



# The Borough of Mountain Lakes

---

2025 YEAR END SUMMARY

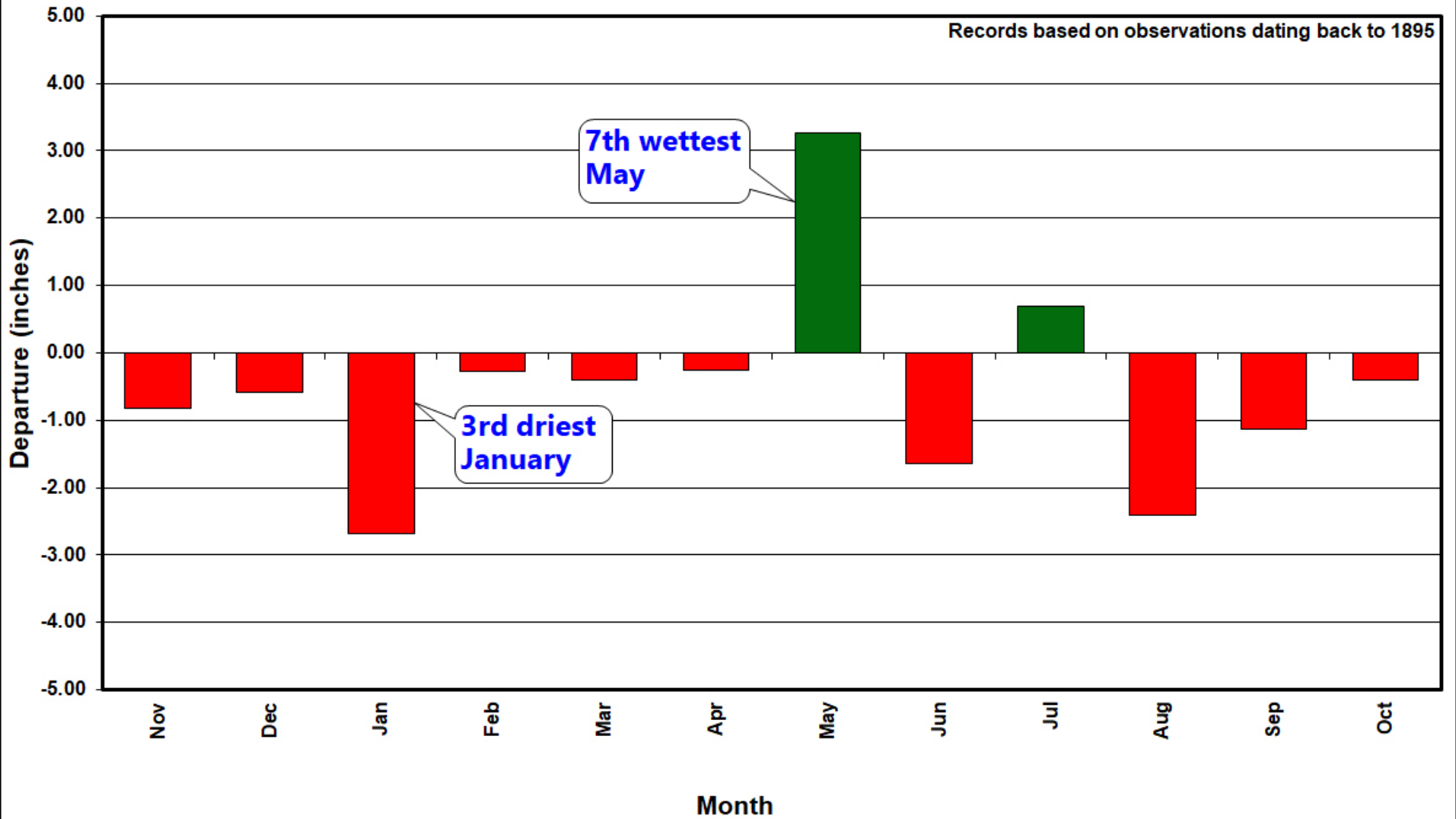
Bob Schindler  
Operations Director  
908.310.9037  
[rschindler@TigrisUSA.com](mailto:rschindler@TigrisUSA.com)

# 2025 Year End Summary

- Lake Treatment Review
- Water Quality Data
- Algae Sampling Results
- Fecal Bacteria Results
- 2026 Recommendations

