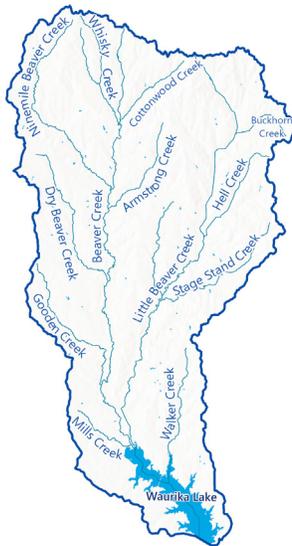
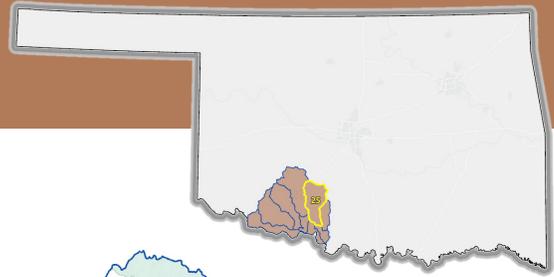


BASIN 25

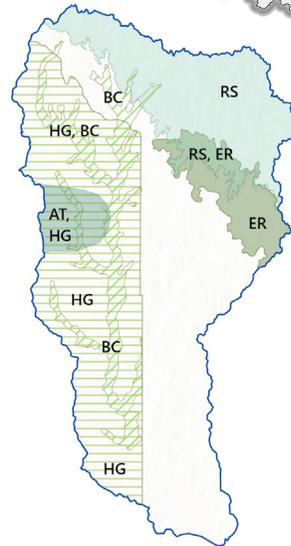
Beaver Creek - 2 / Beaver Cache Region



Surface Water Legend
 □ Planning Basin
 — OWRB Major Streams
 ■ OWRB Lakes

Groundwater Legend

□ Planning Basin
 Major Bedrock Aquifer
 ■ Arbuckle-Timbered Hills (AT)
 ■ Rush Springs (RS)
 Minor Bedrock Aquifer
 ■ El Reno (ER)
 ■ Hennessey-Garber (HG)
 Minor Alluvial Aquifer
 ■ Beaver Creek (BC)



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

SUMMARY

- Basin 25 - Beaver Creek - 2 demands are supplied by a combination of surface water, groundwater, and out-of-basin supplies.
- Water demand (withdrawal) is projected to decrease by 145 acre-feet per year (3%) between 2020 and 2075.
- Physical surface water gaps are projected in Basin 25 as early as 2030 and will continue through 2075.
- No alluvial groundwater depletions are projected.
- Physical bedrock groundwater depletions are projected in Basin 25 as early as 2030 and will diminish by 2075.
- Basin 25 is projected to have surface water available for appropriation through 2075, but its permitting may be subject to provisions of the 2016 Water Settlement Agreement.
- Basin 25 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

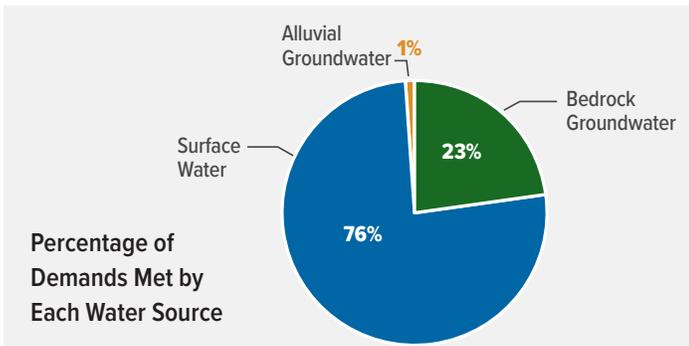
How is the population expected to change in the future?

2020	2030	2035	2045	2060	2075
36,244	34,909	33,918	31,843	29,133	26,342

Water Demand Projections

How much water is needed to meet Oklahomans' needs?

Basin 25 accounts for approximately 11% of the overall water demands of the Beaver Cache Region.



Total Demand by Sector (AFY)

	2020	2030	2035	2045	2060	2075
Self-supplied Domestic	233	230	226	217	204	193
Self-supplied Industrial	-	-	-	-	-	-
Crop Irrigation	1,520	1,966	1,957	1,975	2,034	2,092
Livestock	736	715	713	695	669	647
Oil & Gas	282	282	282	282	282	282
Public Supply	2,236	2,152	2,090	1,965	1,815	1,648
Thermoelectric Power	-	-	-	-	-	-
Total	5,008	5,345	5,268	5,134	5,004	4,863

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	374	360	333	317	292	24%
Alluvial Groundwater Depletion	-	-	-	-	-	0%
Bedrock Groundwater Depletion	119	95	58	32	-	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)
103,900	Yes	No	465,610

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 25 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.