

# Summary Report for Bull Shoals 7



	4/26	5/17	6/30	7/18	8/9	9/20		Mean
Temperature (F)	63	81	90	88	88	82		82
Secchi (feet)	6.2	4.6	8.2	6.6	7.9	6.6		6.7
Phosphorus (µg/L)	15	17	8	11	12	12		13
Nitrogen (µg/L)	580	950	240	310	340	210		358
Ammonium (µg/L)	<10	<10	<10	79	<10	25		21
Nitrate (µg/L)	343	87	<5	<5	<5	<5		72
Chlorophyll (µg/L)	7.0	9.6	3.0	4.5	5.2	8.6		6.3
Susp. Sediment (mg/L)								--
Microcystin (µg/L)	<0.10	0.12	0.11	0.15	0.12	0.14		0.11
Cylindrospermopsin (µg/L)	<0.04	<0.04	0.05	<0.04	0.06	0.05		0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

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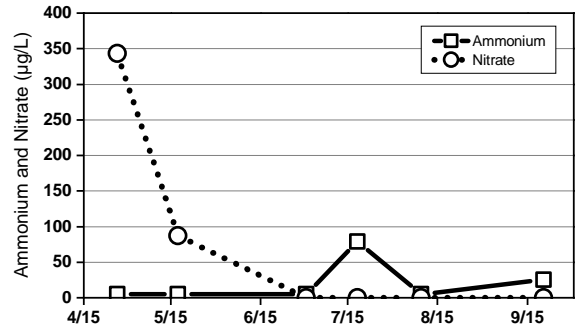
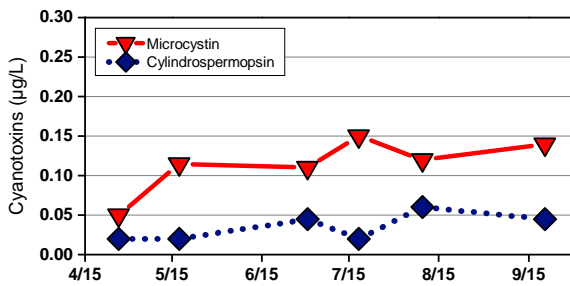
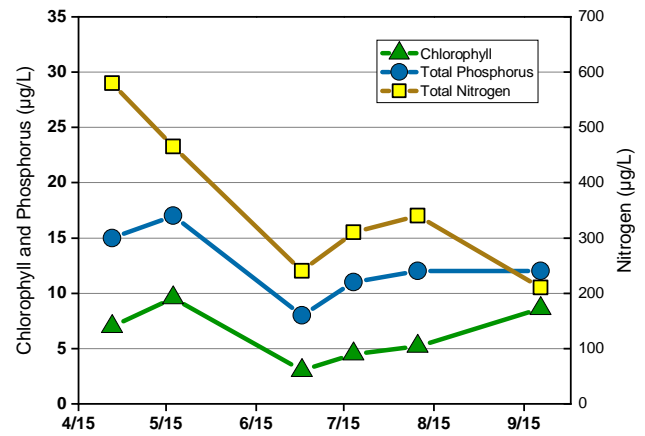
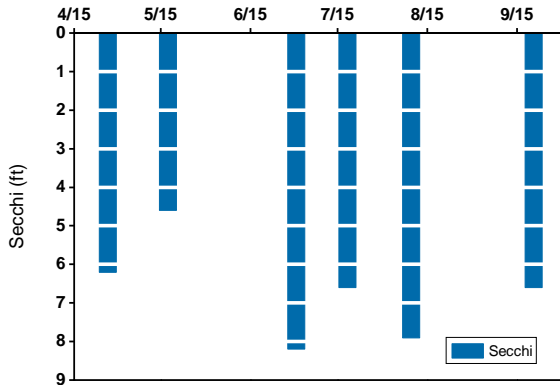
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

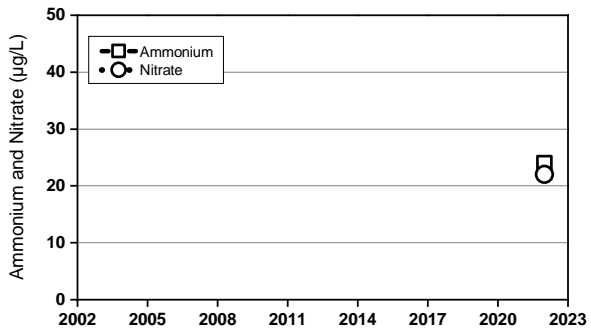
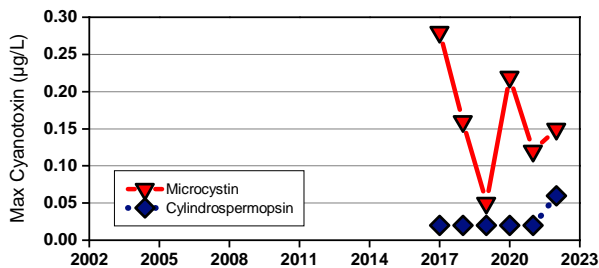
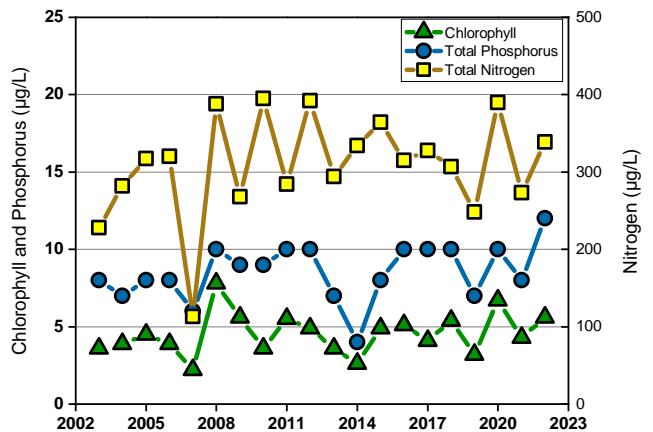
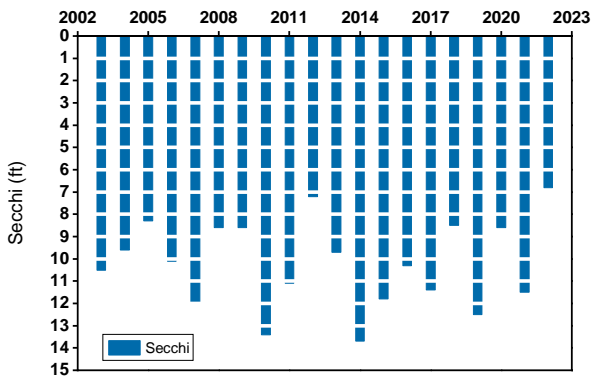
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Bull Shoals 7



## Trend Data for Bull Shoals 7



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Bull Shoals 8



	4/26	5/17	6/30	7/18	8/9	9/20		Mean
Temperature (F)	63		88	88	88	82		82
Secchi (feet)	7.5	8.5	9.2	8.2	7.2	6.6		7.9
Phosphorus (µg/L)	11	11	7	10	11	12		10
Nitrogen (µg/L)	420	950	210	245	275	217		284
Ammonium (µg/L)	<10	19	<10	<10	<10	14		<10
Nitrate (µg/L)	266	104	<5	<5	<5			74
Chlorophyll (µg/L)	3.7	3.6	3.0	4.6	4.6	8.5		4.7
Susp. Sediment (mg/L)								--
Microcystin (µg/L)	<0.10	<0.10	0.14	0.12	0.13	0.15		0.11
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

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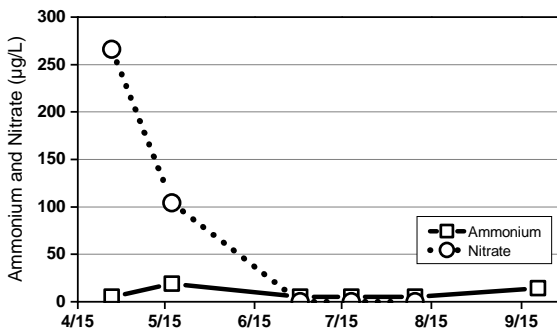
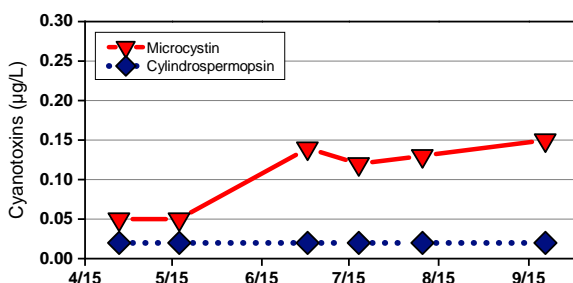
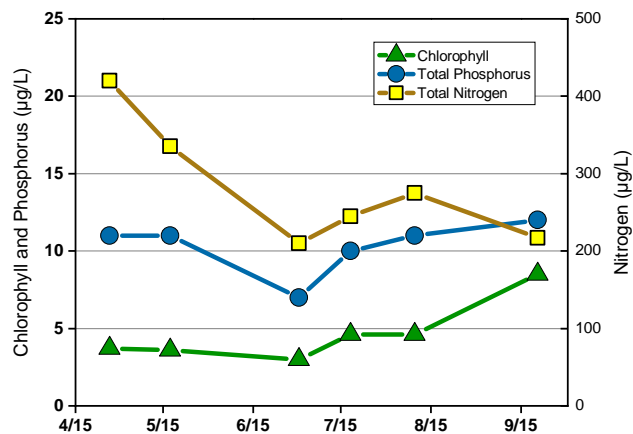
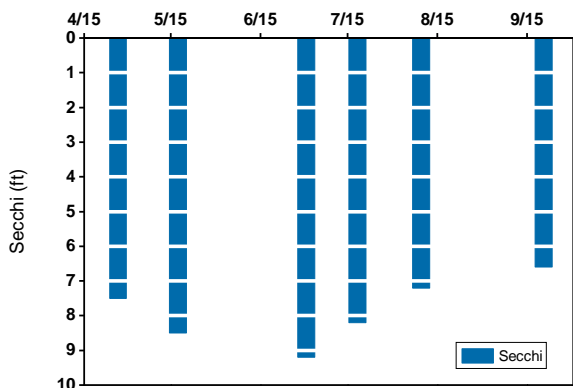
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Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

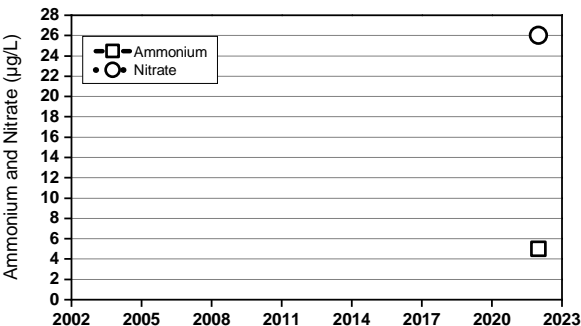
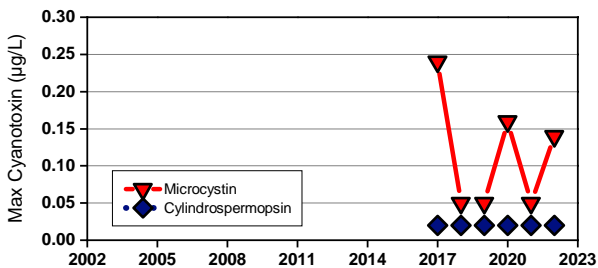
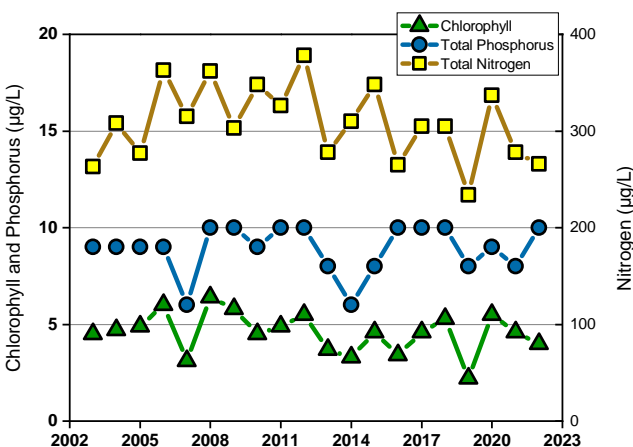
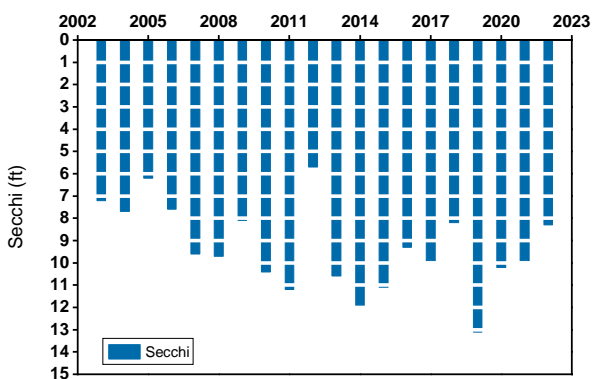
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
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# Summary Report for Bull Shoals 8



## Trend Data for Bull Shoals 8



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.



# Summary Report for Buteo 1



	6/4	7/3	7/12	7/27	8/7	9/12	9/25		Mean*
Temperature (F)	79	82	84	88	84	72	72		80
Secchi (feet)	1.3	4.6	5.9	4.6	6.2	3.3	6.9		4.7
Phosphorus (µg/L)	46	18	18	22	33	35	34		29
Nitrogen (µg/L)	690	660	620	595	720	525	660		639
Ammonium (µg/L)	19	26	12	32	<10	19	16		18
Nitrate (µg/L)	35	7	6	6	6	6	<5		10
Chlorophyll (µg/L)	8.1	9.2	4.9	7.2	5.3	19.8	5.8		8.6
Susp. Sediment (mg/L)	5.1	0.5	0.2	0.7	<0.1	2.1	0.9		1.4
Microcystin (µg/L)	<0.10	<0.10	0.11	0.16	0.14	0.13	<0.10		0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	0.11	0.14	0.22	0.17	0.28		0.13

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
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Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

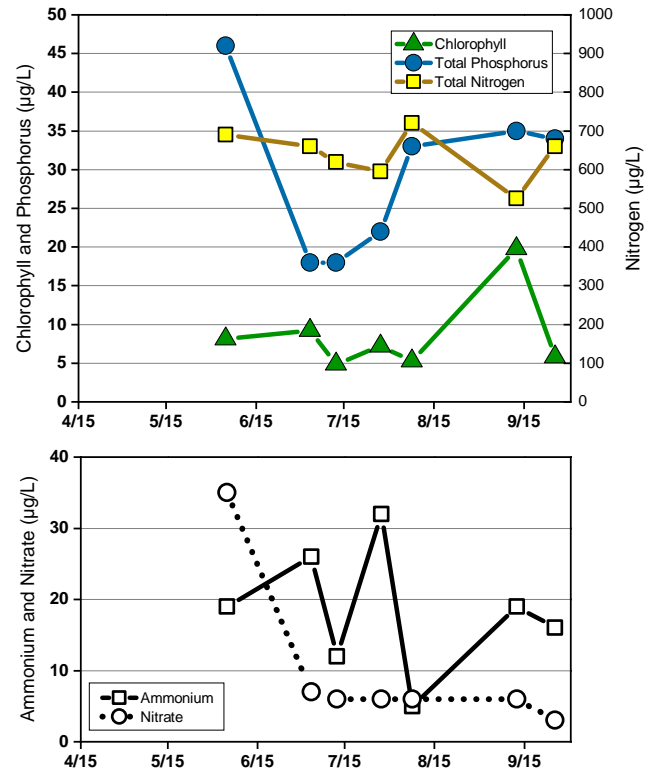
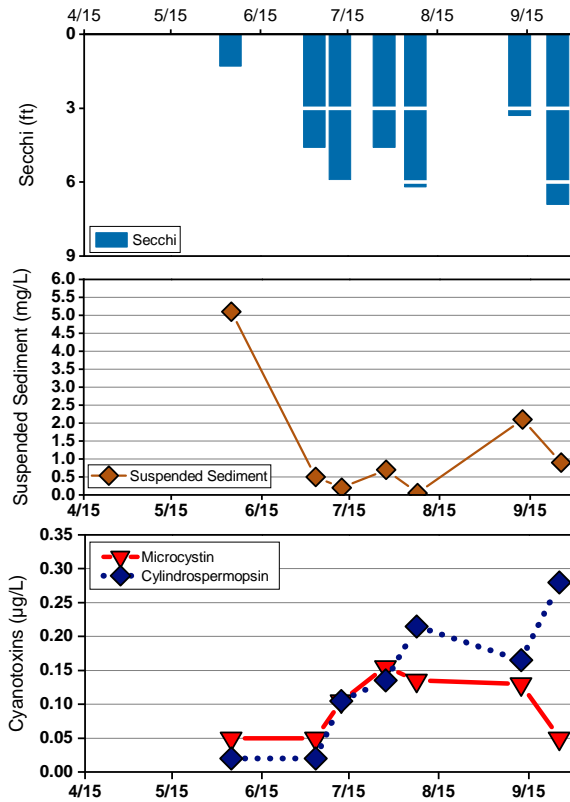
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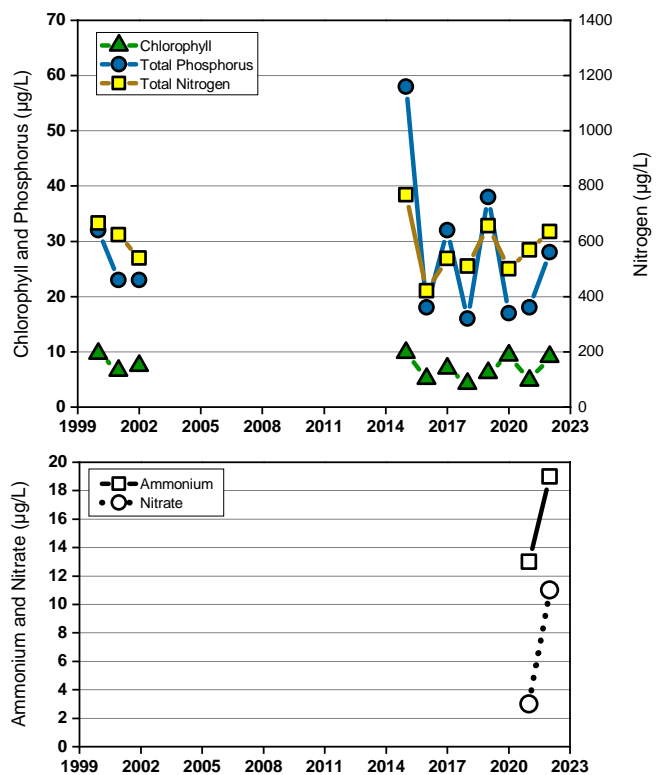
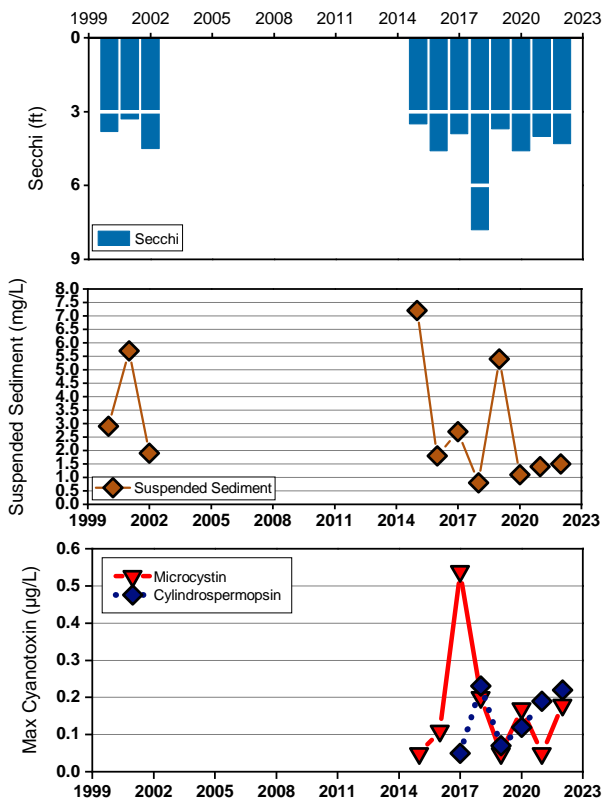
# Summary Report for Buteo 1



## 2022 Data for Buteo 1



## Trend Data for Buteo 1



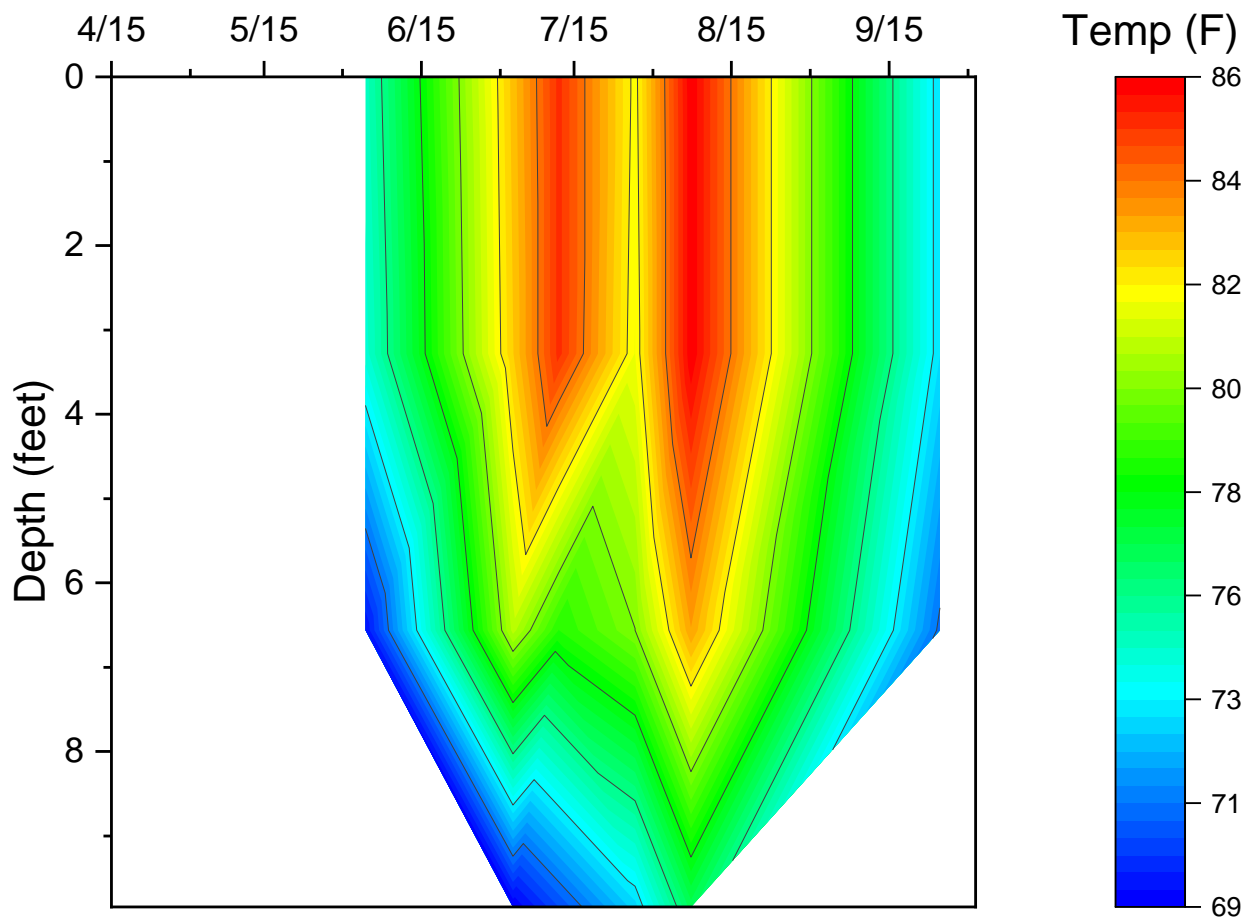
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# Buteo, Site 1

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.



Buteo, Site 1

# Summary Report for Cameron (Eagle) 1



	4/26	6/21	7/22	9/1	9/20				Mean*
Temperature (F)	57	84	84	79	75				76
Secchi (feet)	2	2	2	2	1.3				1.9
Phosphorus (µg/L)	56	60	111	149	134				102
Nitrogen (µg/L)	840	960	1635	1305	1405				1229
Ammonium (µg/L)	25	28	97	<10	<10				32
Nitrate (µg/L)	39	40	29	<5	<5				23
Chlorophyll (µg/L)	14.1	42.2	82.5	86.7	102.2				65.5
Susp. Sediment (mg/L)	11.0	5.7	12.4	7.6	7.0				8.7
Microcystin (µg/L)		0.11	0.23	0.37	0.18				0.22
Cylindrospermopsin (µg/L)		<0.04	<0.04	<0.04	<0.04				<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Hypereutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
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### Limit of Detection Values

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Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

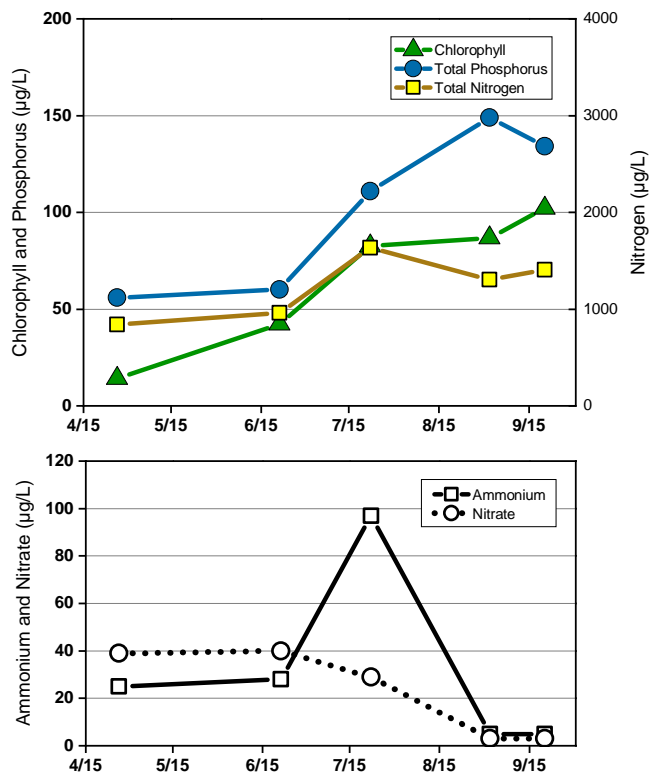
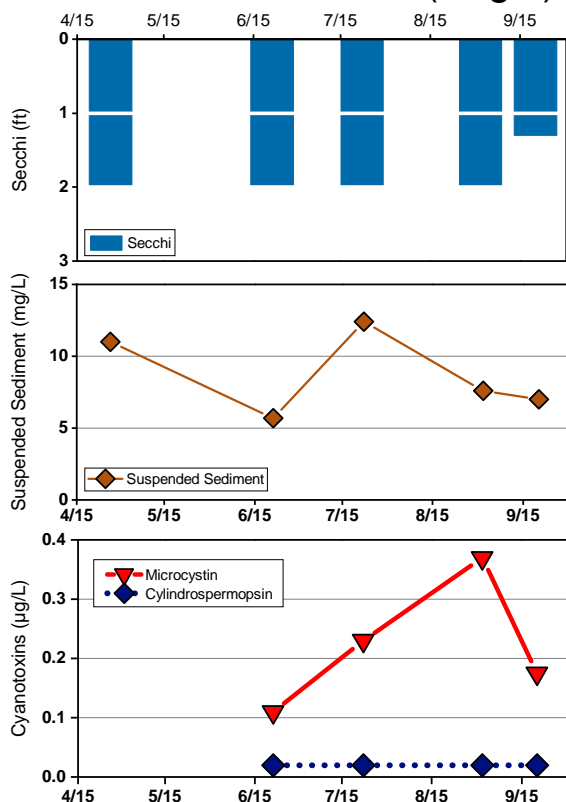
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Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

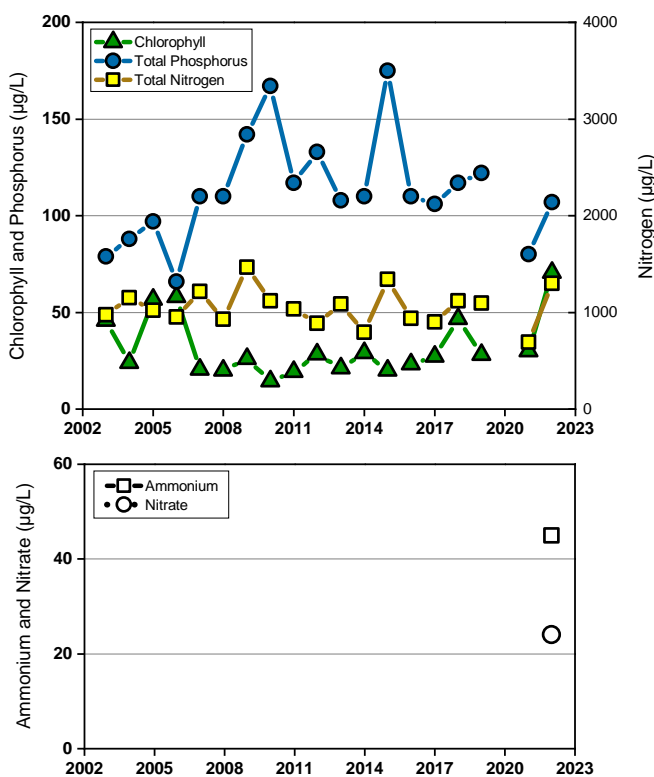
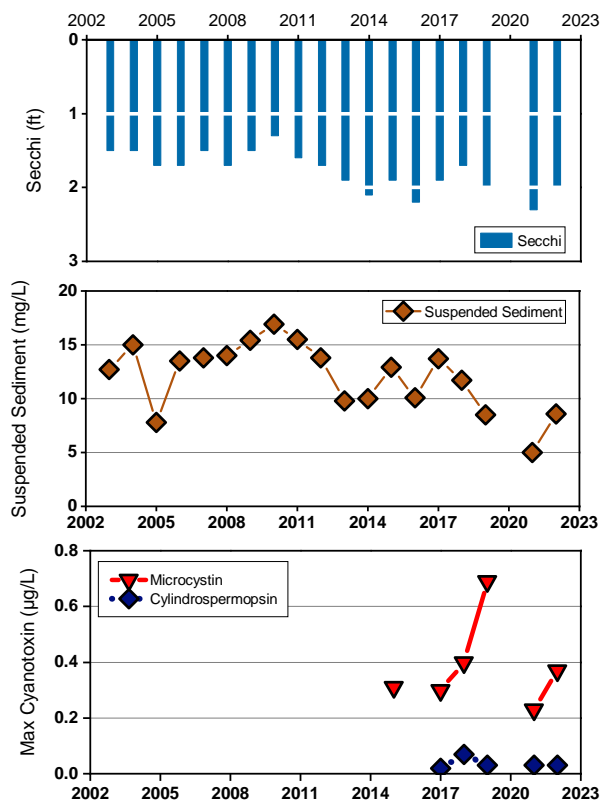
# Summary Report for Cameron (Eagle) 1



## 2022 Data for Cameron (Eagle) 1



## Trend Data for Cameron (Eagle) 1



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# Summary Report for Carondelet Boathouse 1



	4/28	6/6	7/1	7/20	8/10	9/2	9/20		Mean*
Temperature (F)	64	79	81	91	88	82	82		81
Secchi (feet)	3.6	2.3	3.6	1.6	2.3	2.6	3.3		2.8
Phosphorus (µg/L)		75	39	76	45	48	32		53
Nitrogen (µg/L)		1430	1610	1950	965	800	630		1231
Ammonium (µg/L)		187	18	343	63	<10	19		106
Nitrate (µg/L)		608	209	340	78	8	31		212
Chlorophyll (µg/L)		7.5	54.5	49.7	33.4	33.1	11.0		31.5
Susp. Sediment (mg/L)		3.5	4.0	7.4	5.4	4.6	1.6		4.4
Microcystin (µg/L)		<0.10	<0.10	<0.10	0.45	<0.10	0.48		0.19
Cylindrospermopsin (µg/L)		<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

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Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
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Cylindrospermopsin (µg/L)	0.04

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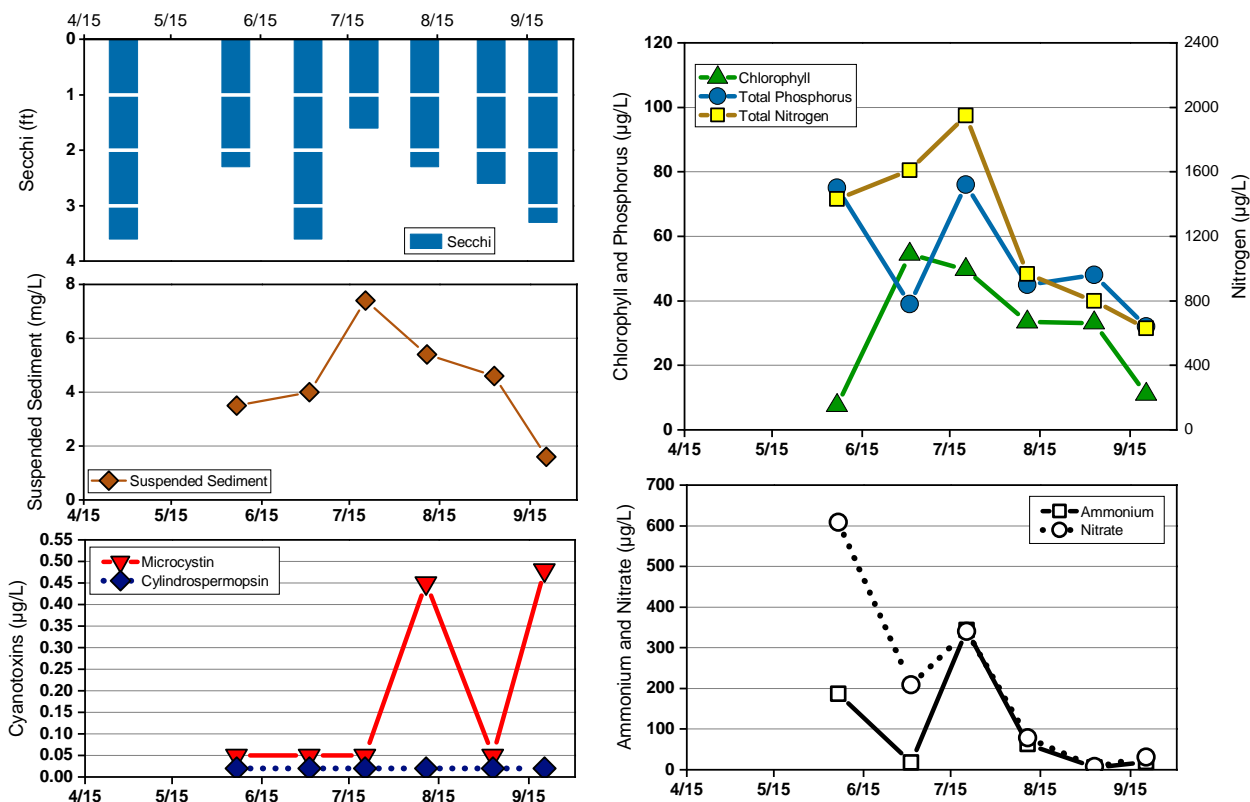
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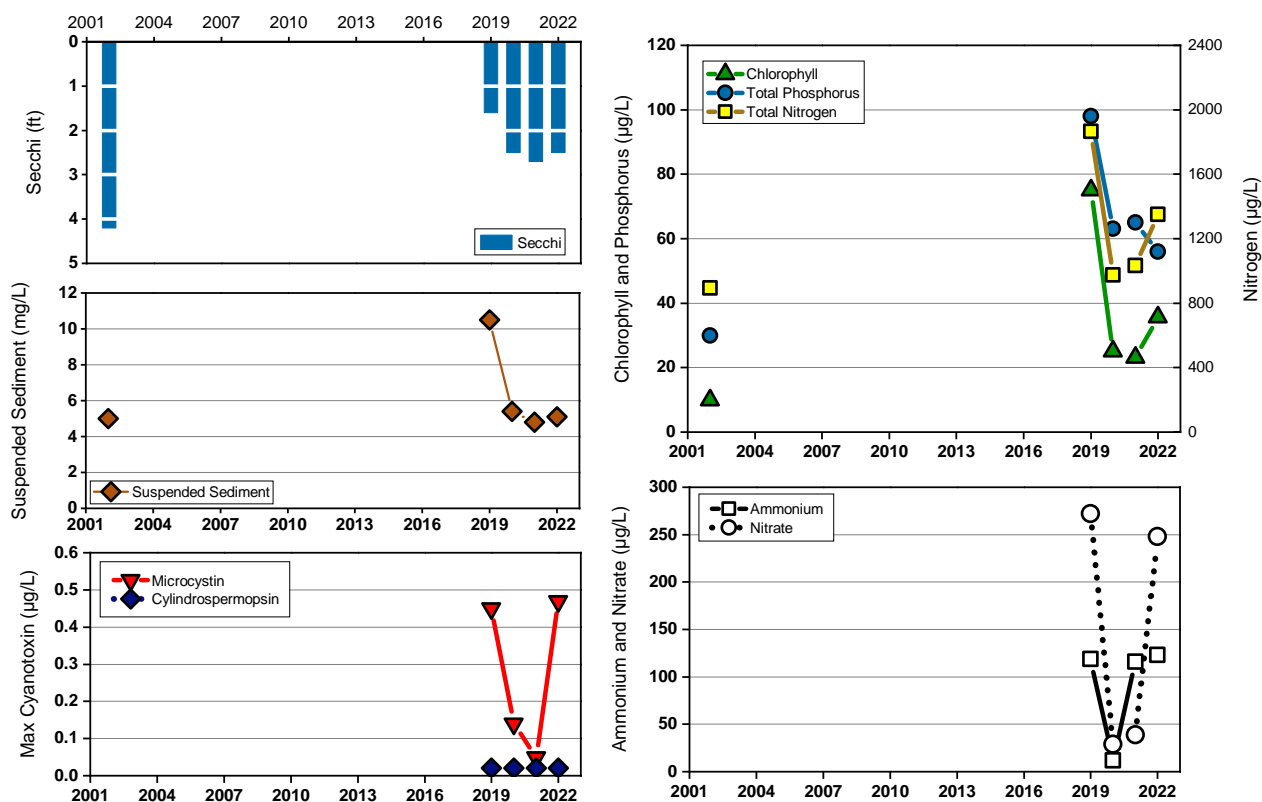
# Summary Report for Carondelet Boathouse 1



## 2022 Data for Carondelet Boathouse 1



## Trend Data for Carondelet Boathouse 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Clearfork 1



	6/4	7/3	7/12	7/27	8/7	9/12	9/25		Mean*
Temperature (F)	73	84	84	88	84	75	72		80
Secchi (feet)	1	3.3	3.9	3.6	4.6	3.6	5.6		3.7
Phosphorus (µg/L)	90	30	29	44	26	42	29		41
Nitrogen (µg/L)	795	800	785	770	665	705	580		729
Ammonium (µg/L)	14	13	11	26	14	15	11		15
Nitrate (µg/L)	8	7	6	<5	7	<5	<5		5
Chlorophyll (µg/L)	18.7	17.6	15.1	17.5	14.0	38.6	10.1		18.8
Susp. Sediment (mg/L)	11.9	3.5	3.5	3.6	3.3	4.6	2.9		4.8
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	0.18	<0.10		<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

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- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

The table below shows EPA health advisories for cyanotoxin exposure.

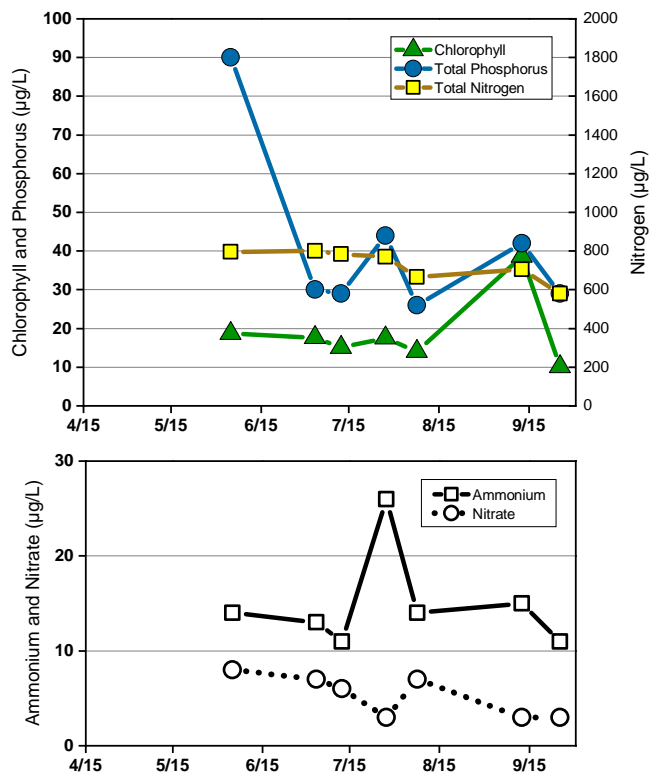
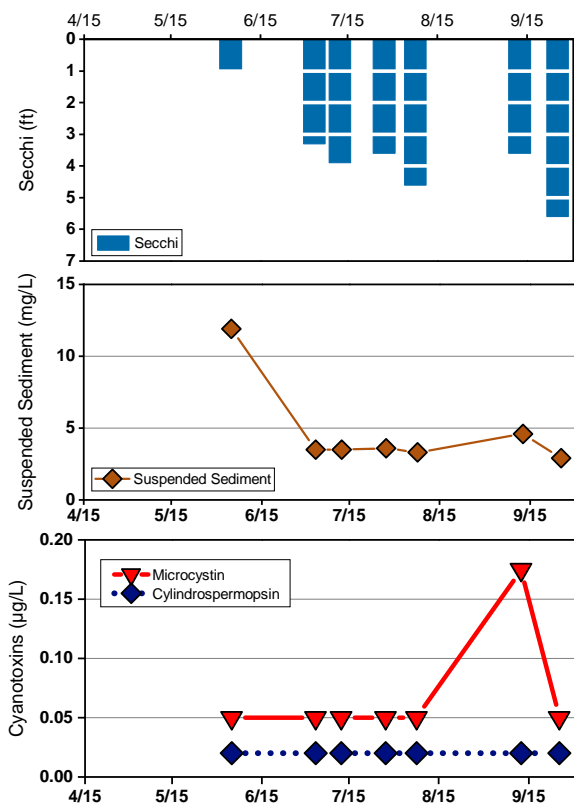
	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L



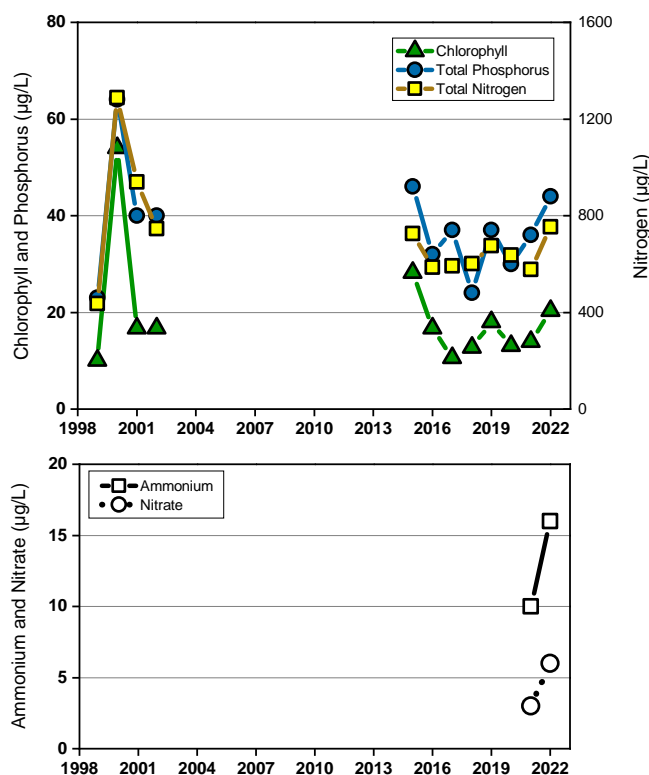
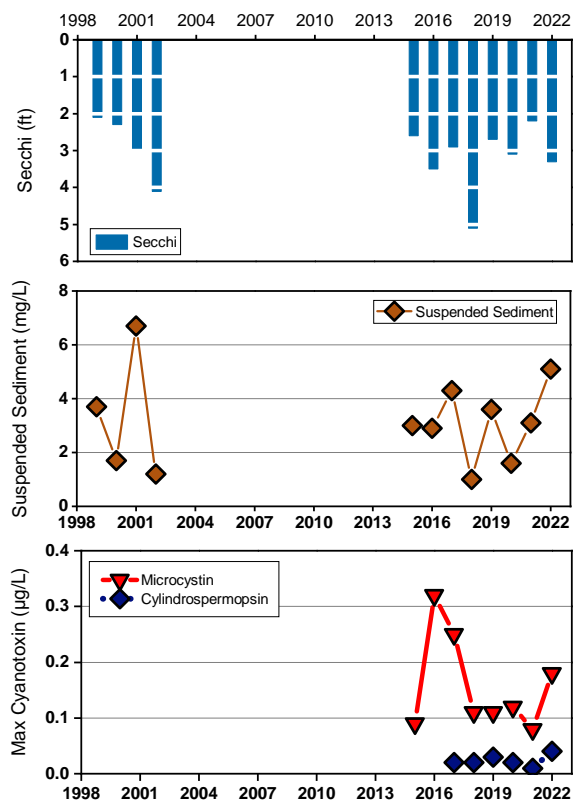
# Summary Report for Clearfork 1



## 2022 Data for Clearfork 1



## Trend Data for Clearfork 1



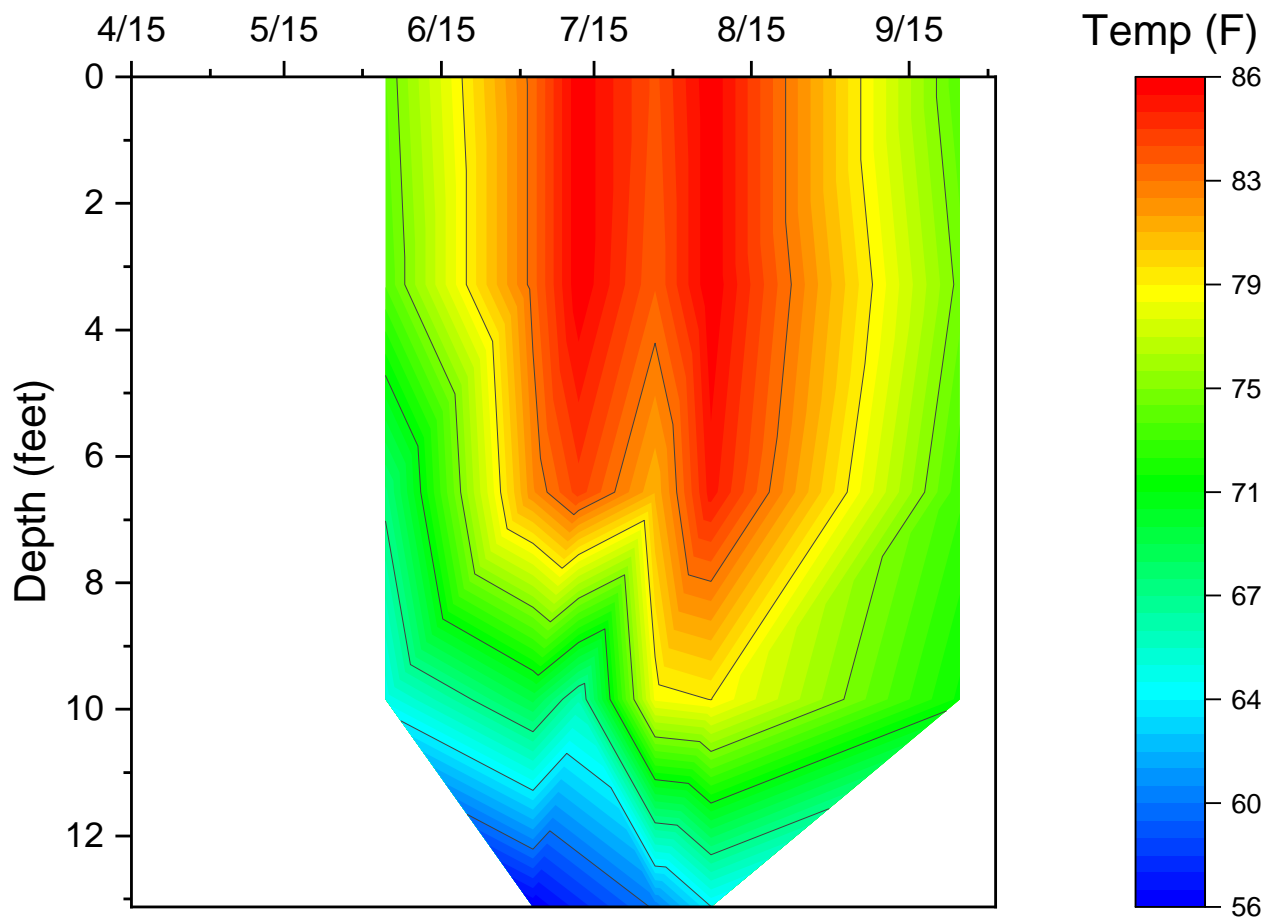
Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Clearfork, Site 1

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.



Clearfork, Site 1

# Summary Report for Clearwater 1



	4/27	5/22	6/8	6/26	7/6	7/24	8/12	9/17	9/28	Mean
Temperature (F)	64	72	75	84	86	88	84	75.2	73	78
Secchi (feet)	3.6	4.3	7.2	7.2	7.9	4.3	5.9	4.9	3.3	5.4
Phosphorus (µg/L)	13	12	10	11	11	17	13	16	22	14
Nitrogen (µg/L)	290	240		195	175	375	170		230	239
Ammonium (µg/L)	<10	16	<10	<10	13	11	<10	<10	<10	<10
Nitrate (µg/L)	<5	162	72	<5	<5	<5	<5	<5	7	27
Chlorophyll (µg/L)	4.3	6.0	2.8	3.2	3.1	2.7	3.4	4.4	6.8	4.1
Susp. Sediment (mg/L)	3.2	2.8	<0.1	0.5	0.2	1.3	1.4	3.2	5.8	2.1
Microcystin (µg/L)	0.13	<0.10	0.19	0.11	0.11	<0.10	<0.10	<0.10	<0.10	0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.05	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

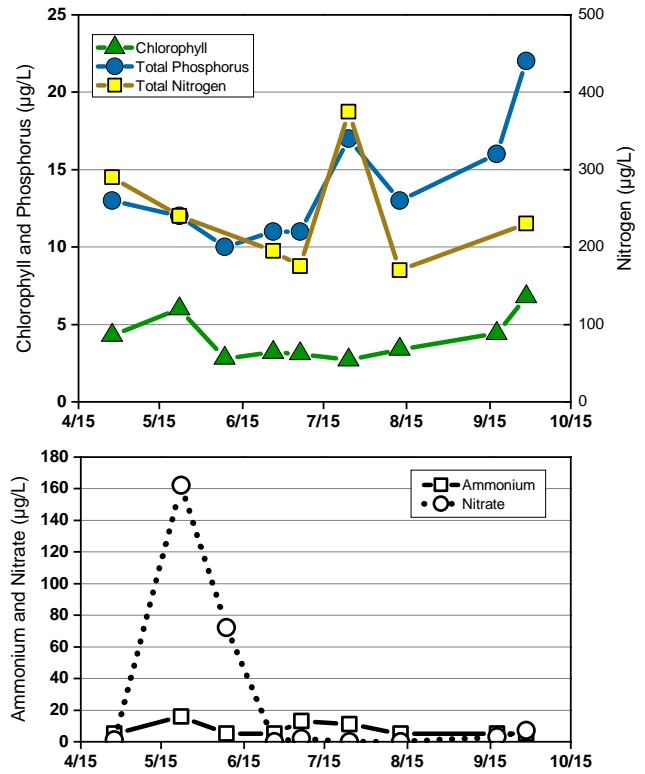
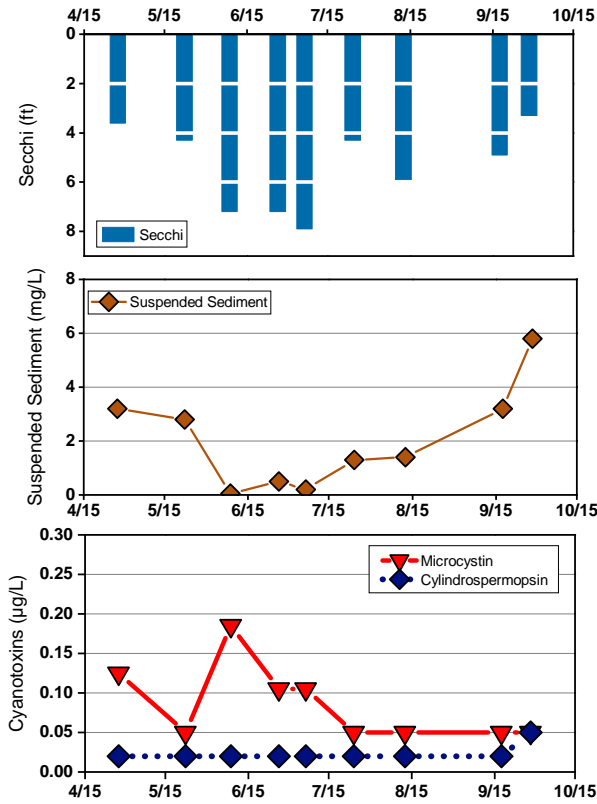
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

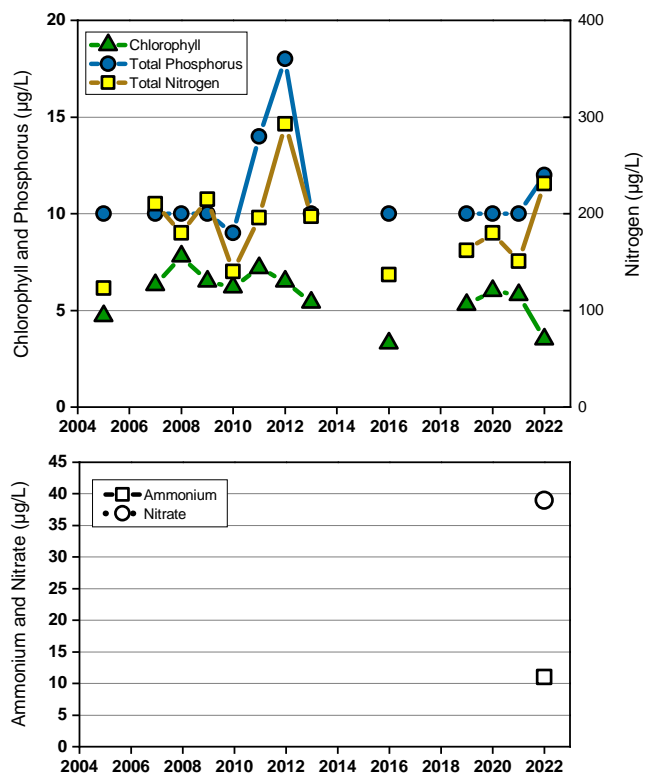
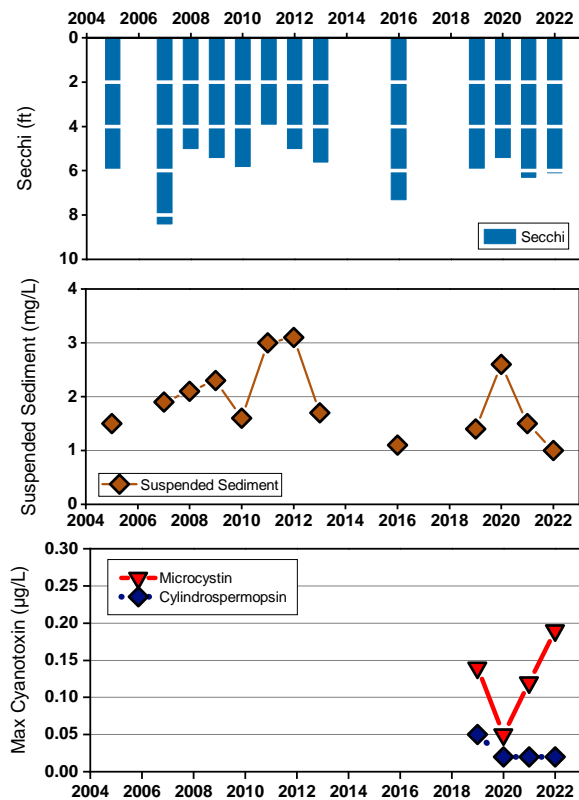
# Summary Report for Clearwater 1



## 2022 Data for Clearwater 1



## Trend Data for Clearwater 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Clearwater 2



	4/27	5/22	6/8	6/26	7/6	7/24	8/12	9/17	9/28	Mean
Temperature (F)	64	70	77	86	88	86	84	73.4	70	78
Secchi (feet)	2	1.6	2.3	2.3	1.6	2.3	2	1.3	2.3	2
Phosphorus (µg/L)	19	40	31	37	24	28	32	31	24	30
Nitrogen (µg/L)	335	390		345	280	255	250	385	190	304
Ammonium (µg/L)	<10	14	18	<10	<10	13	<10	14	<10	<10
Nitrate (µg/L)	270	64	<5	<5	<5	15	<5	<5	<5	39
Chlorophyll (µg/L)	6.5	15.1	5.7	6.6	6.6	5.4	7.6	6.3	7.2	7.4
Susp. Sediment (mg/L)	8.8	11.6	7.8	8.3	4.5	8.6	9.8	15.4	6.7	9.1
Microcystin (µg/L)	0.12	<0.10	0.11	0.12	0.11	<0.10	0.16	0.13	<0.10	0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

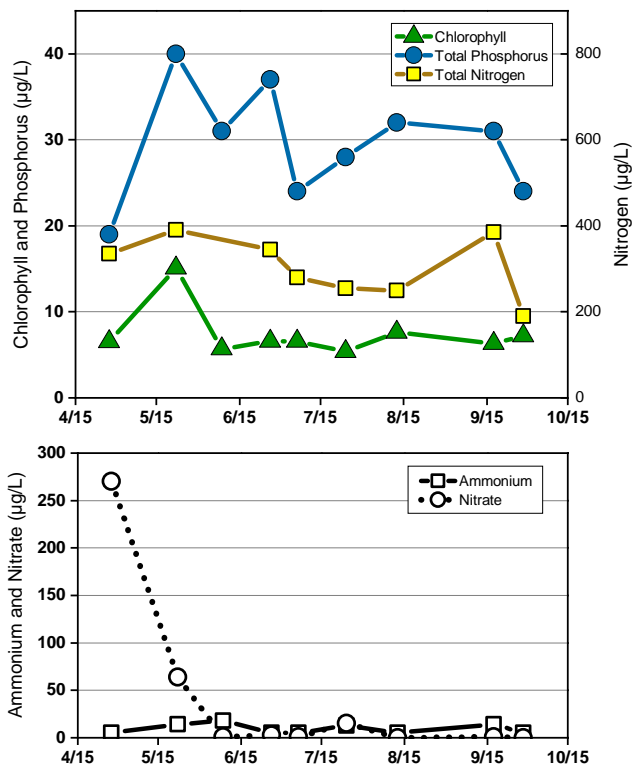
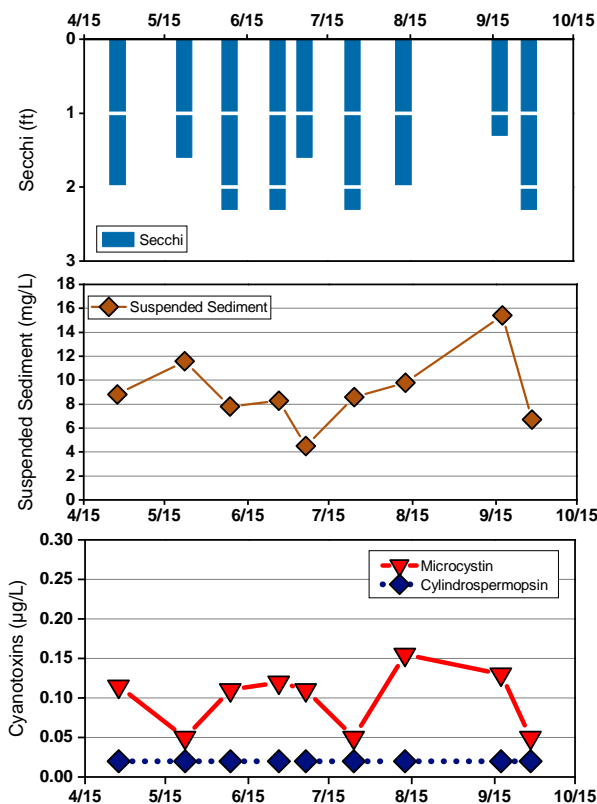
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

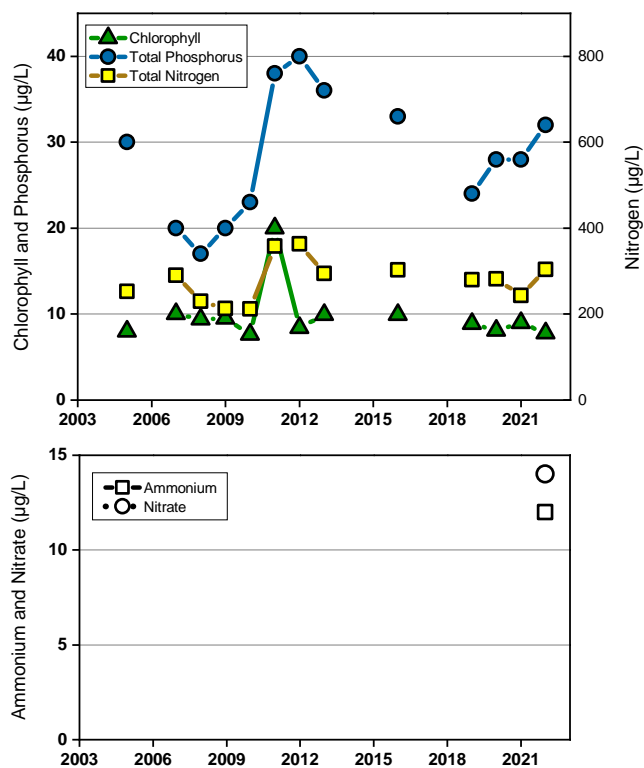
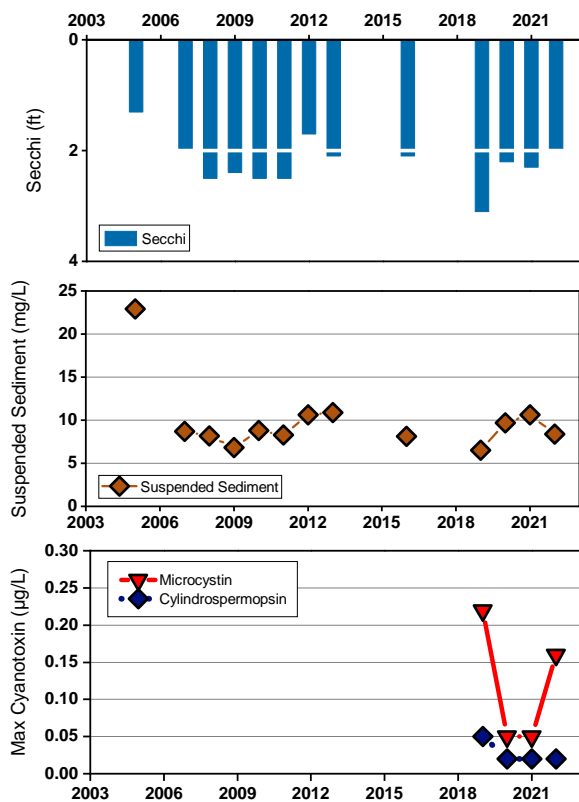
# Summary Report for Clearwater 2



## 2022 Data for Clearwater 2



## Trend Data for Clearwater 2



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Clearwater 3



	4/27	5/22	6/8	6/26	7/6	7/24	8/12	9/17	9/28	Mean
Temperature (F)	63	64	75	84	86	84	82	68	64	75
Secchi (feet)	2.6	1.6	2.6	2.6	2.3	1.6	2.3	1.6	2.3	2.2
Phosphorus (µg/L)	18	23	26	26	23	17	19	12	19	20
Nitrogen (µg/L)	350	415	225	375	270	205	180	330		294
Ammonium (µg/L)	<10	14	<10	11	<10	12	<10	18	22	11
Nitrate (µg/L)	143	138	16	11	<5	7	11	128	57	57
Chlorophyll (µg/L)	2.8	9.4	5.1	6.1	4.6	2.6	3.9	1.2	3.7	4.4
Susp. Sediment (mg/L)	8.9	8.9	4.1	2.6	4.5	4.7	6.1	7.4	7.0	6.0
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.105	<0.10	0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	0.05	0.05	<0.04	<0.04	0.05	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

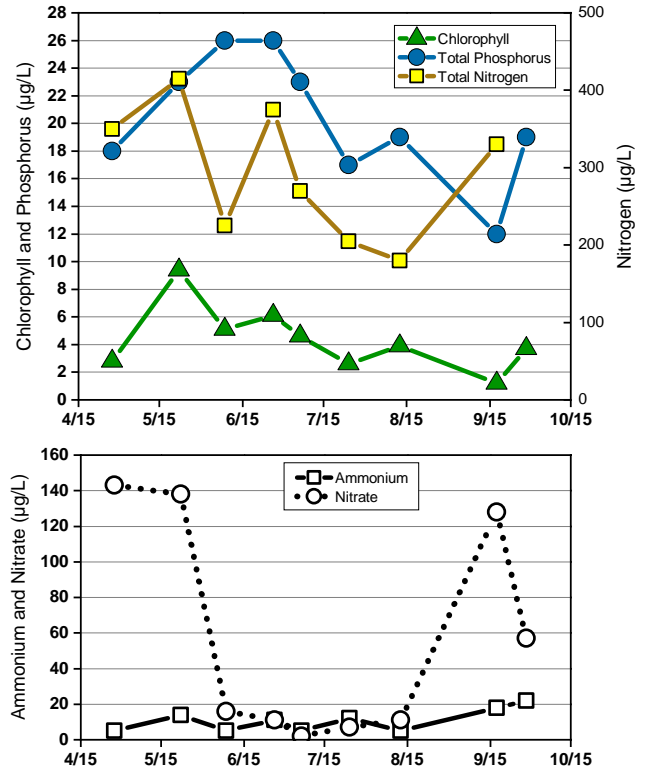
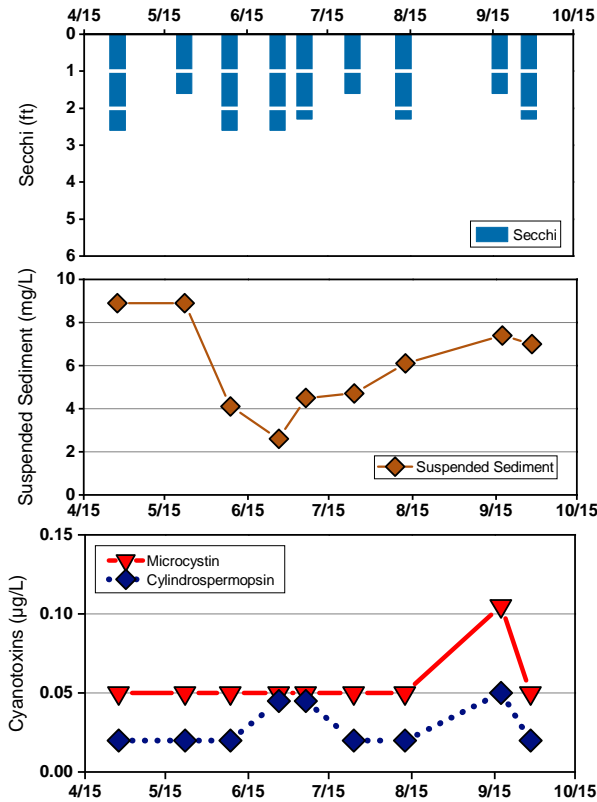
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

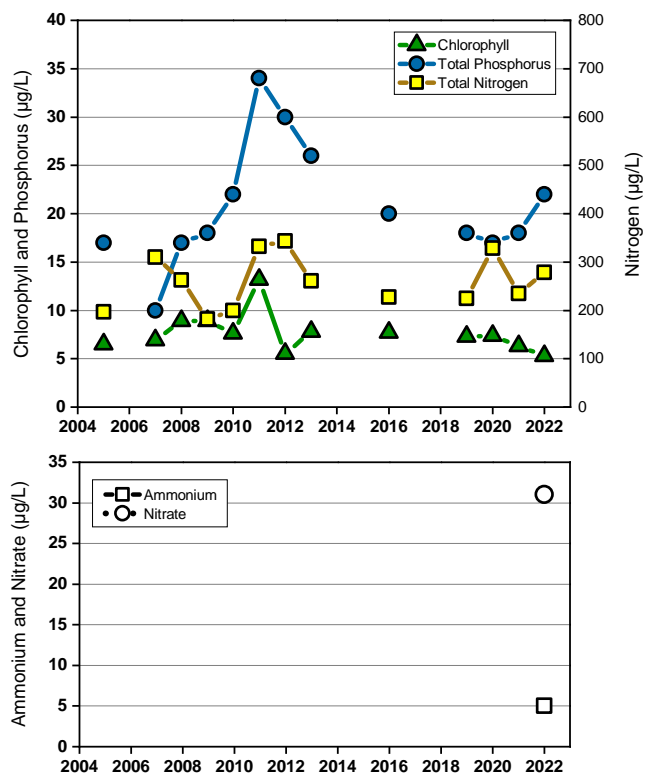
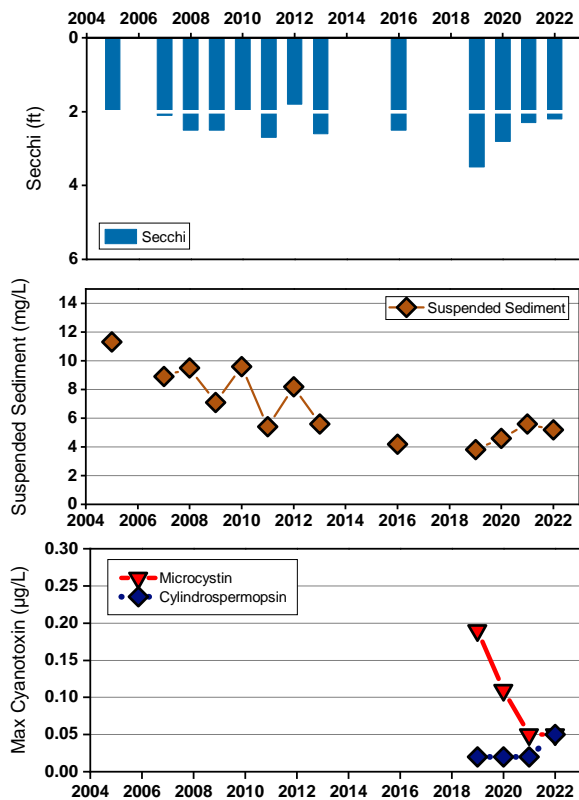
# Summary Report for Clearwater 3



## 2022 Data for Clearwater 3



## Trend Data for Clearwater 3



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.



# Summary Report for Clearwater 4



	4/27	5/22	6/8	6/26	7/6	7/24	8/12	9/17	9/28	Mean
Temperature (F)	63	66	77	84	88	88	81	73.4	66	76
Secchi (feet)	1.6	2	4.6	2.6	3.6	2.6	3.6	3	2.6	2.9
Phosphorus (µg/L)										--
Nitrogen (µg/L)										--
Ammonium (µg/L)										--
Nitrate (µg/L)										--
Chlorophyll (µg/L)										--
Susp. Sediment (mg/L)										--
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	0.13	0.11	<0.10	<0.10	<0.10	0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

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## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

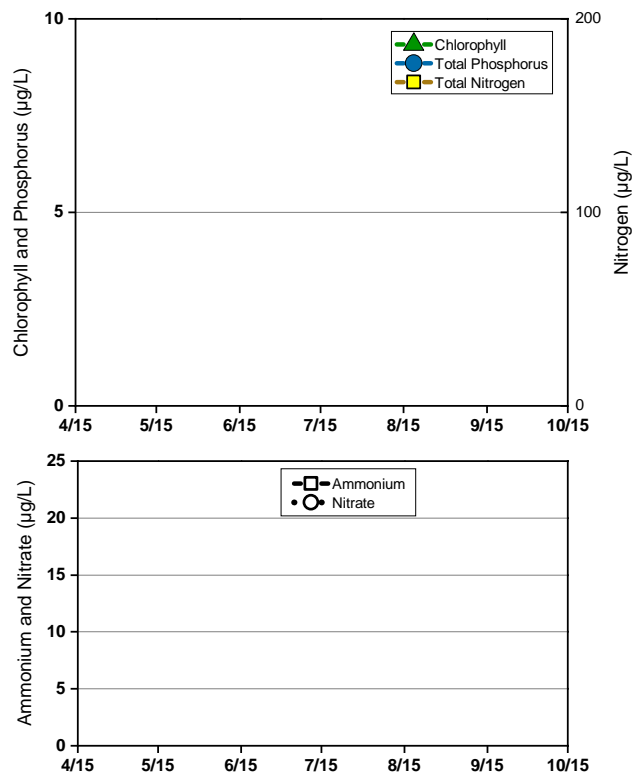
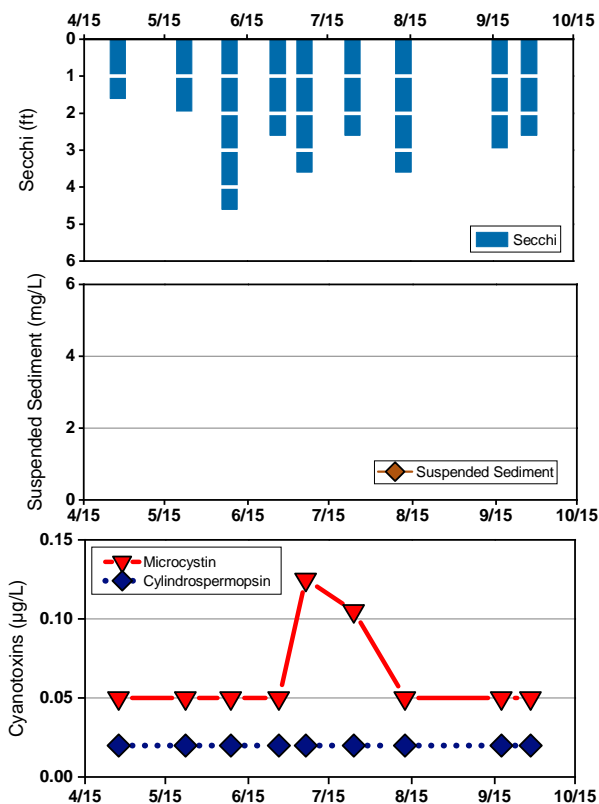
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

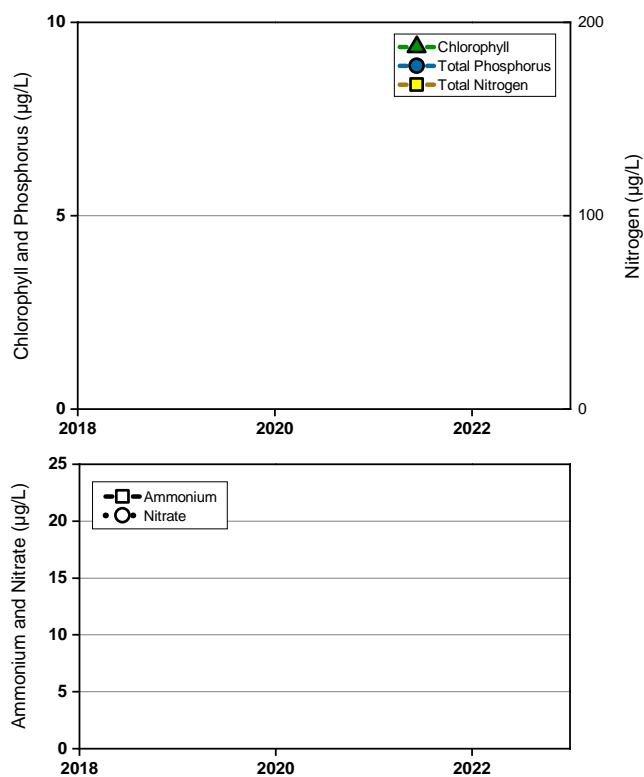
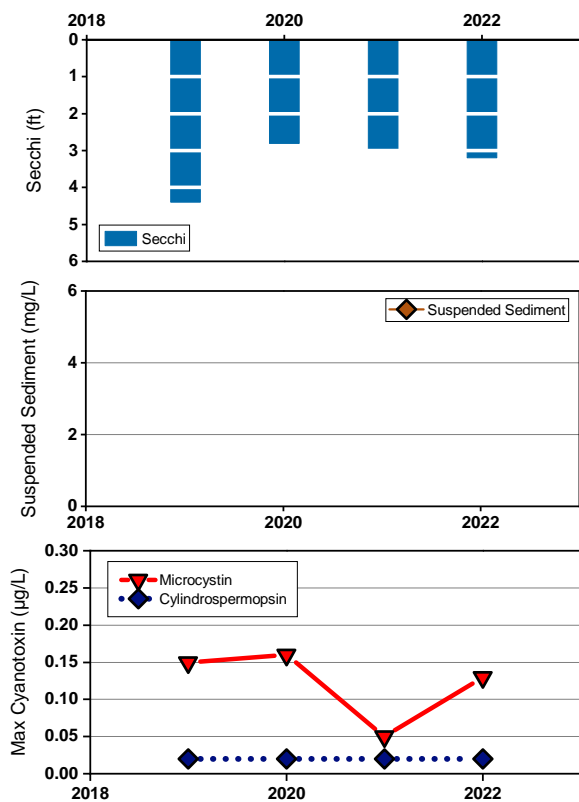
# Summary Report for Clearwater 4



## 2022 Data for Clearwater 4



## Trend Data for Clearwater 4



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Creve Coeur 2



	4/27	5/16	6/10	6/28	7/19	8/11	8/28	9/21	Mean*
Temperature (F)	64	81	81	84	88	86	84	84	80
Secchi (feet)	1.3	2	1.6	1.6	1.6	1.6	1.6	1.3	3.7
Phosphorus (µg/L)	85	61	68	86	88	137	124	96	41
Nitrogen (µg/L)	765	785	603	640	1480	1063	1360	855	729
Ammonium (µg/L)	5	5	5	5	11	5	33	5	15
Nitrate (µg/L)	6	3	6	3	6	8	3	8	5
Chlorophyll (µg/L)	43.1	29.0	28.5	26.6	44.4	97.5	41.0	47.2	18.8
Susp. Sediment (mg/L)	16.0	7.2	4.6	10.0	5.4	3.8	9.4	2.6	4.8
Microcystin (µg/L)	0.05	0.05	0.13	0.05	0.05	0.05	0.05	0.11	<0.10
Cylindrospermopsin (µg/L)	0.02	0.02	0.02	0.02	0.05	0.05	0.02	0.02	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

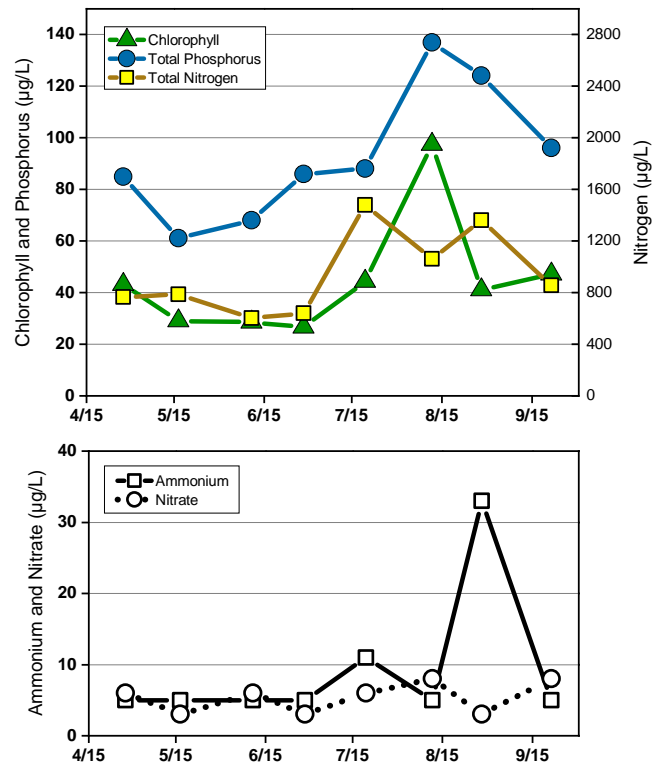
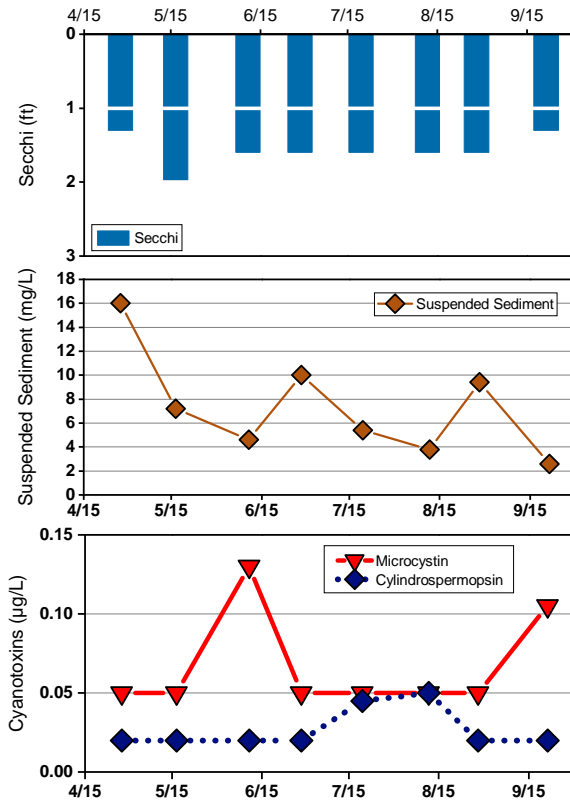
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

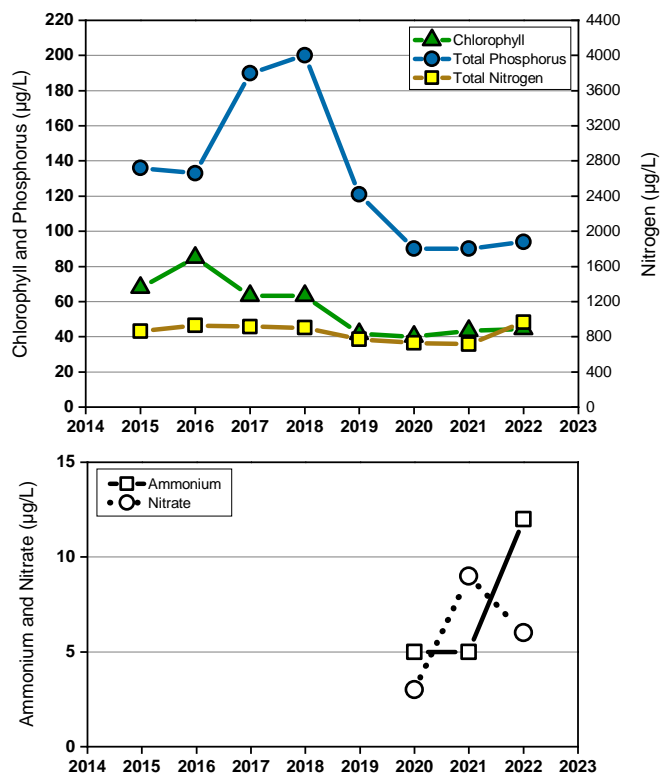
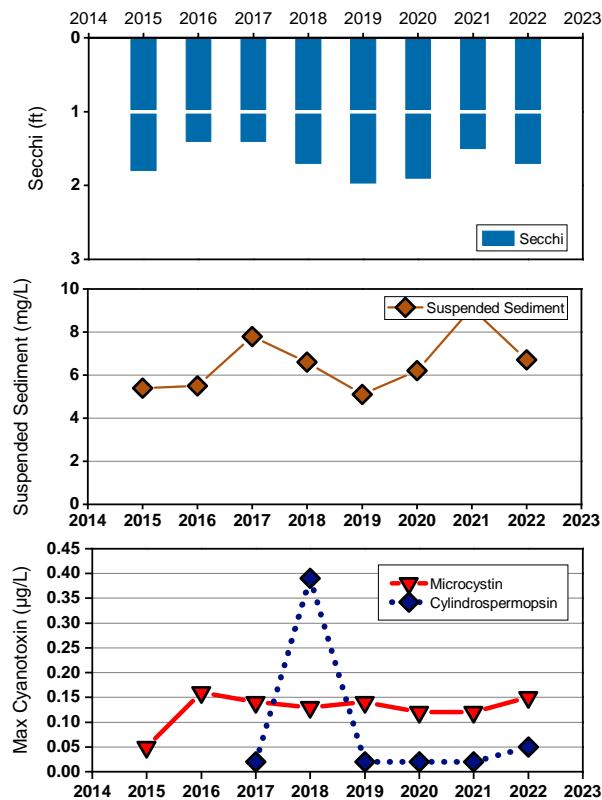
# Summary Report for Creve Coeur 2



## 2022 Data for Creve Coeur 2



## Trend Data for Creve Coeur 2



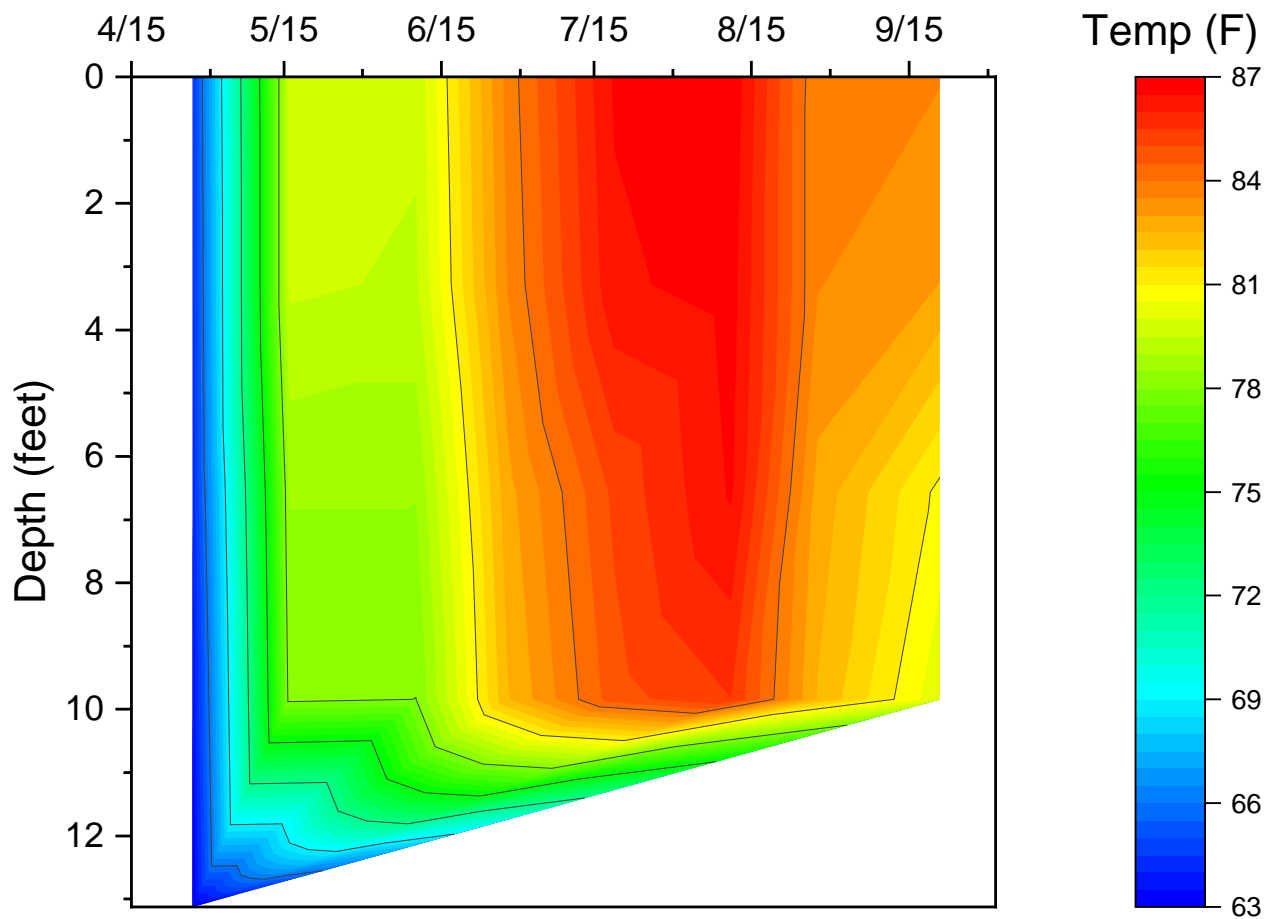
Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Creve Coeur, Site 2

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.