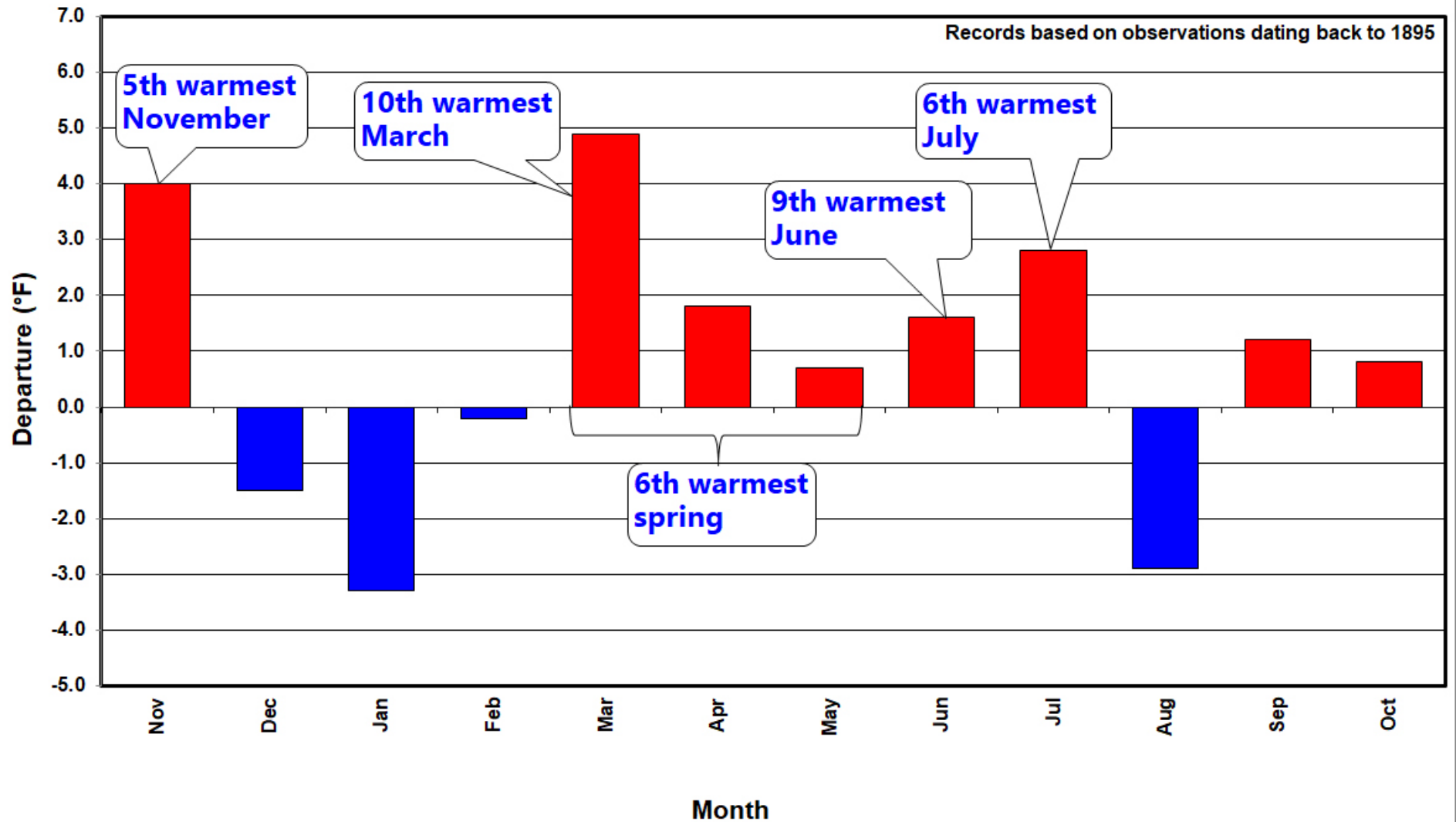
# NJ Monthly Precipitation Departures (November 2024 – October 2025)

Departures calculated from differences between observed monthly precipitation and 1991–2020 monthly averages



# NJ Monthly Temperature Departures (November 2024 – October 2025)

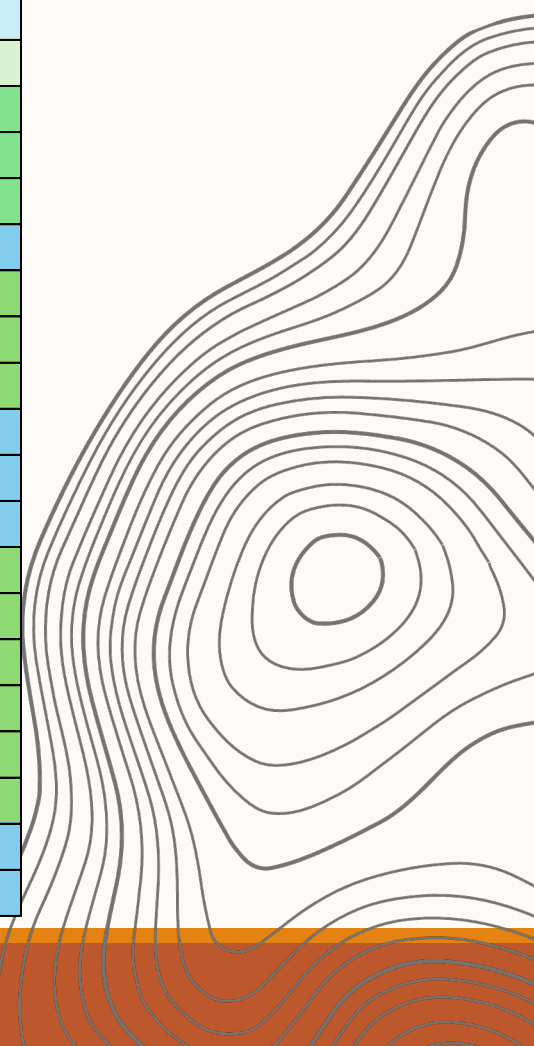
Departures calculated from differences between observed monthly temperatures and 1991–2020 monthly averages

