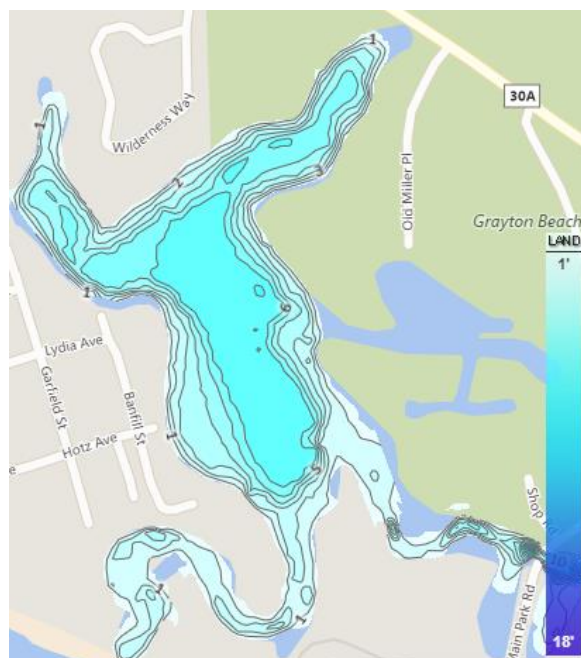


Grayton Lake, Walton County



Lake Details

Outfall: present

Watershed area: 275 hectares

Lake surface area: 22 hectares

Average depth: 1.42

Note: Refers to western lobe of Western Lake

Water Chemistry Data - 2017

Summary statistics include mean, maximum (Max), minimum (Min), median, and standard error (Std Error) calculated for total phosphorous (TP) (n = 12 samples), total nitrogen (TN) (n = 12 samples), total chlorophyll (CHL) (n = 12 samples), water transparency (Secchi Depth) (n = 12 samples), temperature (n = 11 samples), dissolved oxygen (n = 11 samples), pH (n = 11 samples), salinity (n = 11 samples), turbidity (n = 11 samples), color (n = 4 samples), and specific conductance (n = 4 samples) measurements.

2017 Summary Statistics

	Mean	Max	Min	Median	Std Error
TP (µg/L)	15	26	9	14	2
TN (µg/L)	398	752	180	419	45
CHL (µg/L)	4	7	3	3	0
Secchi Depth (m)	1	2	1	1	0
Temperature (C)	25	34	15	27	2
Dissolved Oxygen (mg/L)	6	8	3	6	0
pH	8	7	8	8	8
Salinity (ppt)	16	32	2	20	3
Turbidity (NTU)	1	7	1	1	1
Color (Pt-co Units)	101	330	51	84	66
Specific Conductance (µS/cm)	11500	27000	1860	19500	5790

Water Chemistry Data - 1999 through 2017

Summary statistics include mean, maximum (Max), minimum (Min), median, and standard error (Std Error) summary statistics calculated on an annual basis using monthly data for total phosphorous (TP), total nitrogen (TN), total chlorophyll (CHL), water transparency (Secchi Depth), temperature, dissolved oxygen, pH, salinity, turbidity, color, and specific conductance. Summary statistics represent Long-Term analyses among annual means from 1999 through 2017.

Long-Term Summary Statistics

	Mean	Max	Min	Median	Std Error
TP (µg/L)	13	17	11	14	0
TN (µg/L)	356	448	236	363	14
CHL (µg/L)	4	5	2	3	0
Secchi Depth (m)	1	2	1	1	0
Temperature (C)	22	25	18	22	0
Dissolved Oxygen (mg/L)	6	7	5	6	0
pH	7	7	8	7	9
Salinity (ppt)	11	22	4	11	1
Turbidity (NTU)	2	5	1	2	0
Color (Pt-co Units)	71	137	25	74	10
Specific Conductance (µS/cm)	11700	22600	4300	12900	1670

Long-Term Trophic State Variable Trend Analyses

Monthly total phosphorous ($\mu\text{g/L}$), total nitrogen ($\mu\text{g/L}$), total chlorophyll ($\mu\text{g/L}$) and water transparency (m) from 1999 through 2017 for Grayton Lake. These data show the intra-annual variance with trend line and associated 95% confidence level.

Kendall-Tau trend analysis results are shown for total phosphorus, total nitrogen, total chlorophyll, and water transparency on the top-left of each plot. Not significant indicates there was no significant trend measured. Positive indicates a significant, increasing trend was found over time. Negative indicates a significant, decreasing trend among years.

