

C

APPENDIX C

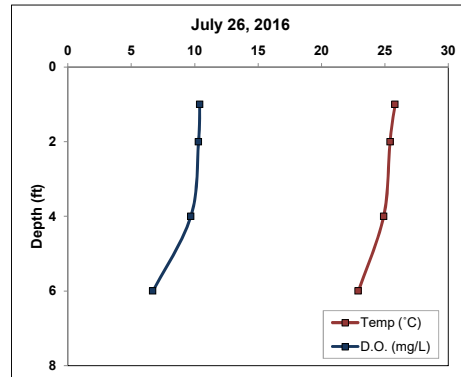
Water Quality Data

Bass Lake

Date: 7/26/2016
Time: 10:24
Weather: 0% clouds, 83F
Entry: JLW

Max Depth: 7.0
LS Depth (ft): 3.0
LB Depth (ft):
Secchi Depth (ft): 7.0

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|-----|-------------------|
| 1 | 25.8 | 10.4 | | |
| 2 | 25.4 | 10.3 | 8.2 | |
| 4 | 24.9 | 9.7 | | |
| 6 | 22.9 | 6.7 | | |
| 7 | | | | |



| Parameter | LS | LB |
|---|---------|----|
| Total P (µg/L) | 15.50 | NA |
| Dissolved P (µg/L) | ND | NA |
| Chl-a (µg/L) | 3.21 | NA |
| TKN (µg/L) | 498.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 1340.00 | NA |
| NH ₃ -N (µg/L) | 25.20 | NA |
| Total N (µg/L) | 1838.00 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | ND | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

SD hit bottom. Took a new WQ point. Data collected by BTB & LJS (Onterra).

Water Quality Data

| 2016-2017 Parameter | Surface | | Bottom | |
|--|---------|--------|--------|------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 1 | 7.0 | NA | NA |
| Total P (µg/L) | 1 | 15.5 | 0 | NA |
| Dissolved P (µg/L) | 1 | ND | 0 | NA |
| Chl a (µg/L) | 1 | 3.2 | 0 | NA |
| TKN (µg/L) | 1 | 498.0 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 1 | 1340.0 | 0 | NA |
| NH ₃ -N (µg/L) | 1 | 25.2 | 0 | NA |
| Total N (µg/L) | 1 | 1838.0 | 0 | NA |
| Lab Cond. (µS/cm) | 0 | NA | 0 | NA |
| Alkal (mg/l CaCO ₃) | 0 | NA | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | ND | 0 | NA |
| Calcium (mg/L) | 0 | NA | 0 | NA |
| Magnesium (mg/L) | 0 | NA | 0 | NA |
| Hardness (mg/L) | 0 | NA | 0 | NA |
| Color (SU) | 0 | NA | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|-----------------------|------|-------|--------|
| 1990 | | | 49.9 |
| 1991 | | | 40.9 |
| 1992 | | | 44.7 |
| 1993 | 50.6 | 42.9 | 49.1 |
| 1994 | 42.2 | 40.3 | 47.8 |
| 1995 | | | 44.9 |
| 1996 | | | 46.0 |
| 2016 | 43.7 | 42.0 | 49.1 |
| All Years (Weighted) | 46.0 | 41.8 | 45.9 |
| DLDL Median | 49.4 | 49.7 | 46.2 |
| NCHF Ecoregion Median | 61.1 | 57.3 | 53.2 |

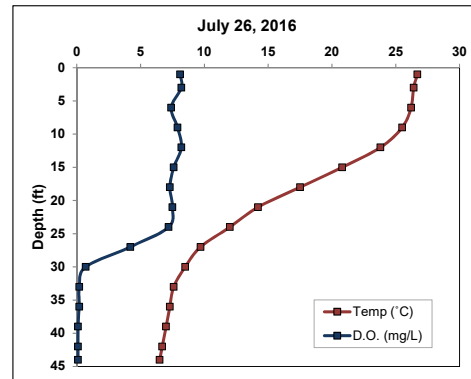
| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | Total Phosphorus (µg/L) | | | |
|-----------------------|----------------|------|--------|------|----------------------|------|--------|------|-------------------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 1990 | 3 | 7.3 | 2 | 6.6 | | | | | | | | |
| 1991 | 5 | 11.7 | 3 | 12.3 | | | | | | | | |
| 1992 | 3 | 9.7 | 2 | 9.5 | 1 | 4.7 | 0 | | 1 | 12.0 | 0.0 | |
| 1993 | 4 | 6.5 | 3 | 7.0 | 3 | 4.1 | 1 | 3.5 | 3 | 21.0 | 1.0 | 25.0 |
| 1994 | 5 | 8.3 | 3 | 7.7 | 3 | 3.3 | 1 | 2.7 | 3 | 20.0 | 1.0 | 14.0 |
| 1995 | 5 | 10.6 | 3 | 9.3 | | | | | | | | |
| 1996 | 4 | 8.6 | 3 | 8.7 | | | | | | | | |
| 2016 | 1 | 7.0 | 1 | 7.0 | 1 | 3.2 | 1 | 3.2 | 1 | 15.5 | 1.0 | 15.5 |
| All Years (Weighted) | | 9.0 | | 8.7 | | 3.7 | | 3.1 | | 18.8 | | 18.2 |
| DLDL Median | | | | 8.5 | | | | 7.0 | | | | 23.0 |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | 52.0 |

Beasley Lake

Date: 7/26/2016
Time: 9:32
Weather: 0% clouds, 80F
Entry: JLW

Max Depth: 44.3
LS Depth (ft): 3.0
LB Depth (ft): 41.0
Secchi Depth (ft): 20.9

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|-----|-------------------|
| 1 | 26.7 | 8.1 | | |
| 3 | 26.4 | 8.2 | 8.2 | |
| 6 | 26.2 | 7.4 | | |
| 9 | 25.5 | 7.9 | | |
| 12 | 23.8 | 8.2 | | |
| 15 | 20.8 | 7.6 | | |
| 18 | 17.5 | 7.3 | | |
| 21 | 14.2 | 7.5 | | |
| 24 | 12.0 | 7.2 | | |
| 27 | 9.7 | 4.2 | | |
| 30 | 8.5 | 0.7 | | |
| 33 | 7.6 | 0.2 | | |
| 36 | 7.3 | 0.2 | | |
| 39 | 7.0 | 0.1 | 7.9 | |
| 42 | 6.7 | 0.1 | | |
| 44 | 6.5 | 0.1 | | |



| Parameter | LS | LB |
|---|---------|-------|
| Total P (µg/L) | 14.80 | 79.70 |
| Dissolved P (µg/L) | ND | 32.20 |
| Chl-a (µg/L) | 0.63 | NA |
| TKN (µg/L) | 506.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 704.00 | NA |
| NH ₃ -N (µg/L) | 37.50 | NA |
| Total N (µg/L) | 1210.00 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | ND | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

Data collected by BTB & LJS (Onterra).