Creve Coeur, Site 2

# Summary Report for Fellows 1



	6/11	7/2	7/23	8/13	9/24				Mean*
Temperature (F)	81	84	88	88	75				83
Secchi (feet)	11.2	8.2	8.5	7.2	5.6				8.1
Phosphorus (µg/L)	13	10	9	8	13				11
Nitrogen (µg/L)	405	365	555	320	493				428
Ammonium (µg/L)	59	57	38	44	108				61
Nitrate (µg/L)	45	8	9	7	12				16
Chlorophyll (µg/L)	0.6	0.4	0.6	2.5	1.9				1.2
Susp. Sediment (mg/L)	2.5	1.6	1.7	0.9	2.5				1.8
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10					<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04					<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

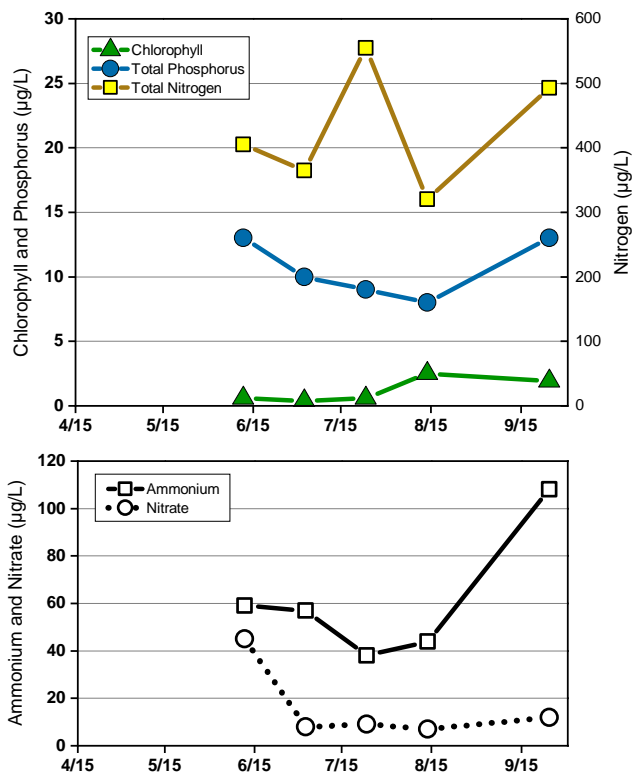
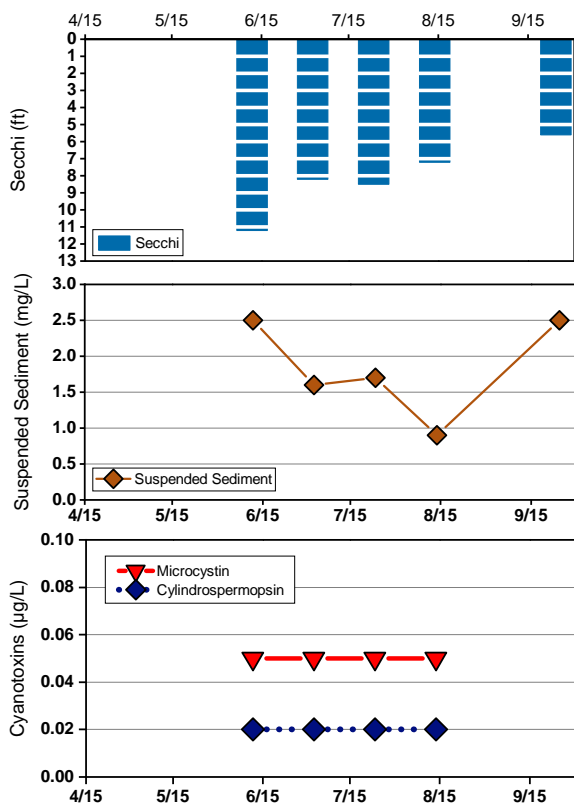
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

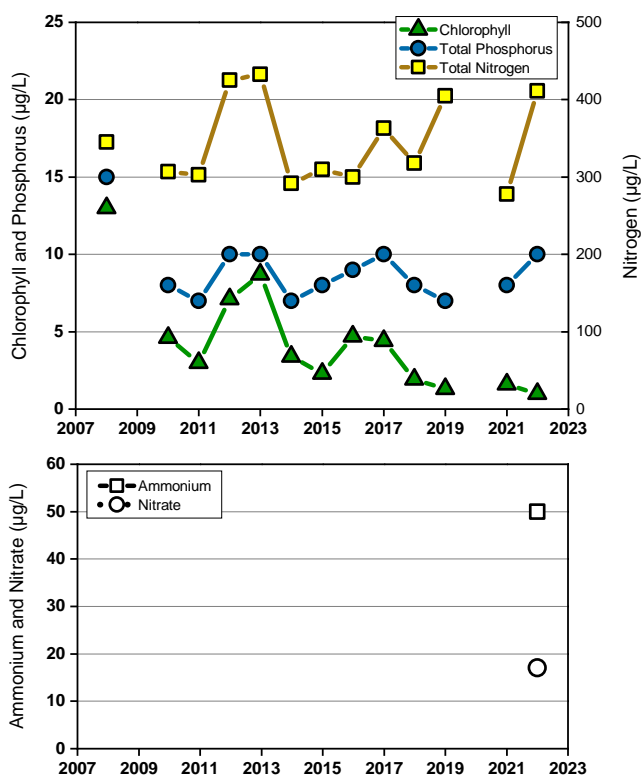
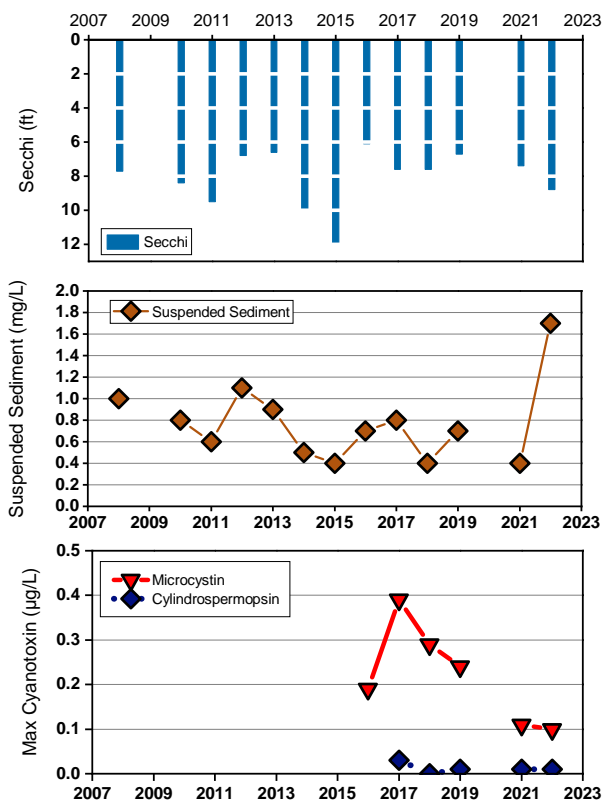
# Summary Report for Fellows 1



## 2022 Data for Fellows 1



## Trend Data for Fellows 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Finger Lake 1



	6/1	7/18	8/4	8/24	9/21				Mean*
Temperature (F)	73	88	88	81	77				81
Secchi (feet)	9.8	6.9	4.6	8.9	9.5				7.9
Phosphorus (µg/L)	20	16	20	8	7				14
Nitrogen (µg/L)	710	610	675	520	520				607
Ammonium (µg/L)	21	<10	<10	17	18				13
Nitrate (µg/L)	12	7	<5	<5	<5				6
Chlorophyll (µg/L)	15.4	11.7	10.5	7.0	6.5				10.2
Susp. Sediment (mg/L)	<0.1	0.6	0.6	0.4	0.6				0.5
Microcystin (µg/L)	0.15	0.15	<0.10	<0.10	0.15				0.11
Cylindrospermopsin (µg/L)	0.07	<0.04	0.06	0.30	2.10				0.51

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

The table below shows EPA health advisories for cyanotoxin exposure.

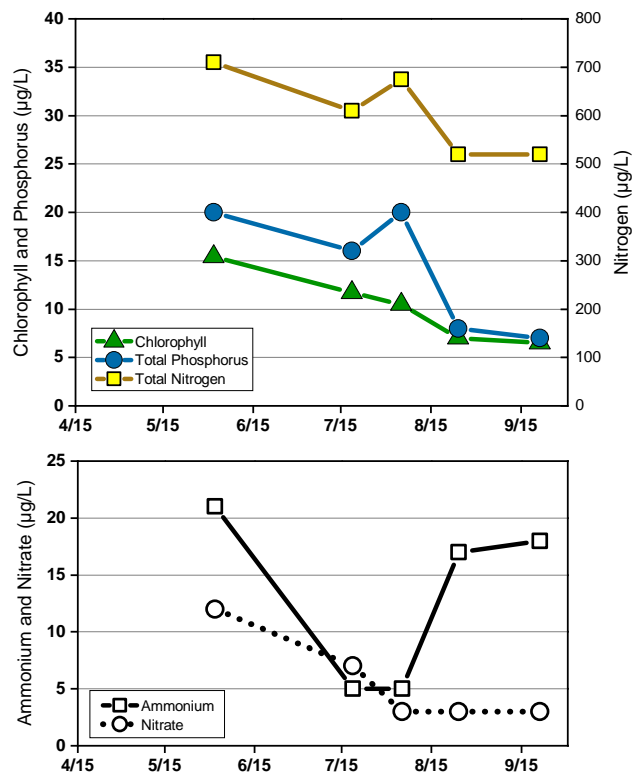
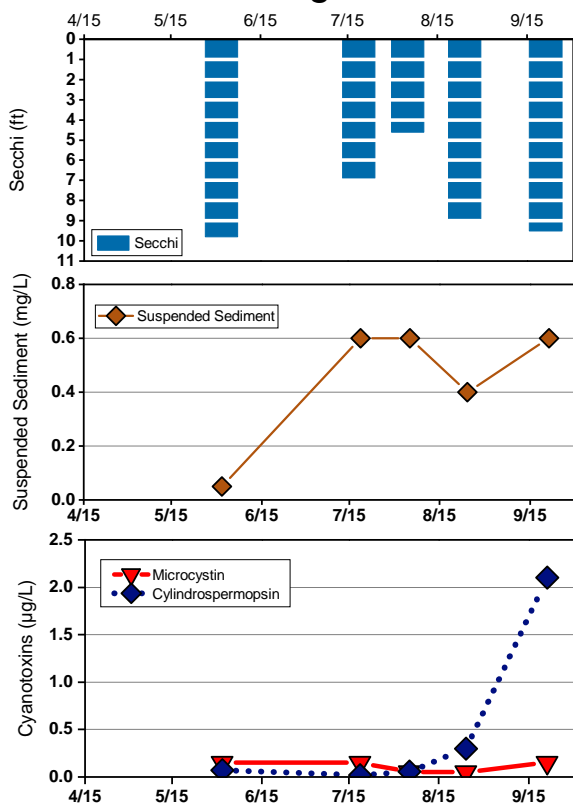
	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L



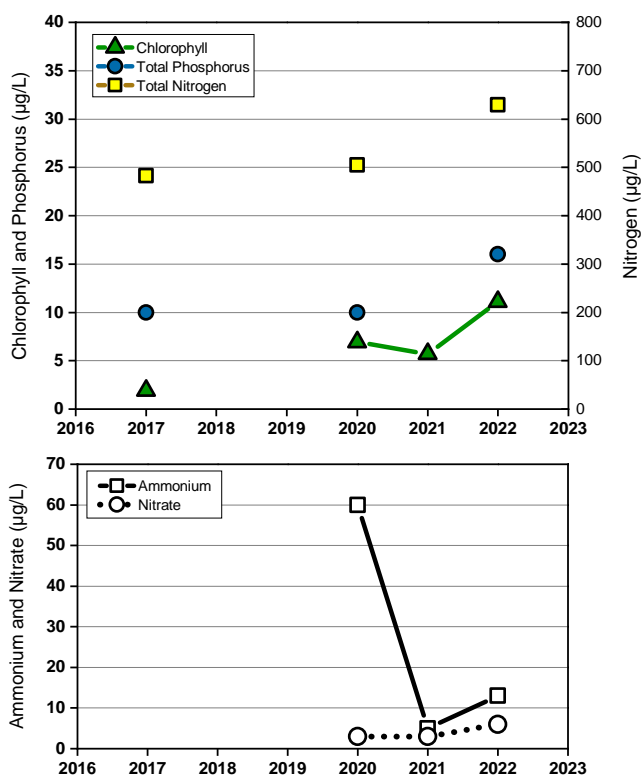
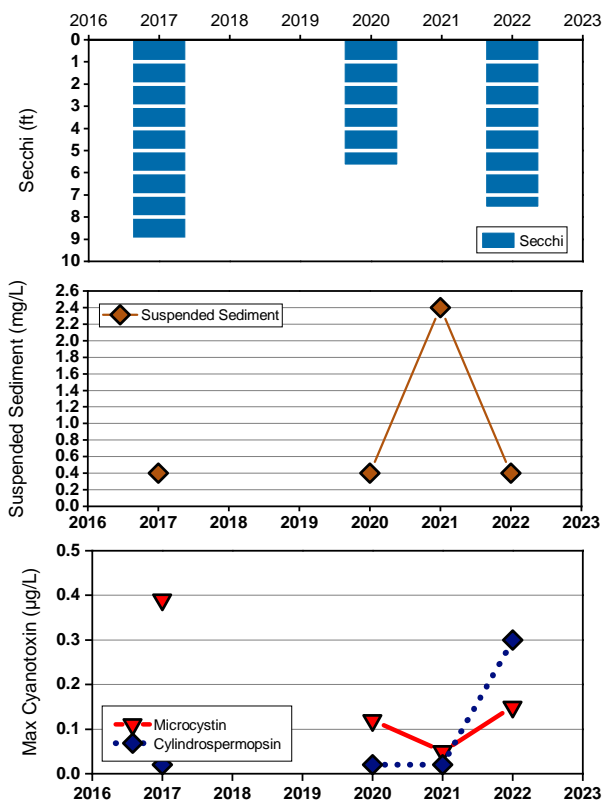
# Summary Report for Finger Lake 1



## 2022 Data for Finger Lake 1



## Trend Data for Finger Lake 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Forest 1



	4/25	5/23	6/7	6/29	7/20	8/12	8/31	9/22	Mean
Temperature (F)	54	70	75	81	84	84	82	70	75
Secchi (feet)	2.3	3.6	3.3	4.9	4.6	3	4.9	4.3	3.9
Phosphorus (µg/L)	23	20	19	17	15	17	13	14	17
Nitrogen (µg/L)	605	950	525	387	410	490	550	530	508
Ammonium (µg/L)	26	<10	<10	<10	<10	<10	<10	<10	<10
Nitrate (µg/L)	149	58	13	<5	<5	<5	<5	<5	29
Chlorophyll (µg/L)	5.0	4.9	10.8	3.7	5.3	9.6	7.3	5.2	6.5
Susp. Sediment (mg/L)	4.3	3.8	2.4	3.3	1.6	2.7	1.5	1.7	2.7
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Cylindrospermopsin (µg/L)	0.06	0.05	<0.04	<0.04	<0.04	<0.04	<0.04	0.07	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

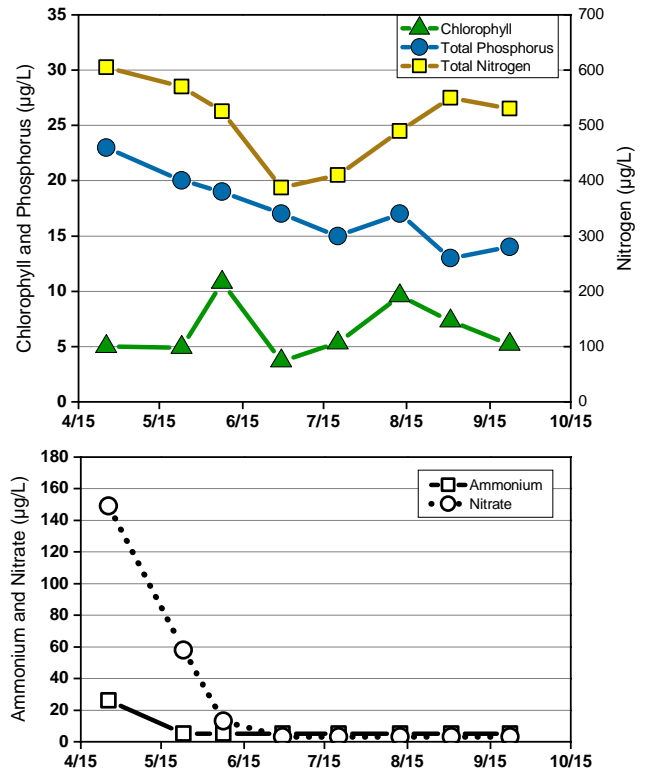
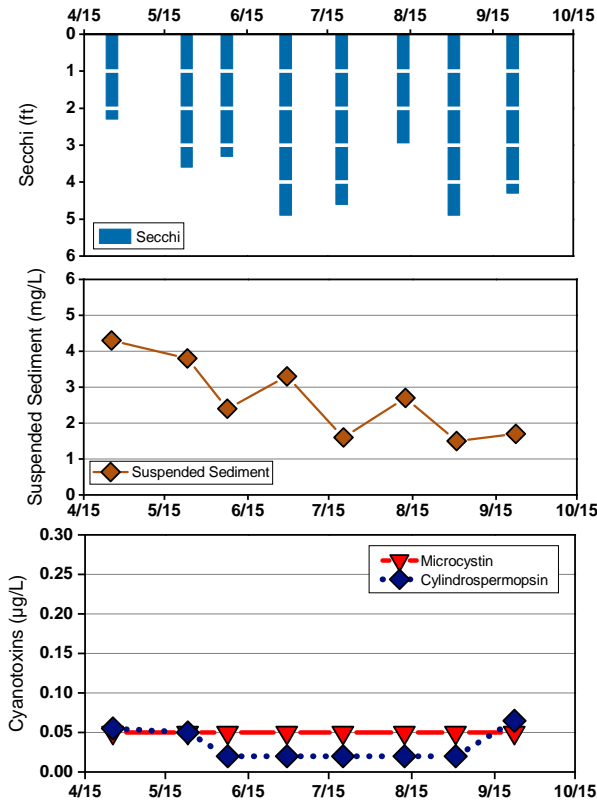
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

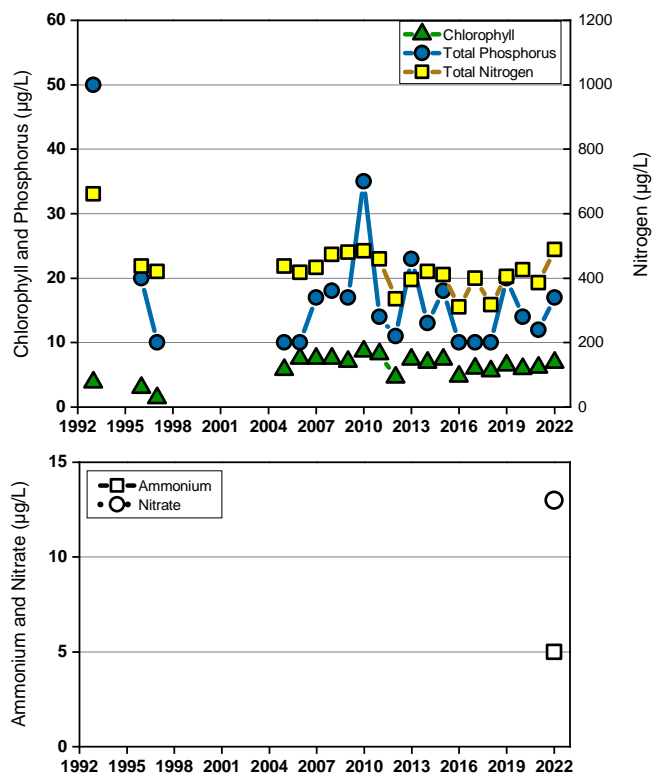
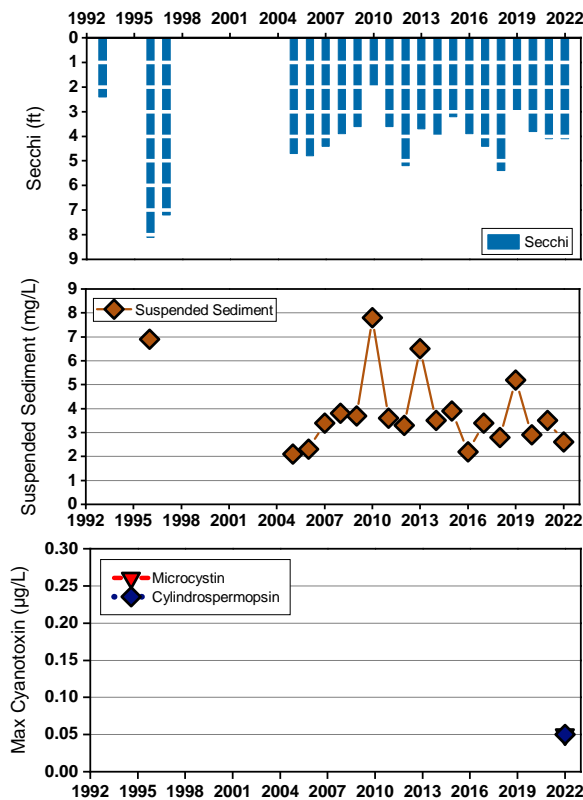
# Summary Report for Forest 1



## 2022 Data for Forest 1



## Trend Data for Forest 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Forest 2



	4/25	5/23	6/7	6/29	7/20	8/12	8/31	9/22	Mean
Temperature (F)	55	68	79	82	86	81	81	70	75
Secchi (feet)	1	2.3	2	3	3.3	2.3	2.6	2.3	2.4
Phosphorus (µg/L)	62	24	25	25	24	23	34	22	30
Nitrogen (µg/L)	500	950	393	463	575	620	530	540	504
Ammonium (µg/L)	22	<10	<10	39	<10	15	<10	<10	13
Nitrate (µg/L)	108	52	<5	6	<5	<5	<5	<5	23
Chlorophyll (µg/L)	5.6	6.4	11.7	8.0	13.3	16.9	12.2	10.2	10.5
Susp. Sediment (mg/L)	46.4	8.2	9.8	6.0	5.9	7.0	8.7	7.4	12.4
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.07	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

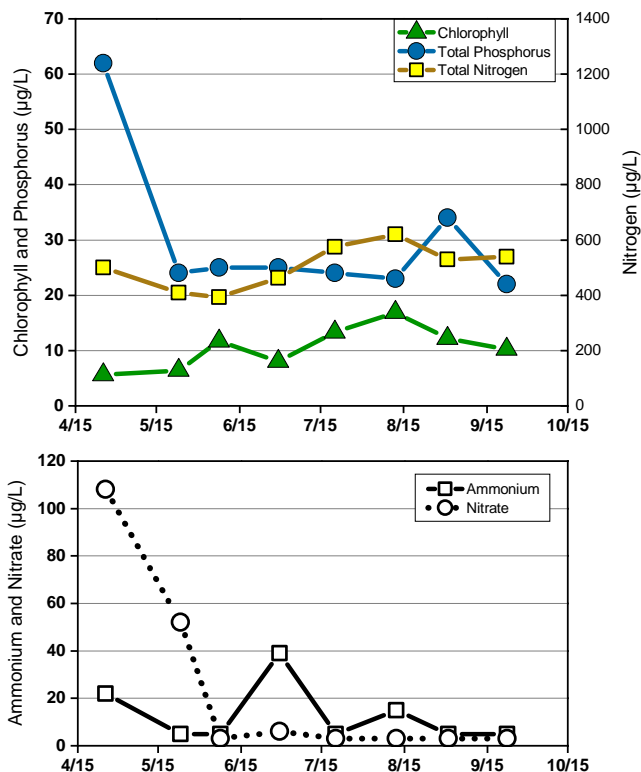
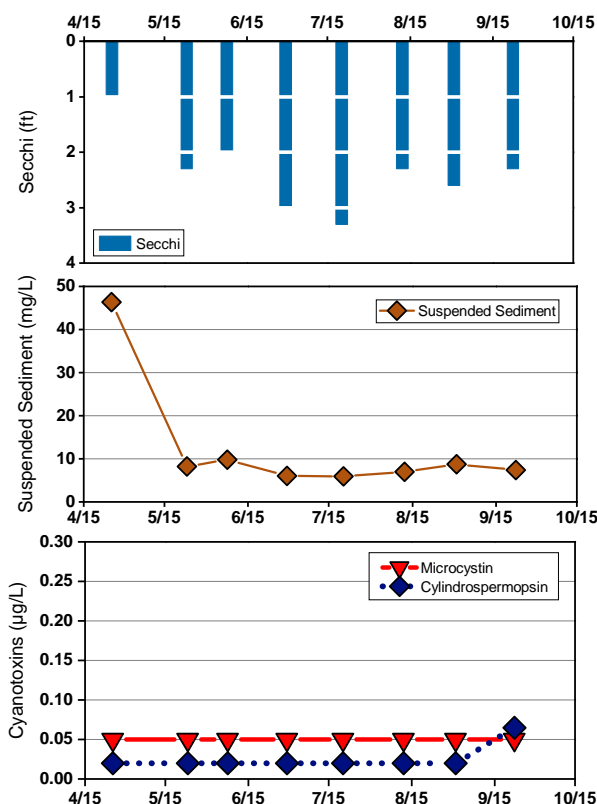
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

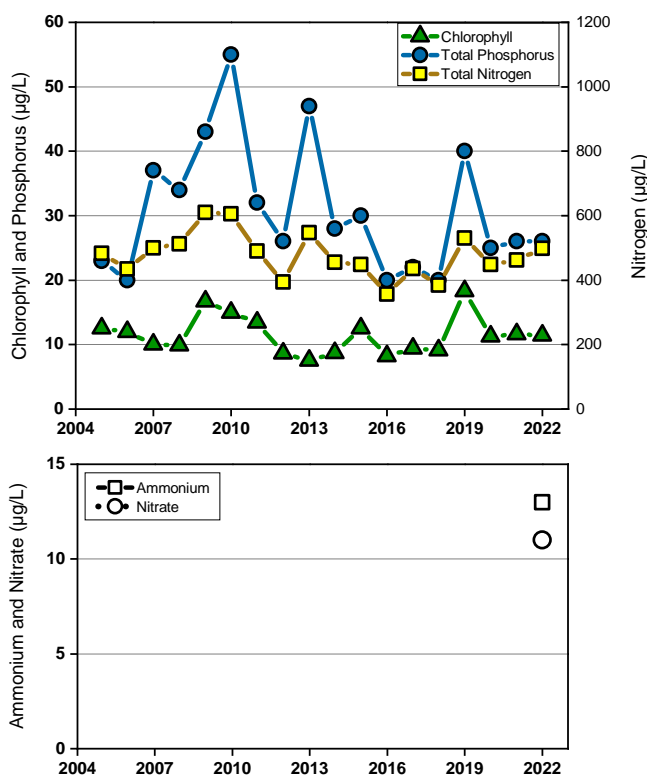
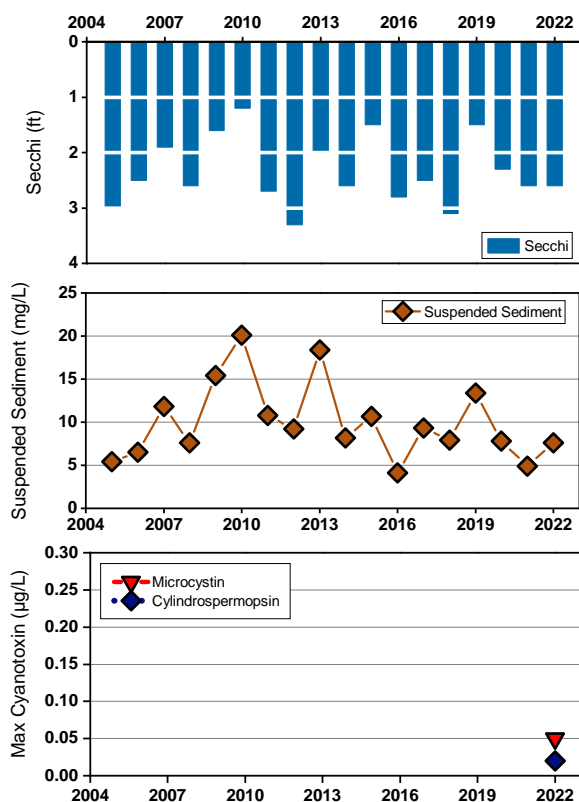
# Summary Report for Forest 2



## 2022 Data for Forest 2



## Trend Data for Forest 2



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Grindstone 1



	4/26	6/21	7/22	9/1	9/20				Mean*
Temperature (F)	64	82	84	81	77				78
Secchi (feet)	1.3	2	1.6	1.6	1.3				1.6
Phosphorus (µg/L)	105	109	207	172	174				153
Nitrogen (µg/L)	1640	2775	2380	1675	1920				2078
Ammonium (µg/L)	47	52	<10	12	13				26
Nitrate (µg/L)	560	1729	7	<5	<5				460
Chlorophyll (µg/L)	51.8	25.3	118.5	106.1	157.7				91.9
Susp. Sediment (mg/L)	13.4	3.9	7.4	3.6	8.4				7.3
Microcystin (µg/L)	0.13	<0.10	2.44	5.08	3.04				2.15
Cylindrospermopsin (µg/L)	<0.04	<0.04	0.04	<0.04	<0.04				<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Hypereutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

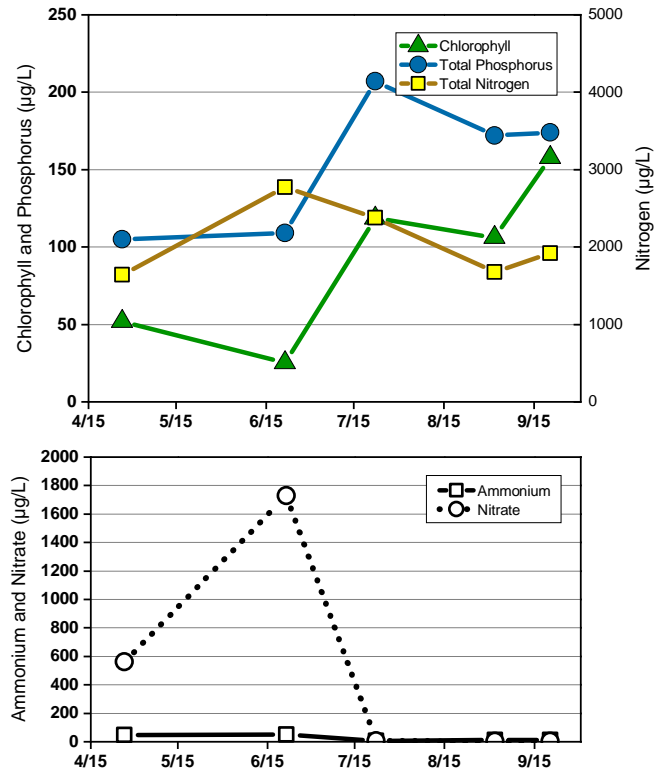
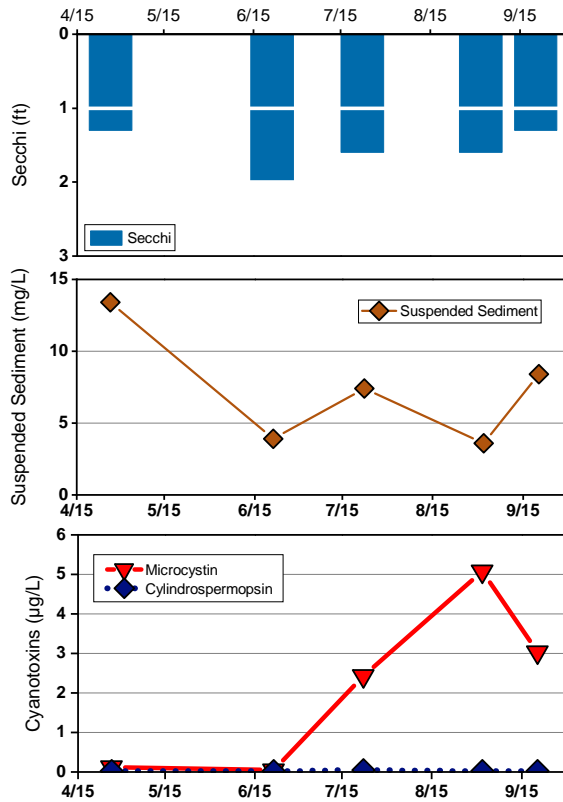
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

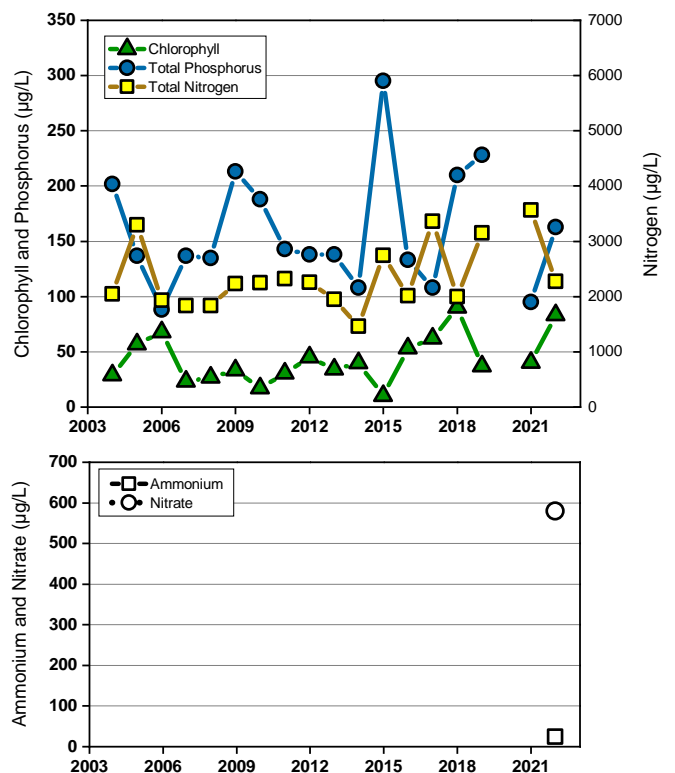
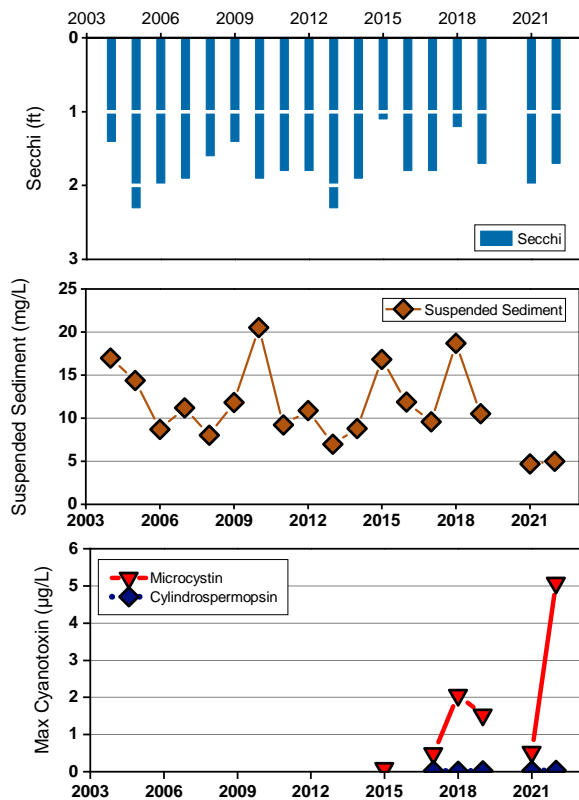
# Summary Report for Grindstone 1



## 2022 Data for Grindstone 1



## Trend Data for Grindstone 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.



# Summary Report for Hazel Creek 1



	4/25	5/23	6/7	6/29	7/20	8/12	8/31	9/22	Mean
Temperature (F)	55	70	75	81	86	84	79	70	75
Secchi (feet)	3.3	3.9	4.3	3.9	3.6	2.3	3.3	2	3.3
Phosphorus (µg/L)	29	19	18	23	27	27	29	26	25
Nitrogen (µg/L)	990	950	745	760	770	1070	670	1090	871
Ammonium (µg/L)	135	77	19	28	<10	<10	<10	123	50
Nitrate (µg/L)	278	310	158	<5	<5	<5	<5	7	96
Chlorophyll (µg/L)	8.8	6.2	12.8	12.1	26.7	22.9	18.8	21.3	16.2
Susp. Sediment (mg/L)	4.9	2.3	1.6	2.6	2.3	3.3	3.1	3.0	2.9
Microcystin (µg/L)	<0.10	<0.10	<0.10	0.12	0.12	<0.10	<0.10	0.11	<0.10
Cylindrospermopsin (µg/L)	<0.04	0.05	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

The table below shows EPA health advisories for cyanotoxin exposure.

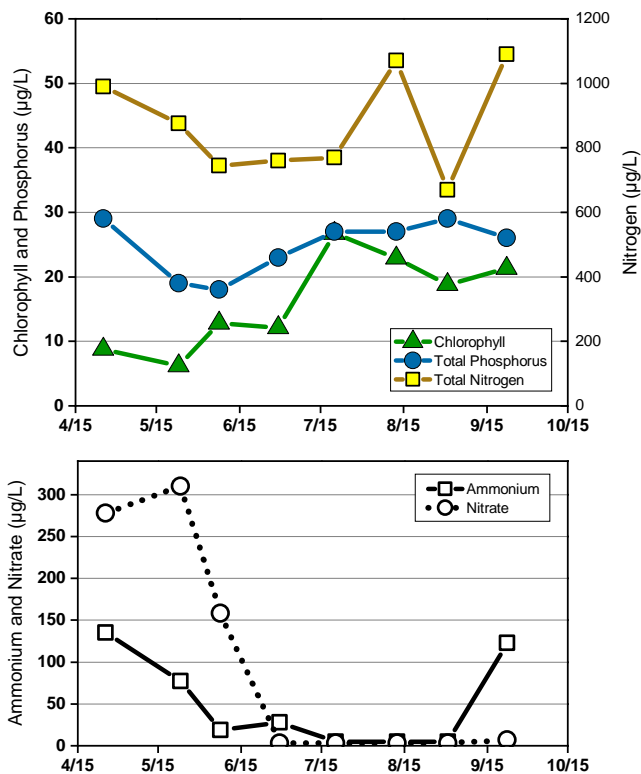
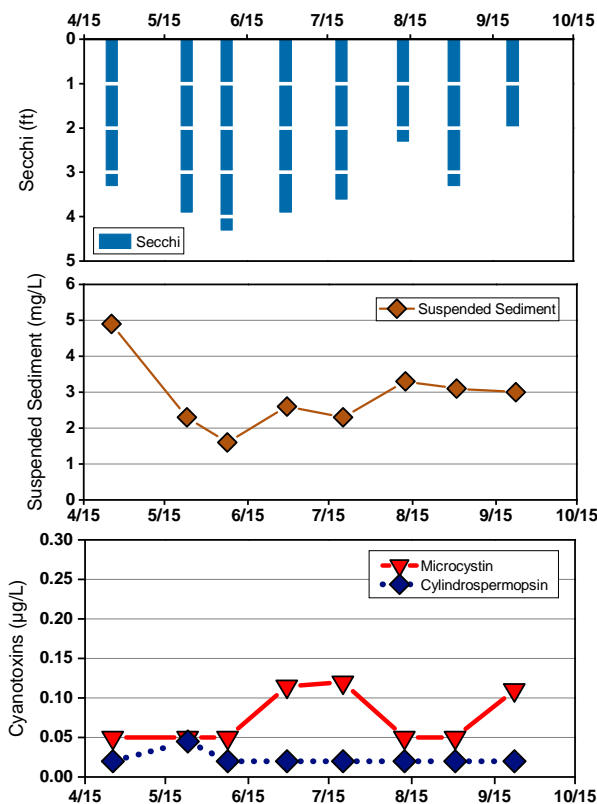
	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L



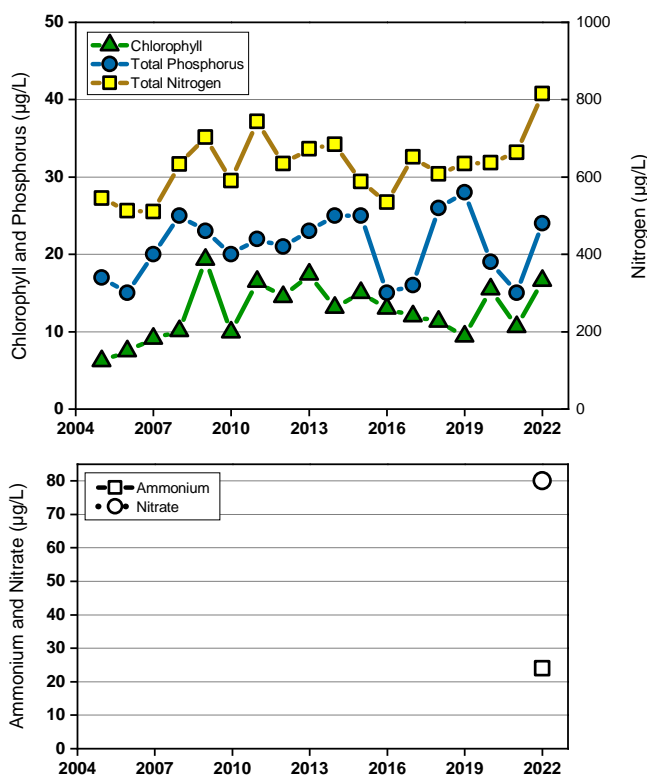
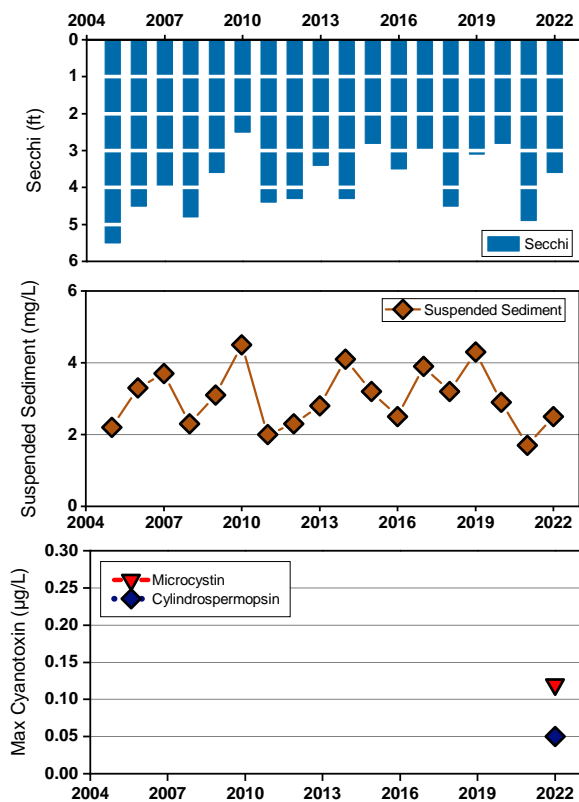
# Summary Report for Hazel Creek 1



## 2022 Data for Hazel Creek 1



## Trend Data for Hazel Creek 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Hazel Creek 2



	4/25	5/23	6/7	6/29	7/20	8/12	8/31	9/22	Mean
Temperature (F)	55	70	75	81	84	81	82	70	75
Secchi (feet)	2.3	2.6	3.6	3	2.6	2	2.3	2	2.6
Phosphorus (µg/L)	31	26	23	30	34	33	44	33	32
Nitrogen (µg/L)	955	950	875	613	803	1050	750	1130	890
Ammonium (µg/L)	112	41	22	<10	<10	<10	<10	<10	25
Nitrate (µg/L)	296	243	114	<5	<5	7	7	<5	85
Chlorophyll (µg/L)	9.6	11.1	14.2	17.3	31.3	30.2	20.2	30.6	20.6
Susp. Sediment (mg/L)	9.7	7.1	3.1	5.5	7.7	8.5	10.8	9.9	7.8
Microcystin (µg/L)	<0.10	<0.10	<0.10	0.11	0.13	<0.10	<0.10	0.11	<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

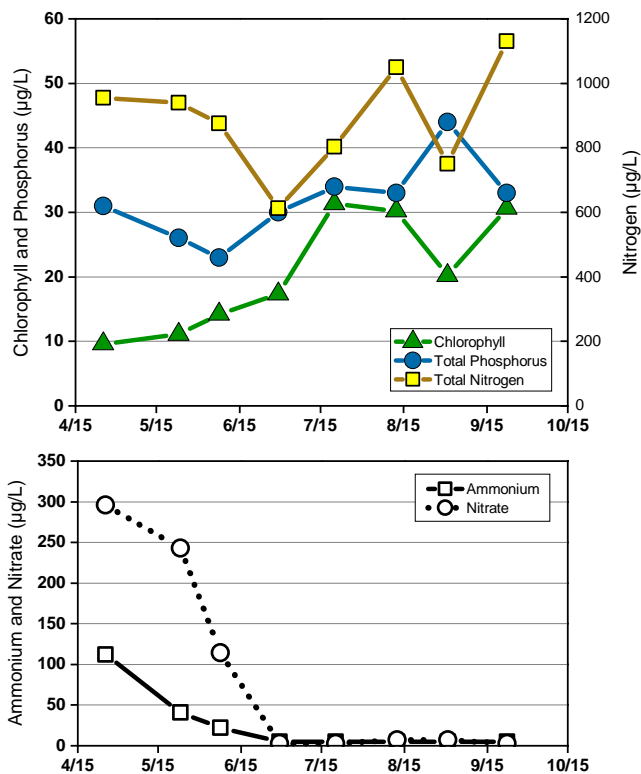
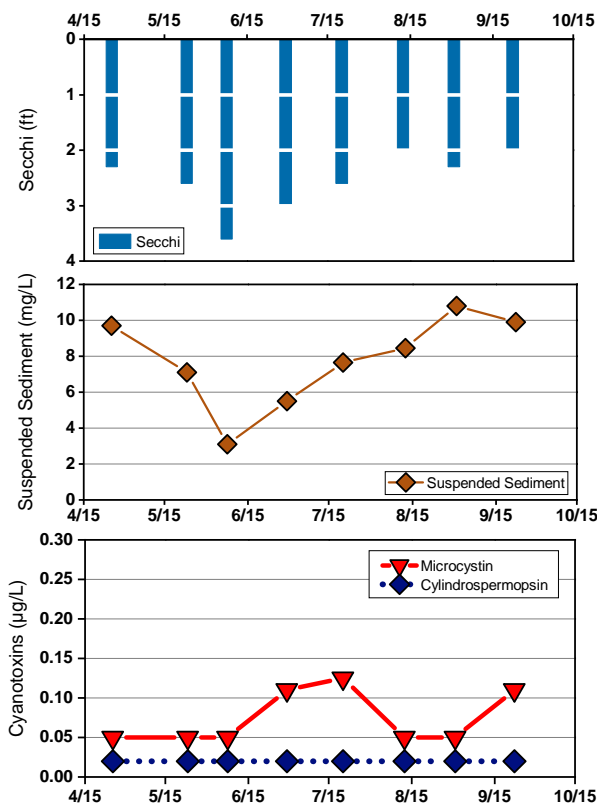
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

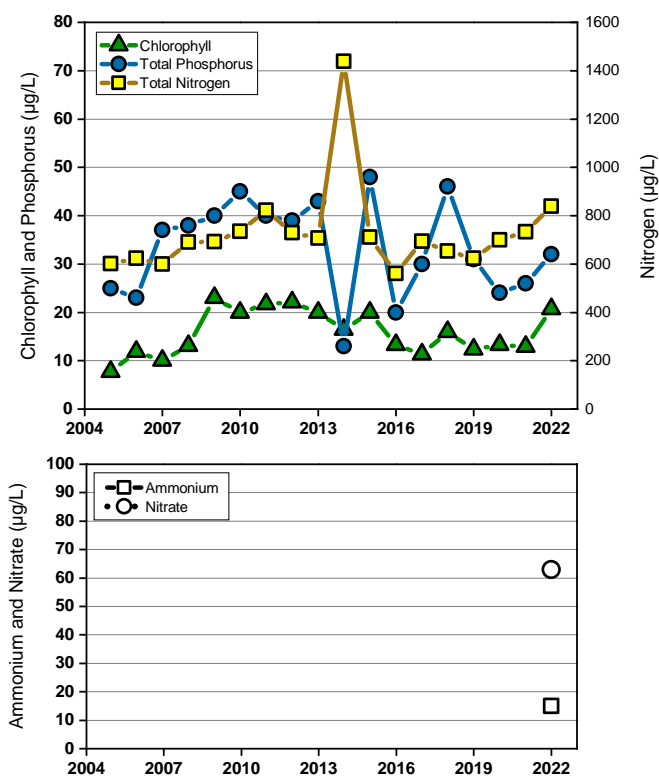
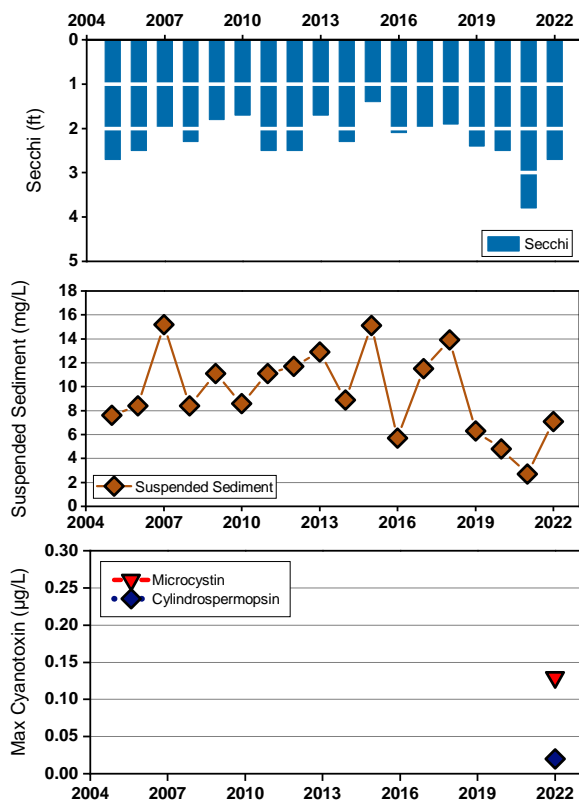
# Summary Report for Hazel Creek 2



## 2022 Data for Hazel Creek 2



## Trend Data for Hazel Creek 2



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Hunnewell 1



	4/29	5/20	6/9	6/27	9/3	9/24			Mean
Temperature (F)	59	77	75	81	82	73			75
Secchi (feet)	4.3	4.6	4.6	5.2	3.9	4.3			4.5
Phosphorus (µg/L)	36	30	36	29	30	32			32
Nitrogen (µg/L)	800	700	870	600	635	670			713
Ammonium (µg/L)	15	17	<10	15	<10	48			18
Nitrate (µg/L)	25	18	10	28	<5	<5			15
Chlorophyll (µg/L)	19.8	6.5	19.5	9.0	13.3	20.5			14.8
Susp. Sediment (mg/L)	5.4	4.2	4.0	1.5	1.8	2.4			3.2
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	0.23	0.15			0.10
Cylindrospermopsin (µg/L)	0.05	<0.04	<0.04	<0.04	<0.04	<0.04			<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

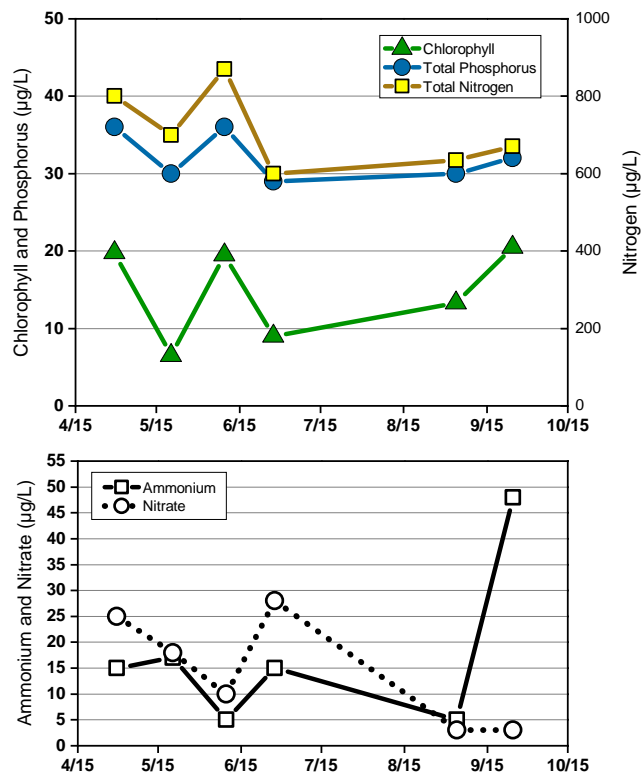
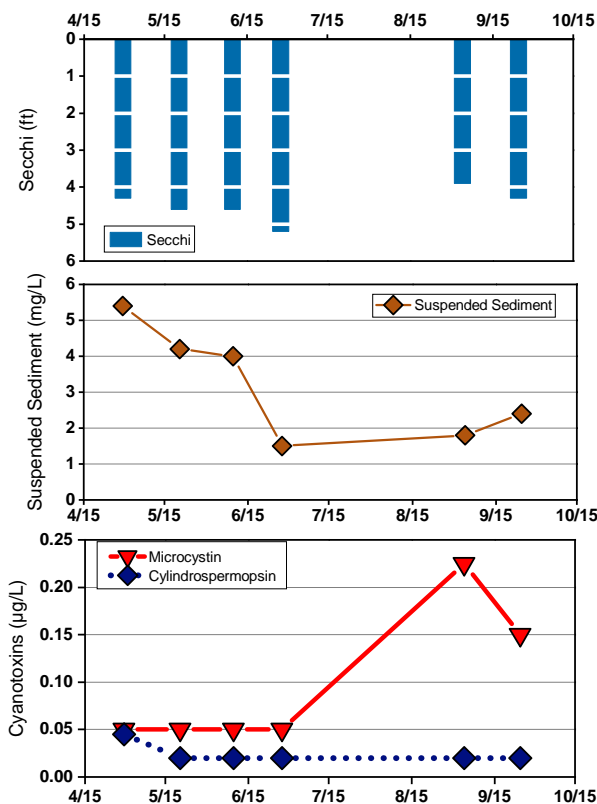
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

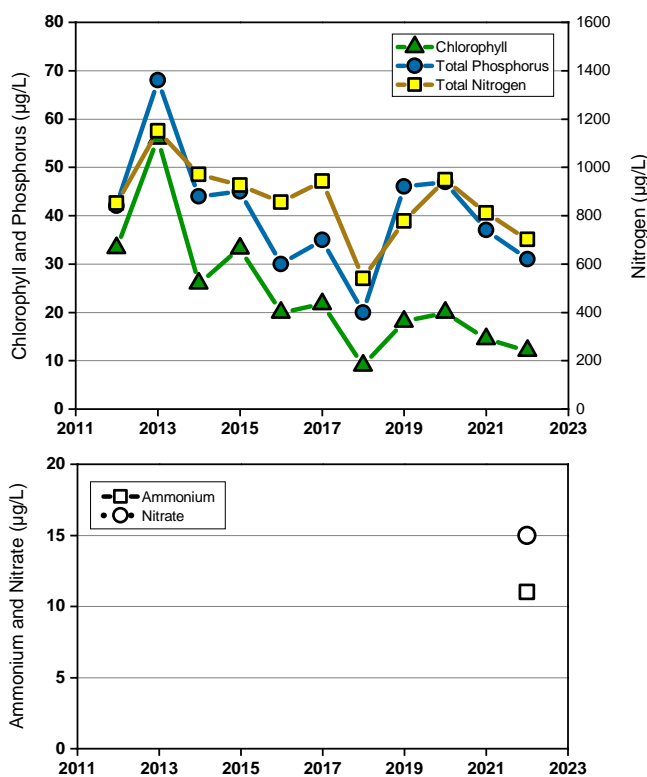
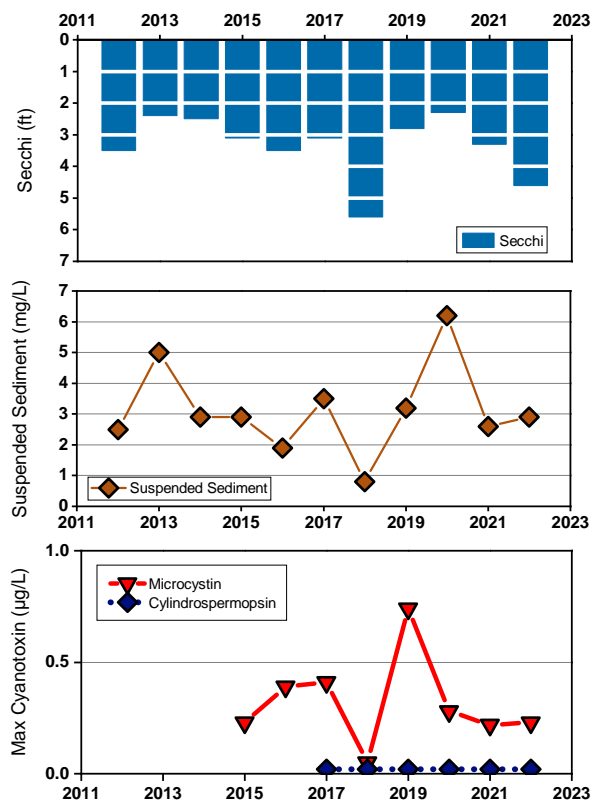
# Summary Report for Hunnewell 1



## 2022 Data for Hunnewell 1



## Trend Data for Hunnewell 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Jacomo 1



	4/29	5/16	6/8	6/29	7/20	8/12	8/30	9/20	Mean*
Temperature (F)	61	75	77	81	84	82	81	73	77
Secchi (feet)	4.9	5.9	4.6	3.6	3	3.3	3.3	3.3	4
Phosphorus (µg/L)	18	15	19	22	21	51	22	24	24
Nitrogen (µg/L)	533	485	453	570	550	2125	660	630	751
Ammonium (µg/L)	73	42	20	19	26	30	20	15	31
Nitrate (µg/L)	180	13	<5	7	<5	<5	<5	7	27
Chlorophyll (µg/L)	1.3	3.5	12.3	11.5	20.7	17.5	22.7	24.6	14.3
Susp. Sediment (mg/L)	1.6	0.5	0.8	1.4	1.5	1.3	1.2	1.2	1.2
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	0.15	0.12	<0.10	0.27	0.10
Cylindrospermopsin (µg/L)	0.11	0.09	<0.04	0.06	0.08	0.09	0.08	0.09	0.07

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

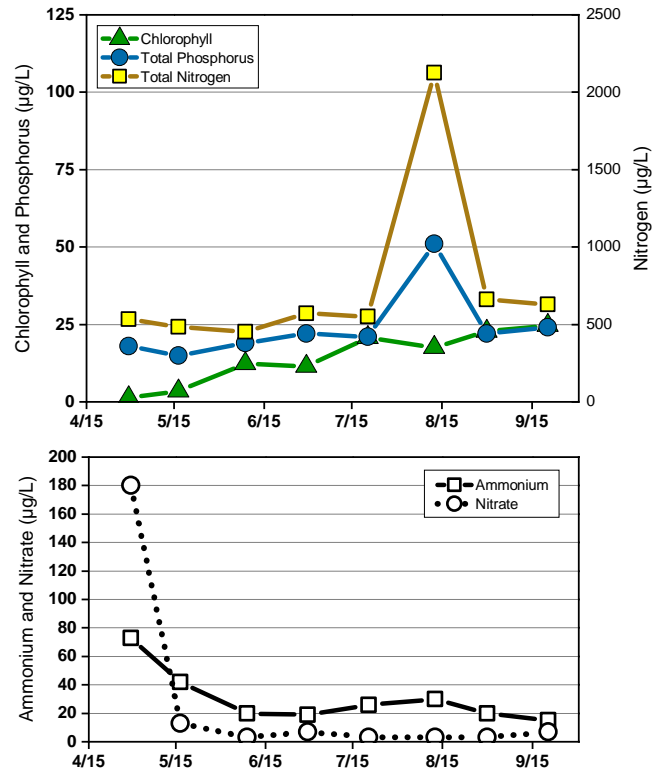
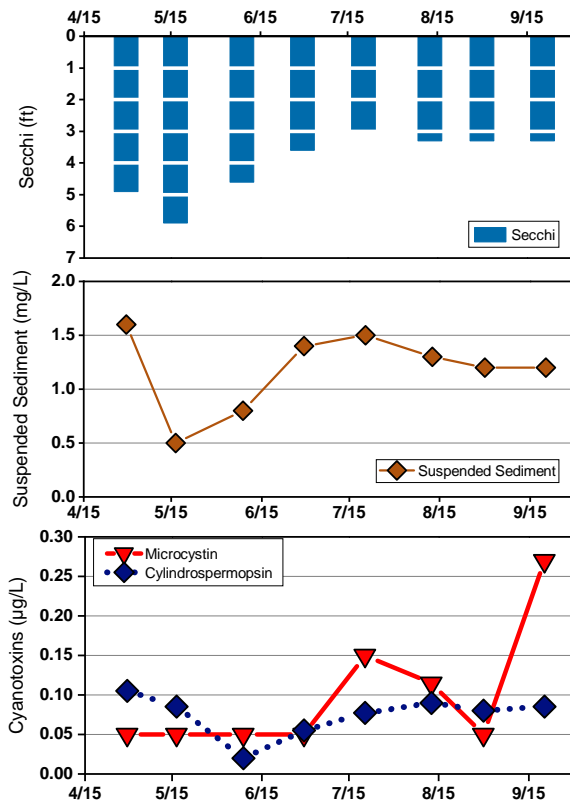
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

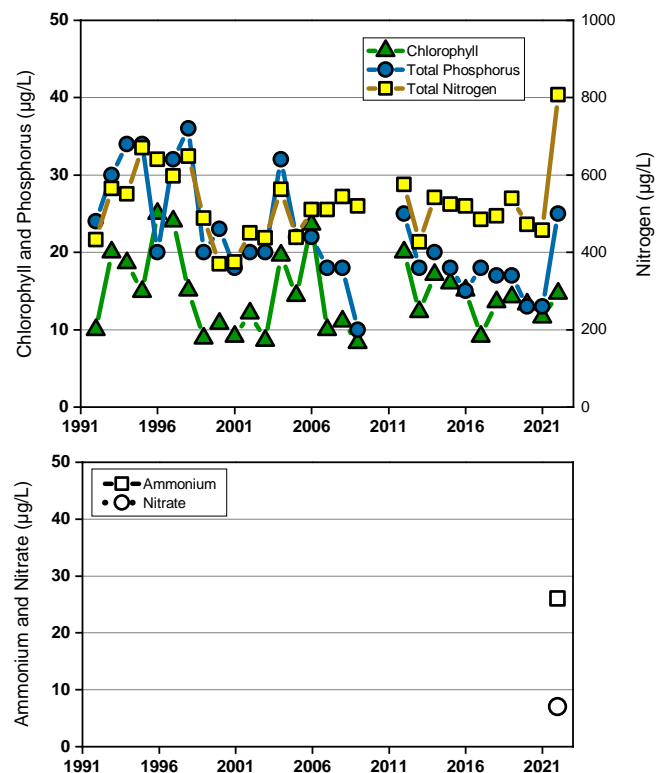
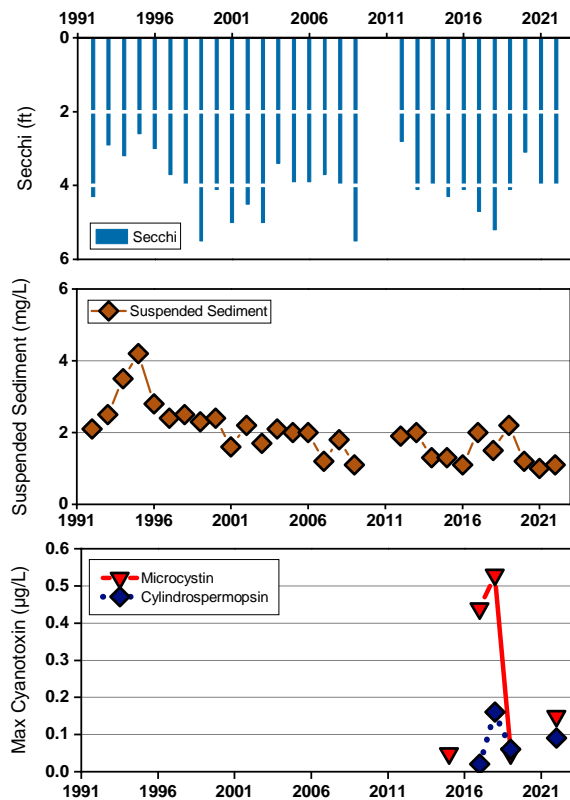
# Summary Report for Jacomo 1



## 2022 Data for Jacomo 1



## Trend Data for Jacomo 1



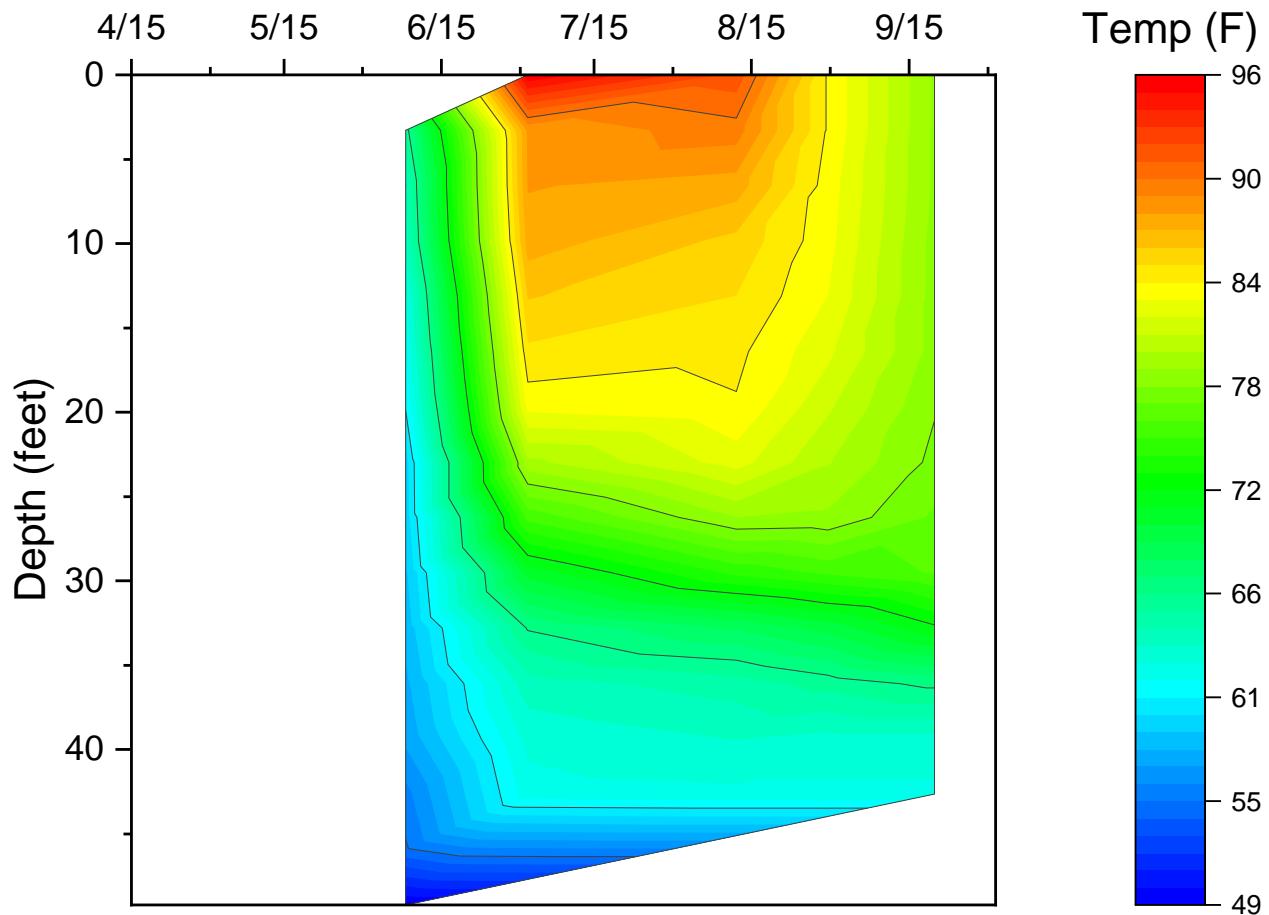
Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Jacomo, Site 1

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.



Jacomo, Site 1



# Summary Report for Lafayette Park 1



	6/11	7/15	10/31						Mean*
Temperature (F)	81	84	57						74
Secchi (feet)	1.6	2.3	3.3						2.4
Phosphorus (µg/L)	181	119	125						142
Nitrogen (µg/L)	1655	1073	1180						1303
Ammonium (µg/L)	156	20	550						242
Nitrate (µg/L)	472	659	134						422
Chlorophyll (µg/L)	59.9	39.0	6.0						35.0
Susp. Sediment (mg/L)	2.6	1.0	3.4						2.3
Microcystin (µg/L)	<0.10	<0.10	<0.10						<0.10
Cylindrospermopsin (µg/L)	<0.04	0.05	0.05						0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Hypereutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

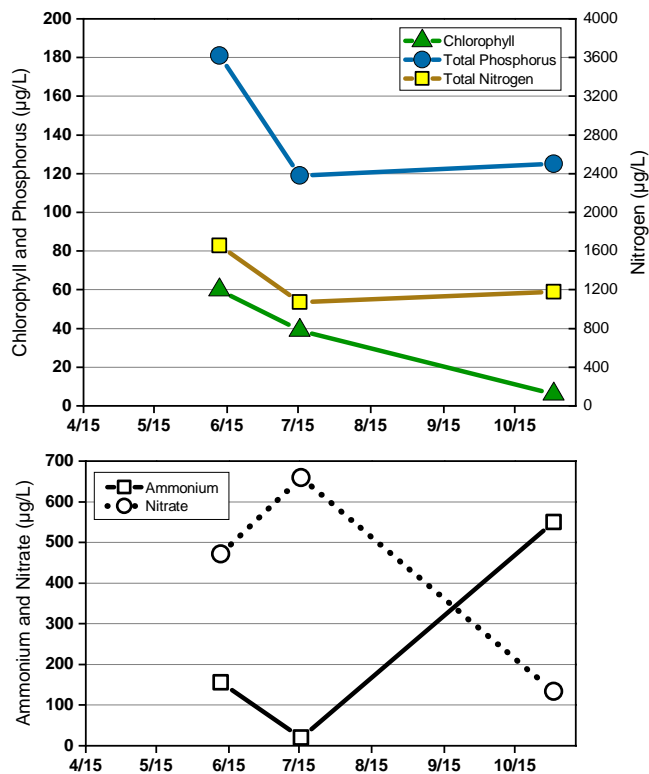
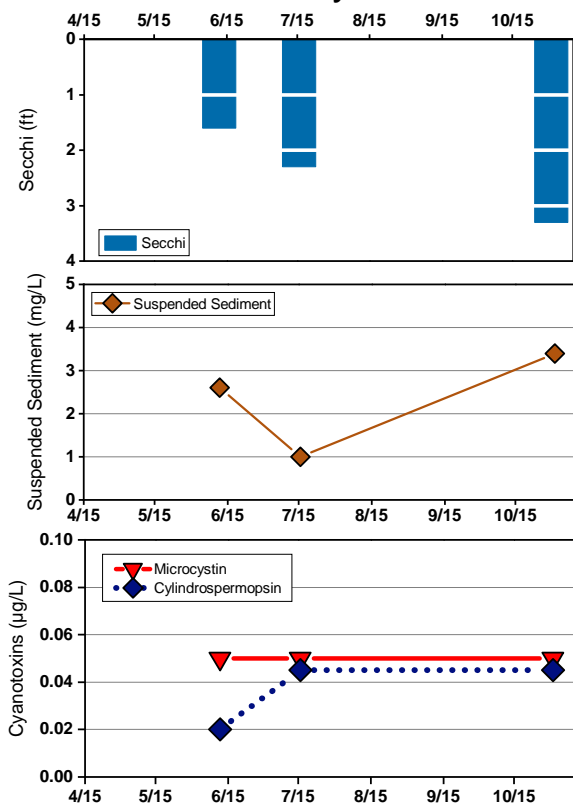
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

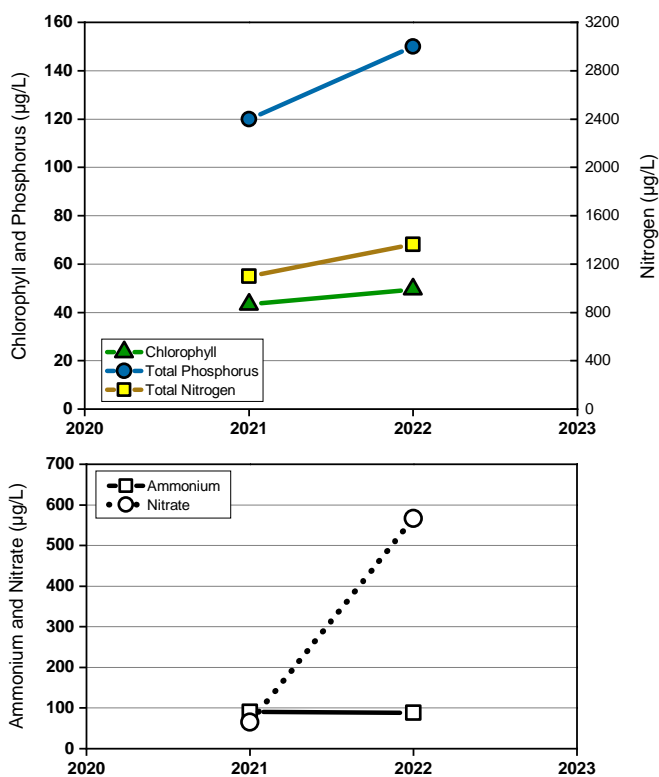
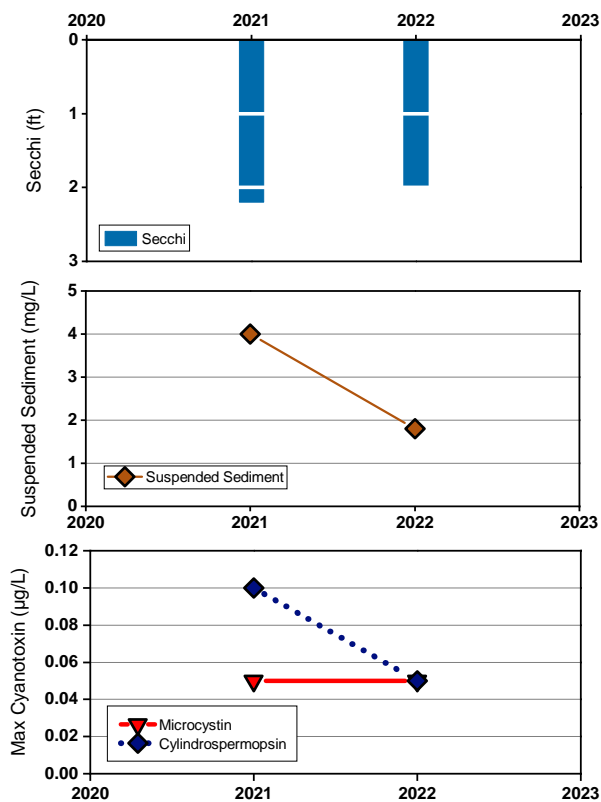
# Summary Report for Lafayette Park 1



## 2022 Data for Lafayette Park 1



## Trend Data for Lafayette Park 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Lake of the Woods 1



	4/27	5/19	7/23	9/3	9/21				Mean*
Temperature (F)	61	75		79	79				73
Secchi (feet)	2.6	2.6	3	2	2.3				2.5
Phosphorus (µg/L)	42	64	90	177	78				90
Nitrogen (µg/L)	535	560	930	1105	940				814
Ammonium (µg/L)	37	<10	47	154	44				57
Nitrate (µg/L)	35	13	<5	<5	11				13
Chlorophyll (µg/L)	7.0	13.6	35.7	30.8	29.2				23.3
Susp. Sediment (mg/L)	4.6	3.9	3.7	2.1	4.6				3.8
Microcystin (µg/L)	<0.10	0.14	0.33	0.23	0.22				0.19
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04				<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

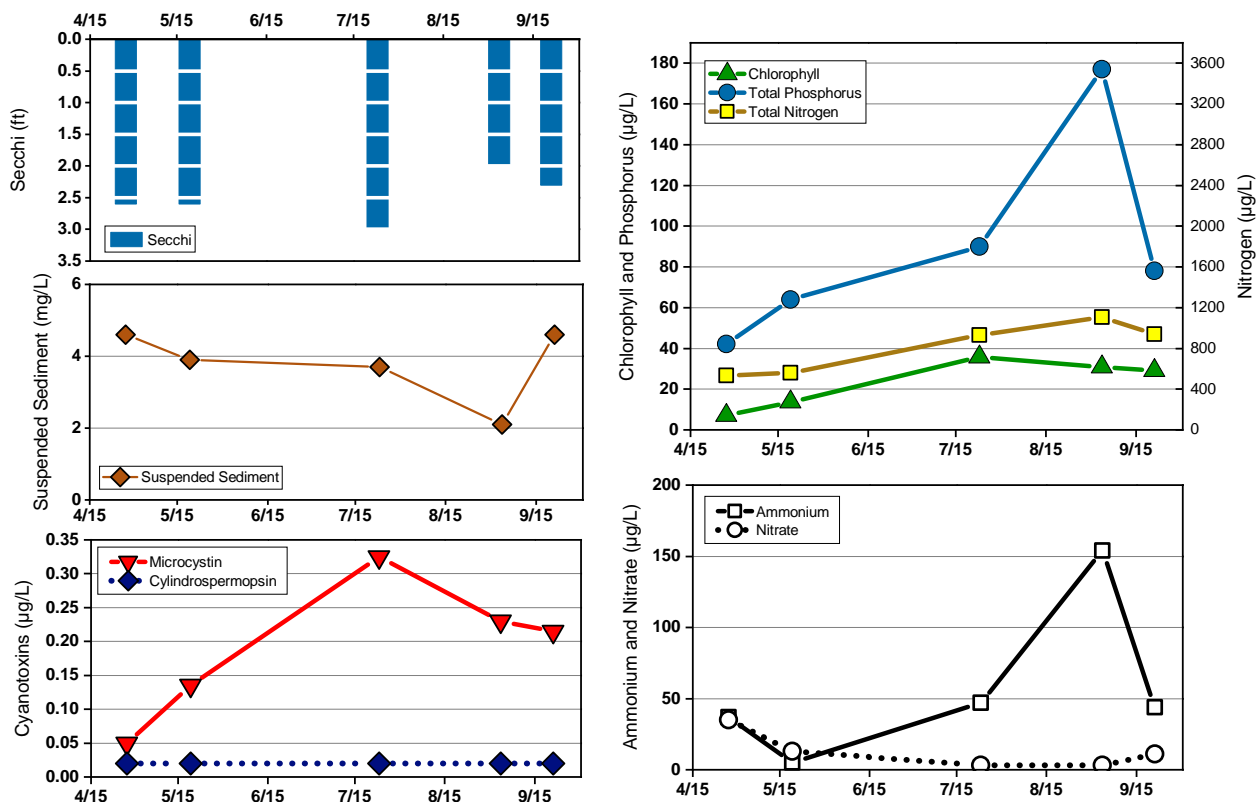
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

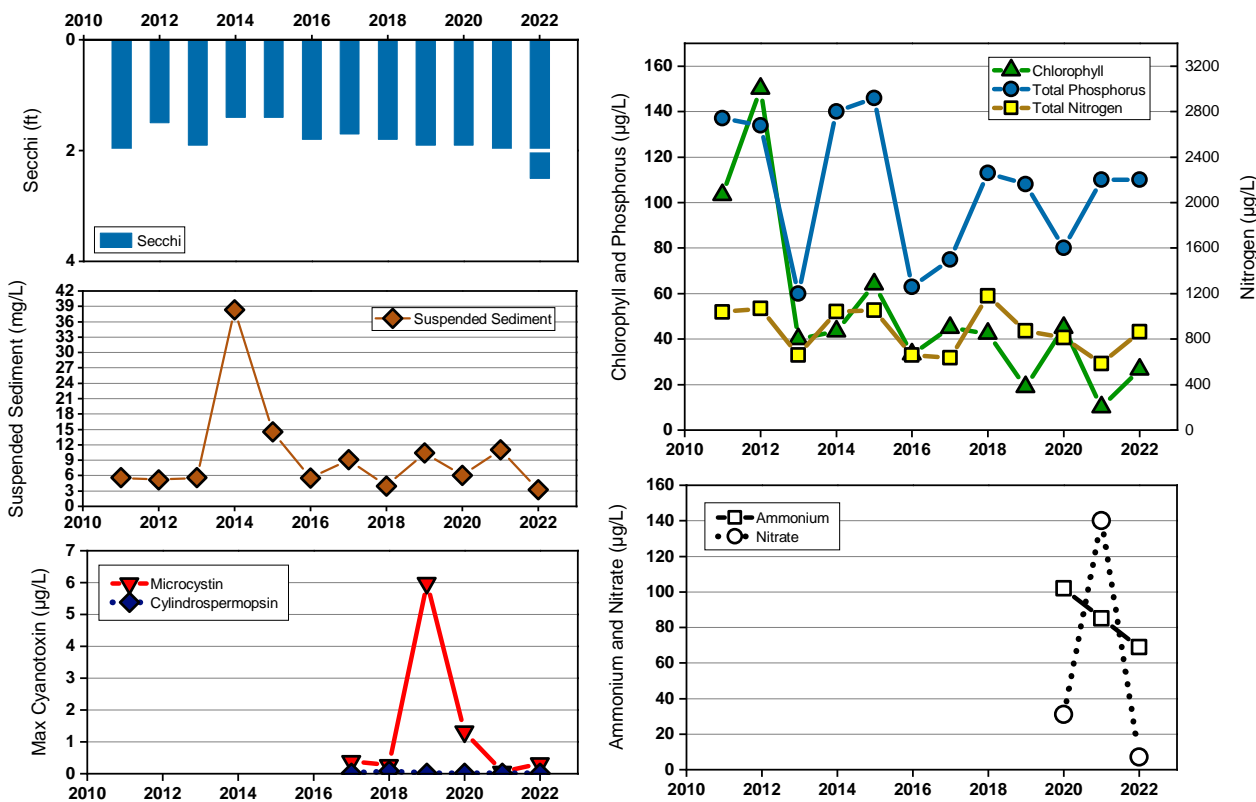
# Summary Report for Lake of the Woods 1



## 2022 Data for Lake of the Woods 1



## Trend Data for Lake of the Woods 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Lick Creek 1



	8/4	8/25	9/19						Mean
Temperature (F)	88	84	81						84
Secchi (feet)									--
Phosphorus (µg/L)	18	23	21						21
Nitrogen (µg/L)	530	950	720						607
Ammonium (µg/L)	51	<10	21						26
Nitrate (µg/L)	8	8	9						8
Chlorophyll (µg/L)	4.8	7.8	14.3						9.0
Susp. Sediment (mg/L)	2.2	5.2	1.9						3.1
Microcystin (µg/L)	0.20	<0.10	0.20						0.15
Cylindrospermopsin (µg/L)	0.05	<0.04	<0.04						<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

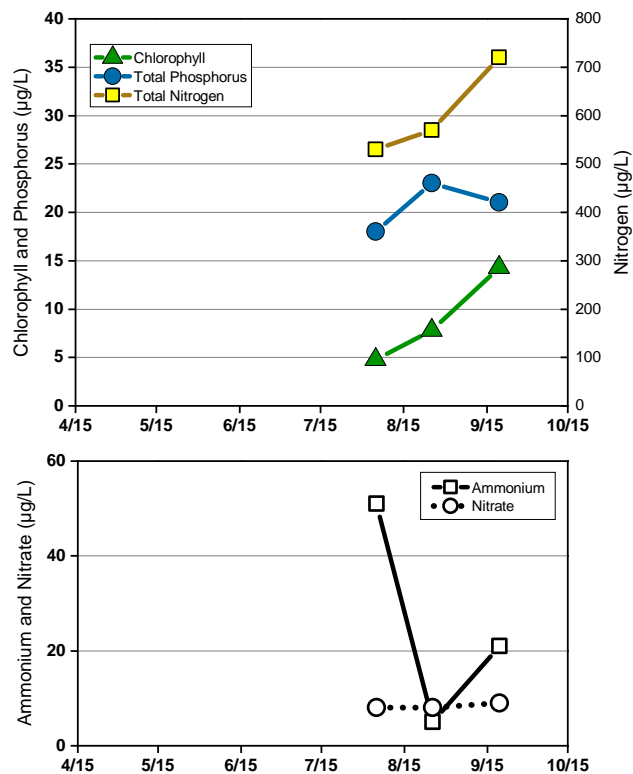
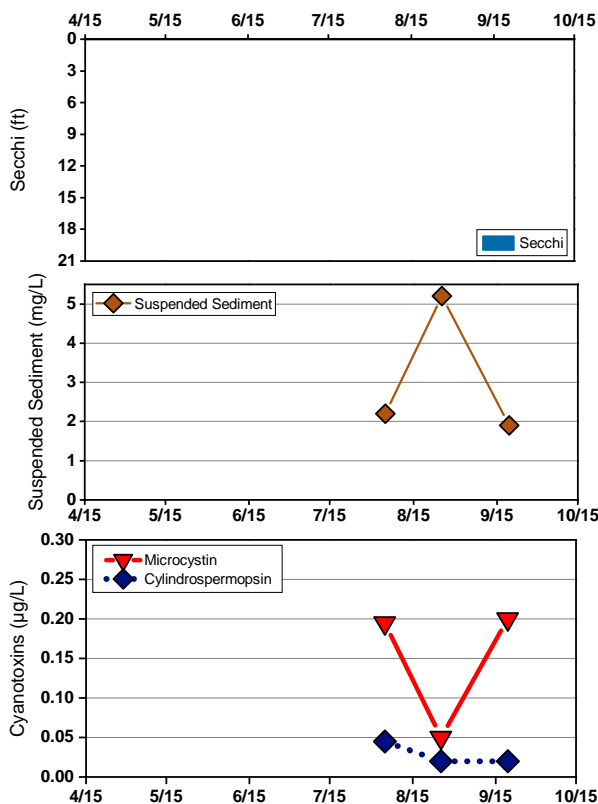
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

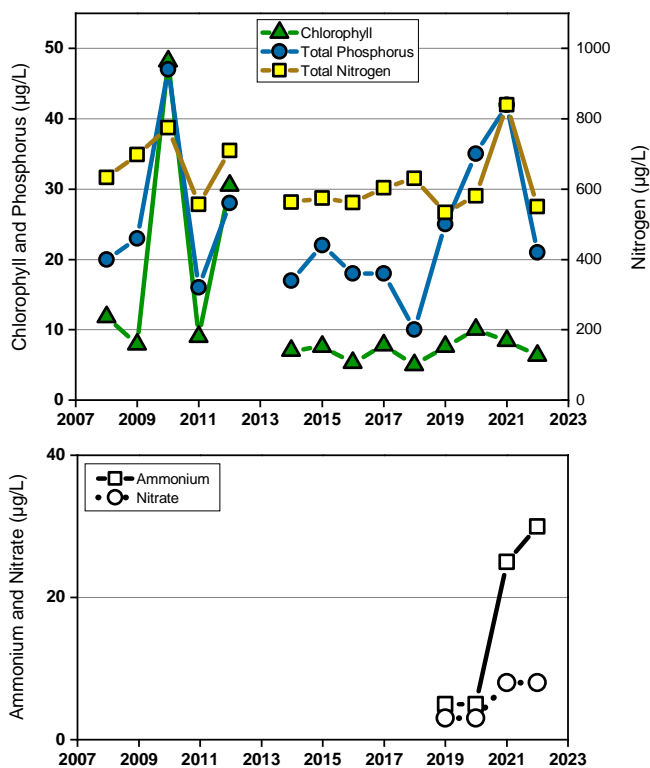
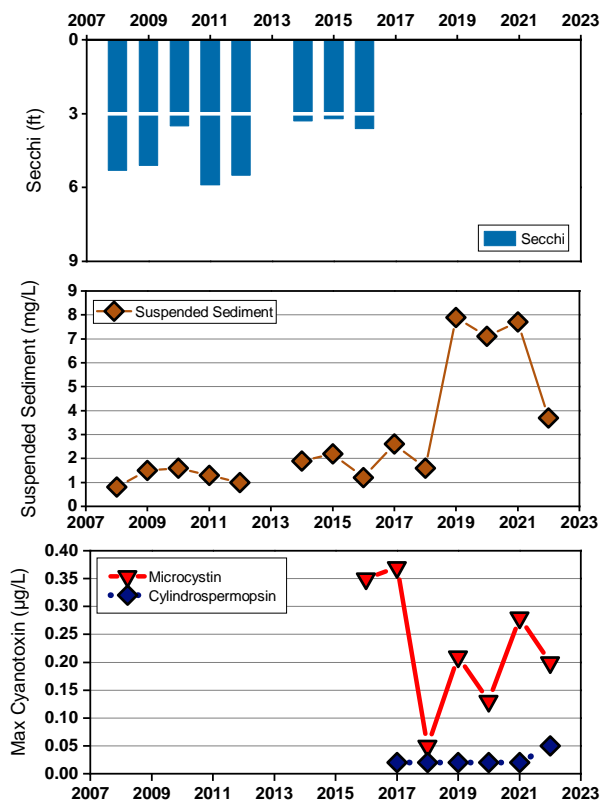
# Summary Report for Lick Creek 1



## 2022 Data for Lick Creek 1



## Trend Data for Lick Creek 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Lincoln 1



	5/1	5/22	6/8	6/29	7/22	8/14	9/25		Mean*
Temperature (F)	61		81	86	90	81	75		79
Secchi (feet)	3.6	4.3	6.6	4.6	5.9	4.6	4.9		4.9
Phosphorus (µg/L)	24	19	13	17	12	9	13		15
Nitrogen (µg/L)	520	417	410	487	440	380	380		433
Ammonium (µg/L)	84	15	<10	13	16	18	<10		22
Nitrate (µg/L)	73	7	<5	<5	<5	<5	7		14
Chlorophyll (µg/L)	2.5	7.7	4.3	5.2	3.8	4.8	6.1		4.9
Susp. Sediment (mg/L)	4.7	2.0	1.1	1.1	0.7	0.6	0.9		1.6
Microcystin (µg/L)	<0.10	0.48	0.47	0.29	0.41	1.06	<0.10		0.40
Cylindrospermopsin (µg/L)	<0.04	0.48	0.47	0.29	0.41	1.06	1.14		0.55

