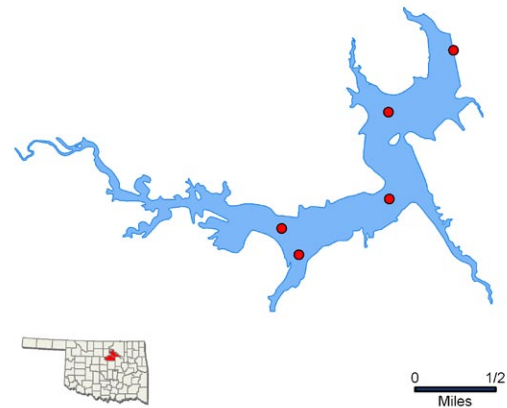


# Lone Chimney

● Sampling Sites



Sample Period	Times Visited	Sampling Sites
October 2003 - June 2004	4	5

Lake Data	Location	Pawnee County
	Impoundment	1984
	Area	550 acres
	Capacity	6,200 acre-feet
	Purposes	Water Supply, Recreation and Flood Control

Parameters	Parameter	Result	Notes/Comments	
	Average Turbidity	18 NTU	25% of values >OWQS of 25 NTU	
	Average True Color	41 units	20% of values > OWQS of 70	
	Average Secchi Disk Depth	63 cm		
	Water Clarity Rating	Good		
	Trophic State Index	53		
	Trophic Class	eutrophic		
	Profile	Salinity	0.06– 0.17 ppt	
		Specific Conductivity	156.9 – 312.5 µS/cm	
		pH	7.01 – 8.31 pH units	
		Oxidation-Reduction Potential	319 - 552 mV	
	Nutrients	Dissolved Oxygen	Up to 44% of water column < 2 mg/L in June	Occurred at sites 1 and 2
		Surface Total Nitrogen	0.58 mg/L to 1.05 mg/L	
Surface Total Phosphorus		0.021 mg/L to 0.083 mg/L		
	Nitrogen to Phosphorus Ratio	19:1	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	S	*				
	Aesthetics					S	S		
	Agriculture							S	
	Primary Body Contact Recreation								S
	Public & Private Water Supply								

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

**Notes** Available flow and rainfall data suggest that the peak in turbidity and true color, which occurred in March is likely due to seasonal storm events, therefore Lone Chimney Lake will be listed as supporting its Fish & Wildlife Propagation (FWP) and Aesthetics beneficial use for these parameters  
 \*Metals not collected this sample period).

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