COUNTRY POND
2018 VLAP SUMMARY

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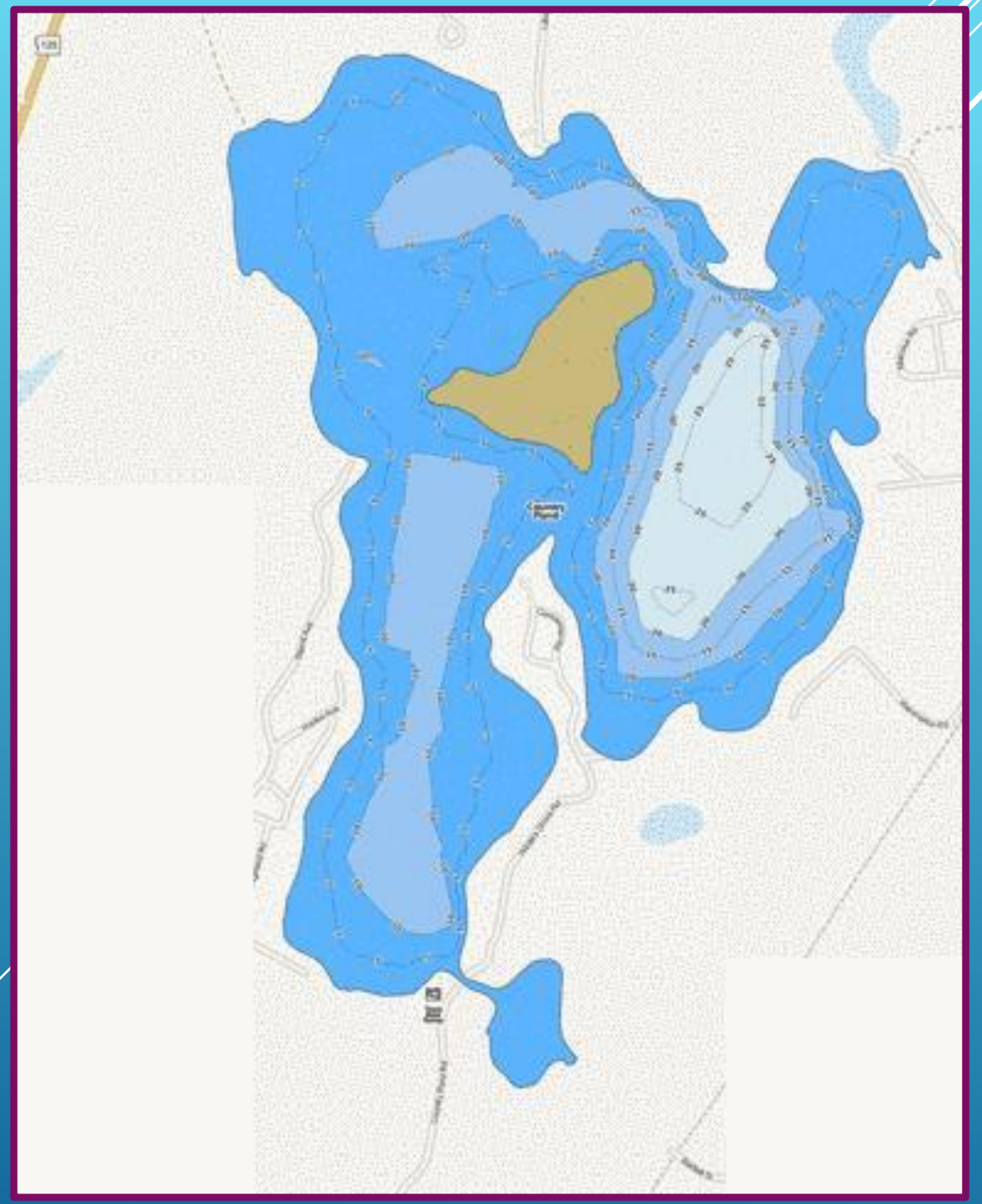
VLAP Coordinator



CAVEATS ABOUT ME

- I am a wetland scientist with training in water quality sampling;
- I am not a lake or water quality expert. I'll do my best to answer questions, but may need to get back to you.