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

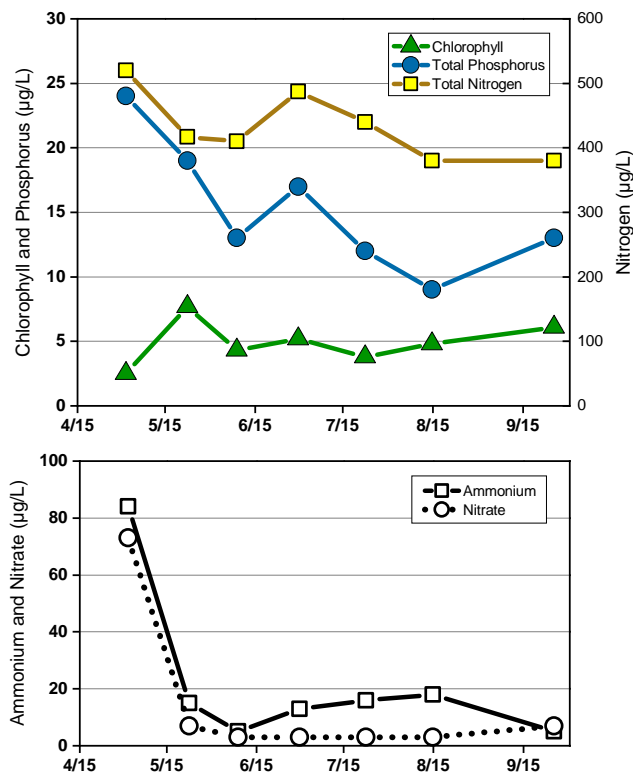
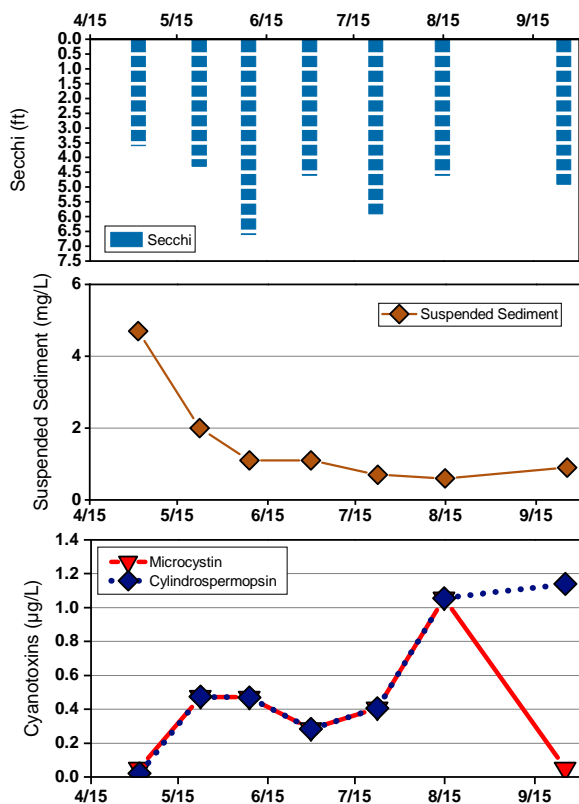
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

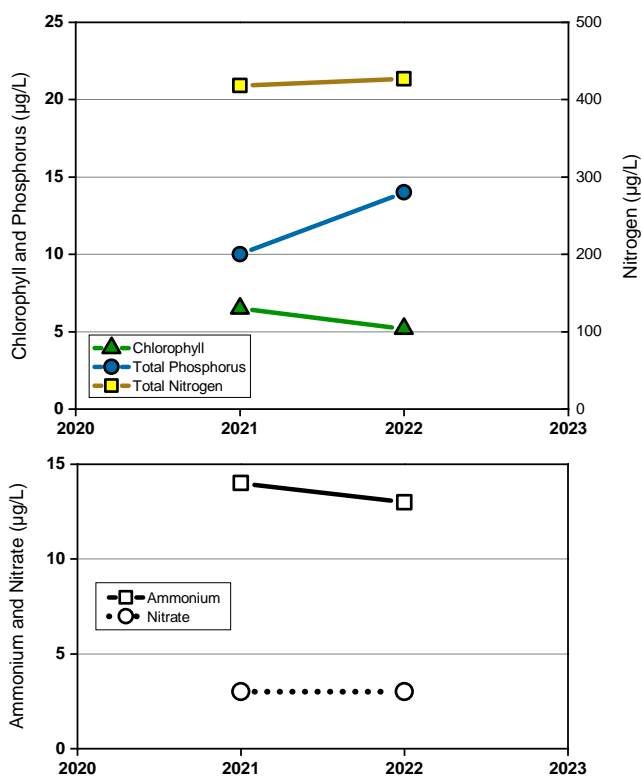
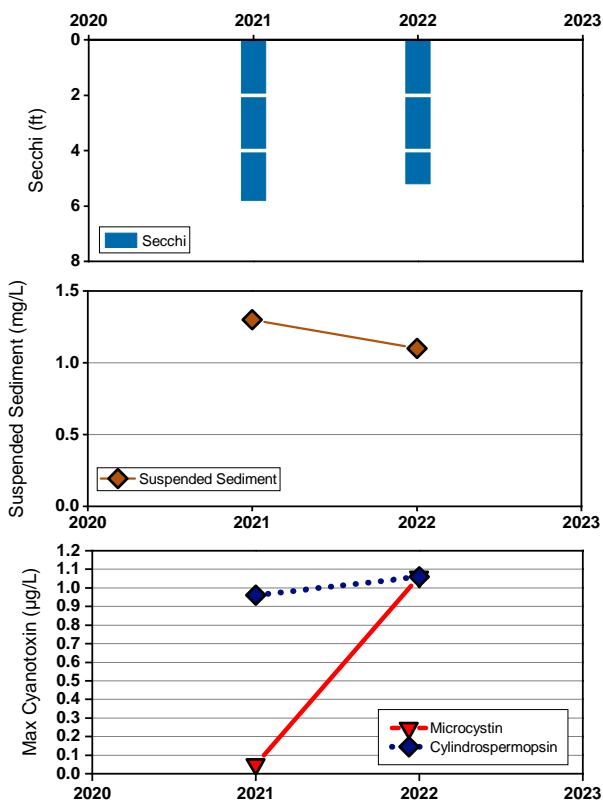
# Summary Report for Lincoln 1



## 2022 Data for Lincoln 1



## Trend Data for Lincoln 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.



# Summary Report for Long Branch 1



	4/26	5/17	6/11	6/26	7/18	8/9	9/4	9/24	Mean*
Temperature (F)	55	68	82	77	88	81	77	70	75
Secchi (feet)	1	1	1.6	2.3	2	2	2	1.6	1.7
Phosphorus (µg/L)	76	68	48	30	45	50	46	43	51
Nitrogen (µg/L)	1300	1520	1210	1070	835	865	855	820	1059
Ammonium (µg/L)	14	32	15	21	<10	<10	<10	109	26
Nitrate (µg/L)	647	683	548	457	<5	<5	<5	76	303
Chlorophyll (µg/L)	23.1	3.6	11.8	10.7	18.3	37.9	32.7	23.4	20.2
Susp. Sediment (mg/L)	18.2	7.3	8.6	4.5	3.1	3.1	3.5	7.1	6.9
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	0.27	0.22	0.15	0.30	0.14
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

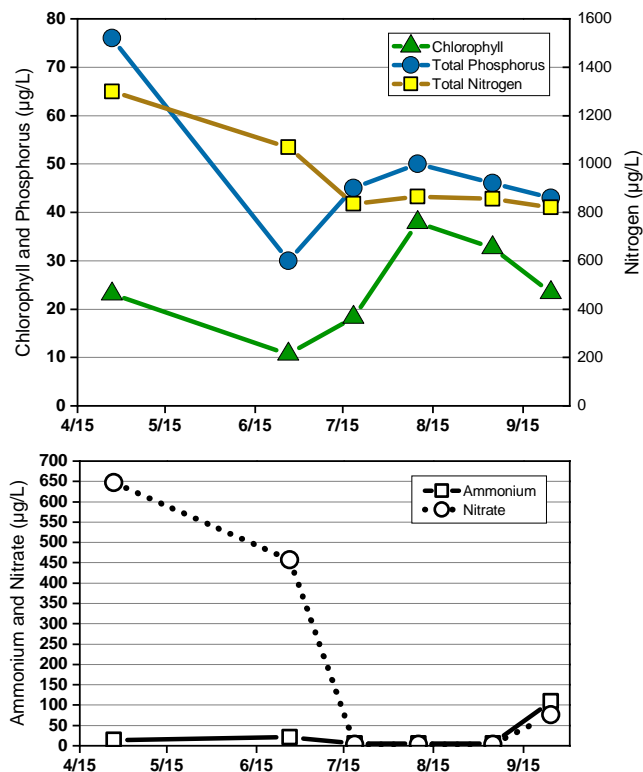
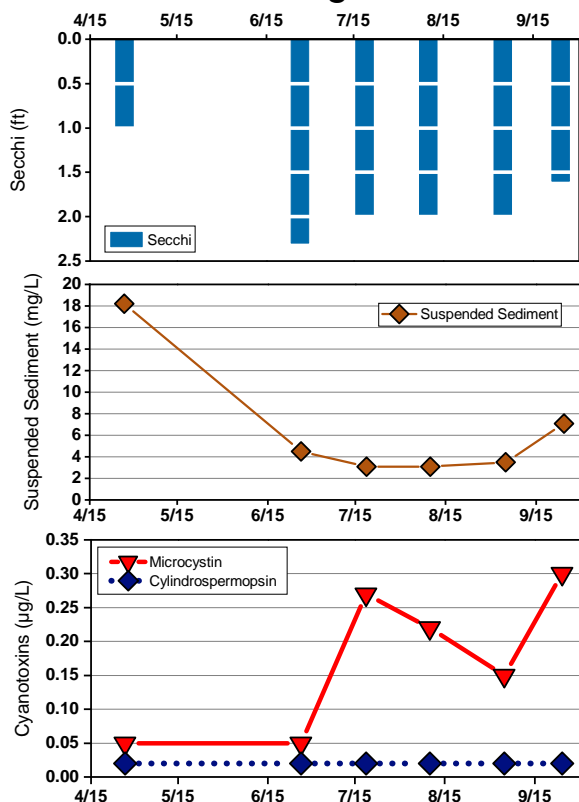
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

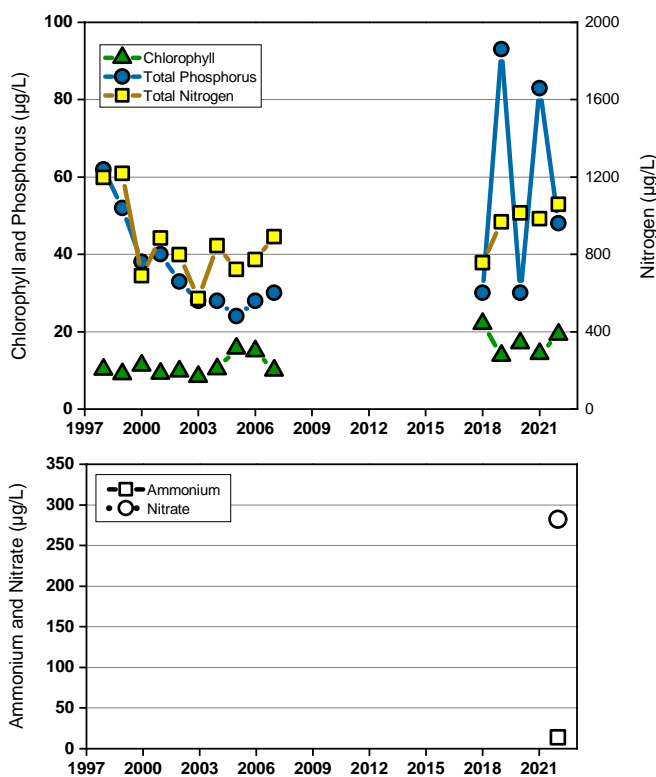
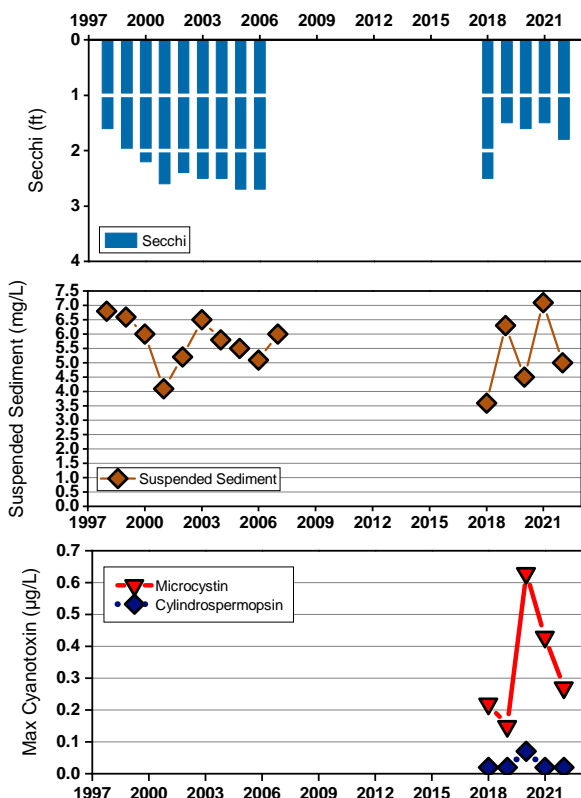
# Summary Report for Long Branch 1



## 2022 Data for Long Branch 1



## Trend Data for Long Branch 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Longview 1



	4/28	5/19	6/9	6/28	7/20	8/11	9/1	9/21	Mean*
Temperature (F)	57	75	75	75	84	82	81	75	76
Secchi (feet)	2.6	3.6	3	4.3	3.9	3.6	2.3	3	3.3
Phosphorus (µg/L)	29	30	28	26	24	22	28	26	27
Nitrogen (µg/L)	730	690	740	635	515	605	645	560	640
Ammonium (µg/L)	20	27	20	20	<10	<10	19	<10	15
Nitrate (µg/L)	307	221	330	51	<5	<5	7	<5	116
Chlorophyll (µg/L)	9.2	17.0	10.1	16.3	19.2	20.8	25.1	25.8	17.9
Susp. Sediment (mg/L)	3.5	4.2	4.0	1.8	2.8	1.6	2.6	1.5	2.8
Microcystin (µg/L)	<0.10	0.13	0.13	<0.10	<0.10	<0.10	<0.10	0.11	<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	0.07	<0.04	<0.04	0.08	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

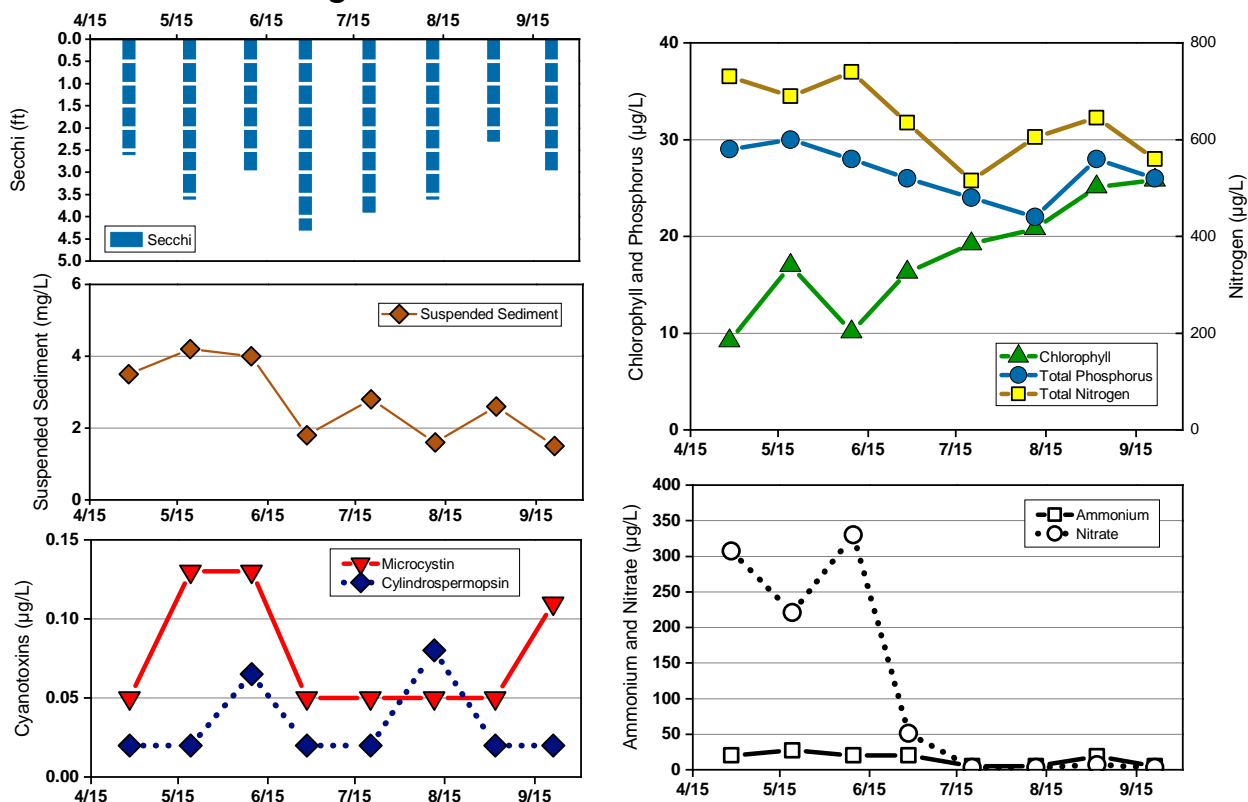
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

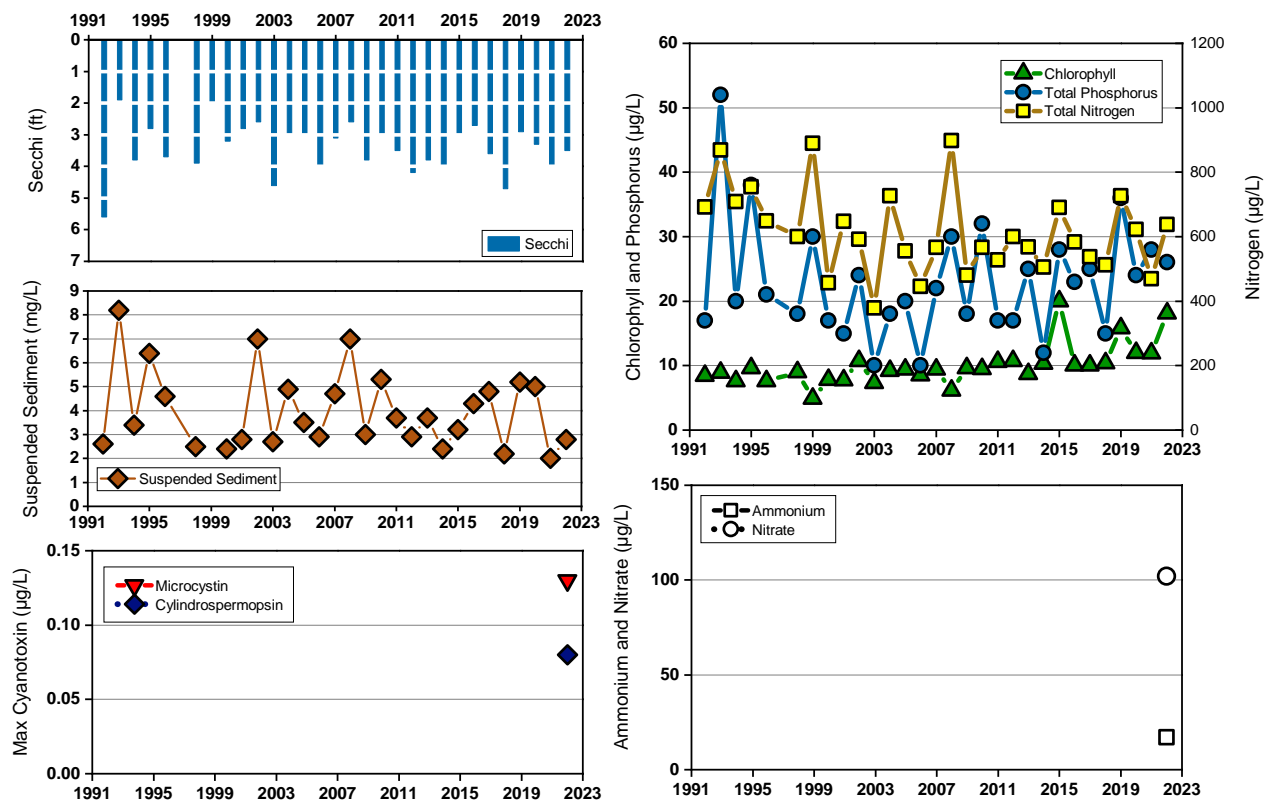
# Summary Report for Longview 1



## 2022 Data for Longview 1



## Trend Data for Longview 1



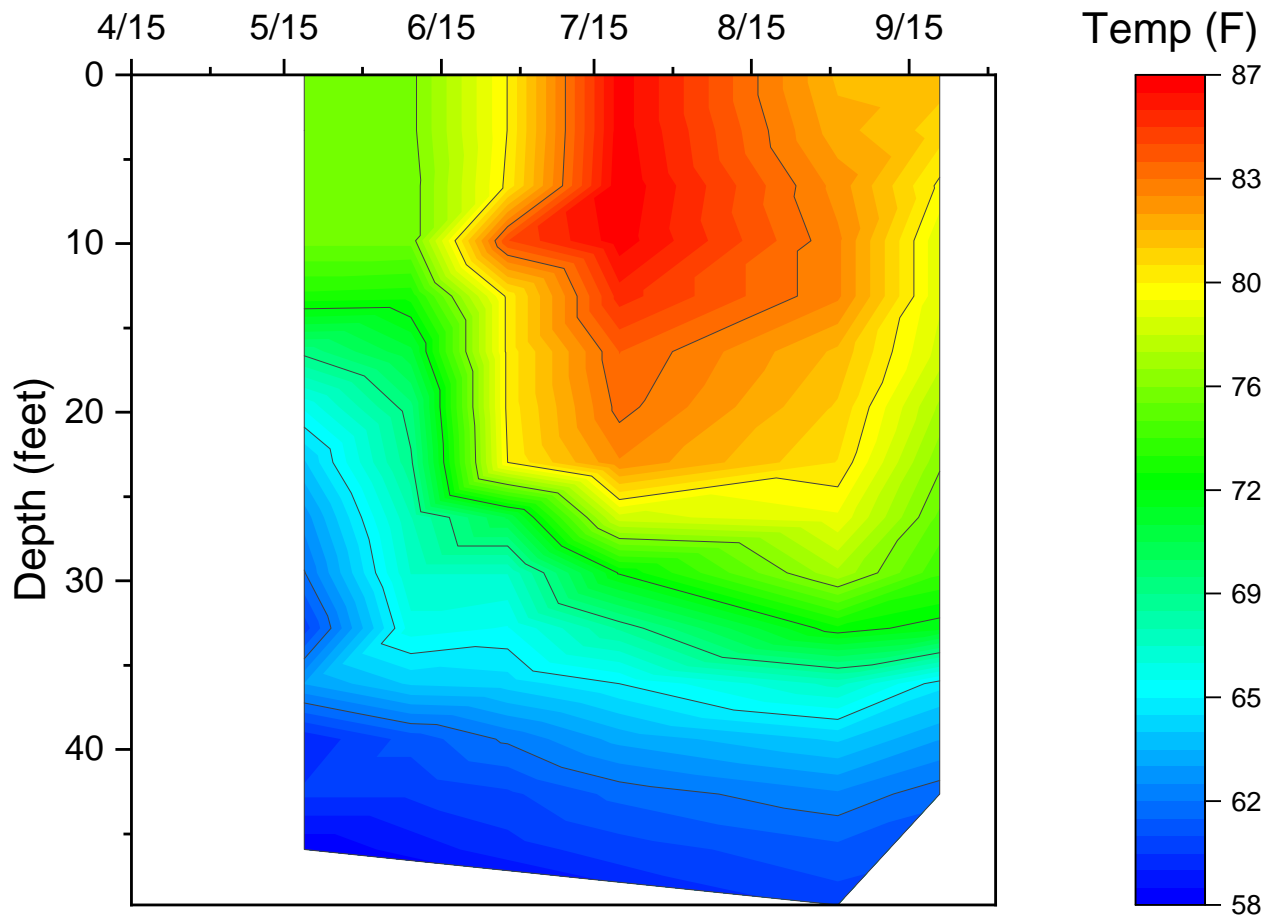
Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Longview, Site 1

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.



Longview, Site 1

# Summary Report for Lake of the Ozarks 1.2



	4/27	5/17	6/7	6/28	7/20	8/9	8/30	9/20	Mean
Temperature (F)	57	75	81	84	90	86	84	81	80
Secchi (feet)	9.2	4.9	4.9	3.9	5.2	6.6	7.5	5.6	6
Phosphorus (µg/L)	17	26	32	47	23	18	19	34	27
Nitrogen (µg/L)	360	650	765	830	645	710	430	450	605
Ammonium (µg/L)	18	13	17	13	<10	20	14	<10	13
Nitrate (µg/L)	36	198	152	9	8	8	7	6	53
Chlorophyll (µg/L)	7.4	10.5	16.6	26.0	14.7	14.5	13.1	19.6	15.3
Susp. Sediment (mg/L)	1.4	2.4	2.3	1.6	1.1	0.6	0.5	0.8	1.3
Microcystin (µg/L)	<0.10	0.14	0.14	0.21	<0.10	0.19	0.14	0.12	0.13
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

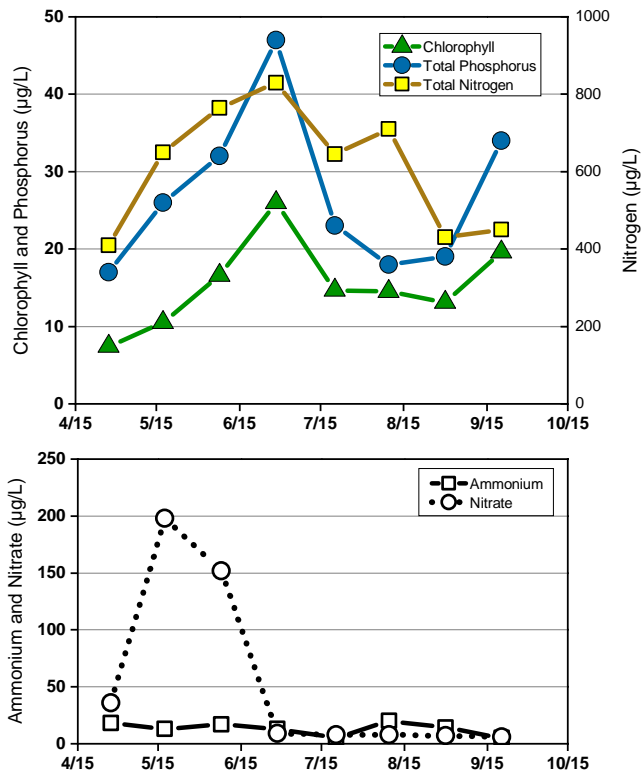
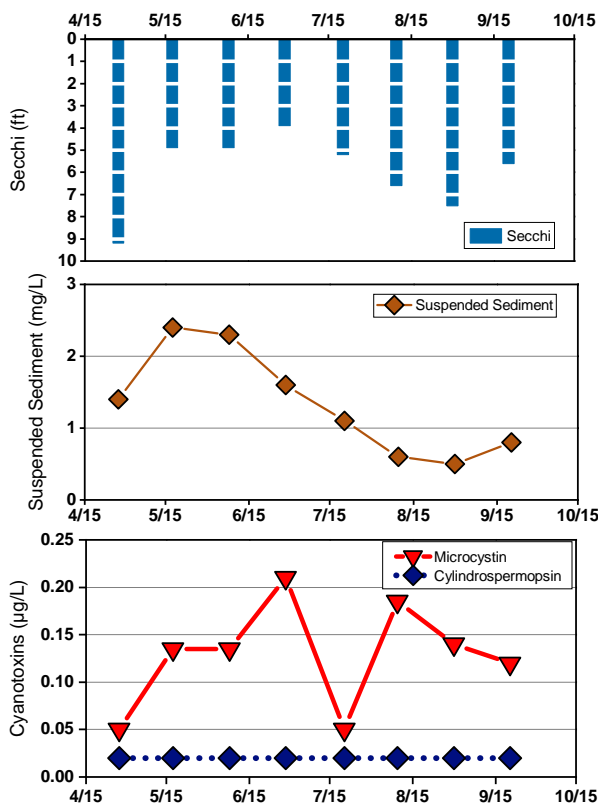
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

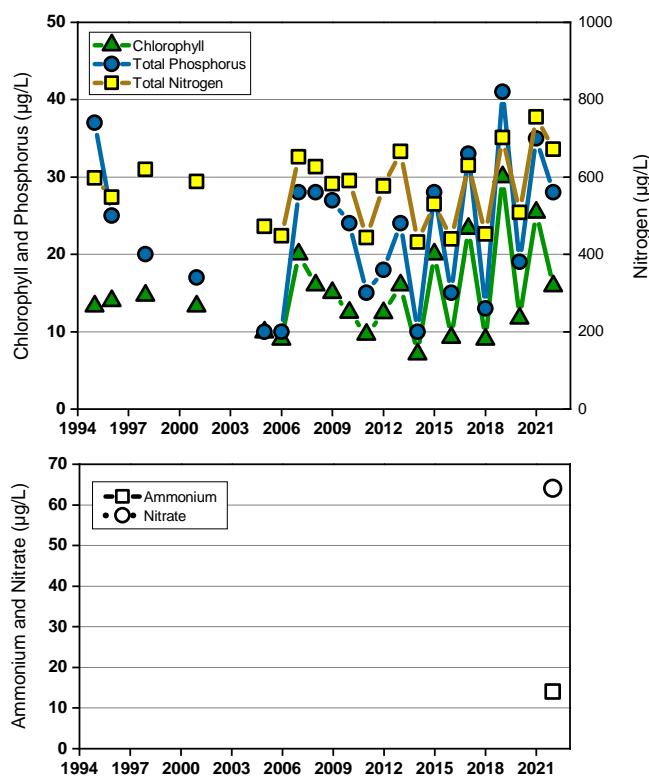
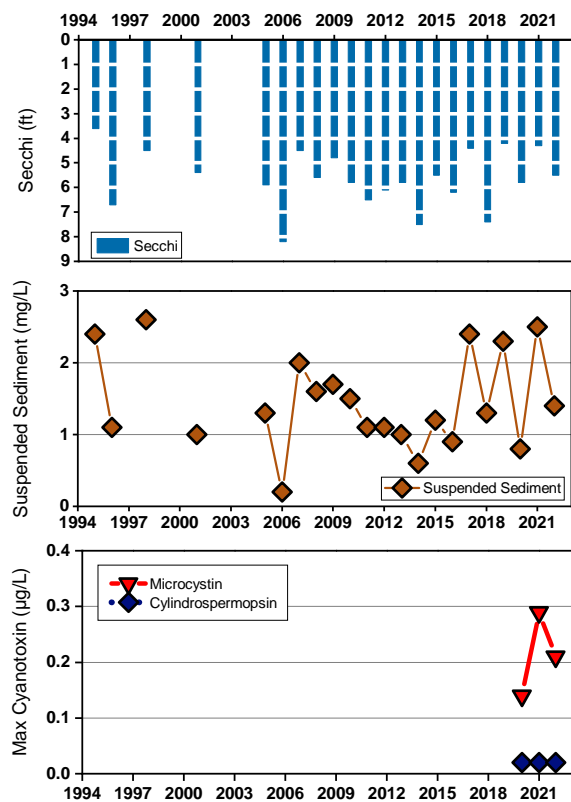
# Summary Report for Lake of the Ozarks 1.2



## 2022 Data for Lake of the Ozarks 1.2



## Trend Data for Lake of the Ozarks 1.2



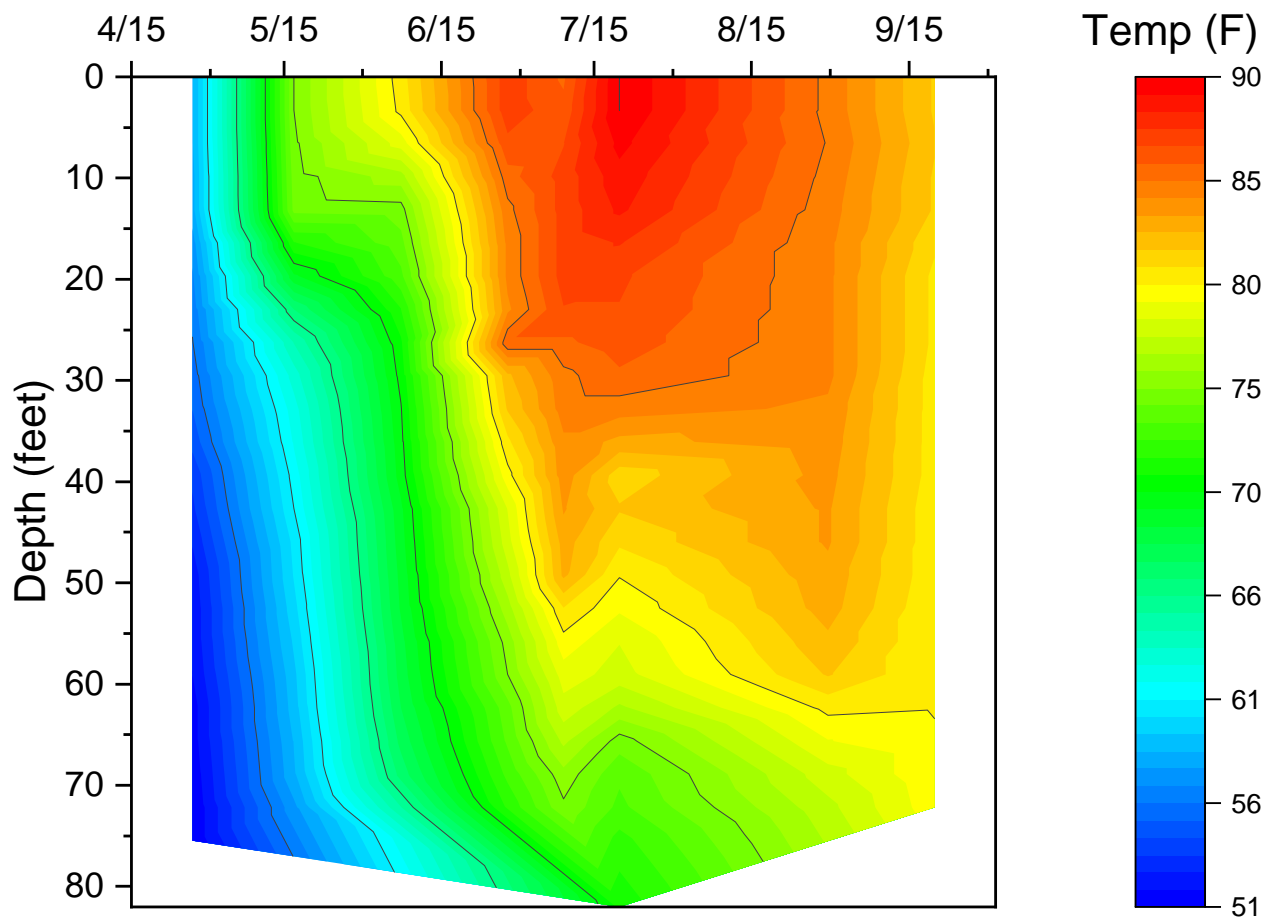
Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Lake of the Ozarks, Site 1.2

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.



Lake of the Ozarks, Site 1.2



# Summary Report for Lake of the Ozarks 2.12



	4/28	6/8	6/28	7/21	8/11	9/1	9/20		Mean
Temperature (F)	68	81	86	88	91	86	84		83
Secchi (feet)	0.7	3.3	2.6	2.3	2.6	1.6	3		2.3
Phosphorus (µg/L)	127	57	55	52	59	79	36		66
Nitrogen (µg/L)	827	950	600	730	660	795	760		705
Ammonium (µg/L)	53	<10	<10	<10	<10	<10	<10		12
Nitrate (µg/L)	394	30	8	9	7	7	6		66
Chlorophyll (µg/L)	1.5	10.5	23.7	31.1	25.9	68.0	18.1		25.5
Susp. Sediment (mg/L)	30.4	4.2	7.4	4.9	6.5	8.0	4.2		9.4
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.12		<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

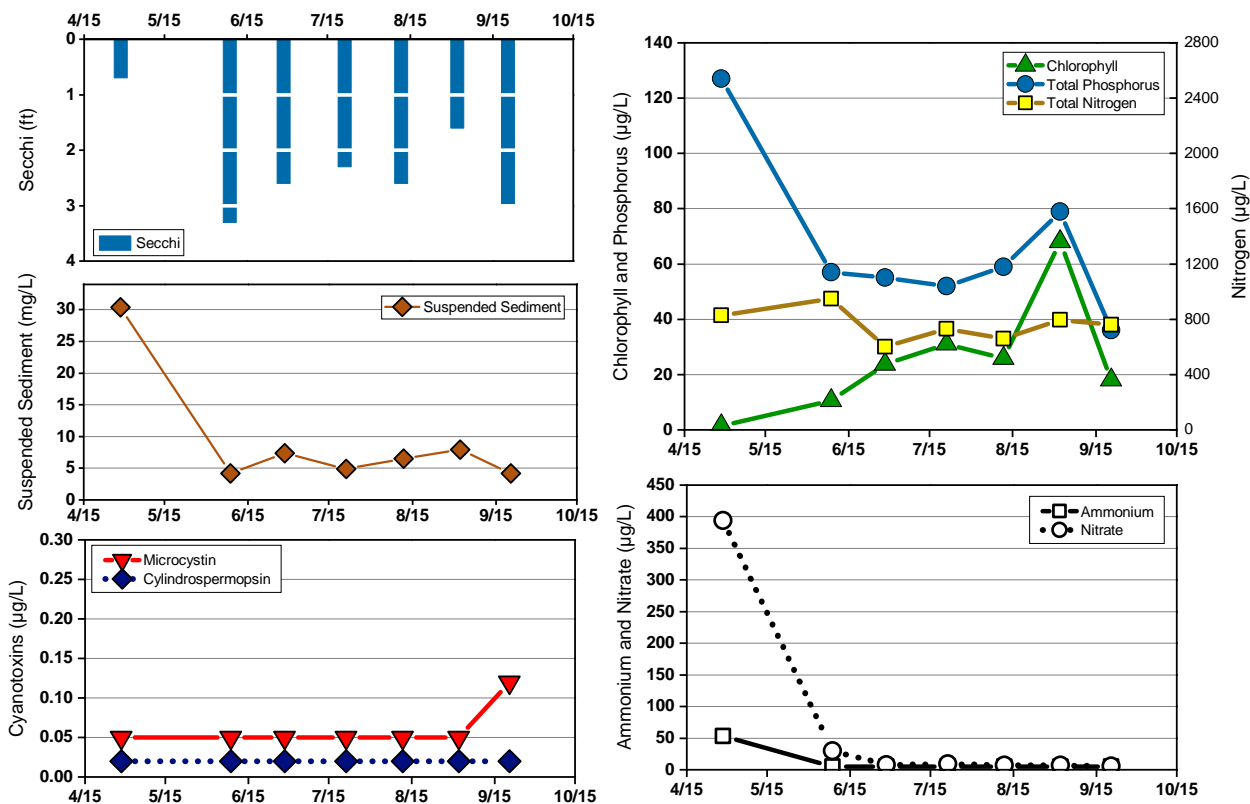
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

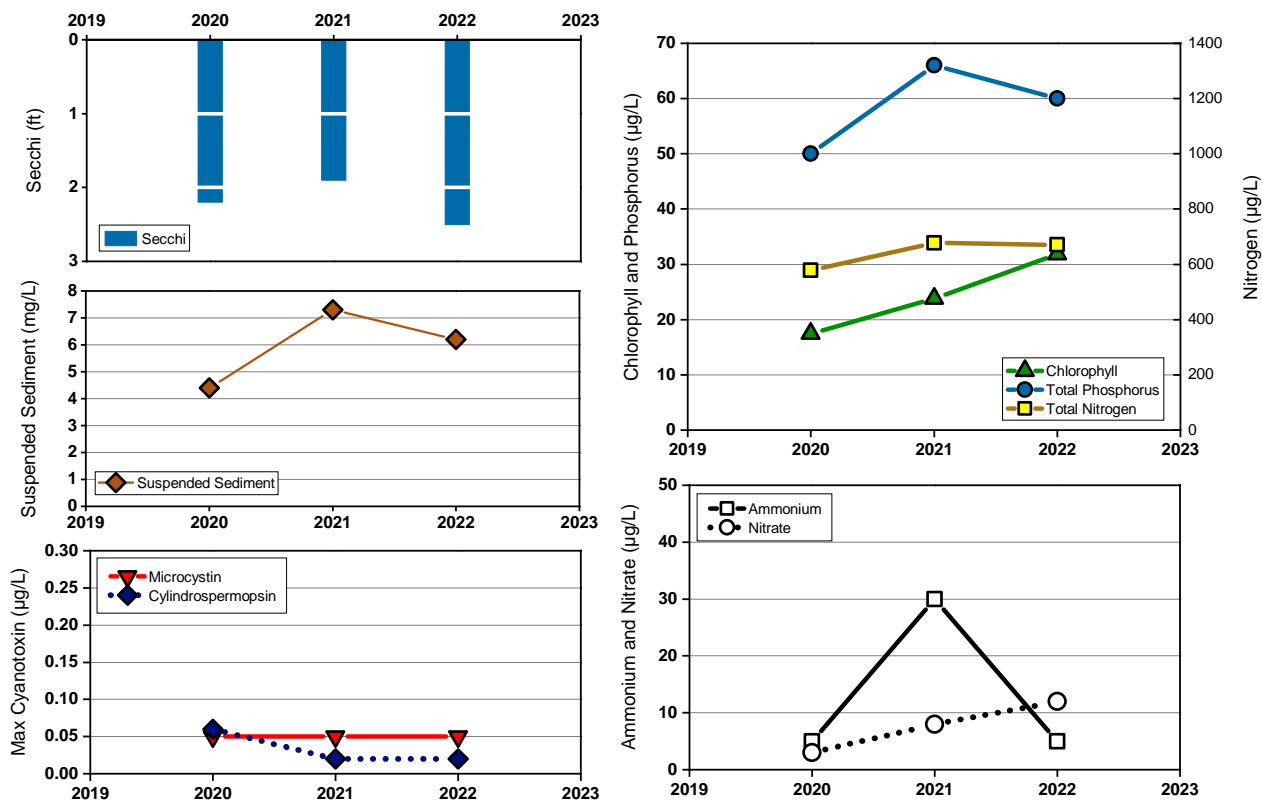
# Summary Report for Lake of the Ozarks 2.12



## 2022 Data for Lake of the Ozarks 2.12



## Trend Data for Lake of the Ozarks 2.12



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Lake of the Ozarks 3



	4/27	5/17	6/7	6/28	7/20	8/9	8/30	9/20	Mean*
Temperature (F)	57	72	81	86	90	86	84	82	80
Secchi (feet)	8.9	4.3	3.3	3.9	4.9	6.9	7.9	4.9	5.6
Phosphorus (µg/L)	20	30	57	53	24	24	35	29	34
Nitrogen (µg/L)	465	660	1110	820	565	570	455	475	640
Ammonium (µg/L)	17	18	11	11	<10	<10	<10	<10	10
Nitrate (µg/L)	89	284	360	64	8	9	<5	<5	103
Chlorophyll (µg/L)	5.6	10.9	37.5	30.5	18.0	17.6	13.8	19.5	19.2
Susp. Sediment (mg/L)	1.0	4.0	5.5	1.7	1.3	0.9	0.8	1.2	2.1
Microcystin (µg/L)	<0.10	<0.10	0.12	0.15	0.15	0.16	0.15	0.15	0.12
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

Temperature: Water temperature, degrees Fahrenheit.

Secchi: Measure of water clarity, feet.

Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.

Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.

Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.

Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.

Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

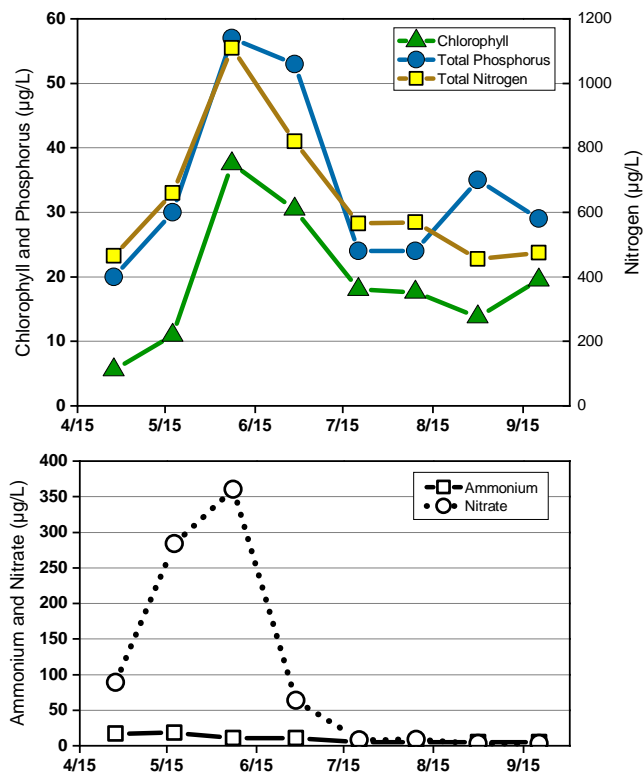
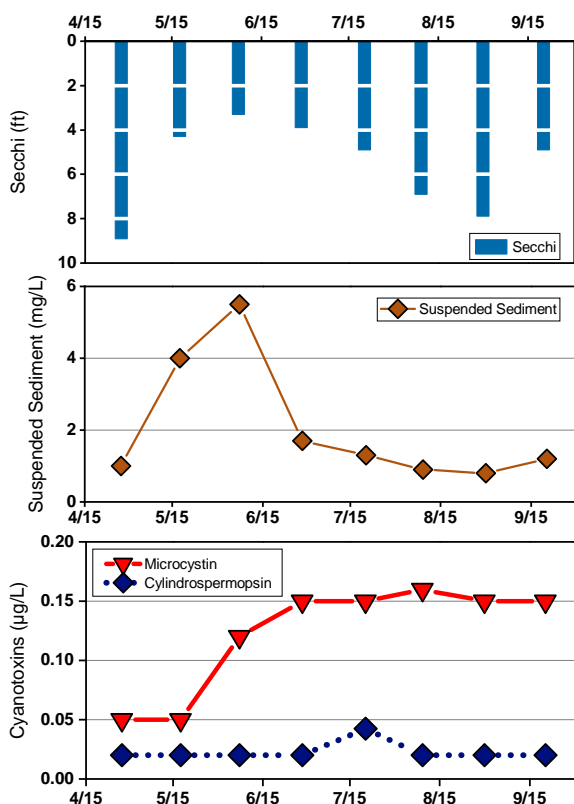
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

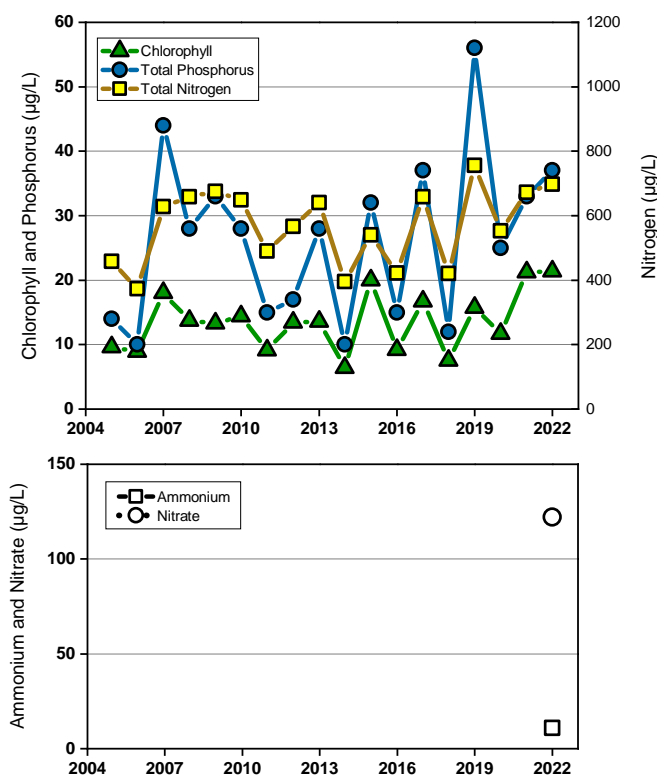
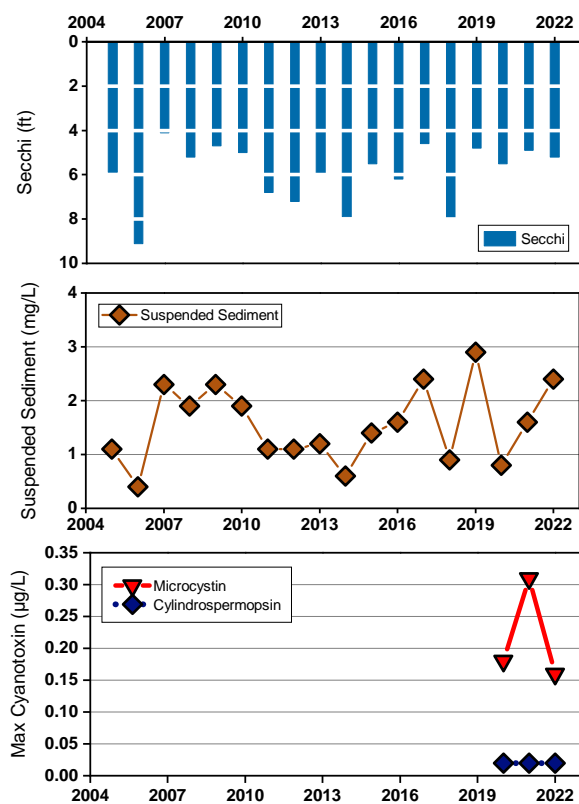
# Summary Report for Lake of the Ozarks 3



## 2022 Data for Lake of the Ozarks 3



## Trend Data for Lake of the Ozarks 3



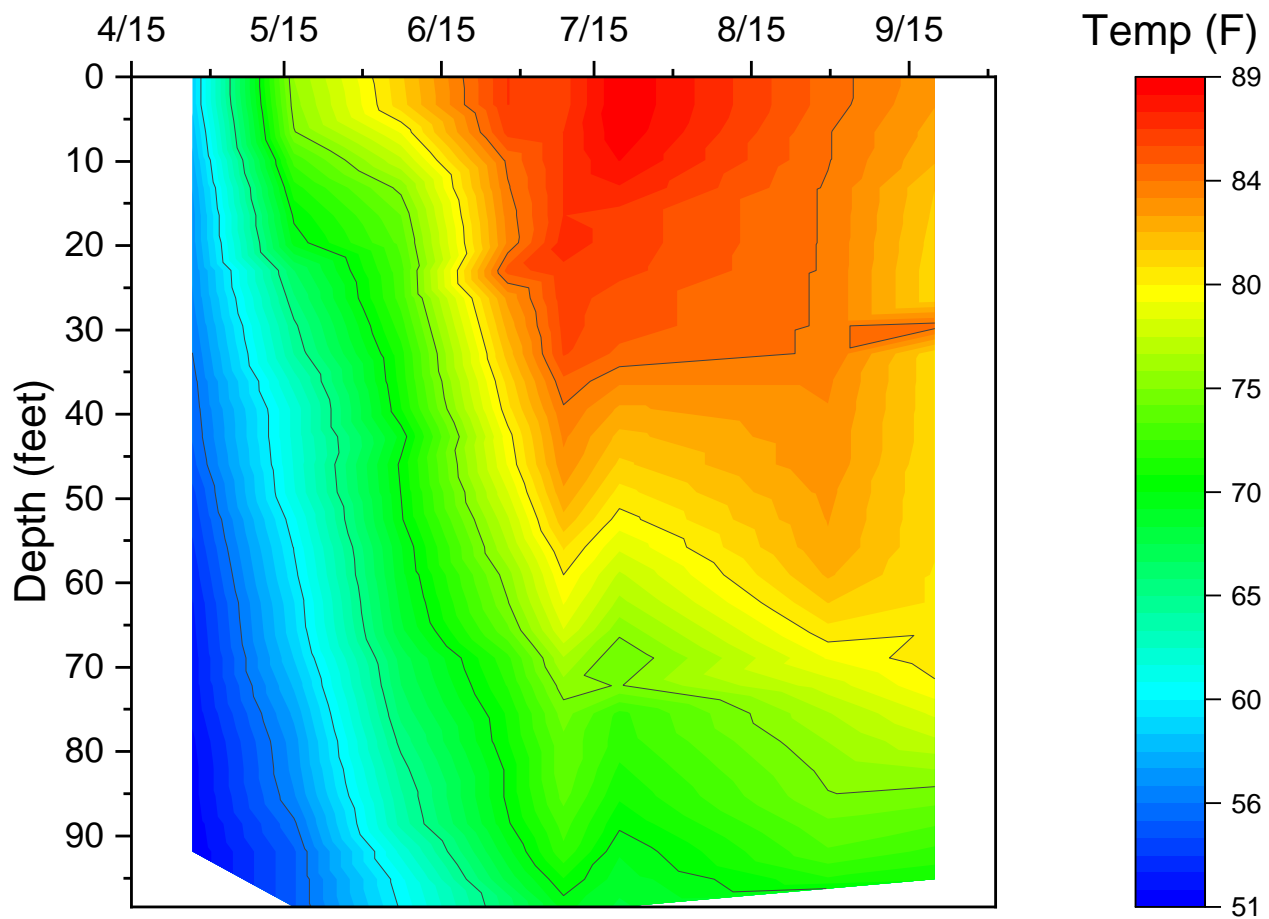
Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Lake of the Ozarks, Site 3

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.



Lake of the Ozarks, Site 3

# Summary Report for Lake of the Ozarks 4.10



	4/27	5/17	6/9	6/28	7/19	8/11	8/31	9/22	Mean*
Temperature (F)	68	77	81	88	86	88	88	79	82
Secchi (feet)	1.6	3.3	4.9	3.6	4.3	2.6	2.6	3.3	3.3
Phosphorus (µg/L)	68	48	25	35	42	52	52	49	46
Nitrogen (µg/L)	960	630	580	470	640	535	670	635	640
Ammonium (µg/L)	12	<10	<10	<10	11	<10	<10	<10	<10
Nitrate (µg/L)	620	166	103	9	7	15	6	6	117
Chlorophyll (µg/L)	15.9	27.0	11.8	17.6	23.9	39.1	37.7	37.1	26.3
Susp. Sediment (mg/L)	12.3	2.6	2.1	2.0	2.5	3.6	1.9	2.1	3.6
Microcystin (µg/L)	<0.10	<0.10	<0.10	0.13	0.21	0.12	0.15	0.15	0.11
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

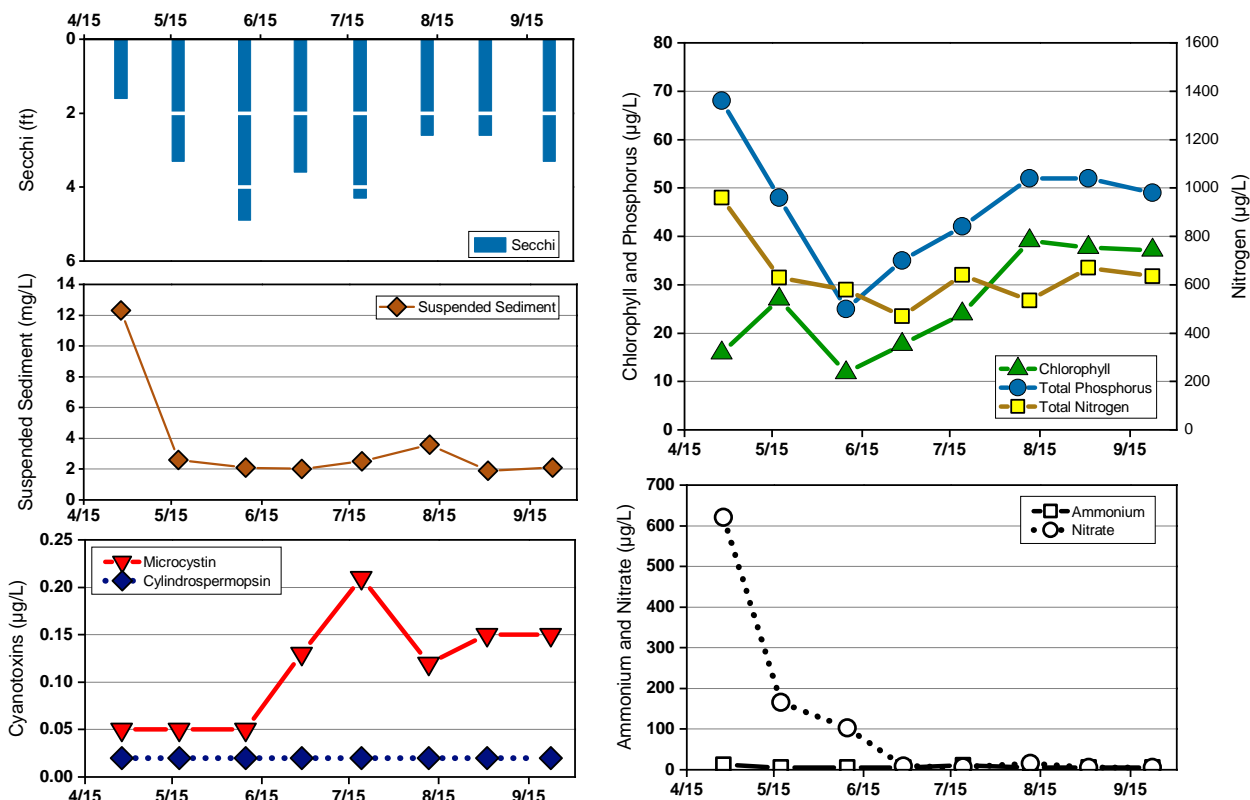
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

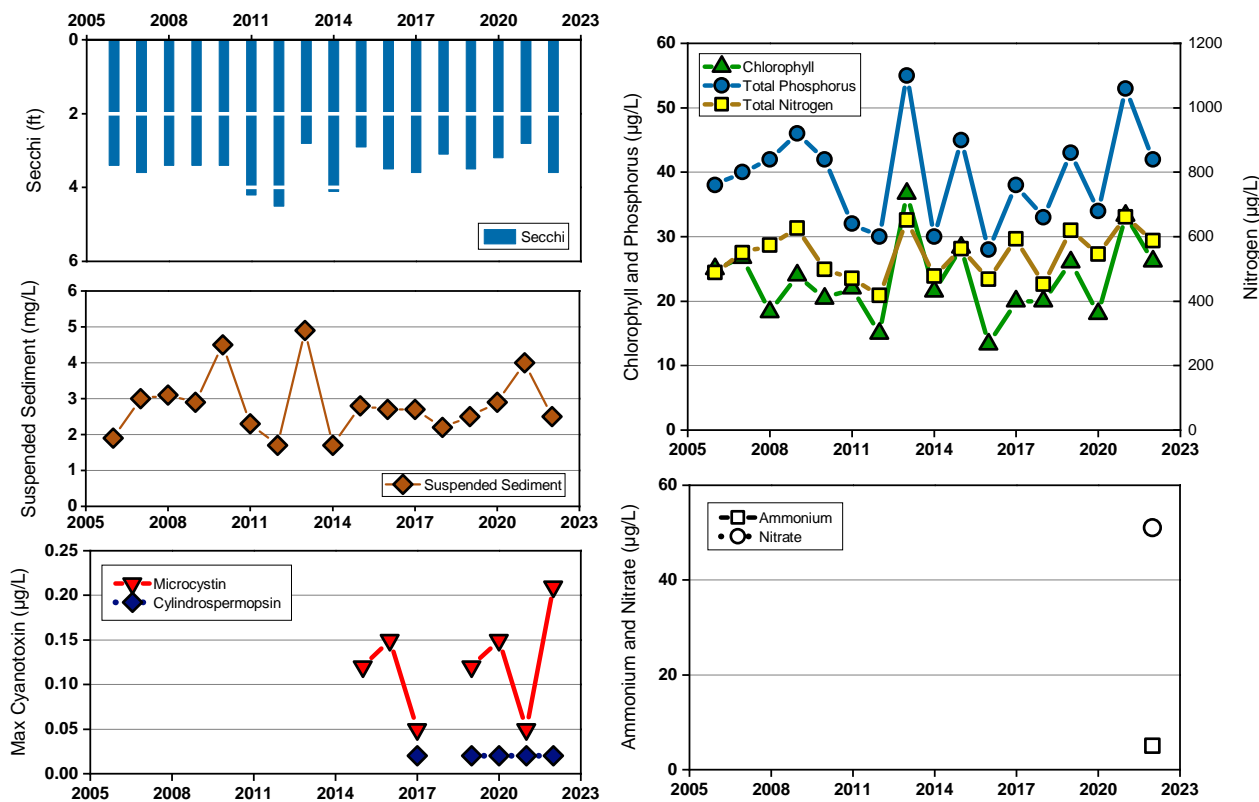
# Summary Report for Lake of the Ozarks 4.10



## 2022 Data for Lake of the Ozarks 4.10



## Trend Data for Lake of the Ozarks 4.10



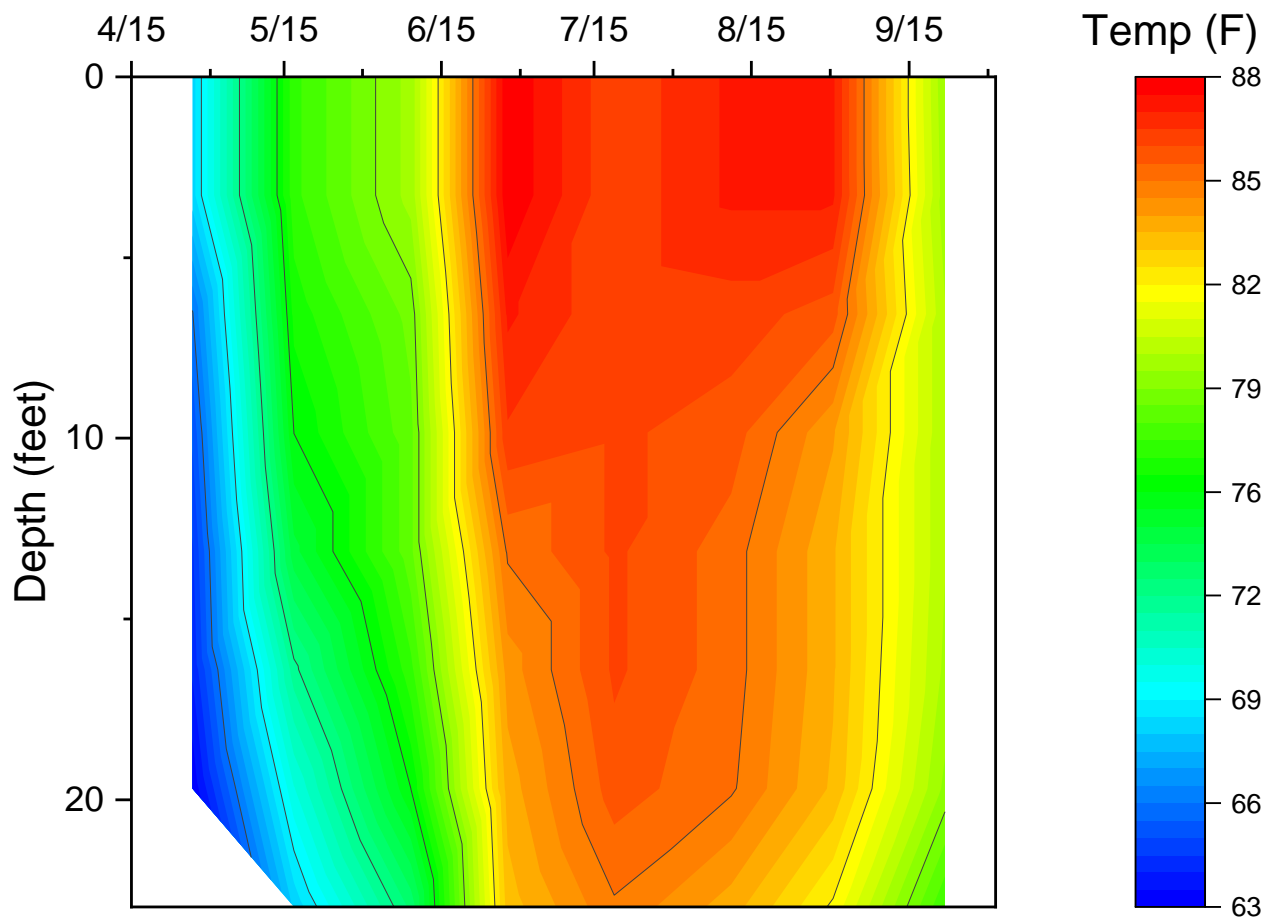
Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Lake of the Ozarks, Site 4.10

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.



Lake of the Ozarks, Site 4.10



# Summary Report for Lake of the Ozarks 4.15



	8/8	8/31	9/28						Mean*
Temperature (F)	86	79	72						79
Secchi (feet)	2.6	3	3						2.9
Phosphorus (µg/L)	14	6	36						19
Nitrogen (µg/L)	465	295	725						495
Ammonium (µg/L)	<10	<10	25						12
Nitrate (µg/L)	203	203	43						150
Chlorophyll (µg/L)	18.6	19.9	29.1						22.5
Susp. Sediment (mg/L)	6.3	4.5	7.4						6.1
Microcystin (µg/L)	<0.10	<0.10	0.13						<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04						<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

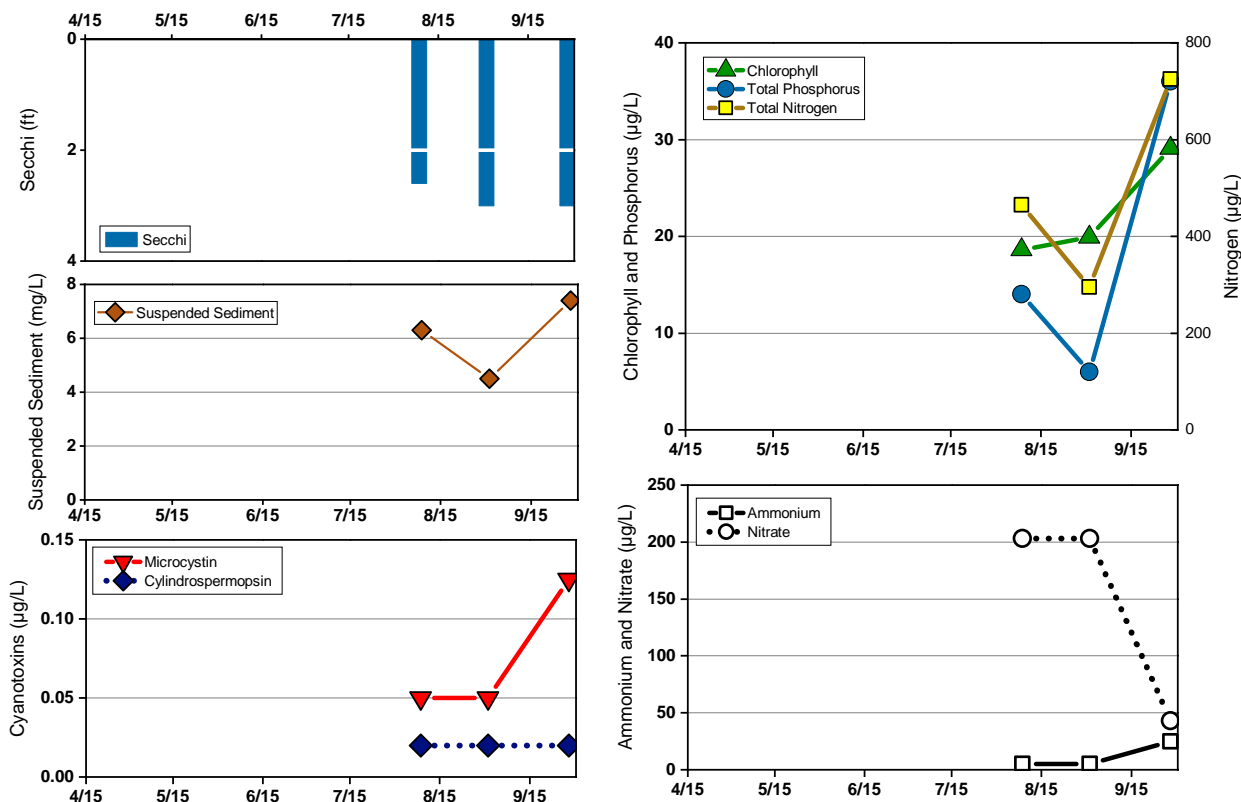
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

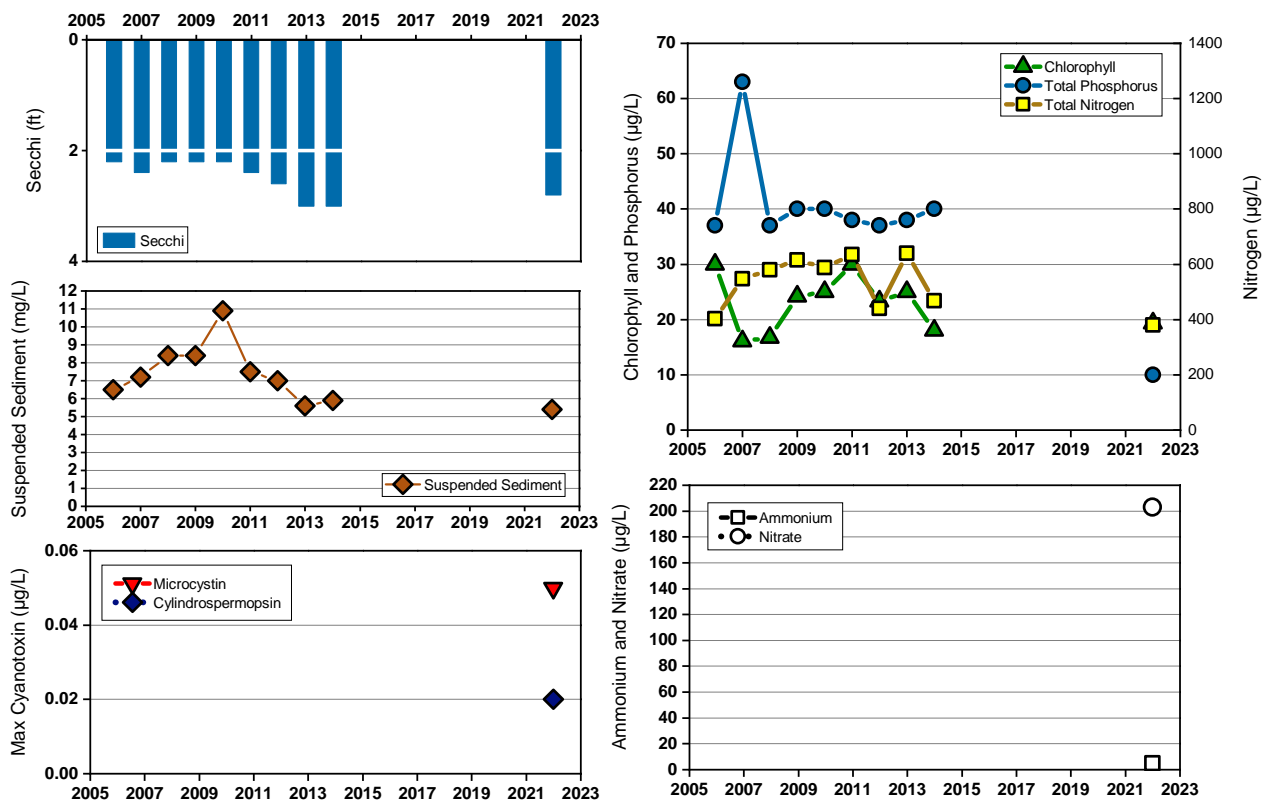
# Summary Report for Lake of the Ozarks 4.15



## 2022 Data for Lake of the Ozarks 4.15



## Trend Data for Lake of the Ozarks 4.15



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Lake of the Ozarks 21



	4/23	5/21	6/12	7/2	7/24	8/6	8/26	9/18	Mean
Temperature (F)	61	70	81	86	88	88	88	81	80
Secchi (feet)		3.3	2.6	4.6	3.9	4.6	3.9	4.6	3.9
Phosphorus (µg/L)	28	61	67	65	39	28	29	51	46
Nitrogen (µg/L)	645	1173	1005	1005	607	485	570	523	752
Ammonium (µg/L)	<10	<10	<10	55	<10	<10	<10	<10	11
Nitrate (µg/L)	227	772	211	38	19	6	9	48	166
Chlorophyll (µg/L)	18.5	8.6	92.5	24.0	20.6	22.1	13.5	29.5	28.7
Susp. Sediment (mg/L)	3.1	4.4	4.9	1.9	1.8	1.2	0.7	1.7	2.5
Microcystin (µg/L)	0.18	0.17	0.21	0.16	0.20	0.17	0.22	<0.10	0.17
Cylindrospermopsin (µg/L)	0.09	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

Temperature: Water temperature, degrees Fahrenheit.

Secchi: Measure of water clarity, feet.

Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.

Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.

Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.

Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.

Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

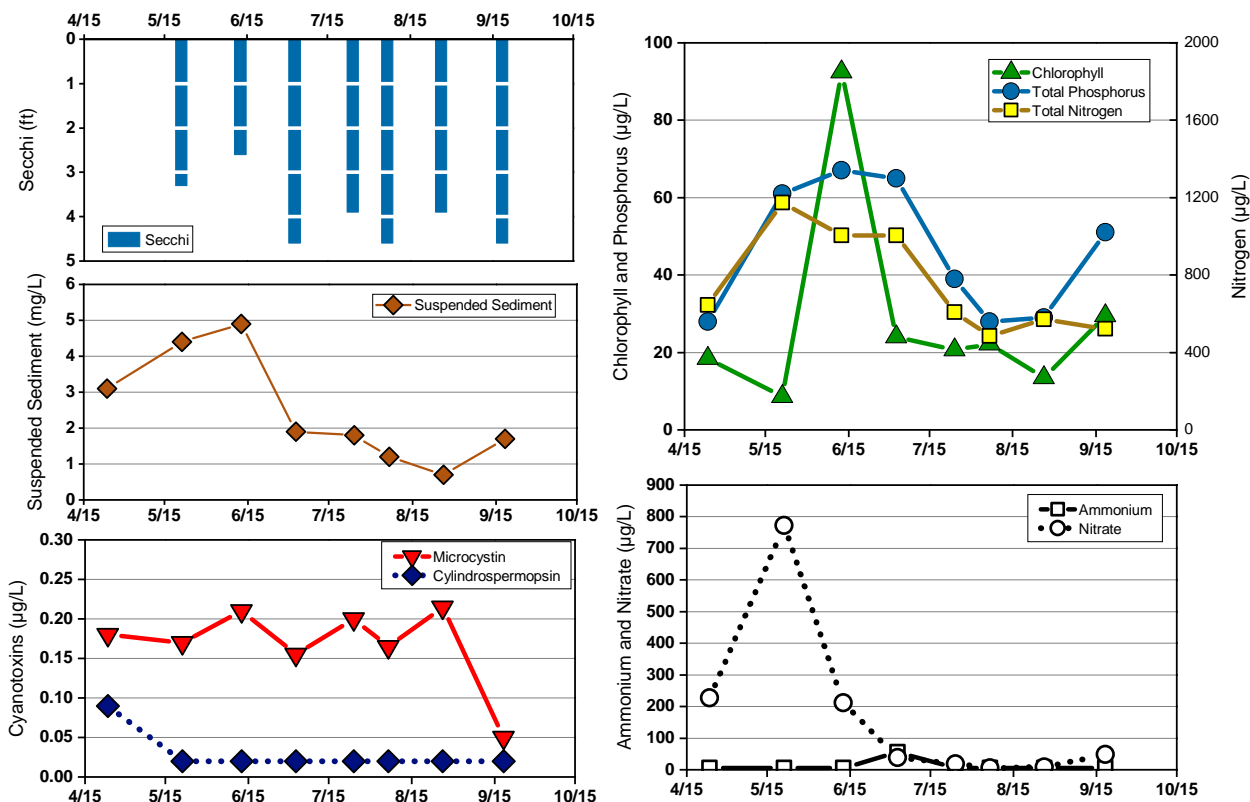
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

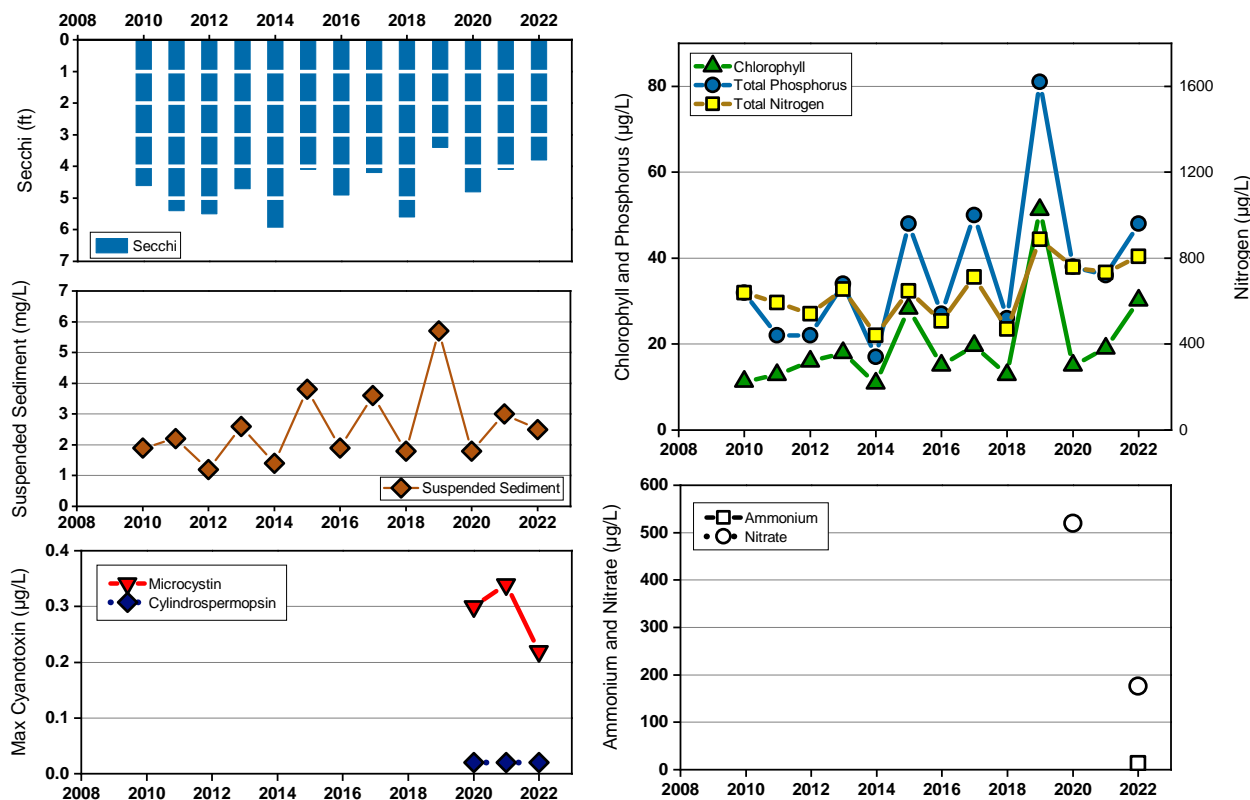
# Summary Report for Lake of the Ozarks 21



## 2022 Data for Lake of the Ozarks 21



## Trend Data for Lake of the Ozarks 21



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Lake of the Ozarks 26



	4/27	5/17	6/7	6/28	7/19	8/10	8/30	9/20	Mean*
Temperature (F)	61	68	73	81	84	84	82	81	77
Secchi (feet)	3.3	2.6	2.3	3.6	3.9	4.9	4.3	3.9	3.6
Phosphorus (µg/L)	43	53	63	48	32	30	37	42	44
Nitrogen (µg/L)	800	893	1035	830	650	725	705	567	776
Ammonium (µg/L)	<10	16	<10	<10	<10	<10	<10	<10	<10
Nitrate (µg/L)	283	491	515	315	8	<5	6	7	204
Chlorophyll (µg/L)	26.2	7.8	16.2	24.0	19.2	21.5	27.7	29.8	21.6
Susp. Sediment (mg/L)	3.8	6.2	6.6	3.5	1.4	1.4	1.1	1.9	3.2
Microcystin (µg/L)	<0.10	<0.10	<0.10	0.28	0.34	0.17	0.12	0.16	0.15
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

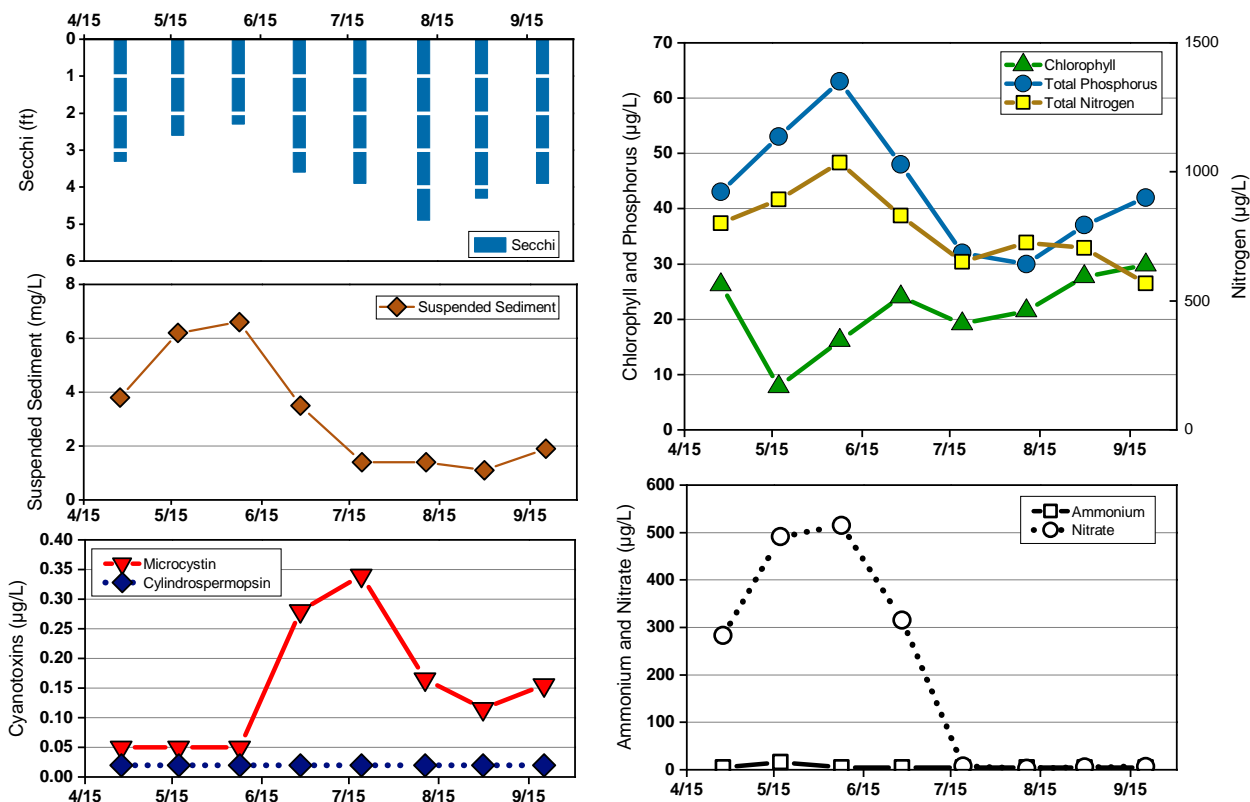
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

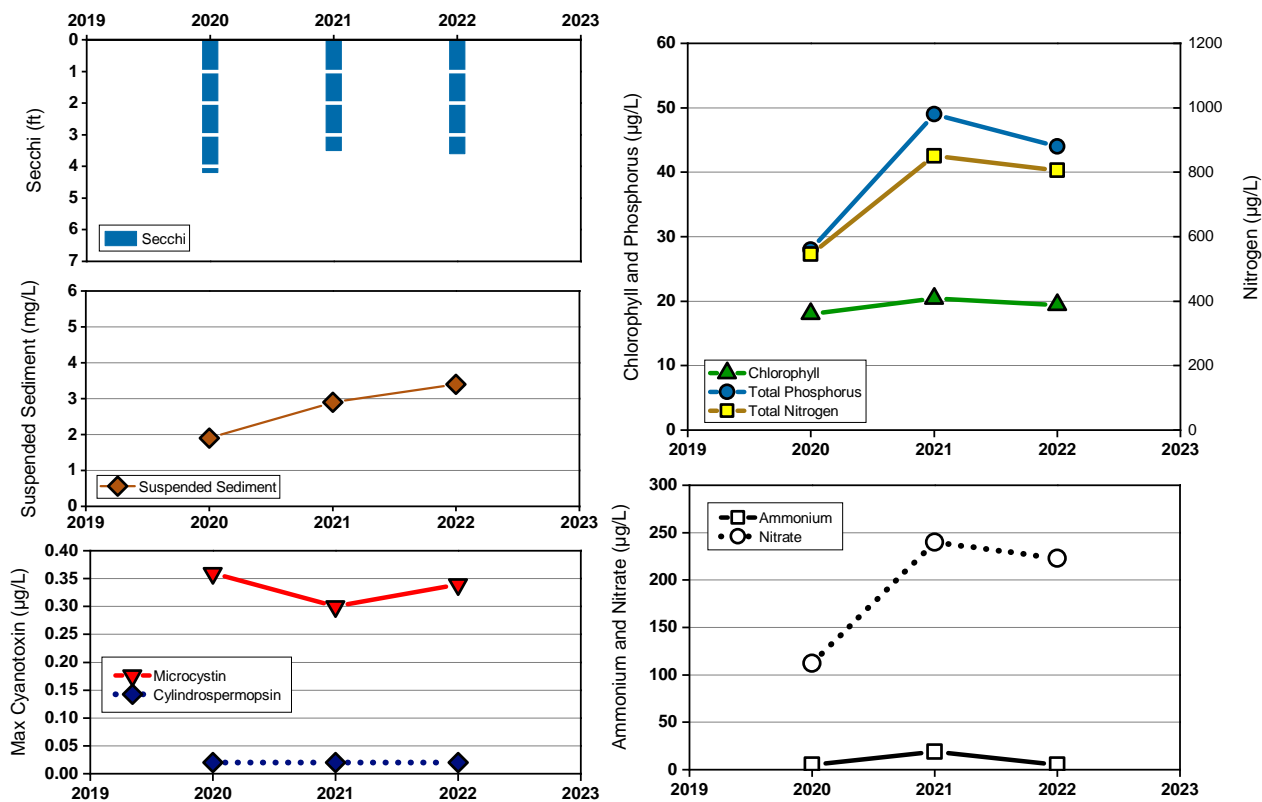
# Summary Report for Lake of the Ozarks 26



## 2022 Data for Lake of the Ozarks 26



## Trend Data for Lake of the Ozarks 26



Trend data graphs show annual arithmetic means from 2022 May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Lake of the Ozarks 4.15



	4/29	5/20	6/9	6/30	7/21	8/11	9/6	9/20	Mean*
Temperature (F)	61	75	79	84	90	88	82	82	80
Secchi (feet)	3.9	3.6	3	3.6	4.3	4.6	4.3	3.9	3.9
Phosphorus (µg/L)	27	49	58	48	38	34	56	41	44
Nitrogen (µg/L)	885	968	995	897	675	567	715	620	790
Ammonium (µg/L)	34	21	<10	13	<10	<10	<10	<10	12
Nitrate (µg/L)	386	542	291	136	16	6	23	<5	175
Chlorophyll (µg/L)	14.2	8.1	37.9	26.9	17.4	22.3	36.6	23.5	23.4
Susp. Sediment (mg/L)	3.3	4.2	6.6	1.9	1.1	1.4	1.6	1.5	2.7
Microcystin (µg/L)	<0.10	<0.10	<0.10	0.20	0.11	0.12	0.16	<0.10	0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

The table below shows EPA health advisories for cyanotoxin exposure.