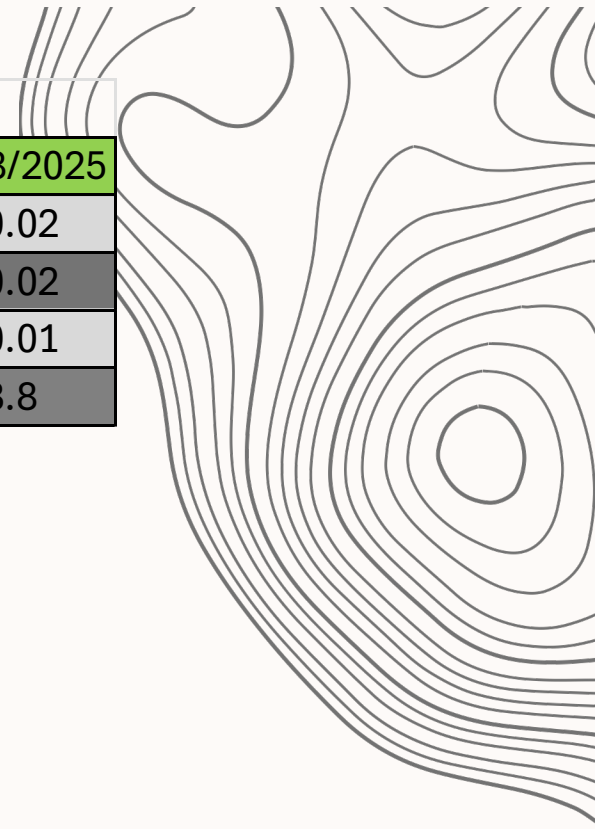


# Birchwood Lake

Birchwood Lake			
Date	Product Applied	Acreage	Target Species
4/15/2025	Flumigard SC	1.25	Low Watermilfoil
5/19/2025	Tribune	0.25	Low watermilfoil
7/1/2025	Clipper	4	Water Lilies

Birchwood Lake			
Date	Genera	Family	Density (cells/ml)
6/2/2025	Dinobryon	Golden Algae	<40 cells/mL
	Cryptomonas	Cryptomonads	<40 cells/mL
	Cyclotella	Diatoms	<40 cells/mL
6/16/2025	Gloeocapsa	Cyanobacteria	300 cells/mL
7/14/2025	Gloeocapsa	Cyanobacteria	<40 cells/mL
	Trachelomonas	Euglenoid	<40 cells/mL
	Aulacoseira	Green	<40 cells/mL
8/11/025	Microcystis	Cyanobacteria	<40 cells/mL
	Trachelomonas	Euglenoid	<40 cells/mL
	Aulacoseira	Green	<40 cells/mL
8/25/2025	Aphanocapsa	Cyanobacteria	<40 cells/mL
	Aulacoseira	Diatoms	<40 cells/mL
	Coelastrum	Green Algae	<40 cells/mL
	Gloeocystis	Green Algae	<40 cells/mL
	Dinobryon	Eukaryote	<40 cells/mL
	Trachelomonas	Euglenoid	<40 cells/mL
9/15/2025	Aphanocapsa	Cyanobacteria	13500 cells/mL
	Trachelomonas	Euglenoid	<40 cells/mL



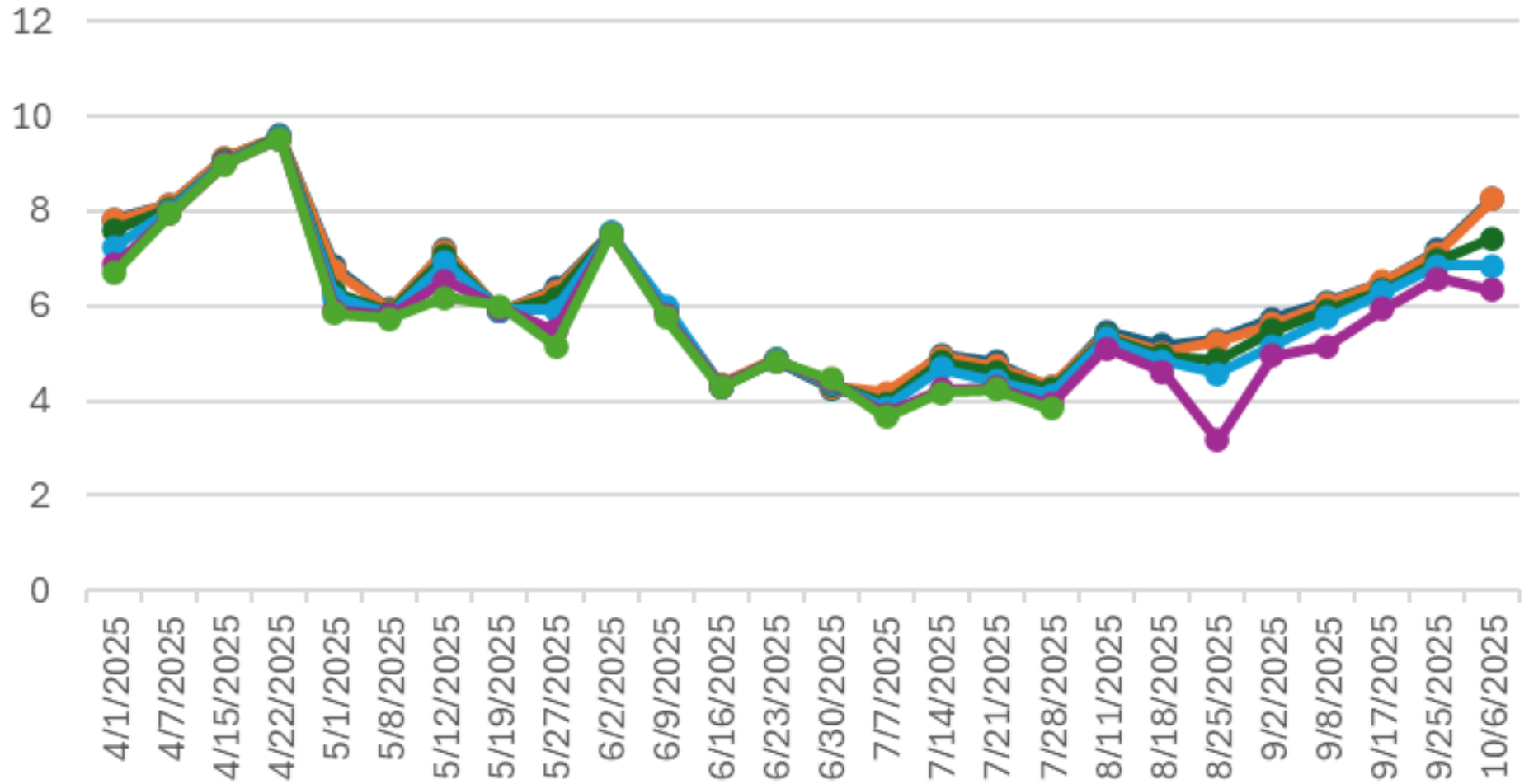


Birchwood Lake			
Date	6/4/2025	7/14/2025	8/18/2025
Nitrite (mg/L)	<0.02	<0.02	<0.02
Nitrate (mg/L)	<0.02	<0.02	<0.02
Total Phosphorous (mg/L)	0.0307	<0.01	<0.01
Turbidity (NTU)	2.7	2	3.8

