
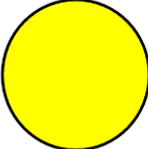
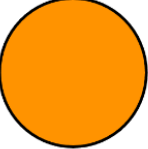
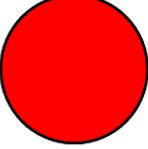
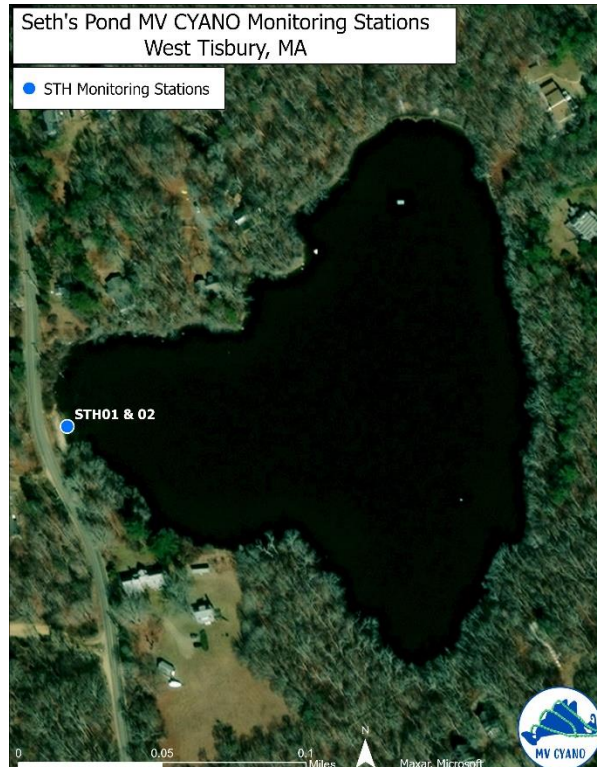


MV CYANO 2022 data for Seth's Pond

Samples collected and analyzed by Great Pond Foundation using a bbe Moldaenke Fluoroprobe II.
For more information, please see www.greatpondfoundation.org/mvcyano

GREEN		<p style="text-align: center;">BLOOM NOT PRESENT</p> <p>Conditions are not favorable for a Cyanobacterial Bloom.</p> <p>OK: Swimming, boating, paddling, wading, fishing, and consuming shellfish, crabs, or finfish. No known cyanobacteria risks to humans, pets, and livestock.</p>
YELLOW		<p style="text-align: center;">CYANOBACTERIA ALERT</p> <p>It is the season where Cyanobacterial Blooms are possible.</p> <p>OK: Swimming, boating, paddling, wading, fishing, and consuming shellfish, crabs, or finfish.</p> <p>USE CAUTION: risk to humans/pets/ livestock when ingesting water.</p>
ORANGE		<p style="text-align: center;">CYANOBACTERIA BLOOM WATCH</p> <p>OK: Boating.</p> <p>USE CAUTION: risk for swimming, paddling, and wading, fishing.</p> <p>ADVISE AGAINST: humans/pets/livestock ingestion of water, consuming shellfish, crabs, or finfish.</p>
RED		<p style="text-align: center;">CYANOBACTERIA BLOOM ADVISORY</p> <p>There is an active Cyanobacteria bloom, cyanotoxins may be present.</p> <p>OK: Boating.</p> <p>ADVISE AGAINST: pets/livestock/human ingestion of water, fishing, consuming shellfish or finfish, swimming, paddling, and wading.</p>



MV CYANO data are generated from a bbe Moldaenke Fluoroprobe instrument. This instrument is a fluorometer, which measures the biomass (quantity) of microscopic plants by detecting the fluorescence produced in response to different wavelengths of light. The amount of fluorescence is directly related to the concentration of plant pigments in the sample. Different types of microscopic aquatic plants, called phytoplankton, utilize different pigments, which allows the fluorometer to differentiate and quantify different phytoplankton taxa. The Fluoroprobe measures the concentration of cyanobacteria in micrograms per liter ($\mu\text{g/L}$) and estimates the number of cells per milliliter (cells/mL). The MV CYANO color designations are based on the $\mu\text{g/L}$ measurement. The total amount of plant pigments in the water sample corresponds to the amount of chlorophyll, measured in $\mu\text{g/L}$. The concentration of chlorophyll is a measurement of the phytoplankton biomass in the sample. Salinity and water temperature, measured at the time of sample collection, are factors that can influence the growth rate of cyanobacteria and other types of phytoplankton. The MV CYANO color determination (see color-chart above) corresponds to the risk level determined by the local Board of Health agencies based on the concentration of cyanobacteria and other environmental factors.

Station	Pond	Date	Cyanobacteria ($\mu\text{g/L}$)	Cyanobacteria (cells/mL)	Chlorophyll ($\mu\text{g/L}$)	Temp ($^{\circ}\text{C}$)	Temp ($^{\circ}\text{F}$)	Salinity (ppt)	MV CYANO
STH01	STH	7/5/22	0.12	115.90	3.03	23.89	72.00	0.03	green
STH02	STH	7/5/22	0.21	213.90	3.41	23.89	72.00	0.03	green
STH01	STH	7/18/22	0.57	573.30	2.77			0.04	yellow
STH02	STH	7/18/22	0.72	717.60	4.27			0.04	yellow
STH01	STH	7/25/22	1.33	1333.00	5.71			0.03	yellow
STH02	STH	7/25/22	1.81	1808.60	6.59			0.03	yellow



Station	Pond	Date	Cyanobacteria (ug/L)	Cyanobacteria (cells/mL)	Chlorophyll (ug/L)	Temp (°C)	Temp (°F)	Salinity (ppt)	MV CYANO
STH01	STH	8/2/22	0.53	527.70	4.16			0.67	yellow
STH02	STH	8/2/22	1.05	1048.10	5.00			0.67	yellow
STH01	STH	8/8/22	0.59	587.89	2.74			0.58	yellow
STH02	STH	8/8/22	0.75	746.00	2.85			0.58	yellow
STH01	STH	8/15/22	0.36	354.00	3.20			0.04	green
STH02	STH	8/15/22	0.63	625.60	3.95			0.04	yellow
STH01	STH	8/22/22	0.417	418.2	2.852				green
STH02	STH	8/22/22	0.373	372.2	2.623				green
STH01	STH	8/29/22	0.40	401.36	2.73			0.8	green
STH02	STH	8/29/22	0.503	503.3	1.629			0.8	yellow