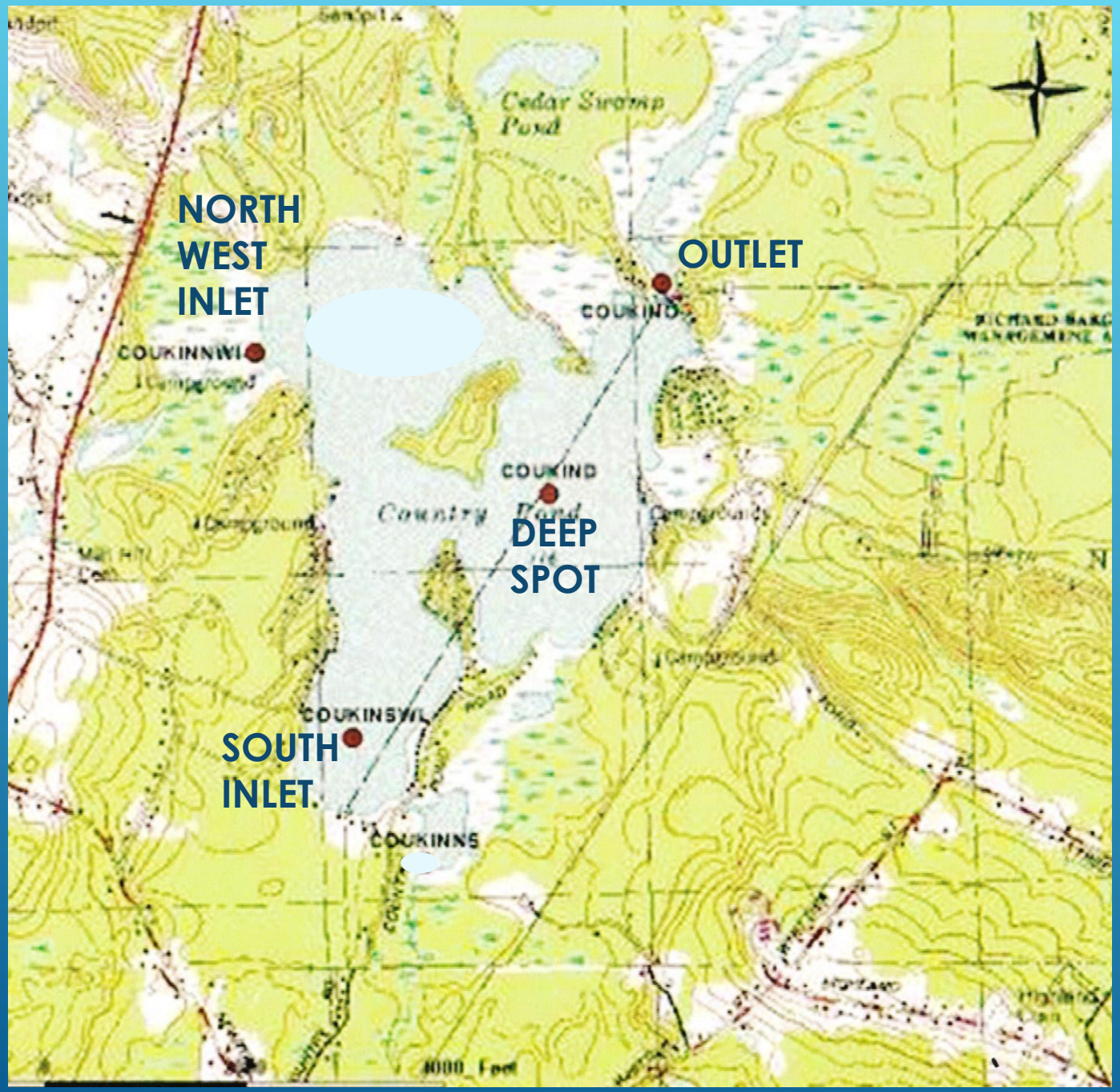
CAVEATS ABOUT THE DATA

- The *generalizations* are from the state annual report;
- This is a "snapshot in time". To understand a trend you need 10 years of data.
- Last year we sampled four months. This year we'll do five. We plan to sample every year from now on.