Water Quality Data

| 2016-2017 Parameter | Surface | | Bottom | |
|--|---------|--------|--------|------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 1 | 20.9 | NA | NA |
| Total P (µg/L) | 1 | 14.8 | 1 | 79.7 |
| Dissolved P (µg/L) | 1 | ND | 1 | 32.2 |
| Chl a (µg/L) | 1 | 0.6 | 0 | NA |
| TKN (µg/L) | 1 | 506.0 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 1 | 704.0 | 0 | NA |
| NH ₃ -N (µg/L) | 1 | 37.5 | 0 | NA |
| Total N (µg/L) | 1 | 1210.0 | 0 | NA |
| Lab Cond. (µS/cm) | 0 | NA | 0 | NA |
| Alkal (mg/l CaCO ₃) | 0 | NA | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | ND | 0 | NA |
| Calcium (mg/L) | 0 | NA | 0 | NA |
| Magnesium (mg/L) | 0 | NA | 0 | NA |
| Hardness (mg/L) | 0 | NA | 0 | NA |
| Color (SU) | 0 | NA | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|-----------------------|------|-------|--------|
| 1990 | | | 36.6 |
| 1992 | | | |
| 1993 | 40.0 | 40.2 | 38.1 |
| 1994 | 41.1 | 44.4 | 37.2 |
| 2016 | 43.0 | 26.1 | 33.3 |
| All Years (Weighted) | 41.4 | 39.4 | 36.5 |
| DLDL Median | 49.4 | 49.7 | 46.2 |
| NCHF Ecoregion Median | 61.1 | 57.3 | 53.2 |

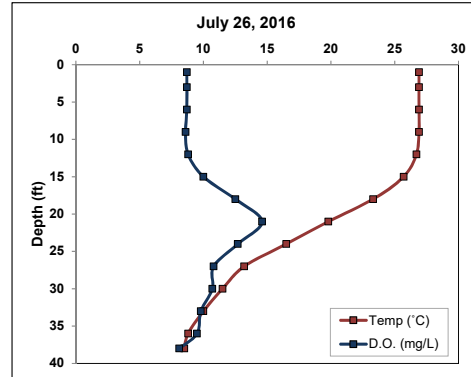
| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | Total Phosphorus (µg/L) | | | |
|-----------------------|----------------|------|--------|------|----------------------|------|--------|------|-------------------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 1990 | 5 | 16.6 | 3 | 16.7 | | | | | | | | |
| 1992 | 1 | 18.7 | 0 | | 1 | 4.2 | 0 | | 1 | 14.0 | 0.0 | |
| 1993 | 3 | 17.9 | 1 | 15.0 | 3 | 2.1 | 1 | 2.7 | 2 | 11.0 | 1.0 | 12.0 |
| 1994 | 7 | 15.4 | 3 | 16.0 | 3 | 3.5 | 1 | 4.1 | 3 | 11.0 | 1.0 | 13.0 |
| 2016 | 1 | 20.9 | 1 | 20.9 | 1 | 0.6 | 1 | 0.6 | 1 | 14.8 | 1.0 | 14.8 |
| All Years (Weighted) | | 16.7 | | 16.7 | | 2.7 | | 2.5 | | 12.0 | | 13.3 |
| DLDL Median | | | | 8.5 | | | | 7.0 | | | | 23.0 |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | 52.0 |

Columbia Lake

Date: 7/26/2016
Time: 8:33
Weather: 0% clouds, 73F
Entry: JLW

Max Depth: 38.7
LS Depth (ft): 3.0
LB Depth (ft): 35.0
Secchi Depth (ft): 7.0

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|-----|-------------------|
| 1 | 26.9 | 8.7 | | |
| 3 | 26.9 | 8.7 | 8.4 | |
| 6 | 26.9 | 8.7 | | |
| 9 | 26.9 | 8.6 | | |
| 12 | 26.7 | 8.8 | | |
| 15 | 25.7 | 10.0 | | |
| 18 | 23.3 | 12.5 | | |
| 21 | 19.8 | 14.6 | | |
| 24 | 16.5 | 12.7 | | |
| 27 | 13.2 | 10.8 | | |
| 30 | 11.5 | 10.7 | | |
| 33 | 10.0 | 9.8 | 8.2 | |
| 36 | 8.8 | 9.5 | | |
| 38 | 8.5 | 8.1 | | |



| Parameter | LS | LB |
|---|--------|-------|
| Total P (µg/L) | 13.00 | 16.60 |
| Dissolved P (µg/L) | ND | 1.80 |
| Chl-a (µg/L) | 3.07 | NA |
| TKN (µg/L) | 472.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 64.00 | NA |
| NH ₃ -N (µg/L) | 17.20 | NA |
| Total N (µg/L) | 536.00 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | 2.80 | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

DO super saturated (8.1) at 18', 21', and 24'. Data collected by BTB & LJS (Onterra).

Water Quality Data

| 2016-2017 Parameter | Surface | | Bottom | |
|--|---------|-------|--------|------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 1 | 7.0 | NA | NA |
| Total P (µg/L) | 1 | 13.0 | 1 | 16.6 |
| Dissolved P (µg/L) | 1 | ND | 1 | 1.8 |
| Chl a (µg/L) | 1 | 3.1 | 0 | NA |
| TKN (µg/L) | 1 | 472.0 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 1 | 64.0 | 0 | NA |
| NH ₃ -N (µg/L) | 1 | 17.2 | 0 | NA |
| Total N (µg/L) | 1 | 536.0 | 0 | NA |
| Lab Cond. (µS/cm) | 0 | NA | 0 | NA |
| Alkal (mg/l CaCO ₃) | 0 | NA | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | 2.8 | 0 | NA |
| Calcium (mg/L) | 0 | NA | 0 | NA |
| Magnesium (mg/L) | 0 | NA | 0 | NA |
| Hardness (mg/L) | 0 | NA | 0 | NA |
| Color (SU) | 0 | NA | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|-----------------------|------|-------|--------|
| 1994 | | | 36.1 |
| 2016 | 41.1 | 41.6 | 49.1 |
| All Years (Weighted) | 41.1 | 41.6 | 39.3 |
| DLDL Median | 49.4 | 49.7 | 46.2 |
| NCHF Ecoregion Median | 61.1 | 57.3 | 53.2 |

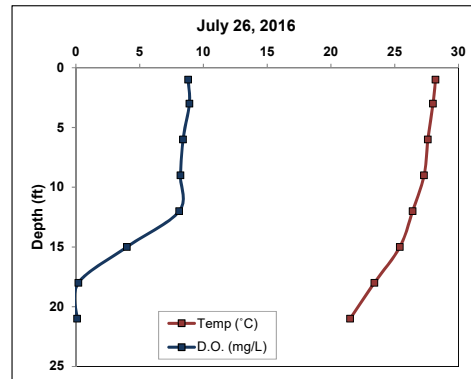
| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | | | Total Phosphorus (µg/L) | | | | | |
|-----------------------|----------------|------|--------|------|----------------------|------|--------|------|----------------|------|-------------------------|------|----------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 1994 | 4 | 16.3 | 2 | 17.3 | | | | | | | | | | | | |
| 2016 | 1 | 7.0 | 1 | 7.0 | 1 | 3.1 | 1 | 3.1 | 1 | 13.0 | 1 | 1.0 | 1 | 13.0 | | |
| All Years (Weighted) | | 14.4 | | 13.8 | | 3.1 | | 3.1 | | 13.0 | | | | 13.0 | | |
| DLDL Median | | | | 8.5 | | | | 7.0 | | | | | | 23.0 | | |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | | | 52.0 | | |

Dake Lake

Date: 7/26/2016
Time: 10:51
Weather: 0% clouds, 83F
Entry: JLW

Max Depth: 24.9
LS Depth (ft): 3.0
LB Depth (ft): 19.0
Secchi Depth (ft): 6.6

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|-----|-------------------|
| 1 | 28.2 | 8.8 | | |
| 3 | 28.0 | 8.9 | 8.4 | |
| 6 | 27.6 | 8.4 | | |
| 9 | 27.3 | 8.2 | | |
| 12 | 26.4 | 8.1 | | |
| 15 | 25.4 | 4.0 | | |
| 18 | 23.4 | 0.2 | 8.0 | |
| 21 | 21.5 | 0.1 | | |
| 24 | | | | |



| Parameter | LS | LB |
|---|--------|-------|
| Total P (µg/L) | 15.00 | 23.30 |
| Dissolved P (µg/L) | ND | ND |
| Chl-a (µg/L) | 3.31 | NA |
| TKN (µg/L) | 696.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | ND | NA |
| NH ₃ -N (µg/L) | ND | NA |
| Total N (µg/L) | 696.00 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | ND | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

Data collected by BTB & LJS (Onterra).

