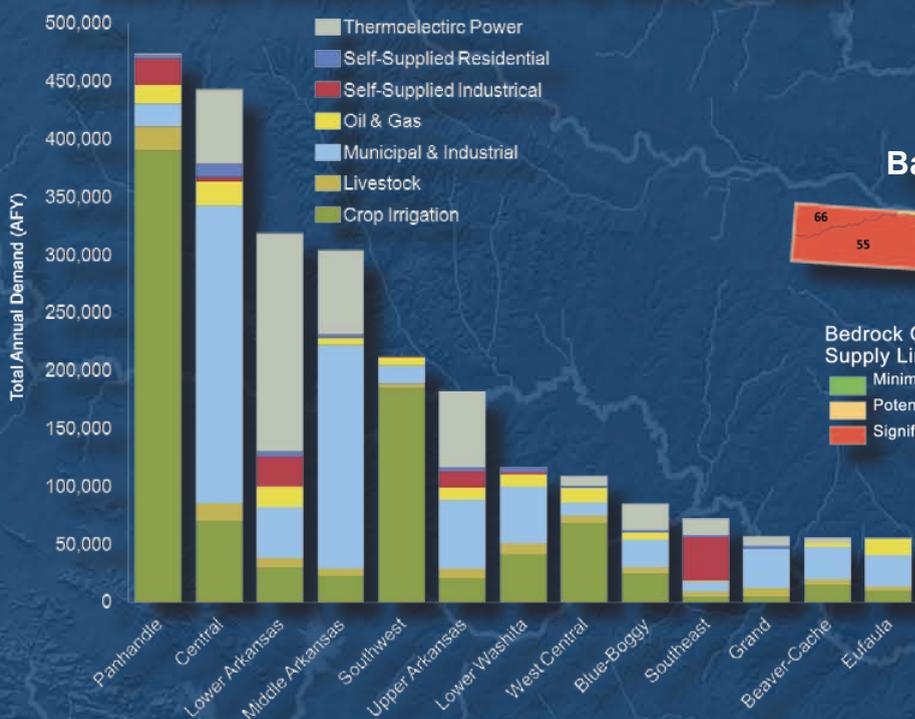
## Basin Alluvial Groundwater Limitations



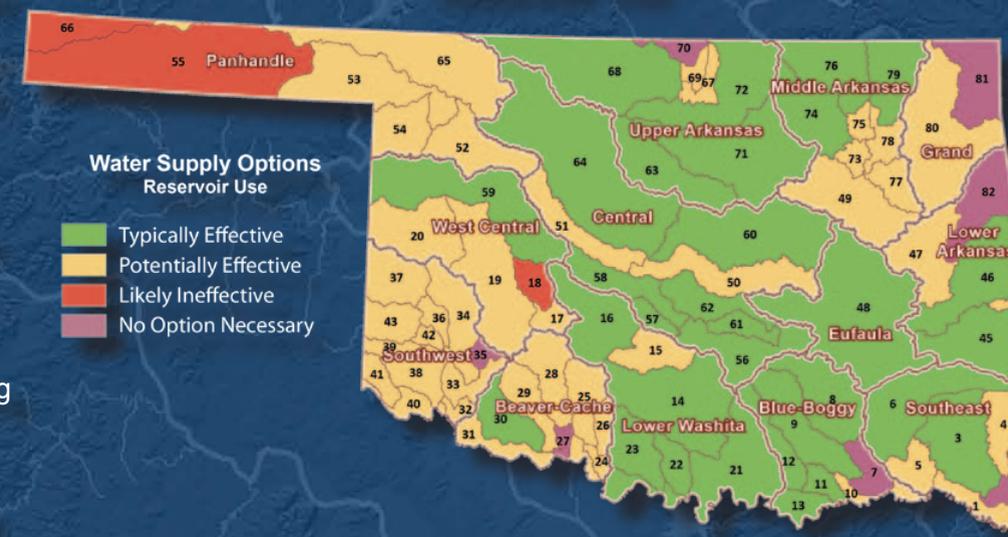
## Basin Bedrock Groundwater Limitations



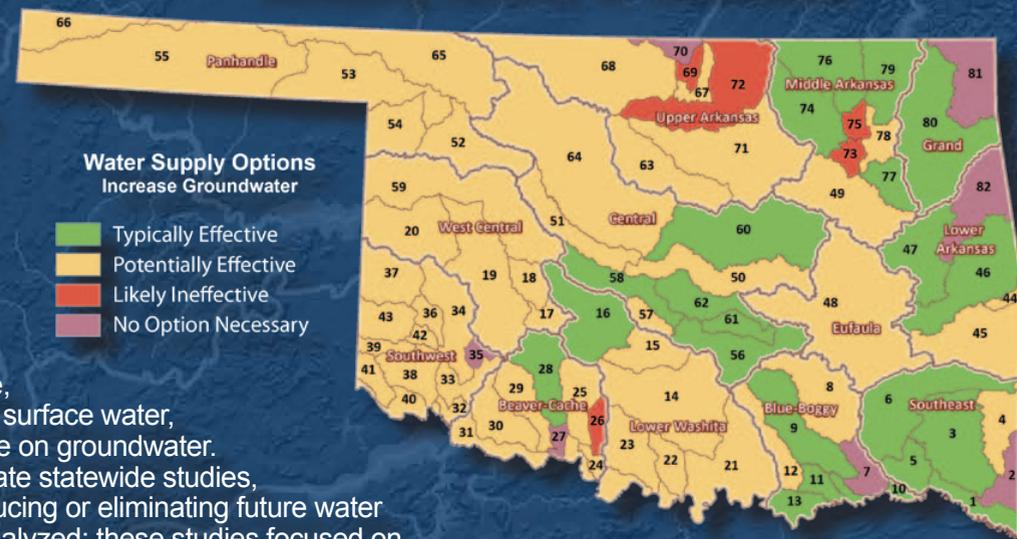
## 2060 Water Demand Projections by Sector & Region



## Basin Water Supply Options Reservoir Use



## Basin Water Supply Options Increasing Reliance on Groundwater



The amount and probability of any future surface water gaps or groundwater depletions were estimated to determine future supply challenges. Some of the state's 82 OCWP basins are projected to experience gaps and/or depletions. Many of these water supply shortages are relatively minor but others will require more immediate attention to mitigate large and recurring water deficiencies. The 12 basins with the most significant water supply challenges, referred to as "hot spots," were identified and analyzed in particular detail.

Several components of the 2012 OCWP Update focus on water supply options for reducing and eliminating future water supply shortages. Five primary options were evaluated for their effectiveness in addressing each basin's shortages: (1) demand management, (2) use of out-of-basin supplies, (3) reservoir use, (4) increasing reliance on surface water, and (5) increasing reliance on groundwater. Additionally, in four separate statewide studies, expanded options for reducing or eliminating future water supply shortages were analyzed; these studies focused on (1) expanded conservation measures, (2) potential reservoir development, (3) marginal quality water use, and (4) artificial recharge projects. More information on water supply options can be found in the OCWP Executive Report and full reports on all OCWP water supply options can be viewed on the OWRB website.

As local and regional water users and stakeholders continue to plan for their reliable water future, information provided by the 2012 OCWP Update will provide sound science for better decisionmaking.

All reports can be downloaded at [www.owrb.ok.gov/ocwp](http://www.owrb.ok.gov/ocwp).