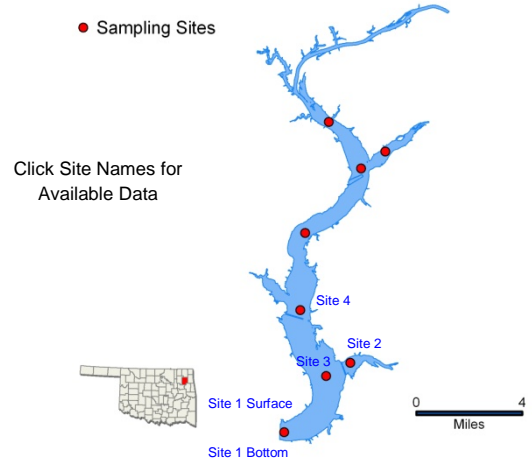


# Hudson, Lower (1-4)

Sample Period	Times Visited	Sampling Sites
November 2016 - August 2017	4	8

General	Location	Mayes County	Click map for site data
	Impoundment	1964	
	Area	10,900 acres	
	Capacity	200,300 acre-feet	
	Purposes	Flood Control, Hydropower	



		Parameter ( <i>Descriptions</i> )	Result	Notes/Comments
Parameters	In Situ	Average Turbidity	10 NTU	100% of values < OWQS of 25 NTU (n=16)
		Average Secchi Disk Depth	83 cm	
		Water Clarity Rating	Good	
		Chlorophyll-a	19.56 mg/m <sup>3</sup>	
		Trophic State Index	60	Previous value = 56
		Trophic Class	Eutrophic	
Parameters	Profile	Salinity	0.09 – 0.13 ppt	
		Specific Conductivity	201.3 – 280.1 μS/cm	
		pH	7.06 – 8.44 pH units	Neutral to slightly alkaline
		Oxidation-Reduction Potential	250.8 – 537.5mV	
		Dissolved Oxygen	Up to 58% of water column < 2.0 mg/L in August	
Parameters	Nutrients	Surface Total Nitrogen	0.68 mg/L to 1.73 mg/L	
		Surface Total Phosphorus	0.075 mg/L to 0.156 mg/L	
		Nitrogen to Phosphorus Ratio	9:1	Phosphorus limited

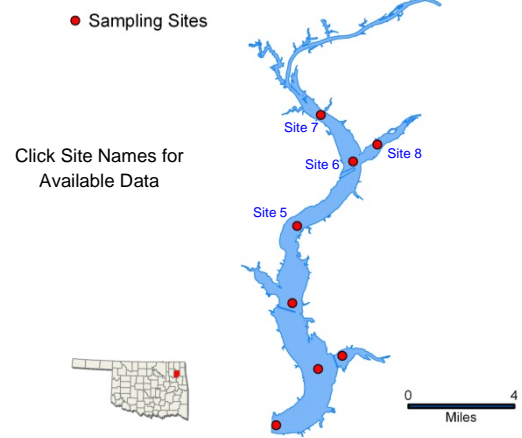
Beneficial Uses	<a href="#">Click to learn more about Beneficial Uses</a>		Turbidity	pH	Dissolved Oxygen	Metals	TSI	True Color	Sulfates	Chlorides	Total Dissolved Solids	En & E. coli	Chlor-a
	Fish & Wildlife Propagation		S	S	S	NEI							
	Aesthetics						S	*					
	Agriculture								N/A	N/A	S		
	Primary Body Contact Recreation											NEI	
	Public & Private Water Supply					NEI							
<i>S = Fully Supporting</i> <i>NS = Not Supporting</i> <i>NEI = Not Enough Information</i>		Notes	*Standards revision, true color is 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

# Hudson, Upper (5-8)

Sample Period	Times Visited	Sampling Sites
November 2016 - August 2017	4	8

General	Location	Mayes County	Click map for site data
	Impoundment	1964	
	Area	10,900 acres	
	Capacity	200,300 acre-feet	
	Purposes	Flood Control, Hydropower	



		Parameter <i>(Descriptions)</i>	Result	Notes/Comments
Parameters	In Situ	Average Turbidity	13 NTU	0% of values > OWQS of 25 NTU (n=16)
		Average Secchi Disk Depth	64 cm	
		Water Clarity Rating	Average	
		Chlorophyll-a	26.57 mg/m <sup>3</sup>	
		Trophic State Index	63	Previous value = 63
		Trophic Class	Hypereutrophic	
Parameters	Profile	Salinity	0.09 – 0.13 ppt	
		Specific Conductivity	192.7 – 280.4 μS/cm	
		pH	7.05 – 8.67 pH units	Neutral to slightly alkaline
		Oxidation-Reduction Potential	357.4 – 509 mV	
		Dissolved Oxygen	Up to 38% of water column < 2.0 mg/L in August	
Parameters	Nutrients	Surface Total Nitrogen	0.65 mg/L to 1.68 mg/L	
		Surface Total Phosphorus	0.092 mg/L to 0.174 mg/L	
		Nitrogen to Phosphorus Ratio	9:1	Phosphorus limited

Beneficial Uses	<a href="#">Click to learn more about Beneficial Uses</a>		Turbidity	pH	Dissolved Oxygen	Metals	TSI	True Color	Sulfates	Chlorides	Total Dissolved Solids	En & E. coli	Chlor-a
	Fish & Wildlife Propagation		S	S	NEI	NEI							
	Aesthetics						S	*					
	Agriculture								N/A	N/A	S		
	Primary Body Contact Recreation											NEI	
	Public & Private Water Supply					NEI							
<i>S = Fully Supporting</i> <i>NS = Not Supporting</i> <i>NEI = Not Enough Information</i>		Notes	*Standards revision, true color is 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