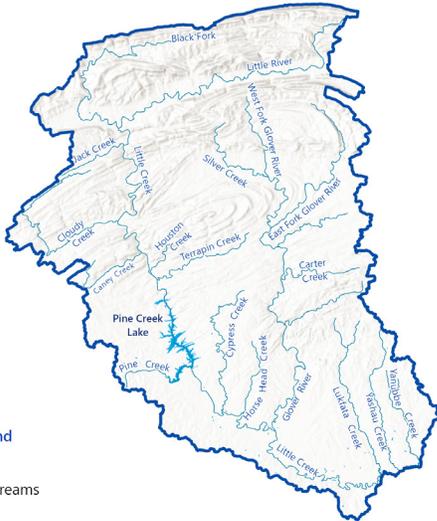


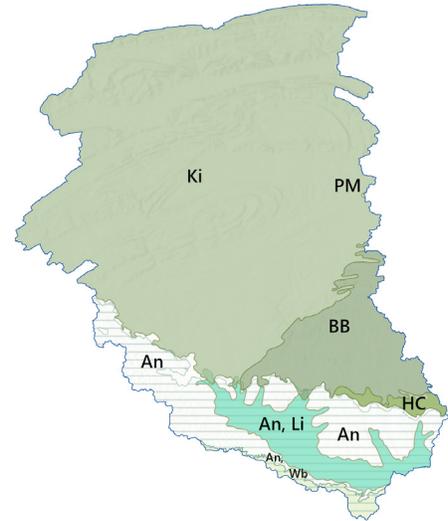
BASIN 3

Little River (McCurtain County) - 2 / Southeast Region



Surface Water Legend
 Planning Basin
 OWRB Major Streams
 OWRB Lakes

Groundwater Legend
 Planning Basin
Major Bedrock Aquifer
 Antlers (An)
Minor Bedrock Aquifer
 Broken Bow (BB)
 Holly Creek (HC)
 Kiamichi (Ki)
 Pine Mountain (PM)
 Woodbine (Wb)
Minor Alluvial Aquifer
 Little River (Li)



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

SUMMARY

- Basin 3 - Little River (McCurtain County) - 2 demands are supplied by a combination of surface water, groundwater, and out-of-basin supplies.
- Water demand (withdrawal) is projected to increase by 1,723 acre-feet per year (37%) between 2020 and 2075.
- Physical surface water gaps are projected in Basin 3 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 3 by 2075.

- Basin 3 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 3 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

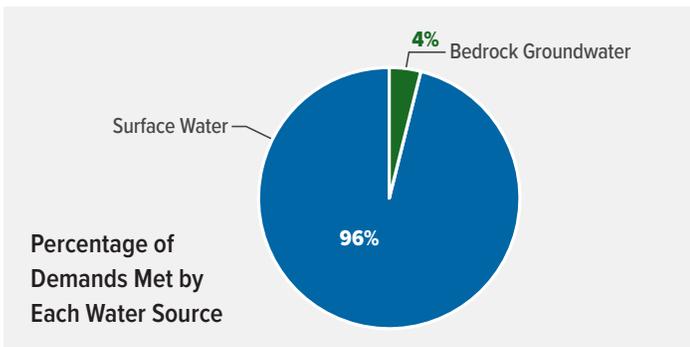
How is the population expected to change in the future?

| 2020 | 2030 | 2035 | 2045 | 2060 | 2075 |
|--------|--------|--------|--------|--------|--------|
| 17,981 | 19,656 | 19,896 | 20,589 | 21,976 | 23,136 |

Water Demand Projections

How much water is needed to meet Oklahomans' needs?

Basin 3 accounts for approximately 8% of the overall water demands of the Southeast Region.



Total Demand by Sector (AFY)

| | 2020 | 2030 | 2035 | 2045 | 2060 | 2075 |
|--------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Self-supplied Domestic | 205 | 228 | 232 | 242 | 262 | 280 |
| Self-supplied Industrial | - | - | - | - | - | - |
| Crop Irrigation | 213 | 332 | 332 | 332 | 332 | 332 |
| Livestock | 1,014 | 1,039 | 1,053 | 1,044 | 1,026 | 1,014 |
| Oil & Gas | 88 | 88 | 88 | 88 | 88 | 88 |
| Public Supply | 3,079 | 3,513 | 3,616 | 3,842 | 4,247 | 4,610 |
| Thermoelectric Power | - | - | - | - | - | - |
| Total | 4,600 | 5,200 | 5,320 | 5,548 | 5,956 | 6,324 |

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 | 70 | 92 | 131 | 193 | 323 | 8% |
| Alluvial Groundwater Depletion | - | - | - | - | - | No AGW Demand |
| Bedrock Groundwater Depletion | - | - | - | - | 2 | 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) |
|---|---|--|---|
| 1,089,300 | Yes | No | 1,829,310 |

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 3 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.