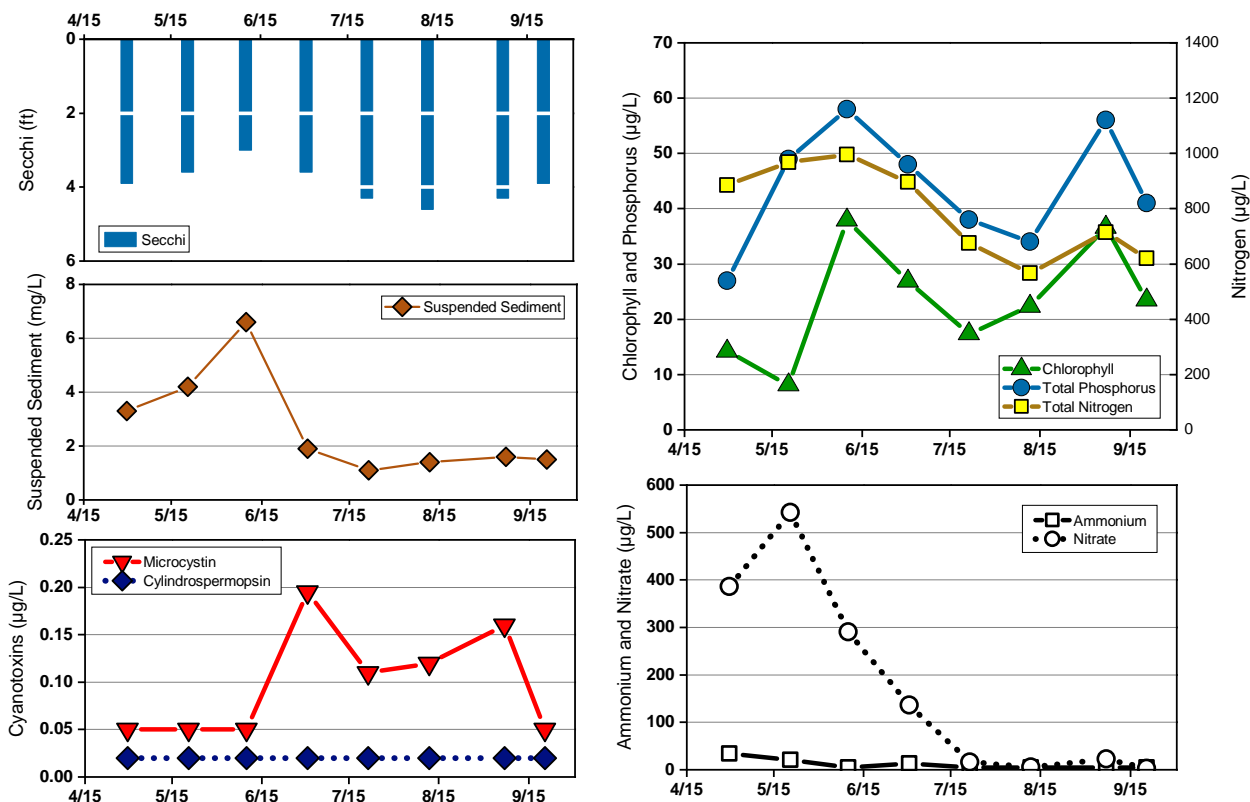
	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L



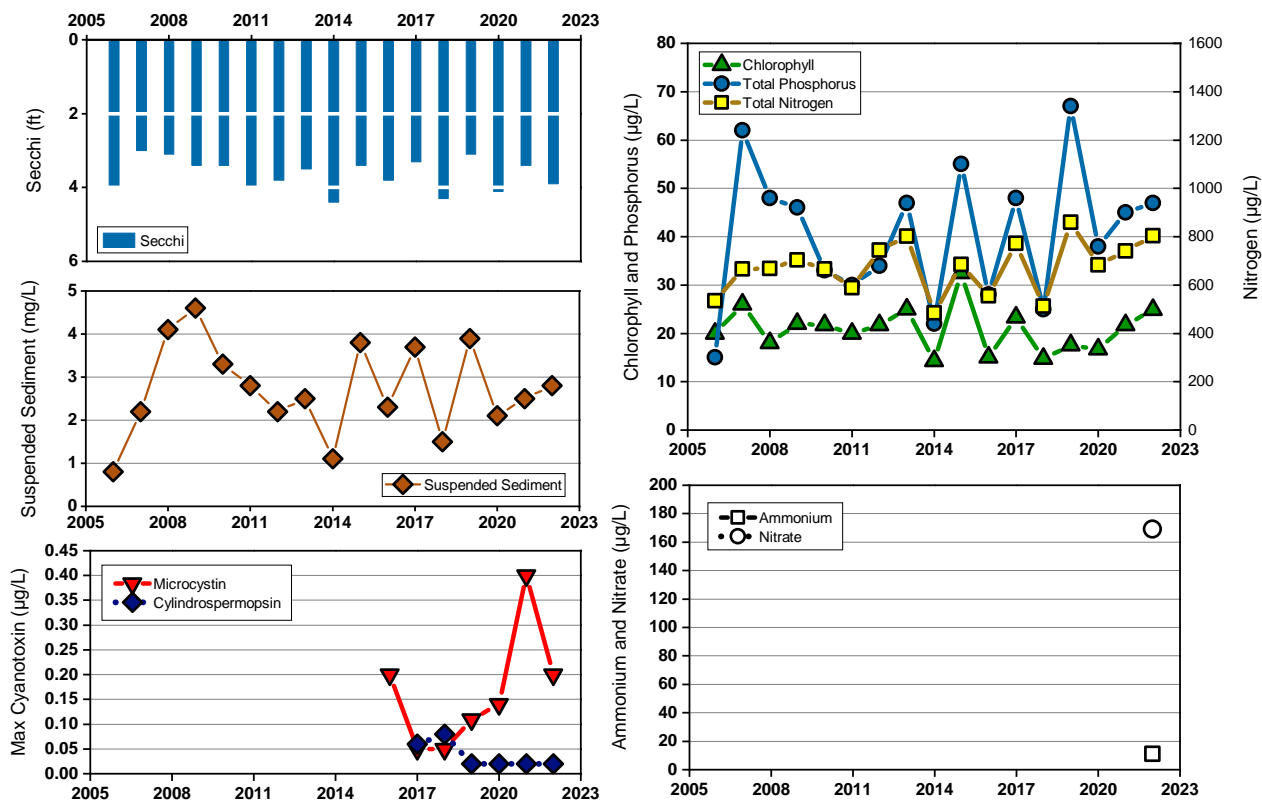
# Summary Report for Lake of the Ozarks 31.1



## 2022 Data for Lake of the Ozarks 31.1



## Trend Data for Lake of the Ozarks 31.1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

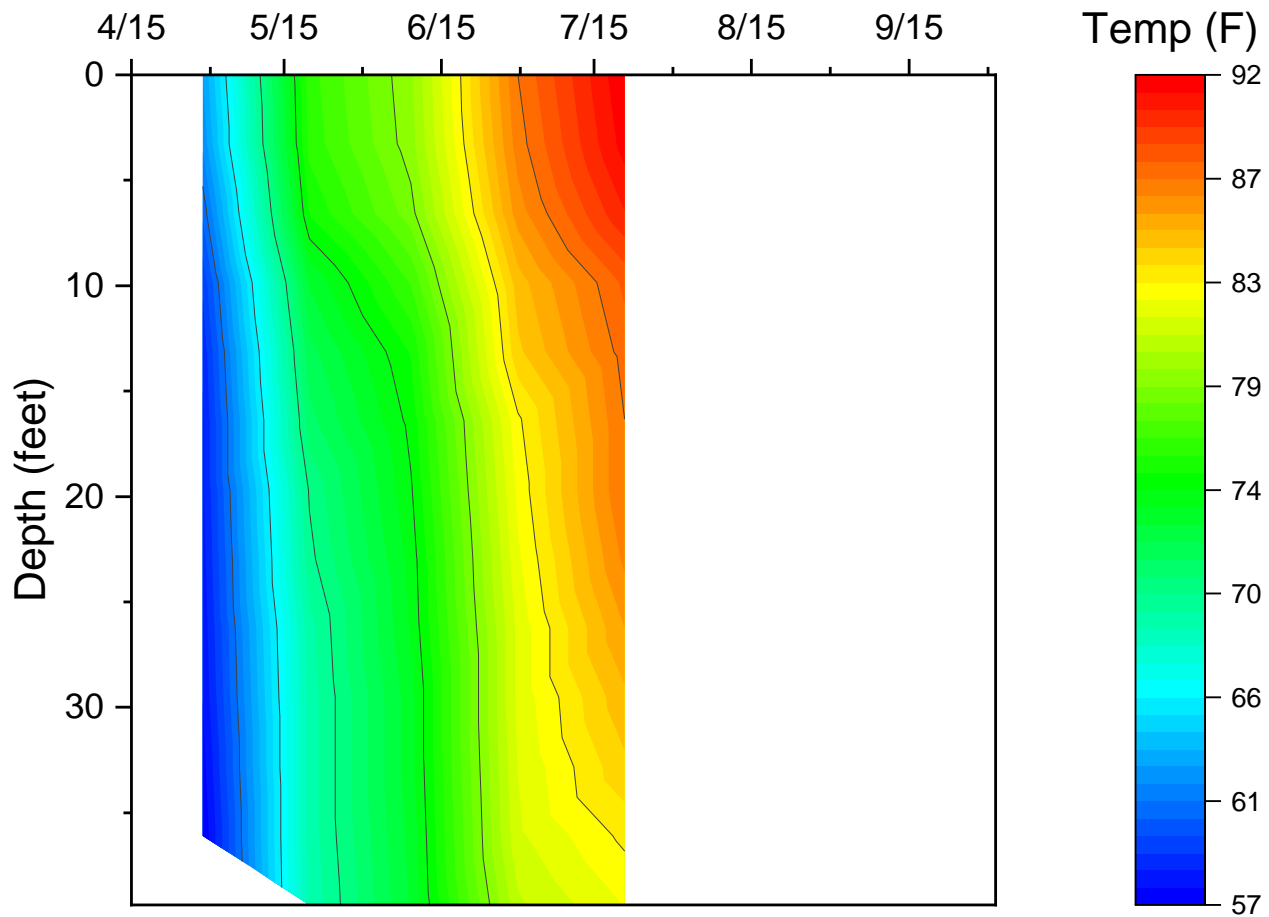


# Lake of the Ozarks, Site 31.1

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.



Lake of the Ozarks, Site 31.1

# Summary Report for Lake of the Ozarks 51



	4/26	5/17	6/7	6/28	7/19	8/9	8/30	9/20	Mean*
Temperature (F)	64	70	75	86	90	90	86	82	80
Secchi (feet)	1.3	1.3	1.3	2.3	2.6	2.6	2.3	3.3	2.1
Phosphorus (µg/L)	66	93	108	52	49	49	62	75	69
Nitrogen (µg/L)	1190	1460	1285	840	570	670	630	655	913
Ammonium (µg/L)	40	36	<10	<10	<10	<10	<10	<10	13
Nitrate (µg/L)	687	718	676	231	7	<5	16	7	293
Chlorophyll (µg/L)	15.2	14.4	31.1	17.9	15.5	34.3	38.5	28.2	24.4
Susp. Sediment (mg/L)	12.8	20.9	20.7	5.9	4.0	3.7	3.7	2.3	9.3
Microcystin (µg/L)	<0.10	<0.10	0.16	0.25	0.38	0.24	0.13	0.17	0.18
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

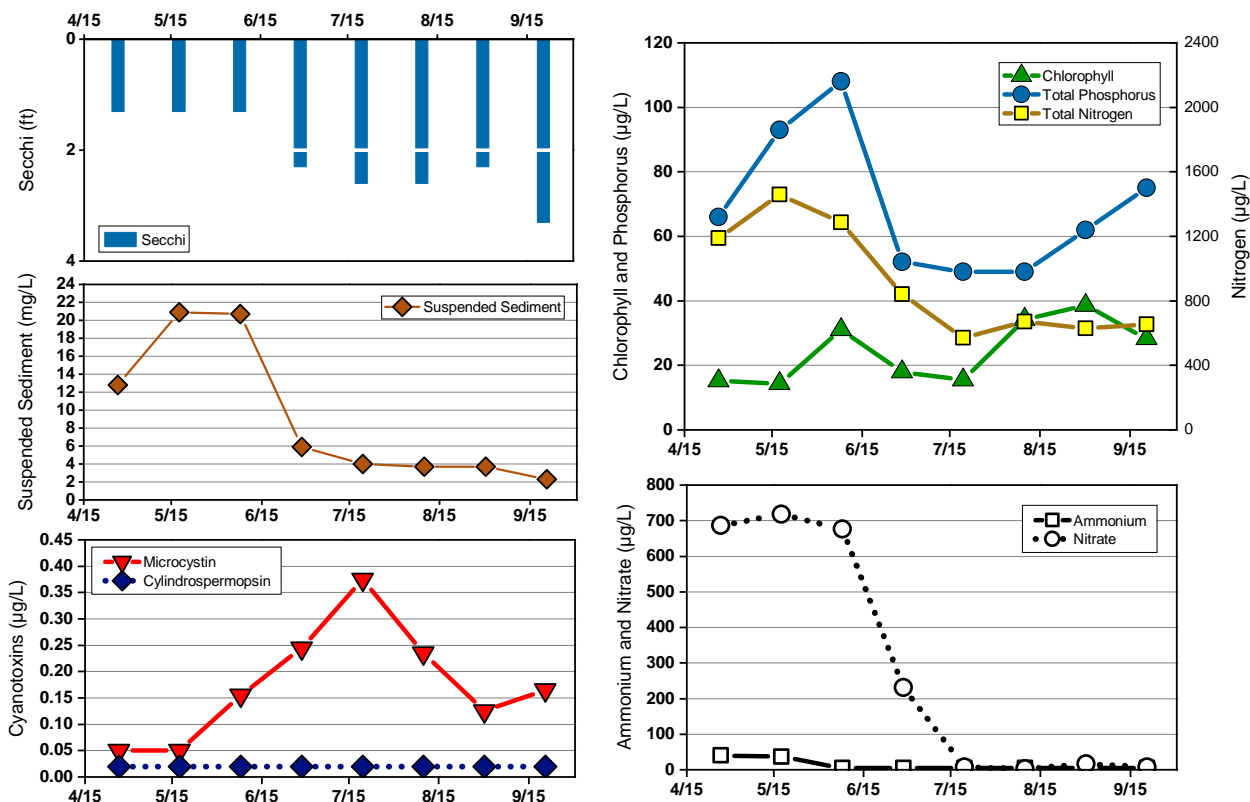
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

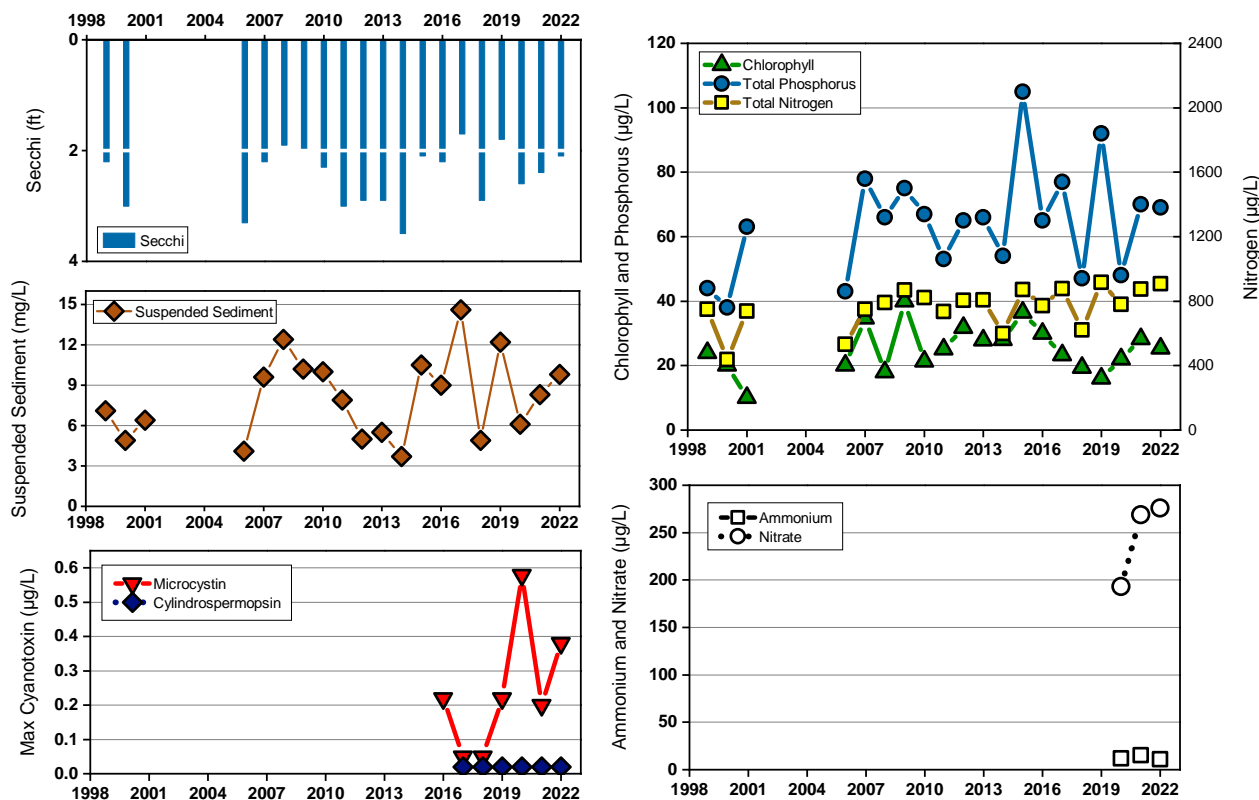
# Summary Report for Lake of the Ozarks 51



## 2022 Data for Lake of the Ozarks 51



## Trend Data for Lake of the Ozarks 51



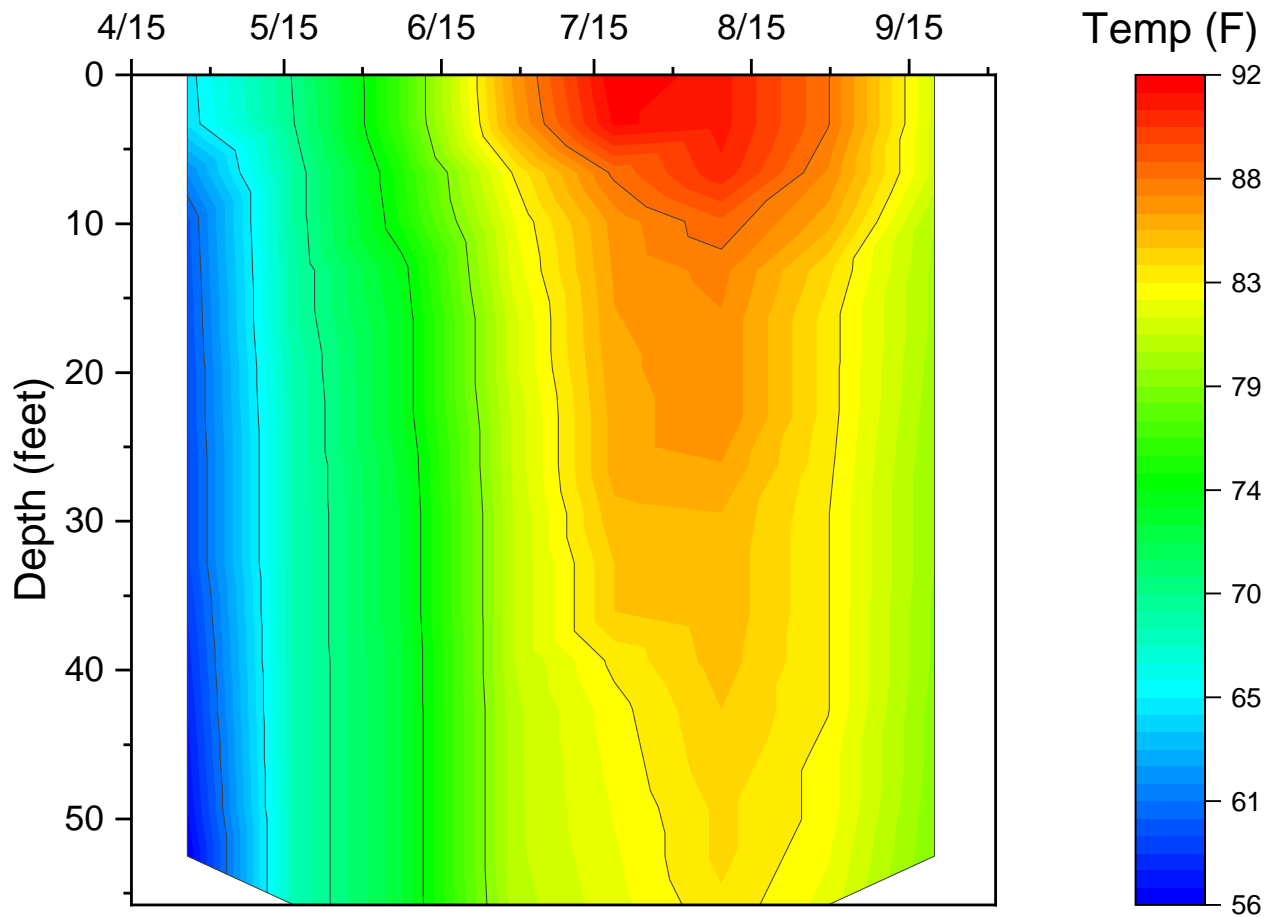
Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Lake of the Ozarks, Site 51

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.



Lake of the Ozarks, Site 51

# Summary Report for Lake of the Ozarks 61



	6/28	7/21	9/1						Mean*
Temperature (F)	81	90	82						84
Secchi (feet)	1.6	1.6	1.6						1.6
Phosphorus (µg/L)	52	46	56						51
Nitrogen (µg/L)	895	655	595						715
Ammonium (µg/L)	<10	<10	<10						<10
Nitrate (µg/L)	261	9	14						95
Chlorophyll (µg/L)	19.6	18.7	23.2						20.5
Susp. Sediment (mg/L)	9.0	5.5	8.0						7.5
Microcystin (µg/L)	0.21	0.26	0.16						0.21
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04						<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

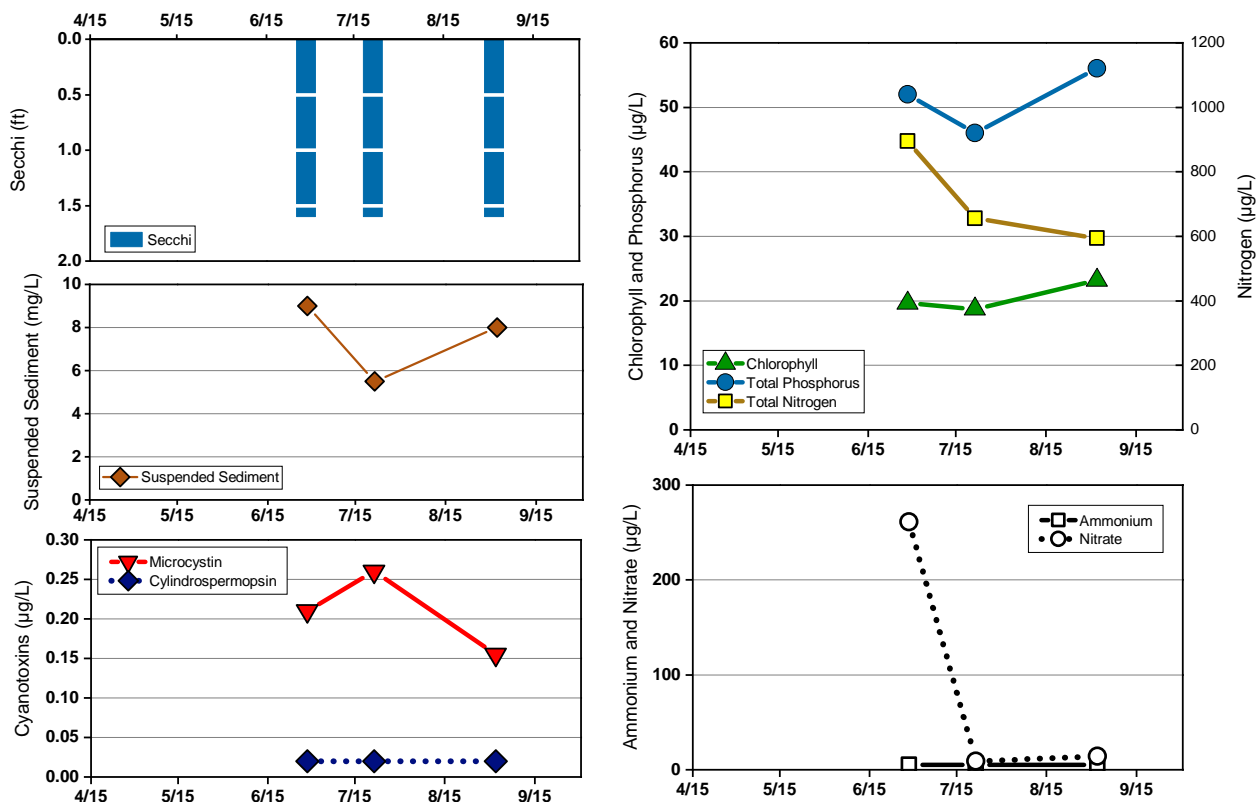
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

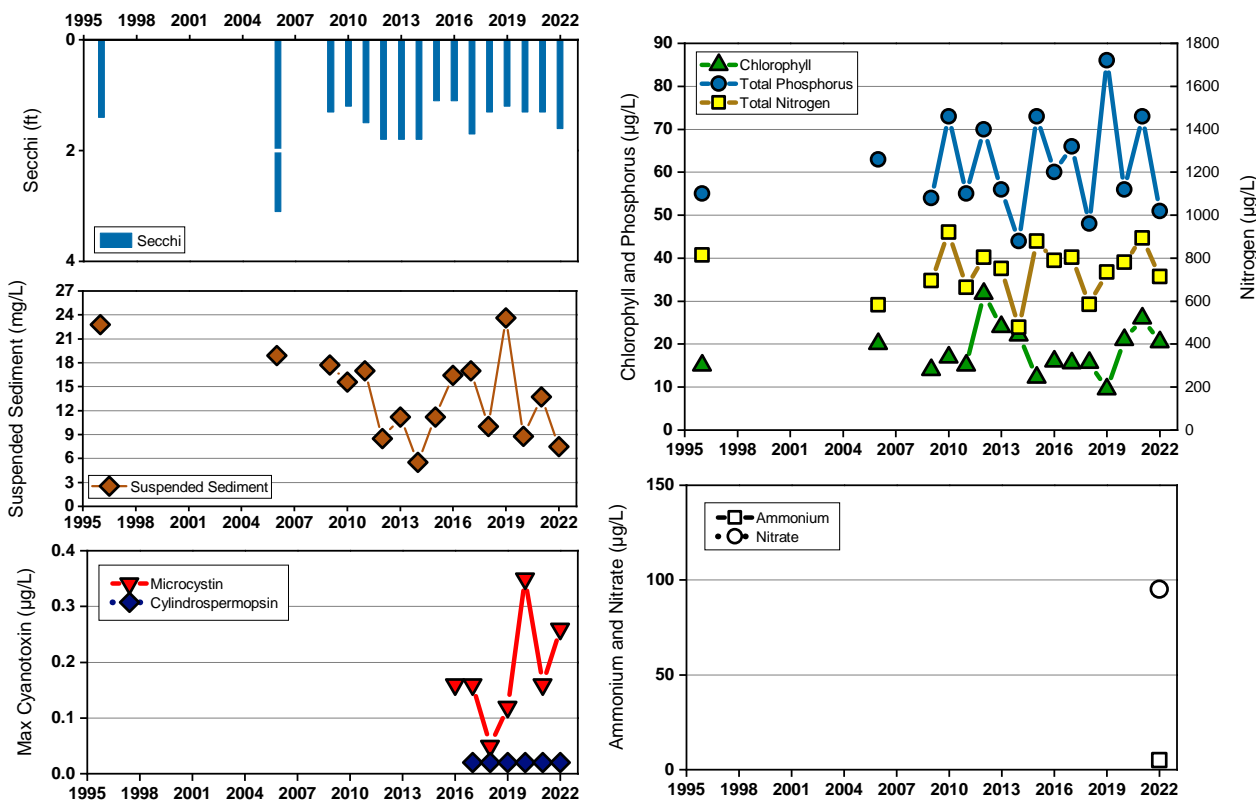
# Summary Report for Lake of the Ozarks 61



## 2022 Data for Lake of the Ozarks 61



## Trend Data for Lake of the Ozarks 61



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Mallard 1



	4/27	5/16	6/10	6/28	7/19	8/11	8/28	9/21	Mean*
Temperature (F)	64	79	81	84	90	84	84	84	81
Secchi (feet)	2	1.6	1.6	2.3	2.3	2	2	1.6	1.9
Phosphorus (µg/L)	89	79	82	74	69	128	91	101	89
Nitrogen (µg/L)	1195	1148	1165	730	703	960	793	810	938
Ammonium (µg/L)	<10	<10	<10	<10	<10	16	15	<10	<10
Nitrate (µg/L)	198	8	<5	<5	<5	30	<5	<5	31
Chlorophyll (µg/L)	47.2	65.4	57.9	52.9	39.7	38.7	81.0	90.7	59.2
Susp. Sediment (mg/L)	10.2	13.4	8.8	4.0	7.0	8.2	8.4	10.0	8.8
Microcystin (µg/L)	0.18	0.18	0.22	0.11	0.12	<0.10	0.14	0.14	0.14
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.05	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

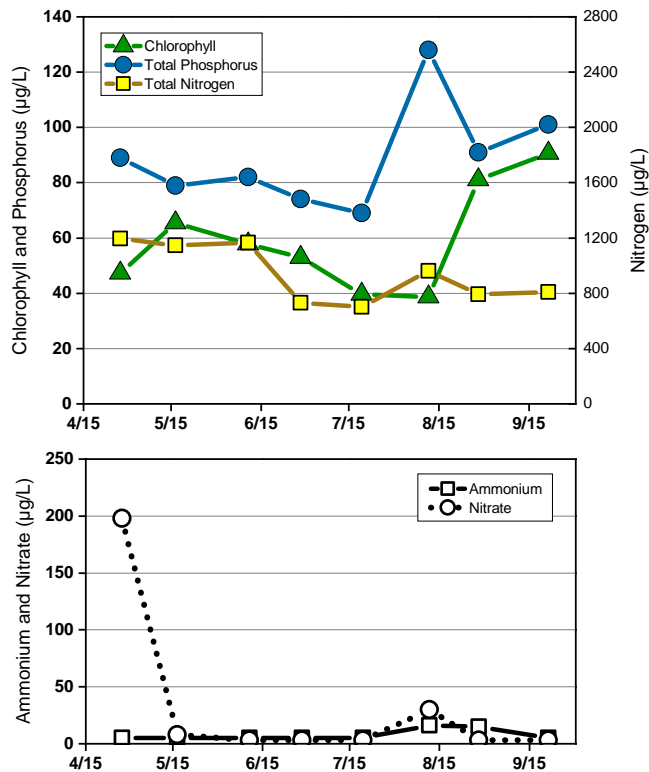
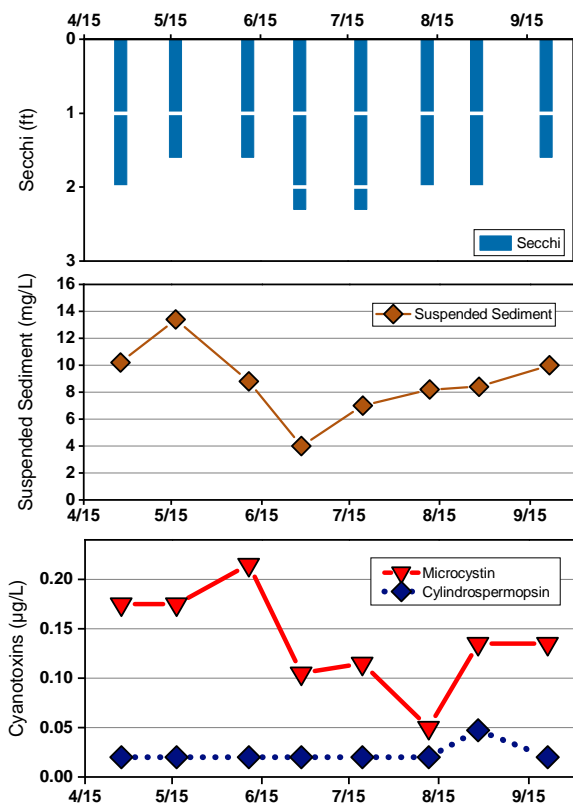
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

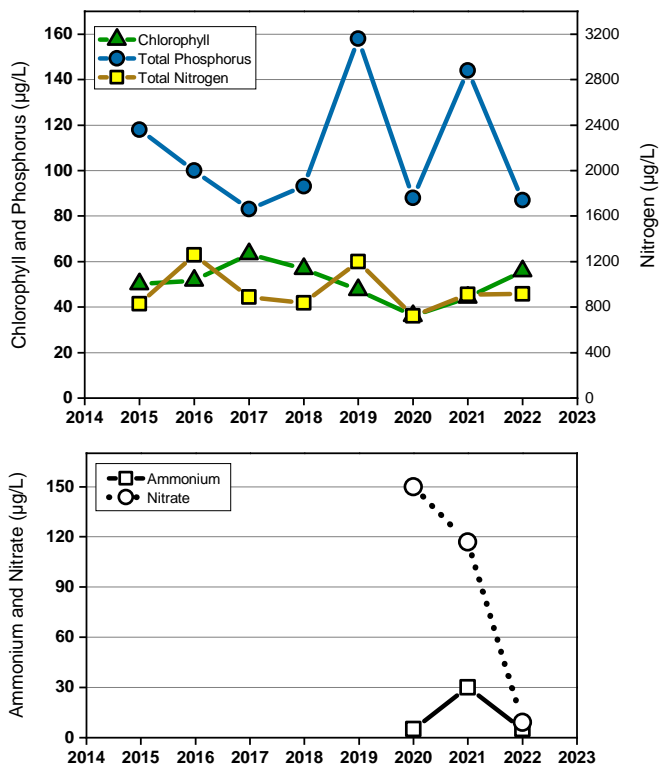
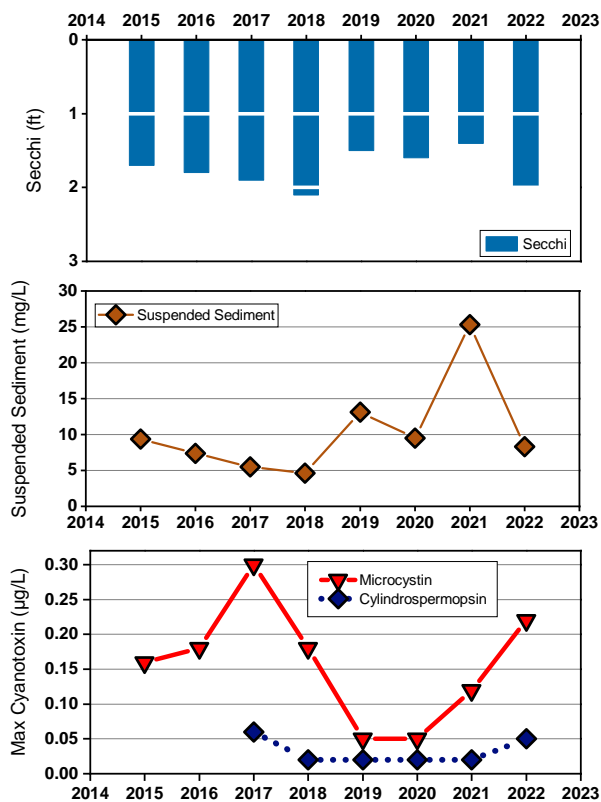
# Summary Report for Mallard 1



## 2022 Data for Mallard 1



## Trend Data for Mallard 1



Trend data graphs show annual arithmetic means from 2015 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

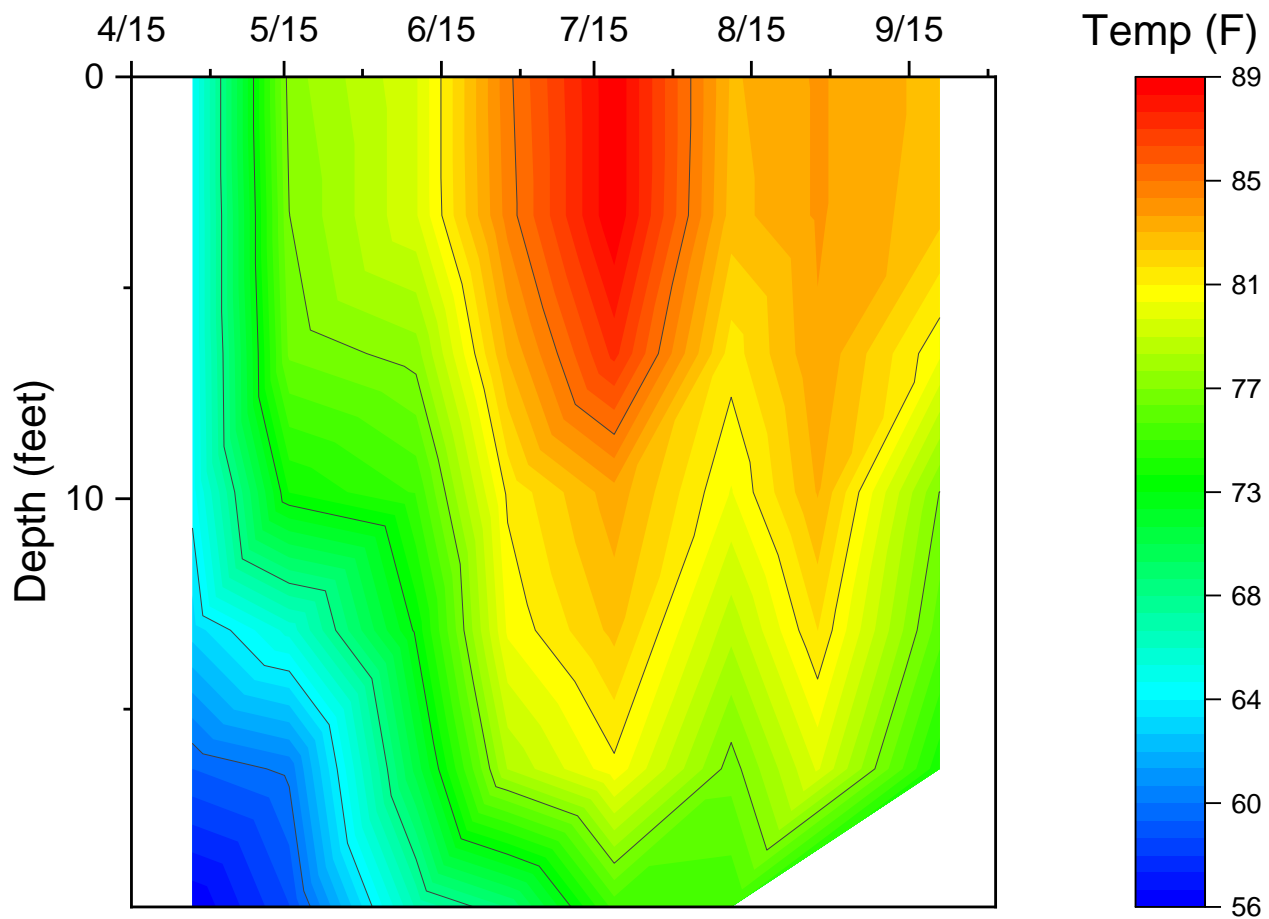


# Mallard, Site 1

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.



Mallard, Site 1

# Summary Report for Mark Twain 1



	4/29	5/21	6/5	7/1	7/19	8/14	9/23		Mean
Temperature (F)	52	66	72	81	84	79	70		72
Secchi (feet)	0.7	1.3	1.6	3.3	4.9	3.6	4.9		2.9
Phosphorus (µg/L)	101	122	108	50	30	27	27		66
Nitrogen (µg/L)	1740	950	1920	1515	1440	1230	595		1396
Ammonium (µg/L)	32	26	23	22	12	<10	<10		18
Nitrate (µg/L)	729	1330	1358	922	891	575	30		834
Chlorophyll (µg/L)	6.1	4.4	11.6	19.8	10.2	25.5	17.7		13.6
Susp. Sediment (mg/L)	7.5	7.2	5.7	3.9	1.7	<0.1	1.4		3.9
Microcystin (µg/L)	<0.10	0.11	<0.10	<0.10	0.21	0.27	0.16		0.13
Cylindrospermopsin (µg/L)	<0.04	0.05	<0.04	<0.04	0.05	<0.04	<0.04		<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

Temperature: Water temperature, degrees Fahrenheit.

Secchi: Measure of water clarity, feet.

Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.

Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.

Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.

Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.

Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

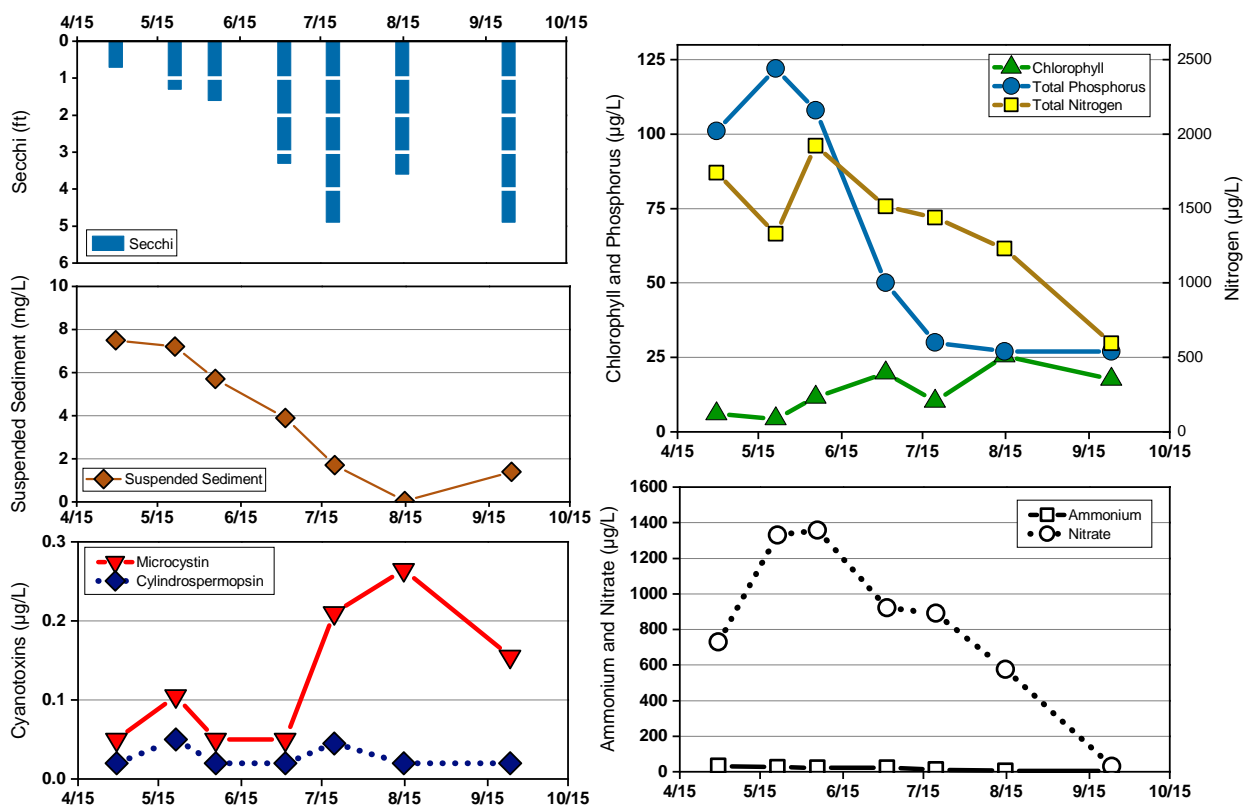
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

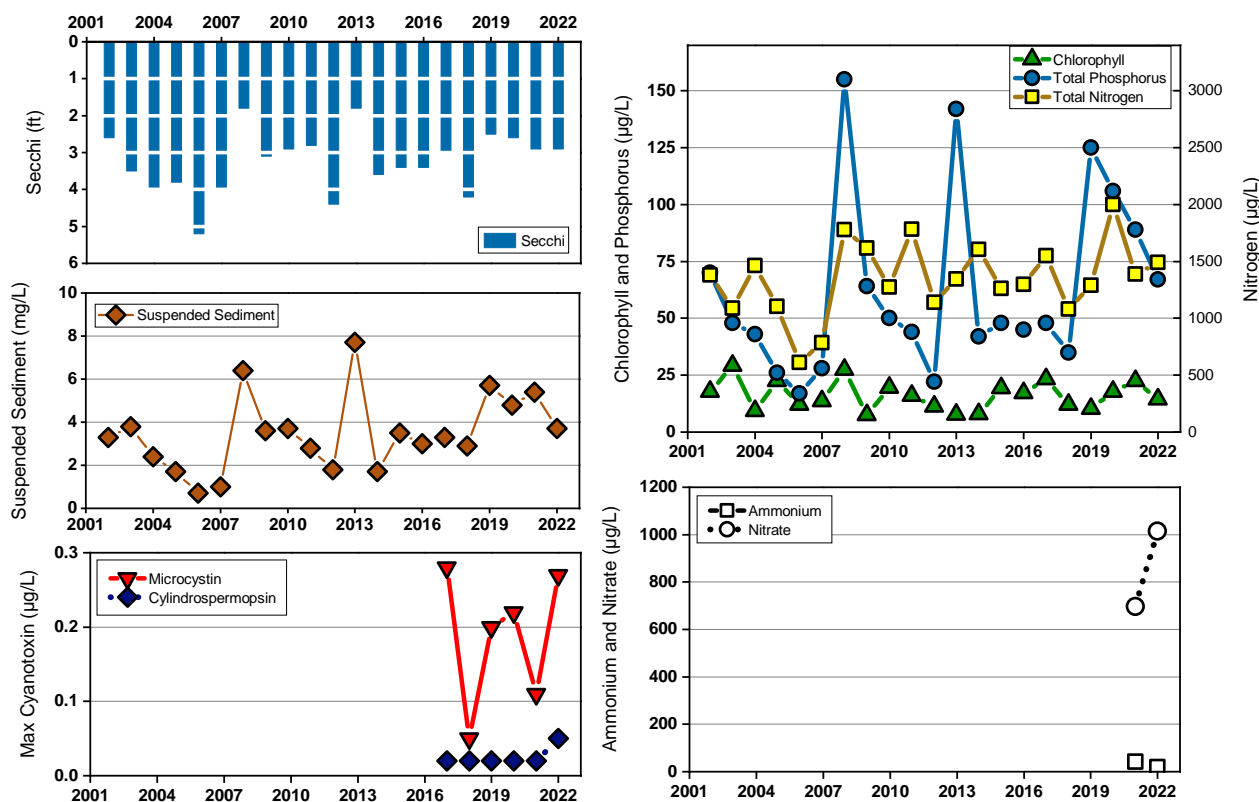
# Summary Report for Mark Twain 1



## 2022 Data for Mark Twain 1



## Trend Data for Mark Twain 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Mark Twain 2



	4/29	5/21	6/5	7/1	7/19	8/14	9/23		Mean
Temperature (F)	54	68	72	81	84	79	70		72
Secchi (feet)	0.7	1.3	1.6	3.6	5.2	3.9	5.2		3.1
Phosphorus (µg/L)	121	120	121	38	29	29	26		69
Nitrogen (µg/L)	1660	950	1677	1795	1325	1263	680		1403
Ammonium (µg/L)	21	15	11	22	16	<10	15		15
Nitrate (µg/L)	1226	1290	1217	861	762	520	28		843
Chlorophyll (µg/L)	9.9	11.1	11.8	20.7	8.3	24.3	17.2		14.8
Susp. Sediment (mg/L)	8.9	9.2	6.8	4.2	1.8	0.7	1.9		4.8
Microcystin (µg/L)	<0.10	<0.10	<0.10	0.68	0.32	<0.10	<0.10		0.18
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	0.04	<0.04	<0.04		<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
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- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

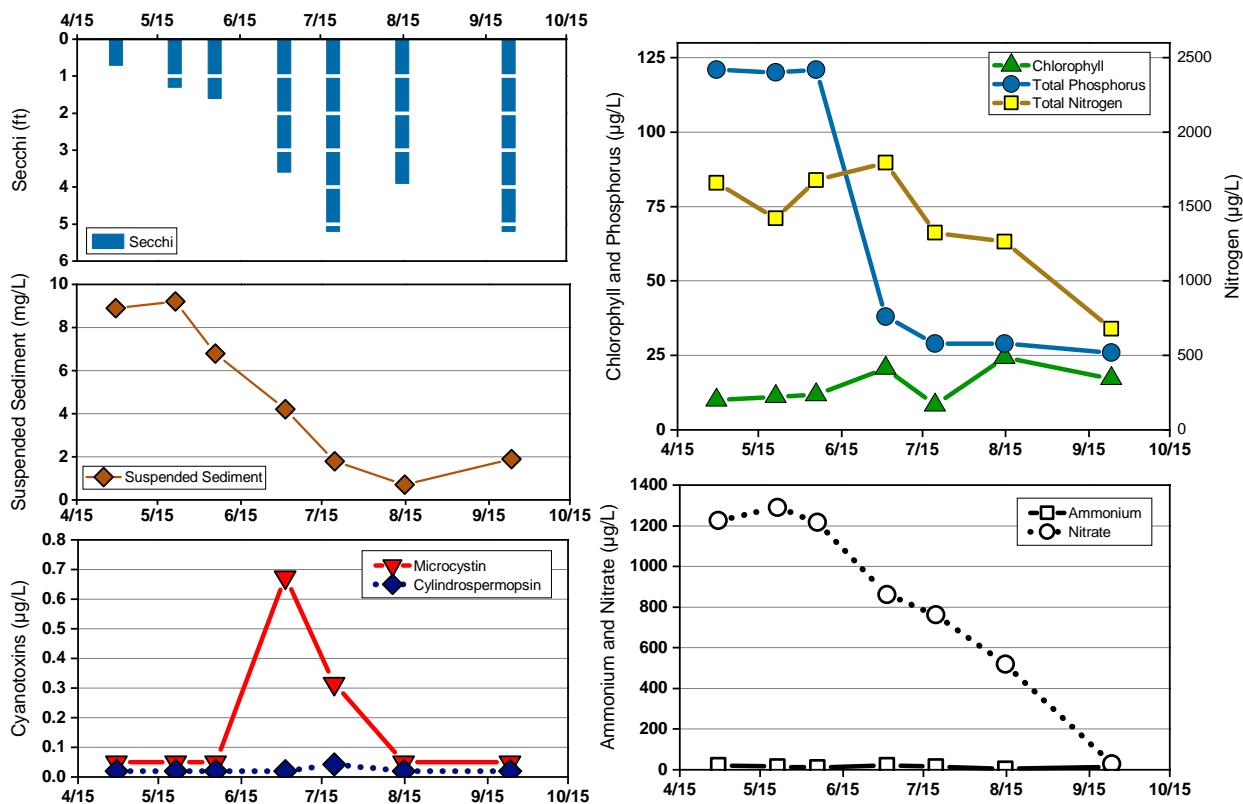
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	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
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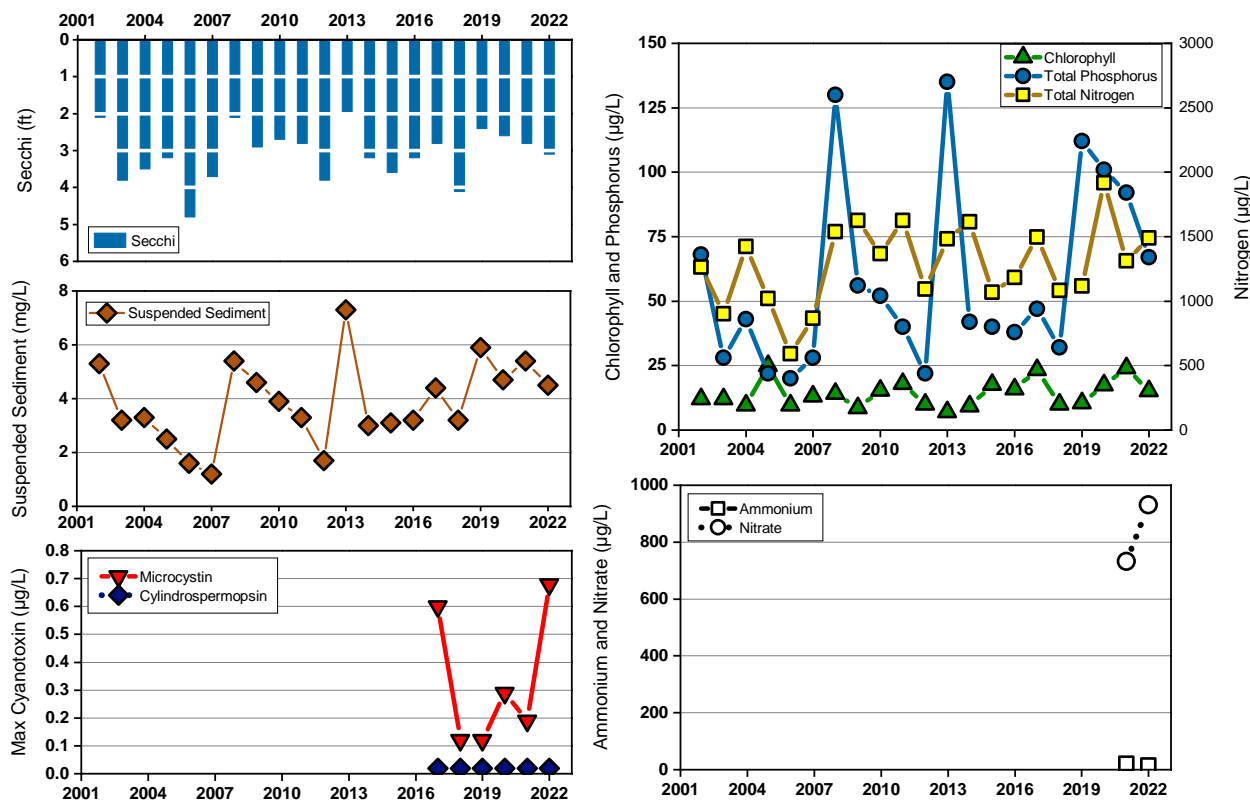
# Summary Report for Mark Twain 2



## 2022 Data for Mark Twain 2



## Trend Data for Mark Twain 2



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Mark Twain 5



	4/29	5/21	6/5	7/1	7/19	8/14	9/23		Mean
Temperature (F)	54	68	70	81	84	79	70		72
Secchi (feet)	0.7	1	1.6	3.3	5.2	3.6	5.2		2.9
Phosphorus (µg/L)	134	134	132	49	32	31	24		77
Nitrogen (µg/L)	1500	950	1390	1943	1610	760	588		1467
Ammonium (µg/L)	21	24	17	14	13	<10	20		16
Nitrate (µg/L)	1471	1230	1378	1159	1049	522	26		976
Chlorophyll (µg/L)	5.2	4.2	8.8	27.9	10.2	18.6	17.2		13.2
Susp. Sediment (mg/L)	8.0	7.0	8.1	5.2	2.1	1.9	1.5		4.8
Microcystin (µg/L)	<0.10	<0.10	0.27	1.07	0.65	<0.10	<0.10		0.31
Cylindrospermopsin (µg/L)	0.07	<0.04	<0.04	0.05	<0.04	<0.04	<0.04		<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
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Temperature: Water temperature, degrees Fahrenheit.

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Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.

Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

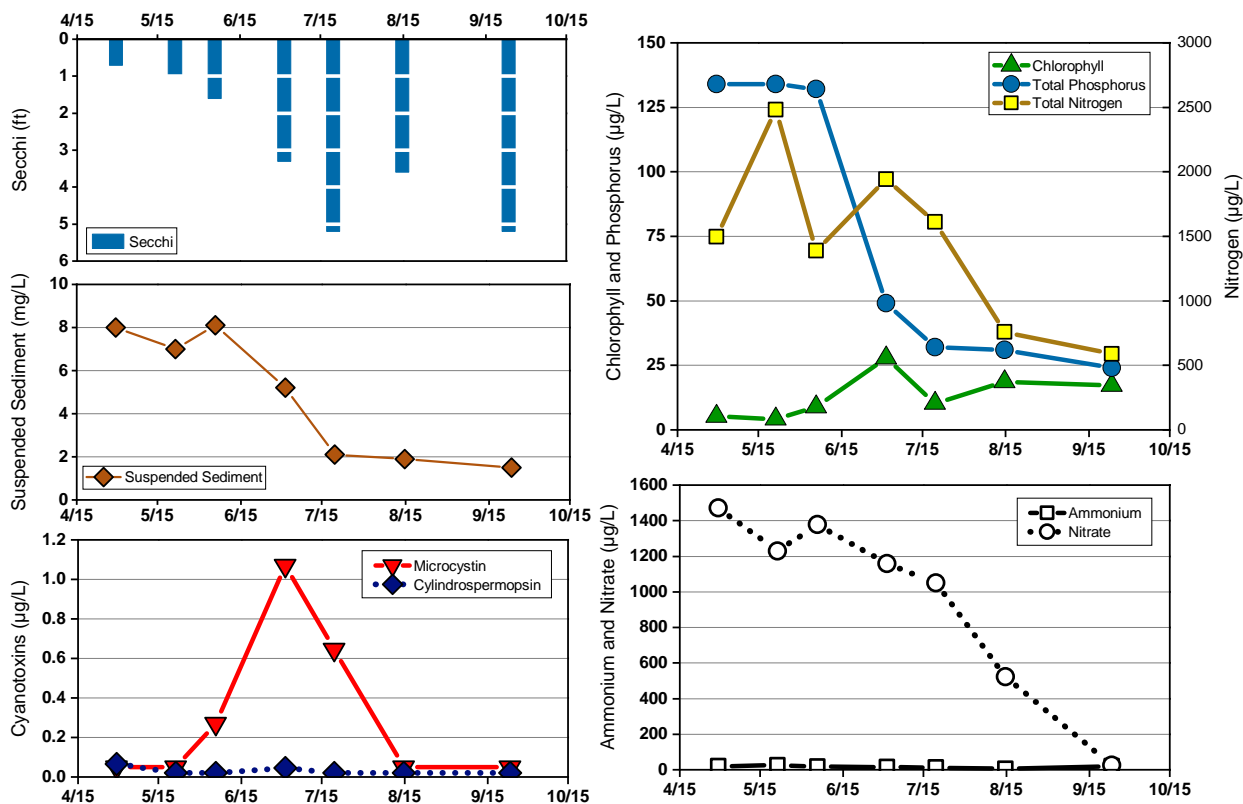
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Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

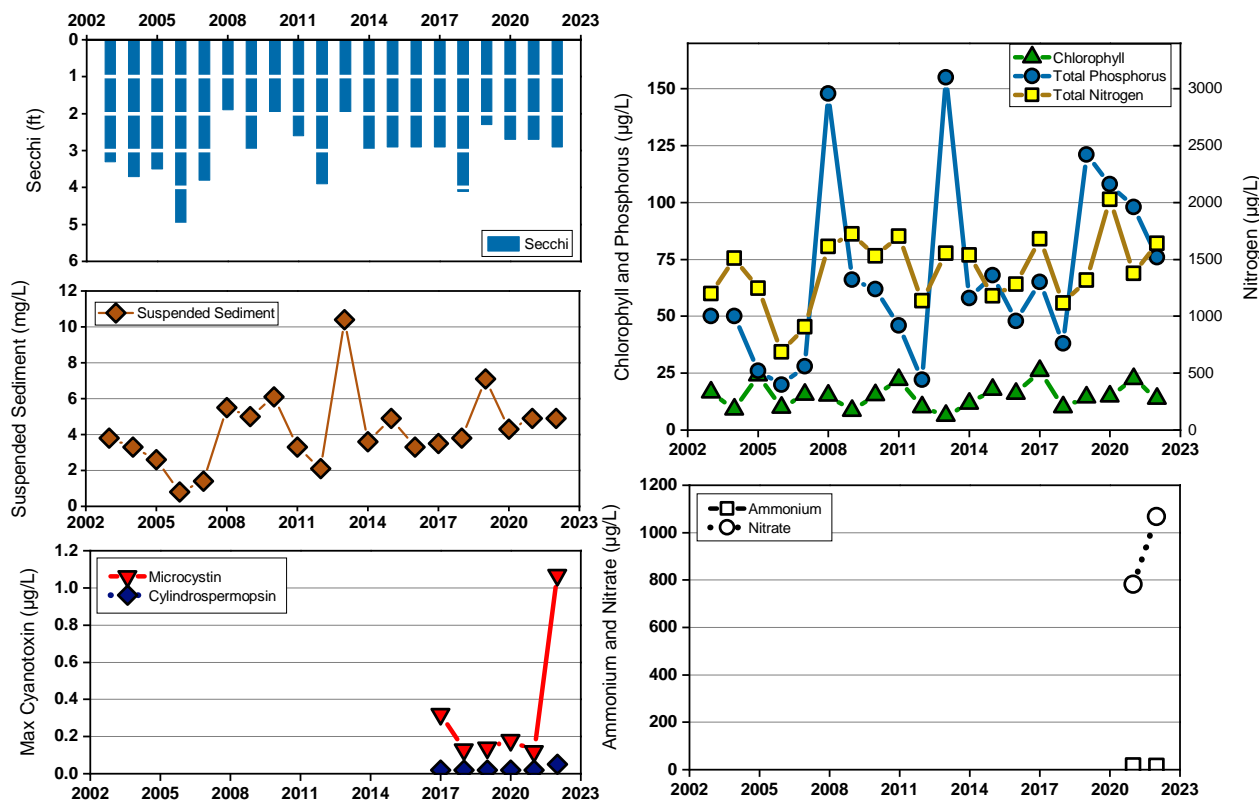
# Summary Report for Mark Twain 5



## 2022 Data for Mark Twain 5



## Trend Data for Mark Twain 5



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.



# Summary Report for Phillips 1



	5/11	6/13	7/3	7/30	9/13	10/6			Mean*
Temperature (F)	72	81	81	81	73	68			76
Secchi (feet)	1.6	2.3	1.3	1.6	3.6	3.3			2.3
Phosphorus (µg/L)	46	32	49	45	29	27			38
Nitrogen (µg/L)	703	590	555	785	500	460			599
Ammonium (µg/L)	11	15	16	56	<10	12			19
Nitrate (µg/L)	136	23	16	11	8	7			34
Chlorophyll (µg/L)	16.0	9.3	13.6	17.0	8.2	8.0			12.0
Susp. Sediment (mg/L)	11.6	8.4	14.3	11.4	3.6	4.9			9.0
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10			<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	0.05	0.05			<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

The table below shows EPA health advisories for cyanotoxin exposure.

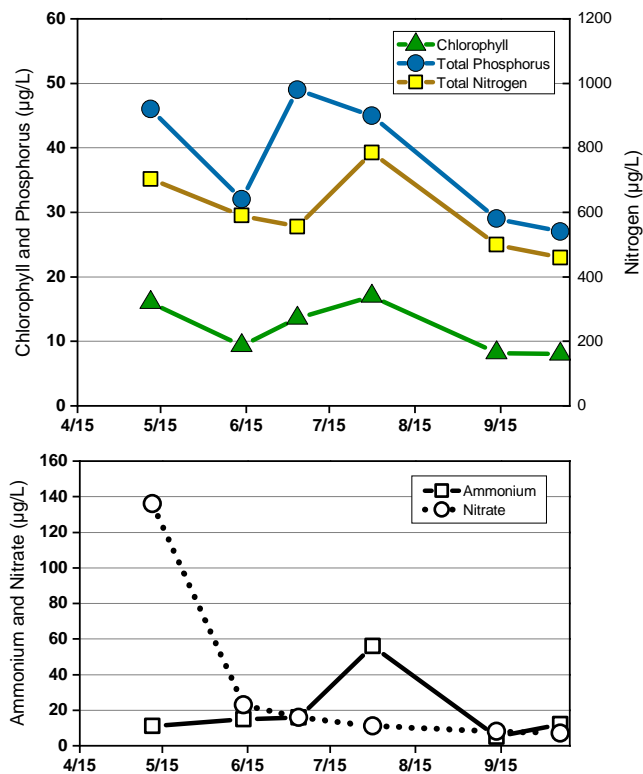
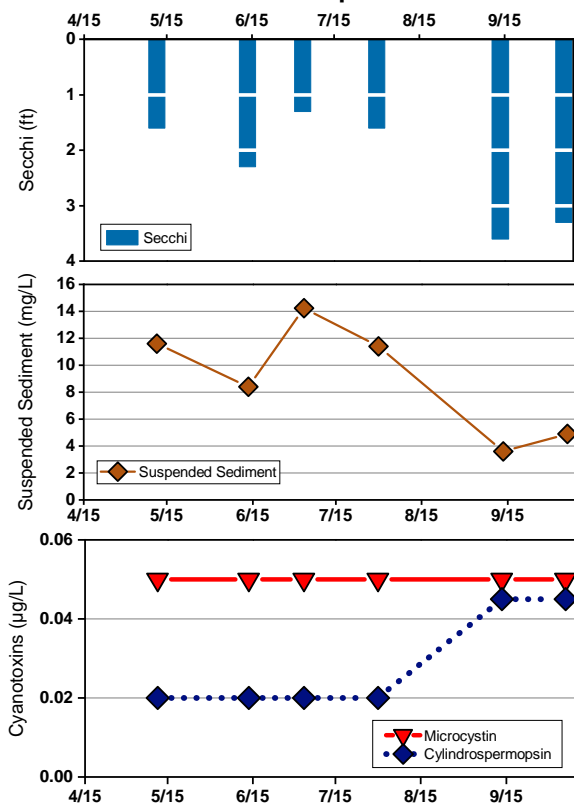
	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L



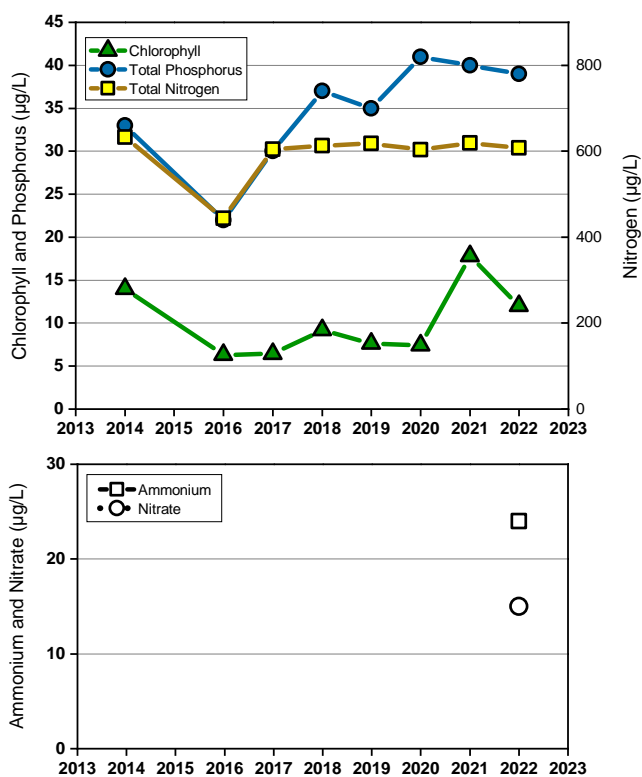
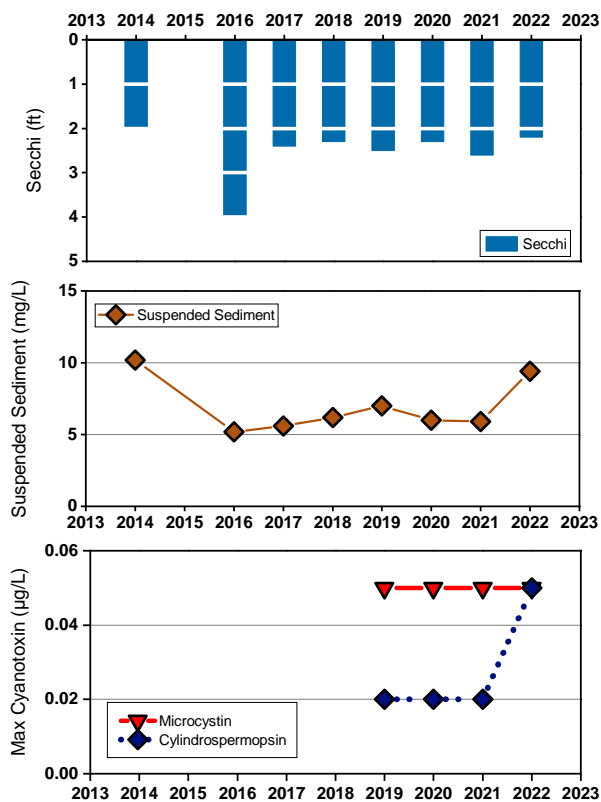
# Summary Report for Phillips 1



## 2022 Data for Phillips 1



## Trend Data for Phillips 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Pomme de Terre 5



2022 Data Table								
	6/9							Mean*
Temperature (F)	82							82
Secchi (feet)	2.6							2.6
Phosphorus (µg/L)	46							46
Nitrogen (µg/L)	760							760
Ammonium (µg/L)	12							12
Nitrate (µg/L)	<5							<5
Chlorophyll (µg/L)	18.3							18.3
Susp. Sediment (mg/L)	2.5							2.5
Microcystin (µg/L)	0.28							0.28
Cylindrospermopsin (µg/L)	<0.04							<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Limit of Detection Values	
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

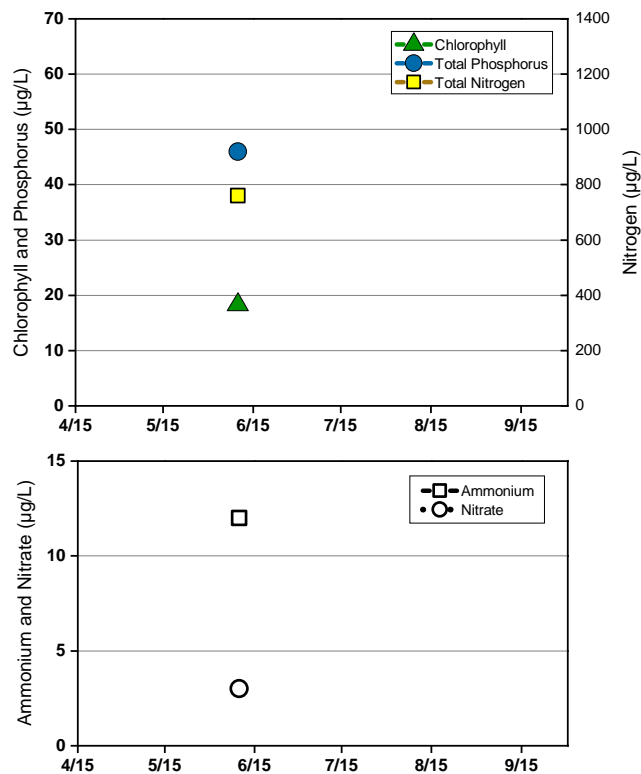
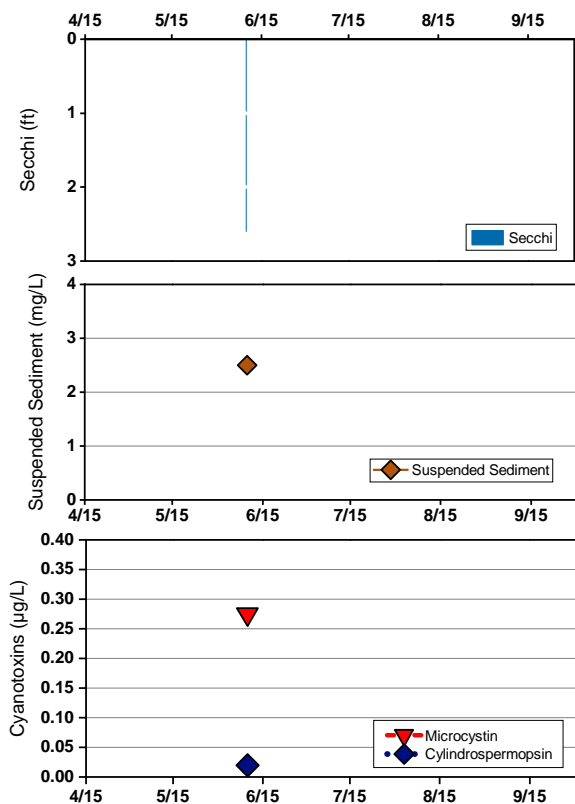
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

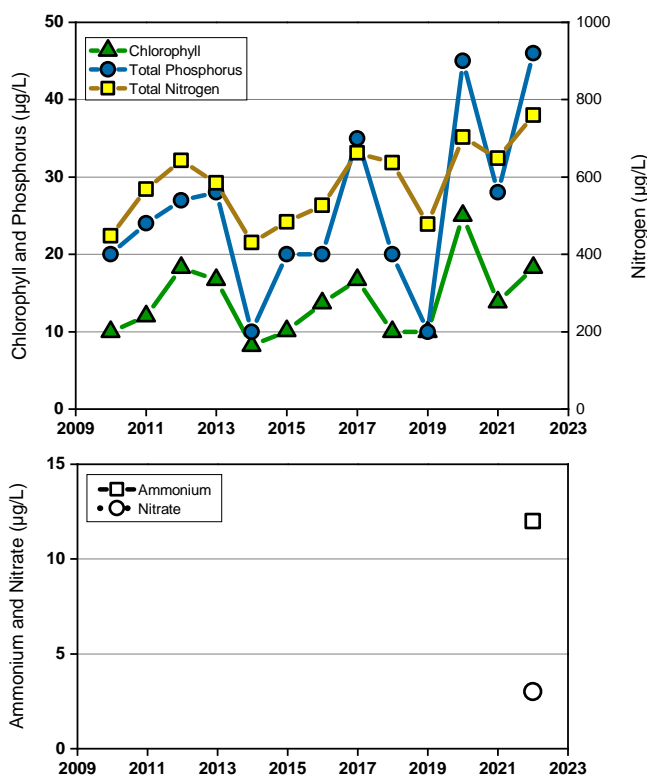
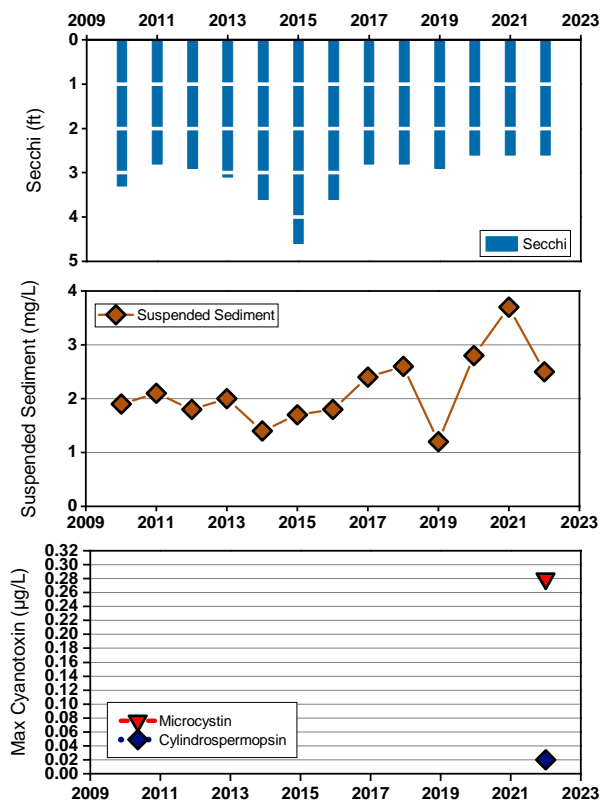
# Summary Report for Pomme de Terre 5



## 2022 Data for Pomme de Terre 5



## Trend Data for Pomme de Terre 5



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Prairie Lee 1



	5/17	6/10	6/26	7/19	8/13	8/31	9/22		Mean
Temperature (F)	79	82	82	91	88	88	79		84
Secchi (feet)	4.3	3.3	3	2.6	2.6	3.6	4.3		3.4
Phosphorus (µg/L)	42	49	51	37	41	40	35		42
Nitrogen (µg/L)	1005	950	845	615	740	595	520		752
Ammonium (µg/L)	29	14	<10	<10	<10	<10	<10		10
Nitrate (µg/L)	265	170	<5	<5	<5	<5	<5		63
Chlorophyll (µg/L)	15.3	20.7	23.4	17.0	26.1	16.6	19.0		19.7
Susp. Sediment (mg/L)	1.5	2.9	2.1	4.8	2.2	1.2	2.0		2.4
Microcystin (µg/L)	<0.10	<0.10	<0.10	0.18	0.14	0.19	0.18		0.12
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

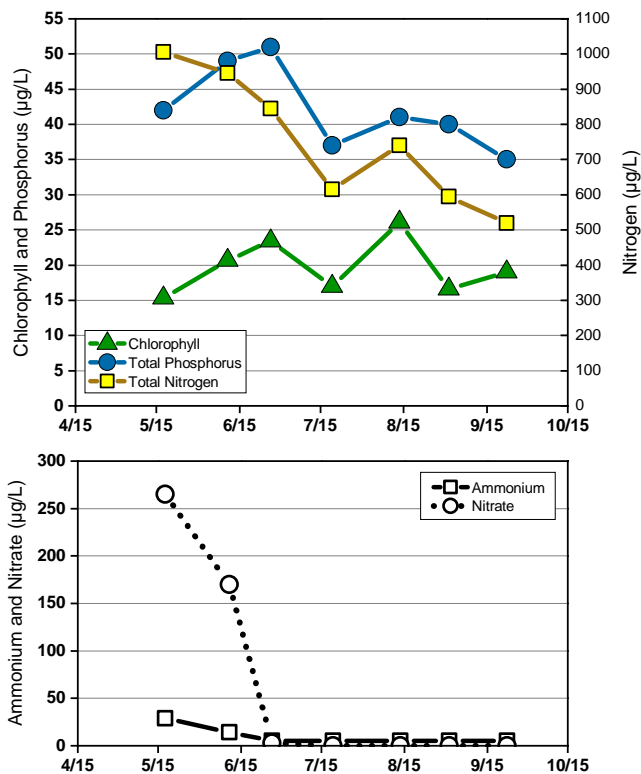
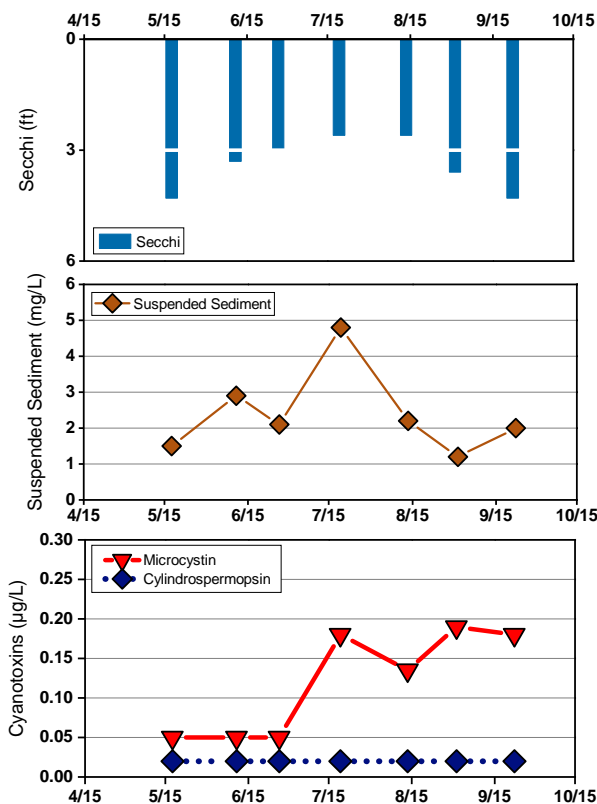
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

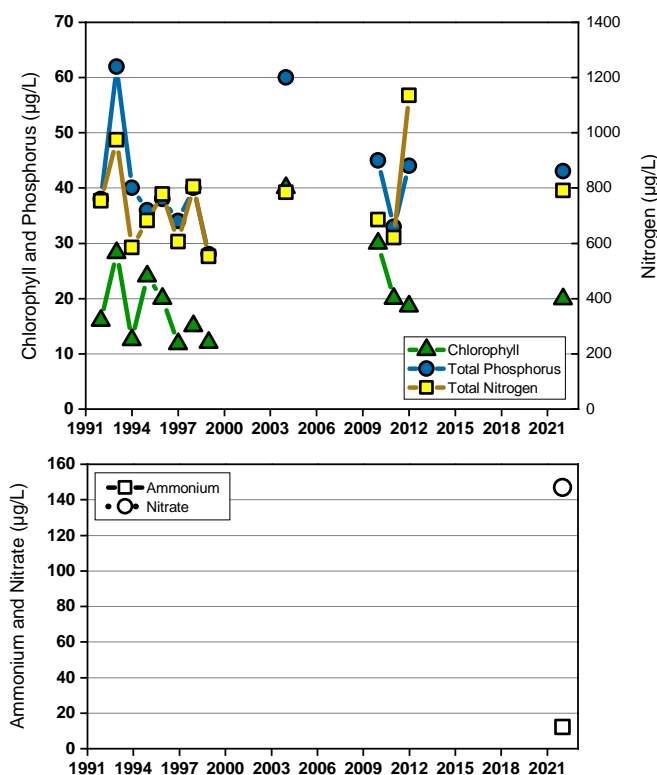
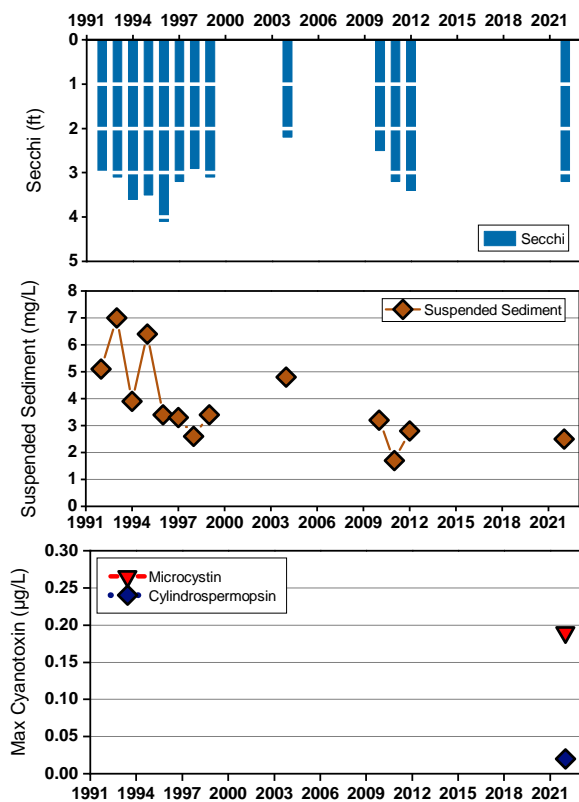
# Summary Report for Prairie Lee 1



## 2022 Data for Prairie Lee 1



## Trend Data for Prairie Lee 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Raintree 1



	7/31	8/28	9/19						Mean*
Temperature (F)	84	81	81						82
Secchi (feet)	2.3	2.6	2.3						2.4
Phosphorus (µg/L)	87	76	64						76
Nitrogen (µg/L)	900	1120	1165						1062
Ammonium (µg/L)	25	15	65						35
Nitrate (µg/L)	67	23	57						49
Chlorophyll (µg/L)	46.8	40.9	34.2						40.6
Susp. Sediment (mg/L)	7.0	6.3	4.0						5.8
Microcystin (µg/L)	0.68	0.18	0.21						0.36
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04						<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

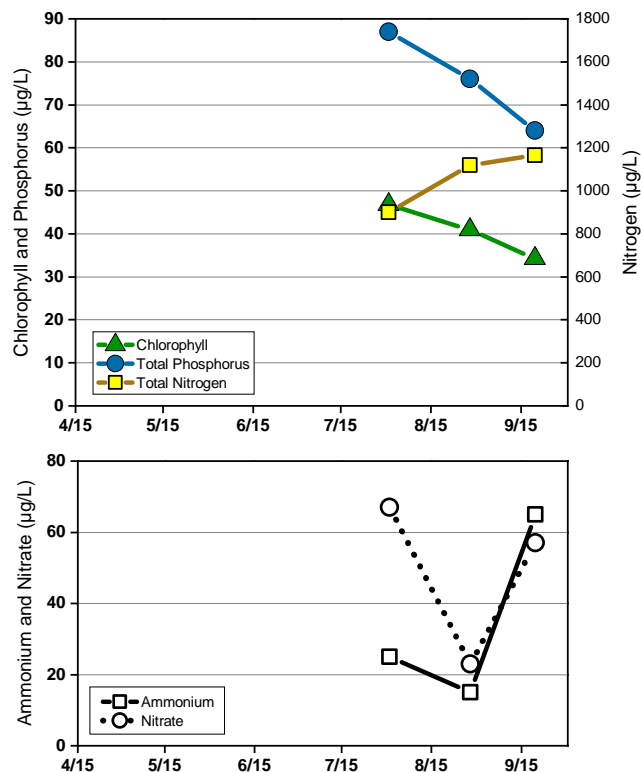
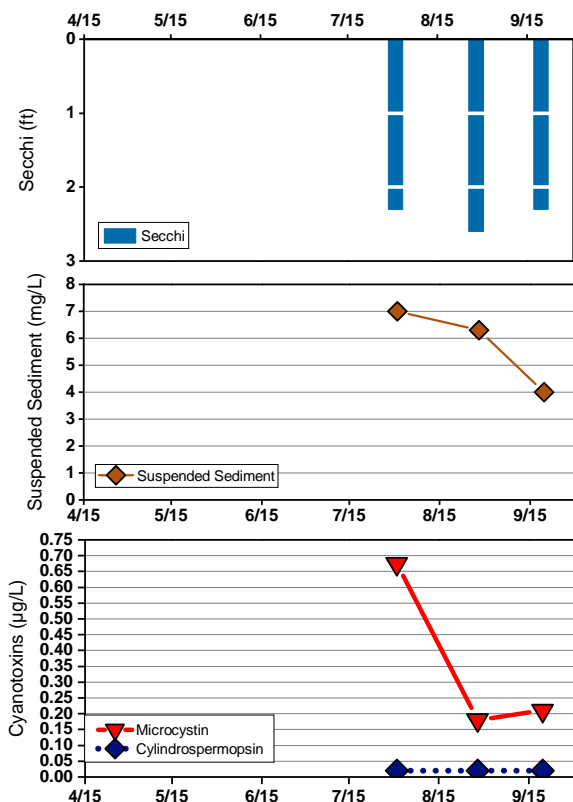
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

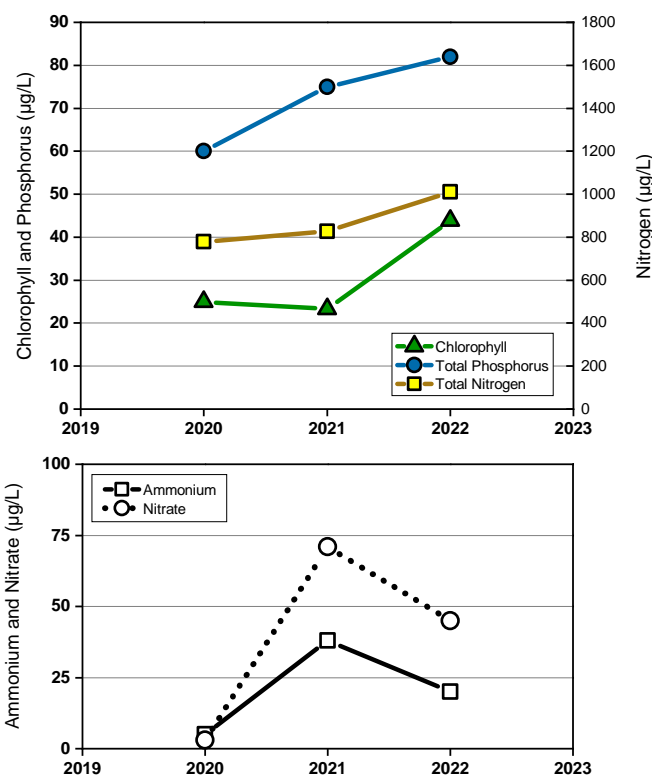
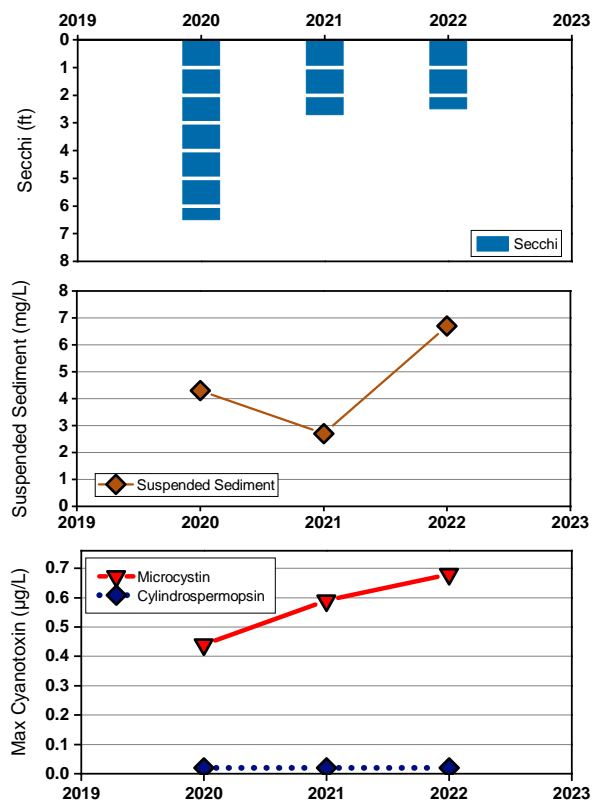
# Summary Report for Raintree 1



## 2022 Data for Raintree 1



## Trend Data for Raintree 1



Trend data graphs show annual arithmetic means from 2022 May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Rocky Fork 1



	6/28	7/11	8/4	8/31	9/28				Mean
Temperature (F)	81	91	90	82	68				82
Secchi (feet)	3.6	1.6	7.2	2.3	1.6				3.3
Phosphorus (µg/L)	41	63	70	24	59				51
Nitrogen (µg/L)	723	950	1580	885	1415				1192
Ammonium (µg/L)	17	14	<10	12	13				12
Nitrate (µg/L)	9	7	6	<5	<5				6
Chlorophyll (µg/L)	32.7	43.1	56.1	33.9	74.5				48.1
Susp. Sediment (mg/L)		4.0	3.3	2.1	0.9				2.6
Microcystin (µg/L)	<0.10	<0.10	0.15	0.17	<0.10				<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	0.06	0.72	1.06				0.38

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

The table below shows EPA health advisories for cyanotoxin exposure.

