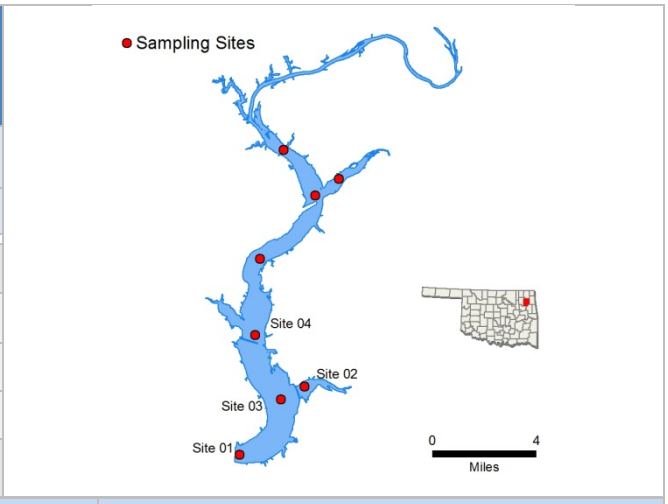
Hudson, Lower (1-4)

Sample Period	Times Visited	Sampling Sites
October 2018 - July 2019	4	8



General

Location	Mayes County
Impoundment	1964
Area	10,900 acres
Capacity	200,300 acre-feet
Purposes	Flood Control, Hydropower

Parameters

	Parameter (Descriptions)	Result	Notes/Comments
In Situ	Average Turbidity	10 NTU	100% of values< OWQS of 25 NTU (n=15)
	Average Secchi Disk Depth	81 cm	
	Water Clarity Rating	Good	
	Chlorophyll-a	18 mg/m3	
	Trophic State Index	59	Previous value = 60
	Trophic Class	Eutrophic	
Profile	Salinity	0.11 – 0.17 ppt	
	Specific Conductivity	164.7 –290.6 µS/cm	
	pH	7.14 – 8.53 pH units	Neutral to slightly alkaline
	Oxidation-Reduction Potential	299 – 507.8mV	
	Dissolved Oxygen	Up to 12% of water column < 2.0 mg/L in Juy	
Nutrients	Surface Total Nitrogen	0.71 mg/L to 1.84 mg/L	
	Surface Total Phosphorus	0.045 mg/L to 0.184 mg/L	
	Nitrogen to Phosphorus Ratio	10:1	Phosphorus limited

Beneficial Uses

Click to learn more about Beneficial Uses	Turbidity	pH	Dissolved Oxygen	Metals	TSI	True Color	Sulfates	Chlorides	Total Dissolved Solids	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							

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

Notes: *Standards revision, true color is for permitting purposes only.

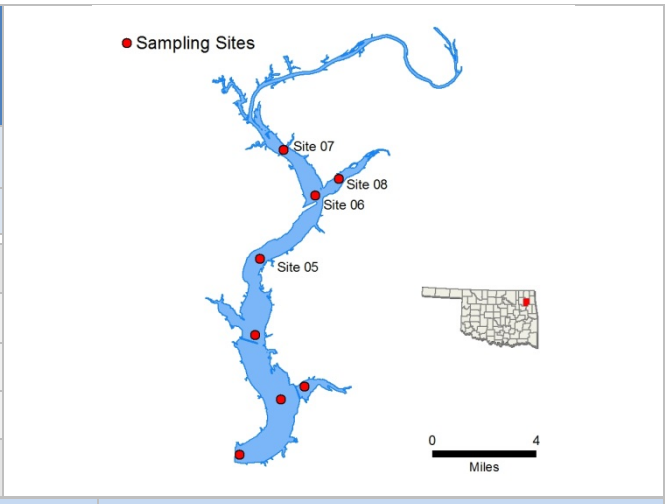
NTU = nephelometric turbidity units
µS/cm = microsiemens per centimeter
E. coli = Escherichia coli
OWQS = Oklahoma Water Quality Standards
mV = millivolts
Chlor-a = Chlorophyll-a
mg/L = milligrams per liter
µS/cm = microsiemens/cm
ppt = parts per thousand
En = Enterococci

Sampling and Assessment by the Oklahoma Water Resources Board – 3800 Classen Blvd, Oklahoma City, OK, 73118 – 405.530.8800 – http://www.owrb.ok.gov

Bathy map available: http://www.owrb.ok.gov/maps/PMG/owrbdata_Bathy.html

Hudson, Upper (5-8)

Sample Period	Times Visited	Sampling Sites
October 2018 - July 2019	4	8



General

Location	Mayes County
Impoundment	1964
Area	10,900 acres
Capacity	200,300 acre-feet
Purposes	Flood Control, Hydropower

Parameters

	Parameter (Descriptions)	Result	Notes/Comments
In Situ	Average Turbidity	10 NTU	1000% of values < OWQS of 25 NTU (n=16)
	Average Secchi Disk Depth	67 cm	
	Water Clarity Rating	Good	
	Chlorophyll-a	19 mg/m3	
	Trophic State Index	60	Previous value = 63
	Trophic Class	Eutrophic	
Profile	Salinity	0.11 – 0.17 ppt	
	Specific Conductivity	236.6 – 353.10 µS/cm	
	pH	7.09 – 8.60 pH units	Neutral to slightly alkaline
	Oxidation-Reduction Potential	301.5 – 485 mV	
	Dissolved Oxygen	Up to 100% of water column > 2.0 mg/L in July	
Nutrients	Surface Total Nitrogen	0.80 mg/L to 1.59 mg/L	
	Surface Total Phosphorus	0.058 mg/L to 0.159 mg/L	
	Nitrogen to Phosphorus Ratio	11:1	Phosphorus limited

Beneficial Uses

Click to learn more about Beneficial Uses	Turbidity	pH	Dissolved Oxygen	Metals	TSI	True Color	Sulfates	Chlorides	Total Dissolved Solids	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							

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