

Population

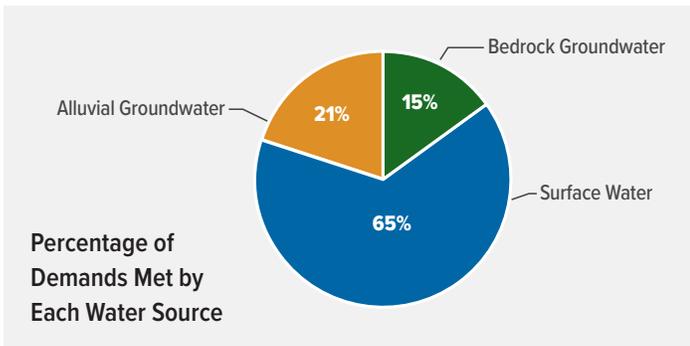
How is the population expected to change in the future?

2020	2030	2035	2045	2060	2075
53,780	55,690	54,270	51,679	48,182	45,264

Water Demand Projections

How much water is needed to meet Oklahomans' needs?

Basin 46 accounts for approximately 25% of the overall water demands of the Lower Arkansas Region.



Total Demand by Sector (AFY)

	2020	2030	2035	2045	2060	2075
Self-supplied Domestic	605	650	636	610	575	548
Self-supplied Industrial	-	-	-	-	-	-
Crop Irrigation	11,621	14,178	16,905	18,452	18,452	18,452
Livestock	2,002	2,021	2,039	2,014	1,970	1,939
Oil & Gas	109	109	109	109	109	109
Public Supply	6,737	6,928	6,751	6,433	5,995	5,630
Thermoelectric Power	-	-	-	-	-	-
Total	21,074	23,886	26,439	27,617	27,100	26,677

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

Physical Water Shortages

Will there be enough "wet water" physically available to meet anticipated needs?

WIW WM WSS

	Magnitude (AFY)					Frequency ¹
	2030	2035	2045	2060	2075	2075
Surface Water Gap	1	37	-	293	421	1%
Alluvial Groundwater Depletion	4	32	-	578	581	1%
Bedrock Groundwater Depletion	11	11	11	5	18	N/A

1. Probability of a water shortage occurring in at least one month of the year.

Legal Water Availability

Will there be water available for permitting after meeting 2075 demands?

WM WSS

Estimated Surface Water available for appropriation in 2075 (AFY)	Inside 2016 Water Settlement Area? ¹	Is there a downstream mainstem restriction? ²	Estimated Groundwater available for appropriation in 2075 (AFY)
9,248,400	Yes	No	3,261,080

1. Yes – basin wholly or partially subject to the provisions of the 2016 Water Settlement Agreement.

2. Yes – mainstem restriction may impact water available for appropriation within the basin.

Water Management Strategies

What approaches are most viable for meeting future needs and mitigating shortages?

WSS WDI WIW WM

Water Management Category	Demand Sector	Basin 46 Evaluation
Demand Management	PS, SSI, OG, TE	Effective at Meeting Future Demands
Agriculture Options	CI, LS	Effective at Meeting Future Demands
Increase Reliance on In-Basin Surface Water	All sectors	Effective at Meeting Future Demands
Increase Reliance on In-Basin Groundwater	All sectors	Effective When Paired with Demand Management / Agriculture Options
Stormwater Capture & Use	PS, SSI	No Shortage or Needs Met by Other Strategies
Reuse	PS, SSI	No Shortage or Needs Met by Other Strategies
Water Transfers	All sectors	No Shortage or Needs Met by Other Strategies

In addition to the water management strategies, water users need:

- Options to address water quality concerns, which could include expanding source water protection programs and expanding water quality studies.
- Ways to address infrastructure limitations, which could include additional water funding from the State, Federal, and/or public-private partnerships, and by providers setting water rates that fully fund system operation and maintenance.