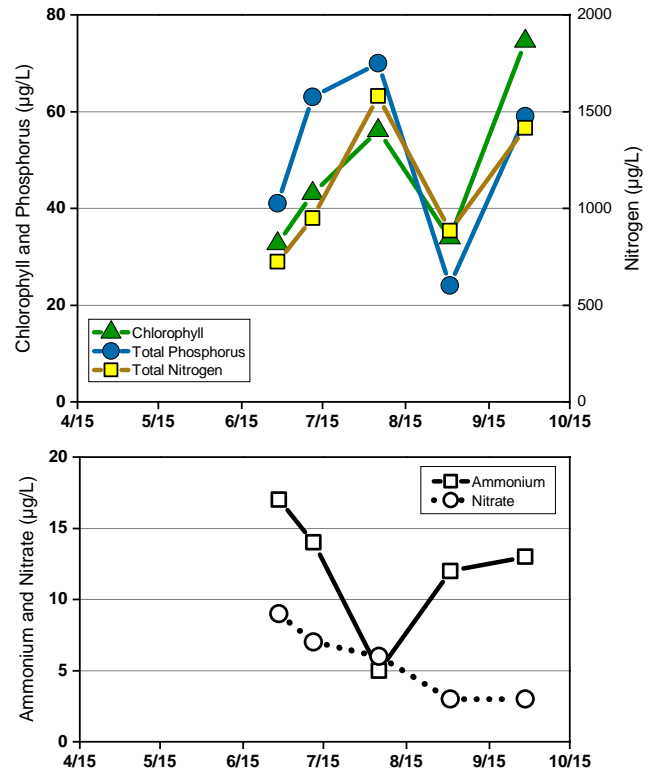
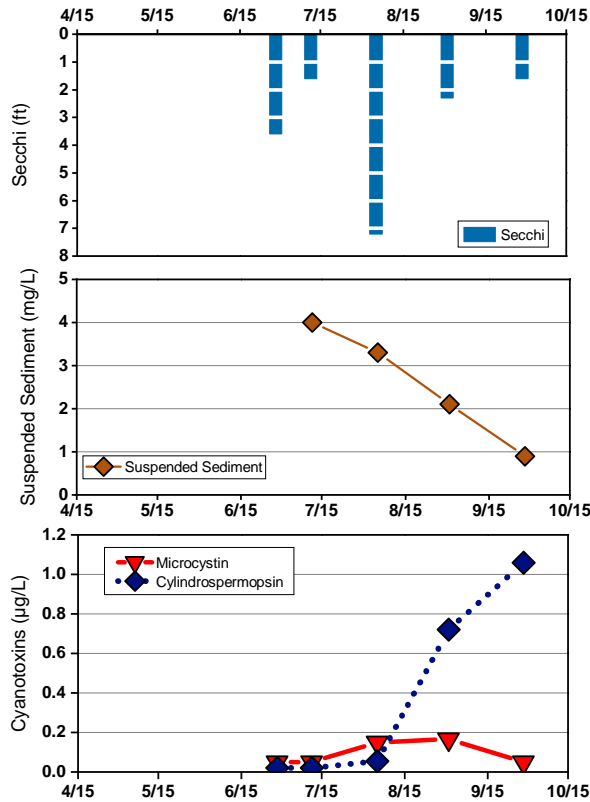
	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L



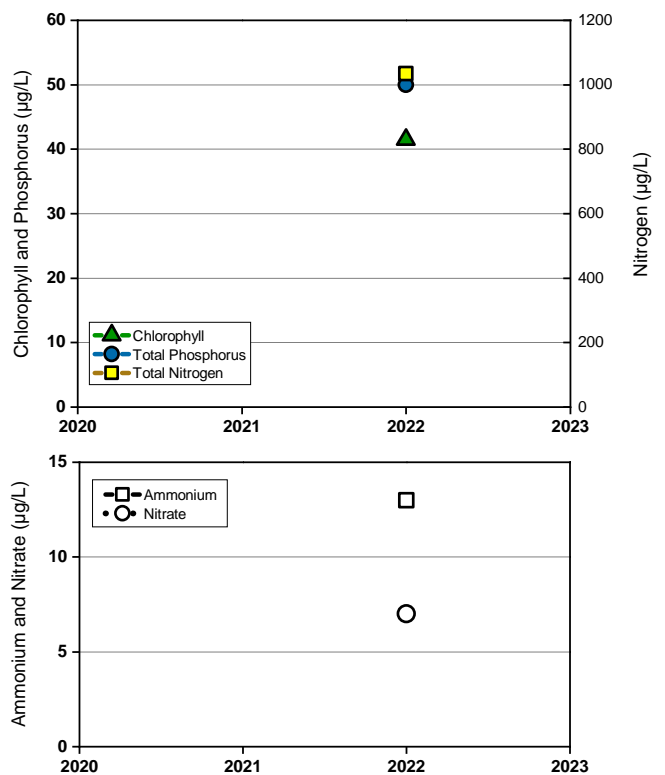
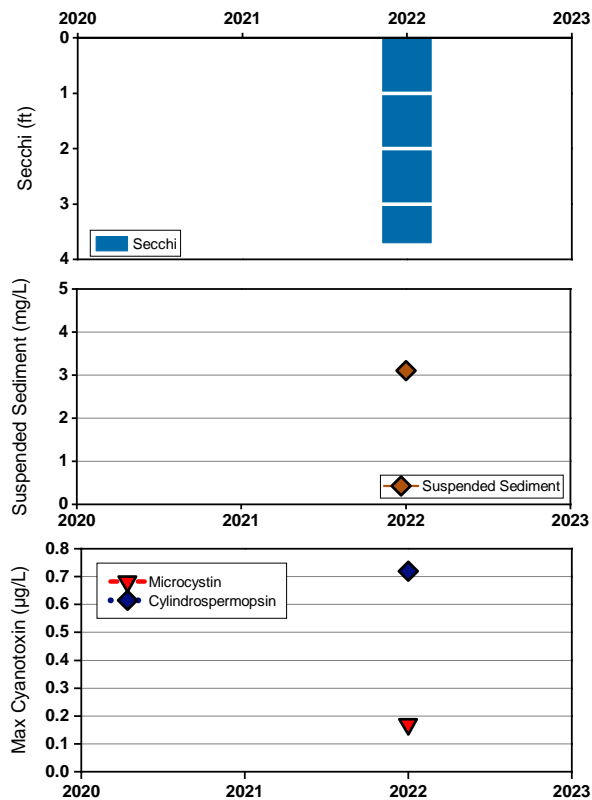
# Summary Report for Rocky Fork 1



## 2022 Data for Rocky Fork 1



## Trend Data for Rocky Fork 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Rothwell 1



	4/26	5/13	5/17	6/6	6/29	7/19	8/9	8/29	9/20	Mean
Temperature (F)	57	75	73	73	79	82	81	82.4	75	75
Secchi (feet)	5.2	7.5	7.9	7.9	3.6	4.3	3.3	4.9	3.6	5.4
Phosphorus (µg/L)	52	23	31	21	37	26	32	26	28	31
Nitrogen (µg/L)	1010	880	840	770	675	567	720	563	680	745
Ammonium (µg/L)	41	27	41	<10	<10	<10	<10	<10	<10	15
Nitrate (µg/L)	139	55	40	<5	9	8	9	10	12	32
Chlorophyll (µg/L)	4.1	4.3	3.2	4.5	32.0	26.1	21.3	9.7	16.0	13.5
Susp. Sediment (mg/L)	1.4	0.6	0.2	0.5	0.7	0.4	0.5	0.6	0.7	0.6
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	0.26	<0.10	0.12	0.215	0.98	0.20
Cylindrospermopsin (µg/L)	0.42	0.38	0.35	0.28	0.20	0.23	1.84	3.755	4.86	1.40

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

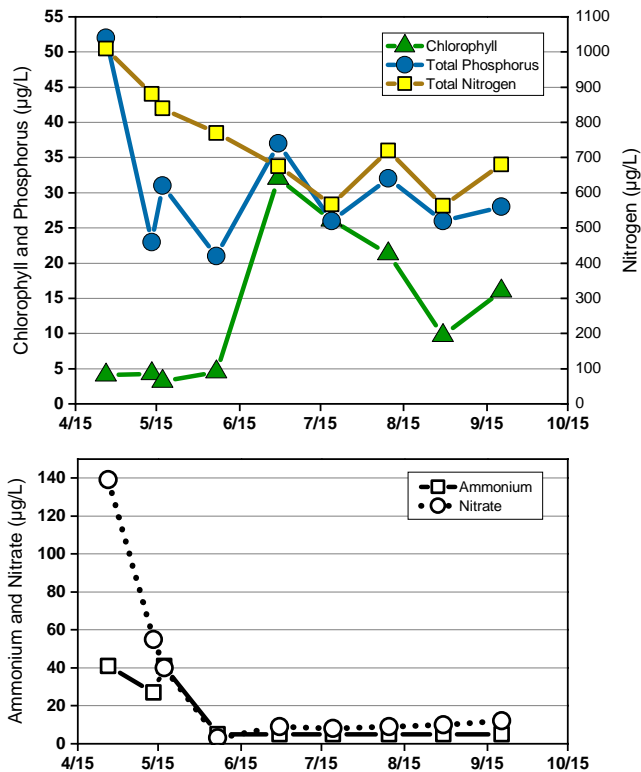
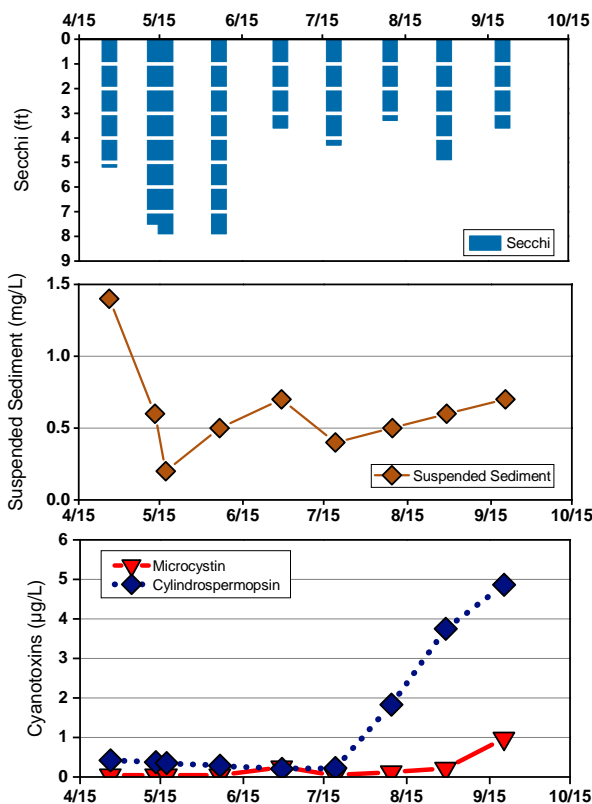
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

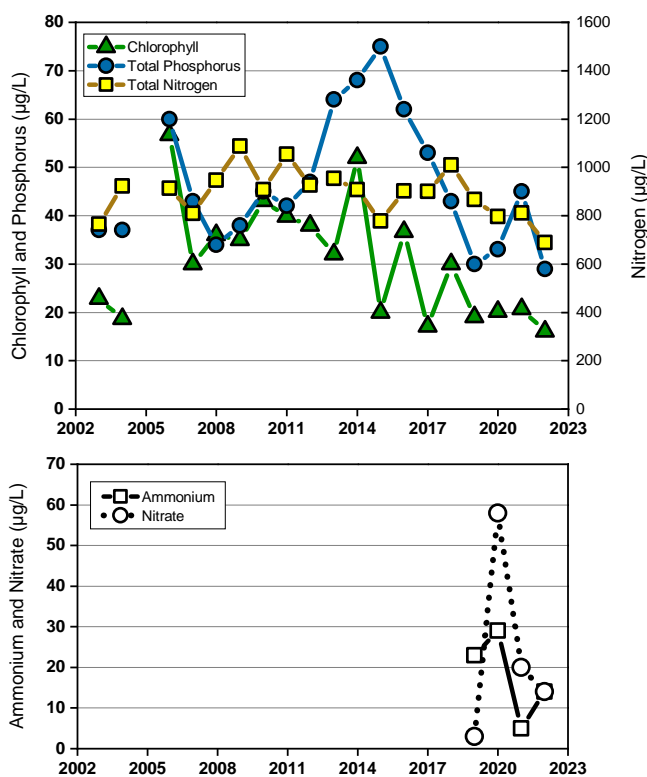
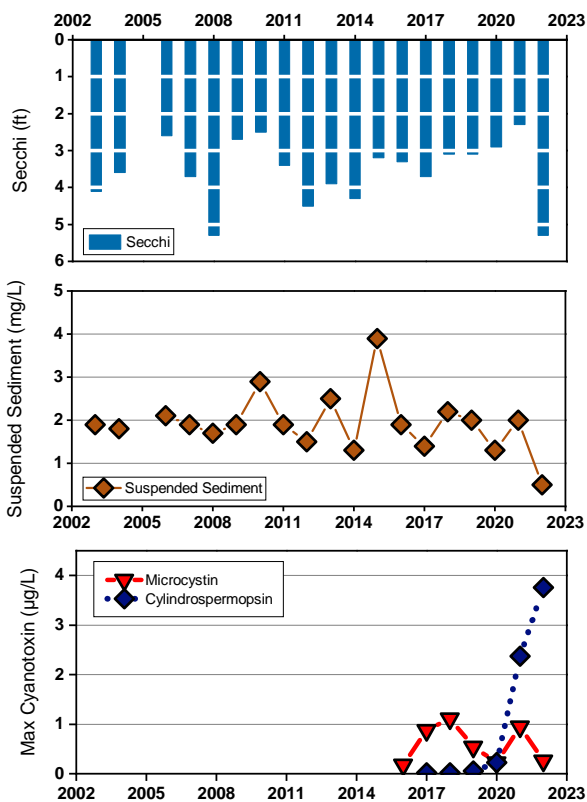
# Summary Report for Rothwell 1



## 2022 Data for Rothwell 1



## Trend Data for Rothwell 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Smithville 4



	4/27	5/20	6/9	6/30	7/21	8/11	9/1	9/24	Mean*
Temperature (F)	54	72	81	81	84	84	82	73	76
Secchi (feet)	2.3	3	2.3	2.6	1.6	1.6	2	1.6	2.1
Phosphorus (µg/L)	33	27	38	36	46	59	53	56	44
Nitrogen (µg/L)	1310	1280	760	620	895	910	763	910	931
Ammonium (µg/L)	19	48	11	<10	<10	<10	<10	153	31
Nitrate (µg/L)	225	192	28	13	8	8	9	56	67
Chlorophyll (µg/L)	10.1	8.4	22.7	17.7	45.8	56.1	37.7	35.3	29.2
Susp. Sediment (mg/L)		2.8	2.8	2.6	4.6	5.1	2.7	5.4	3.7
Microcystin (µg/L)	<0.10	<0.10	0.13	0.17	0.21	0.22	0.24	0.17	0.15
Cylindrospermopsin (µg/L)	0.05	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

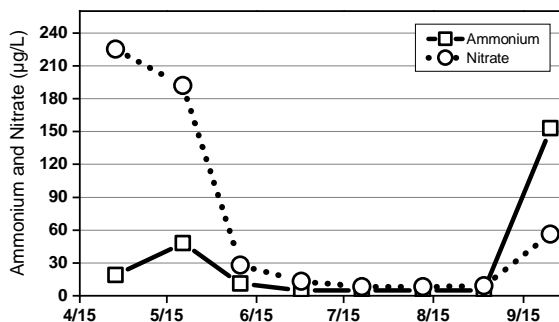
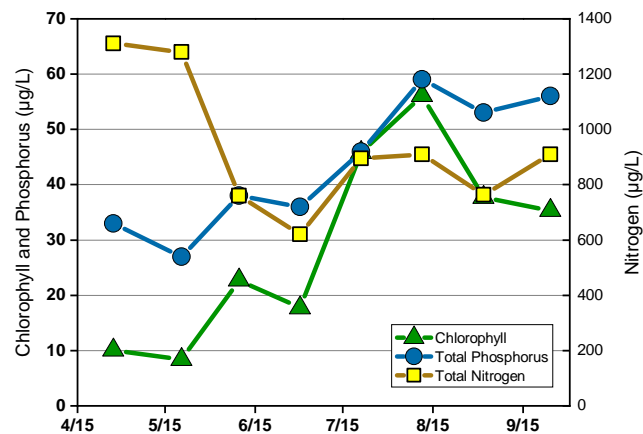
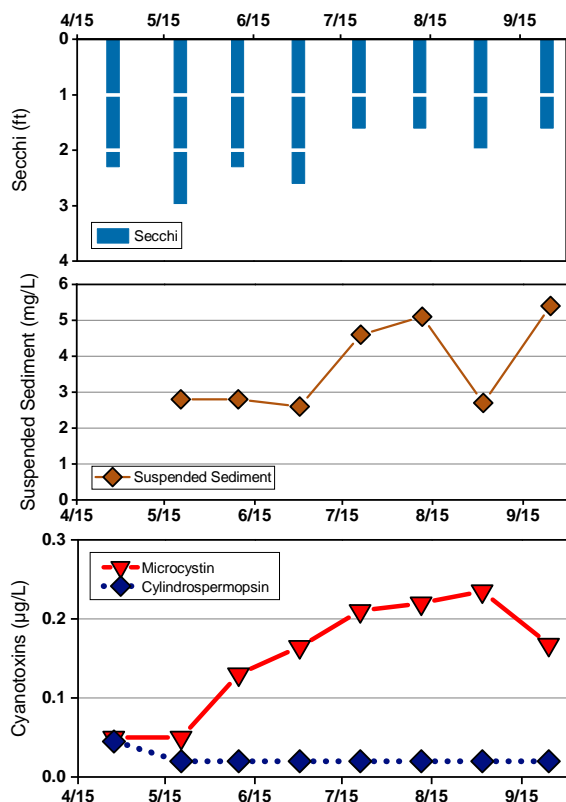
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

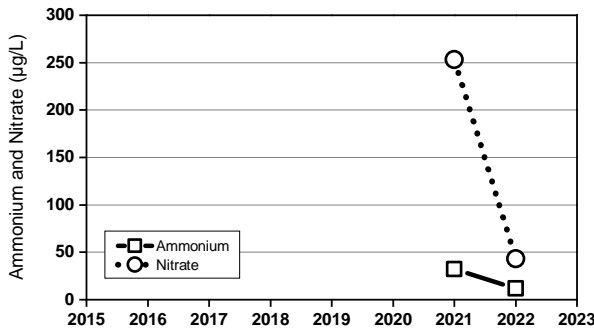
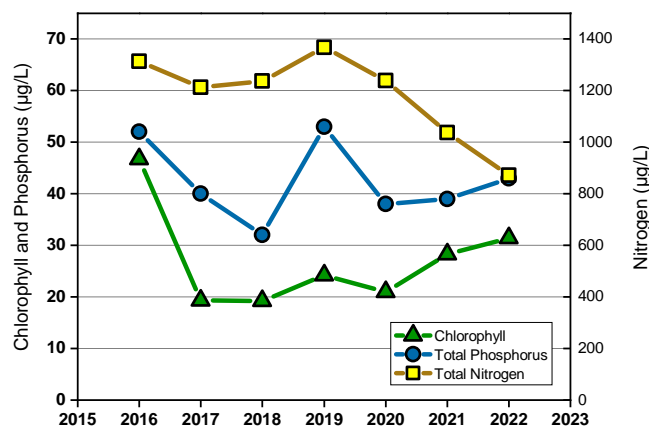
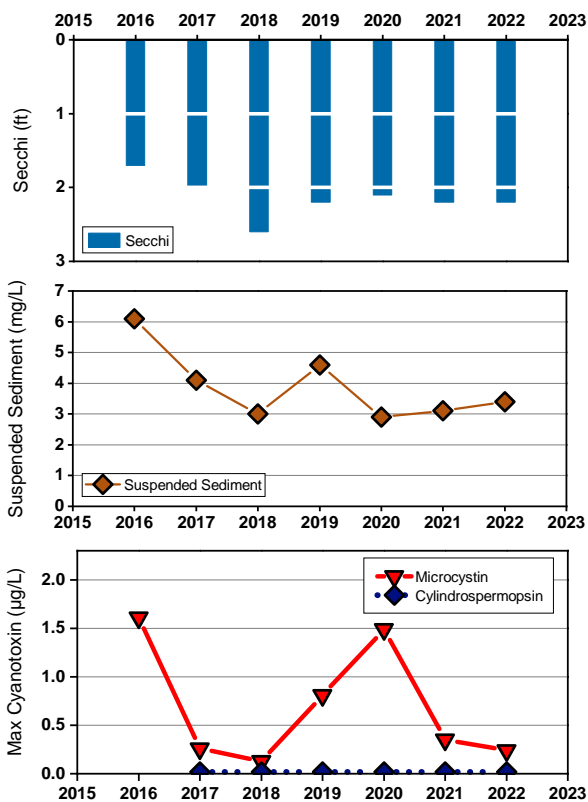
# Summary Report for Smithville 4



## 2022 Data for Smithville 4



## Trend Data for Smithville 4



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Smithville 5



	4/30	5/21	6/10	6/27	7/19	8/12	9/2	9/19	Mean*
Temperature (F)	54	68	79	79	81	82	82	79	75
Secchi (feet)	3.6	4.6	4.9	3.6	2	2	2.6	2.6	3.2
Phosphorus (µg/L)	31	26	20	32	36	44	35	38	33
Nitrogen (µg/L)	1160	1210	770	800	720	945	725	715	881
Ammonium (µg/L)	64	56	19	16	<10	<10	13	14	24
Nitrate (µg/L)	255	168	35	31	9	7	15	81	75
Chlorophyll (µg/L)	6.4	8.1	8.4	16.3	32.5	40.0	22.5	36.9	21.4
Susp. Sediment (mg/L)	4.6	3.2	2.2	2.7	4.0	4.2	2.1	2.9	3.2
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	0.15	0.14	0.17	0.22	0.11
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

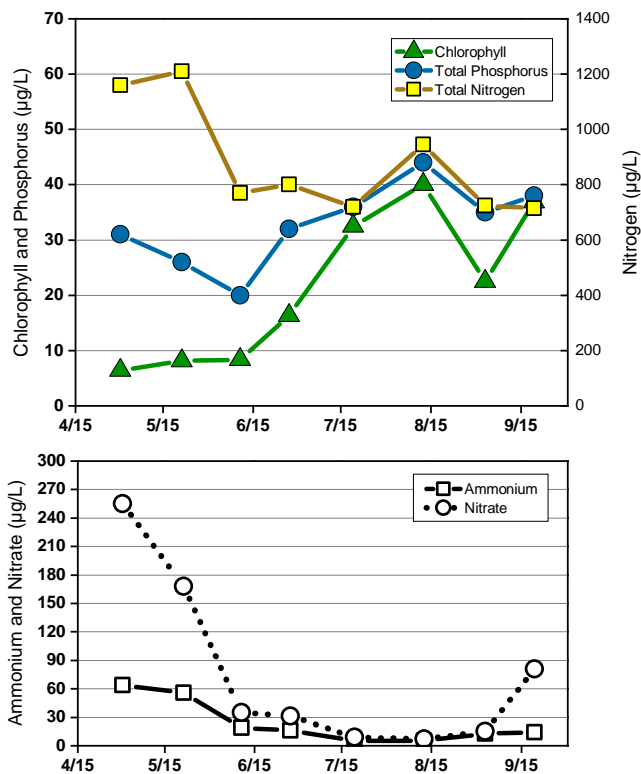
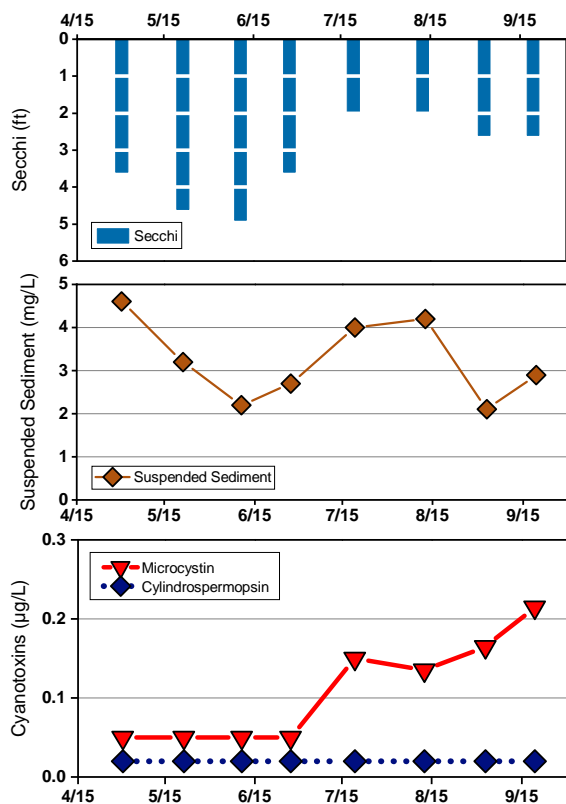
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

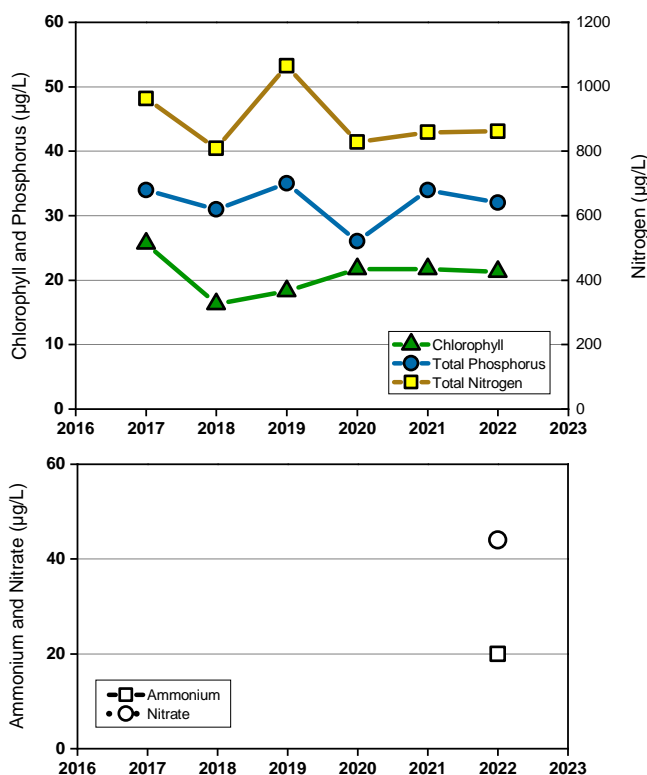
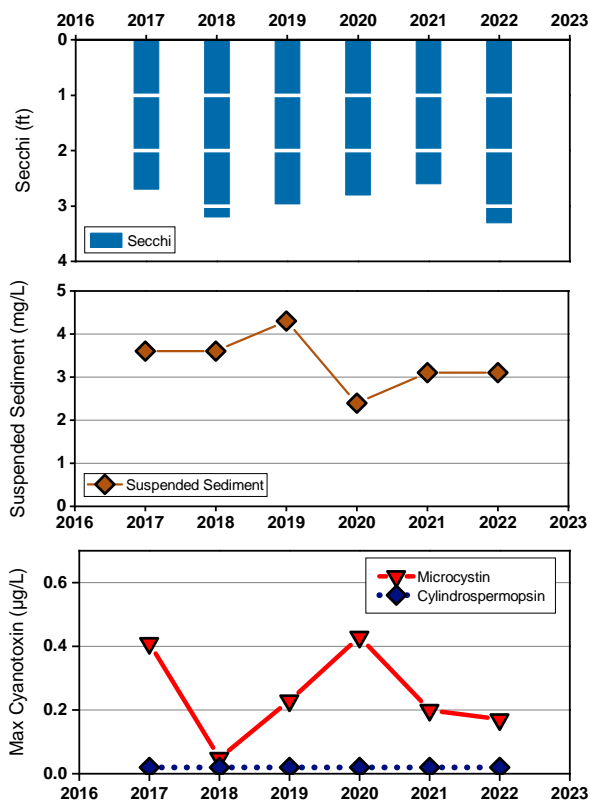
# Summary Report for Smithville 5



## 2022 Data for Smithville 5



## Trend Data for Smithville 5



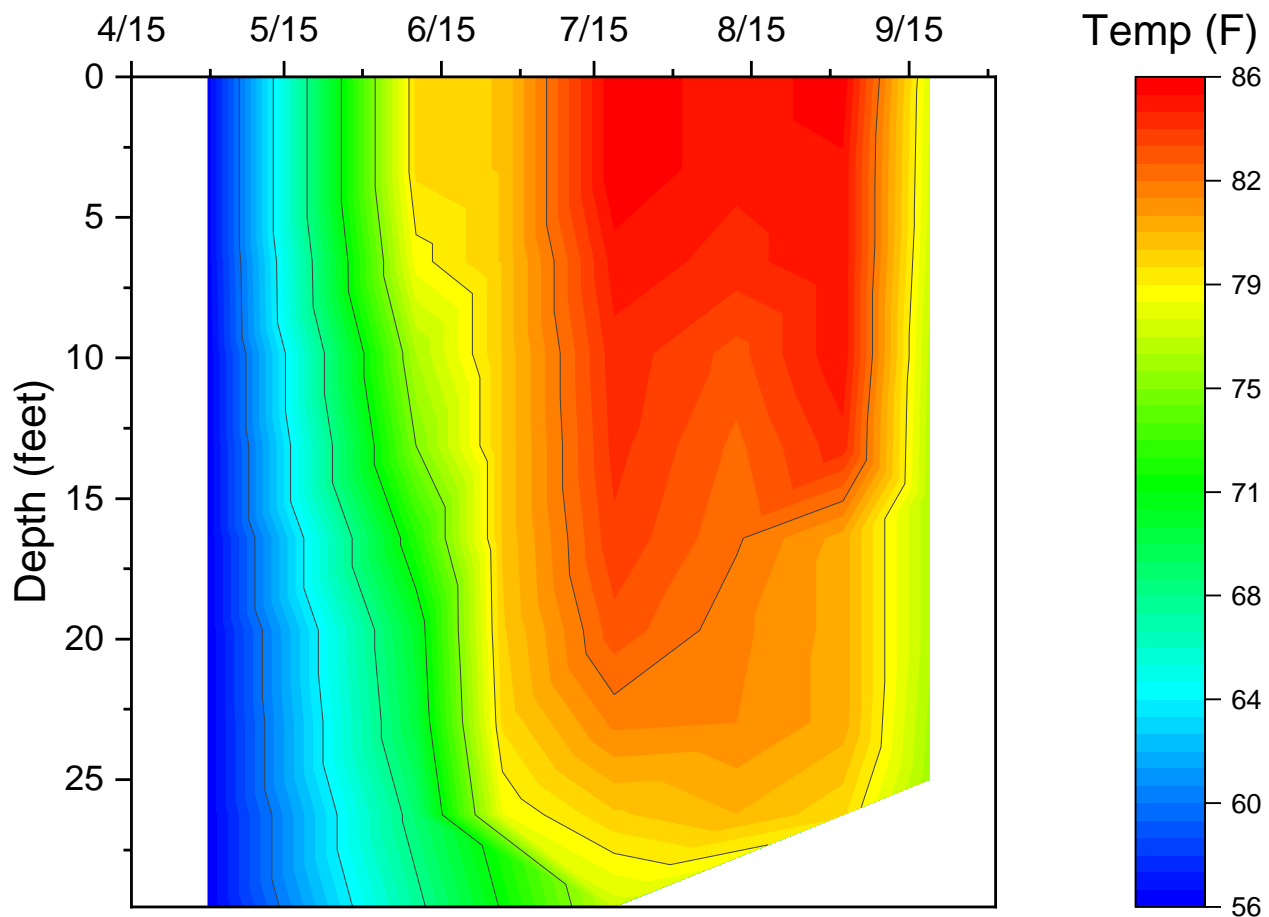
Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Smithville, Site 5

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.



Smithville, Site 5



# Summary Report for Spanish 1



	4/27	5/20	6/12	6/29	7/23	8/13	9/3	9/24	Mean*
Temperature (F)	68	77	84	91	88	82	77	73	80
Secchi (feet)	2.6	2.3	2.3	1.3	1.6	2.3	1.3	1.3	1.9
Phosphorus (µg/L)	114	172	188	229	391	344	396	355	274
Nitrogen (µg/L)	970	943	1425	1925	2130	1613	1920	1675	1575
Ammonium (µg/L)	<10	<10	<10	16	14	23	85	13	21
Nitrate (µg/L)	<5	<5	<5	6	6	18	17	6	8
Chlorophyll (µg/L)	17.5	35.8	68.1	113.2	145.6	88.8	106.6	105.7	85.2
Susp. Sediment (mg/L)	2.6	4.2	2.7	5.5	3.7	2.5	4.4	5.7	3.9
Microcystin (µg/L)	0.20	<0.10	0.12	<0.10	<0.10	<0.10	0.52	0.43	0.18
Cylindrospermopsin (µg/L)	<0.04	0.06	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Hypereutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

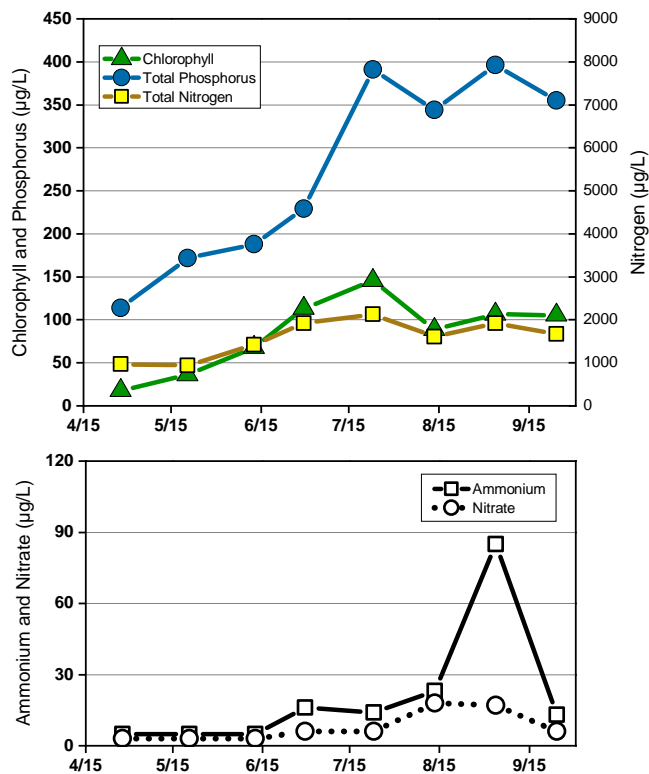
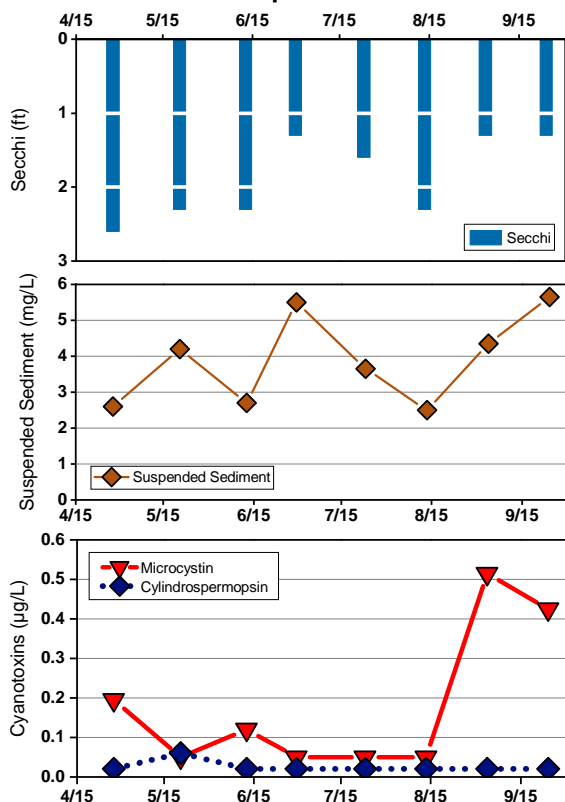
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

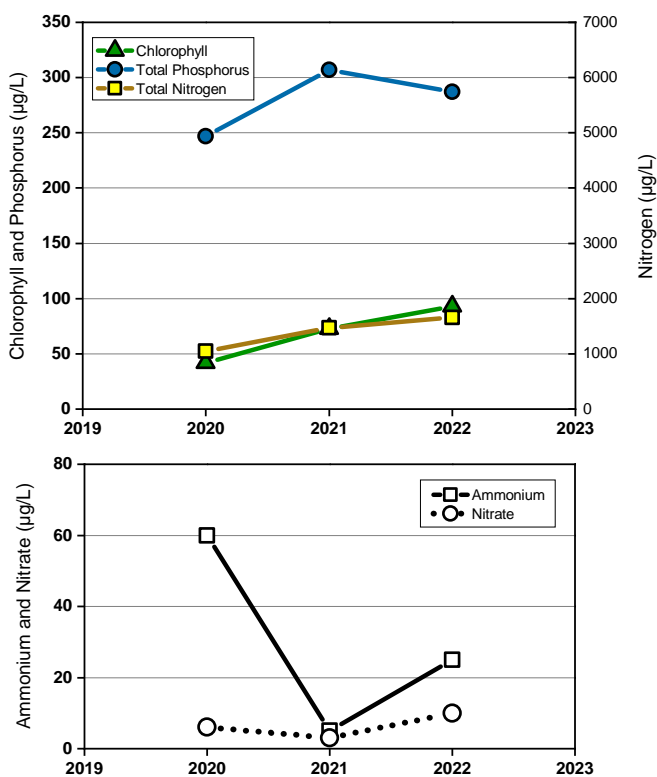
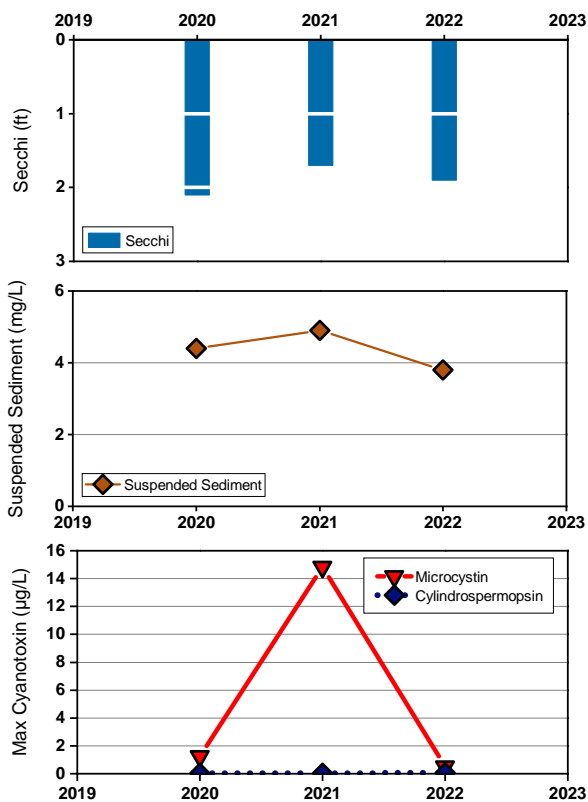
# Summary Report for Spanish 1



## 2022 Data for Spanish 1



## Trend Data for Spanish 1



Trend data graphs show annual arithmetic means from 2022 May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Springfield 1



	5/29	6/5	6/22	7/18	8/8	8/29	9/19		Mean*
Temperature (F)	66	73	84	84	84	82	79		79
Secchi (feet)	2.3	2	2	1	1.6	1.6	2.6		1.9
Phosphorus (µg/L)	49	41	47	103	86	82	61		67
Nitrogen (µg/L)	1300	1075	835	727	710	693	760		871
Ammonium (µg/L)	49	23	104	25	17	11	20		36
Nitrate (µg/L)	991	757	371	26	9	<5	<5		309
Chlorophyll (µg/L)	2.0	20.3	20.5	44.6	37.7	53.7	31.4		30.0
Susp. Sediment (mg/L)	19.6	10.2	9.9	26.7	19.5	8.3	11.4		15.1
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	0.07	0.05	<0.04	<0.04		<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

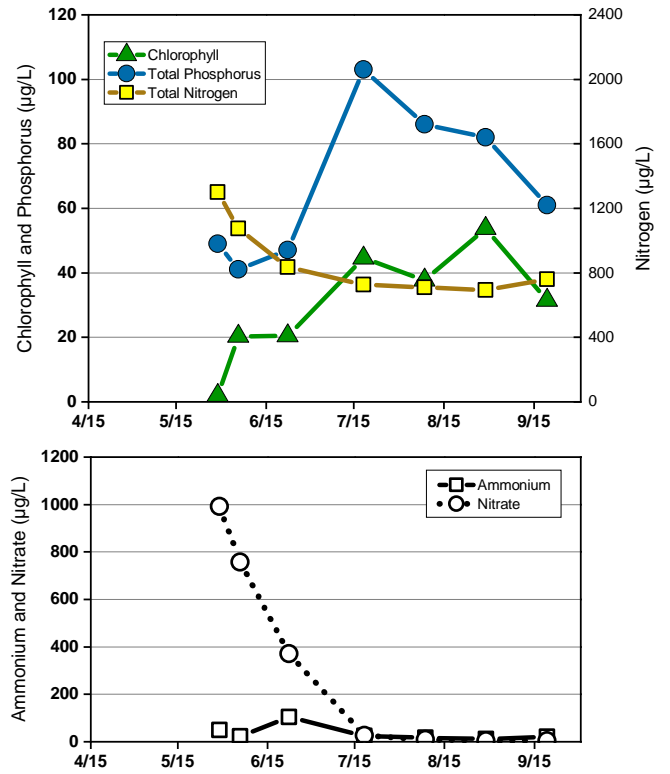
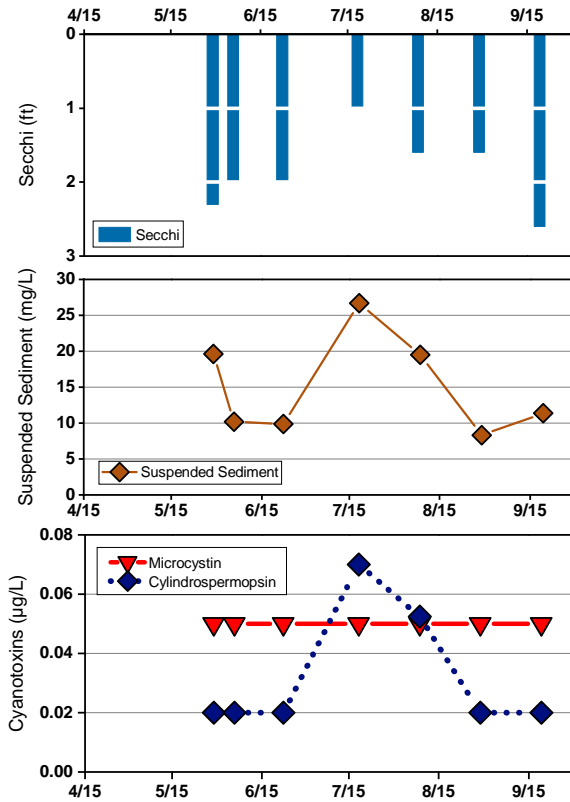
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

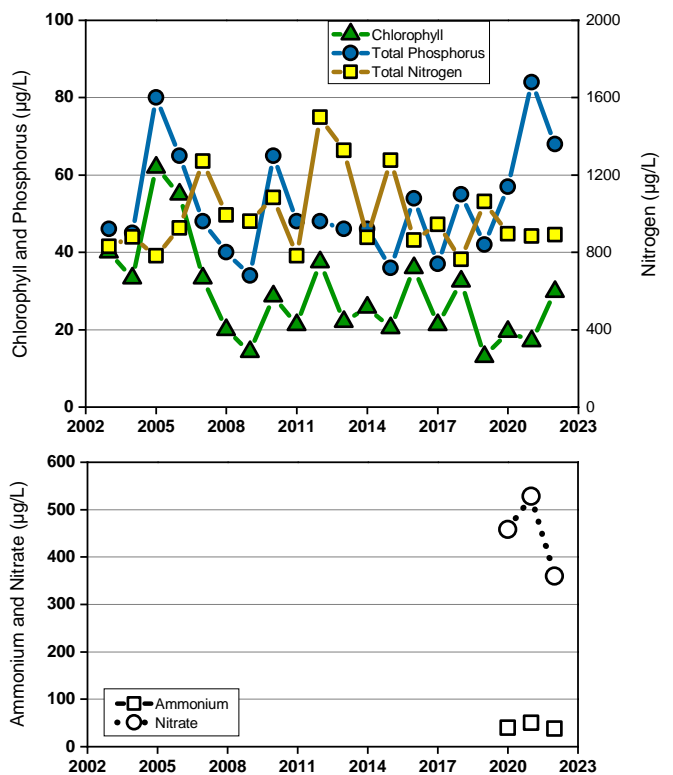
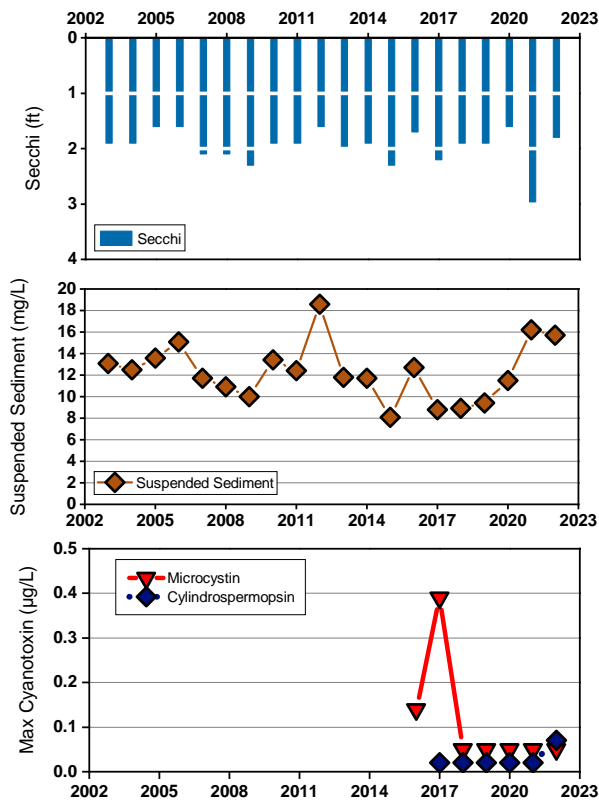
# Summary Report for Springfield 1



## 2022 Data for Springfield 1



## Trend Data for Springfield 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Springfield 2



	5/29	6/5	6/22	7/18	8/8	8/29	9/19		Mean*
Temperature (F)	64	68	77	82	81	79	75		75
Secchi (feet)	4.6	4.6	4.6	4.6	3.6	3.9	5.9		4.5
Phosphorus (µg/L)	34	22	20	24	52	39	26		31
Nitrogen (µg/L)	1157	955	880	850	1240	795	670		935
Ammonium (µg/L)	22	18	42	36	62	34	29		35
Nitrate (µg/L)	1086	801	688	537	747	421	469		678
Chlorophyll (µg/L)	0.9	1.6	2.5	8.0	64.0	28.9	12.9		17.0
Susp. Sediment (mg/L)	7.1	6.0	3.4		2.8	4.0	5.0		4.7
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		<0.10
Cylindrospermopsin (µg/L)	0.29	<0.04	<0.04	<0.04	0.05	<0.04	<0.04		0.06

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

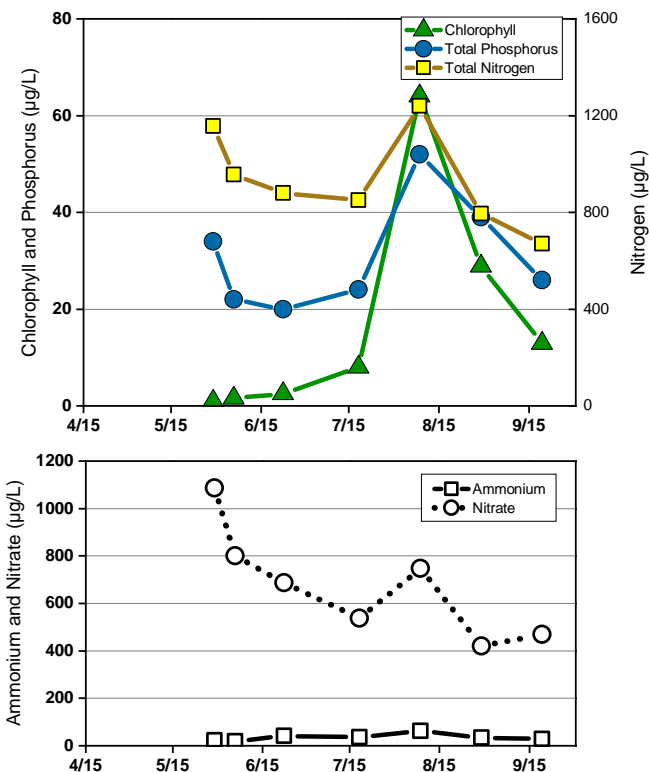
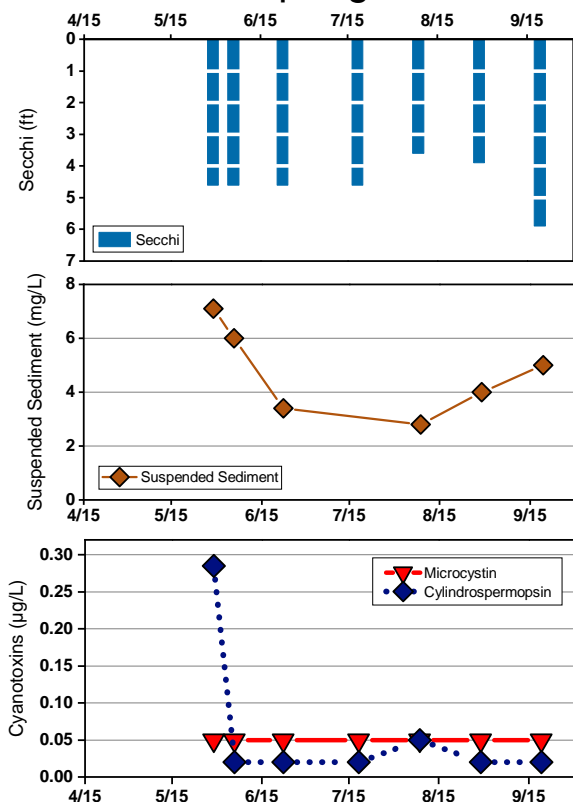
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

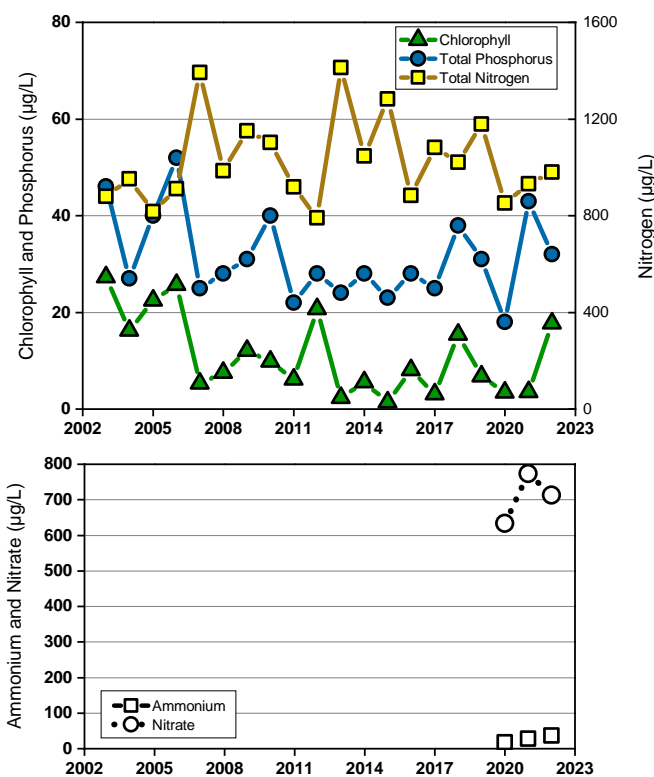
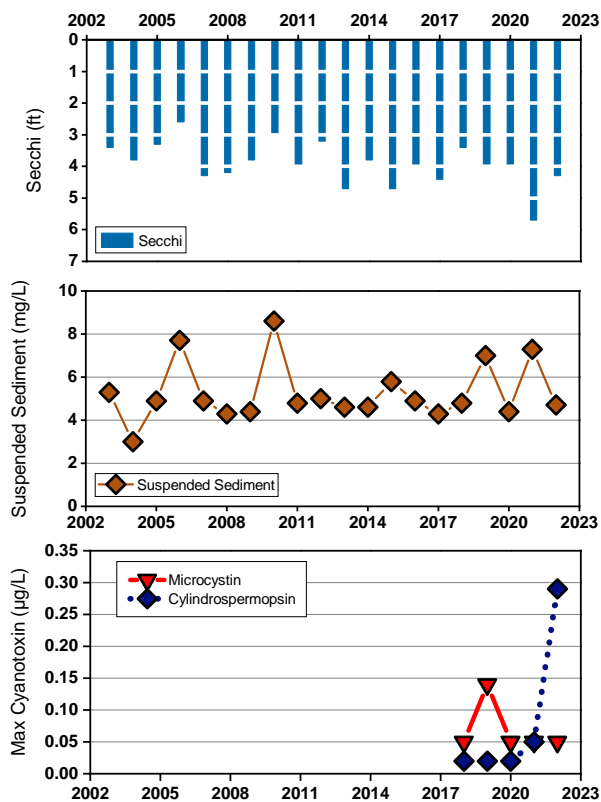
# Summary Report for Springfield 2



## 2022 Data for Springfield 2



## Trend Data for Springfield 2



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for St. Louis 1



	4/27	5/16	6/5	7/5	7/18	8/10	8/31	9/19	Mean*
Temperature (F)	64	75	75	82	82	79	81	75	77
Secchi (feet)	1.6	2.6	3	2	2.3	2.3	2.3	2	2.3
Phosphorus (µg/L)	76	59	62	73	96	81	72	74	74
Nitrogen (µg/L)	785	715	800	815	837	825	655	800	779
Ammonium (µg/L)	<10	<10	<10	19	22	56	<10	<10	15
Nitrate (µg/L)	<5	<5	6	<5	<5	75	<5	7	13
Chlorophyll (µg/L)	32.2	28.4	26.4	43.4	66.1	48.8	50.7	54.1	43.8
Susp. Sediment (mg/L)	9.0	6.4	2.4	4.2	3.0	7.2	2.6	5.6	5.1
Microcystin (µg/L)	<0.10	0.15	<0.10	0.16	<0.10	<0.10	0.17	0.18	0.11
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

The table below shows EPA health advisories for cyanotoxin exposure.

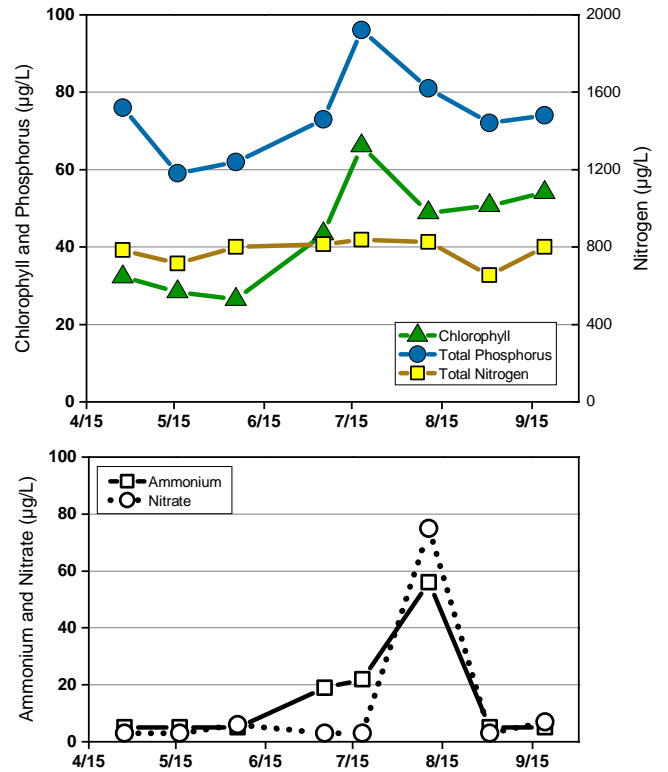
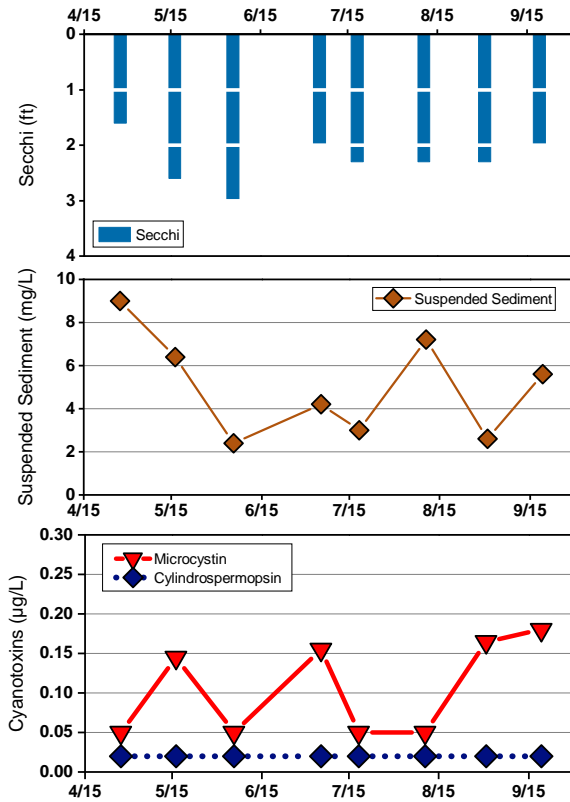
	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L



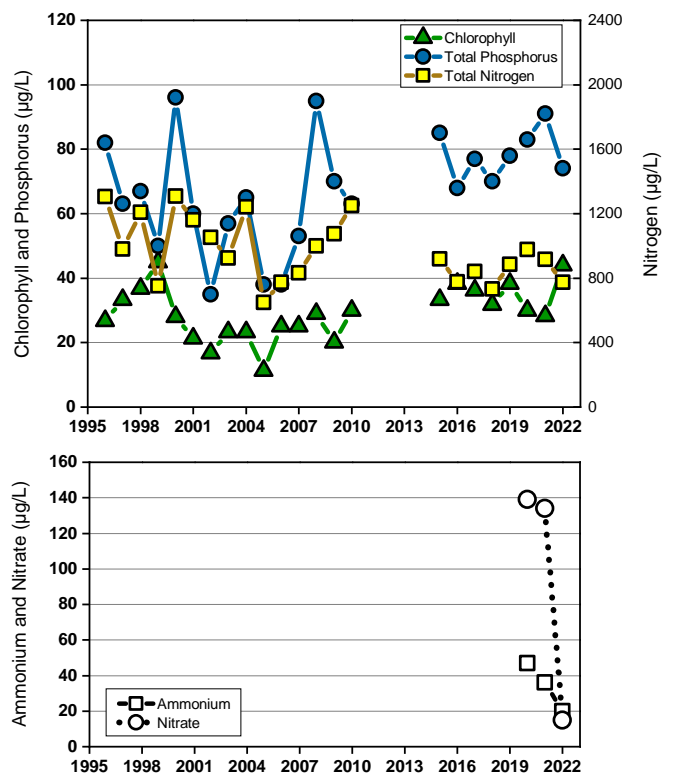
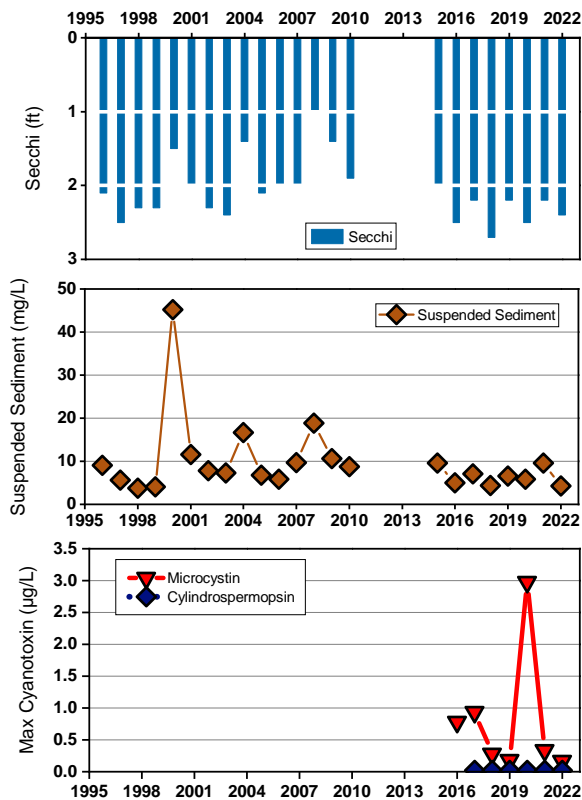
# Summary Report for St. Louis 1



## 2022 Data for St. Louis 1



## Trend Data for St. Louis 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

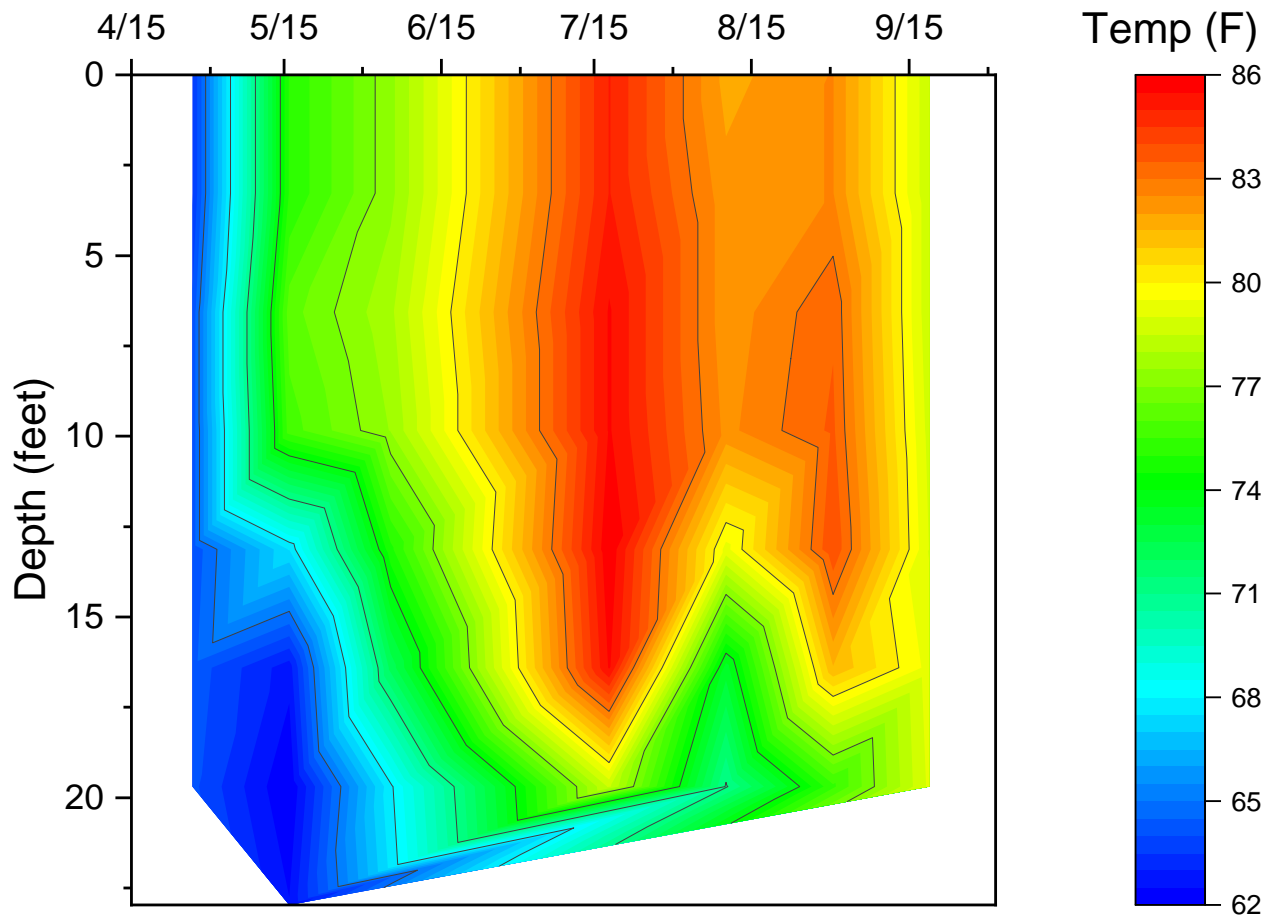


# St. Louis, Site 1

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.



St. Louis, Site 1

# Summary Report for St. Louis 2



	4/27	5/16	6/5	7/5	7/18	8/10	8/31	9/19	Mean*
Temperature (F)	64	73	73	84	81	79	79	75	76
Secchi (feet)	1	1.3	1.3	2.3	1.3	1	1	1	1.3
Phosphorus (µg/L)	108	82	111	119	123	138	111	94	111
Nitrogen (µg/L)	1040	725	1203	963	1057	997	790	770	943
Ammonium (µg/L)	67	20	31	23	76	20	95	34	46
Nitrate (µg/L)	158	<5	290	11	18	181	19	17	87
Chlorophyll (µg/L)	14.5	32.2	44.8	98.6	90.1	51.9	60.6	52.7	55.7
Susp. Sediment (mg/L)	23.4	20.6	20.4	23.2	18.4	30.0	39.3	24.2	24.9
Microcystin (µg/L)	0.14	<0.10	<0.10	<0.10	<0.10	<0.10	0.19	0.14	<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Hypereutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

Temperature: Water temperature, degrees Fahrenheit.

Secchi: Measure of water clarity, feet.

Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.

Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.

Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.

Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.

Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

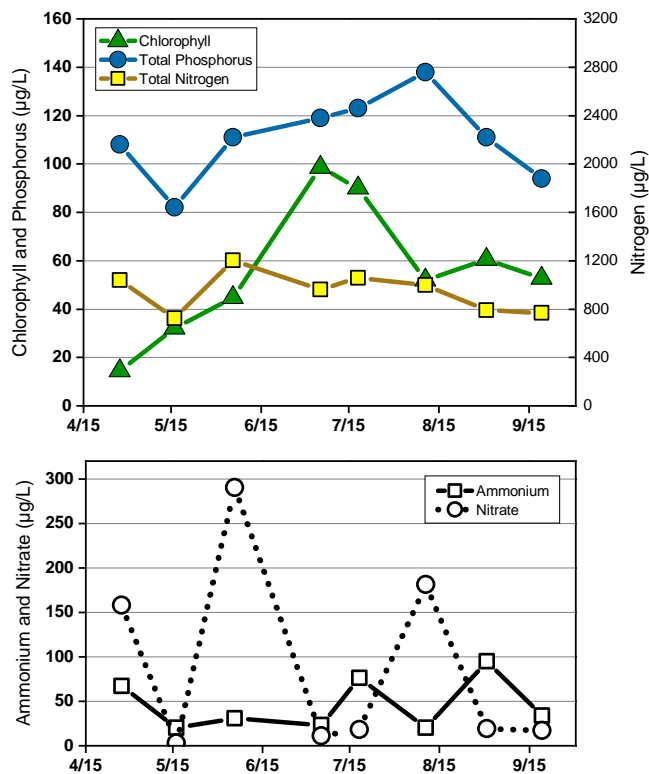
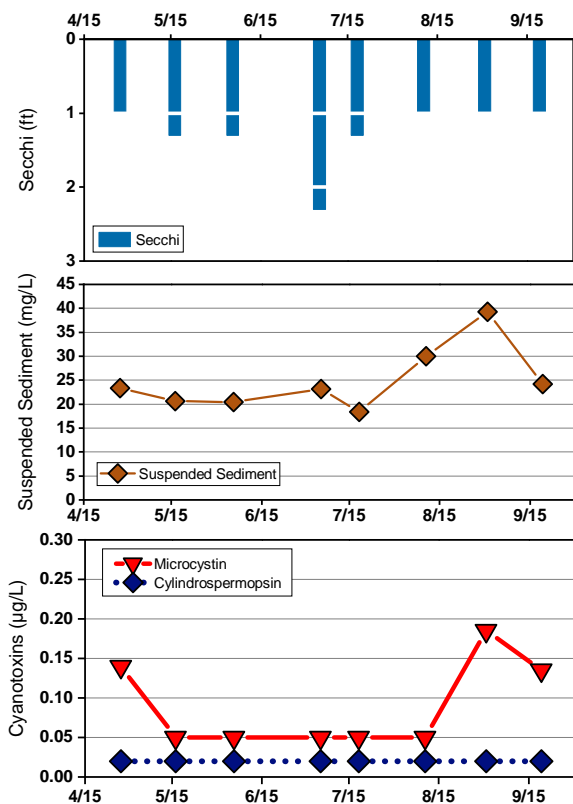
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

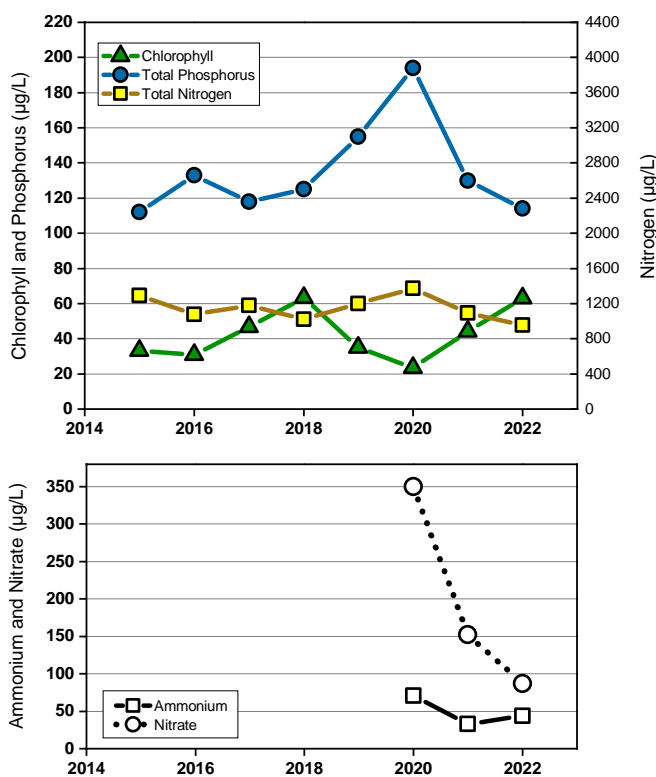
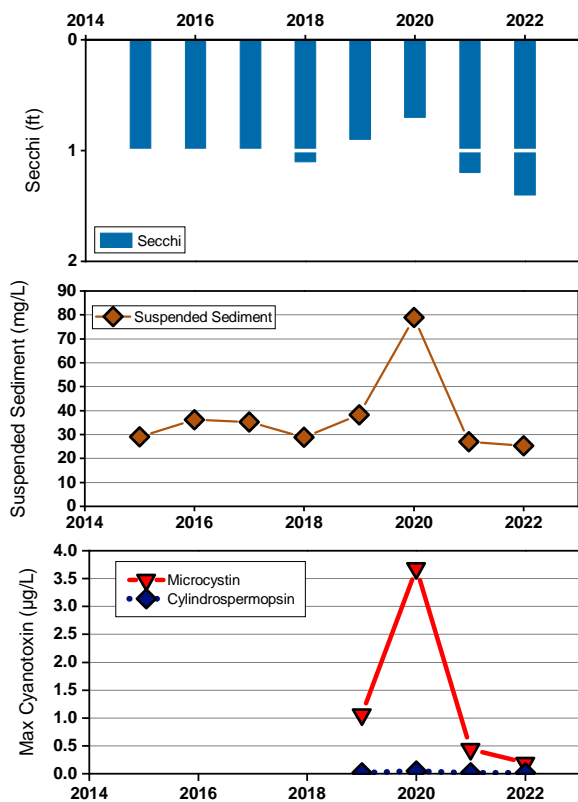
# Summary Report for St. Louis 2



## 2022 Data for St. Louis 2



## Trend Data for St. Louis 2



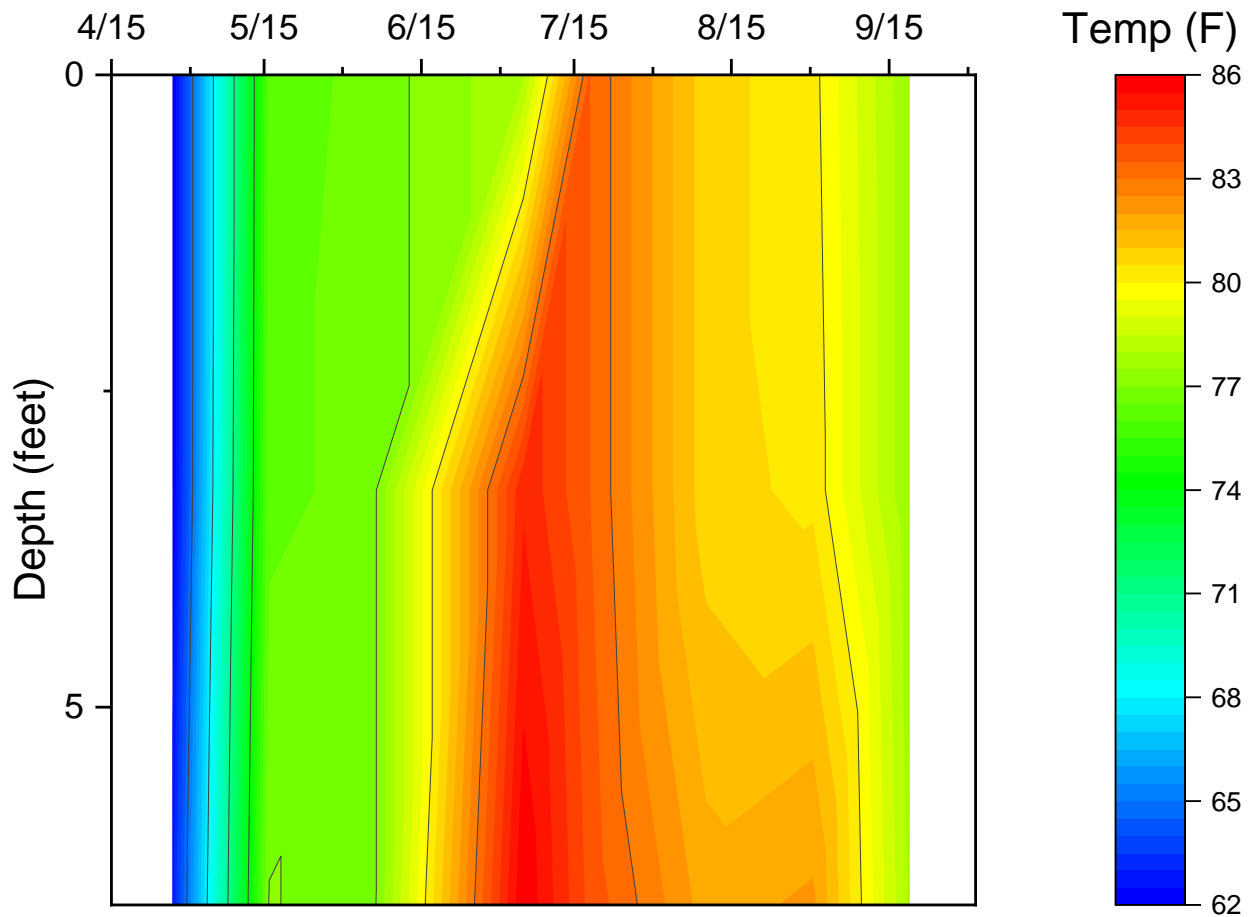
Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# St. Louis, Site 2

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.



St. Louis, Site 2

# Summary Report for Ste. Louise 1



	4/27	5/16	6/5	6/27	7/18	8/10	8/31	9/19	Mean*
Temperature (F)	66	75	77	82	81	82	81	79	78
Secchi (feet)	5.6	7.9	6.6	4.6	2.3	2.6	3	3	4.5
Phosphorus (µg/L)	24	22	18	29	34	42	39	33	30
Nitrogen (µg/L)	515	575	440	640	735	815	670	580	621
Ammonium (µg/L)	15	37	<10	23	16	13	12	<10	16
Nitrate (µg/L)	50	29	<5	<5	<5	<5	6	7	13
Chlorophyll (µg/L)	5.5	4.6	8.6	12.1	27.8	34.7	24.7	17.0	16.9
Susp. Sediment (mg/L)	1.5	1.0	0.6	1.7	1.5	1.8	1.6	1.3	1.4
Microcystin (µg/L)	0.11	<0.10	0.12	<0.10	<0.10	<0.10	0.19	0.24	0.11
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

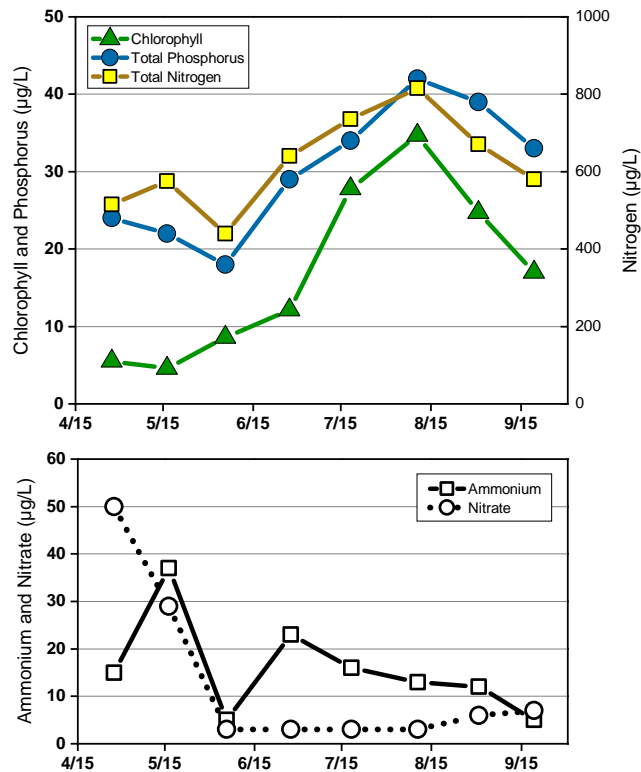
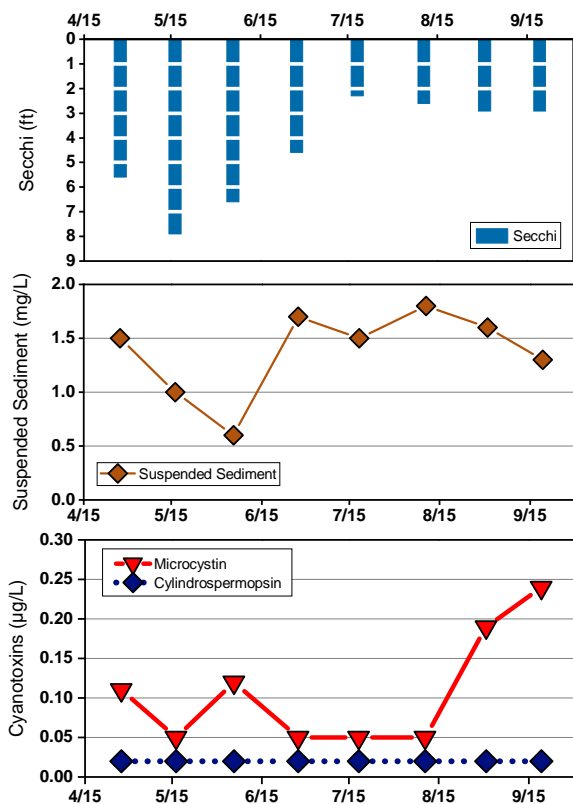
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

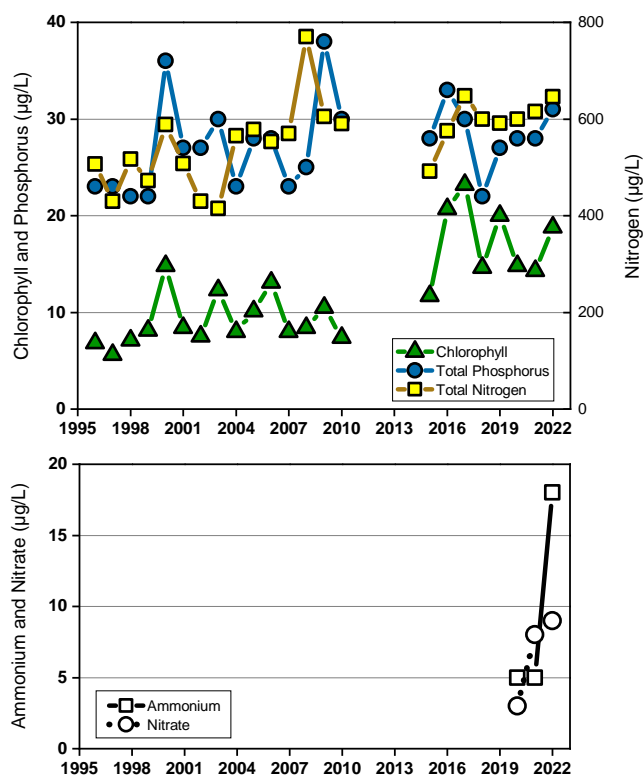
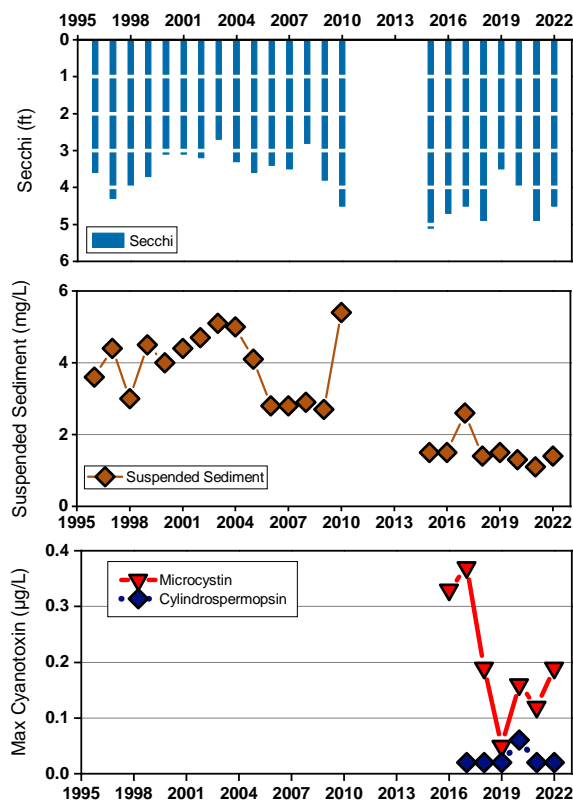
# Summary Report for Ste. Louise 1



## 2022 Data for Ste. Louise 1



## Trend Data for Ste. Louise 1



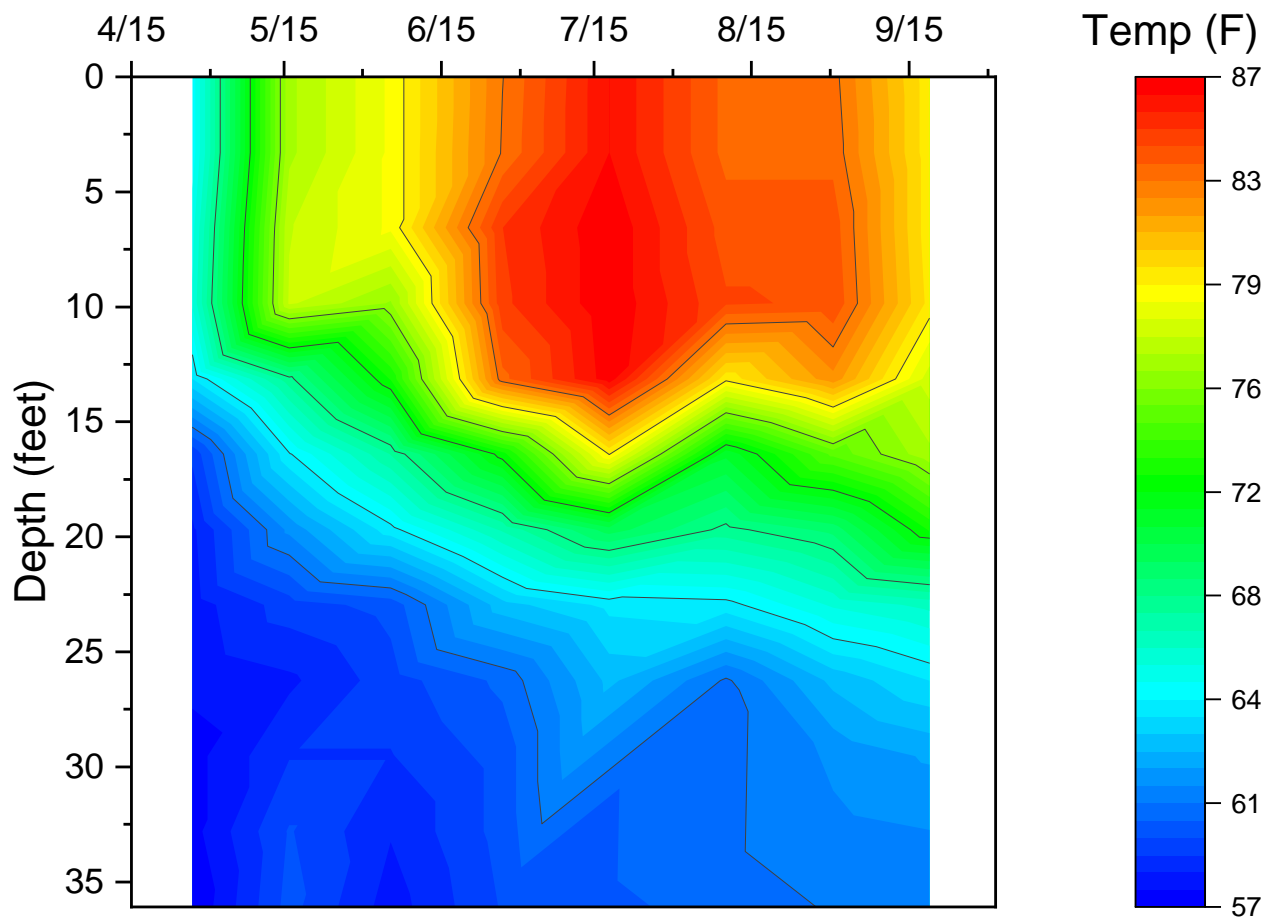
Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Ste. Louise, Site 1

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.



Ste. Louise, Site 1

# Summary Report for Ste. Louise 2



	4/27	5/16	6/5	6/27	7/18	8/10	8/31	9/19	Mean*
Temperature (F)	64	75	77	82	81	82	81	77	78
Secchi (feet)	4.9	3.6	3.3	3.6	3	2	3	2.3	3.2
Phosphorus (µg/L)	26	33	33	33	40	66	42	45	40
Nitrogen (µg/L)	565	630	625	490	710	830	670	587	638
Ammonium (µg/L)	14	71	<10	11	15	15	15	<10	19
Nitrate (µg/L)	49	37	<5	<5	<5	7	7	7	15
Chlorophyll (µg/L)	5.4	8.6	19.4	13.8	26.3	42.8	22.2	21.2	20.0
Susp. Sediment (mg/L)	2.1	4.5	2.1	2.9	2.3	6.0	2.0	4.6	3.3
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.20	0.14	<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

The table below shows EPA health advisories for cyanotoxin exposure.