Water Quality Data

| 2016-2017 Parameter | Surface | | Bottom | |
|--|---------|-------|--------|------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 1 | 6.6 | NA | NA |
| Total P (µg/L) | 1 | 15.0 | 1 | 23.3 |
| Dissolved P (µg/L) | 1 | ND | 1 | ND |
| Chl a (µg/L) | 1 | 3.3 | 0 | NA |
| TKN (µg/L) | 1 | 696.0 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 1 | ND | 0 | NA |
| NH ₃ -N (µg/L) | 1 | ND | 0 | NA |
| Total N (µg/L) | 1 | 696.0 | 0 | NA |
| Lab Cond. (µS/cm) | 0 | NA | 0 | NA |
| Alkal (mg/l CaCO ₃) | 0 | NA | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | ND | 0 | NA |
| Calcium (mg/L) | 0 | NA | 0 | NA |
| Magnesium (mg/L) | 0 | NA | 0 | NA |
| Hardness (mg/L) | 0 | NA | 0 | NA |
| Color (SU) | 0 | NA | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|-----------------------|------|-------|--------|
| 2016 | 43.2 | 42.3 | 49.9 |
| All Years (Weighted) | 43.2 | 42.3 | 49.9 |
| DLDL Median | 49.4 | 49.7 | 46.2 |
| NCHF Ecoregion Median | 61.1 | 57.3 | 53.2 |

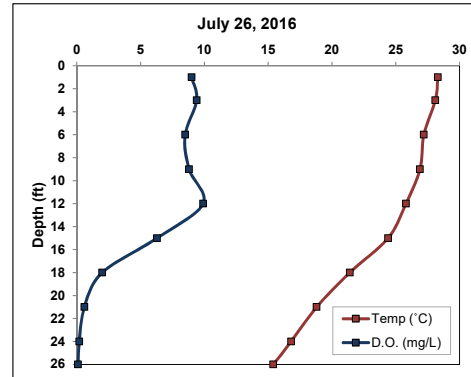
| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | Total Phosphorus (µg/L) | | | |
|-----------------------|----------------|------|--------|------|----------------------|------|--------|------|-------------------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 2016 | 1 | 6.6 | 1 | 6.6 | 1 | 3.3 | 1 | 3.3 | 1 | 15.0 | 1.0 | 15.0 |
| All Years (Weighted) | | 6.6 | | 6.6 | | 3.3 | | 3.3 | | 15.0 | | 15.0 |
| DLDL Median | | | | 8.5 | | | | 7.0 | | | | 23.0 |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | 52.0 |

George Lake

Date: 7/26/2016
Time: 12:23
Weather: 30% clouds, 85F
Entry: JMB

Max Depth: 26.9
LS Depth (ft): 3.0
LB Depth (ft): 24.0
Secchi Depth (ft): 8.1

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 28.3 | 9.0 | | |
| 3 | 28.1 | 9.4 | | |
| 6 | 27.2 | 8.5 | | |
| 9 | 26.9 | 8.8 | | |
| 12 | 25.8 | 9.9 | | |
| 15 | 24.4 | 6.3 | | |
| 18 | 21.4 | 2.0 | | |
| 21 | 18.8 | 0.6 | | |
| 24 | 16.8 | 0.2 | | |
| 26 | 15.4 | 0.1 | | |



| Parameter | LS | LB |
|---|---------|-------|
| Total P (µg/L) | 14.00 | 26.00 |
| Dissolved P (µg/L) | ND | 2.30 |
| Chl-a (µg/L) | 2.51 | NA |
| TKN (µg/L) | 775.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 370.00 | NA |
| NH ₃ -N (µg/L) | 45.00 | NA |
| Total N (µg/L) | 1145.00 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | 2.20 | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

Data collected by EEH and CJF (Onterra).

Water Quality Data

| 2016-2017 Parameter | Surface | | Bottom | |
|--|---------|--------|--------|------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 1 | 8.1 | NA | NA |
| Total P (µg/L) | 1 | 14.0 | 1 | 26.0 |
| Dissolved P (µg/L) | 1 | ND | 1 | 2.3 |
| Chl a (µg/L) | 1 | 2.5 | 0 | NA |
| TKN (µg/L) | 1 | 775.0 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 1 | 370.0 | 0 | NA |
| NH ₃ -N (µg/L) | 1 | 45.0 | 0 | NA |
| Total N (µg/L) | 1 | 1145.0 | 0 | NA |
| Lab Cond. (µS/cm) | 0 | NA | 0 | NA |
| Alkal (mg/l CaCO ₃) | 0 | NA | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | 2.2 | 0 | NA |
| Calcium (mg/L) | 0 | NA | 0 | NA |
| Magnesium (mg/L) | 0 | NA | 0 | NA |
| Hardness (mg/L) | 0 | NA | 0 | NA |
| Color (SU) | 0 | NA | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|-----------------------|------|-------|--------|
| 1992 | | | |
| 1993 | | | |
| 1994 | | | 45.9 |
| 2016 | 42.2 | 39.6 | 47.0 |
| All Years (Weighted) | 42.2 | 39.6 | 46.2 |
| DLDL Median | 49.4 | 49.7 | 46.2 |
| NCHF Ecoregion Median | 61.1 | 57.3 | 53.2 |

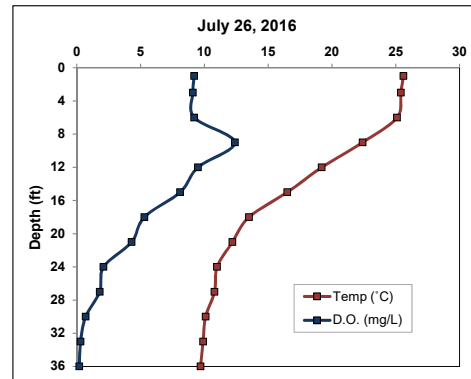
| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | Total Phosphorus (µg/L) | | | |
|-----------------------|----------------|------|--------|------|----------------------|------|--------|------|-------------------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 1992 | 1 | 9.4 | 0 | | 1 | 3.7 | 0 | | 1 | 10.0 | | 0.0 |
| 1993 | 1 | 9.2 | 0 | | 1 | 3.8 | 0 | | | | | |
| 1994 | 3 | 8.5 | 2 | 8.8 | | | | | | | | |
| 2016 | 1 | 8.1 | 1 | 8.1 | 1 | 2.5 | 1 | 2.5 | 1 | 14.0 | 1 | 14.0 |
| All Years (Weighted) | | 8.7 | | 8.5 | | 3.3 | | 2.5 | | 12.0 | | 14.0 |
| DLDL Median | | | | 8.5 | | | | 7.0 | | | | 23.0 |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | 52.0 |

