## Table 1

Table 1: Min, median, max, and interquartile range of selected lake characteristics.

	Min	Median	Max	IQR
Total Phosphorus (ug/L)	4	43	1380	20 - 111
Chlorophyll (ug/L)	1	11.85	381.2	6.05 - 21.3
Secchi Depth (m)	0.2	1.5	19.3	0.9 - 2.4
P Retention (%)	0.06	0.46	0.99	0.24 - 0.59
Residence Time (yr)	0.03	0.63	17.4	0.2 - 1.8
Lake Area (km2)	0.25	6.54	453.26	2.93 - 21.88
Maximum Depth (m)	1.07	12.95	96.32	9.2 - 21.34
Agricultural Landuse (%)	0.11	53.27	94.74	17.68 - 74.05
Lake Watershed Area (km2)	5	88	4018	21 - 410
Network Watershed Area (km2)	120	143	18641	54 - 550

## Table 2

Table 1: Classification and ranking of connectivity metrics, lake depth, and their partition split values according to median effect size.

Metric	Units	Scale	Split Value	Delta k
Average link length	m	nws	2380	0.23
Closest lake distance	m	nws	3774	0.22
Stream density	_	nws	13.84	0.20
Lake connection	-	focal	-	0.17
Upstream lake area	ha	nws	154	0.16
Max depth	m	focal	19.81	0.15
Average link length	m	lws	2177	0.14
Upstream lake area	ha	lws	279	0.13
Baseflow	-	lws	63.76	0.12
Stream order ratio	_	lws	0.67	0.10
Baseflow	-	nws	53.43	0.08
Closest lake distance	m	lws	3274	0.05
Stream order ratio	-	nws	0.4	0.04
Stream density	-	lws	4.43	0.03