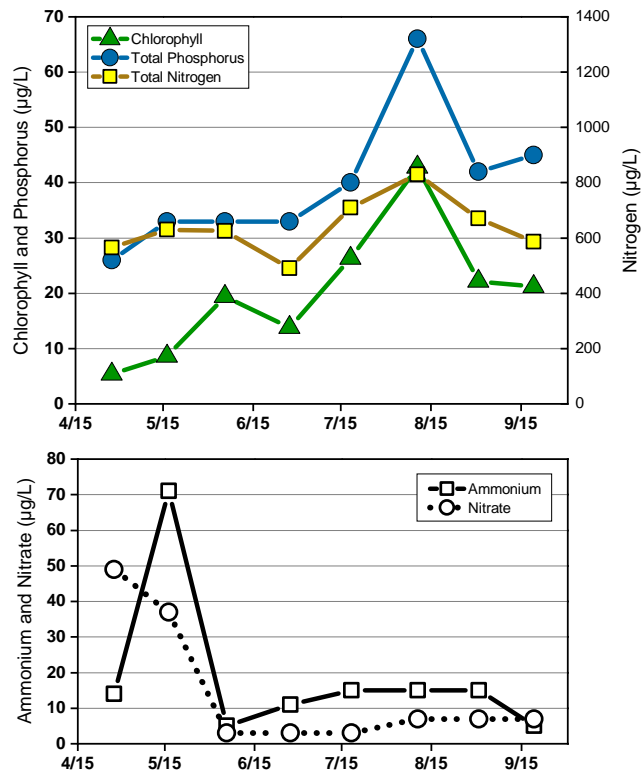
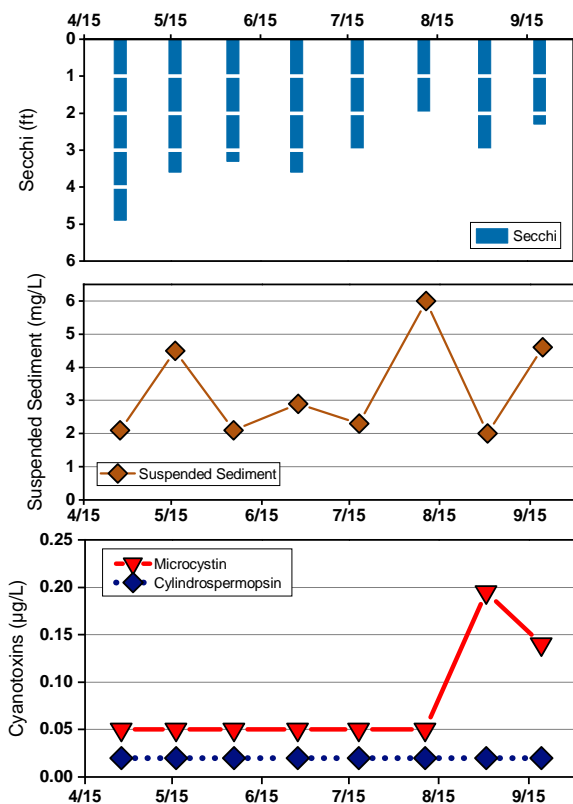
	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L



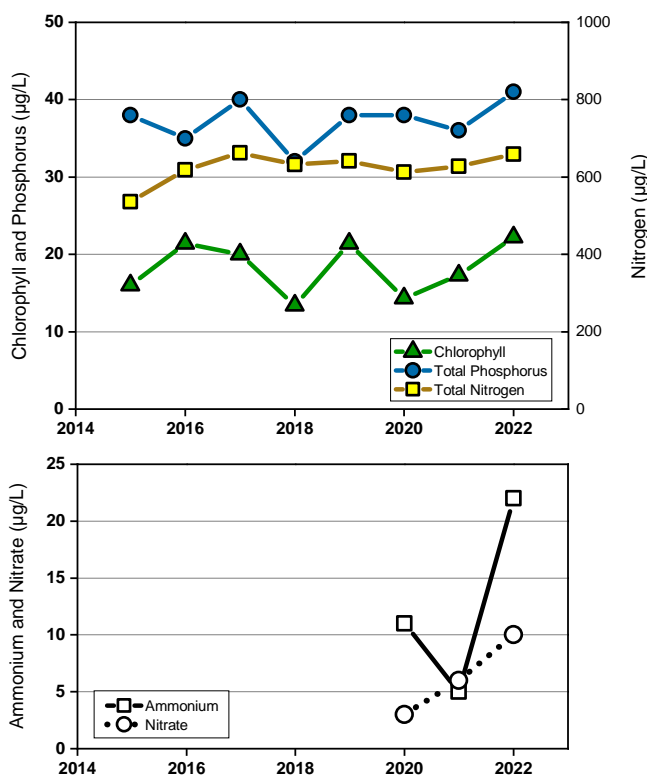
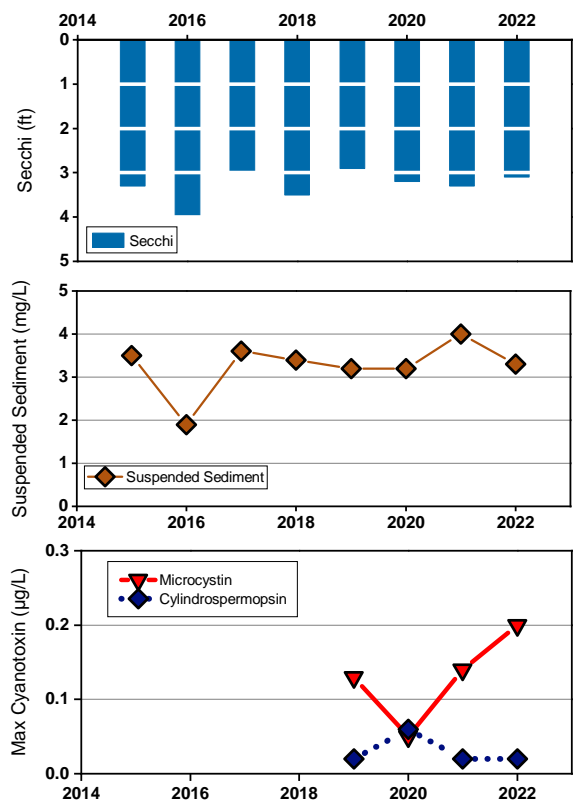
# Summary Report for Ste. Louise 2



## 2022 Data for Ste. Louise 2



## Trend Data for Ste. Louise 2



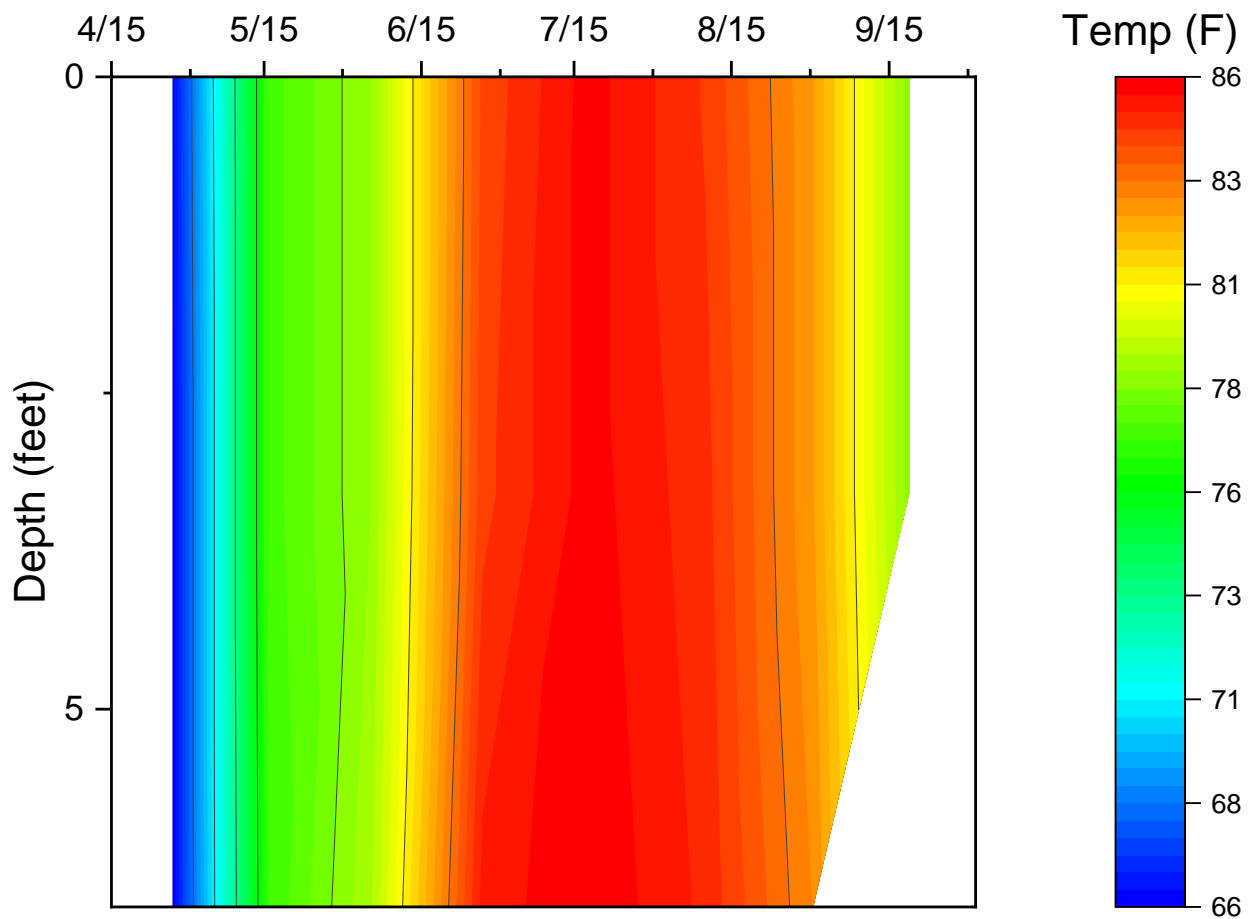
Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Ste. Louise, Site 2

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.



Ste. Louise, Site 2

# Summary Report for Stockton 1



	4/26	5/18	6/7	6/29	8/18	8/31	9/28		Mean
Temperature (F)	54	72	75	82	84	82	72		74
Secchi (feet)	19	8.9	14.4	5.9	7.9	6.6	6.9		9.9
Phosphorus (µg/L)	11	14	11	11	9	11	13		11
Nitrogen (µg/L)	635	950	740	293	270	420	415		509
Ammonium (µg/L)	105	12	22	21	29	13	23		32
Nitrate (µg/L)	226	371	355	81	7	6	7		150
Chlorophyll (µg/L)	1.7	11.1	3.0	7.1	6.2	6.0	8.7		6.3
Susp. Sediment (mg/L)	0.3	1.0	0.2	1.2	0.4	0.9	0.4		0.6
Microcystin (µg/L)	<0.10	<0.10		<0.10	<0.10	<0.10	<0.10		<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04		<0.04	<0.04	<0.04	<0.04		<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

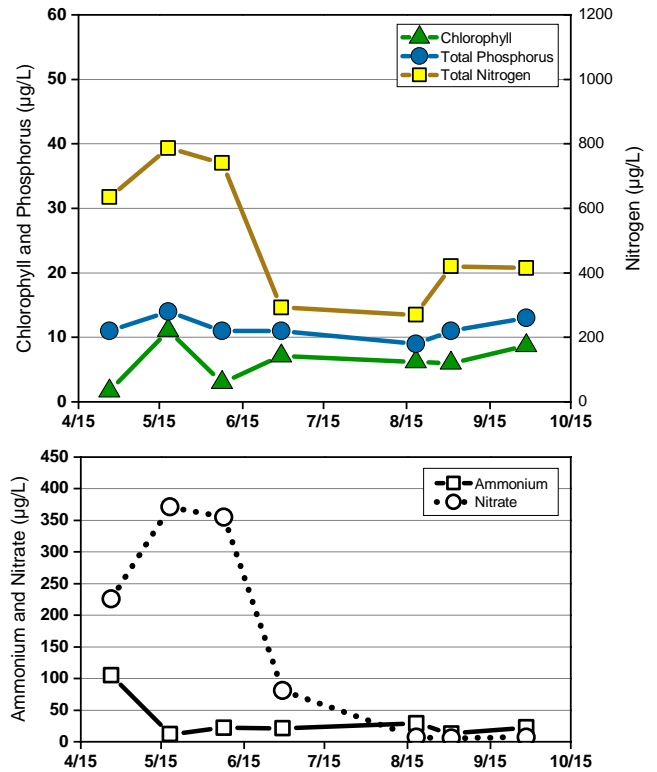
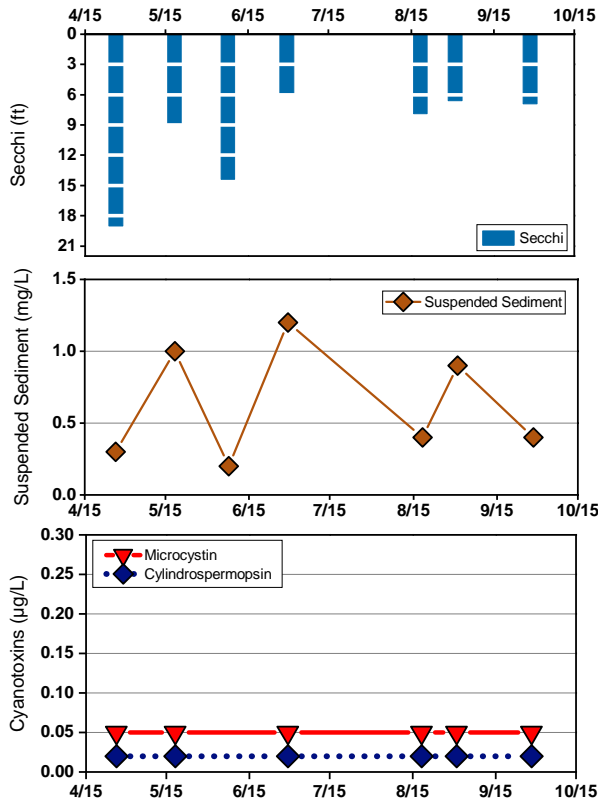
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

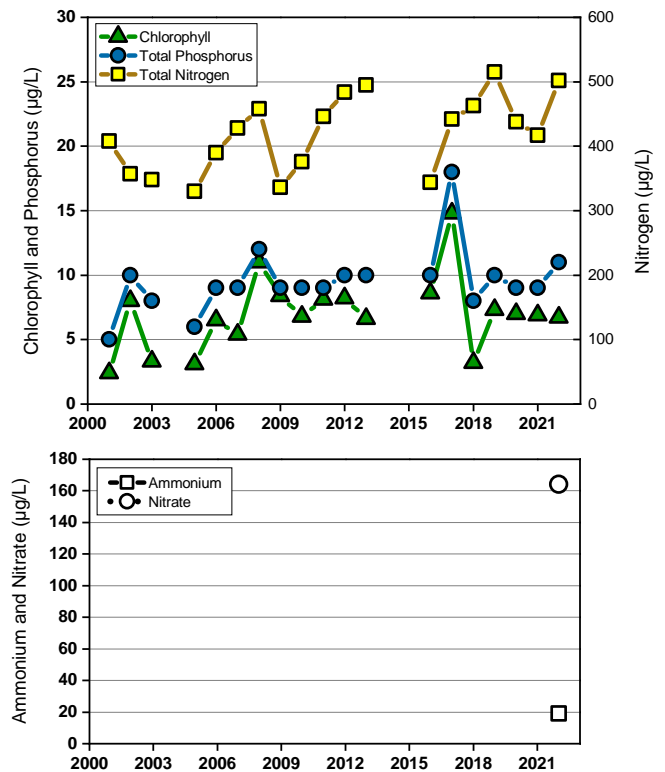
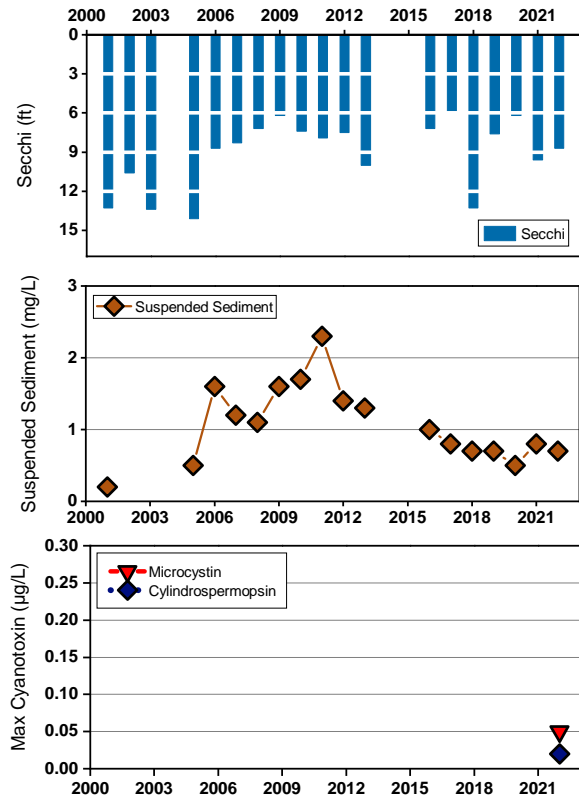
# Summary Report for Stockton 1



## 2022 Data for Stockton 1



## Trend Data for Stockton 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Stockton 2



	8/28	9/20							Mean*
Temperature (F)	84	81							82
Secchi (feet)	3	4.3							3.7
Phosphorus (µg/L)	28	21							25
Nitrogen (µg/L)	435	290							363
Ammonium (µg/L)	<10	<10							<10
Nitrate (µg/L)	<5	6							5
Chlorophyll (µg/L)	15.0	12.6							13.8
Susp. Sediment (mg/L)	2.4	2.2							2.3
Microcystin (µg/L)	<0.10	<0.10							<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04							<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

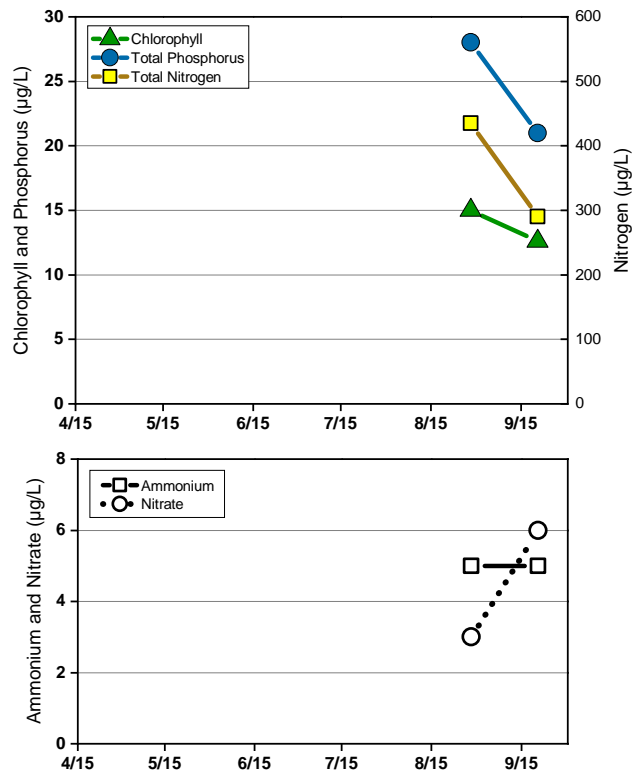
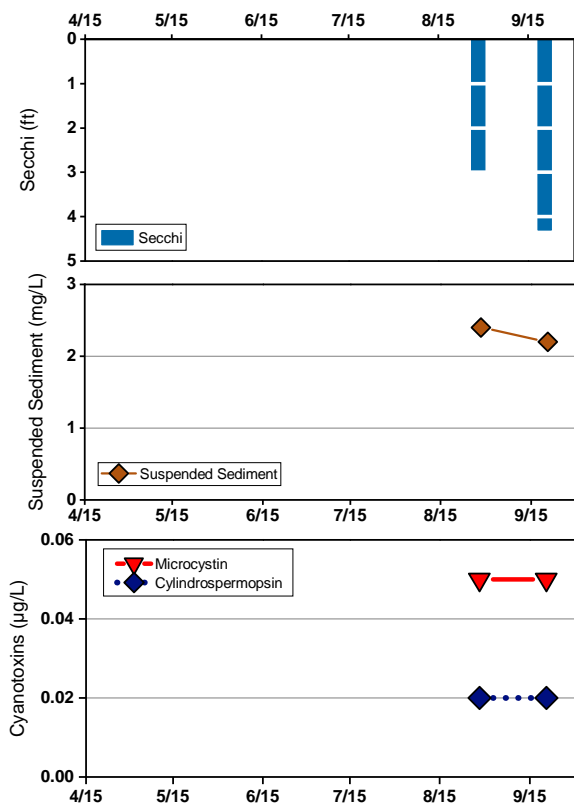
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

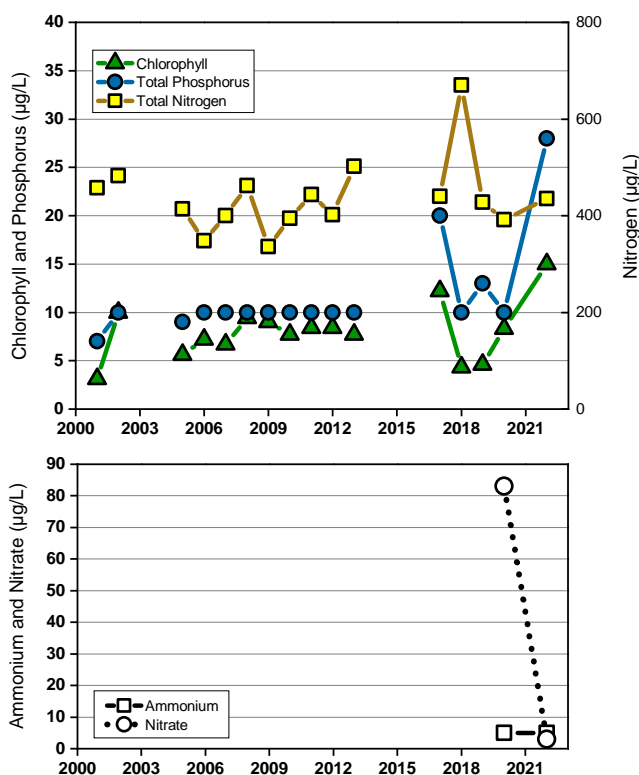
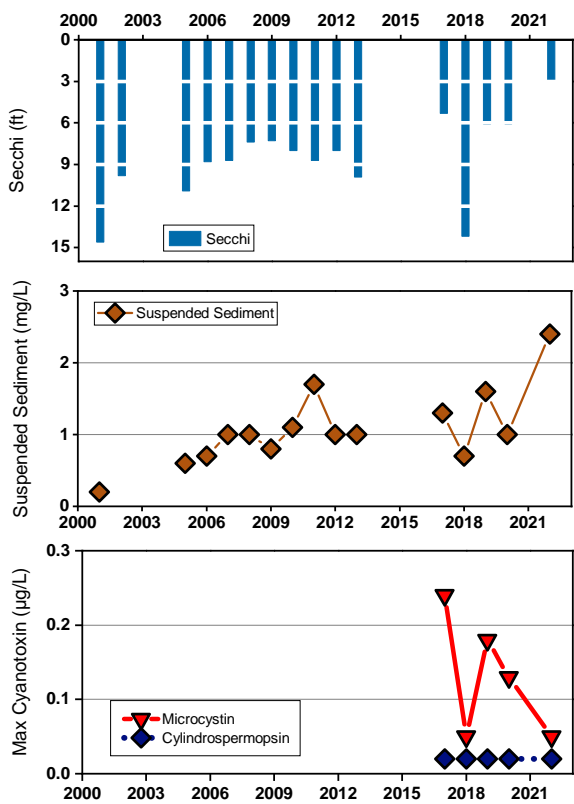
# Summary Report for Stockton 2



## 2022 Data for Stockton 2



## Trend Data for Stockton 2



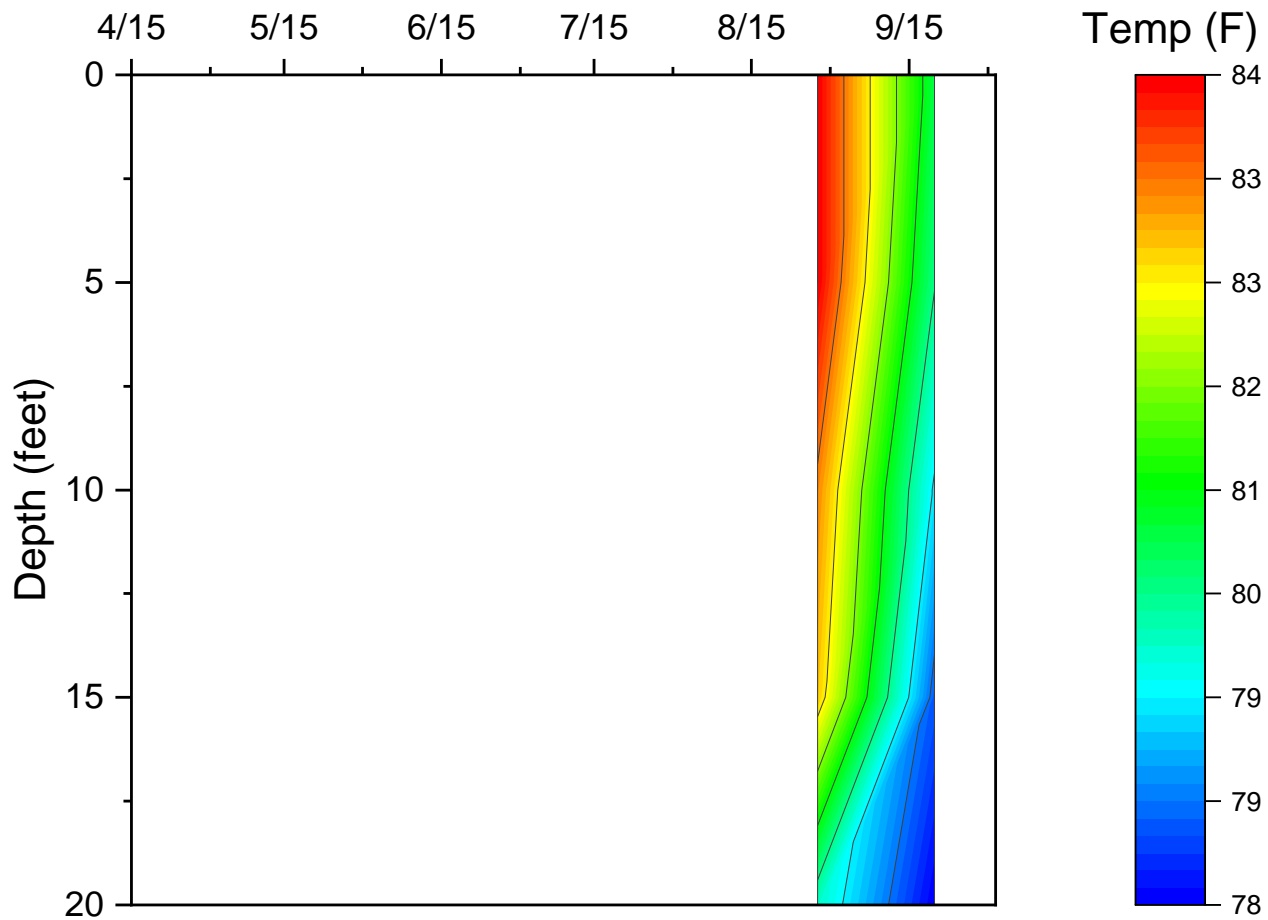
Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Stockton, Site 2

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.



Stockton, Site 2

# Summary Report for Stockton 8



	4/27	5/18	6/6	6/28	7/19	8/7	8/28	9/17	Mean*
Temperature (F)	63	79	75	84	93	90	82	75	80
Secchi (feet)	1.3	3.3	2.6	1.6	1.3	1	1	1	1.6
Phosphorus (µg/L)	63	39	62	64	90	103	121	100	80
Nitrogen (µg/L)	1175	1035	1010	635	1180	1180	1180	770	1021
Ammonium (µg/L)	16	44	12	15	18	14	148	76	43
Nitrate (µg/L)	432	397	267	10	12	12	15	19	146
Chlorophyll (µg/L)	35.7	17.1	23.8	50.6	52.1	65.6	47.4	36.1	41.1
Susp. Sediment (mg/L)	16.7	3.3	4.4	12.8	12.6	22.4	23.8	27.1	15.4
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.14	0.14	<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

The table below shows EPA health advisories for cyanotoxin exposure.

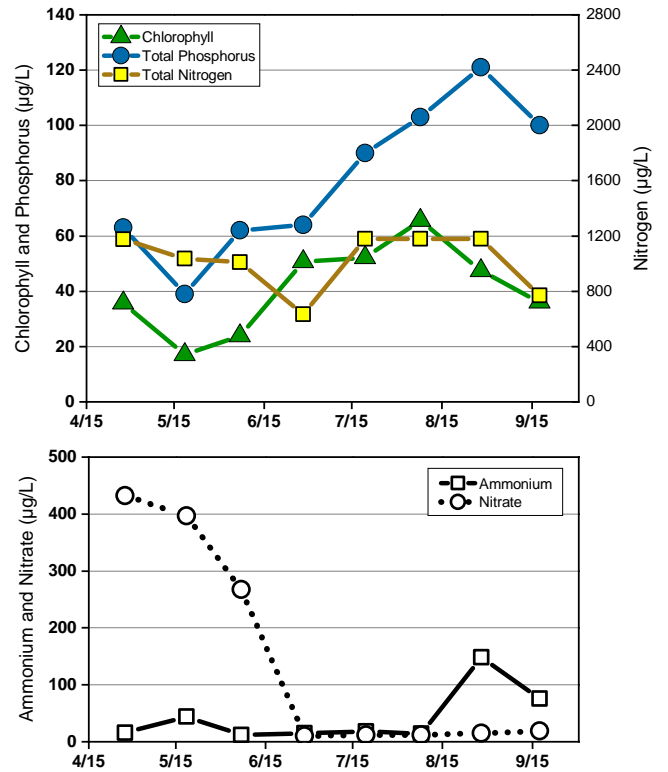
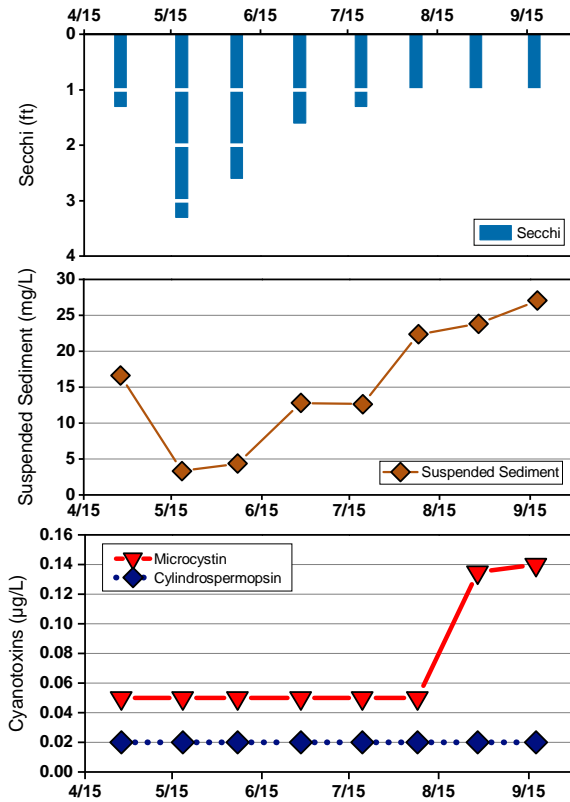
	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L



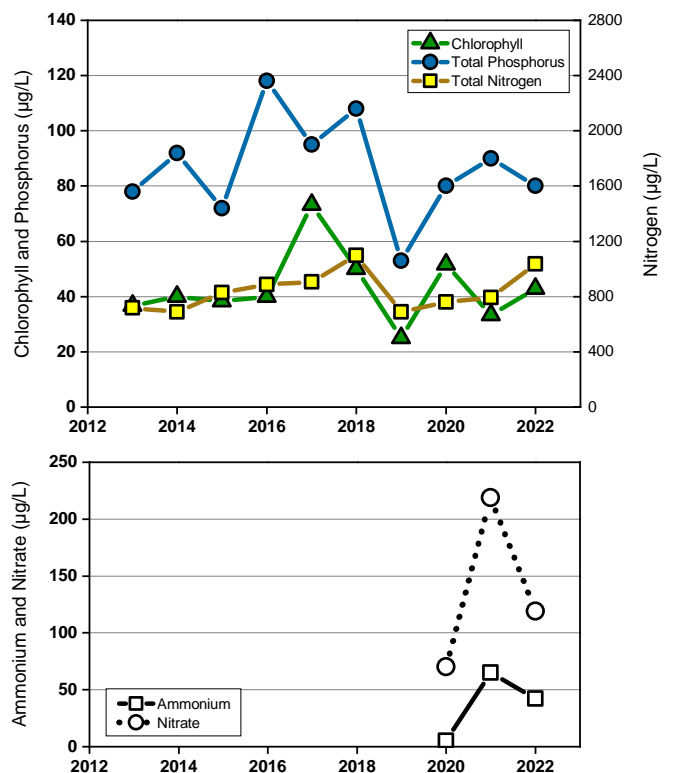
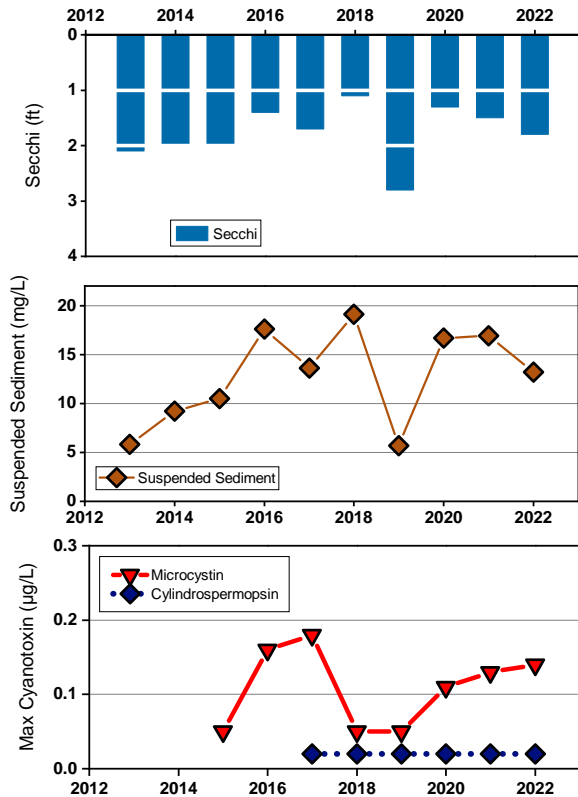
# Summary Report for Stockton 8



## 2022 Data for Stockton 8



## Trend Data for Stockton 8



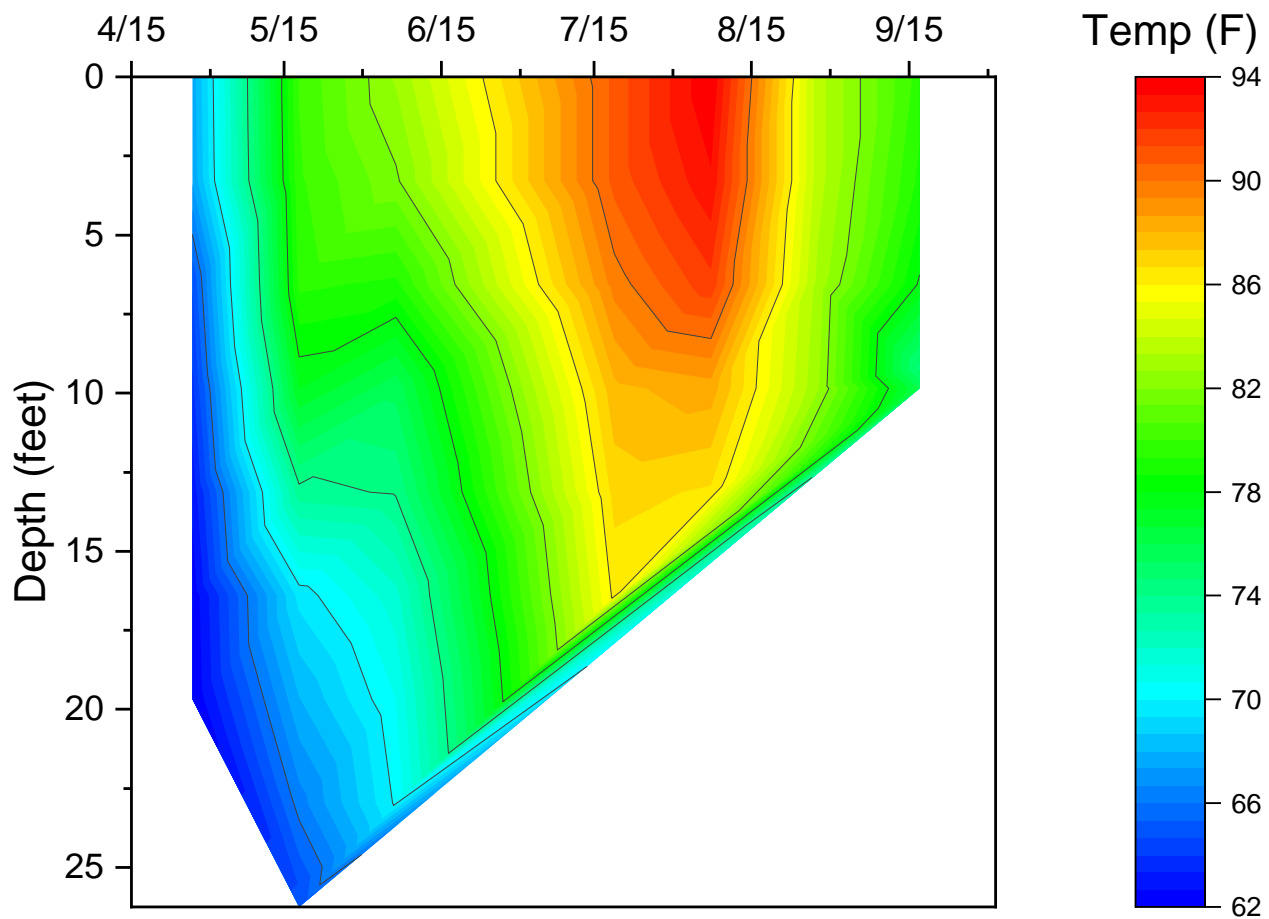
Trend data graphs show annual arithmetic means from 2020 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Stockton, Site 8

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.



Stockton, Site 8

# Summary Report for Stockton SP



	6/7	6/30	8/18	8/31	9/28				Mean*
Temperature (F)	75	81	81	82					80
Secchi (feet)	11.2	5.6	5.6	6.6	5.9				7
Phosphorus (µg/L)	11	16	13	11	15				13
Nitrogen (µg/L)	790	485	310	275	330				438
Ammonium (µg/L)	34	20	18		14				22
Nitrate (µg/L)	303	20	<5		<5				82
Chlorophyll (µg/L)	3.4	13.7	7.7	7.6	12.3				8.9
Susp. Sediment (mg/L)	0.2	2.0	0.7	0.9	0.8				0.9
Microcystin (µg/L)	<0.10	<0.10	<0.10		<0.10				<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04		<0.04				<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

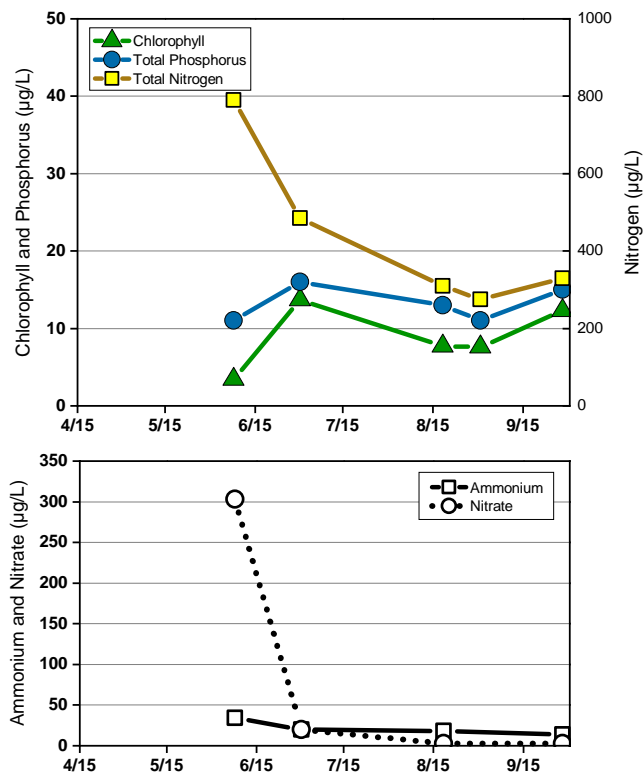
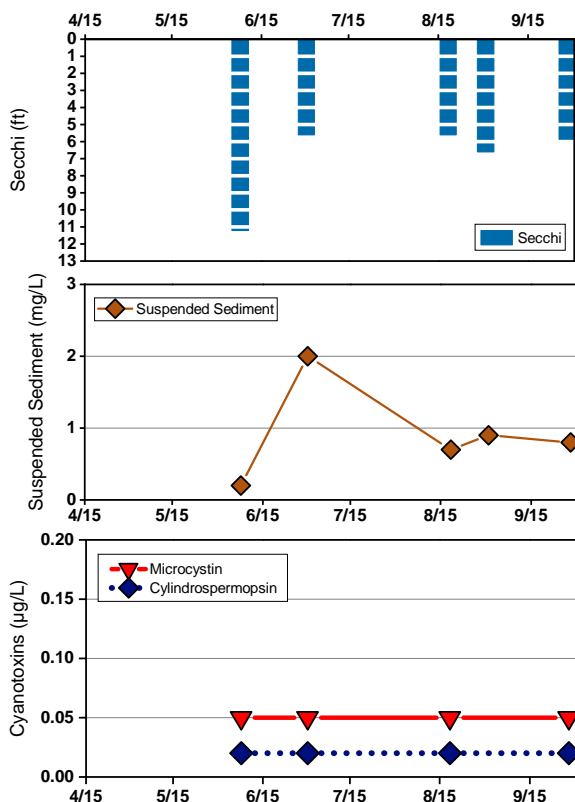
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

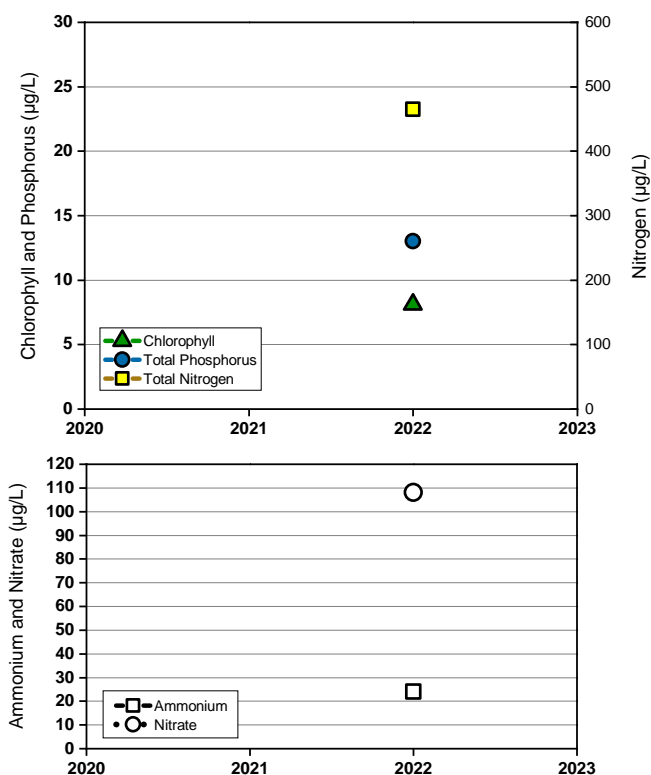
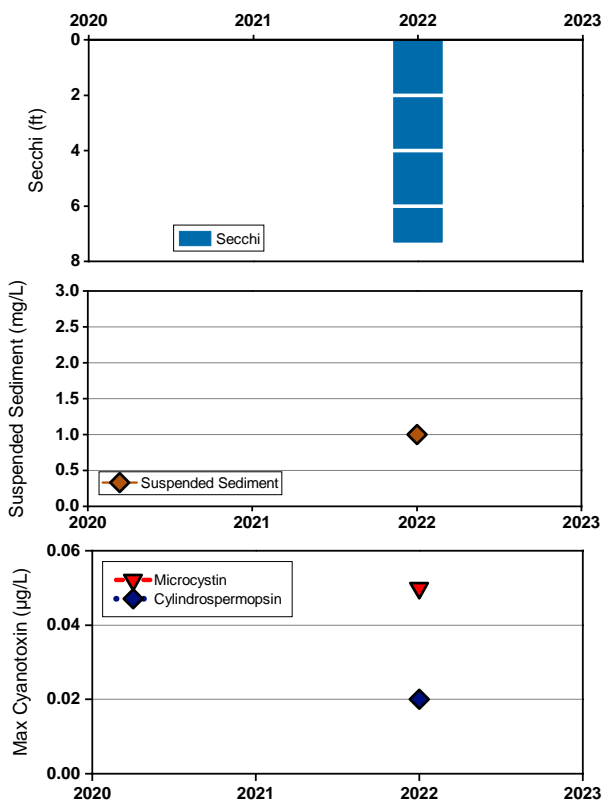
# Summary Report for Stockton SP



## 2022 Data for Stockton SP



## Trend Data for Stockton SP



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Sugar Creek 1



	4/29	5/22	6/9	7/3	7/21	8/13	9/5	10/2	Mean*
Temperature (F)	61	73	82	88	86	84	81	70	78
Secchi (feet)	2.6	3.9	2	3	2	2.6	2.6	2.3	2.6
Phosphorus (µg/L)	46	35	61	43	36	42	53	48	46
Nitrogen (µg/L)	1430	925	830	665	870	755	875	745	887
Ammonium (µg/L)	46	16	<10	14	49	<10	18	20	22
Nitrate (µg/L)	516	329	42	9	11	10	6	12	117
Chlorophyll (µg/L)	15.4	6.2	43.2	18.5	30.8	28.5	44.6	43.8	28.9
Susp. Sediment (mg/L)	5.3	3.0	8.4	3.1	3.6	3.4	4.9	2.1	4.2
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.17	<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

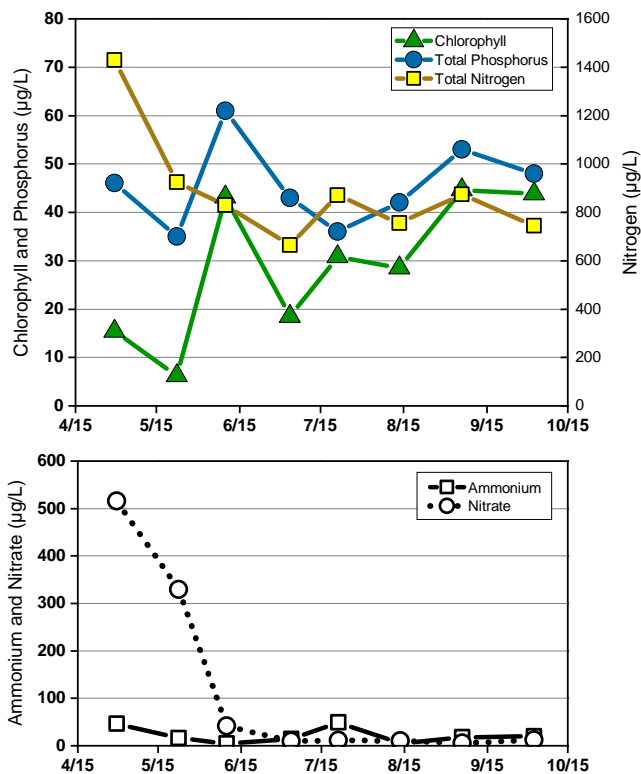
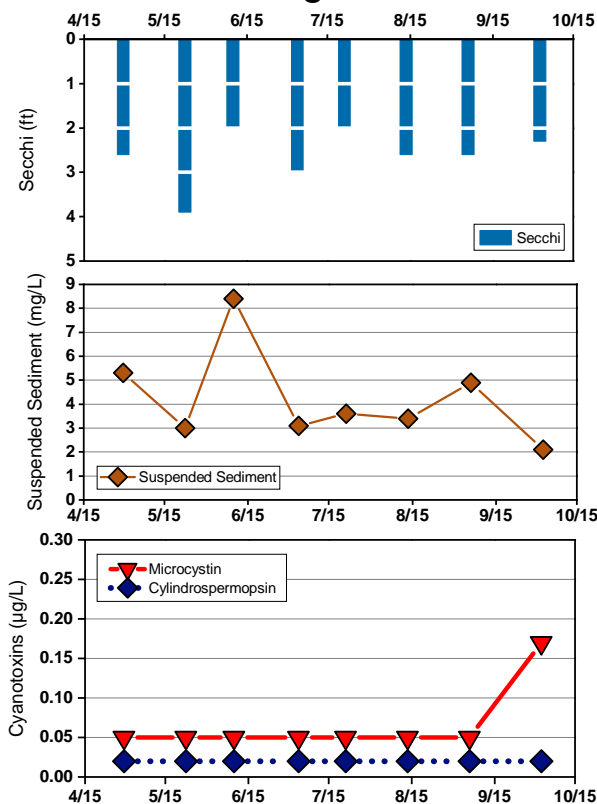
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

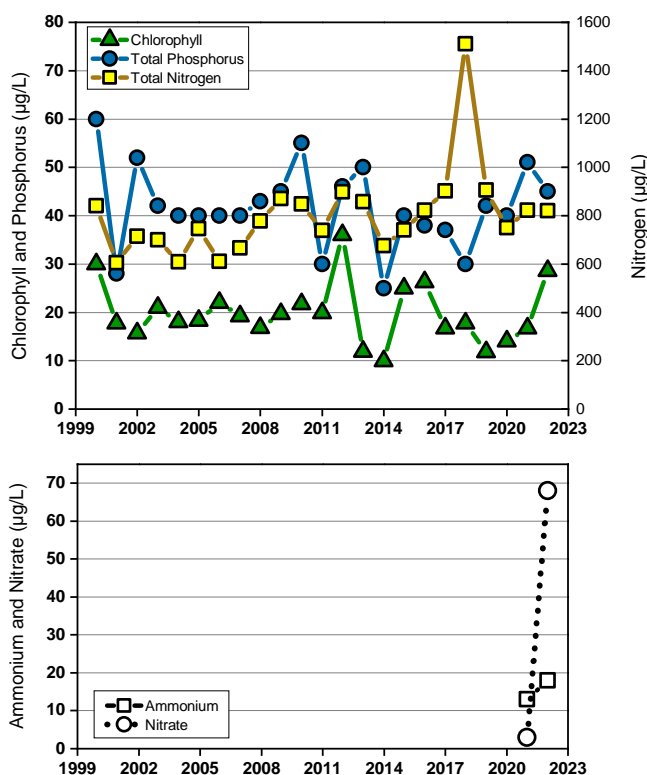
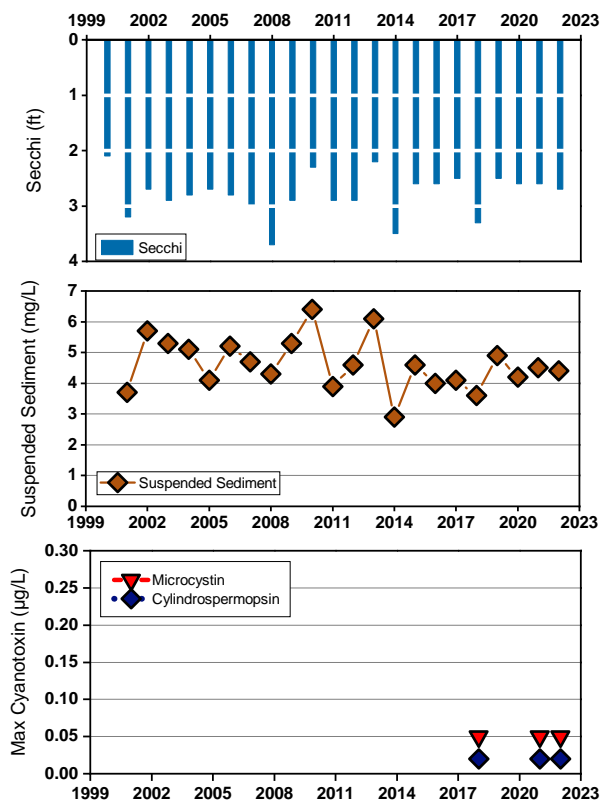
# Summary Report for Sugar Creek 1



## 2022 Data for Sugar Creek 1



## Trend Data for Sugar Creek 1



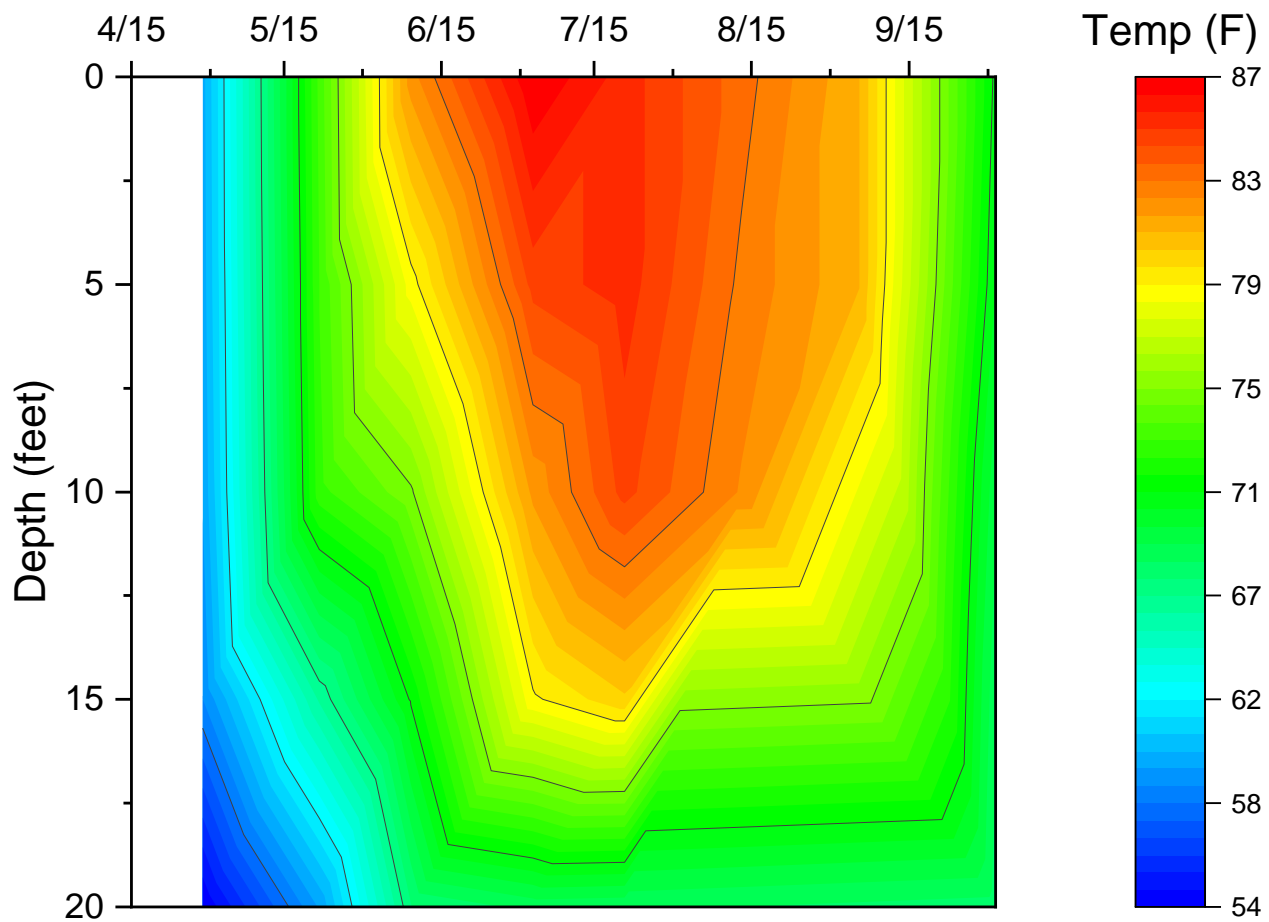
Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Sugar Creek, Site 1

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.



Sugar Creek, Site 1

# Summary Report for Sugar Creek 4



	4/29	5/22	6/9	7/3	7/21	8/13	9/5	10/2	Mean*
Temperature (F)	61	73	82	88	86	84	81	70	78
Secchi (feet)	2.6	3.9	2	3	2	2.6	2.6	2.3	2.6
Phosphorus (µg/L)	46	35	61	43	36	42	53	48	46
Nitrogen (µg/L)	1430	925	830	665	870	755	875	745	887
Ammonium (µg/L)	46	16	<10	14	49	<10	18	20	22
Nitrate (µg/L)	516	329	42	9	11	10	6	12	117
Chlorophyll (µg/L)	15.4	6.2	43.2	18.5	30.8	28.5	44.6	43.8	28.9
Susp. Sediment (mg/L)	5.3	3.0	8.4	3.1	3.6	3.4	4.9	2.1	4.2
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.17	<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

The table below shows EPA health advisories for cyanotoxin exposure.

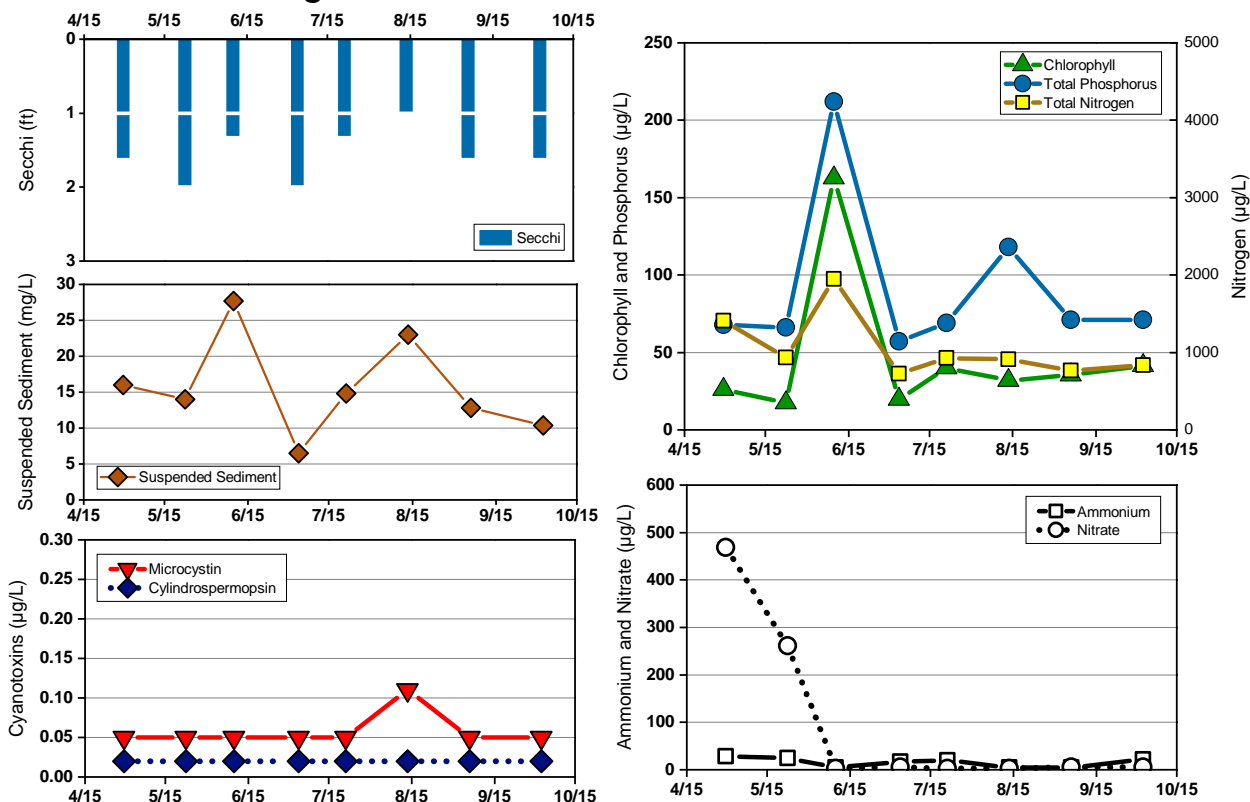
	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L



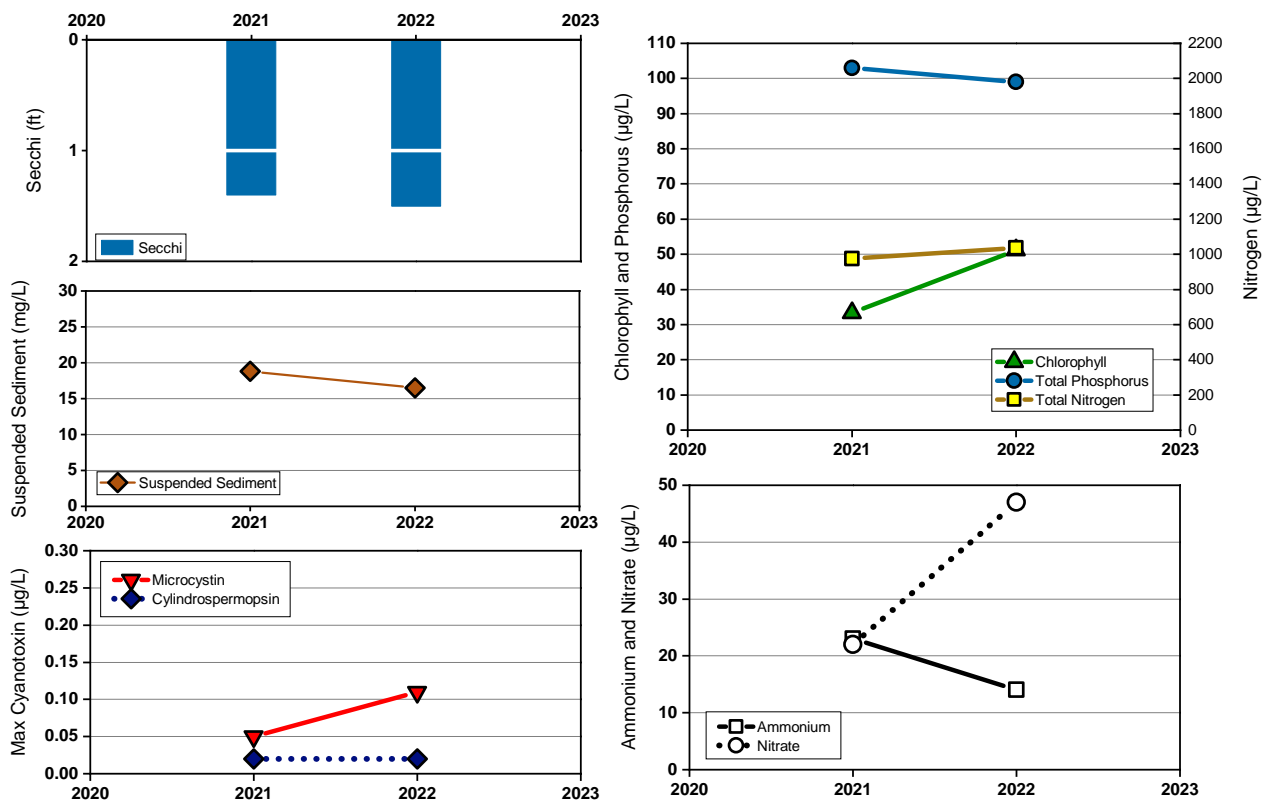
# Summary Report for Sugar Creek 4



## 2022 Data for Sugar Creek 4



## Trend Data for Sugar Creek 4



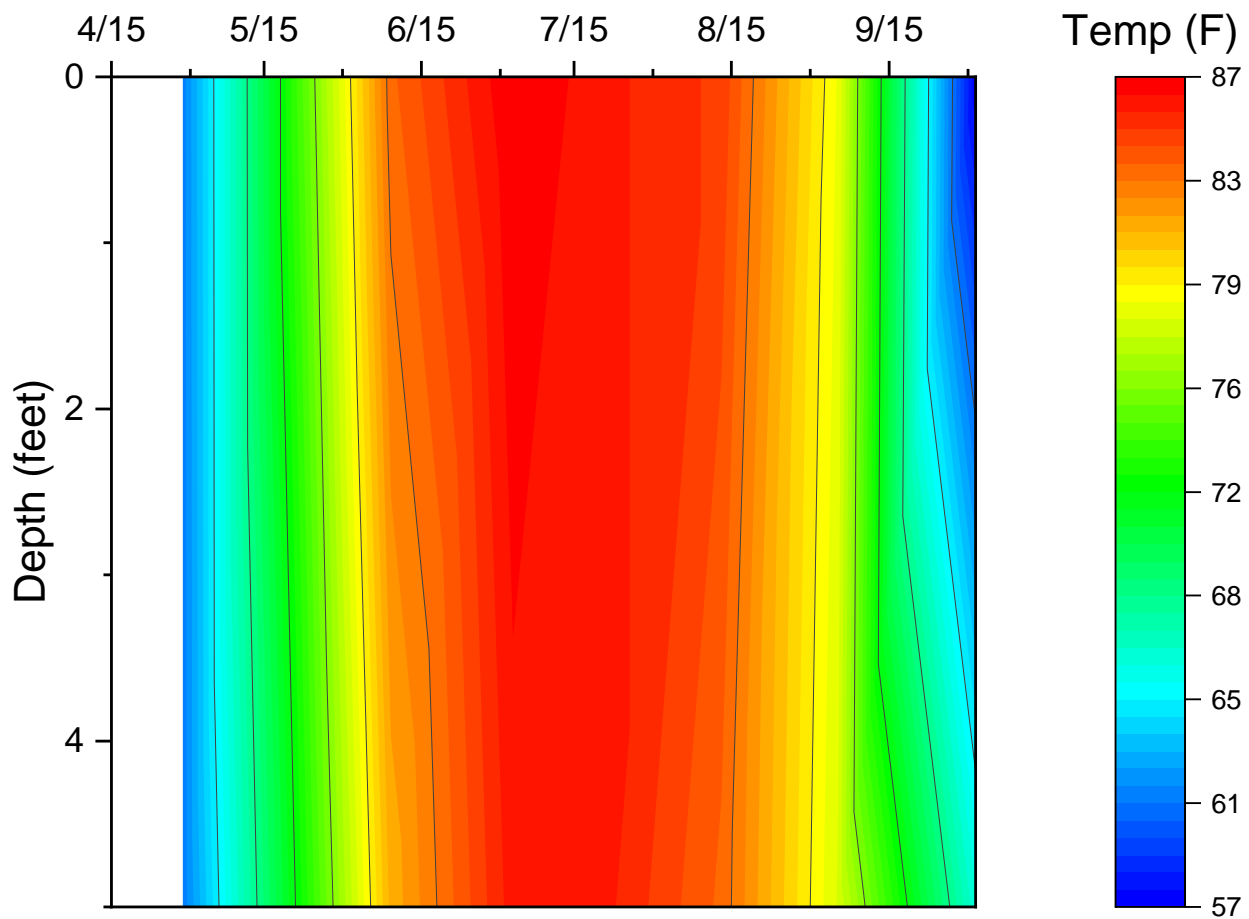
Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Sugar Creek, Site 4

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.



Sugar Creek, Site 4

# Summary Report for Table Rock 1



	4/25	5/16	6/5	6/27	7/18	8/8	8/29	9/19	Mean*
Temperature (F)	55	70	75	82	84	88	84	82	78
Secchi (feet)	13.8	13.1	6.6	7.2	8.9	7.2	6.6	7.9	8.9
Phosphorus (µg/L)	14	11	10	10	8	14	7	8	10
Nitrogen (µg/L)	823	740	805	437	295	345	337	445	528
Ammonium (µg/L)	41	38	12	17	12	11	18	11	20
Nitrate (µg/L)	561	524	459	172	9	<5	8	<5	217
Chlorophyll (µg/L)	3.3	2.3	5.2	6.1	5.4	4.8	6.4	6.5	5.0
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.11	<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

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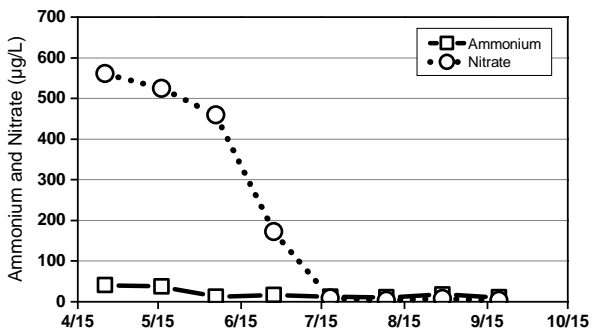
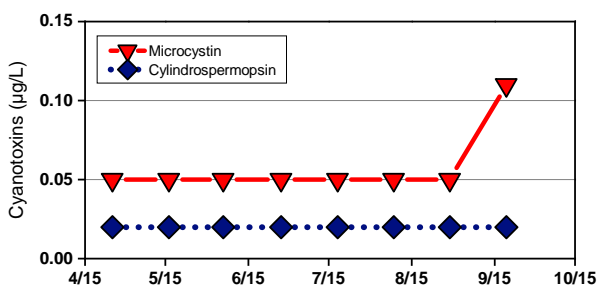
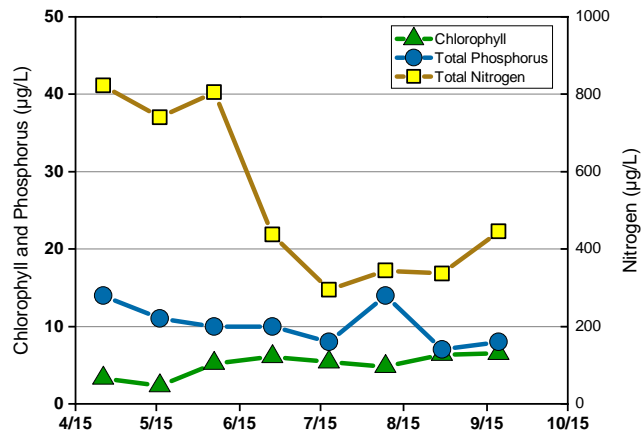
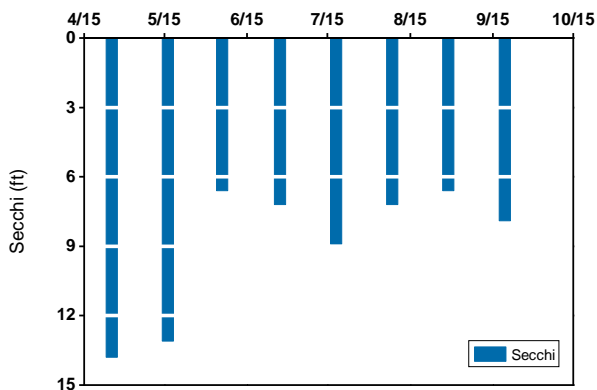
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

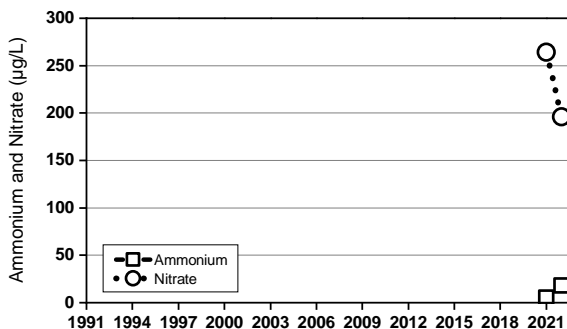
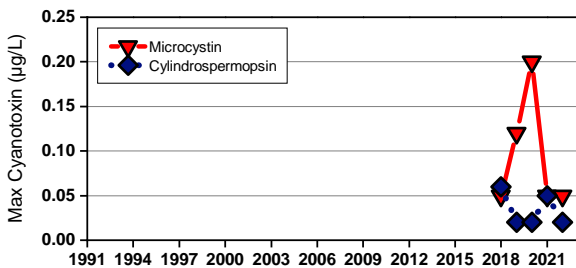
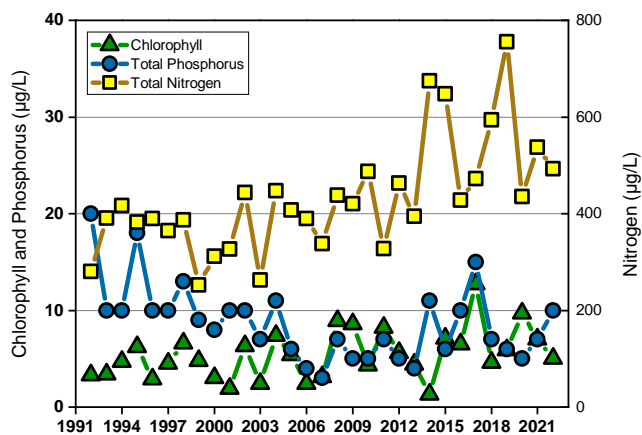
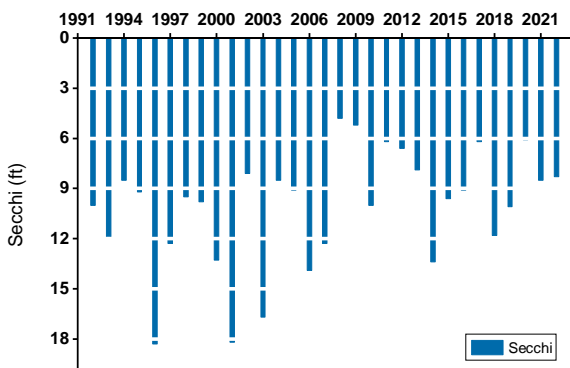
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Table Rock 1



## Trend Data for Table Rock 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Table Rock 3



	5/13	6/5	6/25	7/20	8/13	9/2	9/17		Mean
Temperature (F)	77	77	88	90	91	91	81		85
Secchi (feet)	6.6	5.9	4.9	6.9	8.9	9.2	9.8		7.5
Phosphorus (µg/L)	14	23	15	13	11	10	8		13
Nitrogen (µg/L)	870	653	460	540	255	280	305		480
Ammonium (µg/L)	13	19	22	16	29	36	<10		20
Nitrate (µg/L)	648	284	<5	<5	7	8	6		137
Chlorophyll (µg/L)	6.0	6.8	9.2	2.7	2.7	3.4	2.7		4.8
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	0.17	<0.10	<0.10		<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

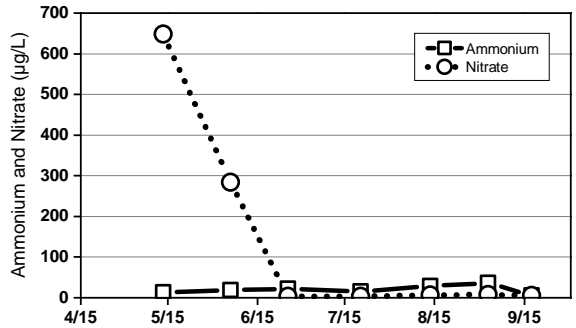
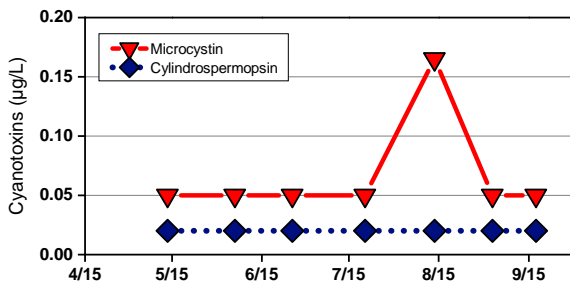
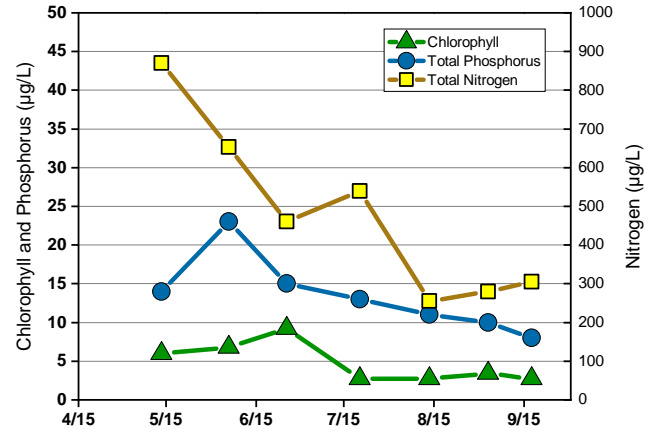
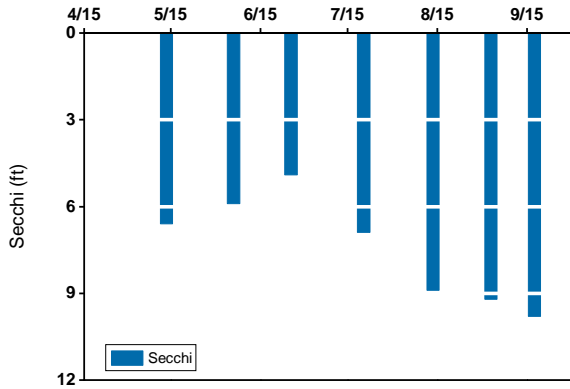
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

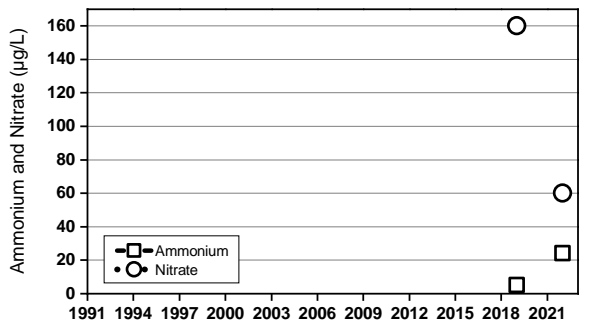
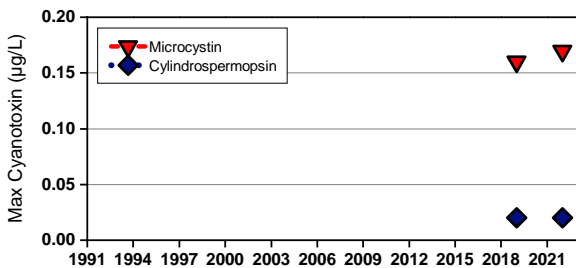
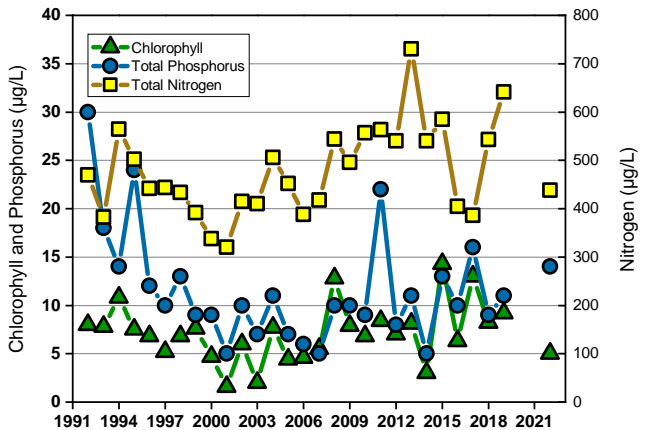
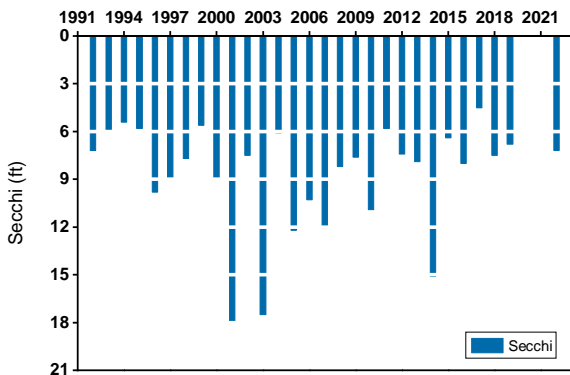
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Table Rock 3



## Trend Data for Table Rock 3



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Table Rock 4.5



	4/26	6/7	6/27	7/7	7/18	8/9	8/30	9/20	Mean
Temperature (F)	63	79	84	90	90	86	84	82	82
Secchi (feet)	6.6	6.9	4.9	5.9	5.9	3.9	6.9	7.9	6.1
Phosphorus (µg/L)	11	21	23	16	13	11	15	9	15
Nitrogen (µg/L)	1345	740	1070	300	315	260	310	270	576
Ammonium (µg/L)	17	29	<10	<10	<10		11	14	12
Nitrate (µg/L)	1016	461	77	<5	<5		6	<5	224
Chlorophyll (µg/L)	6.5	9.7	18.5	10.6	11.1		7.2	5.2	9.8
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	0.17	0.14	0.17	0.12	0.14	<0.10	0.13	0.12
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

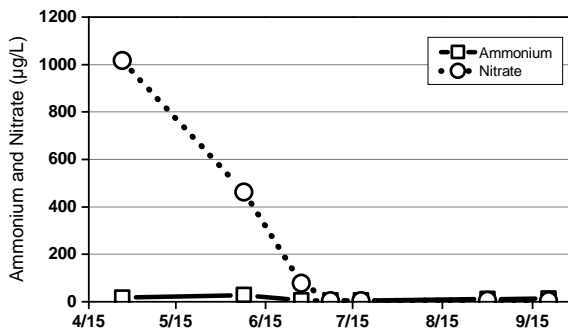
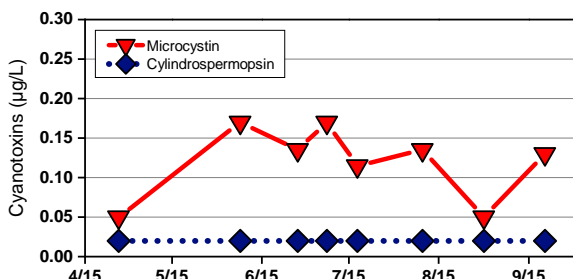
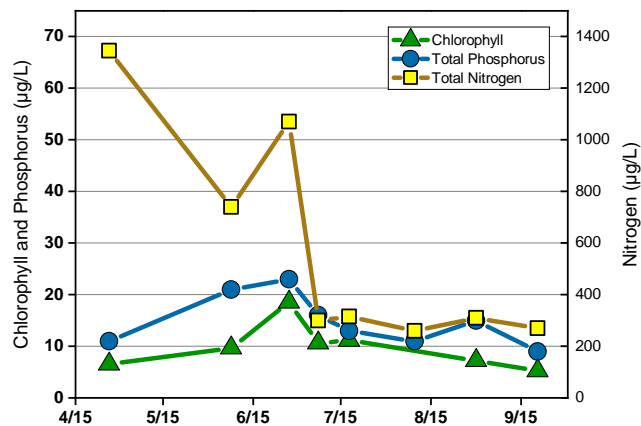
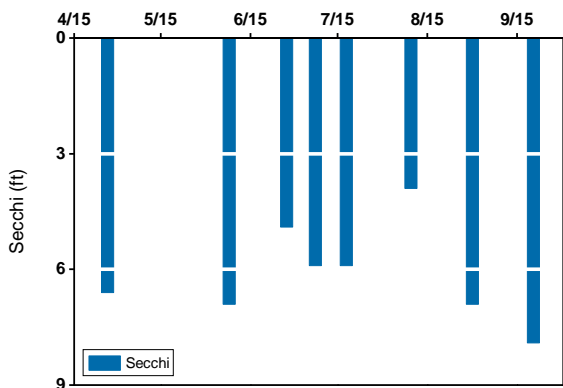
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

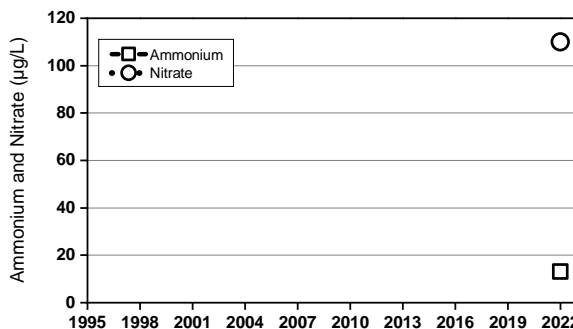
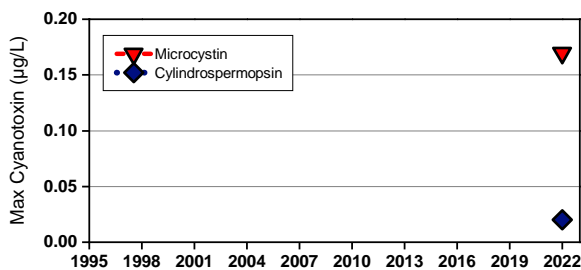
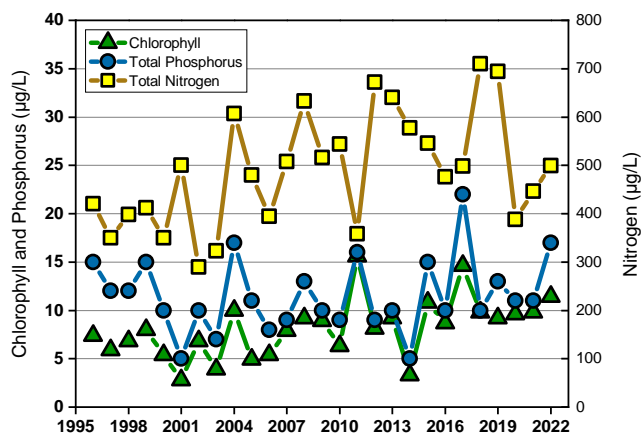
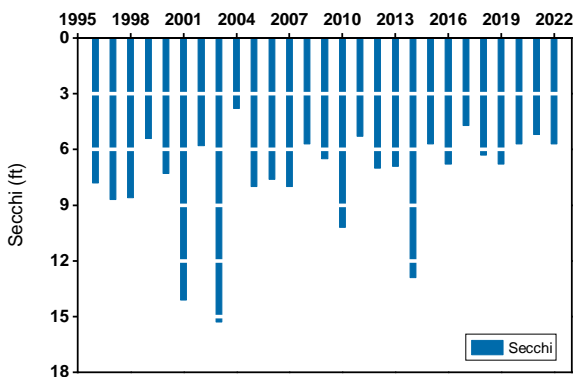
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Table Rock 4.5



## Trend Data for Table Rock 4.5



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.



# Summary Report for Table Rock 4



	4/25	5/16	6/5	6/26	7/18	8/7	8/28	9/18	Mean
Temperature (F)	63	75	73	88	88	88	84	81	80
Secchi (feet)	4.6	3.9	4.3	3.9	3.9	2.6	4.9	5.6	4.2
Phosphorus (µg/L)	15	17	17	24	15	15	15	13	16
Nitrogen (µg/L)	1120	1060	870	595	410	530	480	435	688
Ammonium (µg/L)	<10	37	<10	<10	<10	<10	<10	<10	<10
Nitrate (µg/L)	998	775	503	17	6	<5	10	8	290
Chlorophyll (µg/L)	8.4	5.6	12.0	13.8	10.6	17.2	7.3	8.4	10.4
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	<0.10	<0.10	0.12	<0.10	<0.10	<0.10	<0.10	<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

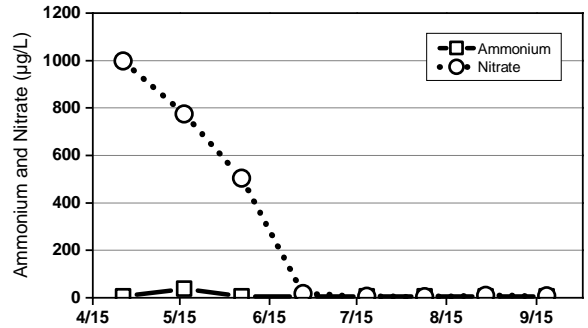
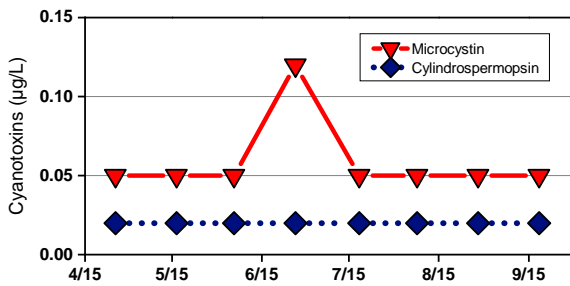
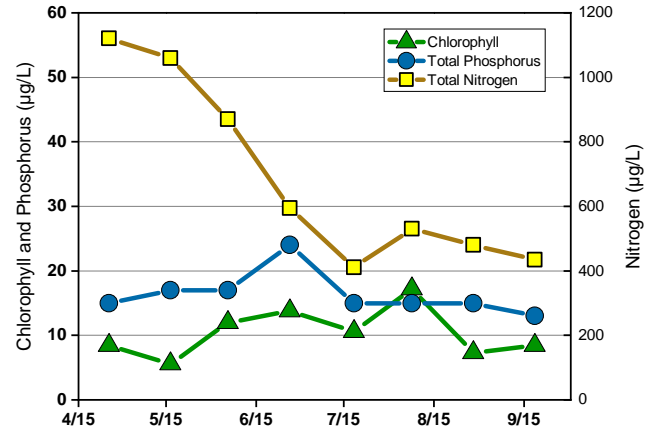
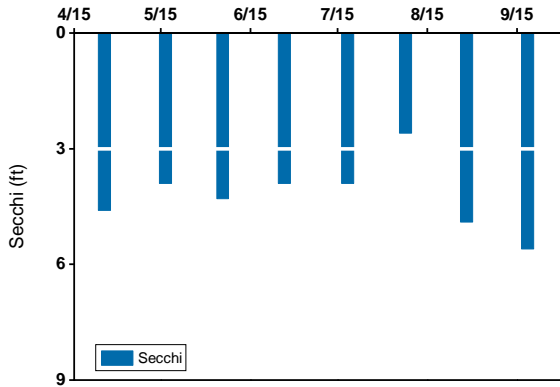
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

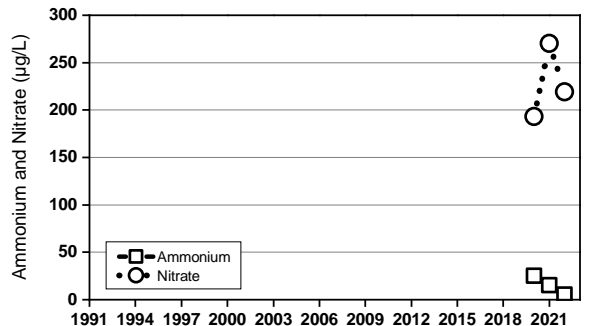
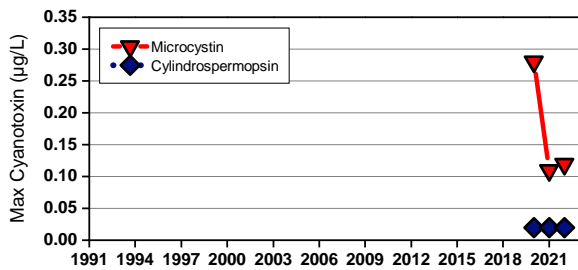
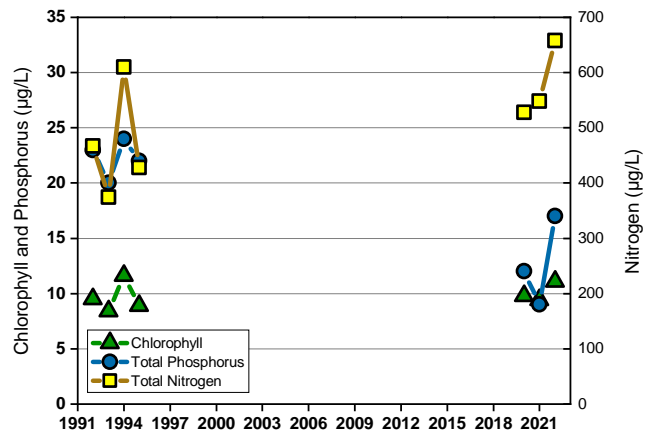
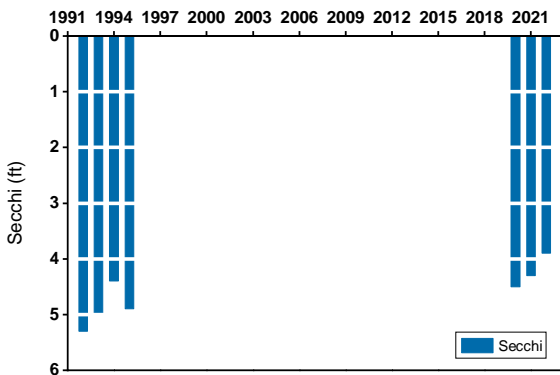
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Table Rock 4



## Trend Data for Table Rock 4



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Table Rock, Site 4

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.