FIRST THINGS FIRST

Special thanks to:

- Kingston Conservation Commission for loaning us the sampling equipment and financial support;
- Newton Conservation Commission for financial support;
- NH Dept. of Environmental Services for letting us back in VLAP and providing technical support;
- Most important – the VLAP volunteers!



Per NH DES, we now sample at four locations

The goal is to gather data over the years to get a better understanding of the water quality in Country Pond.

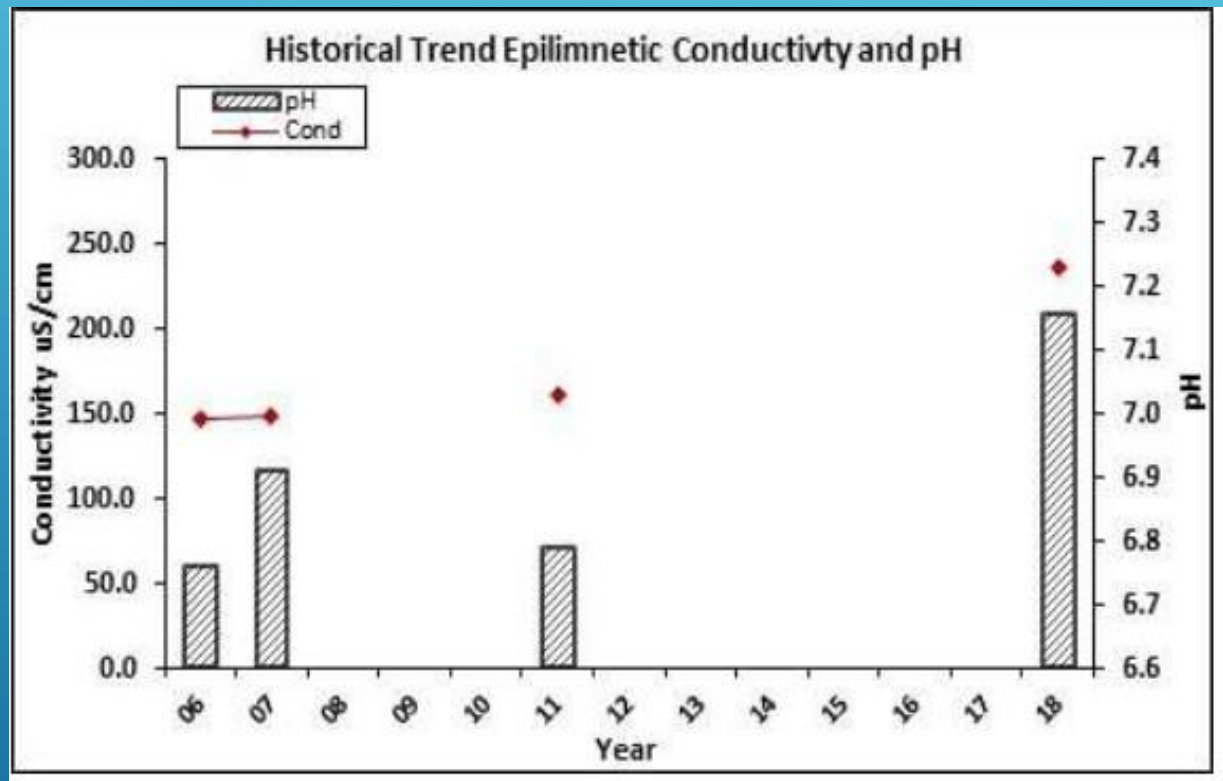
STATE'S SUMMARY TABLE

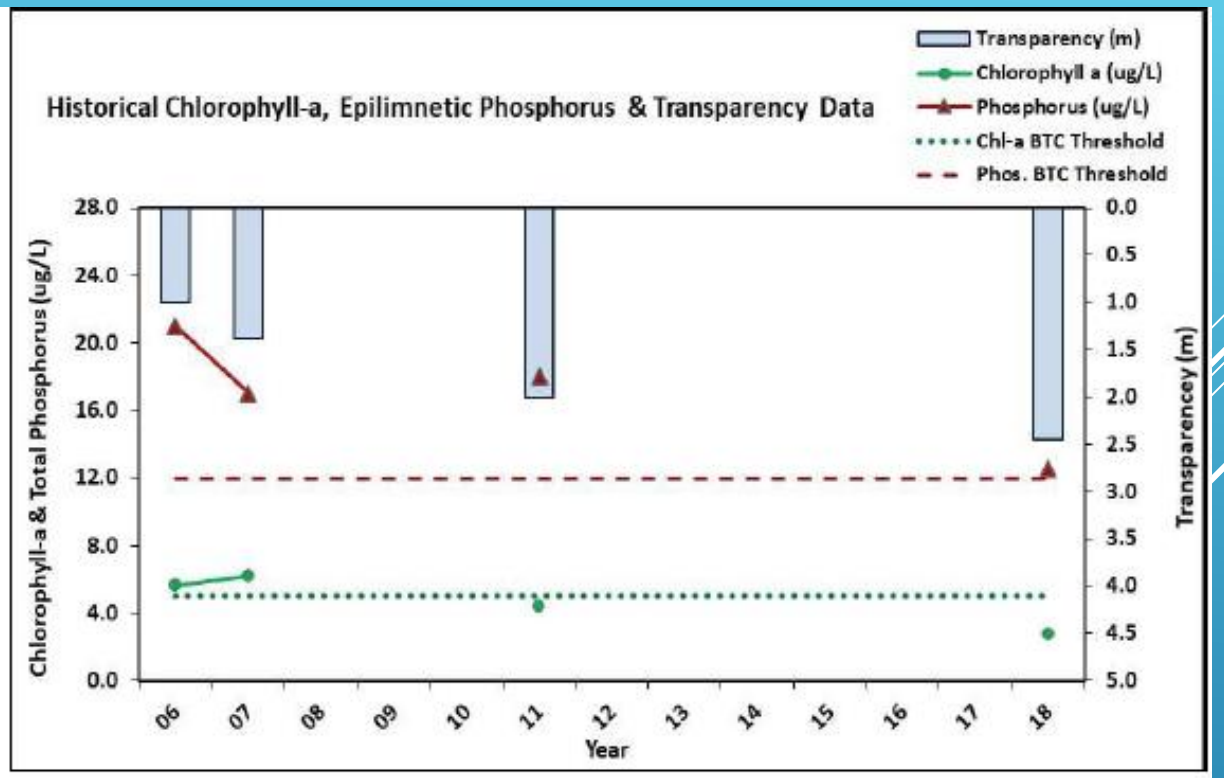
Designated Use	Parameter	Category	Comments
Aquatic Life	pH	Slightly Bad	Data periodically exceed water quality standards or thresholds for a given parameter by a small margin.
	Oxygen, Dissolved	Encouraging	Limited data for this parameter predicts water quality standards or thresholds are being met; however more data are necessary to fully assess the parameter.
	Dissolved oxygen satura	Encouraging	Limited data for this parameter predicts water quality standards or thresholds are being met; however more data are necessary to fully assess the parameter.
Primary Contact Recreation	Escherichia coli	No Data	No data for this parameter.
	Cyanobacteria hepatoto	Slightly Bad	Cyanobacteria bloom(s).
	Chlorophyll-a	Encouraging	Limited data for this parameter predicts water quality standards or thresholds are being met; however more data are necessary to fully assess the parameter.