Knight Lake

Date: 7/26/2016
Time: 10:04
Weather: 0% clouds, no wind, 75F
Entry: JMB

Max Depth: 36.5
LS Depth (ft): 3.0
LB Depth (ft): 33.0
Secchi Depth (ft): 14.2

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 25.6 | 9.2 | | |
| 3 | 25.4 | 9.1 | | |
| 6 | 25.1 | 9.2 | | |
| 9 | 22.4 | 12.4 | | |
| 12 | 19.2 | 9.5 | | |
| 15 | 16.5 | 8.1 | | |
| 18 | 13.5 | 5.3 | | |
| 21 | 12.2 | 4.3 | | |
| 24 | 11.0 | 2.1 | | |
| 27 | 10.8 | 1.8 | | |
| 30 | 10.1 | 0.7 | | |
| 33 | 9.9 | 0.3 | | |
| 36 | 9.7 | 0.2 | | |



| Parameter | LS | LB |
|---|--------|-------|
| Total P (µg/L) | 14.40 | 25.50 |
| Dissolved P (µg/L) | ND | 2.40 |
| Chl-a (µg/L) | 3.71 | NA |
| TKN (µg/L) | 348.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 606.00 | NA |
| NH ₃ -N (µg/L) | 29.70 | NA |
| Total N (µg/L) | 954.00 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | ND | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

Data collected by EEH and CJF (Onterra).

Water Quality Data

| 2016-2017 Parameter | Surface | | Bottom | |
|--|---------|-------|--------|------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 1 | 14.2 | NA | NA |
| Total P (µg/L) | 1 | 14.4 | 1 | 25.5 |
| Dissolved P (µg/L) | 1 | ND | 1 | 2.4 |
| Chl a (µg/L) | 1 | 3.7 | 0 | NA |
| TKN (µg/L) | 1 | 348.0 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 1 | 606.0 | 0 | NA |
| NH ₃ -N (µg/L) | 1 | 29.7 | 0 | NA |
| Total N (µg/L) | 1 | 954.0 | 0 | NA |
| Lab Cond. (µS/cm) | 0 | NA | 0 | NA |
| Alkal (mg/l CaCO ₃) | 0 | NA | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | ND | 0 | NA |
| Calcium (mg/L) | 0 | NA | 0 | NA |
| Magnesium (mg/L) | 0 | NA | 0 | NA |
| Hardness (mg/L) | 0 | NA | 0 | NA |
| Color (SU) | 0 | NA | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|------------------------------|------|-------|--------|
| 1992 | | | |
| 1993 | | | |
| 1994 | | | 39.7 |
| 1995 | | | 39.4 |
| 1996 | | | 38.3 |
| 1997 | | | 35.5 |
| 1998 | | | 36.5 |
| 1999 | | | 38.2 |
| 2000 | | | 37.5 |
| 2001 | | | 39.7 |
| 2002 | | | 42.2 |
| 2003 | | | 34.0 |
| 2004 | | | 38.9 |
| 2005 | | | 36.9 |
| 2006 | | | 36.5 |
| 2007 | | | 35.3 |
| 2009 | | | 38.5 |
| 2010 | | | 31.0 |
| 2011 | | | |
| 2012 | | | |
| 2013 | | | |
| 2014 | | | |
| 2015 | | | 38.9 |
| 2016 | 42.6 | 43.5 | 38.9 |
| All Years (Weighted) | 42.6 | 43.5 | 37.8 |
| DLDL Median | 49.4 | 49.7 | 46.2 |
| NCHF Ecoregion Median | 61.1 | 57.3 | 53.2 |

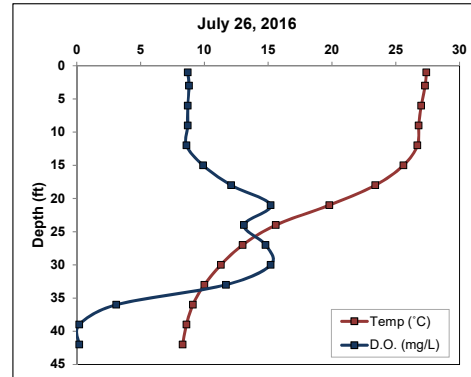
| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | Total Phosphorus (µg/L) | | | |
|------------------------------|----------------|------|--------|------|----------------------|------|--------|------|-------------------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 1992 | 1 | 14.1 | 0 | | 1 | 2.9 | 0 | | 1 | 14.0 | 0 | 0.0 |
| 1993 | 1 | 11.9 | 0 | | 1 | 2.9 | 0 | | | | | |
| 1994 | 20 | 13.7 | 13 | 13.4 | | | | | | | | |
| 1995 | 11 | 13.5 | 8 | 13.7 | | | | | | | | |
| 1996 | 12 | 14.2 | 8 | 14.8 | | | | | | | | |
| 1997 | 9 | 17.4 | 8 | 17.9 | | | | | | | | |
| 1998 | 13 | 16.2 | 11 | 16.7 | | | | | | | | |
| 1999 | 7 | 15.1 | 6 | 14.9 | | | | | | | | |
| 2000 | 7 | 15.1 | 6 | 15.6 | | | | | | | | |
| 2001 | 4 | 13.4 | 4 | 13.4 | | | | | | | | |
| 2002 | 4 | 11.3 | 4 | 11.3 | | | | | | | | |
| 2003 | 3 | 19.9 | 3 | 19.9 | | | | | | | | |
| 2004 | 4 | 13.9 | 3 | 14.2 | | | | | | | | |
| 2005 | 4 | 16.3 | 4 | 16.3 | | | | | | | | |
| 2006 | 3 | 16.8 | 3 | 16.8 | | | | | | | | |
| 2007 | 3 | 18.3 | 3 | 18.3 | | | | | | | | |
| 2009 | 2 | 14.6 | 2 | 14.6 | | | | | | | | |
| 2010 | 1 | 24.5 | 1 | 24.5 | | | | | | | | |
| 2011 | 0 | | 0 | | | | | | | | | |
| 2012 | 0 | | 0 | | | | | | | | | |
| 2013 | 0 | | 0 | | | | | | | | | |
| 2014 | 0 | | 0 | | | | | | | | | |
| 2015 | 5 | 15.3 | 4 | 14.2 | | | | | | | | |
| 2016 | 1 | 14.2 | 1 | 14.2 | 1 | 3.7 | 1 | 3.7 | 1 | 14.4 | 1 | 14.4 |
| All Years (Weighted) | | 15.0 | | 15.3 | | 3.2 | | 3.7 | | 14.2 | | 14.4 |
| DLDL Median | | | | 8.5 | | | | 7.0 | | | | 23.0 |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | 52.0 |

Limekiln Lake

Date: 7/26/2016
Time: 13:42
Weather: 0% clouds, 85F
Entry: JLW

Max Depth: 42.1
LS Depth (ft): 3.0
LB Depth (ft): 39.0
Secchi Depth (ft): 6.4

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|-----|-------------------|
| 1 | 27.4 | 8.7 | | |
| 3 | 27.3 | 8.8 | 8.2 | |
| 6 | 27.0 | 8.7 | | |
| 9 | 26.8 | 8.7 | | |
| 12 | 26.7 | 8.6 | | |
| 15 | 25.6 | 9.9 | | |
| 18 | 23.4 | 12.1 | | |
| 21 | 19.8 | 15.2 | | |
| 24 | 15.6 | 13.1 | | |
| 27 | 13.0 | 14.8 | | |
| 30 | 11.3 | 15.2 | | |
| 33 | 10.0 | 11.7 | | |
| 36 | 9.1 | 3.1 | | |
| 39 | 8.6 | 0.2 | | |
| 42 | 8.3 | 0.2 | | |



| Parameter | LS | LB |
|---|---------|-------|
| Total P (µg/L) | 8.73 | 25.30 |
| Dissolved P (µg/L) | ND | 1.80 |
| Chl-a (µg/L) | 1.02 | NA |
| TKN (µg/L) | 759.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 1220.00 | NA |
| NH ₃ -N (µg/L) | 40.20 | NA |
| Total N (µg/L) | 1979.00 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | 2.00 | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

Took new WQ point. Data collected by BTB & LJS (Onterra).

