Thunderbird

Sample Period	Times Visited	Sampling Sites
November 2017 – August 2018	4	7

Sampling Sites — map showing Site 01 through Site 07

General

Location	Cleveland County
Impoundment	1965
Area	6,070 acres
Capacity	119,600 acre-feet
Purposes	Flood Control, Water Supply, Recreation, Fish & Wildlife
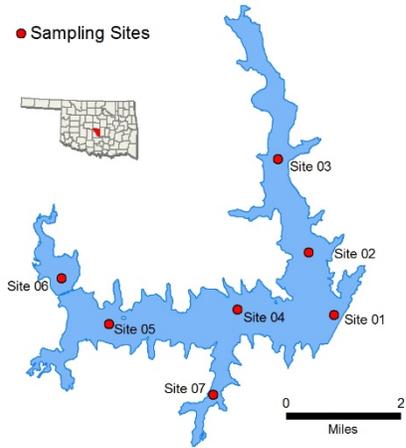
Parameters

Parameter (*Descriptions*)	Result	Notes/Comments
In Situ		
Average Turbidity	14 NTU	4% of values > OWQS of 25 NTU
Average Secchi Disk Depth	59 cm	
Water Clarity Rating	Average	
Chlorophyll-a	21 mg/m3	
Trophic State Index	61	Previous value = 56
Trophic Class	Hypereutrophic	
Profile		
Salinity	0.13 – 0.26 ppt	
Specific Conductivity	281.5 – 530 µS/cm	
pH	7.14 – 8.68 pH units	Neutral to slightly alkaline
Oxidation-Reduction Potential	90.2 to 454 mV	
Dissolved Oxygen	Up to 67% of water column < 2 mg/L in July	Occurred at sites 1, the dam
Nutrients		
Surface Total Nitrogen	0.665 mg/L to 1.025 mg/L	
Surface Total Phosphorus	0.025 mg/L to 0.104 mg/L	
Nitrogen to Phosphorus Ratio	23:1	Phosphorus limited

Beneficial Uses

Click to learn more about Beneficial Uses	Turbidity	pH	Dissolved Oxygen	Metals	TSI	True Color	Sulfates	Chlorides	Total Dissolved Solids	Enterro. & E. coli	Chlor-a
Fish & Wildlife Propagation	NS	S	NS	S							
Aesthetics					NEI*	S					
Agriculture							S	S	S		
Primary Body Contact Recreation										S	
Public & Private Water Supply											NS

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

Notes

* The lake is listed in the Oklahoma Water Quality Standards (WQS) as a Nutrient Limited watershed (NLW). This listing means that the lake is considered threatened from nutrients until a more intensive study can confirm the Aesthetics beneficial use non-support status.

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