## Review:

- Water Lily Growth
- Water Shield Growth
- Bladderwort, other submersed plants
- Aeration
- Water Level Issues
- Oxygen Profiles

# Birchwood Lake Oxygen Profiles



# Crystal Lake

Crystal Lake			
Date	Product Applied	Acreage	Target Species
6/30/2025	Aquastrike	4	Bassweed
	Copper Sulfate	10	Planktonic Algae
8/11/2025	Copper Sulfate	10	Planktonic Algae
8/25/2025	Copper Sulfate	10	Planktonic Algae

Crystal Lake			
Date	6/4/2025	7/14/2025	8/18/2025
Nitrite (mg/L)	<0.02	<0.02	<0.02
Nitrate (mg/L)	<0.02	<0.02	<0.02
Total Phosphorous (mg/L)	0.034	<0.01	<0.01
Turbidity (NTU)	2.8	2.2	4.8

Crystal Lake			
Date	Genera	Family	Density (cells/ml)
6/2/2025	Gloeocystis	Green algae	1100 cells/mL
6/16/2025	Gloeocapsa	Cyanobacteria	<100 cells/mL
7/14/2025	Gloeocystis	Green algae	1800 cells/mL
	Dolichospermum	Cyanobacteria	10270 cells/mL
	Woronichinia	Cyanobacteria	7400 cells/mL
8/11/2025	Aphanizomenon	Cyanobacteria	<40 cells/mL
	Planktolyngbya	Cyanobacteria	<40 cells/mL
	Trachelomonas	Euglenoid	<40 cells/mL
	Dolichospermum	Cyanobacteria	23400 cells/mL
	Woronichinia	Cyanobacteria	9900 cells/mL
8/25/2025	Woronichinia	Cyanobacteria	<40 cells/mL
	Dolichospermum	Cyanobacteria	92300 cells/mL
	Crucigenia	Green algae	<40 cells/mL
	Aphanizomenon	Cyanobacteria	<40 cells/mL
	Trachelomonas	Euglenoid	<40 cells/mL
9/15/2025	Woronichinia	Cyanobacteria	8500 cells/mL
	Gloeocystis	Green algae	<40 cells/mL
	Microcystis	Cyanobacteria	<40 cells/mL
	Snowella	Cyanobacteria	<40 cells/mL
	Trachelomonas	Euglenoid	<40 cells/mL
	Staurastrum	Green algae	<40 cells/mL

## Review:

- Water Lily Growth
- Cyanobacteria blooms
- Total Phosphorous
- Phragmites Growth



# Sunset Lake

Sunset Lake			
Date	Product Applied	Acreage	Target Species
6/23/2025	AquaNeat	2	Water Lilies
	Clipper	2	Pondweed
8/11/2025	Copper Sulfate	4	Planktonic

Sunset Lake			
Date	6/4/2025	7/14/2025	8/18/2025
Nitrite (mg/L)	<0.02	<0.02	<0.02
Nitrate (mg/L)	<0.02	<0.02	<0.02
Total Phosphorous (mg/L)	0.0672	<0.01	0.0239
Turbidity (NTU)	3	2.3	4.3

## Review:

- Water Level
- Cattail Growth
- 2025 Management



Sunset Lake			
Date	Genera	Family	Density (cells/ml)
6/2/2025	Trachelomonas	Euglenoid	470 cells/mL
	Asterionella	Diatom	<40 cells/mL
	Fragilaria	Diatom	<40 cells/mL
	Staurastrum	Green algae	<40 cells/mL
6/16/2025	Mallomonas	Golden Algae	600 cells/mL
	Trachelomonas	Euglenoid	300 cells/mL
7/14/2025	Staurastrum	Green algae	<40 cells/mL
	Mallomonas	Golden Algae	<40 cells/mL
	Trachelomonas	Euglenoid	<40 cells/mL
8/11/2025	Scenedesmus	Green Algae	<40 cells/mL
	Gloeocystis	Green Algae	<40 cells/mL
	Trachelomonas	Euglenoid	4600 cells/mL
	Microcystis	Cyanobacteria	<40 cells/mL
	Planktolynghya	Cyanobacteria	<40 cells/mL
	Woronichia	Cyanobacteria	<40 cells/mL
	Staurastrum	Green Algae	<40 cells/mL
8/25/2025	Fragilaria	Diatom	<40 cells/mL
	Elakatothrix	Green Algae	<40 cells/mL
	Gloeocystis	Green Algae	<40 cells/mL
	Scenedesmus	Green Algae	<40 cells/mL
	Trachelomonas	Euglenoid	330 cells/mL
	Phacus	Euglenoid	<40 cells/mL
	Closterium	Green Algae	<40 cells/mL
	Woronichia	Cyanobacteria	6400 cells/mL
	Staurastrum	Green Algae	<40 cells/mL
9/15/2025	Woronichia	Cyanobacteria	1500 cells/mL
	Trachelomonas	Euglenoid	1200 cells/mL
	Asterionella	Diatom	<40 cells/mL
	Crucigenia	Green Algae	<40 cells/mL
	Gloeocystis	Green Algae	<40 cells/mL
	Scenedesmus	Green Algae	<40 cells/mL
	Snowella	Cyanobacteria	<40 cells/mL
	Euglena	Euglenoid	<40 cells/mL
	Staurastrum	Green Algae	<40 cells/mL