Water Quality Data

| 2016-2017 Parameter | Surface | | Bottom | |
|--|---------|--------|--------|------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 1 | 6.4 | NA | NA |
| Total P (µg/L) | 1 | 8.7 | 1 | 25.3 |
| Dissolved P (µg/L) | 1 | ND | 1 | 1.8 |
| Chl a (µg/L) | 1 | 1.0 | 0 | NA |
| TKN (µg/L) | 1 | 759.0 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 1 | 1220.0 | 0 | NA |
| NH ₃ -N (µg/L) | 1 | 40.2 | 0 | NA |
| Total N (µg/L) | 1 | 1979.0 | 0 | NA |
| Lab Cond. (µS/cm) | 0 | NA | 0 | NA |
| Alkal (mg/l CaCO ₃) | 0 | NA | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | 2.0 | 0 | NA |
| Calcium (mg/L) | 0 | NA | 0 | NA |
| Magnesium (mg/L) | 0 | NA | 0 | NA |
| Hardness (mg/L) | 0 | NA | 0 | NA |
| Color (SU) | 0 | NA | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|-----------------------|------|-------|--------|
| 1992 | | | |
| 1993 | | | 43.9 |
| 1994 | 24.1 | 42.8 | 42.6 |
| 2016 | 35.4 | 30.8 | 50.4 |
| All Years (Weighted) | 30.6 | 39.6 | 44.1 |
| DLDL Median | 49.4 | 49.7 | 46.2 |
| NCHF Ecoregion Median | 61.1 | 57.3 | 53.2 |

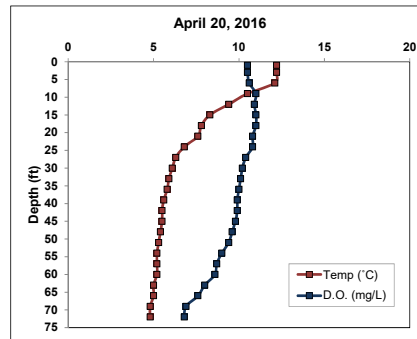
| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | Total Phosphorus (µg/L) | | | |
|-----------------------|----------------|------|--------|------|----------------------|------|--------|------|-------------------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 1992 | 1 | 9.8 | 0 | | 1 | 6.3 | 0 | | | | | |
| 1993 | 3 | 10.1 | 1 | 10.0 | 3 | 4.1 | 1 | 3.0 | 2 | 6.0 | 1.0 | 6.0 |
| 1994 | 7 | 10.2 | 3 | 11.0 | 3 | 3.6 | 1 | 3.5 | 2 | 8.5 | 1.0 | 4.0 |
| 2016 | 1 | 6.4 | 1 | 6.4 | 1 | 1.0 | 1 | 1.0 | 1 | 8.7 | 1.0 | 8.7 |
| All Years (Weighted) | | 9.8 | | 9.9 | | 3.8 | | 2.5 | | 7.5 | | 6.2 |
| DLDL Median | | | | 8.5 | | | | 7.0 | | | | 23.0 |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | 52.0 |

Long Lake

Date: 4/20/2016
Time: 10:15
Weather: 60F, partly sunny, 80% clouds, windy
Entry: EEH

Max Depth: 75.5
LS Depth (ft): 3.0
LB Depth (ft): 72.0
Secchi Depth (ft): 20.8

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 12.2 | 10.5 | | |
| 3 | 12.2 | 10.5 | | |
| 6 | 12.1 | 10.6 | | |
| 9 | 10.5 | 11.0 | | |
| 12 | 9.4 | 10.9 | | |
| 15 | 8.3 | 11.0 | | |
| 18 | 7.8 | 11.0 | | |
| 21 | 7.6 | 10.8 | | |
| 24 | 6.8 | 10.8 | | |
| 27 | 6.3 | 10.4 | | |
| 30 | 6.1 | 10.2 | | |
| 33 | 5.9 | 10.1 | | |
| 36 | 5.8 | 10.0 | | |
| 39 | 5.6 | 9.9 | | |
| 42 | 5.5 | 9.9 | | |
| 45 | 5.5 | 9.8 | | |
| 48 | 5.4 | 9.8 | | |
| 51 | 5.3 | 9.4 | | |
| 54 | 5.2 | 9.0 | | |
| 57 | 5.2 | 8.7 | | |
| 60 | 5.2 | 8.6 | | |
| 63 | 5.0 | 8.0 | | |
| 66 | 5.0 | 7.6 | | |
| 69 | 4.8 | 6.9 | | |
| 72 | 4.8 | 6.8 | | |



| Parameter | LS | LB |
|---|---------|-------|
| Total P (µg/L) | 12.40 | 15.40 |
| Dissolved P (µg/L) | ND | ND |
| Chl-a (µg/L) | 0.47 | NA |
| TKN (µg/L) | 525.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 1750.00 | NA |
| NH ₄ -N (µg/L) | 122.00 | NA |
| Total N (µg/L) | 2275.00 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | NA | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

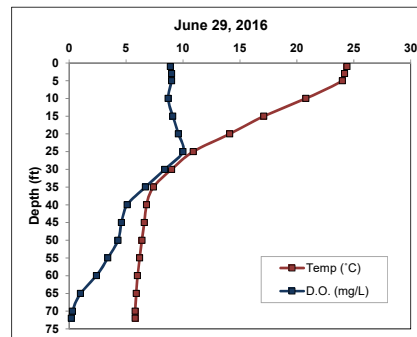
Data collected by JLW and EEH (Onterra).