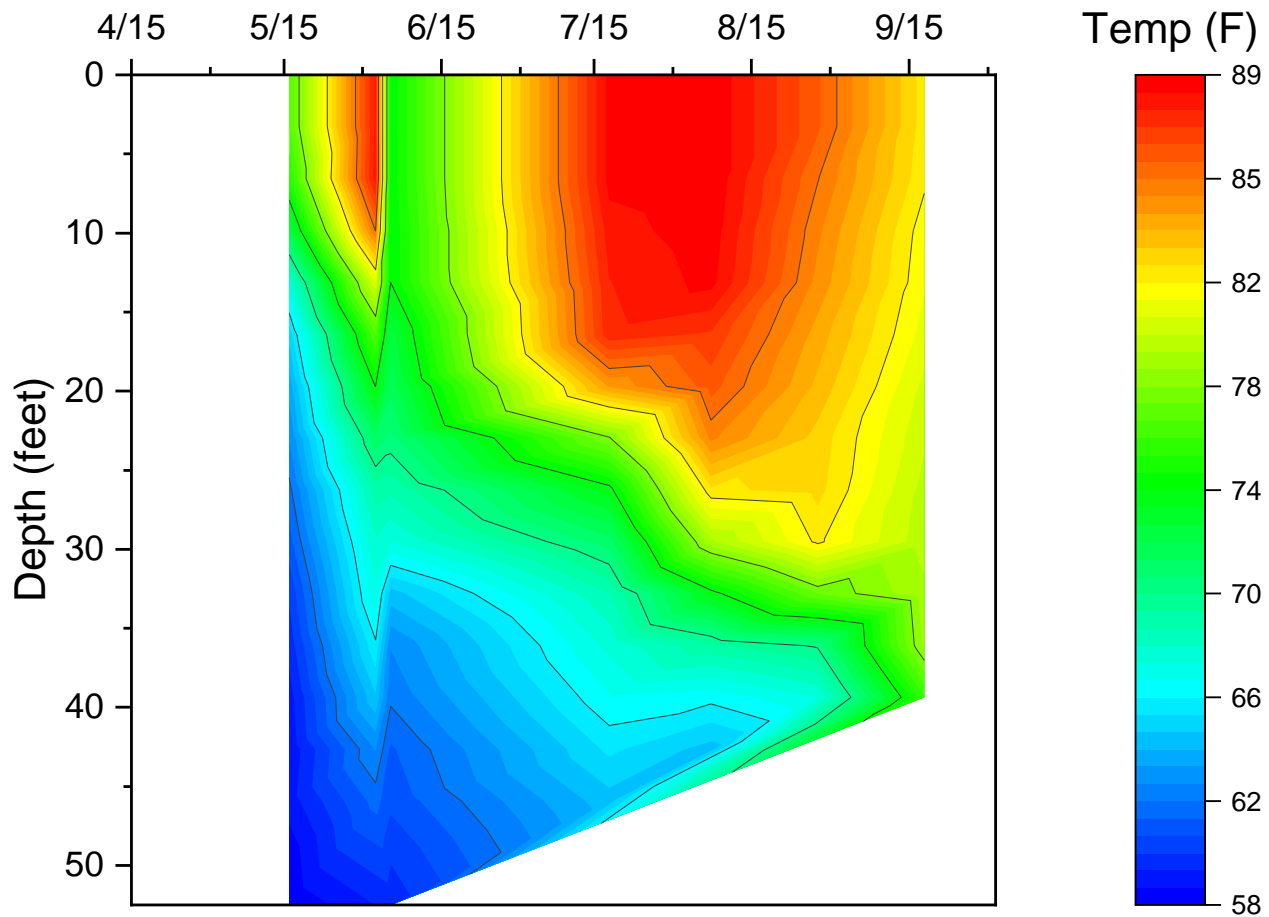


Table Rock, Site 4

# Summary Report for Table Rock 6.5



	5/1	6/19	7/10	8/14	10/9				Mean
Temperature (F)	64	84	88	86	70				78
Secchi (feet)	2.6	4.9	5.9	4.9	2.3				4.1
Phosphorus (µg/L)	29	15	17	21	40				24
Nitrogen (µg/L)	908	415	250	275	555				481
Ammonium (µg/L)	30	21	<10	<10	<10				13
Nitrate (µg/L)	760	65	<5	<5	6				167
Chlorophyll (µg/L)	2.4	8.7	6.2	18.6	36.1				14.4
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10				<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04				<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

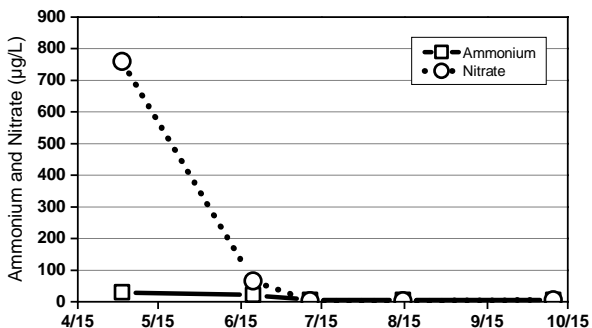
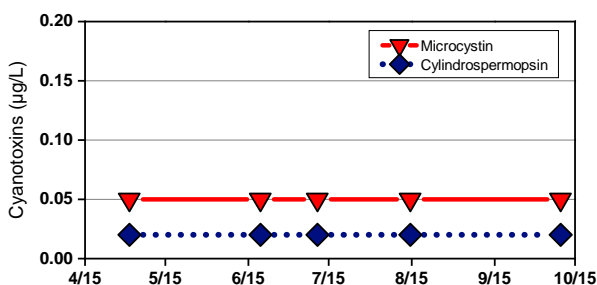
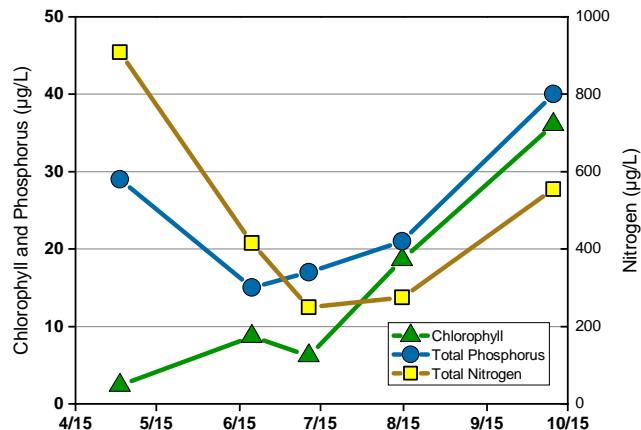
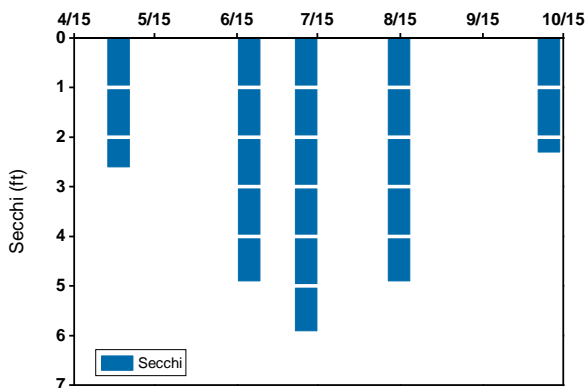
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

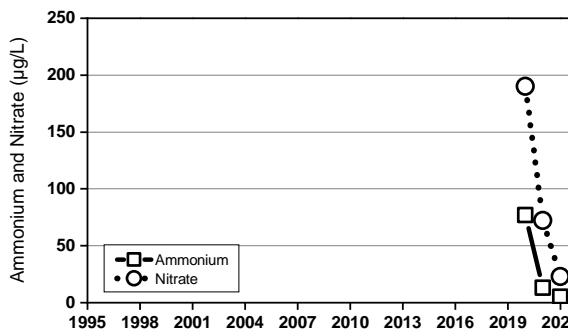
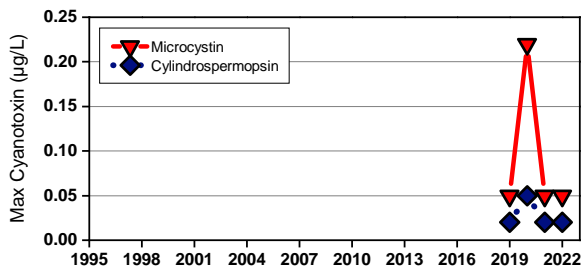
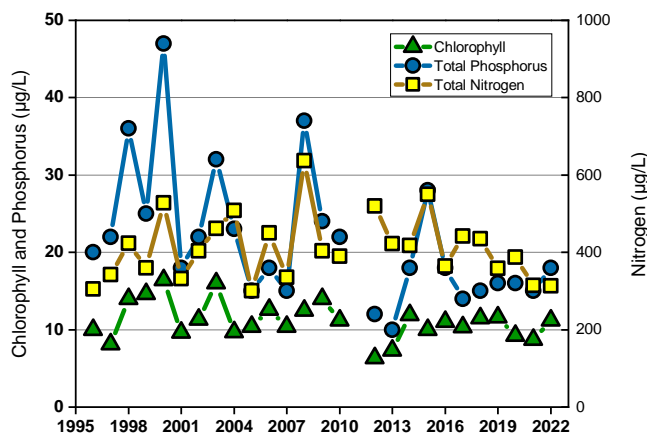
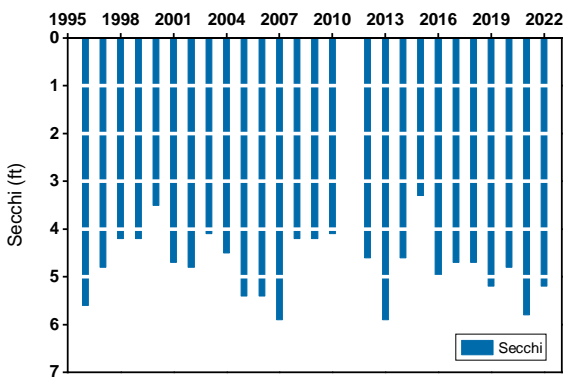
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Table Rock 6.5



## Trend Data for Table Rock 6.5



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Table Rock 7



	5/1	6/19	7/10	8/14	10/9				Mean
Temperature (F)	68	88	90	86	72				81
Secchi (feet)	3.3	5.2	3	2.3	2				3.2
Phosphorus (µg/L)	26	22	46	51	46				38
Nitrogen (µg/L)	973	950	585	570	625				621
Ammonium (µg/L)	33	27	<10	12	<10				16
Nitrate (µg/L)	822	98	<5	10	<5				187
Chlorophyll (µg/L)	1.1	8.1	24.2	44.0	36.4				22.8
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10				<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04				<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

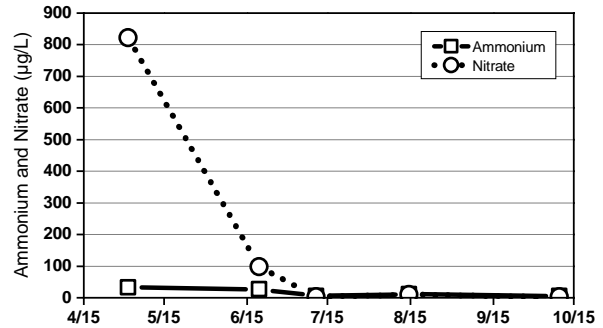
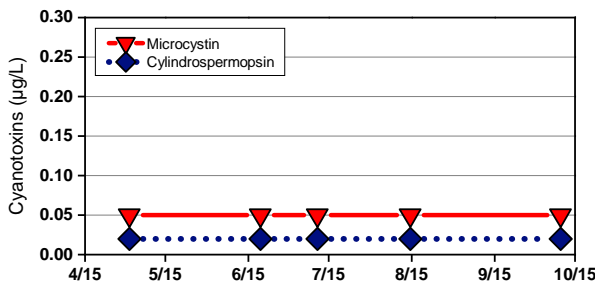
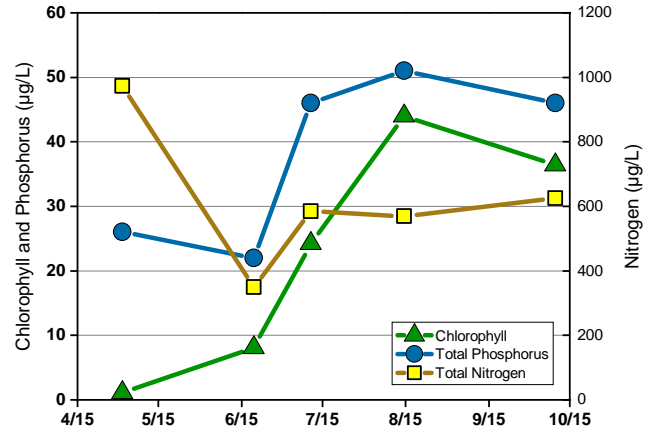
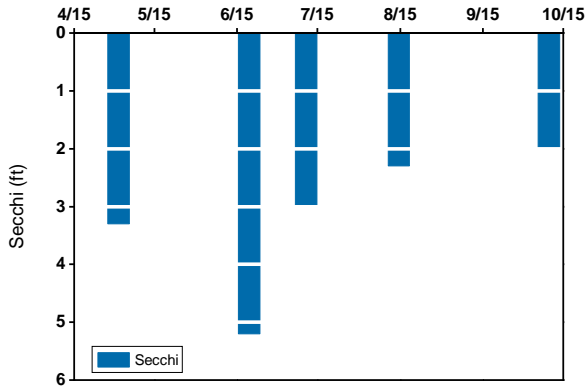
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

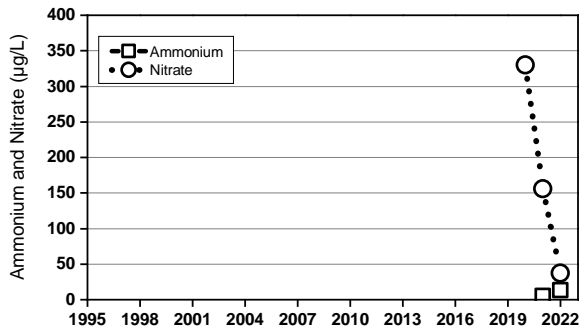
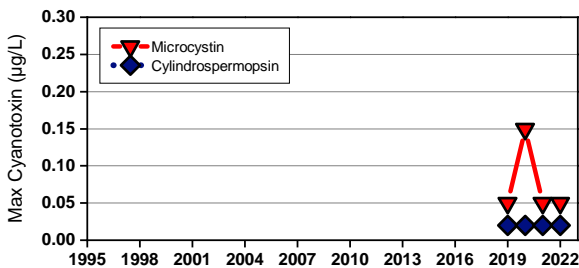
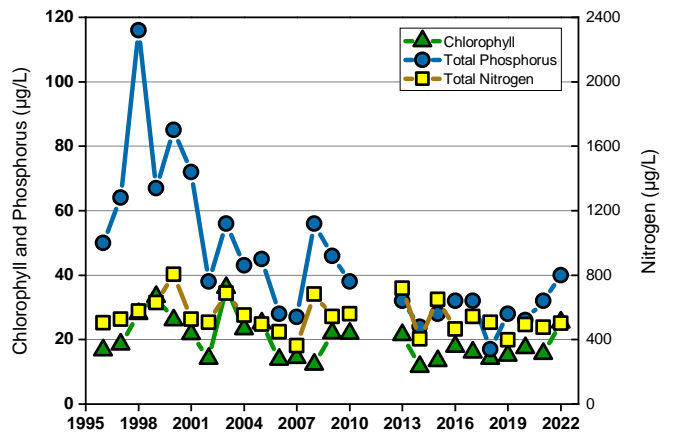
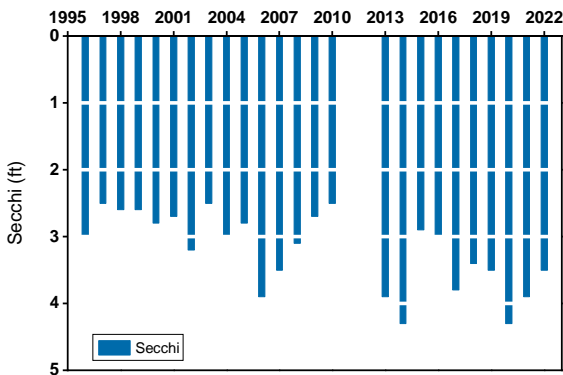
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Table Rock 7



## Trend Data for Table Rock 7



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Table Rock Viola



	5/1	7/10	8/14	9/19	10/9				Mean
Temperature (F)	66	90	84	84	72				79
Secchi (feet)	2.6	7.9	6.2	5.2	4.3				5.2
Phosphorus (µg/L)	55	16	15	15	17				24
Nitrogen (µg/L)	855	430	510	300	280				475
Ammonium (µg/L)	33	18	<10	20	14				18
Nitrate (µg/L)	504	<5	<5	15	<5				106
Chlorophyll (µg/L)	19.7	4.8	8.0	7.6	14.3				10.9
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10				<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04				<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

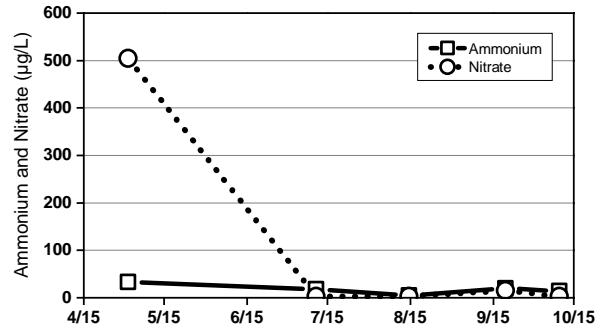
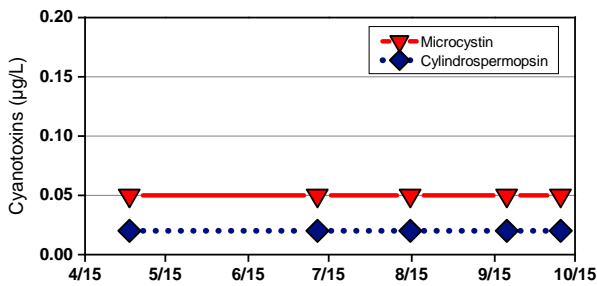
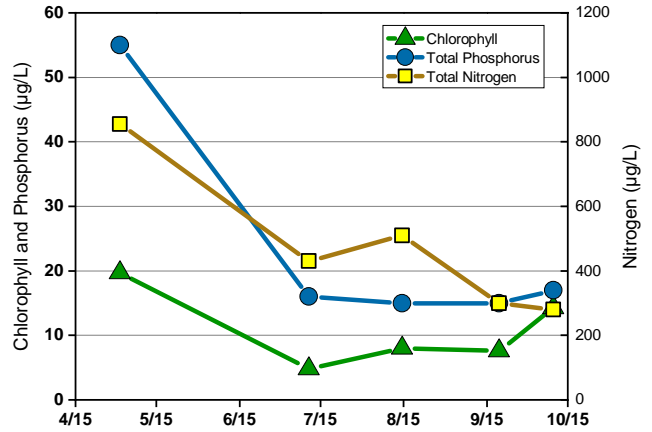
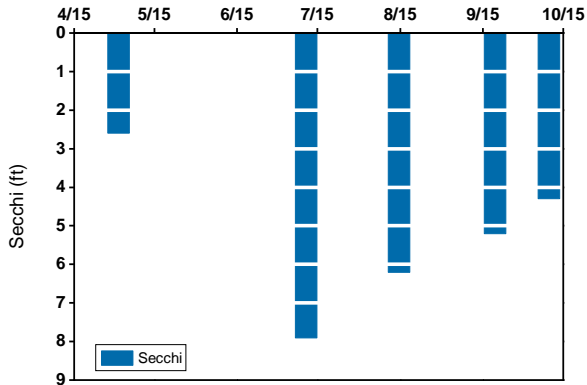
### EPA Health Advisories for Cyanotoxins

The table below shows EPA health advisories for cyanotoxin exposure.

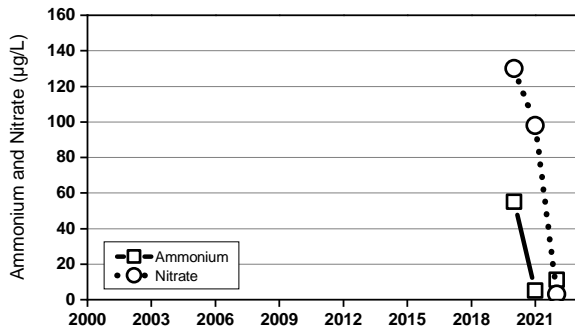
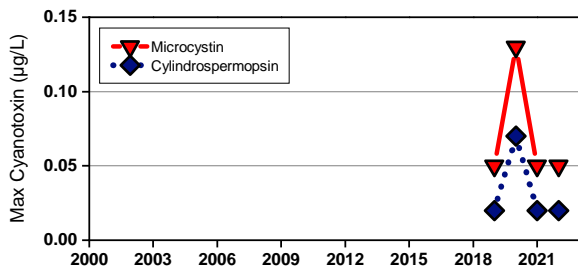
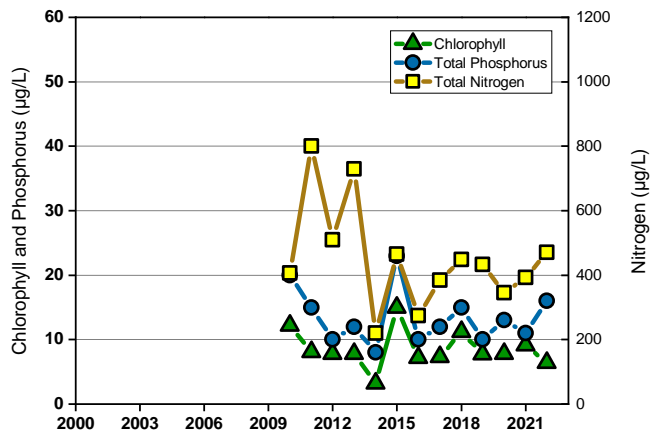
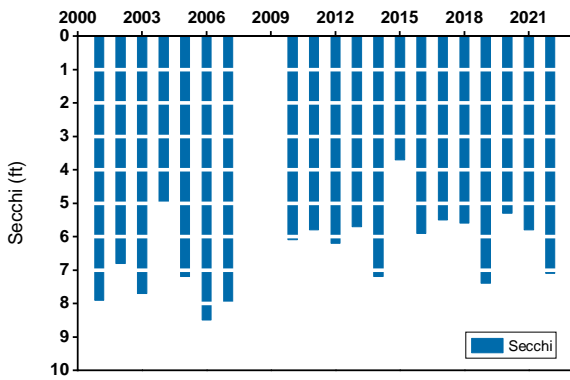
	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L



# Summary Report for Table Rock Viola



## Trend Data for Table Rock Viola



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Table Rock 7.1



	4/26	5/18	6/8	6/29	7/18	8/6	8/30	9/13	Mean
Temperature (F)	64	70	75	84	90	84	88	81	80
Secchi (feet)	1	4.6	4.3	2.3	3	2.3	2.3	1.3	2.6
Phosphorus (µg/L)	119	25	34	85	56	48	74	116	70
Nitrogen (µg/L)	885	1005	625	770	715	945	870	710	816
Ammonium (µg/L)	43	38	29	73	<10	115	107	273	85
Nitrate (µg/L)	563	730	228	<5	7	342	28	163	258
Chlorophyll (µg/L)	4.1	11.2	14.4	33.7	36.0	23.7	27.8	87.1	29.8
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	0.13	<0.10	<0.10	0.12	<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

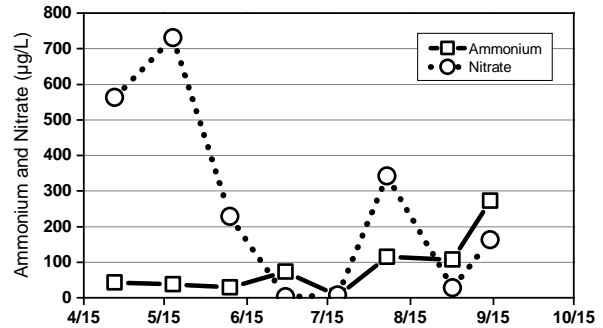
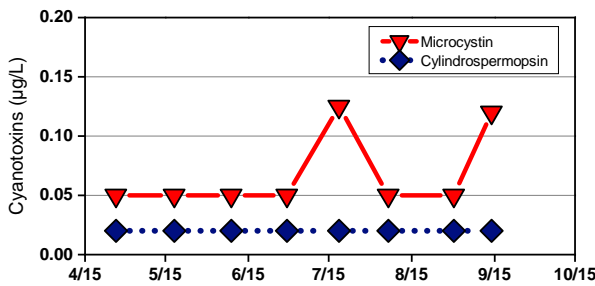
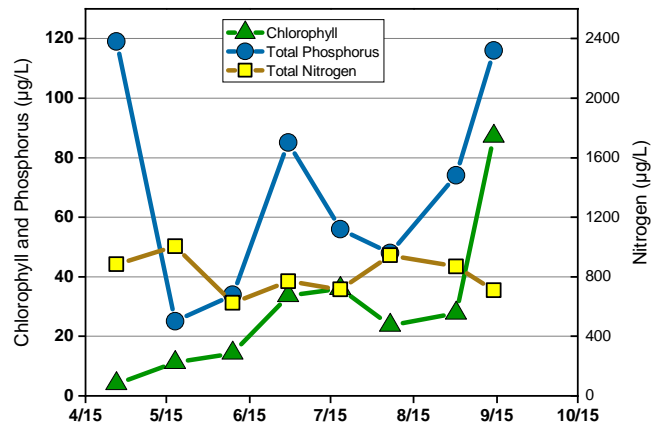
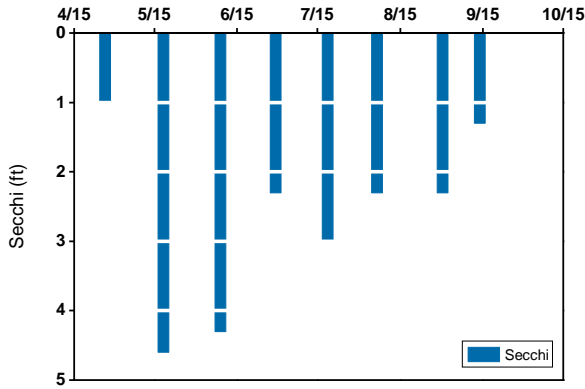
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

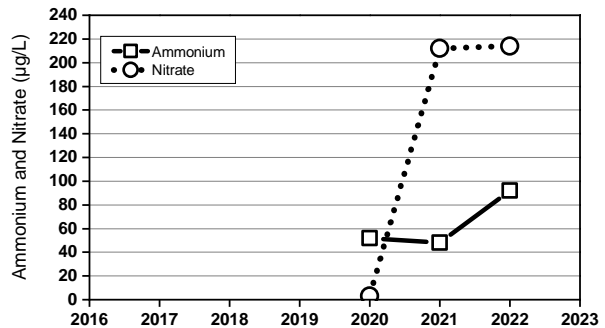
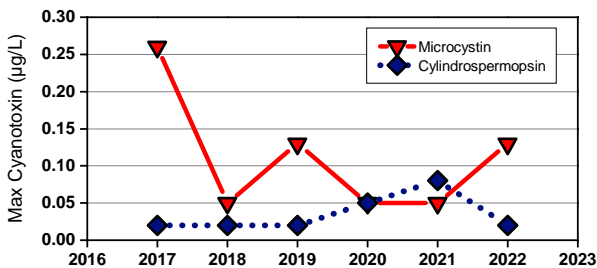
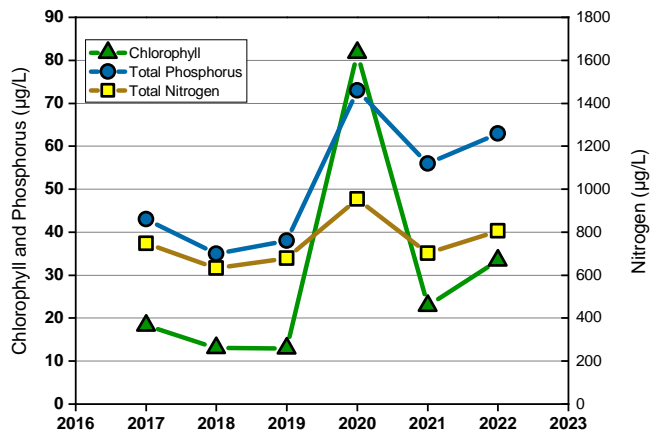
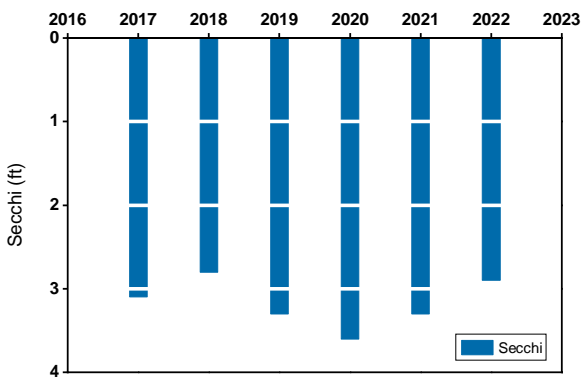
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Table Rock 7.1



## Trend Data for Table Rock 7.1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Table Rock 7.5



	4/26	5/19	6/9	6/30	7/21	8/9	8/31	9/21	Mean
Temperature (F)	57	73	79	82	91	84	81	81	79
Secchi (feet)	4.3	4.3	4.9	3.3	3.6	3.3	2.6	3.3	3.7
Phosphorus (µg/L)	23	20	18	20	25	18	21	7	19
Nitrogen (µg/L)	1063	950	585	370	405	290	300	230	490
Ammonium (µg/L)	26	54	32	32	41	42	20	26	34
Nitrate (µg/L)	863	610	221	<5	<5	60	134	20	239
Chlorophyll (µg/L)	0.5	2.1	5.4	6.5	13.0	12.0	15.1	9.5	8.0
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

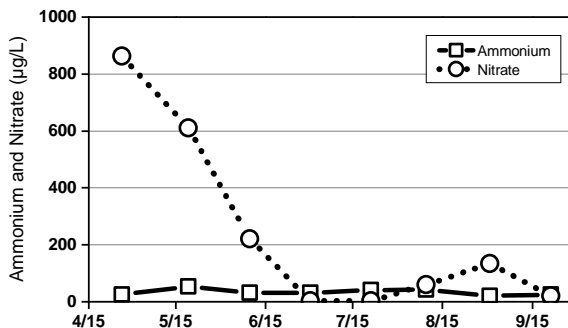
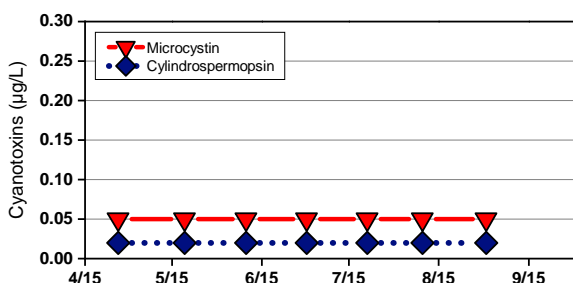
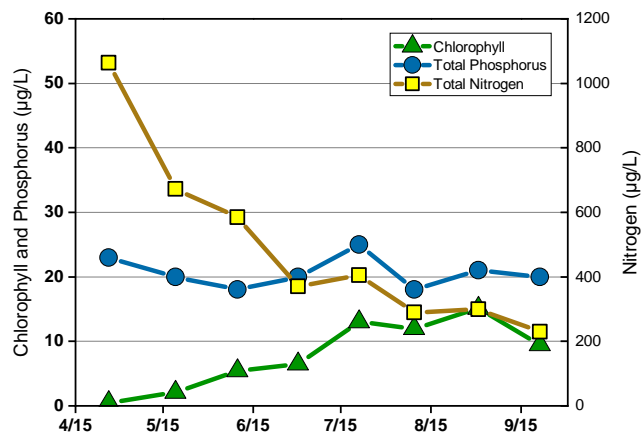
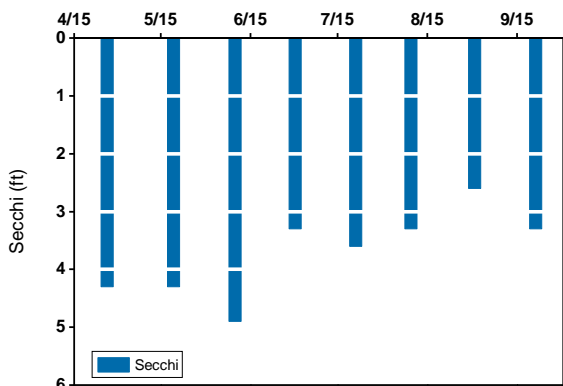
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

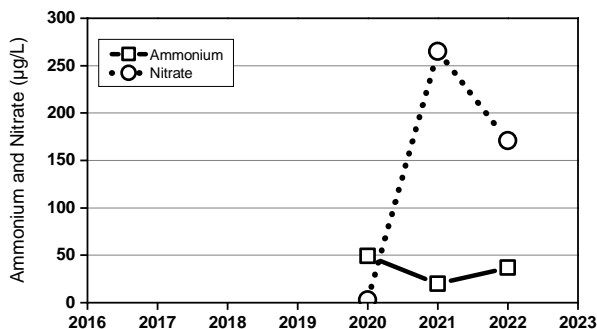
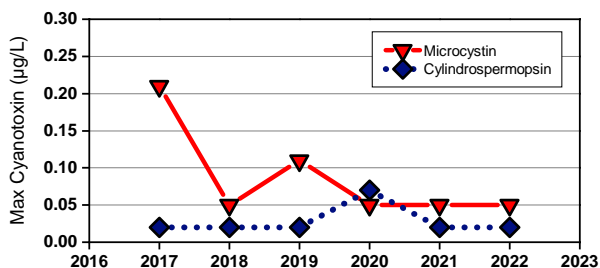
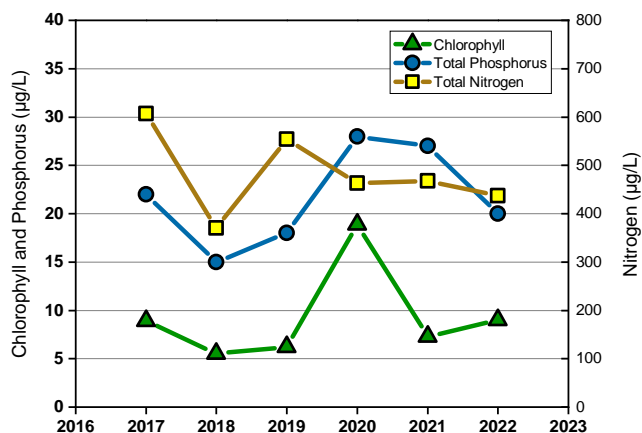
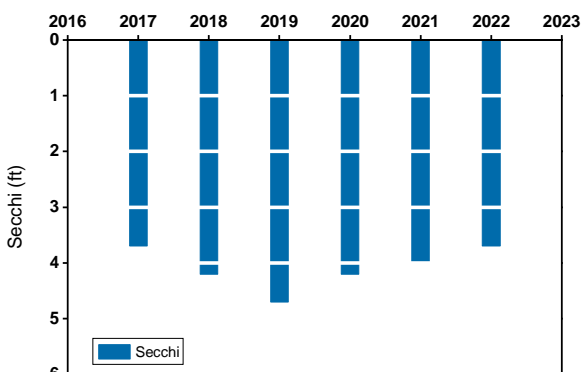
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Table Rock 7.5



## Trend Data for Table Rock 7.5



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Table Rock 8.8



	4/26	5/17	6/6	6/26	7/19	8/7	8/28	9/20	Mean
Temperature (F)	57	70	73	86	84	86	84	81	78
Secchi (feet)	2	3.9	3.3	4.6	4.3	3.6	3.9	3.3	3.6
Phosphorus (µg/L)	38	18	25	26	15	15	13	14	21
Nitrogen (µg/L)	1475	1055	1060	800	570	450	510	410	791
Ammonium (µg/L)	51	27	18	<10	<10	<10	13	<10	16
Nitrate (µg/L)	1188	730	714	193	19	<5	<5	<5	357
Chlorophyll (µg/L)	6.1	8.6	13.9	10.0	9.8	9.6	8.7	12.4	9.9
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.17	<0.10	<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
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### Description of Measured Parameters

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- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
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### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

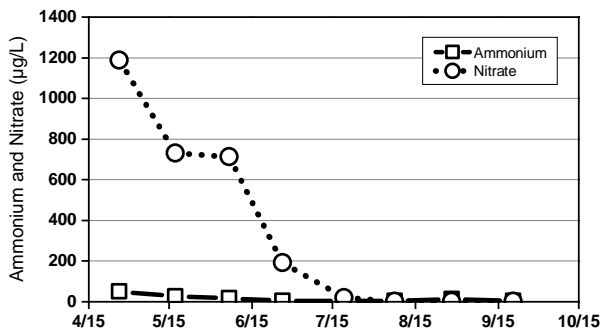
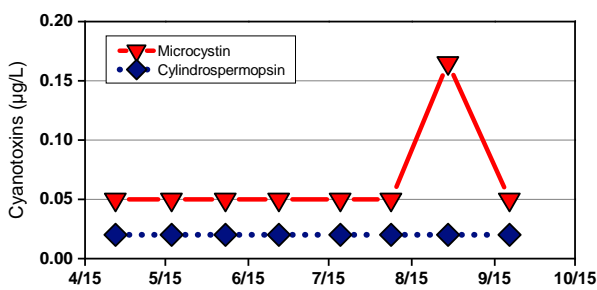
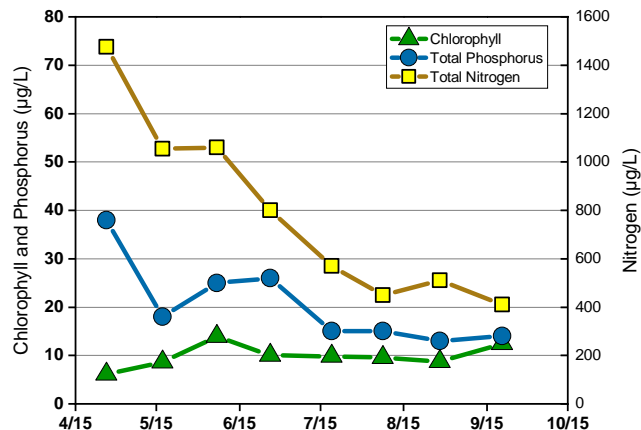
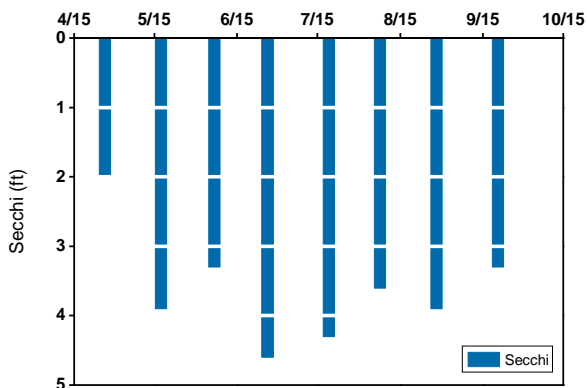
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

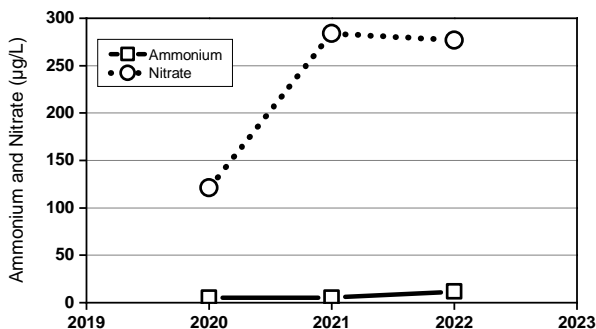
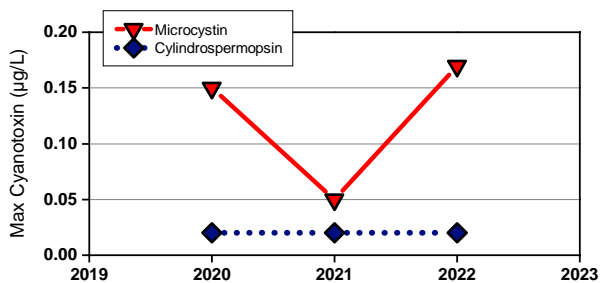
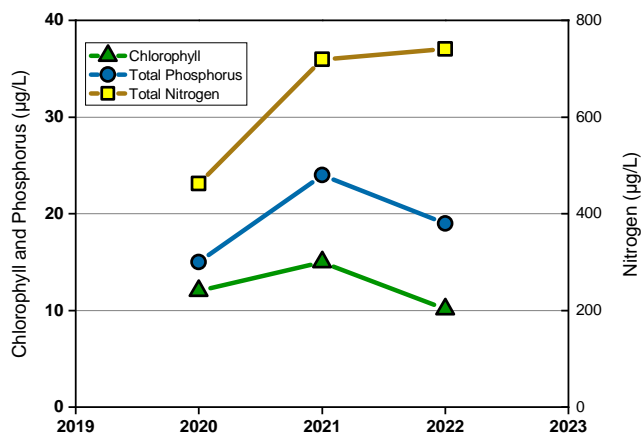
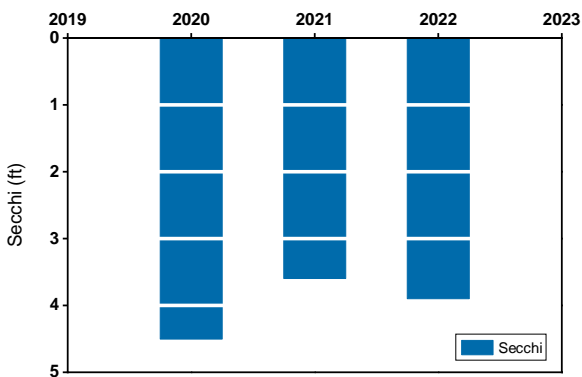
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Table Rock 8.8



## Trend Data for Table Rock 8.8



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Table Rock 9



	4/26	5/17	6/7						Mean
Temperature (F)	54	55	73						61
Secchi (feet)	2.6	3.9	4.9						3.8
Phosphorus (µg/L)	18	20	17						18
Nitrogen (µg/L)	520	430	400						450
Ammonium (µg/L)	15	19	19						18
Nitrate (µg/L)	45	50	49						48
Chlorophyll (µg/L)	12.3	14.9	10.3						12.5
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	<0.10	<0.10						<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04						<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

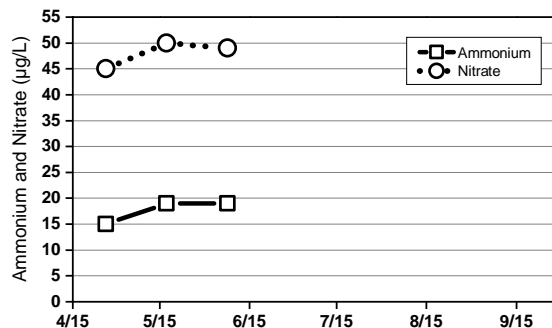
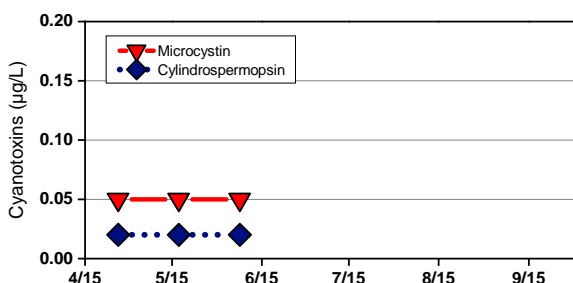
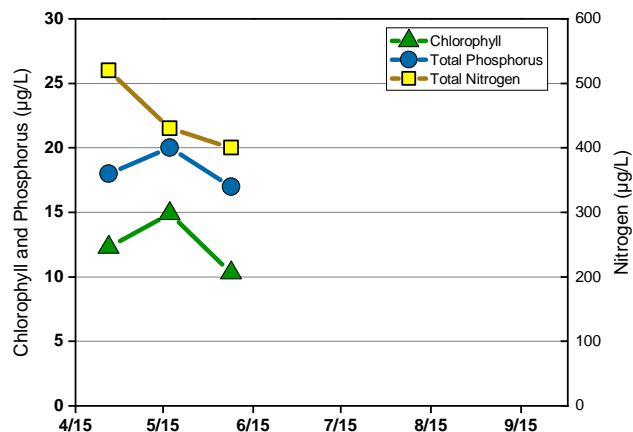
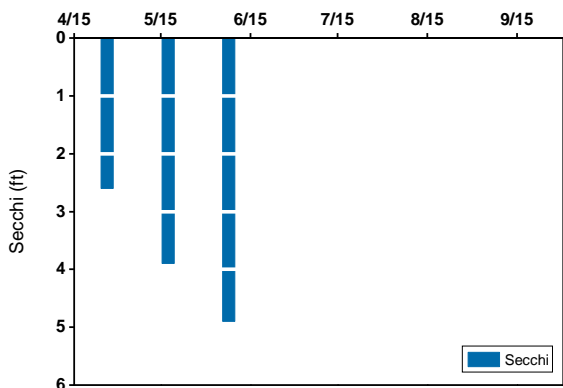
### EPA Health Advisories for Cyanotoxins

The table below shows EPA health advisories for cyanotoxin exposure.

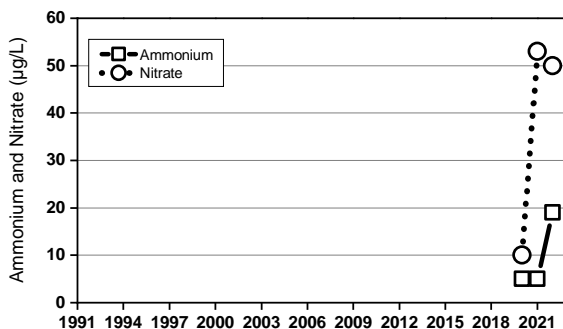
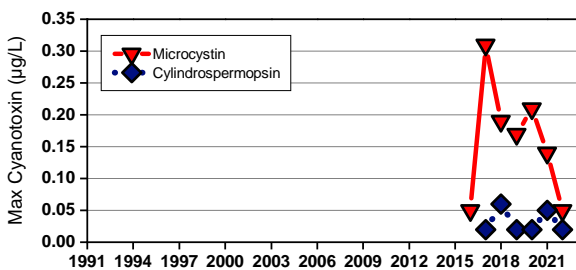
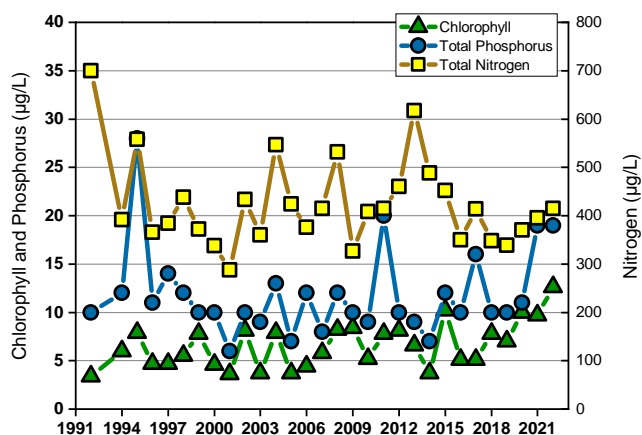
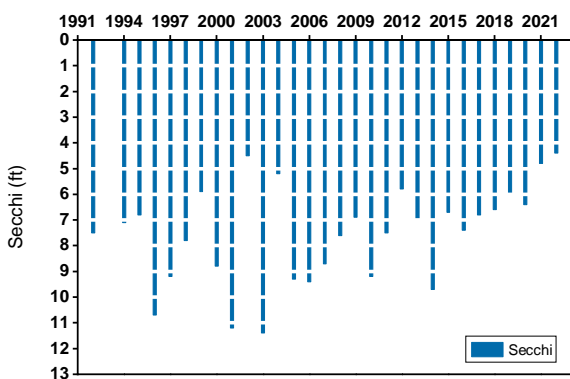
	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L



# Summary Report for Table Rock 9



## Trend Data for Table Rock 9



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Table Rock 11



	4/26	6/5	6/26	7/18	8/9	8/30	9/19		Mean
Temperature (F)	66	75	88	90	90	84	82		82
Secchi (feet)	3	4.3	3.9	3	3	2.6	2.6		3.2
Phosphorus (µg/L)	34	43	57	41	46	67	41		47
Nitrogen (µg/L)	1975	1595	1610	1190	647	1110	675		1257
Ammonium (µg/L)	52	23	28	14	18	23	<10		23
Nitrate (µg/L)	1684	1215	744	332	70	318	101		638
Chlorophyll (µg/L)	6.9	23.1	34.8	24.2	33.9	55.0	48.0		32.3
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	0.18	0.14	<0.10		<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	0.21	<0.04	<0.04	<0.04		0.05

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

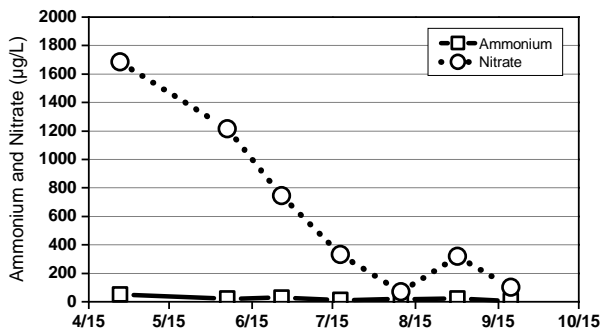
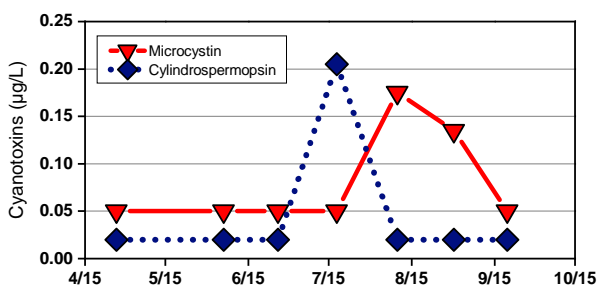
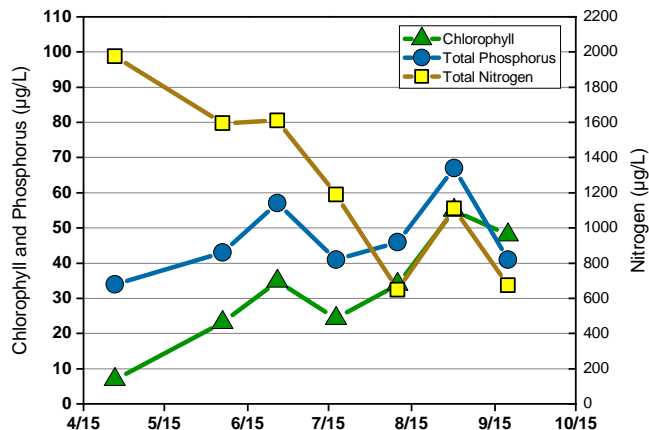
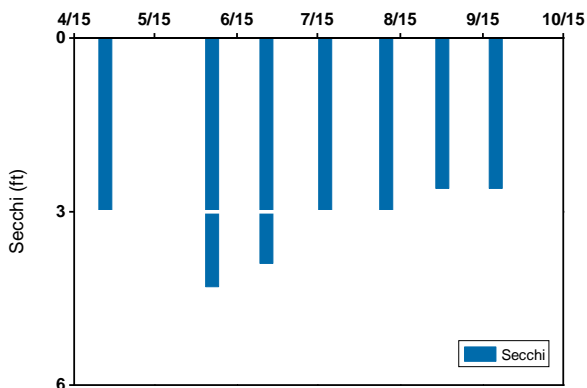
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

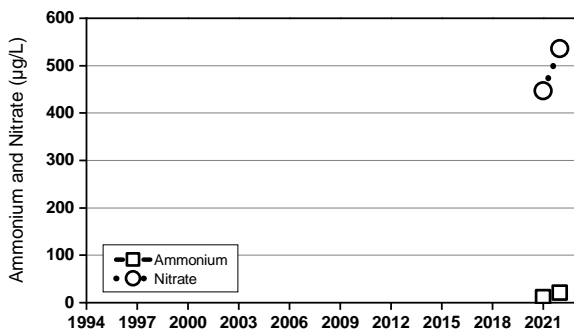
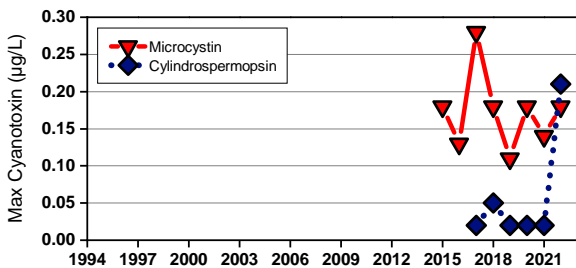
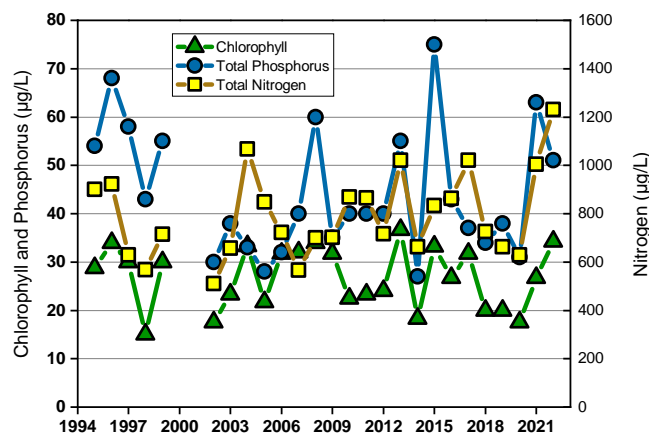
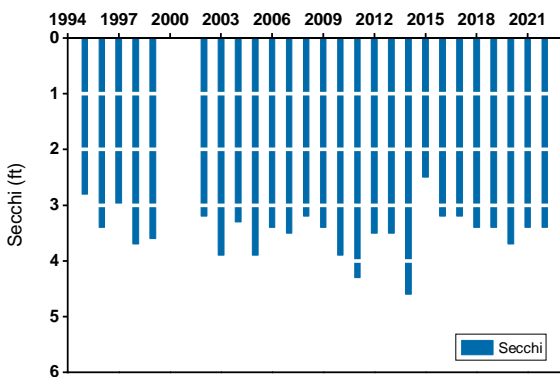
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Table Rock 11



## Trend Data for Table Rock 11



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Table Rock, Site 11

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.

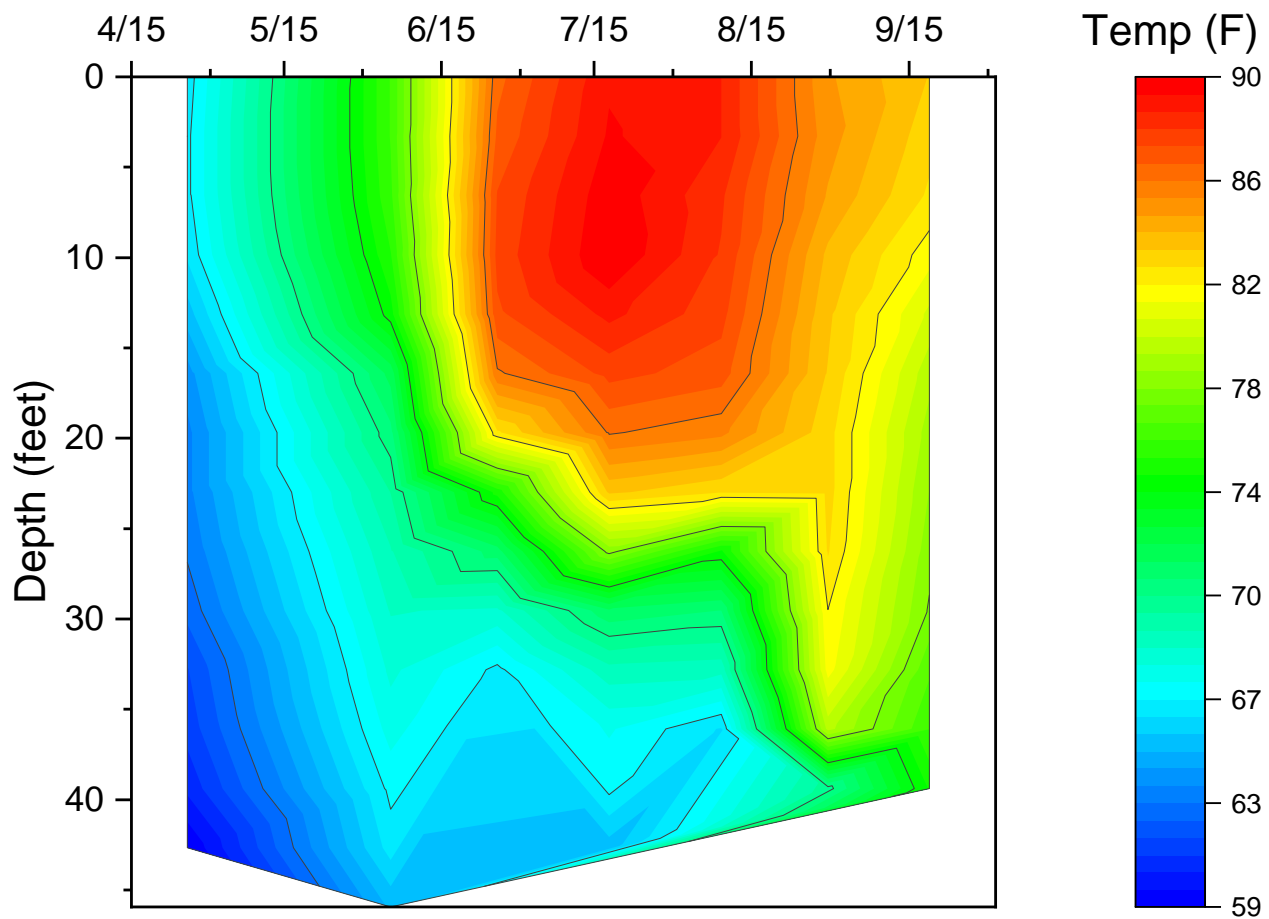


Table Rock, Site 11

# Summary Report for Table Rock 12



	4/26	6/5	6/26	7/18	8/9	8/30	9/19		Mean
Temperature (F)	64	75	88	91	90	86	84		83
Secchi (feet)	2.3	4.9	3.6	2.3	2	2	2		2.7
Phosphorus (µg/L)	38	28	54	51	68	82	92		59
Nitrogen (µg/L)	1637	1525	1310	1360	1520	1260	1440		1436
Ammonium (µg/L)	27	12	18	35	<10	26	<10		18
Nitrate (µg/L)	1324	997	726	438	489	500	356		690
Chlorophyll (µg/L)	1.3	14.1	23.3	23.1	41.6	46.4	78.5		32.6
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		<0.10
Cylindrospermopsin (µg/L)	0.19	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

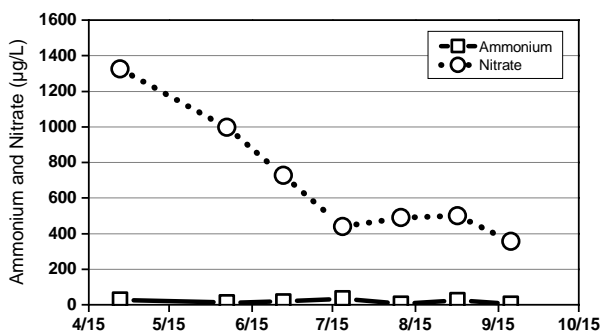
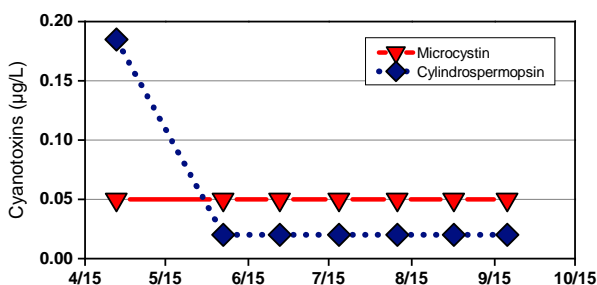
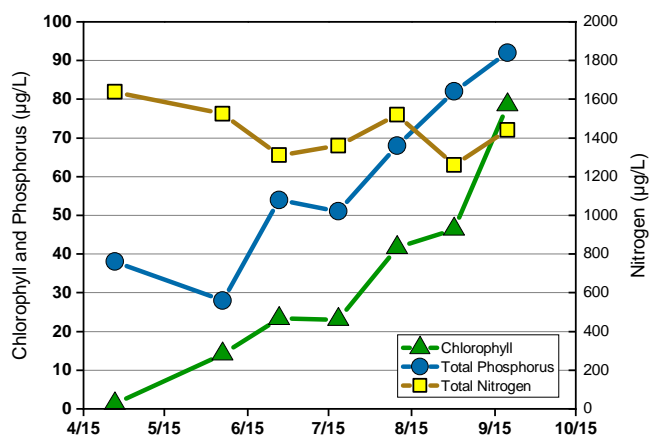
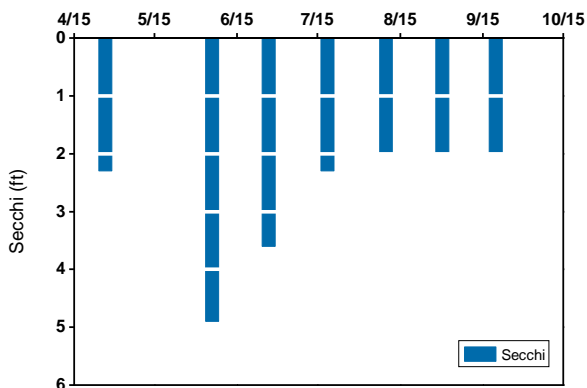
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

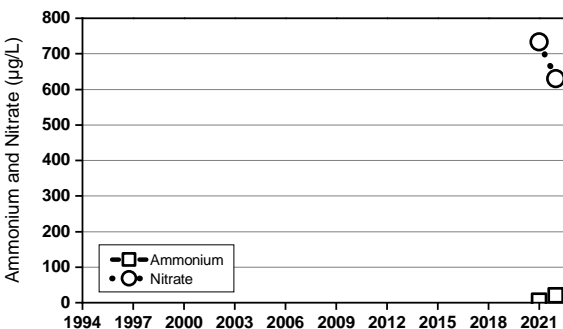
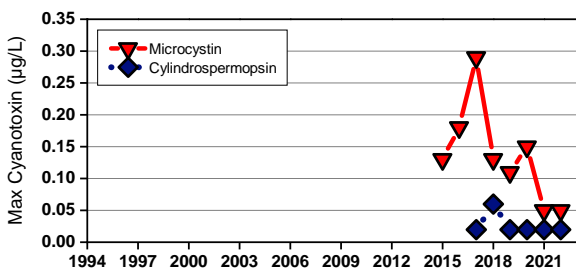
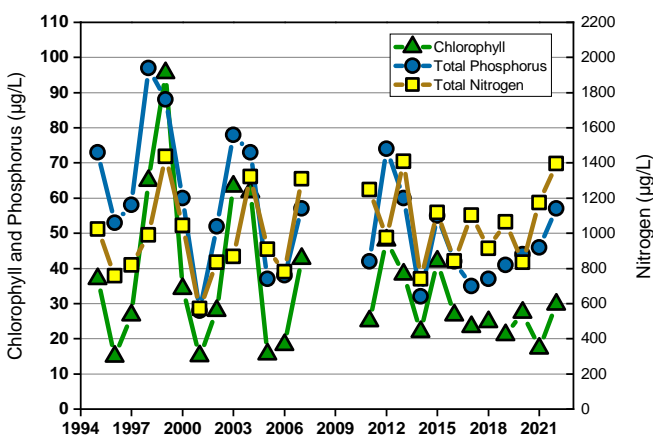
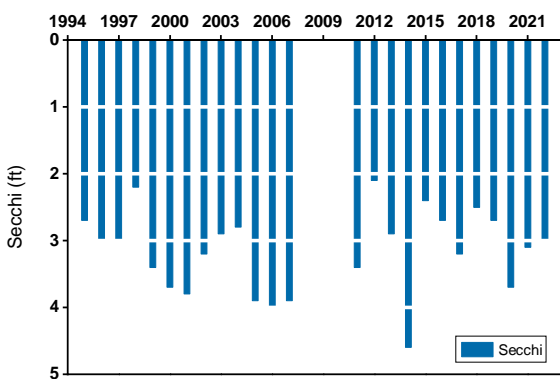
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Table Rock 12



## Trend Data for Table Rock 12



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Table Rock, Site 12

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.

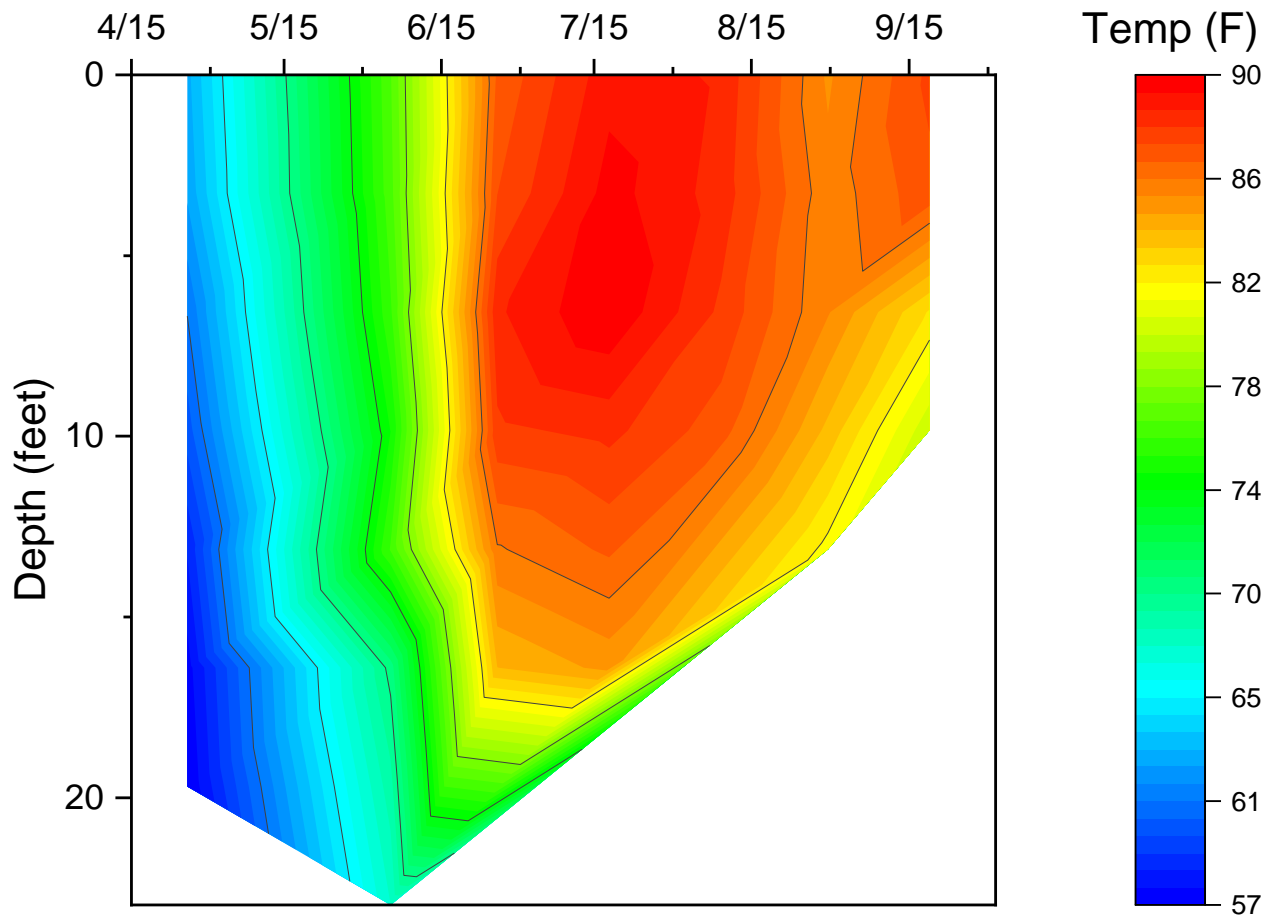


Table Rock, Site 12

# Summary Report for Table Rock 13



	4/26	6/5	6/26	7/18	8/9	8/30	9/19		Mean
Temperature (F)	64	75	88	90	90	84	82		82
Secchi (feet)	5.6	4.6	3	2.3	2.6	2	2		3.2
Phosphorus (µg/L)	37	37	77	71	73	58	75		61
Nitrogen (µg/L)	1985	1687	1725	1515	1765	1880	910		1638
Ammonium (µg/L)	42	20	28	21	<10	64	14		28
Nitrate (µg/L)	1850	1297	622	510	670	1310	64		903
Chlorophyll (µg/L)	1.4	24.5	47.7	32.3	46.8	33.7	83.9		38.6
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	<0.10	0.23	0.15	<0.10	<0.10	<0.10		<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

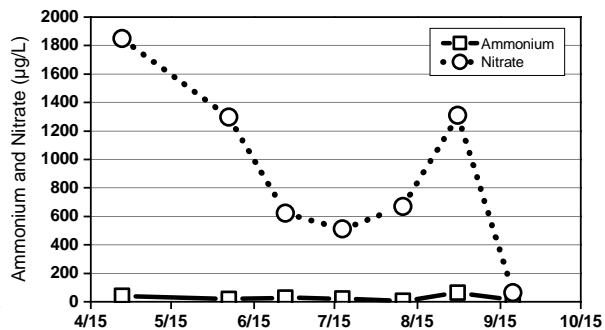
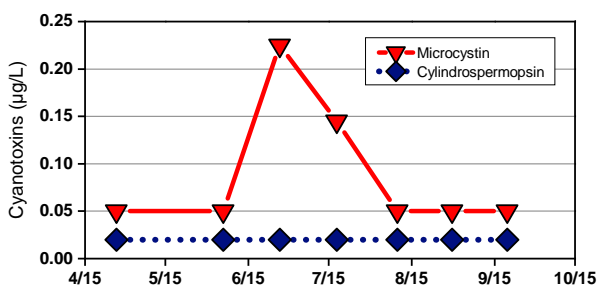
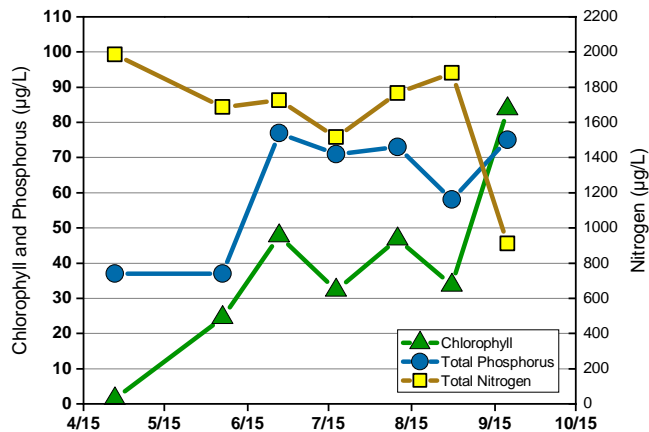
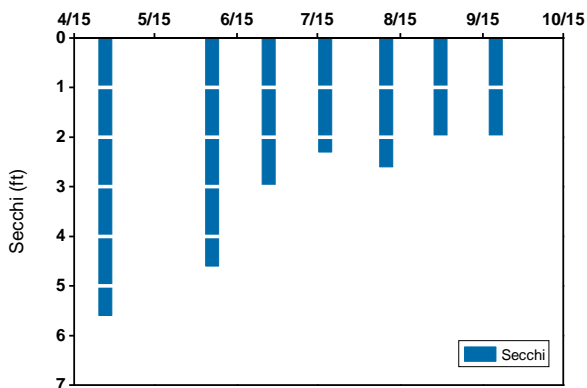
### EPA Health Advisories for Cyanotoxins

The table below shows EPA health advisories for cyanotoxin exposure.

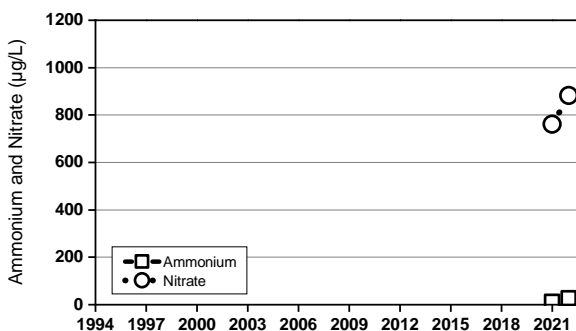
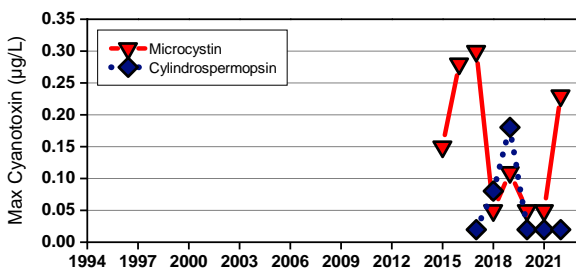
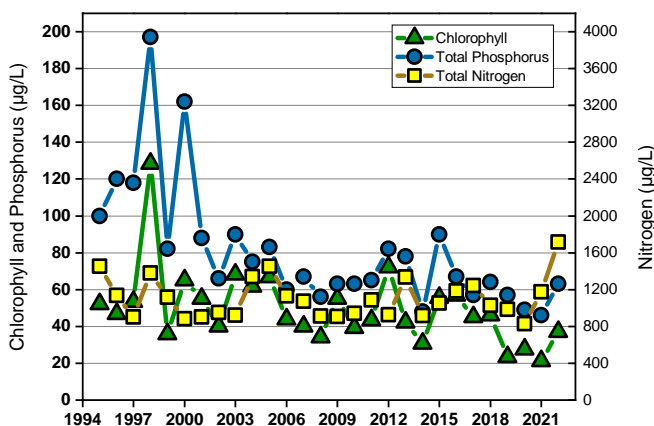
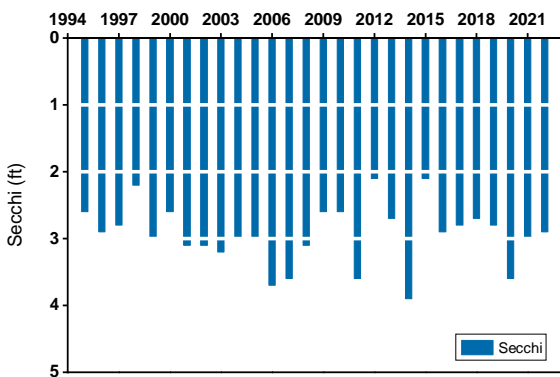
	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L



# Summary Report for Table Rock 13



## Trend Data for Table Rock 13



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Table Rock, Site 13

## 2022 Temperature/Depth Profile

To see the surface temperature through the 2022 season, follow the top of the graph from left to right and notice the color changes. You can follow the same procedure for any depth.

Another way to view the graph is to pick a date on the bottom axis and look vertically to see where the color changes occur.

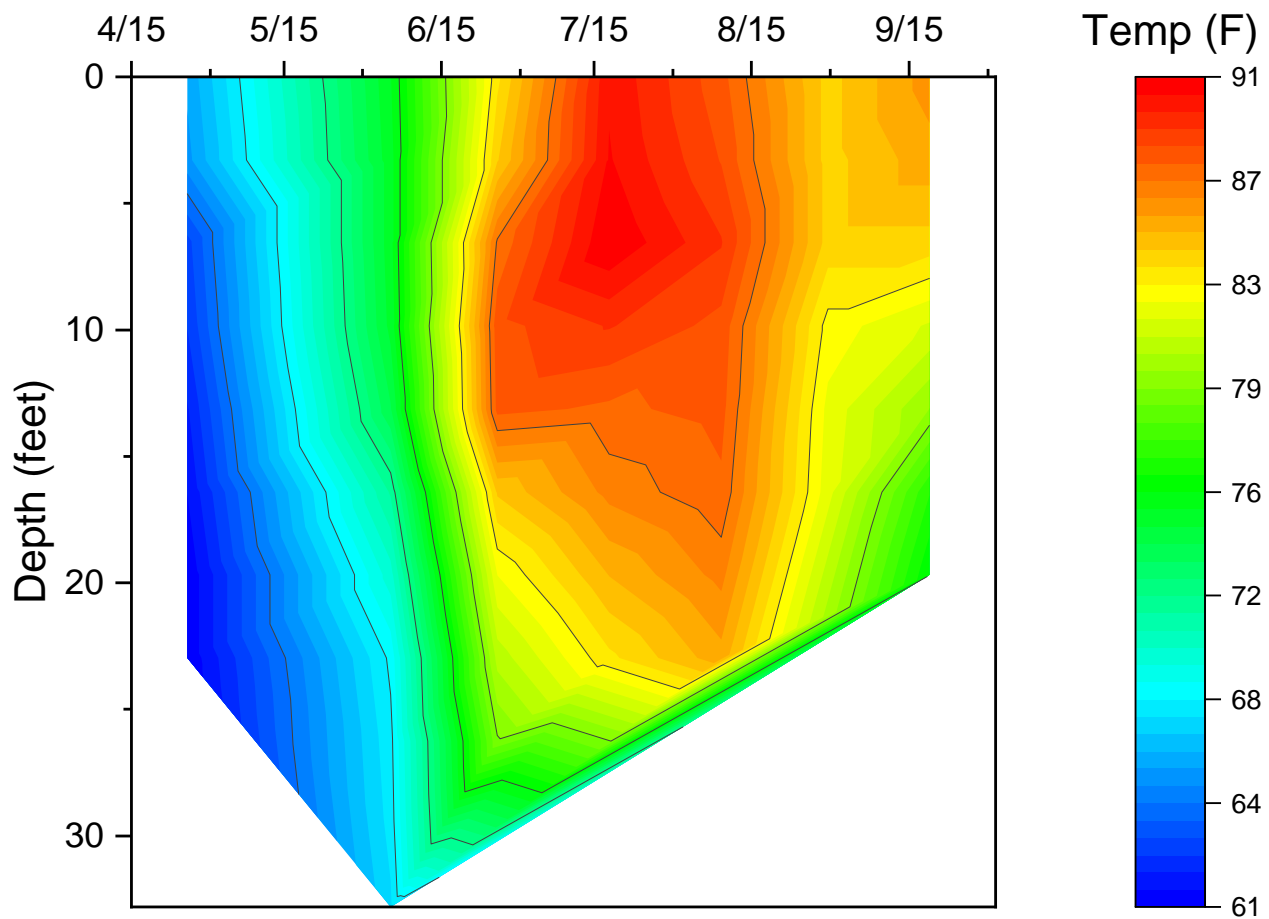


Table Rock, Site 13

# Summary Report for Table Rock 14



	9/7	9/20							Mean
Temperature (F)	81	79							80
Secchi (feet)	7.9	9.2							8.6
Phosphorus (µg/L)	8	7							8
Nitrogen (µg/L)	405	370							388
Ammonium (µg/L)	<10	19							12
Nitrate (µg/L)	9	6							8
Chlorophyll (µg/L)	3.3	3.2							3.3
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	0.16	0.14							0.15
Cylindrospermopsin (µg/L)	<0.04	<0.04							<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Oligotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

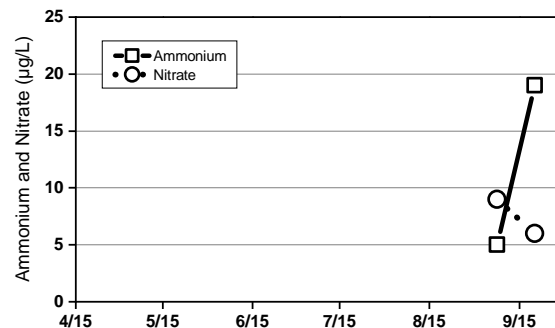
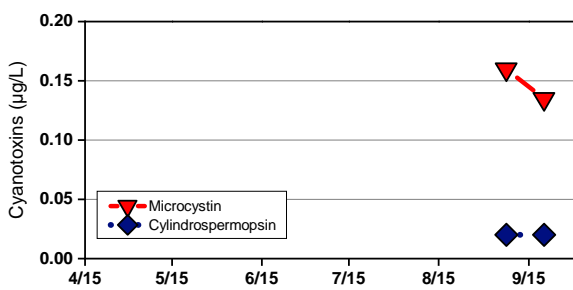
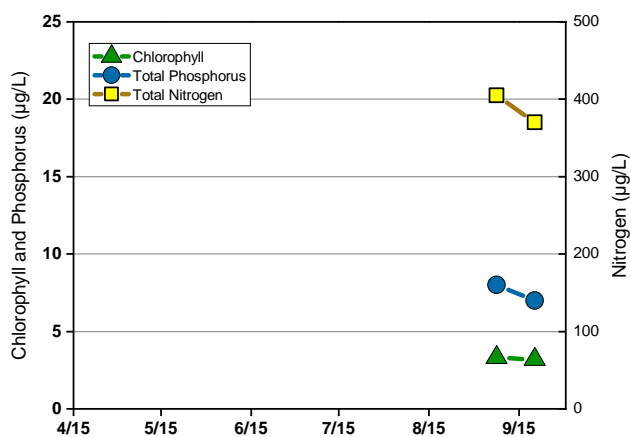
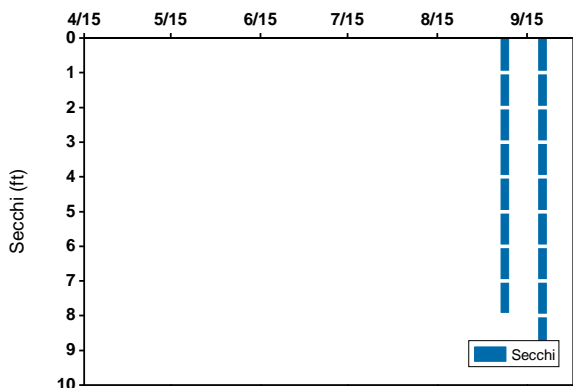
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

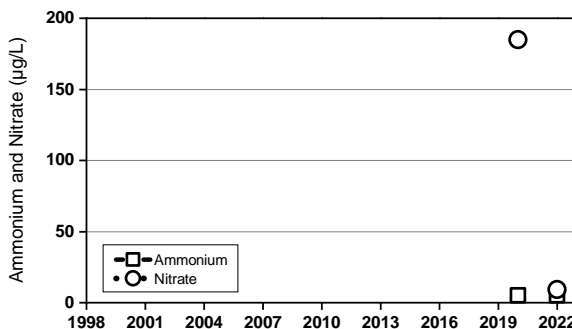
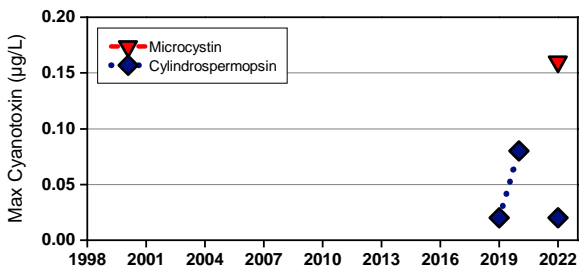
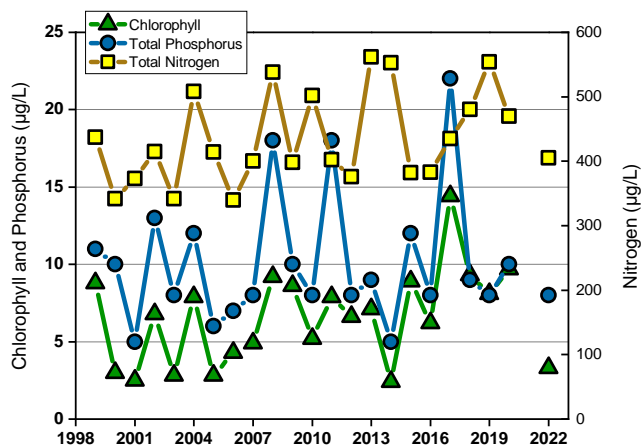
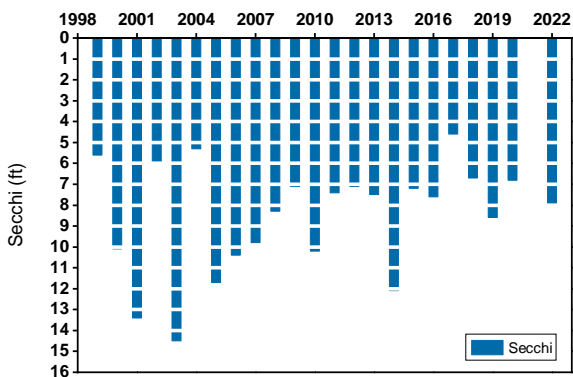
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Table Rock 14



## Trend Data for Table Rock 14



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Table Rock 17



	5/13	6/6	6/27	7/18	8/7	8/30	9/19		Mean
Temperature (F)	81	79	86	90	90	88	84		85
Secchi (feet)	5.2	4.6	6.6	5.2	3.9	7.2	8.9		5.9
Phosphorus (µg/L)	14	20	14	9	11	8	11		12
Nitrogen (µg/L)	620	385	430	380	305	277	353		393
Ammonium (µg/L)	21	14	17	<10	14	<10	<10		12
Nitrate (µg/L)	281	24	<5	<5	<5	<5	<5		46
Chlorophyll (µg/L)	4.4	10.8	5.5	4.9	7.4	4.6	4.2		6.0
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	0.12	0.12		<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

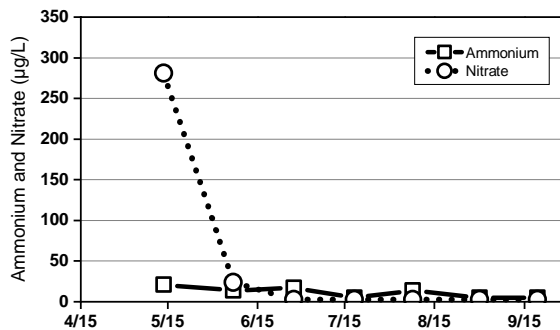
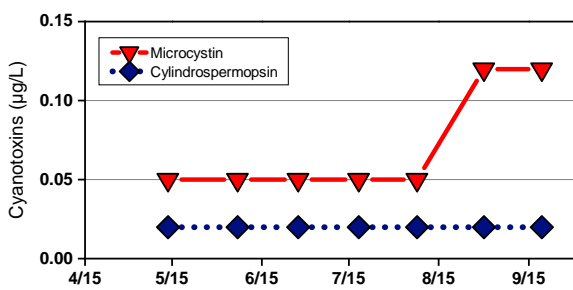
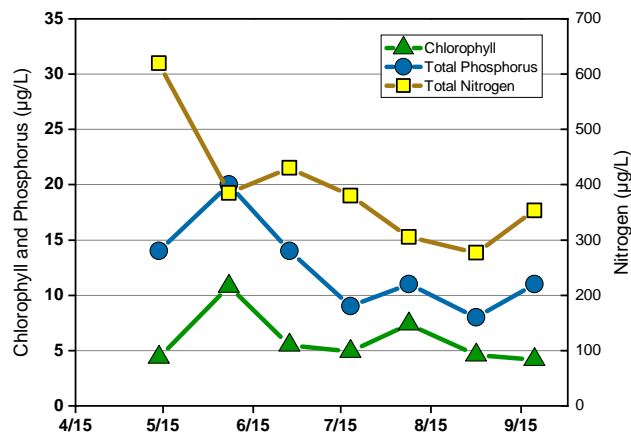
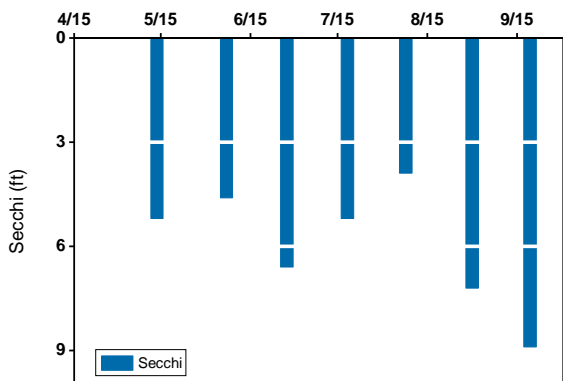
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

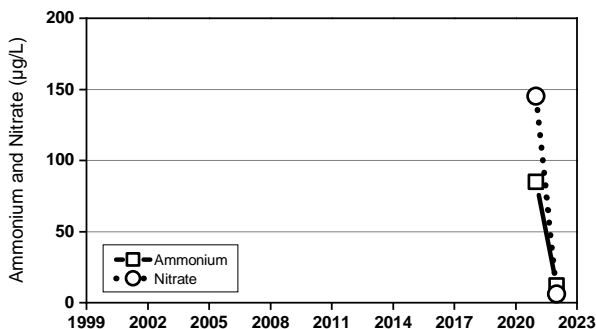
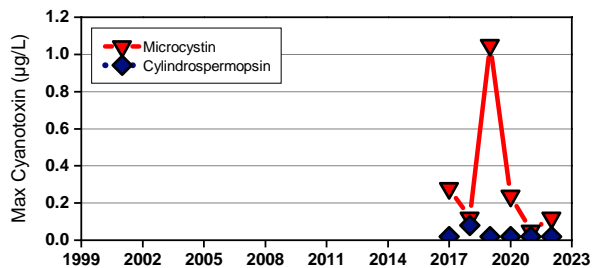
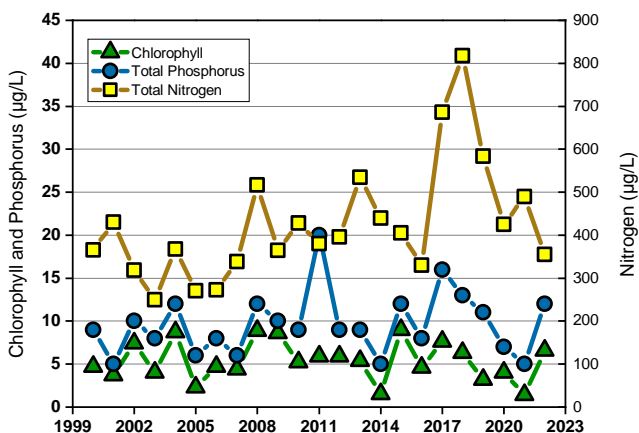
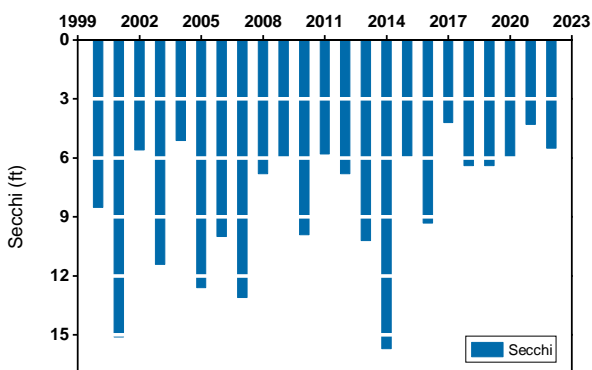
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Table Rock 17



## Trend Data for Table Rock 17



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Table Rock CC



	6/12	8/3							Mean
Temperature (F)	81	86							83
Secchi (feet)	4.6	4.3							4.5
Phosphorus (µg/L)	13	9							11
Nitrogen (µg/L)	630	380							505
Ammonium (µg/L)	18	<10							12
Nitrate (µg/L)	313	<5							158
Chlorophyll (µg/L)	5.9	6.0							6.0
Susp. Sediment (mg/L)									--
Microcystin (µg/L)									--
Cylindrospermopsin (µg/L)									--

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

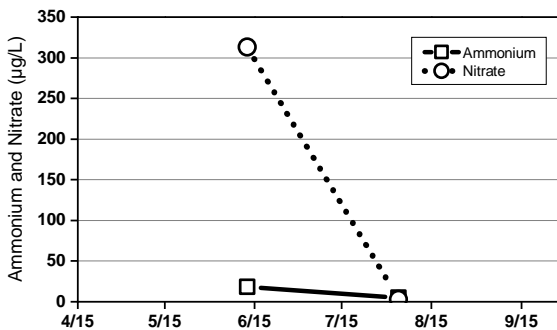
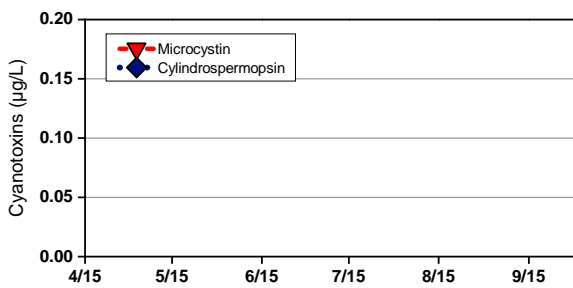
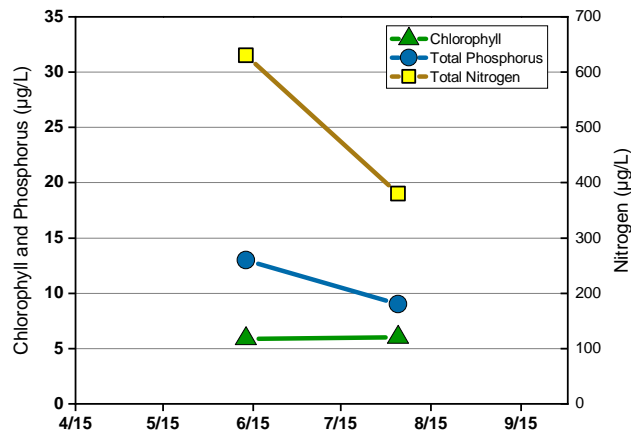
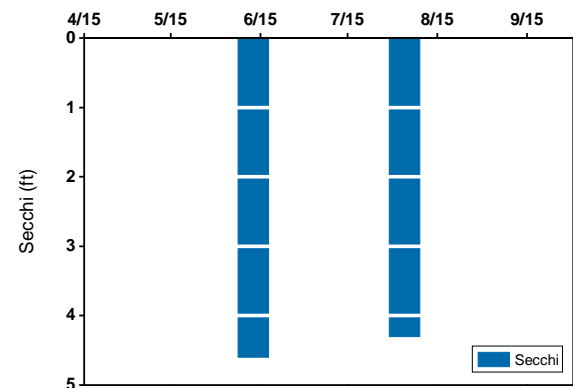
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

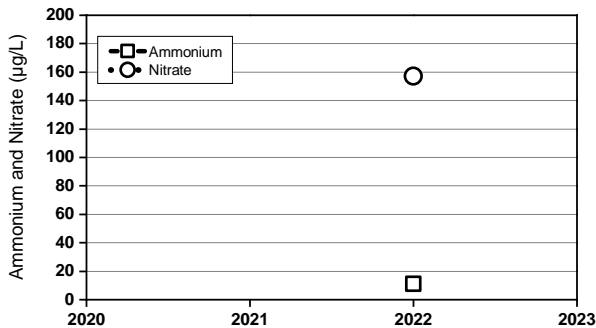
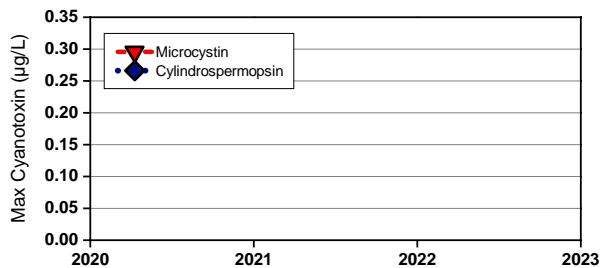
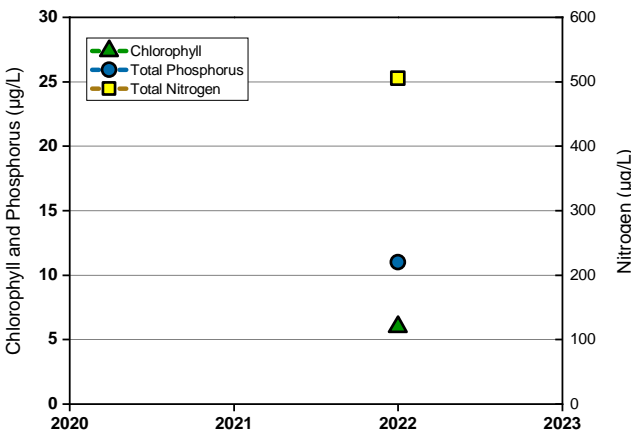
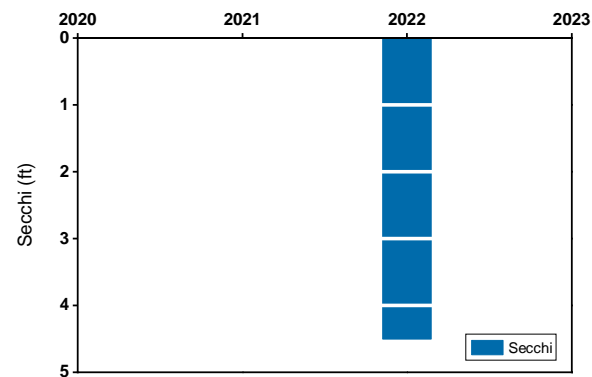
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Table Rock CC



## Trend Data for Table Rock CC



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.



