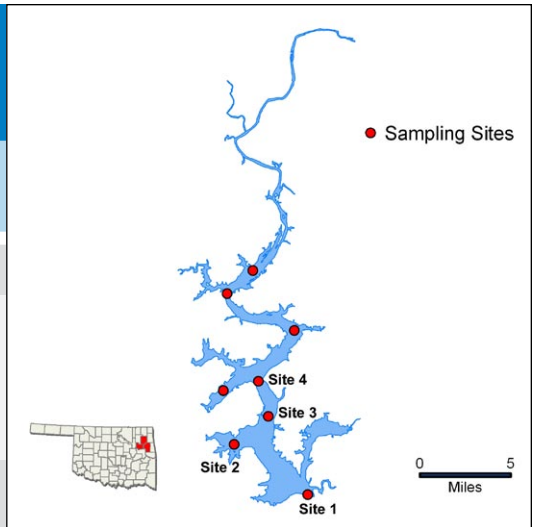


Fort Gibson, Lower (1-4)



Sample Period	Times Visited	Sampling Sites
October 2006 - July 2007	4	8

Lake Data	Location	Cherokee County
	Impoundment	1953
	Area	14,900 acres
	Capacity	355,200 acre-feet
	Purposes	Hydropower and Flood Control

Parameters	Parameter	Result	Notes/Comments	
	Average Turbidity	7 NTU	100% of values < OWQS of 25 NTU	
	Average True Color	32 units	100% of values < OWQS of 70	
	Average Secchi Disk Depth	86 cm		
	Water Clarity Rating	good		
	Trophic State Index	60		
	Trophic Class	eutrophic		
	Profile	Salinity	0.07– 0.15 ppt	
		Specific Conductivity	168.8 – 303.9 µS/cm	
		pH	6.26 – 8.79 pH units	12% of values < 6.5 pH units
		Oxidation-Reduction Potential	2 to 403 mV	
		Dissolved Oxygen	Up to 82% of water column < 2 mg/L in July	Occurred at site 3
	Nutrients	Surface Total Nitrogen	0.62 mg/L to 1.43 mg/L	
Surface Total Phosphorus		0.038 mg/L to 0.125 mg/L		
Nitrogen to Phosphorus Ratio		11:1	Phosphorus limited	

Beneficial Uses	Turbidity	pH	Dissolved Oxygen	Metals	TSI	True Color	Sulfates, Chlorides & TDS	En,ecal coli, & E. coli	Chlor-a
	Fish & Wildlife Propagation	S	S	NS	S				
	Aesthetics					NS	S		
	Agriculture						S		
	Primary Body Contact Recreation							S	
	Public & Private Water Supply								

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

Notes

The lake is currently 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.

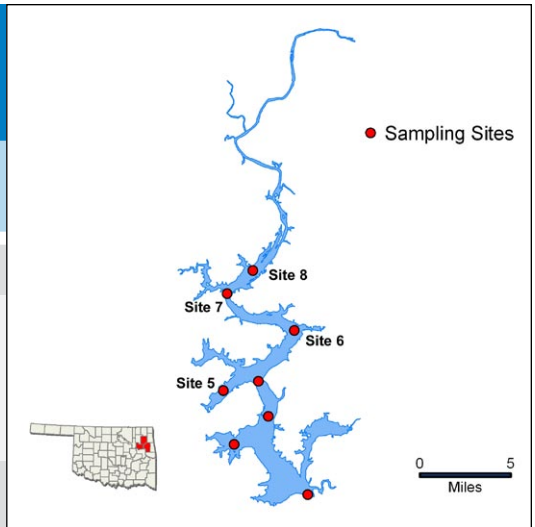
NTU = nephelometric turbidity units
 µS/cm = microsiemens per centimeter
 E. coli = Escherichia coli

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

Fort Gibson, Upper (5-8)



Sample Period	Times Visited	Sampling Sites
October 2006 - July 2007	4	8

Lake Data	Location	Cherokee County
	Impoundment	1953
	Area	14,900 acres
	Capacity	355,200 acre-feet
	Purposes	Hydropower and Flood Control

Parameters	Parameter	Result	Notes/Comments	
	Average Turbidity	10 NTU	100% of values < OWQS of 25 NTU	
	Average True Color	33 units	100% of values < OWQS of 70	
	Average Secchi Disk Depth	73 cm		
	Water Clarity Rating	good		
	Trophic State Index	61		
	Trophic Class	hypereutrophic		
	Profile	Salinity	0.07– 0.15 ppt	
		Specific Conductivity	164.9 – 351.1 µS/cm	
		pH	6.04 – 8.91 pH units	16.5% of values < 6.5 pH units
		Oxidation-Reduction Potential	6 to 382 mV	
		Dissolved Oxygen	Up to 79% of water column < 2 mg/L in July	Occurred at site 6
	Nutrients	Surface Total Nitrogen	0.62 mg/L to 1.50 mg/L	
Surface Total Phosphorus		0.034 mg/L to 0.261 mg/L		
Nitrogen to Phosphorus Ratio		8:1	Phosphorus limited	

Beneficial Uses	Turbidity	pH	Dissolved Oxygen	Metals	TSI	True Color	Sulfates, Chlorides & TDS	En,ecal coli, & E. coli	Chlor-a
	Fish & Wildlife Propagation	S	S	NS	S				
	Aesthetics					NS	S		
	Agriculture						S		
	Primary Body Contact Recreation							S	
	Public & Private Water Supply								

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

Notes The lake is currently 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 OWQS = Oklahoma Water Quality Standards mg/L = milligrams per liter ppt = parts per thousand
 µS/cm = microsiemens per centimeter mV = millivolts µS/cm = microsiemens/cm En = Enterococci
 E. coli = Escherichia coli Chlor-a = Chlorophyll-a