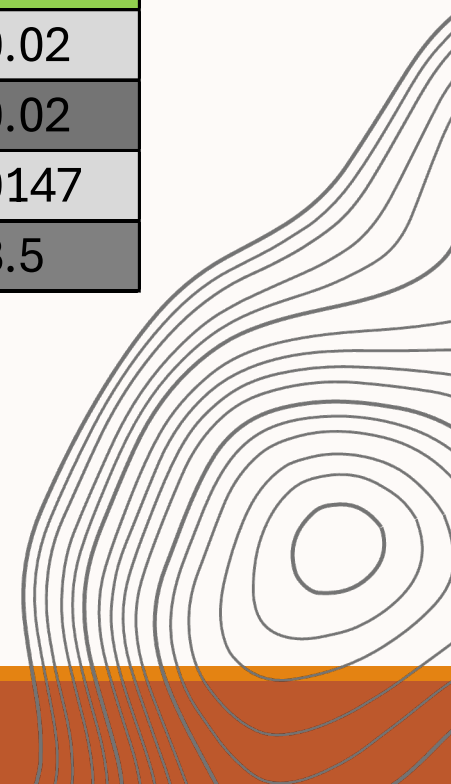
# Olive Pond

Olive Pond			
Date	Product Applied	Acreage	Target Species
5/1/2025	Tribune	0.5	Curly-leaf pondweed
5/19/2025	Cutrine Plus	0.25	Filamentous algae
6/2/2025	Earthtec	0.5	Planktonic Algae
6/23/2025	Earthtec	0.5	Planktonic Algae
7/14/2025	Earthtec	0.5	Planktonic Algae
7/28/2025	Earthtec	0.5	Planktonic Algae

Olive Pond			
Date	6/4/2025	7/14/2025	8/18/2025
Nitrite (mg/L)	<0.02	<0.02	<0.02
Nitrate (mg/L)	<0.02	<0.02	<0.02
Total Phosphorous (mg/L)	0.0649	<0.01	0.0147
Turbidity (NTU)	3.3	2.1	3.5

## Review:

- Cyanobacteria
- Total Phosphorous
- No duckweed or watermeal present



Olive Pond			
Date	Genera	Family	Density (cells/ml)
6/2/2025	Trachelomonas	Euglenoid	<40 cells/mL
	Asterionella	Diatom	<40 cells/mL
6/6/2025	Trachelomonas	Euglenoid	<40 cells/mL
	Asterionella	Diatom	<40 cells/mL
7/14/2025	Gloeocystis	Green Algae	<40 cells/mL
	Tetraselmis	Green Algae	<40 cells/mL
	Trachelomonas	Euglenoid	<40 cells/mL
8/11/2025	Scenedesmus	Green	1600 cells/mL
	Cyclotella	Diatom	<40 cells/mL
	Crucigenia	Green Algae	<40 cells/mL
	Gloeocystis	Green Algae	<40 cells/mL
	Tetraselmis	Green Algae	<40 cells/mL
	Trachelomonas	Euglenoid	<40 cells/mL
8/25/2025	Trachelomonas	Euglenoid	4100 cells/mL
	Aulacoseira	Diatom	<40 cells/mL
	Coelastrum	Green Algae	<40 cells/mL
	Dinobryon	Golden Algae	<40 cells/mL
	Dolichospermum	Cyanobacteria	<40 cells/mL
	Woronichinia	Cyanobacteria	<40 cells/mL
	Ceratium	Dinoflagellate	<40 cells/mL
	Glenodinium	Dinoflagellate	<40 cells/mL
	Staurastrum	Green Algae	<40 cells/mL
	Synura	Golden algae	<40 cells/mL
	Didymocystis	Green Algae	<40 cells/mL
9/15/2025	Aphanocapsa	Cyanobacteria	<40 cells/mL
	Trachelomonas	Euglenoid	<40 cells/mL
	Aulacoseira	Diatom	<40 cells/mL
	Euastrum	Green algae	<40 cells/mL
	Staurastrum	Green algae	<40 cells/mL



# Shadow Lake

Shadow Lake			
Date	Product Applied	Acreage	Target Species
5/1/2025	Tribune	1.25	Curly-leaf pondweed
7/2/2025	Clipper	0.5	Filamentous Algae
7/18/2025	Cutrine Plus	0.5	Filamentous Algae

Shadow Lake			
Date	6/4/2025	7/14/2025	8/18/2025
Nitrite (mg/L)	<0.02	<0.02	<0.02
Nitrate (mg/L)	<0.02	<0.02	<0.02
Total Phosphorous (mg/L)	0.695	0.0352	0.031
Turbidity (NTU)	3.3	2.3	4.1

## Review:

- Total Phosphorous
- Phragmites Growth
- Only trace growth of duckweed
- Persistent Shoreline Filamentous algae



