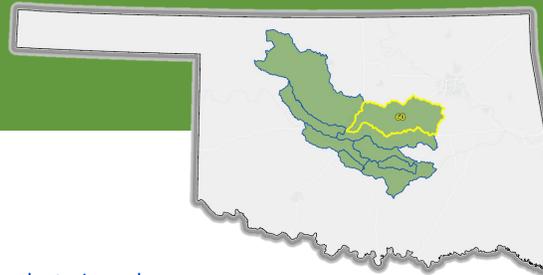


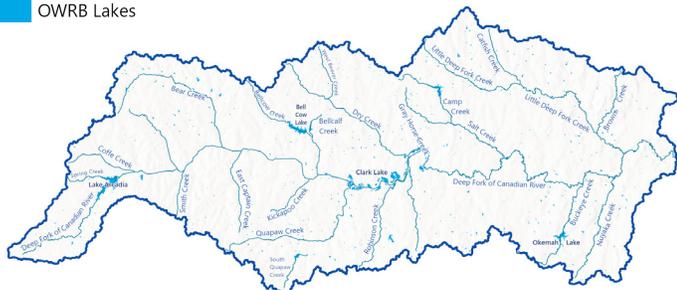
BASIN 60

Deep Fork River / Central Region



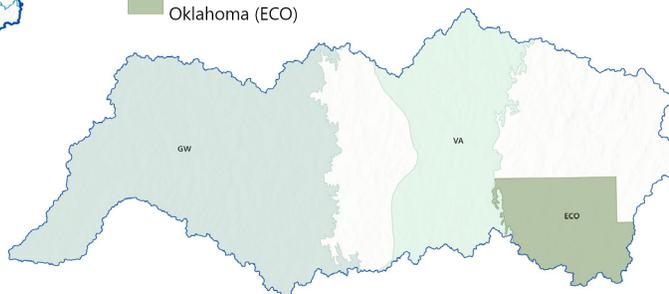
Surface Water Legend

- Planning Basin
- OWRB Major Streams
- OWRB Lakes



Groundwater Legend

- Planning Basin
- Major Bedrock Aquifer
 - Garber-Wellington (GW)
 - Vamoosa-Ada (VA)
- Minor Bedrock Aquifer
 - East-Central Oklahoma (ECO)



Interactive maps can be viewed through the OCWP dashboards, accessible at oklahoma.gov/owrb/water-planning

SUMMARY

- Basin 60 - Deep Fork River demands are supplied by a combination of surface water, groundwater, and out-of-basin supplies.
- Water demand (withdrawal) is projected to increase by 22,757 acre-feet per year (38%) between 2020 and 2025.
- Physical surface water gaps are projected in Basin 60 as early as 2030 and will continue through 2075.
- There are no alluvial groundwater demands in this basin.
- Physical bedrock groundwater depletions are projected in Basin 60 by 2075.
- Basin 60 is projected to have surface water available for appropriation through 2075.
- Basin 60 is projected to have groundwater available for appropriation through 2075.
- To mitigate projected water supply shortages in this basin, the following strategies will typically be most effective:
 - Reduce water demand through conservation, water loss reduction, and other activities (PS, SSI, OG, TE). **WSS**
 - Reduce water demands through agricultural water saving options (CI, LS). **WSS**
 - Continue/increase reliance on in-basin surface water (all sectors). **WSS** **WDI**
 - Continue/increase reliance on in-basin groundwater (all sectors). **WSS** **WDI**



OWRB Water
Planning Page
oklahoma.gov/owrb/water-planning

Refer to the “**Guide to Region and Basin Fact Sheets**” for a description of the types of information detailed in this fact sheet.

Water Demand Sectors: PS = Public Supply, SSI = Self-supplied Industrial, OG = Oil & Gas, TE = Thermoelectric Power, CI = Crop Irrigation, LS = Livestock, SSD = Self-supplied Domestic

OCWP Statewide Recommendations are designed to address current and anticipated water supply challenges and are noted throughout this fact sheet with the following icons: **WIW** Water Infrastructure & Workforce, **WM** Water Management,

WSS Water Supplies & Storage, and **WDI** Water Data & Information

Population

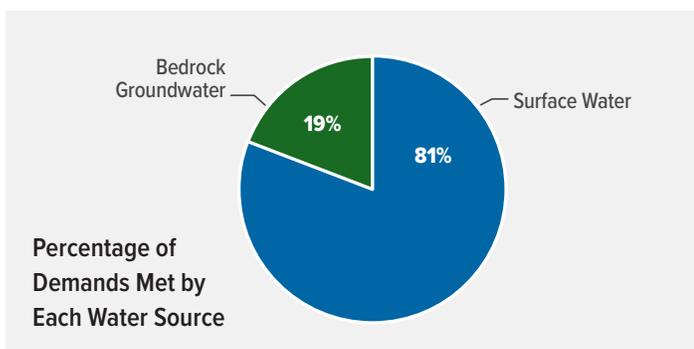
How is the population expected to change in the future?

2020	2030	2035	2045	2060	2075
360,313	382,893	393,531	416,374	456,844	492,458

Water Demand Projections

How much water is needed to meet Oklahomans' needs?

Basin 60 accounts for approximately 19% of the overall water demands of the Central Region.



Total Demand by Sector (AFY)

	2020	2030	2035	2045	2060	2075
Self-supplied Domestic	6,172	6,518	6,654	6,963	7,515	8,009
Self-supplied Industrial	-	-	-	-	-	-
Crop Irrigation	111	279	279	279	279	279
Livestock	1,832	1,785	1,783	1,742	1,684	1,638
Oil & Gas	579	579	579	579	579	579
Public Supply	47,400	50,711	52,445	56,083	62,412	67,999
Thermoelectric Power	3,888	2,641	2,506	3,229	3,768	4,237
Total	59,982	62,514	64,245	68,876	76,237	82,740

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	996	1,641	3,015	5,503	8,015	85%
Alluvial Groundwater Depletion	-	-	-	-	-	No AGW Demand
Bedrock Groundwater Depletion	-	-	-	-	72	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)
464,800	No	No	1,749,390

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 60 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 When Paired with Demand Management/ Agriculture Options
Increase Reliance on In-Basin Groundwater	All sectors	Effective at Meeting Future Demands
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.