BEACH PRIMARY CONTACT ASSESSMENT STATUS

COUNTRY POND - TASKER DAY CAMP BEACH	Escherichia coli	Good	Sampling data commonly meet water quality standards or thresholds for this parameter.
COUNTRY POND - LONE TREE SCOUT RESV. BEACH	Escherichia coli	Good	Sampling data commonly meet water quality standards or thresholds for this parameter.
COUNTRY POND - TOWN BEACH	Escherichia coli	Very Good	All sampling data meet water quality standards or thresholds for this parameter.
COUNTRY POND - TASKER DAY CAMP BEACH	Cyanobacteria	Slightly Bad	Cyanobacteria bloom(s).
COUNTRY POND - LONE TREE SCOUT RESV. BEACH	Cyanobacteria	Slightly Bad	Cyanobacteria bloom(s).
COUNTRY POND - TOWN BEACH	Cyanobacteria	Slightly Bad	Cyanobacteria bloom(s).

STATE'S HISTORIC "TRENDS"





This report was generated by the NHDES Volunteer Lake Assessment Program (VLAP). For more information contact VLAP at (603) 271-2658 or sara.steiner@des.nh.gov

TRANSPARENCY

This is a measure of water clarity, and is affected by the amount of algae, color, and particulate matter within a lake. In 2018 average we could see the Secchi-disk was 2.4 meters (~8’). A depth of 2-4.5 meters is considered good.

Although levels were better than in previous years, they were slightly worse than the state average.

CHLOROPHYLL-A

This is measured to estimate amount of algal growth in a lake system. Our 2018 average was 2.72 and our maximum was 3.49

Average levels in 2018 for Country Pond were much less than the state average, with levels of less than 5 considered good.

CONDUCTIVITY/CHLORIDE

Conductivity measures the ability of water to carry an electrical current. Elevated conductivity and chloride may indicate pollution from such sources as road salting, septic systems, or lawn/agriculture runoff.

Average conductivity levels in 2018 for Country Pond were much higher than the state average.

Chloride levels were also much higher than the state average, but well below the chronic chloride standard of 230 mg/l.

CONDUCTANCE	6/12/18	7/8/18	8/12/18	9/3/18
DEEP SPOT - EPI	230	241	241	234
DEEP SPOT - HYPO	236	234	233	234
DEEP SPOT - META	229	239	239	234
SOUTH INLET	205	247	243	238
NW INLET	213	243	233	239
OUTLET		244	237	234

CHLORIDE	6/12/18	7/8/18	8/12/18	9/3/18
DEEP SPOT - EPI	46.3	54.3	50.5	55.8
SOUTH INLET	47.1		51.6	57.3
NW INLET	48		51.6	55.6

TOTAL PHOSPHORUS (TP)

In lakes, TP determines the amount of algal growth that can occur. Too much phosphorus can lead to excessive algal and cyanobacteria populations. Sources around a lake typically include septic systems, animal waste, lawn fertilizer, erosion from roads and construction sites, and a small amount from natural wetlands.

Phosphorus levels are lower than in past years, but still exceeded the target of 0.012 mg/l (12 ug/l) in most locations.

TOTAL PHOSPHORUS	6/12/2018	7/8/2018	8/12/2018	9/3/2018
	mg/L	mg/L	mg/L	mg/L
DEEP SPOT - EPI	0.015	0.013	0.012	0.011
DEEP SPOT - META	0.011	0.015	0.014	0.015
DEEP SPOT - HYPO	0.013	0.022	0.022	0.025
SOUTH INLET	0.015	0.012	0.01	0.011
NW INLET	0.013	0.013	0.013	0.019
OUTLET	0.012	0.012	0.011	0.013

Thanks for listening!

Any questions?