Shadow Lake			
Date	Genera	Family	Density (cells/ml)
6/2/2025	Asterionella	Diatom	<40 cells/mL
	Desmodesmus	Green algae	<40 cells/mL
	Aulacoseira	Diatom	<40 cells/mL
	Fragilaria	Diatom	<40 cells/mL
	Euglena	Euglenoid	<40 cells/mL
	Trachelomonas	Euglenoid	<40 cells/mL
6/16/2025	Trachelomonas	Euglenoid	600 cells/mL
	Cryptomonas	Cryptomonads	<100 cells/mL
	Ceratium	Dinoflagellate	200 cells/mL
	Mallomonas	Golden Algae	<100 cells/mL
7/14/2025	Fragilaria	Diatom	<40 cells/mL
	Desmodesmus	Green Algae	<40 cells/mL
	Gloeocystis	Green Algae	<40 cells/mL
	Closterium	Green Algae	<40 cells/mL
8/11/2025	Nephrocytium	Green Algae	<40 cells/mL
	Pediastrum	Green Algae	<40 cells/mL
	Fragilaria	Diatom	<40 cells/mL
	Desmodesmus	Green Algae	<40 cells/mL
	Gloeocystis	Green Algae	<40 cells/mL
	Closterium	Green Algae	<40 cells/mL
8/25/2025	Trachelomonas	Euglenoid	1600 cells/mL
	Aulacoseira	Diatom	1200 cells/mL
	Euastrum	Green Algae	<40 cells/mL
	Gloeocystis	Green Algae	<40 cells/mL
	Pediastrum	Green Algae	<40 cells/mL
	Scenedesmus	Green Algae	<40 cells/mL
	Dinobryon	Golden Algae	<40 cells/mL
	Dolichospermum	Cyanobacteria	<40 cells/mL
	Ceratium	Dinoflagellate	<40 cells/mL
	Euglena	Euglenoid	<40 cells/mL
9/15/2025	Trachelomonas	Euglenoid	<40 cells/mL
	Aulacoseira	Diatoms	<40 cells/mL
	Asterionella	Diatom	<40 cells/mL
	Desmodesmus	Green Algae	<40 cells/mL
	Gloeocystis	Green Algae	<40 cells/mL
	Oocystis	Green Algae	<40 cells/mL



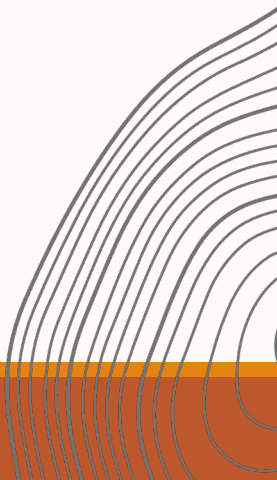
# Cove Pond

Cove Pond			
Date	Product Applied	Acreage	Target Species
5/1/2025	Flumigard SC	0.15	Curly-leaf pondweed

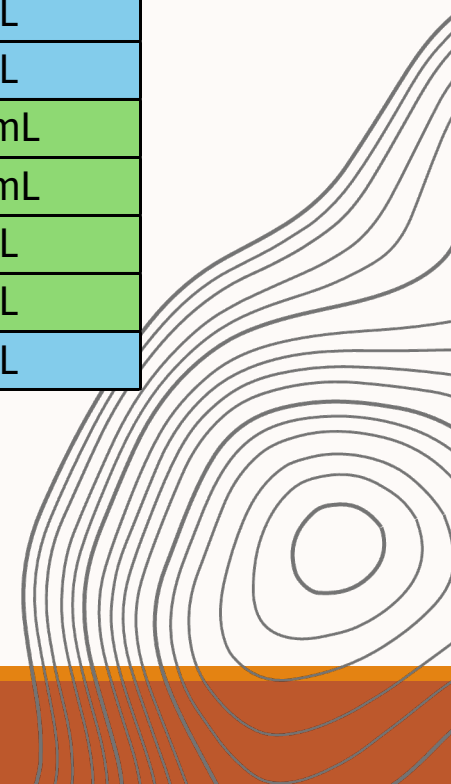
Cove Pond			
Date	6/4/2025	7/14/2025	8/18/2025
Nitrite (mg/L)	<0.02	<0.02	<0.02
Nitrate (mg/L)	<0.02	<0.02	<0.02
Total Phosphorous (mg/L)	0.074	0.028	0.0912
Turbidity (NTU)	2.9	2.7	6.2

## Review:

- Total Phosphorous
- Curly-leaf Pondweed
- Water level drop in 2025



Cove Pond			
Date	Genera	Family	Density (cells/ml)
6/2/2025	Cryptomonas	Cryptomonads	1200 cells/mL
6/16/2025	Trachelomonas	Euglenoid	300 calls/mL
	Chroomonas	Cryptomonads	<100 cells/mL
	Mallamonas	Golden	<100 cells/mL
	Ceratium	Dinoflagellate	200 cells/mL
7/14/2025	Mallamonas	Golden	<40 cells/mL
	Anabaena	Cyanobacteria	<40 cells/mL
	Ceratium	Dinoflagellate	<40 cells/mL
8/11/2025	Trachelomonas	Euglenoid	<40 cells/mL
	Gloeocapsa	Cyanobacteria	<40 cells/mL
	Anabaena	Cyanobacteria	<40 cells/mL
8/25/2025	Trachelomonas	Euglenoid	2900 cells/mL
	Ceratium	Dinoflagellate	1500 cells/mL
	Phacus	Euglenoid	<40 cells/mL
	Synura	Golden Algae	<40 cells/mL
9/15/2025	Trachelomonas	Euglenoid	200 cells/mL



# Grundens Pond

Grundens Pond			
Date	Product Applied	Acreage	Target Species
5/1/2025	Flumigard Sc	0.5	Curly-leaf Pondweed
6/23/2025	Earthtec	0.75	Planktonic / Filamentous Algae
7/18/2025	Cutrine Plus	0.75	Planktonic / Filamentous Algae
8/25/2025	Aquamaster	0.1	Phragmites/Primrose

Grundens Pond			
Date	6/4/2025	7/14/2025	8/18/2025
Nitrite (mg/L)	<0.02	<0.02	<0.02
Nitrate (mg/L)	0.15	<0.02	<0.02
Total Phosphorous (mg/L)	0.0801	0.0355	<0.01
Turbidity (NTU)	3.5	2.4	3.5