Long Lake

Date: 6/29/2016
Time: 13:10
Weather: 40% clouds, no wind, 75F
Entry: JLW

Max Depth: 73.0
LS Depth (ft): 3.0
LB Depth (ft): 70.0
Secchi Depth (ft): 19.8

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 24.4 | 8.9 | | |
| 3 | 24.2 | 9.0 | | |
| 5 | 24.0 | 9.0 | | |
| 10 | 20.8 | 8.7 | | |
| 15 | 17.1 | 9.1 | | |
| 20 | 14.1 | 9.6 | | |
| 25 | 10.9 | 10.0 | | |
| 30 | 9.0 | 8.4 | | |
| 35 | 7.4 | 6.7 | | |
| 40 | 6.8 | 5.1 | | |
| 45 | 6.6 | 4.6 | | |
| 50 | 6.4 | 4.3 | | |
| 55 | 6.2 | 3.4 | | |
| 60 | 6.0 | 2.4 | | |
| 65 | 5.9 | 1.0 | | |
| 70 | 5.8 | 0.3 | | |
| 72 | 5.8 | 0.2 | | |



| Parameter | LS | LB |
|---|-------|-------|
| Total P (µg/L) | 18.70 | 82.40 |
| Dissolved P (µg/L) | NA | NA |
| Chl-a (µg/L) | ND | NA |
| TKN (µg/L) | NA | NA |
| NO ₃ + NO ₂ -N (µg/L) | NA | NA |
| NH ₄ -N (µg/L) | NA | NA |
| Total N (µg/L) | NA | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | NA | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

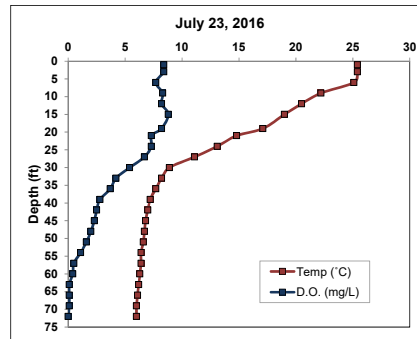
Data collected by TAH & CTB (Onterra).

Long Lake

Date: 7/26/2016
Time: 9:00
Weather: 0% clouds, 75F
Entry: JLV

Max Depth: 73.1
LS Depth (ft): 3.0
LB Depth (ft): 70.0
Secchi Depth (ft): 11.4

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|-----|-------------------|
| 1 | 25.4 | 8.4 | | |
| 3 | 25.4 | 8.4 | 8.2 | |
| 6 | 25.1 | 7.7 | | |
| 9 | 22.2 | 8.3 | | |
| 12 | 20.5 | 8.2 | | |
| 15 | 19.0 | 8.8 | | |
| 19 | 17.1 | 8.2 | | |
| 21 | 14.8 | 7.3 | | |
| 24 | 13.1 | 7.3 | | |
| 27 | 11.1 | 6.7 | | |
| 30 | 8.9 | 5.4 | 7.9 | |
| 33 | 8.2 | 4.2 | | |
| 36 | 7.7 | 3.7 | | |
| 39 | 7.2 | 2.8 | | |
| 42 | 7.0 | 2.5 | | |
| 45 | 6.8 | 2.3 | | |
| 48 | 6.7 | 2.0 | | |
| 51 | 6.6 | 1.8 | | |
| 54 | 6.4 | 1.1 | | |
| 57 | 6.4 | 0.5 | | |
| 60 | 6.3 | 0.4 | | |
| 63 | 6.2 | 0.1 | | |
| 66 | 6.1 | 0.1 | | |
| 69 | 6.0 | 0.1 | | |
| 72 | 6.0 | 0.0 | | |



| Parameter | LS | LB |
|---|------|------|
| Total P (µg/L) | 13.0 | 82.4 |
| Dissolved P (µg/L) | 1.70 | 21.5 |
| Chl-a (µg/L) | 1.49 | NA |
| TKN (µg/L) | 399 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 1360 | NA |
| NH ₃ -N (µg/L) | 21 | NA |
| Total N (µg/L) | 1759 | NA |
| Lab Cond. (µS/cm) | 357 | NA |
| Lab pH | 8 | NA |
| Alkalinity (mg/L CaCO ₃) | 165 | NA |
| Total Susp. Solids (mg/L) | ND | NA |
| Calcium (mg/L) | 37 | NA |
| Magnesium (mg/L) | 25 | NA |
| Hardness (mg/L) | 196 | NA |
| Color (SU) | 5 | NA |
| Turbidity (NTU) | NA | NA |

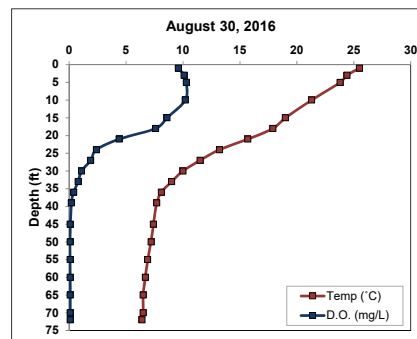
Data collected by BTB & LJS (Onterra).

Long Lake

Date: 8/30/2016
Time: 13:05
Weather: 10% clouds, 78F, light breeze
Entry: JMB

Max Depth: 72.6
LS Depth (ft): 3.0
LB Depth (ft): 70.0
Secchi Depth (ft): 11.2

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 25.5 | 9.6 | | |
| 3 | 24.4 | 10.1 | | |
| 5 | 23.8 | 10.3 | | |
| 10 | 21.3 | 10.2 | | |
| 15 | 19.0 | 8.6 | | |
| 18 | 17.9 | 7.6 | | |
| 21 | 15.7 | 4.4 | | |
| 24 | 13.2 | 2.4 | | |
| 27 | 11.5 | 1.9 | | |
| 30 | 10.0 | 1.1 | | |
| 33 | 9.0 | 0.8 | | |
| 36 | 8.1 | 0.4 | | |
| 39 | 7.7 | 0.2 | | |
| 45 | 7.4 | 0.1 | | |
| 50 | 7.2 | 0.1 | | |
| 55 | 6.9 | 0.1 | | |
| 60 | 6.7 | 0.1 | | |
| 65 | 6.5 | 0.1 | | |
| 70 | 6.5 | 0.1 | | |
| 72 | 6.4 | 0.1 | | |



| Parameter | LS | LB |
|---|-------|--------|
| Total P (µg/L) | 14.70 | 130.00 |
| Dissolved P (µg/L) | NA | NA |
| Chl-a (µg/L) | 2.05 | NA |
| TKN (µg/L) | NA | NA |
| NO ₃ + NO ₂ -N (µg/L) | NA | NA |
| NH ₃ -N (µg/L) | NA | NA |
| Total N (µg/L) | NA | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | NA | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

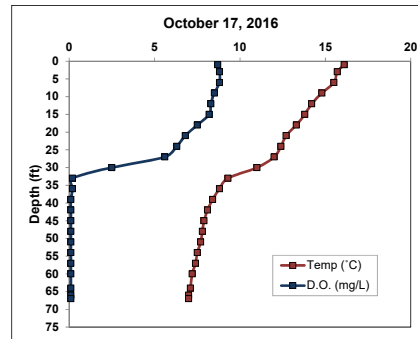
Data collected by TAH and AAH (Onterra).

