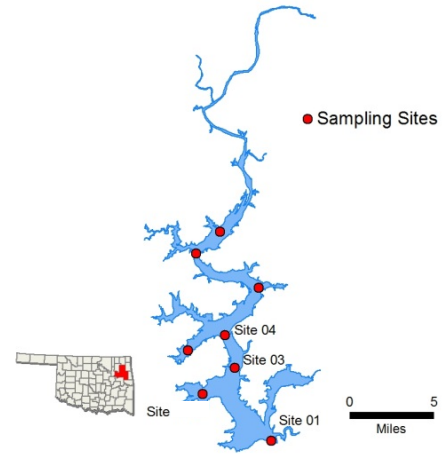


Ft. Gibson, Lower (1-4)

Sample Period	Times Visited	Sampling Sites
December 2017 – August 2018	3	4

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



Parameters	In Situ	Parameter (<i>Descriptions</i>)	Result	Notes/Comments
		Average Turbidity	7 NTU	100% of values < OWQS of 25 NTU
		Average Secchi Disk Depth	92 cm	
		Water Clarity Rating	Good	
		Chlorophyll-a	23 mg/m3	
		Trophic State Index	61	Previous value = 60
	Trophic Class	Eutrophic		
	Profile	Salinity	0.12 – 0.13 ppt	
		Specific Conductivity	220.3 – 292.5 µS/cm	
		pH	7.11 – 9.04 pH units	
		Oxidation-Reduction Potential	204.1 to 503.7 mV	
		Dissolved Oxygen	Up to 56% water column < 2 mg/L in May	
	Nutrients	Surface Total Nitrogen	0.48 mg/L to 0.9 mg/L	
		Surface Total Phosphorus	0.049 mg/L to 0.134 mg/L	
		Nitrogen to Phosphorus Ratio	7:1	Phosphorus Limited

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

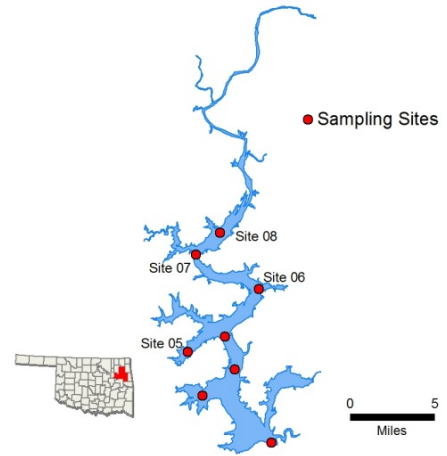
Notes The lake is currently listed in the Oklahoma Water Quality Standards (WQS) as a Nutrient Limited Watershed (NLW). This listing means that the lake is considered threatened from nutrients until a more intensive study can confirm the Aesthetics beneficial use non-support status.
 * Standards revision, color for permitting purposes only.

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

Ft. Gibson, Upper (5-8)

Sample Period	Times Visited	Sampling Sites
October 2014 – June 2015	3	4

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



Parameters	In Situ	Parameter (<i>Descriptions</i>)	Result	Notes/Comments
		Average Turbidity	11 NTU	92% of values < OWQS of 25 NTU
		Average Secchi Disk Depth	67 cm	
		Water Clarity Rating	Good	
		Chlorophyll-a	34 mg/m ³	
		Trophic State Index	65	Previous value = 60
	Trophic Class	Hypereutrophic		
	Profile	Salinity	0.12– 0.14 ppt	
		Specific Conductivity	229.7 – 311.7 μS/cm	
		pH	7.33 – 9.15 pH units	Neutral to slightly alkaline
		Oxidation-Reduction Potential	303.2 to 490.7 mV	
		Dissolved Oxygen	Up to 26% of water column < 2 mg/L in May	
	Nutrients	Surface Total Nitrogen	0.505 mg/L to 1.34 mg/L	
		Surface Total Phosphorus	0.055 mg/L to 0.234 mg/L	
		Nitrogen to Phosphorus Ratio	6:1	Phosphorus limited

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

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.

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

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