## Review:

- Total Phosphorous
- Water Level - Complaints
- Curly-leaf Pondweed
- No duckweed or watermeal in 2025



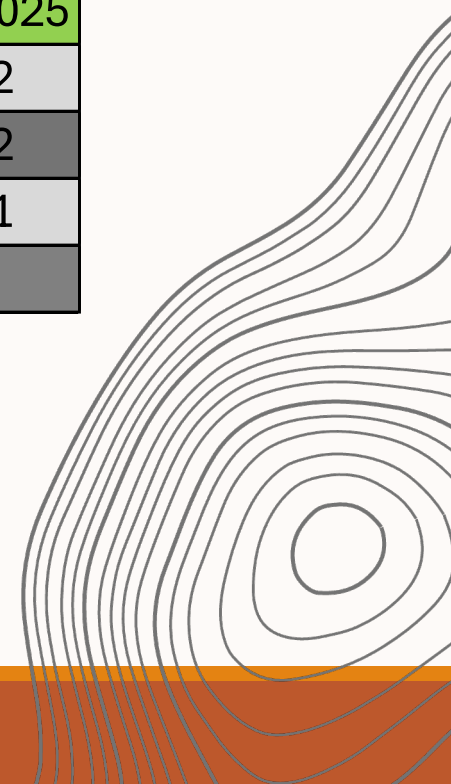
Grundens Pond			
Date	Genera	Family	Density (cells/ml)
6/2/2025	Euglena	Euglenoid	<40 cells/mL
	Asterionella	Diatom	<40 cells/mL
6/16/2025	Trachelomonas	Euglenoid	<100 cells/mL
	Cryptomonas	Cryptomonads	<100 cells/mL
	Ceratium	Dinoflagellate	200 cells/mL
7/14/2025	Aulacoseira	Diatom	<40 cells/mL
	Trachelomonas	Euglenoid	<40 cells/mL
	Gleoecystis	Green Algae	<40 cells/mL
8/11/2025	Aulacoseira	Diatom	<40 cells/mL
	Trachelomonas	Euglenoid	1100 cells/mL
	Gleoecystis	Green Algae	<40 cells/mL
	Pandorina	Green Algae	<40 cells/mL
	Closterium	Green Algae	<40 cells/mL
	Staurastrum	Green Algae	<40 cells/mL
8/25/2025	Aulacoseira	Diatom	1100 cells/mL
	Trachelomonas	Euglenoid	1000 cells/mL
	Cyclotella	Diatom	<40 cells/mL
	Eunotia	Green Algae	<40 cells/mL
	Staurastrum	Green Algae	<40 cells/mL
9/15/2025	Trachelomonas	Euglenoid	220 cells/mL
	Aulacoseira	Diatom	<40 cells/mL
	Microcystis	Cyanobacteria	<40 cells/mL



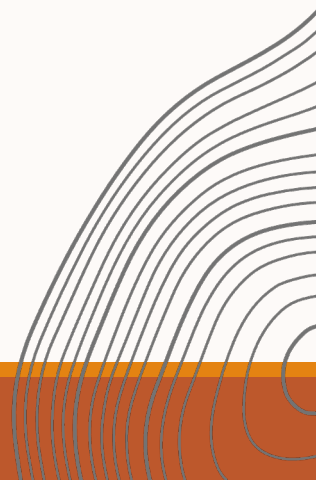
# Mountain Lake

Mountain Lake			
Date	Product Applied	Acreage	Target Species
4/22/2025	Tribune	25.33	Curly-leaf pondweed
6/4/2025	Copper Sulfate	20.83	Filamentous Algae
6/18/2025	Aquastrike	10.6	Bassweed
7/2/2025	Aquastrike	2.2	Bassweed
	Copper Sulfate	2.2	Filamentous Algae
8/25/2025	Copper Sulfate	30	Planktonic Algae

Mountain Lake			
Date	6/4/2025	7/14/2025	8/18/2025
Nitrite (mg/L)	<0.02	<0.02	<0.02
Nitrate (mg/L)	<0.02	<0.02	<0.02
Total Phosphorous (mg/L)	0.0279	<0.01	<0.01
Turbidity (NTU)	3	2.2	3.9



Mountain Lake			
Date	Genera	Family	Density (cells/ml)
6/2/2025	Trachelomonas	Euglenoid	<40 cells/mL
6/6/2025	Oocystis	Green Algae	<40 cells/mL
	Dolichospermum	Cyanobacteria	<40 cells/mL
7/14/2025	Aphanizomenon	Cyanobacteria	<40 cells/mL
	Dolichospermum	Cyanobacteria	<40 cells/mL
8/11/2025	Aulacoseira	Cyanobacteria	<40 cells/mL
	Oocystis	Green Algae	<40 cells/mL
	Dolichospermum	Cyanobacteria	<40 cells/mL
	Trachelomonas	Euglenoid	<40 cells/mL
	Aphanizomenon	Cyanobacteria	<40 cells/mL
	Fragilaria	Diatom	<40 cells/mL
8/25/2025	Aphanizomenon	Cyanobacteria	24500 cells/mL
	Dolichospermum	Cyanobacteria	3200 cells/mL
	Gloeocystis	Green Algae	<40 cells/mL
	Selenastrum	Green Algae	<40 cells/mL
	Planktolyngbya	Cyanobacteria	<40 cells/mL
	Gymnodinium	Dinoflagellate	<40 cells/mL
	Trachelomonas	Euglenoid	<40 cells/mL
9/15/2025	Aphanocapsa	Cyanobacteria	<40 cells/mL
	Microcystis	Cyanobacteria	<40 cells/mL
	Staurastrum	Green Algae	<40 cells/mL



