### Crowder

#### Sample Period
- **Times Visited**: 17
- **Sampling Sites**: 3

#### General Information
- **Location**: Washita County
- **Impoundment**: 1959
- **Area**: 158 acres
- **Capacity**: 2,094 acre-feet

#### Purposes
- Flood Control, Recreation

#### General Parameters

<table>
<thead>
<tr>
<th>Parameter (Descriptions)</th>
<th>Result</th>
<th>Notes/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Turbidity</td>
<td>16 NTU</td>
<td>24% of values &gt; OWQS of 25 NTU</td>
</tr>
<tr>
<td>Average Secchi Disk Depth</td>
<td>65 cm</td>
<td></td>
</tr>
<tr>
<td>Water Clarity Rating</td>
<td>Average</td>
<td></td>
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<tr>
<td>Chlorophyll-a</td>
<td>41mg/m3</td>
<td></td>
</tr>
<tr>
<td>Trophic State Index</td>
<td>67</td>
<td>Previous value =63</td>
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<tr>
<td>Trophic Class</td>
<td>Hypereutrophic</td>
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</tbody>
</table>

#### Profile Parameters

- **Salinity**: 0.34– 0.66 ppt
- **Specific Conductivity**: 694.5 – 1304.9 µS/cm
- **pH**: 6.91– 8.64 pH units
  - Neutral to slightly alkaline
- **Oxidation-Reduction Potential**: -198.7 - 537.3 mV
- **Dissolved Oxygen**: Up to 62.5% of water column < 2 mg/L in June

#### Nutrients
- **Surface Total Nitrogen**: 0.64 mg/L to 2.11 mg/L
- **Surface Total Phosphorus**: 0.005 mg/L to 0.377 mg/L
- **Nitrogen to Phosphorus Ratio**: 13:1
  - Phosphorus Limited

#### Beneficial Uses
- **Click to learn more about Beneficial Uses**

<table>
<thead>
<tr>
<th>Beneficial Uses</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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</thead>
<tbody>
<tr>
<td>Fish &amp; Wildlife Propagation</td>
<td>NS</td>
<td>S</td>
<td>NEI</td>
<td>S</td>
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<td>Aesthetics</td>
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<td></td>
<td></td>
<td>NEI*</td>
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<td>Agriculture</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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<td></td>
<td>NS</td>
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</tbody>
</table>

*S = Fully Supporting  
NS = Not Supporting  
NEI = Not Enough Information  

**Notes**: The lake is listed in the WQS as a NLW indicating that the Aesthetics beneficial use is considered threatened by nutrients until studies can be conducted to confirm non-support status

**NTU** = nephelometric turbidity units  
**µS/cm** = microsiemens per centimeter  
**E. coli** = Escherichia coli  
**OWQS** = Oklahoma Water Quality Standards  
**mg/L** = milligrams per liter  
**µV** = millivolts  
**Chlor-a** = Chlorophyll-a  
**Chlor** = Chloride  
**En** = Enterococci

**Sampling and Assessment by the Oklahoma Water Resources Board** – 3800 Classen Blvd, Oklahoma City, OK, 73118 – 405.530.8800 – [http://www.owrb.ok.gov](http://www.owrb.ok.gov)