Long Lake

Date: 10/17/2016
Time: 9:40
Weather: 100% clouds, 68F, light breeze
Entry: JMB

Max Depth: 36.4
LS Depth (ft): 3.0
LB Depth (ft): 34.0
Secchi Depth (ft): 7.7

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 16.1 | 8.7 | | |
| 3 | 15.7 | 8.8 | | |
| 6 | 15.5 | 8.8 | | |
| 9 | 14.8 | 8.5 | | |
| 12 | 14.2 | 8.3 | | |
| 15 | 13.8 | 8.2 | | |
| 18 | 13.3 | 7.5 | | |
| 21 | 12.7 | 6.8 | | |
| 24 | 12.4 | 6.3 | | |
| 27 | 12.0 | 5.6 | | |
| 30 | 11.0 | 2.5 | | |
| 33 | 9.3 | 0.2 | | |
| 36 | 8.8 | 0.2 | | |
| 39 | 8.4 | 0.1 | | |
| 42 | 8.1 | 0.1 | | |
| 45 | 7.9 | 0.1 | | |
| 48 | 7.8 | 0.1 | | |
| 51 | 7.7 | 0.1 | | |
| 54 | 7.5 | 0.1 | | |
| 57 | 7.4 | 0.1 | | |
| 60 | 7.2 | 0.1 | | |
| 64 | 7.1 | 0.1 | | |
| 66 | 7.0 | 0.1 | | |
| 67 | 7.0 | 0.1 | | |



| Parameter | LS | LB |
|---|-------|-------|
| Total P (µg/L) | 13.60 | 71.70 |
| Dissolved P (µg/L) | NA | NA |
| Chl-a (µg/L) | 0.46 | NA |
| TKN (µg/L) | NA | NA |
| NO ₃ + NO ₂ -N (µg/L) | NA | NA |
| NH ₄ -N (µg/L) | NA | NA |
| Total N (µg/L) | NA | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | NA | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

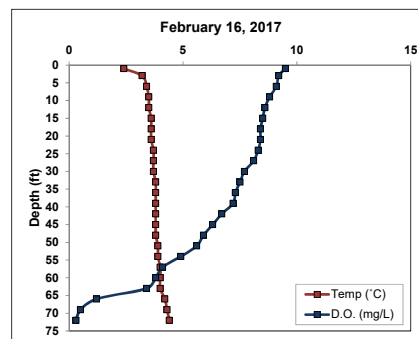
Data collected by JMB and LJS (Onterra).

Long Lake

Date: 2/16/2017
Time: 11:30
Weather: 100% clouds, 5mph wind, 25F
Entry: JMB

Max Depth: 72.5
LS Depth (ft): 3.0
LB Depth (ft): 69.0
Secchi Depth (ft): 29.1

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 2.4 | 9.5 | | |
| 3 | 3.2 | 9.2 | | |
| 6 | 3.4 | 9.1 | | |
| 9 | 3.5 | 8.8 | | |
| 12 | 3.5 | 8.6 | | |
| 15 | 3.6 | 8.5 | | |
| 18 | 3.6 | 8.4 | | |
| 21 | 3.6 | 8.4 | | |
| 24 | 3.7 | 8.3 | | |
| 27 | 3.7 | 8.1 | | |
| 30 | 3.7 | 7.7 | | |
| 33 | 3.8 | 7.5 | | |
| 36 | 3.8 | 7.3 | | |
| 39 | 3.8 | 7.2 | | |
| 42 | 3.8 | 6.7 | | |
| 45 | 3.8 | 6.3 | | |
| 48 | 3.8 | 5.9 | | |
| 51 | 3.9 | 5.6 | | |
| 54 | 3.9 | 4.9 | | |
| 57 | 4.0 | 4.1 | | |
| 60 | 4.0 | 3.8 | | |
| 63 | 4.0 | 3.4 | | |
| 66 | 4.2 | 1.2 | | |
| 69 | 4.3 | 0.5 | | |
| 72 | 4.4 | 0.3 | | |



| Parameter | LS | LB |
|---|----|----|
| Total P (µg/L) | NA | NA |
| Dissolved P (µg/L) | NA | NA |
| Chl-a (µg/L) | NA | NA |
| TKN (µg/L) | NA | NA |
| NO ₃ + NO ₂ -N (µg/L) | NA | NA |
| NH ₄ -N (µg/L) | NA | NA |
| Total N (µg/L) | NA | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | NA | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

Data collected by TWH & JMB (Onterra). Ice depth: 1.4ft.

Water Quality Data

| 2016-2017 Parameter | Surface | | Bottom | |
|--|---------|--------|--------|------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 6 | 16.7 | NA | NA |
| Total P (µg/L) | 5 | 14.5 | 5 | 76.4 |
| Dissolved P (µg/L) | 2 | 1.7 | 2 | 21.5 |
| Chl a (µg/L) | 5 | 1.1 | 0 | NA |
| TKN (µg/L) | 2 | 462.0 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 2 | 1555.0 | 0 | NA |
| NH ₃ -N (µg/L) | 2 | 71.5 | 0 | NA |
| Total N (µg/L) | 2 | 2017.0 | 0 | NA |
| Lab Cond. (µS/cm) | 1 | 357.0 | 0 | NA |
| Alkal (mg/l CaCO ₃) | 1 | 165.0 | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | ND | 0 | NA |
| Calcium (mg/L) | 1 | 37.0 | 0 | NA |
| Magnesium (mg/L) | 1 | 25.1 | 0 | NA |
| Hardness (mg/L) | 1 | 196.0 | 0 | NA |
| Color (SU) | 1 | 5.0 | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|------------------------------|------|-------|--------|
| 1999 | 40.0 | | |
| 2000 | 45.8 | 44.2 | 44.7 |
| 2006 | | | 41.9 |
| 2007 | | | |
| 2008 | | | |
| 2009 | | | 34.0 |
| 2010 | | | |
| 2011 | | | |
| 2012 | 40.8 | 38.8 | 42.4 |
| 2013 | 34.8 | 40.1 | 40.2 |
| 2014 | | | 34.5 |
| 2015 | | | 36.7 |
| 2016 | 43.6 | 36.2 | 39.0 |
| All Years (Weighted) | 40.8 | 39.5 | 38.5 |
| DLDL Median | 49.4 | 49.7 | 46.2 |
| NCHF Ecoregion Median | 61.1 | 57.3 | 53.2 |

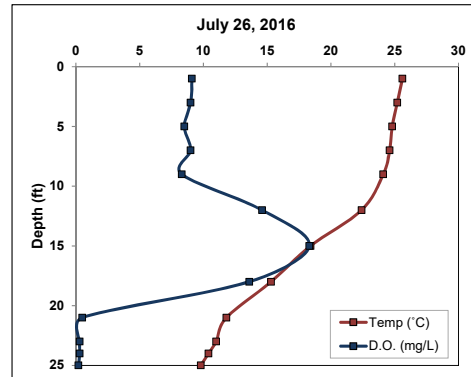
| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | Total Phosphorus (µg/L) | | | |
|------------------------------|----------------|------|--------|------|----------------------|------|--------|------|-------------------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 1999 | | | | | | | | | | | | |
| 2000 | 1 | 9.5 | 1 | 9.5 | 1 | 4.0 | 1 | 4.0 | 8 | 12.0 | 8.0 | 12.0 |
| 2006 | 4 | 8.9 | 2 | 11.5 | | | | | 1 | 18.0 | 1.0 | 18.0 |
| 2007 | 0 | | 0 | | | | | | | | | |
| 2008 | 0 | | 0 | | | | | | | | | |
| 2009 | 2 | 20.0 | 2 | 20.0 | | | | | | | | |
| 2010 | 0 | | 0 | | | | | | | | | |
| 2011 | 0 | | 0 | | | | | | | | | |
| 2012 | 7 | 12.3 | 5 | 11.1 | 3 | 2.3 | 3 | 2.3 | 3 | 12.7 | 3.0 | 12.7 |
| 2013 | 16 | 13.7 | 14 | 12.9 | 2 | 2.6 | 2 | 2.6 | 3 | 11.5 | 2.0 | 8.4 |
| 2014 | 10 | 19.9 | 8 | 19.2 | 0 | | 0 | | 0 | | 0.0 | |
| 2015 | 3 | 15.8 | 2 | 16.5 | 0 | | 0 | | 0 | | 0.0 | |
| 2016 | 5 | 14.2 | 3 | 14.1 | 4 | 1.1 | 2 | 1.8 | 5 | 14.5 | 3.0 | 15.5 |
| All Years (Weighted) | | 14.7 | | 14.6 | | 2.1 | | 2.5 | | 12.9 | | 12.7 |
| DLDL Median | | | | 8.5 | | | | 7.0 | | | | 23.0 |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | 52.0 |

