

Table 1. Trends calculated for total phosphorus concentrations and use assessment arithmetic means at certain permanent monitoring stations in the Compact area. The percent of arithmetic mean values exceeding the 0.037mg/L criterion are shown in the last column. NOTE: These values represent the period of record from 1999 to the present and do not represent more recent trends.

| Station                       | All Data (1993-2025) |          | All Data (1999-2025) |          | Higher Flow Data (1999-2025) |                   | Lower Flow Data (1999-2025) |          | Arithmetic Mean For Assessment (1999-2025) | Arithmetic Mean Assessment (2021 2025) |
|-------------------------------|----------------------|----------|----------------------|----------|------------------------------|-------------------|-----------------------------|----------|--------------------------------------------|----------------------------------------|
|                               | Unadj                | Flow Adj | Unadj                | Flow Adj | Unadj                        | Flow Adj          | Unadj                       | Flow Adj | Unadj                                      | % Exceedance                           |
| Illinois River near Watts     | ↓↓↓                  | ↓↓↓      | ↓↓↓                  | ↓↓↓      | ↓↓↓                          | NT <sup>↓↓↓</sup> | ↓↓↓                         | ↓↓↓      | ↓↓↓                                        | 99% (64/65)                            |
| Illinois River near Tahlequah | ↓↓↓                  | ↓↓↓      | ↓↓↓                  | ↓↓↓      | ↓↓↓                          | ↓↓↓               | ↓↓↓                         | ↓↓↓      | ↓↓↓                                        | 99% (66/67)                            |
| Flint Creek near Kansas       | ↓↓↓                  | ↓↓↓      | ↓↓↓                  | ↓↓↓      | ↓↓↓                          | ↓↓↓               | ↓↓↓                         | ↓↓↓      | ↓↓↓                                        | 100% (58/58)                           |
| Barren Fork near Eldon        | NT                   | ↓↓↓      | NT <sup>↓</sup>      | ↓↓↓      | NT <sup>↓</sup>              | ↓↓↓               | NT                          | ↓↓↓      | NT <sup>↓↓↓</sup>                          | 59% (36/61)                            |

↓↓↓ = Decreasing Trend at the 95% Confidence Level  
 ↓↓ = Decreasing Trend at the 90% Confidence Level  
 ↓ = Decreasing Trend at the 80% Confidence Level  
 No Increasing Trends  
 NT = No Likely Trend

**TREND ANALYSIS IN THE ILLINOIS RIVER  
BASIN AT VARIOUS FLOW REGIMES**