# Summary Report for Table Rock SC



	6/9	7/19	8/15	8/31	9/21				Mean
Temperature (F)	79	88	88	84	82				84
Secchi (feet)	6.9	6.9	4.3	6.2	7.5				6.4
Phosphorus (µg/L)	15	8	8	8	6				9
Nitrogen (µg/L)	755	435	445	440	240				463
Ammonium (µg/L)	28	30	13	<10	11				17
Nitrate (µg/L)	349	<5	<5	7	7				74
Chlorophyll (µg/L)	8.4	5.6	8.1	7.0	4.5				6.7
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10				<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04				<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Oligotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

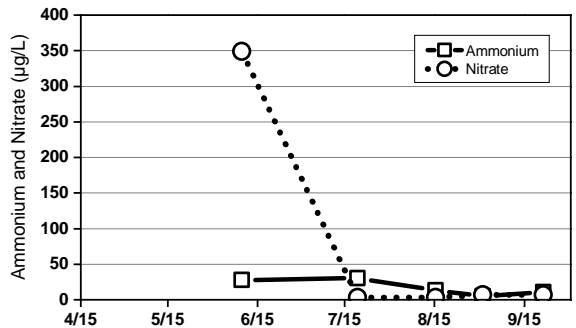
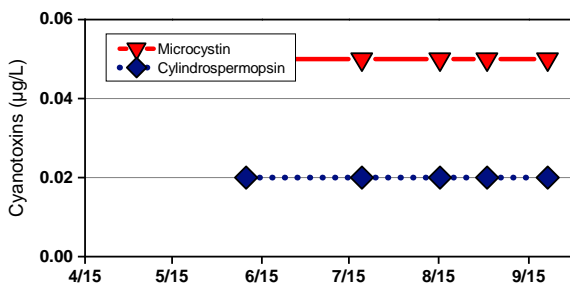
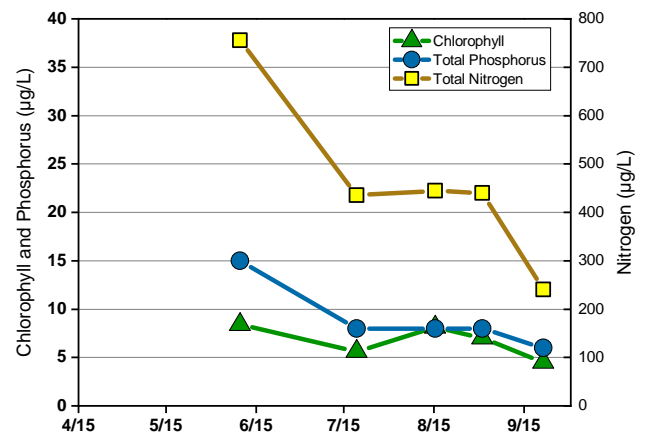
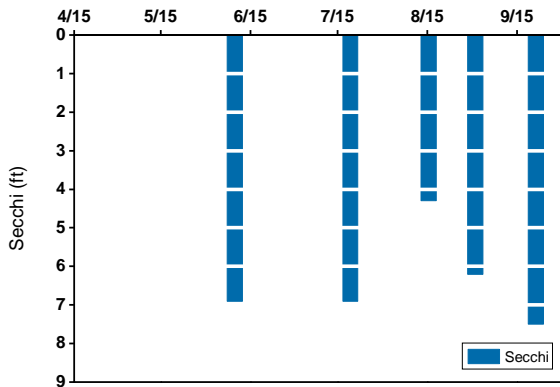
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

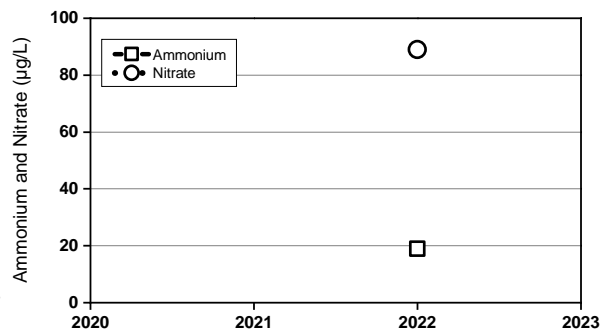
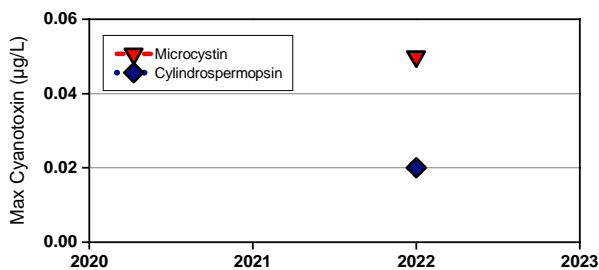
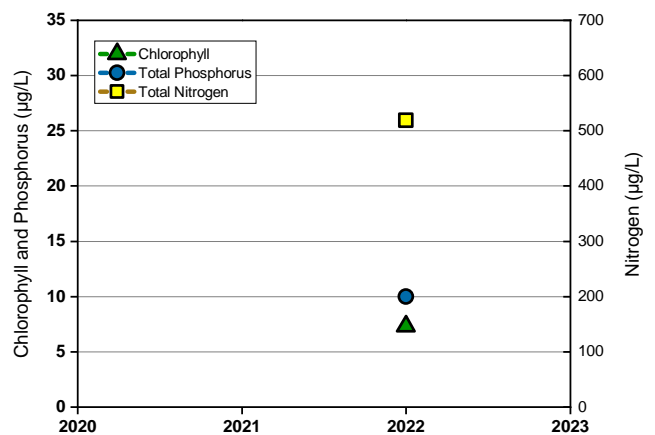
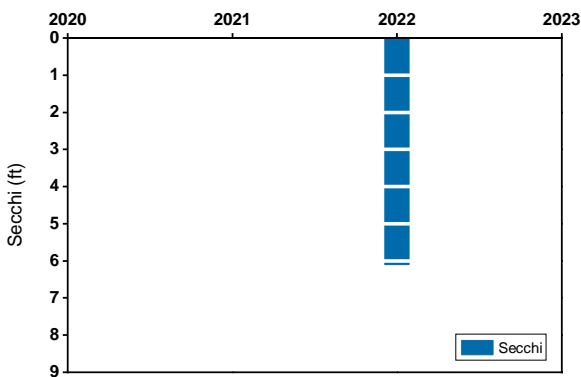
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Table Rock SC



## Trend Data for Table Rock SC



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Taneycomo 6.7



	4/27	5/17	6/15	6/30	7/18	8/11	9/2	9/20	Mean
Temperature (F)	46	55	55	54	55	55	55	57	54
Secchi (feet)	8.9	7.2	8.9	7.9	12.5	12.5	8.2	7.9	9.3
Phosphorus (µg/L)	5	10	15	16	11	12	26	41	17
Nitrogen (µg/L)	655	950	1040	923	820	770	790	730	840
Ammonium (µg/L)	18	33	16	16	13	26	32	62	27
Nitrate (µg/L)	497	647	844	773	702	666	612	556	662
Chlorophyll (µg/L)	1.2	1.7	3.1	1.8	1.1	1.2	2.9	1.3	1.8
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	<0.10		0.13	0.15	0.18	<0.10	<0.10	<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04		<0.04	<0.04	<0.04	0.05	0.05	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

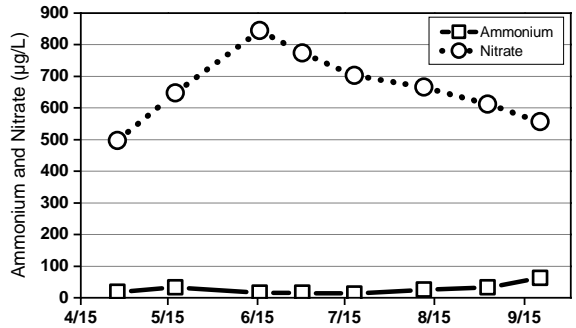
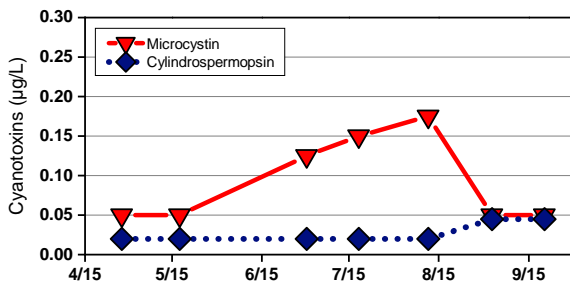
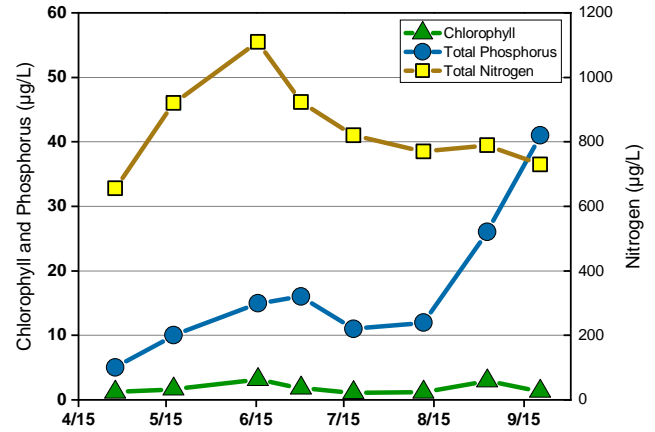
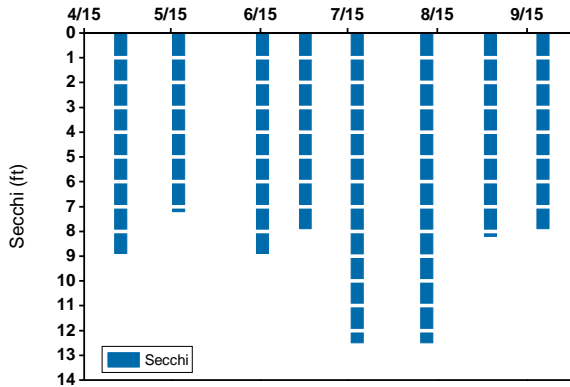
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

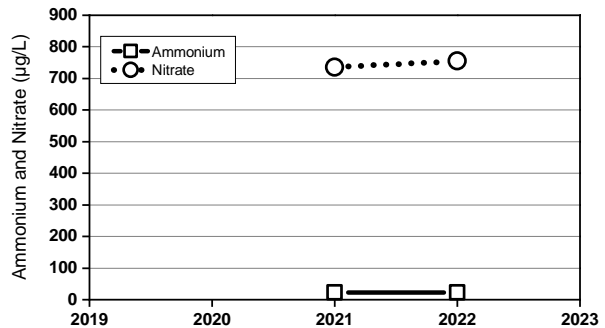
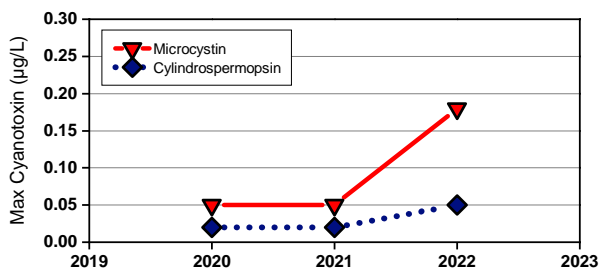
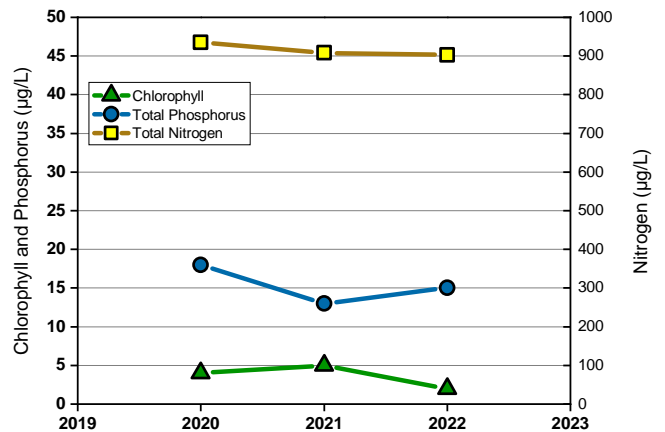
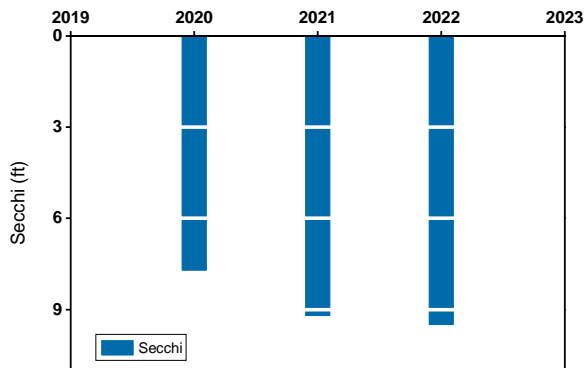
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Taneycomo 6.7



## Trend Data for Taneycomo 6.7



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Taneycomo 3.5



	4/28	5/19	6/10	6/28	7/22	8/10	8/29	9/20	Mean
Temperature (F)	50	57	59	64	73	66	73	68	64
Secchi (feet)	16.7	9.8	12.5	8.9	13.1	9.8	7.5	11.2	11.2
Phosphorus (µg/L)	8	11	10	15	14	13	19	18	14
Nitrogen (µg/L)	700	805	793	880	785	675	700	740	760
Ammonium (µg/L)	18	22	19	15	14	16	<10	29	17
Nitrate (µg/L)	500	674	747	636	689	579	534	625	623
Chlorophyll (µg/L)	1.1	1.8	0.8	2.2	1.4	1.5	6.3	1.5	2.1
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

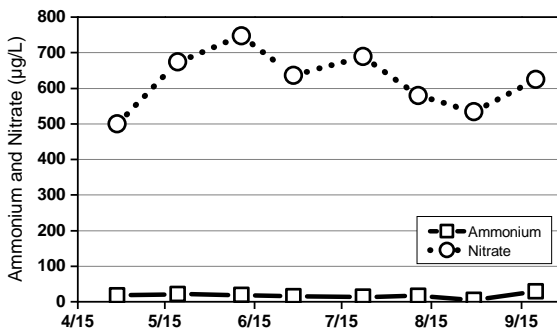
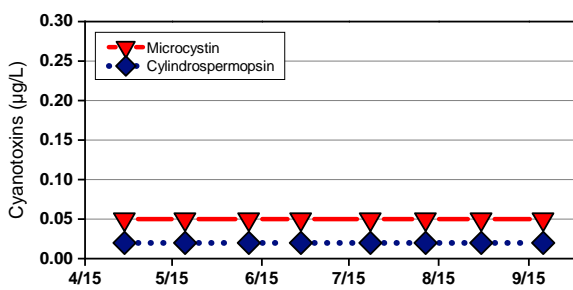
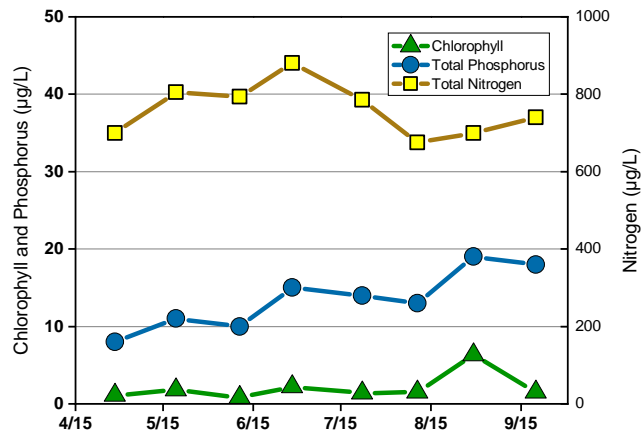
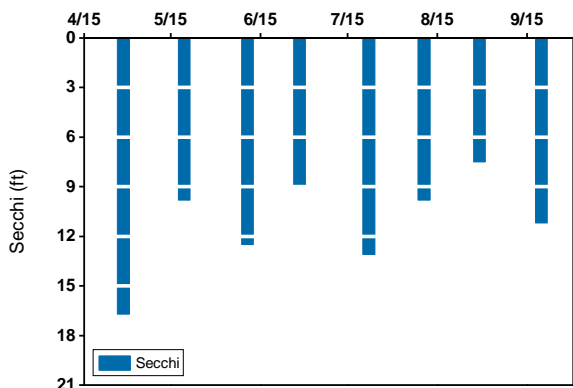
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

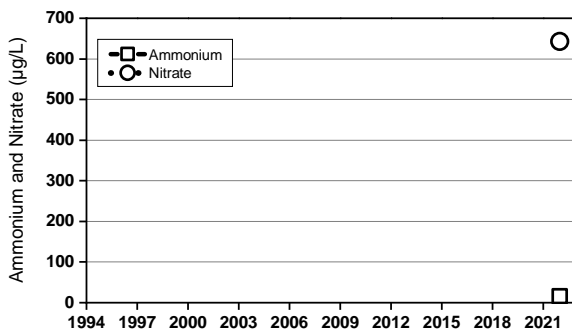
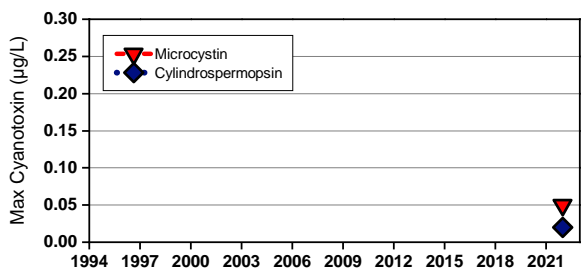
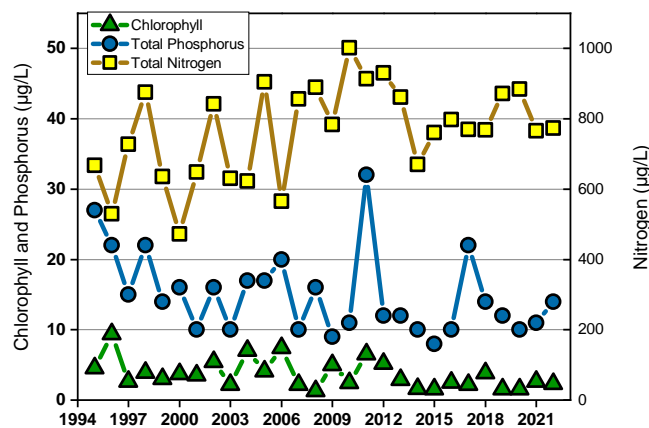
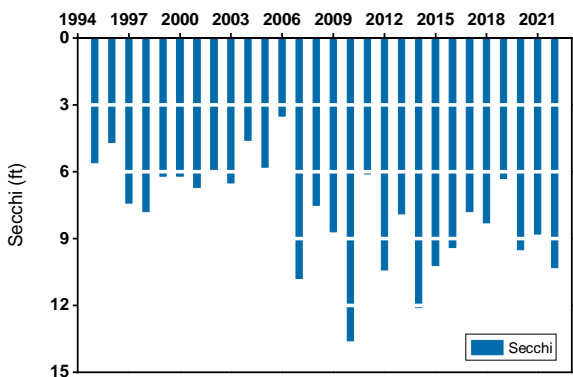
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Taneycomo 3.5



## Trend Data for Taneycomo 3.5



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Taneycomo 5



	4/28	5/19	6/10	6/28	7/22	8/10	8/29	9/20	Mean
Temperature (F)	48	61	54	59	66	63	64	64	60
Secchi (feet)	18.7	13.1	14.8	12.5	18	11.2	6.6	4.9	12.5
Phosphorus (µg/L)	7	10	10	13	15	15	16	24	14
Nitrogen (µg/L)	600	920	900	1000	930	860	840	840	861
Ammonium (µg/L)	12	14	<10	12	18	20	27	42	19
Nitrate (µg/L)	534	662	838	886	861	834	740	739	762
Chlorophyll (µg/L)	1.3	1.9	1.1	0.8	1.3	0.8	2.1	0.9	1.3
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

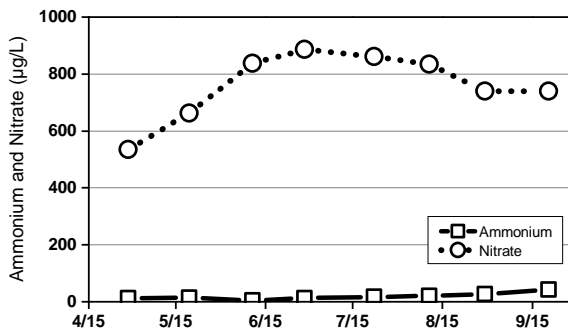
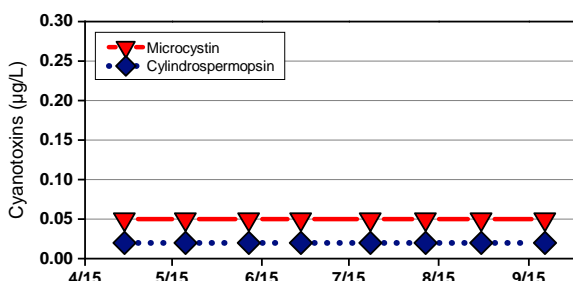
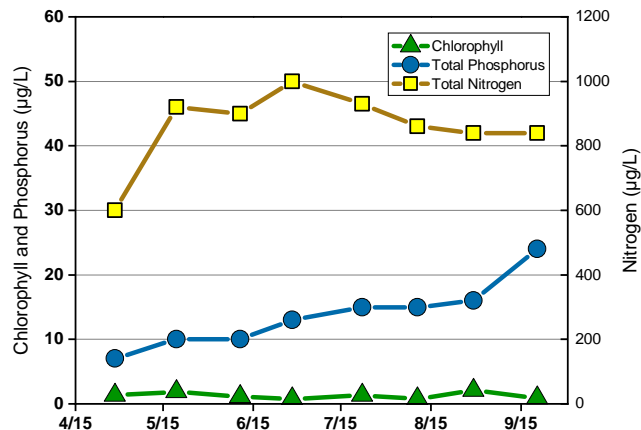
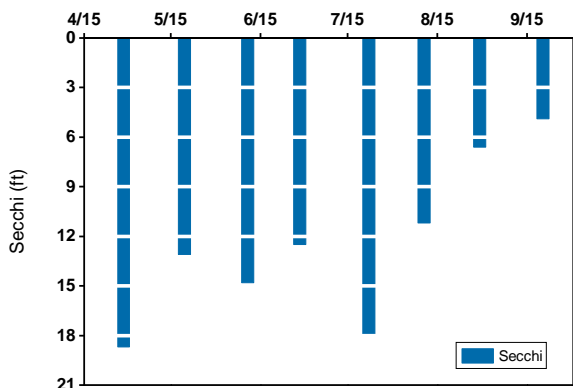
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

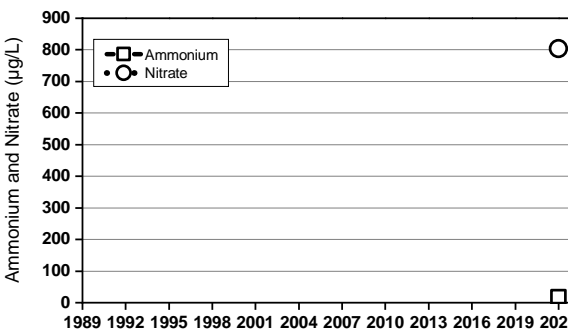
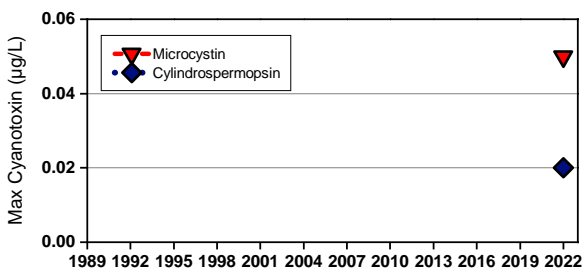
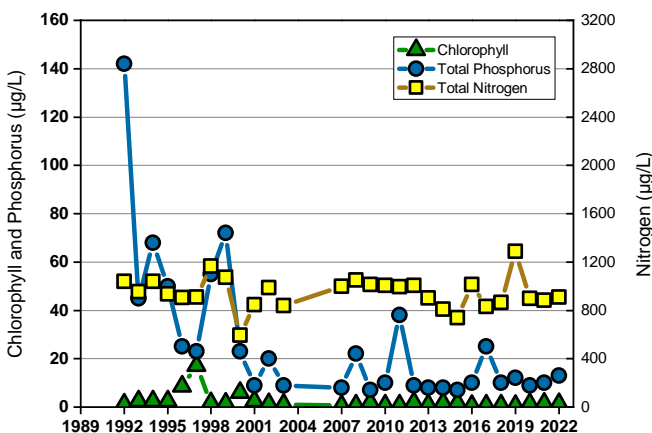
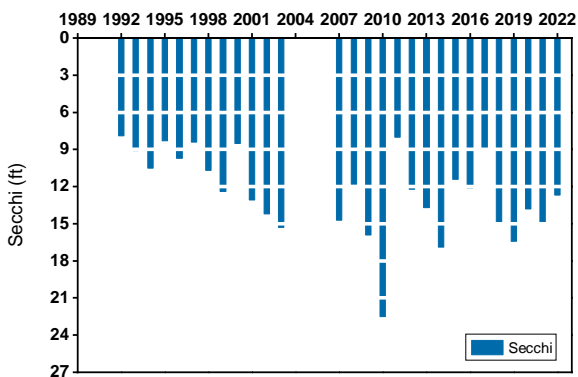
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Taneycomo 5



## Trend Data for Taneycomo 5



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.



# Summary Report for Taneycomo 6



	4/28	5/19	6/10	6/28	7/22	8/10	8/29	9/20	Mean
Temperature (F)	48	59	54	57	61	66	63	66	59
Secchi (feet)	18.4	11.8	12.5	15.4	15.7	12.1	9.8	9.8	13.2
Phosphorus (µg/L)	6	11	10	15	13	14	17	20	13
Nitrogen (µg/L)	695	860	857	880	860	825	715	730	803
Ammonium (µg/L)	<10	14	12	14	29	<10	21	39	17
Nitrate (µg/L)	544	679	765	806	803	727	637	613	697
Chlorophyll (µg/L)	1.4	1.7	1.2	0.9	1.4	0.9	5.0	0.9	1.7
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

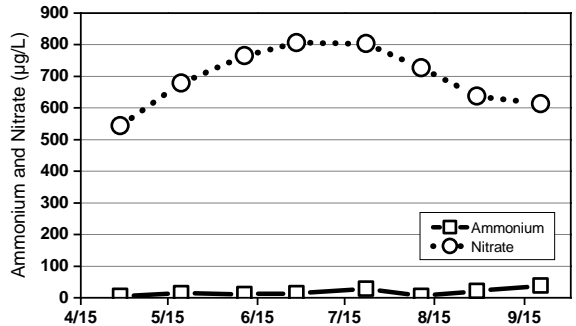
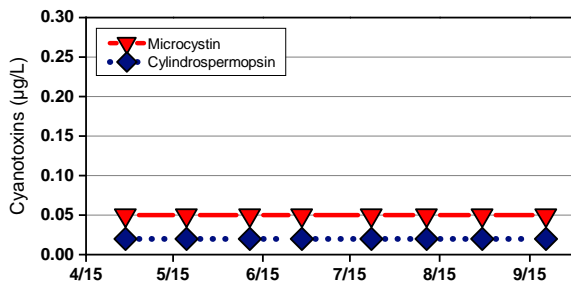
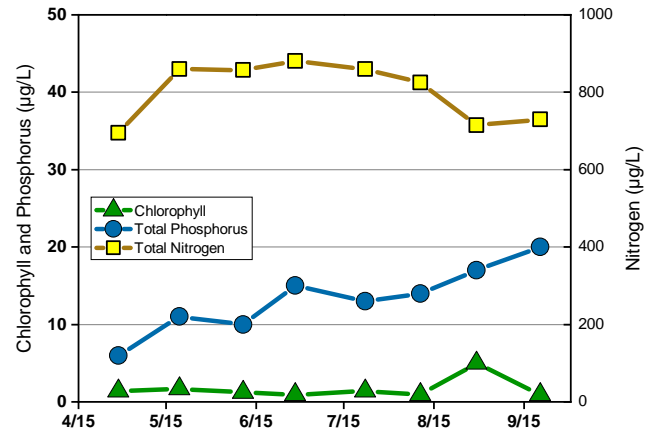
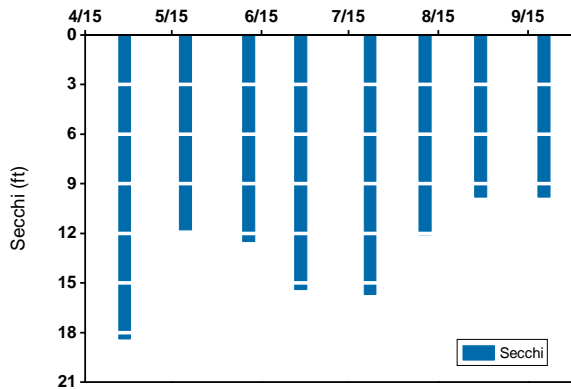
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

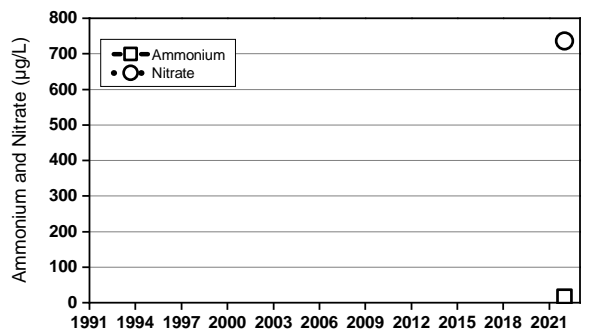
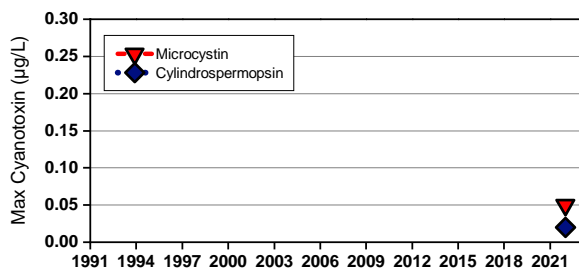
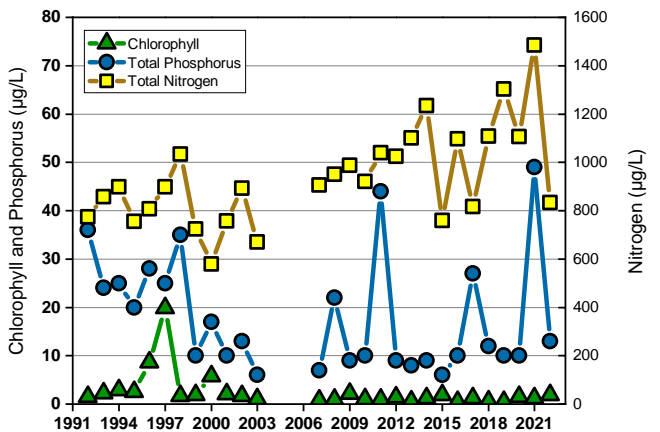
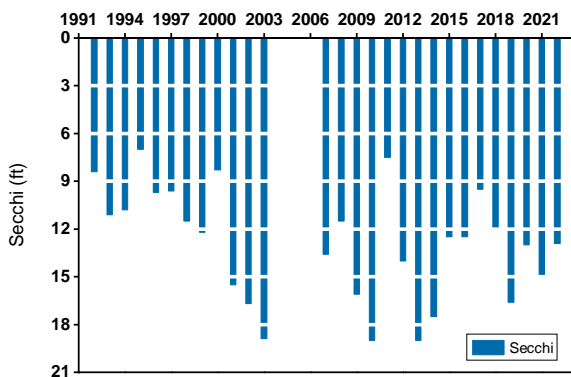
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Taneycomo 6



## Trend Data for Taneycomo 6



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Taneycomo 10



	4/28	5/19	6/10	6/28	7/22	8/10	8/29		Mean
Temperature (F)	46	59	54	52	52	57	59		54
Secchi (feet)									--
Phosphorus (µg/L)	6	12	17	22	23	31	28		20
Nitrogen (µg/L)	690	710	1045	920	985	955	940		892
Ammonium (µg/L)	19	13	15	22	51	48	36		29
Nitrate (µg/L)	541	582	804	854	699	652	603		676
Chlorophyll (µg/L)	0.6	0.6	0.9	1.8	1.6	0.8	2.5		1.3
Susp. Sediment (mg/L)									--
Microcystin (µg/L)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Mesotrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

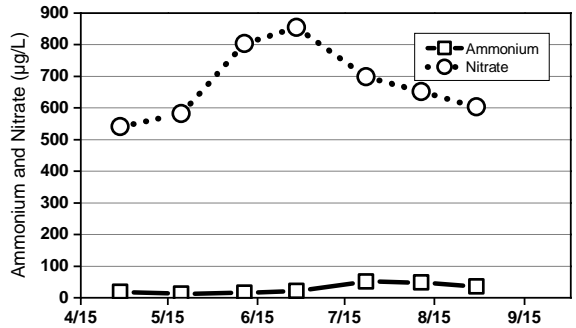
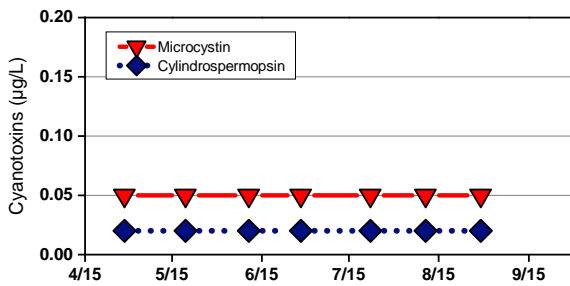
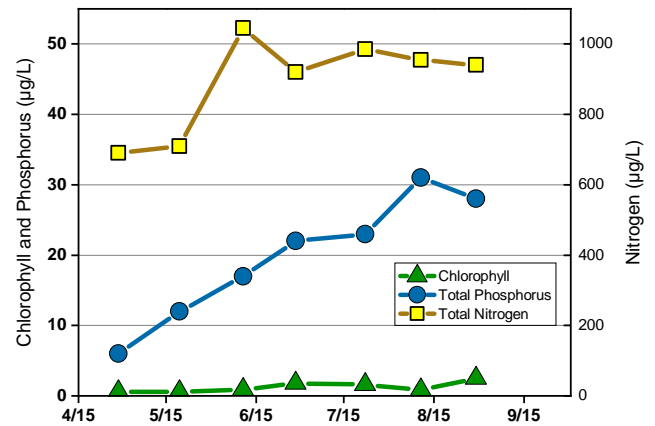
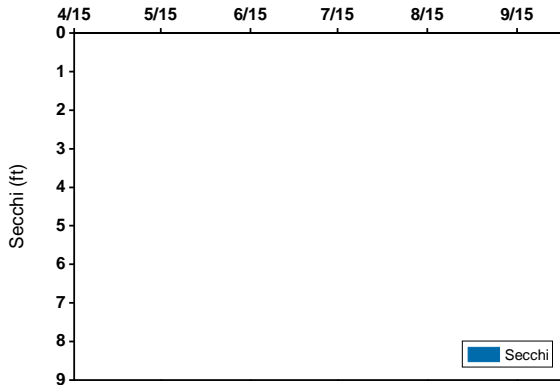
Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

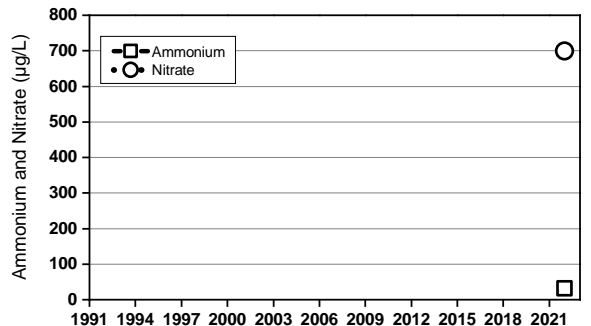
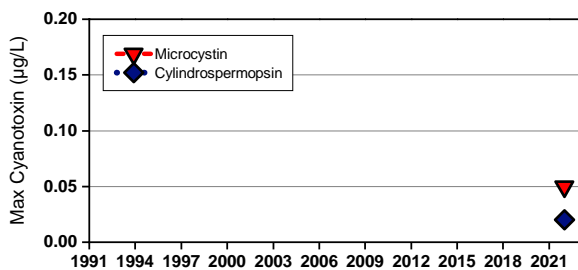
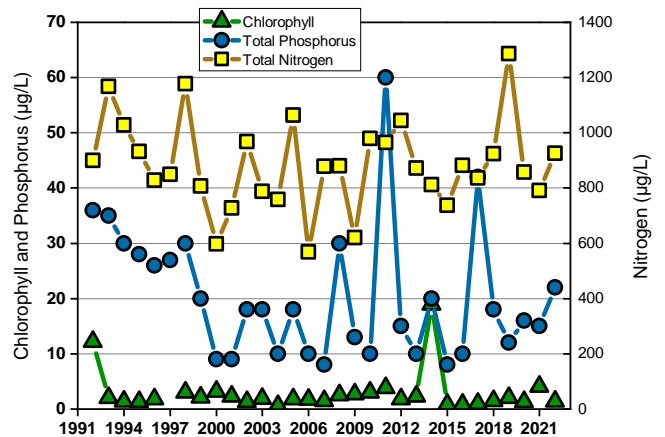
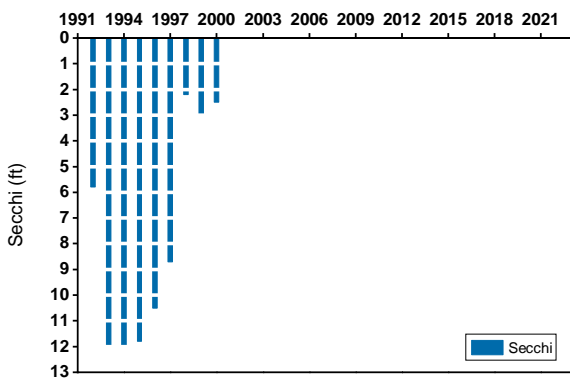
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

# Summary Report for Taneycomo 10



## Trend Data for Taneycomo 10



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Tilles Park



	4/30	5/15	6/5						Mean
Temperature (F)									--
Secchi (feet)									--
Phosphorus (µg/L)	359	391	435						395
Nitrogen (µg/L)	2205	2065	1665						1978
Ammonium (µg/L)	375	266	135						259
Nitrate (µg/L)	1228	616	27						624
Chlorophyll (µg/L)	29.4	35.7	73.1						46.1
Susp. Sediment (mg/L)	1.2	4.2	4.4						3.3
Microcystin (µg/L)	<0.10	<0.10	0.12						<0.10
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04						<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Hypereutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
- Hypereutrophic: (Phosphorus >100 µg/L) Extreme productivity, water very green or brown. Aquatic life may struggle to survive.

### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
- Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.
- Chlorophyll: Photosynthetic pigment in phytoplankton used to estimate biomass, µg/L or parts per billion.
- Suspended Sediment: Particulate inorganic matter suspended in water column, µg/L or parts per million.
- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

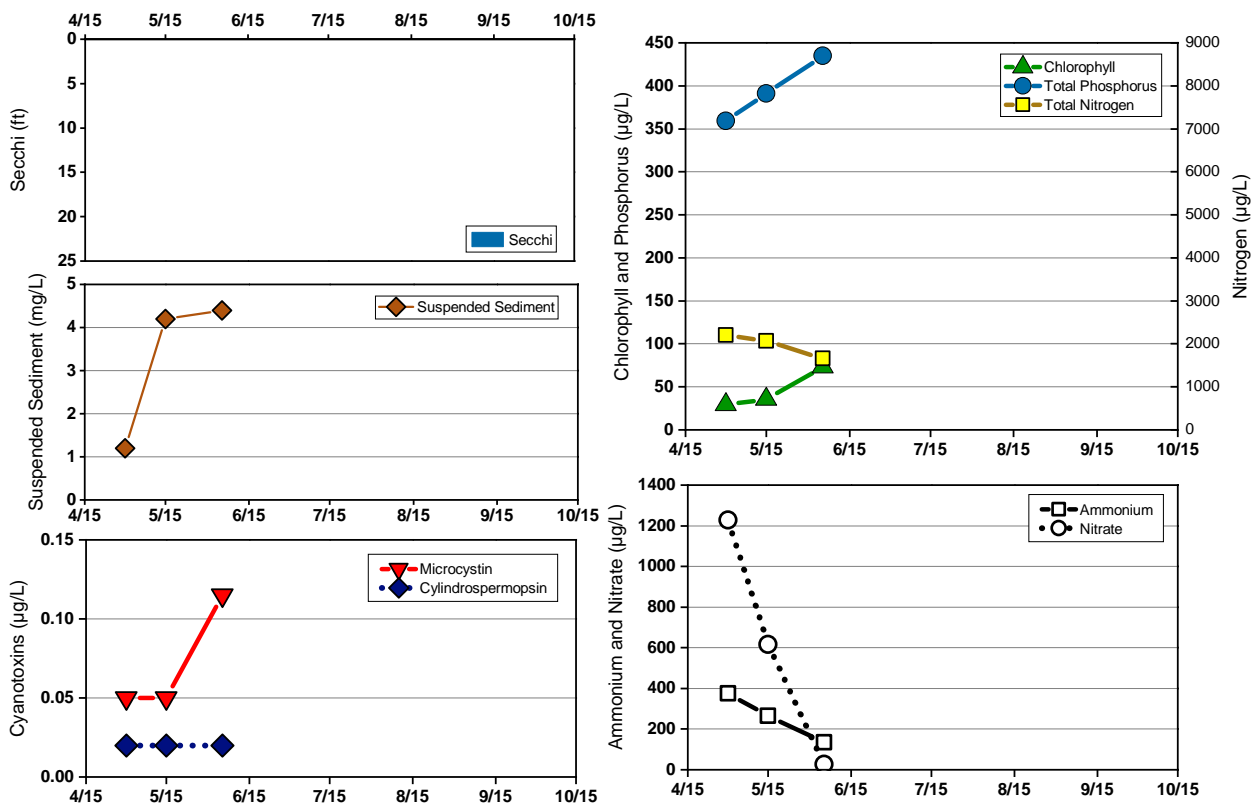
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

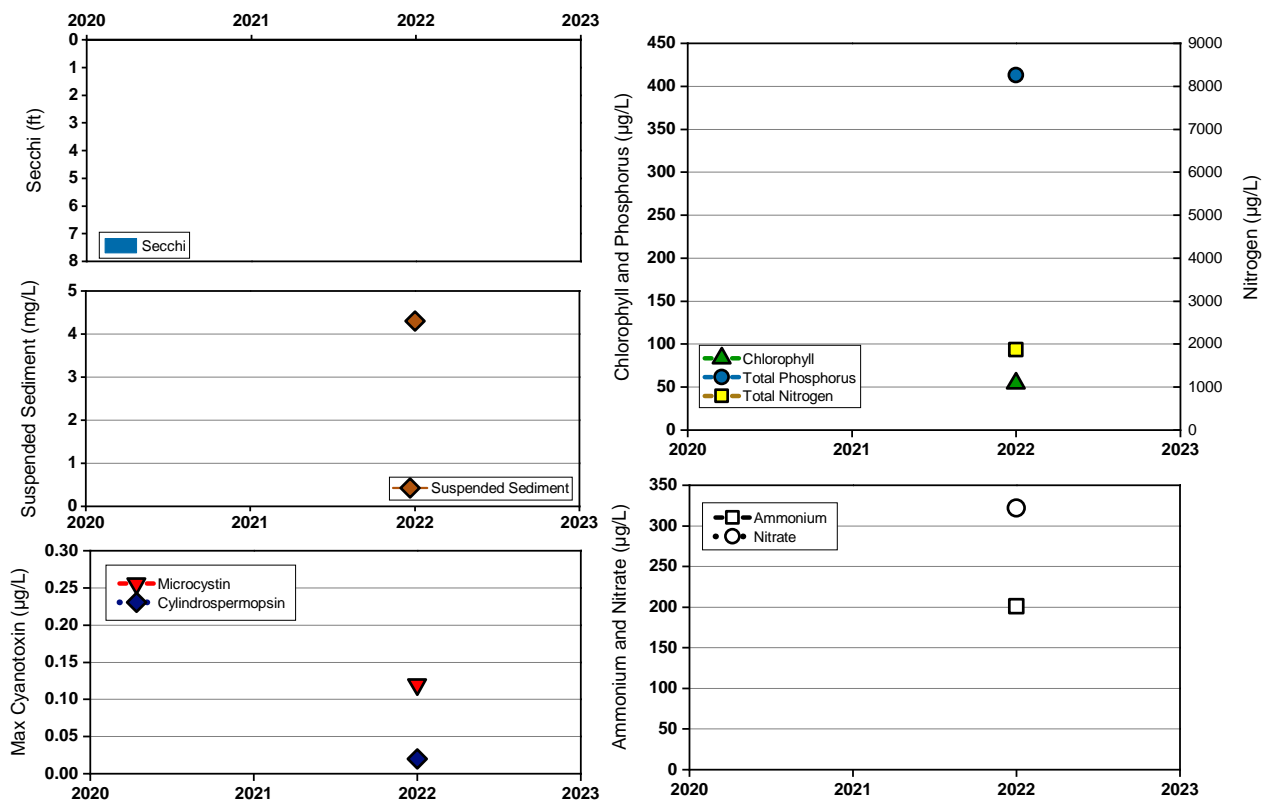
# Summary Report for Tilles Park



## 2022 Data for Tilles Park



## Trend Data for Tilles Park



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Tri-City Community 1



	8/4	8/25	9/19						Mean
Temperature (F)	85	82	79						82
Secchi (feet)									--
Phosphorus (µg/L)	57	66	73						65
Nitrogen (µg/L)	1035	950	1135						1065
Ammonium (µg/L)	<10	<10	13						<10
Nitrate (µg/L)	12	12	17						14
Chlorophyll (µg/L)	29.9	25.6	44.6						33.4
Susp. Sediment (mg/L)	4.6	8.1	5.2						6.0
Microcystin (µg/L)	<0.10	0.23	<0.10						0.11
Cylindrospermopsin (µg/L)	0.05	<0.04	<0.04						<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
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- Microcystin and Cylindrospermopsin: Cyanotoxins produced by cyanobacteria, µg/L or parts per billion.

### Limit of Detection Values

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Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

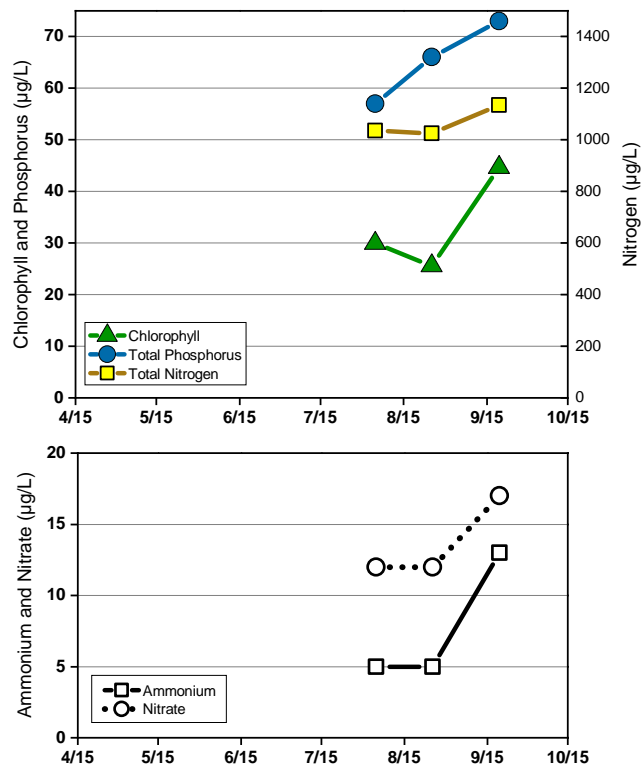
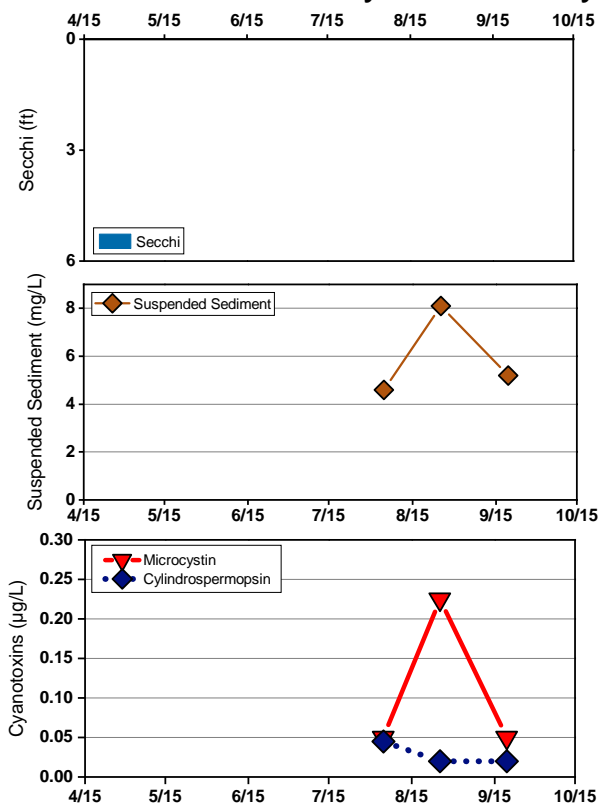
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

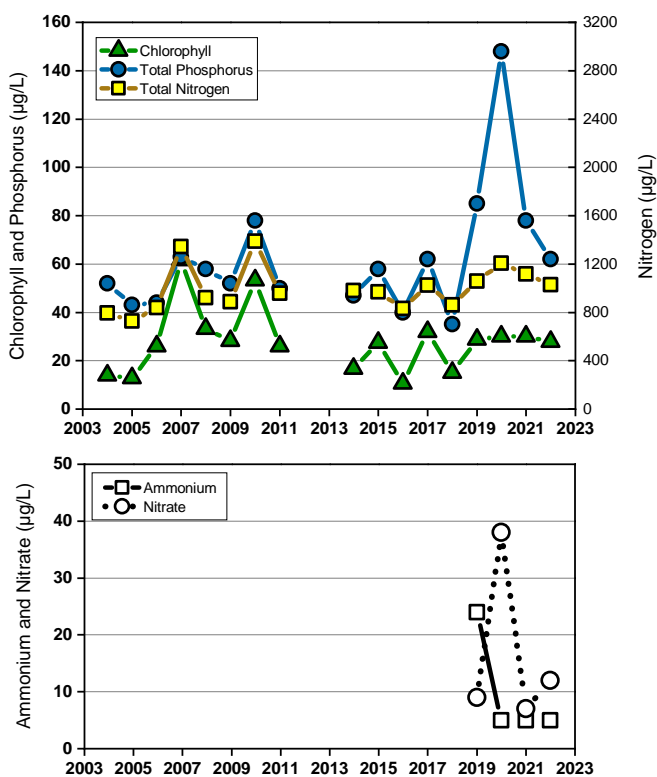
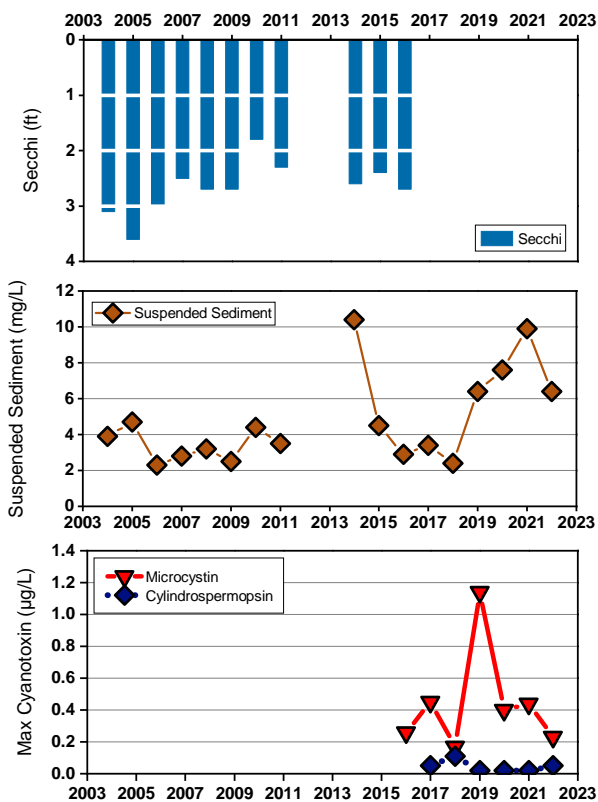
# Summary Report for Tri-City Community 1



## 2022 Data for Tri-City Community 1



## Trend Data for Tri-City Community 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.



# Summary Report for Troost 1



	5/5	5/17	6/11	7/2	7/24	8/13	9/3	9/23	Mean
Temperature (F)	59	77	82	81	88	84	82	72	78
Secchi (feet)									--
Phosphorus (µg/L)	94	95	73	50	61	98	47	100	77
Nitrogen (µg/L)	1225	1325	1275	1405	1990	1880	2350	2010	1683
Ammonium (µg/L)	85	119	153	17	13	17	305	114	103
Nitrate (µg/L)	63	155	106	6	<5	<5	21	35	49
Chlorophyll (µg/L)	59.1	38.0	22.1						39.7
Susp. Sediment (mg/L)	4.8	6.6	6.6	10.7	9.2	3.1	2.6	5.1	6.1
Microcystin (µg/L)	4.84	14.79	4.45	10.88	4.37	4.67	2.80	2.85	6.20
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
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### Description of Measured Parameters

Temperature: Water temperature, degrees Fahrenheit.

Secchi: Measure of water clarity, feet.

Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.

Ammonium and Nitrate: Forms of dissolved nitrogen favored by phytoplankton, µg/L or parts per billion.

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### Limit of Detection Values

This table shows our limit of detection values for each laboratory-measured parameter. If results are below the limit of detection, graphs will show 1/2 the limit of detection, rounded up.

Parameter	Detection Limit
Phosphorus (µg/L)	1
Nitrogen (µg/L)	35
Ammonium (µg/L)	10
Nitrate (µg/L)	5
Chlorophyll (µg/L)	0.3
Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

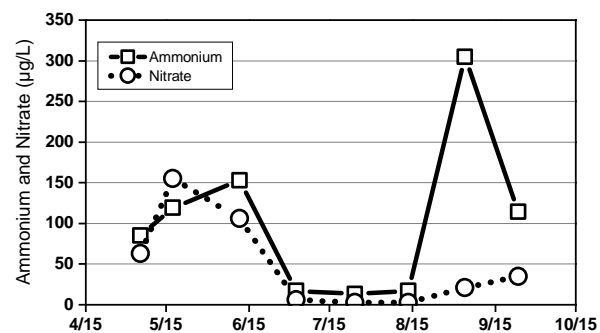
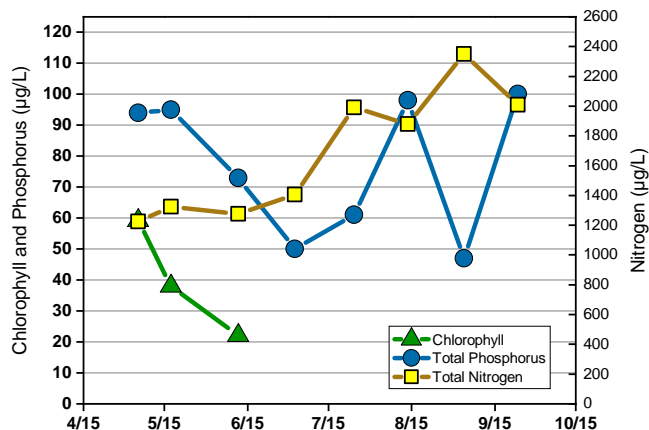
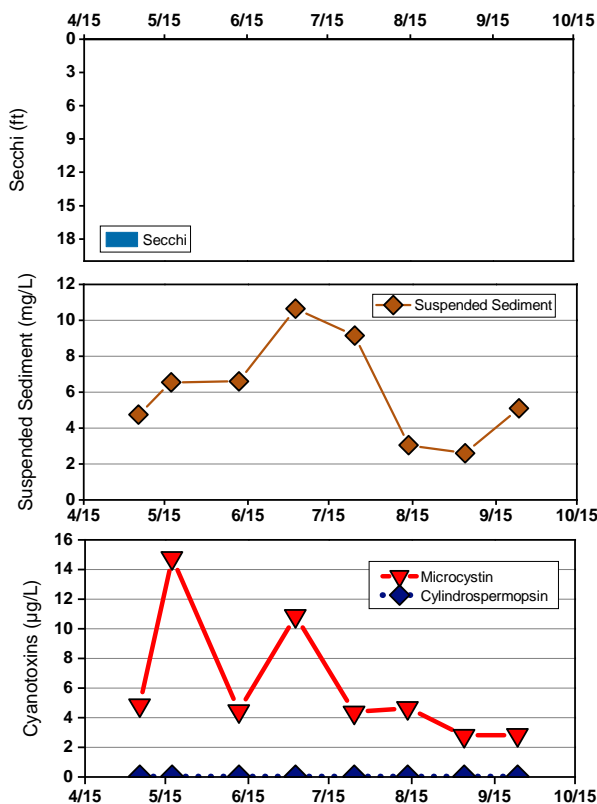
The table below shows EPA health advisories for cyanotoxin exposure.

	Drinking Water Guidelines		Recreational Guidelines
	Bottle-fed infants and pre-school children	School-age children and adults	
Microcystin	0.3 µg/L	1.6 µg/L	8.0 µg/L
Cylindrospermopsin	0.7 µg/L	3.0 µg/L	15.0 µg/L

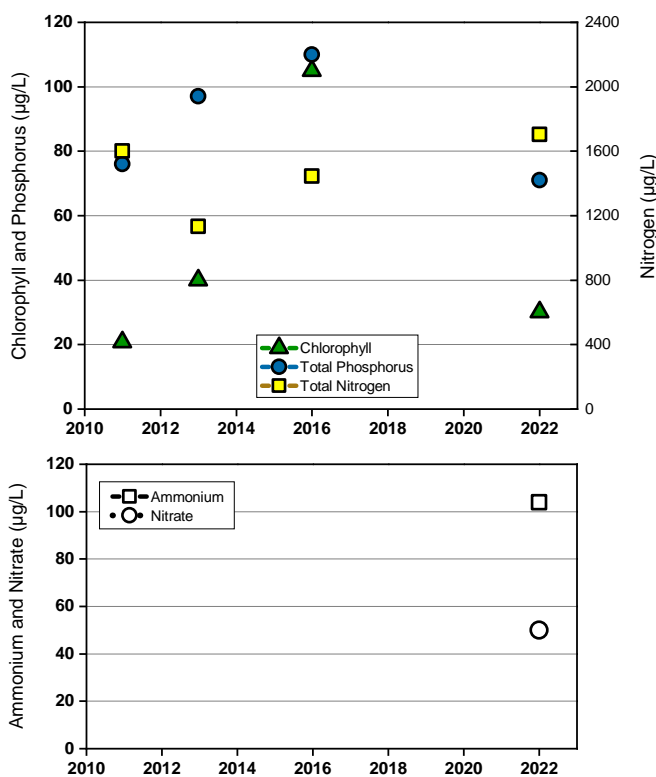
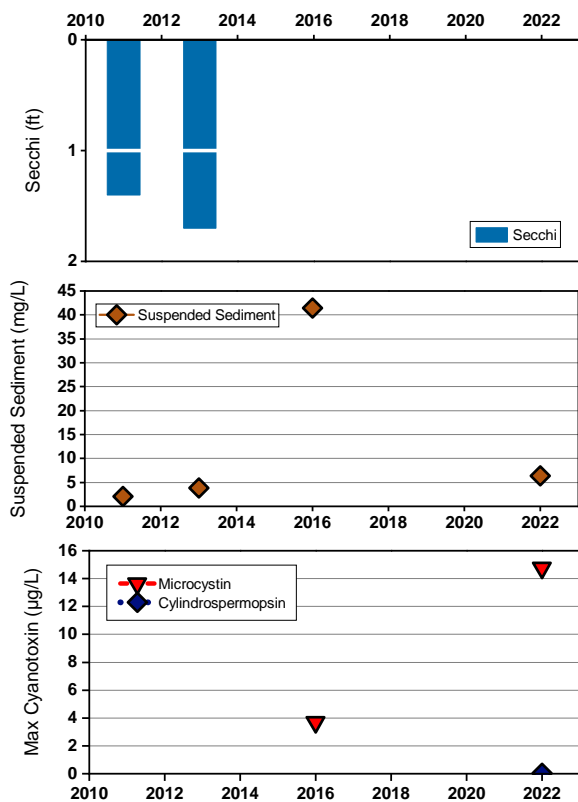
# Summary Report for Troost 1



## 2022 Data for Troost 1



## Trend Data for Troost 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Vandalia Community 1



	4/30	6/27							Mean
Temperature (F)	61	75							68
Secchi (feet)	1.6	1.6							1.6
Phosphorus (µg/L)	134	101							118
Nitrogen (µg/L)	993	1140							1067
Ammonium (µg/L)	95	14							55
Nitrate (µg/L)	342	6							174
Chlorophyll (µg/L)	6.6	38.9							22.8
Susp. Sediment (mg/L)	16.4	2.8							9.6
Microcystin (µg/L)		0.17							0.17
Cylindrospermopsin (µg/L)		<0.04							<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Hypereutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
- Mesotrophic: (Phosphorus 10-24 µg/L) Moderate productivity, water often slightly greenish.
- Eutrophic: (Phosphorus 25-99 µg/L) High productivity, water green or brown.
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### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
- Secchi: Measure of water clarity, feet.
- Phosphorus and Nitrogen: Nutrients required for phytoplankton growth, µg/L or parts per billion.
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Ammonium (µg/L)	10
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Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

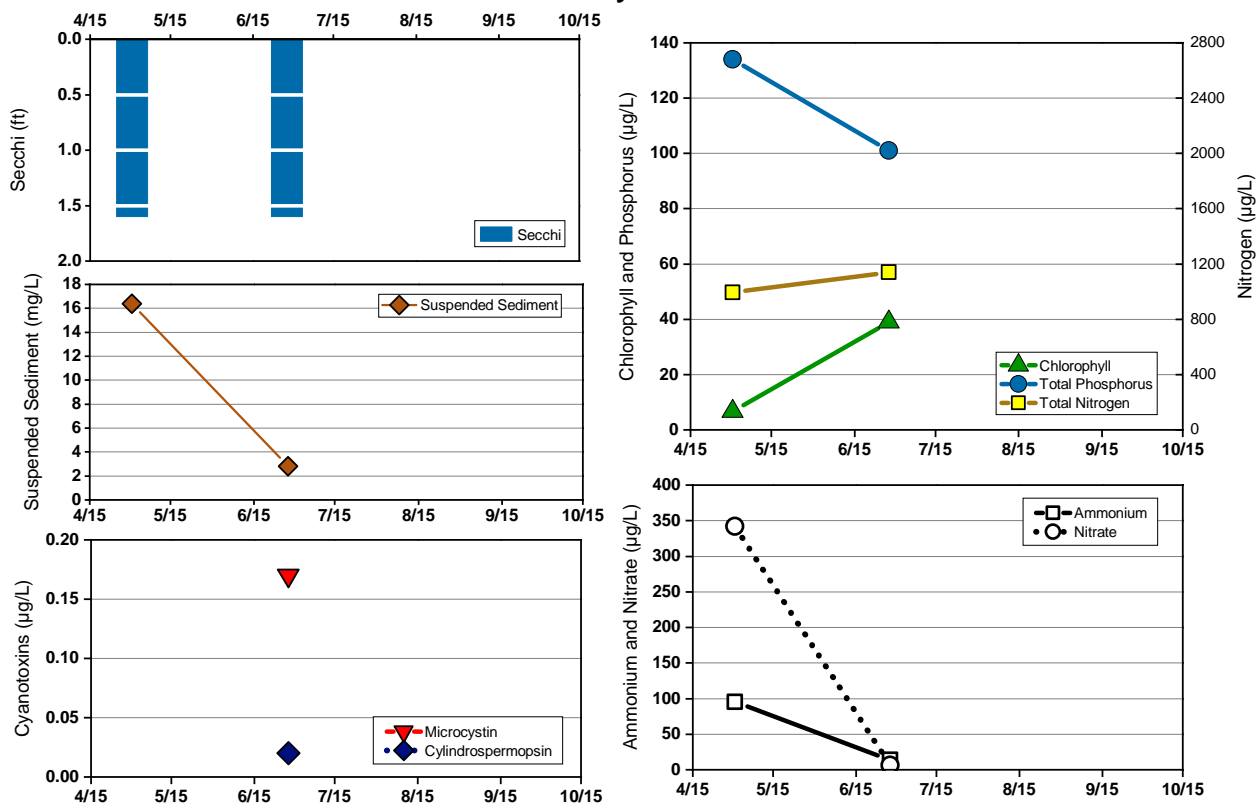
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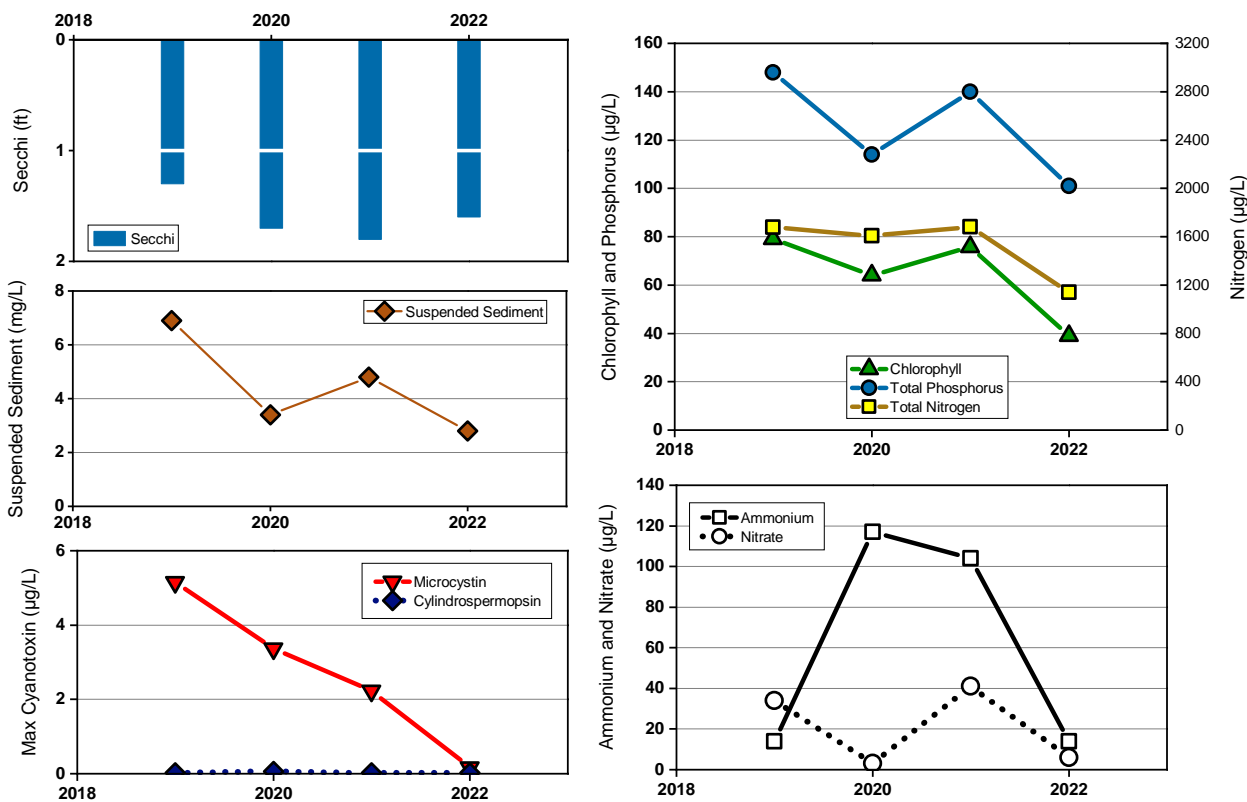
# Summary Report for Vandalia Community 1



## 2022 Data for Vandalia Community 1



## Trend Data for Vandalia Community 1



Trend data graphs show annual arithmetic means from May 15 through September 15. Prior to this year we showed geometric means. Cyanotoxin graph shows maximum seasonal values, not arithmetic means.

# Summary Report for Waterworks 1



	4/26	5/13	5/17	6/6	6/29	7/19	8/9	8/29	9/20	Mean
Temperature (F)	57	75	72	73	79	82	81	82.4	75	75
Secchi (feet)	3	3.6	4.6	3.9	3	4.3	3.3	3.6	4.3	3.7
Phosphorus (µg/L)	41	35	29	28	32	35	36	37	29	34
Nitrogen (µg/L)	620	595	553	740	815	650	735	675	650	670
Ammonium (µg/L)	<10	14	15	<10	<10	<10	<10	<10	<10	<10
Nitrate (µg/L)	8	6	7	<5	<5	<5	6	<5	<5	<5
Chlorophyll (µg/L)	8.0	4.0	5.1	10.7	21.4	19.3	27.9	18.5	14.6	14.4
Susp. Sediment (mg/L)	2.7	1.6	1.3	1.2	1.0	1.0	1.0	1.2	0.9	1.3
Microcystin (µg/L)	<0.10	<0.10	<0.10	0.12	<0.10	0.16	0.15	0.205	0.36	0.10
Cylindrospermopsin (µg/L)	0.07	0.05	0.06	0.06	0.05	0.06	0.55	1.725	1.70	0.50

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

- Oligotrophic: (Phosphorus <10 µg/L) Low productivity (measured by phytoplankton biomass and nutrients), clear water.
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### Description of Measured Parameters

- Temperature: Water temperature, degrees Fahrenheit.
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Microcystin (µg/L)	0.10
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### EPA Health Advisories for Cyanotoxins

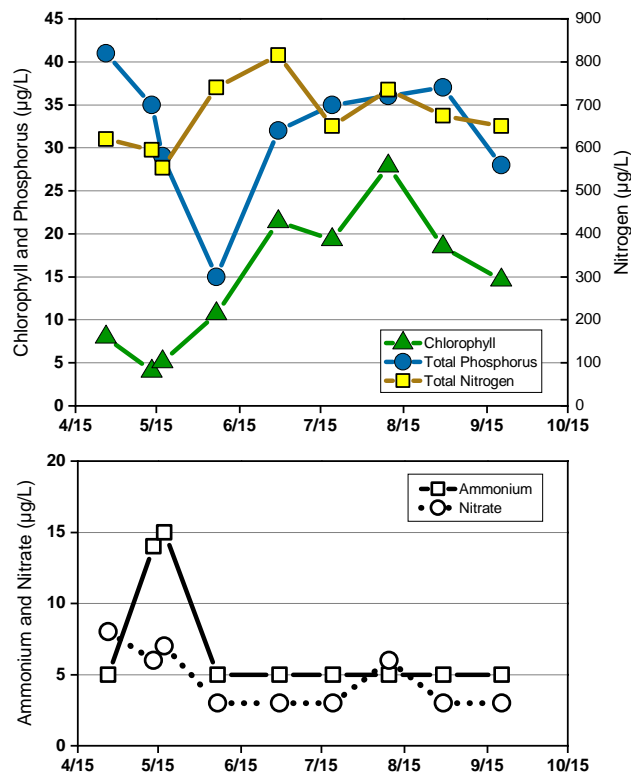
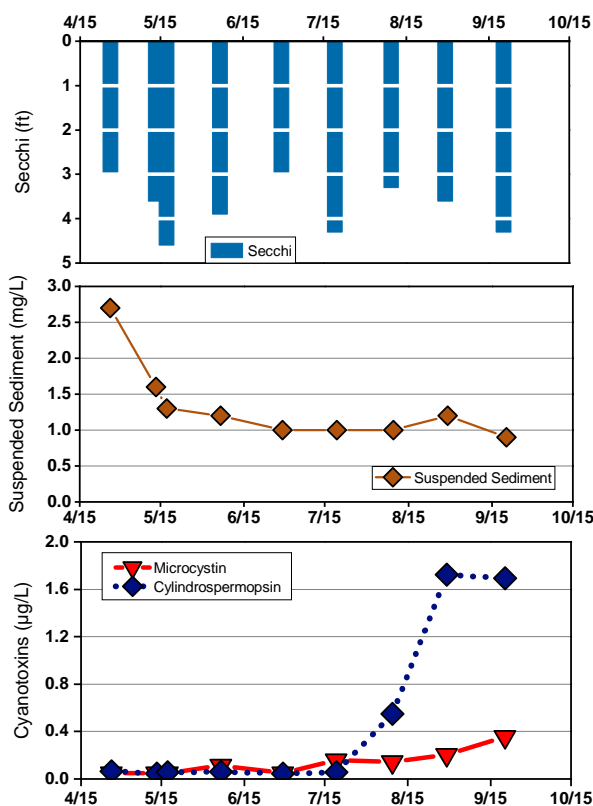
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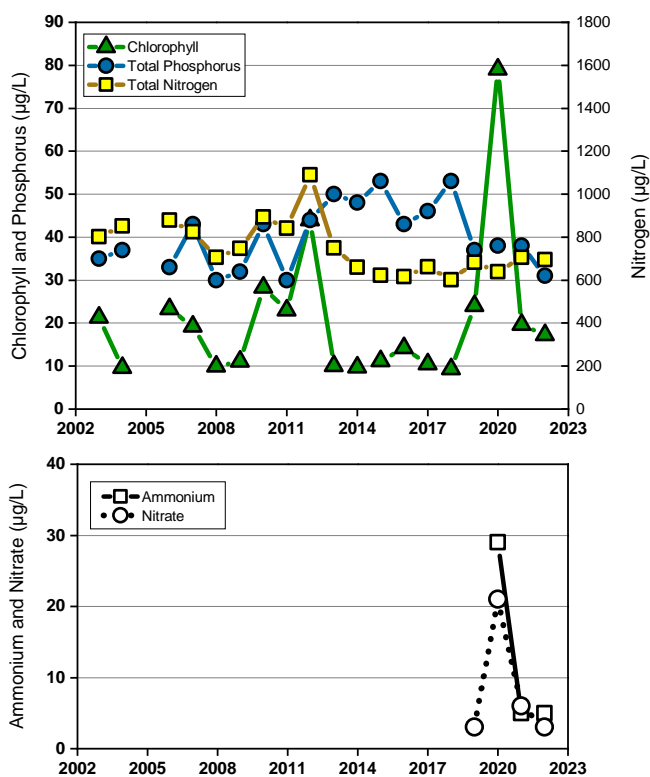
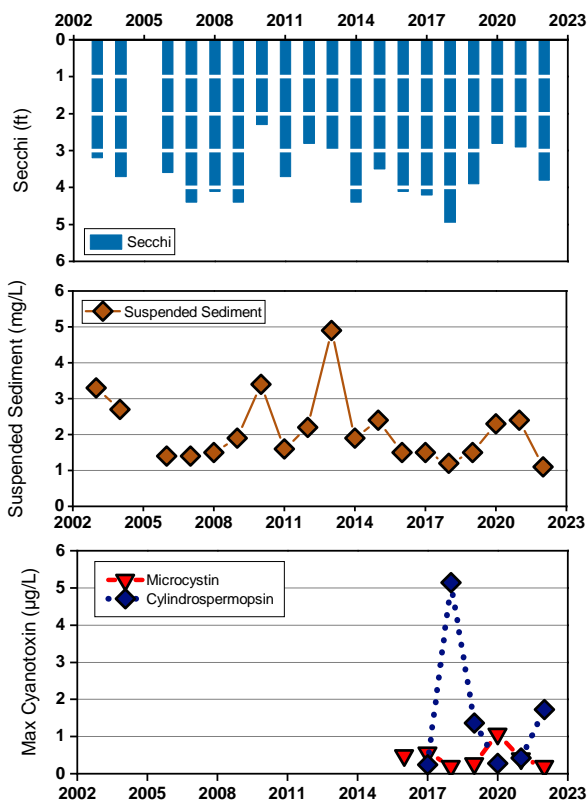
# Summary Report for Waterworks 1



## 2022 Data for Waterworks 1



## Trend Data for Waterworks 1



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# Summary Report for Whiteside 1



	4/27	5/22	6/12	7/4	7/24	8/21	9/26		Mean
Temperature (F)	64	70	81	84	84	82	68		76
Secchi (feet)	3.3	2.6	2.6	2.3	2.6	3.9	3.9		3
Phosphorus (µg/L)	43	40	33	35	33	22	14		31
Nitrogen (µg/L)	1065	1220	945	1270	1055	835	750		1020
Ammonium (µg/L)	101	74	12	<10	18	12	13		34
Nitrate (µg/L)	7	16	6	6	6	6	<5		7
Chlorophyll (µg/L)	3.5	34.5	16.8	31.0	17.1	10.8	16.8		18.6
Susp. Sediment (mg/L)	2.5	1.7	1.4	1.6	1.3	1.0	2.1		1.7
Microcystin (µg/L)	<0.10	0.13	<0.10	0.12	0.26	0.21	0.69		0.21
Cylindrospermopsin (µg/L)	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		<0.04

Trophic State: Based on the mean phosphorus concentration, this lake site is Eutrophic

## Interpreting the Data

### Trophic State Categories

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Suspended Sediment (mg/L)	0.1
Microcystin (µg/L)	0.10
Cylindrospermopsin (µg/L)	0.04

### EPA Health Advisories for Cyanotoxins

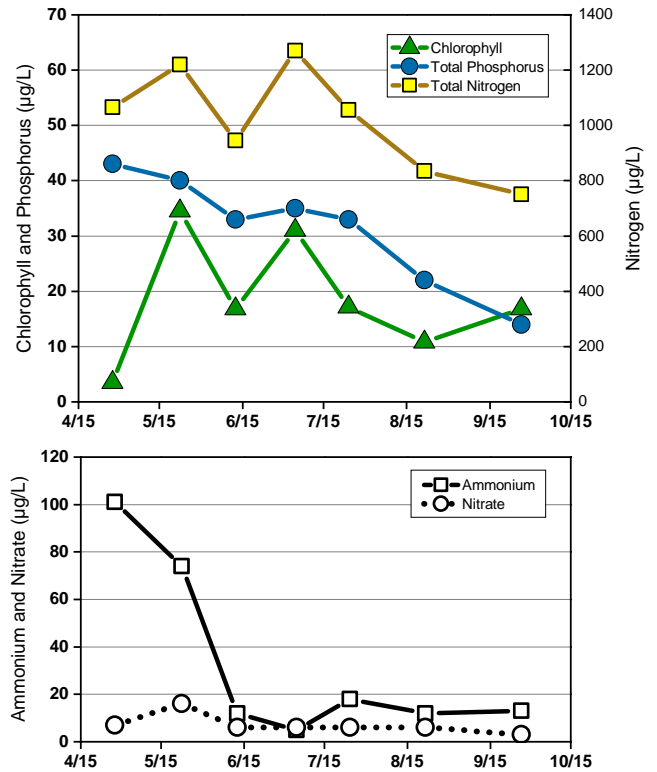
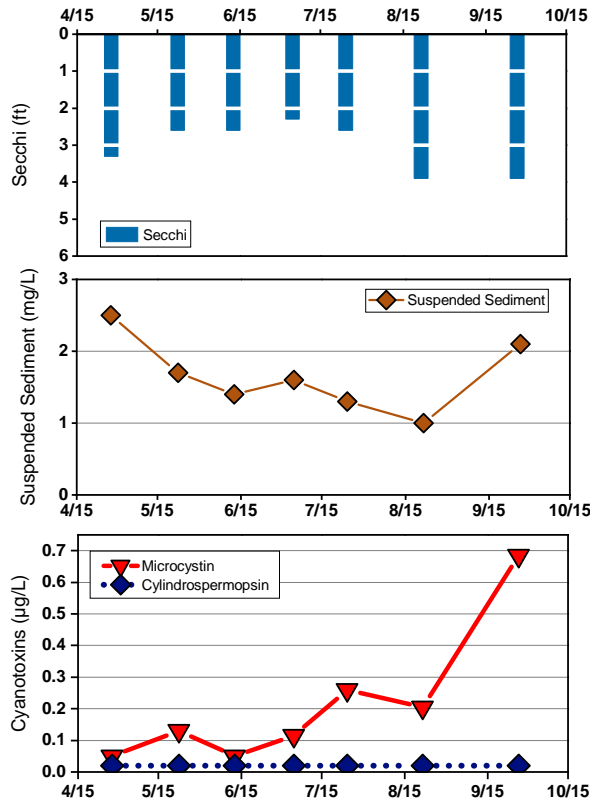
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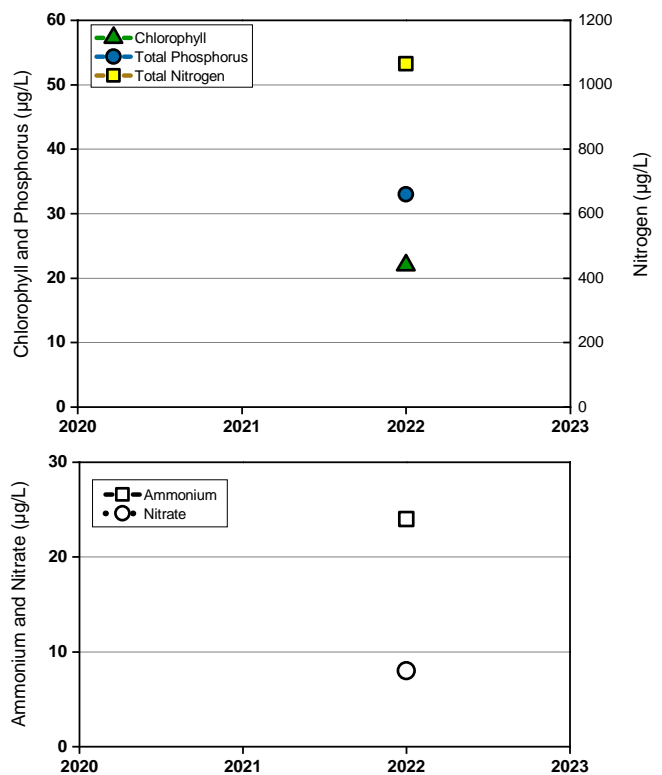
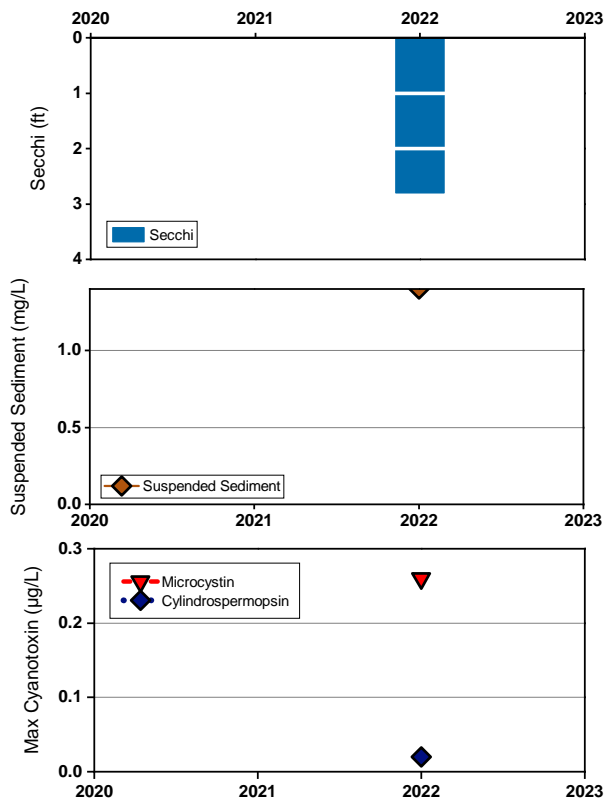
# Summary Report for Whiteside 1



## 2022 Data for Whiteside 1



## Trend Data for Whiteside 1



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