## Review:

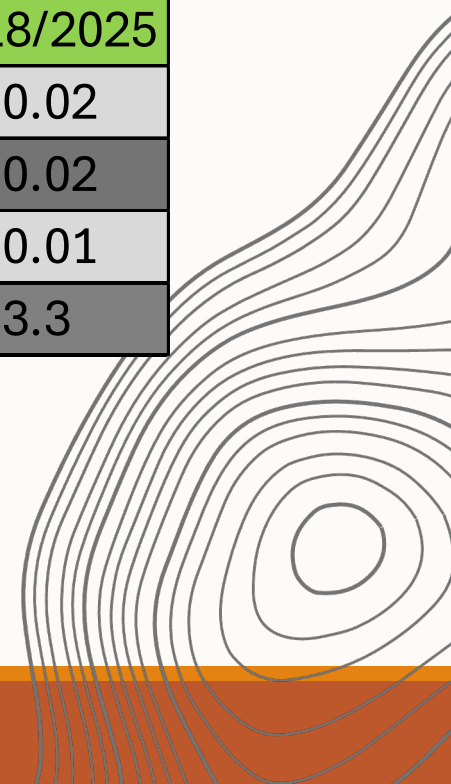
- Fecal Coliform – geese
- Submersed plant community
- Water Primrose
- Aluminum Sulfate
- Eurasian Water milfoil
- Cyanobacteria bloom in 2025



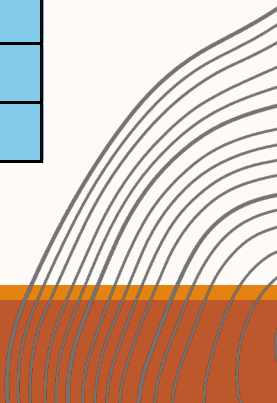
# Wildwood Lake

Wildwood Lake			
Date	Product Applied	Acreage	Target Species
5/8/2025	Tribune	6	Curly-leaf Pondweed / Milfoil
6/18/2025	Clipper	2	Milfoil
	Copper Sulfate	6.4	Filamentous Algae
8/14/2025	Copper Sulfate	5	Filamentous Algae
	Clipper	2	Brittle Naiad
9/17/2025	Copper Sulfate	5	Filamentous Algae

Wildwood Lake			
Date	6/4/2025	7/14/2025	8/18/2025
Nitrite (mg/L)	<0.02	<0.02	<0.02
Nitrate (mg/L)	<0.02	<0.02	<0.02
Total Phosphorous (mg/L)	0.0453	<0.01	<0.01
Turbidity (NTU)	2.9	2.1	3.3

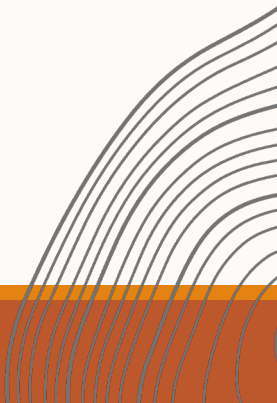


Wildwood Lake			
Date	Genera	Family	Density (cells/ml)
6/2/2025	Trachelomonas	Euglenoid	<40 cells/mL
	Fragilaria	Diatom	<40 cells/mL
6/16/2025	Trachelomonas	Euglenoid	<100 cells/mL
	Cryptomonas	Cryptomonads	<100 cells/mL
7/14/2025	Fragilaria	Diatom	<40 cells/mL
	Trachelomonas	Euglenoid	<40 cells/mL
	Cryptomonas	Cryptomonads	<40 cells/mL
8/11/2025	Cyclotella	Diatom	<40 cells/mL
	Trachelomonas	Euglenoid	<40 cells/mL
8/25/2025	Trachelomonas	Euglenoid	170 cells/mL
	Coelastrum	Green algae	<40 cells/mL
	Oocystis	Green algae	<40 cells/mL
	Pediastrum	Green algae	<40 cells/mL
	Woronichinia	Cyanobacteria	<40 cells/mL
9/15/2025	Microcystis	Cyanobacteria	<40 cells/mL
	Trachelomonas	Euglenoid	<40 cells/mL
	Coelastrum	Green algae	<40 cells/mL
	Gloeocystis	Green algae	<40 cells/mL
	Pediastrum	Green algae	<40 cells/mL



## Review:

- Water Primrose
- Water Depth in North End
- Eurasian Watermilfoil / Plant Community
- Cattail Growth
- Lyngbya growth late summer



# Fecal Coliform Results

Fecal Coliform Bacteria Results (CFU)		
Date	Island Beach	Birchwood
5/19/2025	54	6
5/27/2025	13	0
6/2/2025	20	8
6/9/2025	23	71
6/17/2025	141	7
6/23/2025	308	22
6/30/2025	184	2
7/7/2025	43	9
7/14/2025	5	12
7/21/2025	260	7
7/28/2025	45	6
8/4/2025	39	4
8/11/2025	1	3
8/18/2025	93	20
8/26/2025	5	111
* No Failures in 2025		



# 2026 Recommendations

- Aggressive water lily treatment in Crystal and Birchwood
- Small Basins – Metafloc applications early spring
- Wildwood / Mountain – Water Primrose
- Hydro-raking priority/future planning
- Crystal Lake – Spring Metafloc Application
- Borough wide “HAB” Permitting for aluminum sulfate/Eutrosorb – Costs \$\$\$\$\$\$\$\$\$\$
- Crystal Lake Aeration design and costs
- Mountain Lake Sonar in 2026
- Wildwood Lake Procellacor EC treatment in 2026
- Shadow/Olive Aeration System Upgrade
- Lyngbya in Wildwood – aggressive treatment in 2026
  - Becoming more prevalent across northern NJ



# QUESTIONS?

Bob Schindler  
Operations Director  
908.310.9037  
[rschindler@TigrisUSA.com](mailto:rschindler@TigrisUSA.com)