## Pine Creek

<table>
<thead>
<tr>
<th>Sample Period</th>
<th>Times Visited</th>
<th>Sampling Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 2015 – August 2016</td>
<td>4</td>
<td>5</td>
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</tbody>
</table>

### General
- **Location**: Mc Curtain County
- **Impoundment**: 1969
- **Area**: 3,750 acres
- **Capacity**: 53,750 acre feet
- **Purposes**: Water Supply, Flood Control, Water quality Control, Fish and Wildlife, and Recreation

### Parameters

#### In-Situ
- **Average Turbidity**: 13 NTU
- **Average Secchi Disk Depth**: 47 cm
- **Water Clarity Rating**: Average
- **Chlorophyll-a**: 25.2 mg/m³
- **Trophic State Index**: 62  
  Previous value = 58
- **Trophic Class**: Hypereutrophic

#### Profile
- **Salinity**: 0.02 – 0.06 ppt
- **Specific Conductivity**: 38.8 – 125.1 µS/cm
- **pH**: 5.95 – 8.10 pH units  
  45% of values < 6.5 pH units
- **Oxidation-Reduction Potential**: 53.9 to 447.6 mV
- **Dissolved Oxygen**: Up to 46% of water column < 2 mg/L in August

#### Nutrients
- **Surface Total Nitrogen**: 0.54 mg/L to 1.02 mg/L
- **Surface Total Phosphorus**: 0.050 mg/L to 0.063 mg/L
- **Nitrogen to Phosphorus Ratio**: 15:1  
  Phosphorus limited

### Beneficial Uses

<table>
<thead>
<tr>
<th>Notes</th>
<th>Turbidity</th>
<th>pH</th>
<th>Dissolved Oxygen</th>
<th>Metals</th>
<th>TSI</th>
<th>True Color</th>
<th>Sulfates</th>
<th>Chlorides</th>
<th>Total Dissolved Solids</th>
<th>Enter. &amp; E. coli</th>
<th>Chlor-a</th>
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<tbody>
<tr>
<td>S = Fully Supporting</td>
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<td>NEI = Not Enough Information</td>
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<td>Fish &amp; Wildlife Propagation</td>
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<td>Primary Body Contact Recreation</td>
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<td>Public &amp; Private Water Supply</td>
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**Notes**: Slightly acidic conditions are common in this part of the state, due to relatively low soil pH and lack of soluble bedrock. Due to these conditions it is likely that the low pH values may be due to natural causes; therefore the Water Board is looking at the applicability of developing site-specific criteria for waters in the southeastern portion of the state.* *Standards revision, true color is for permitting purposes only

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*OWQS = Oklahoma Water Quality Standards
mg/L = milligrams per liter
µS/cm = microsiemens/cm
mV = millivolts
ppt = parts per thousand
En = Enterococci

NTU = nephelometric turbidity units
E. coli = Escherichia coli
Chlor-a = Chlorophyll-a

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