Manomin Lake

Date: 7/26/2016
Time: 9:40
Weather: 0% clouds, no breeze, 75F
Entry: JMB

Max Depth: 26.5
LS Depth (ft): 3.0
LB Depth (ft): 23.0
Secchi Depth (ft): 12.7

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 25.6 | 9.1 | | |
| 3 | 25.2 | 9.0 | | |
| 5 | 24.8 | 8.5 | | |
| 7 | 24.6 | 9.0 | | |
| 9 | 24.1 | 8.3 | | |
| 12 | 22.4 | 14.6 | | |
| 15 | 18.4 | 18.3 | | |
| 18 | 15.3 | 13.6 | | |
| 21 | 11.8 | 0.5 | | |
| 23 | 11.0 | 0.3 | | |
| 24 | 10.4 | 0.3 | | |
| 25 | 9.8 | 0.2 | | |



| Parameter | LS | LB |
|---|---------|-------|
| Total P (µg/L) | 14.30 | 34.60 |
| Dissolved P (µg/L) | ND | 1.90 |
| Chl-a (µg/L) | 1.88 | NA |
| TKN (µg/L) | 569.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 661.00 | NA |
| NH ₃ -N (µg/L) | 27.70 | NA |
| Total N (µg/L) | 1230.00 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | ND | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

Data collected by CJF and EEH (Onterra).

Water Quality Data

| 2016-2017 Parameter | Surface | | Bottom | |
|--|---------|--------|--------|------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 1 | 12.7 | NA | NA |
| Total P (µg/L) | 1 | 14.3 | 1 | 34.6 |
| Dissolved P (µg/L) | 1 | ND | 1 | 1.9 |
| Chl a (µg/L) | 1 | 1.9 | 0 | NA |
| TKN (µg/L) | 1 | 569.0 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 1 | 661.0 | 0 | NA |
| NH ₃ -N (µg/L) | 1 | 27.7 | 0 | NA |
| Total N (µg/L) | 1 | 1230.0 | 0 | NA |
| Lab Cond. (µS/cm) | 0 | NA | 0 | NA |
| Alkal (mg/l CaCO ₃) | 0 | NA | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | ND | 0 | NA |
| Calcium (mg/L) | 0 | NA | 0 | NA |
| Magnesium (mg/L) | 0 | NA | 0 | NA |
| Hardness (mg/L) | 0 | NA | 0 | NA |
| Color (SU) | 0 | NA | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|------------------------------|------|-------|--------|
| 1992 | | | |
| 1993 | 38.7 | 37.7 | 39.1 |
| 1994 | 37.4 | 35.6 | 37.0 |
| 1995 | | | 40.6 |
| 1996 | | | 37.9 |
| 1997 | | | 36.9 |
| 1998 | | | 38.2 |
| 1999 | | | 39.2 |
| 2000 | | | 38.8 |
| 2001 | | | 40.9 |
| 2002 | | | 43.4 |
| 2003 | | | 37.1 |
| 2004 | | | 39.2 |
| 2005 | | | 38.5 |
| 2006 | | | 41.5 |
| 2007 | | | 38.8 |
| 2008 | | | |
| 2009 | | | 36.5 |
| 2010 | | | 31.6 |
| 2011 | | | |
| 2012 | | | |
| 2013 | | | |
| 2014 | | | |
| 2015 | | | 37.5 |
| 2016 | 42.5 | 36.8 | 40.5 |
| All Years (Weighted) | 39.7 | 36.8 | 38.3 |
| DLDL Median | 49.4 | 49.7 | 46.2 |
| NCHF Ecoregion Median | 61.1 | 57.3 | 53.2 |

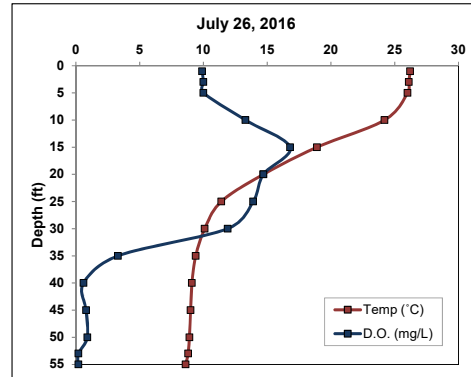
| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | Total Phosphorus (µg/L) | | | |
|------------------------------|----------------|------|--------|------|----------------------|------|--------|------|-------------------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 1992 | 1 | 16.4 | 0 | | 1 | 3.1 | 0 | | 1 | 9.0 | 0 | 0.0 |
| 1993 | 3 | 11.3 | 1 | 14.0 | 3 | 5.5 | 1 | 2.1 | 2 | 10.5 | 1 | 11.0 |
| 1994 | 23 | 14.8 | 13 | 16.2 | 3 | 5.0 | 1 | 1.7 | 3 | 13.3 | 1 | 10.0 |
| 1995 | 11 | 12.7 | 8 | 12.6 | | | | | | | | |
| 1996 | 12 | 14.3 | 8 | 15.2 | | | | | | | | |
| 1997 | 9 | 16.2 | 8 | 16.3 | | | | | | | | |
| 1998 | 13 | 14.7 | 11 | 14.9 | | | | | | | | |
| 1999 | 7 | 13.5 | 6 | 13.9 | | | | | | | | |
| 2000 | 6 | 13.5 | 5 | 14.3 | | | | | | | | |
| 2001 | 4 | 12.3 | 4 | 12.3 | | | | | | | | |
| 2002 | 2 | 10.4 | 2 | 10.4 | | | | | | | | |
| 2003 | 3 | 16.1 | 3 | 16.1 | | | | | | | | |
| 2004 | 3 | 14.1 | 2 | 13.9 | | | | | | | | |
| 2005 | 4 | 14.6 | 4 | 14.6 | | | | | | | | |
| 2006 | 2 | 11.9 | 2 | 11.9 | | | | | | | | |
| 2007 | 3 | 14.3 | 3 | 14.3 | | | | | | | | |
| 2008 | 0 | | 0 | | | | | | | | | |
| 2009 | 2 | 16.8 | 2 | 16.8 | | | | | | | | |
| 2010 | 1 | 23.5 | 1 | 23.5 | | | | | | | | |
| 2011 | 0 | | 0 | | | | | | | | | |
| 2012 | 0 | | 0 | | | | | | | | | |
| 2013 | 0 | | 0 | | | | | | | | | |
| 2014 | 0 | | 0 | | | | | | | | | |
| 2015 | 8 | 13.8 | 4 | 15.7 | | | | | | | | |
| 2016 | 1 | 12.7 | 1 | 12.7 | 1 | 1.9 | 1 | 1.9 | 1 | 14.3 | 1 | 14.3 |
| All Years (Weighted) | | 14.2 | | 14.8 | | 4.6 | | 1.9 | | 12.0 | | 11.8 |
| DLDL Median | | | | 8.5 | | | | 7.0 | | | | 23.0 |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | 52.0 |

Marl Lake

Date: 7/26/2016
Time: 8:42
Weather: 0% clouds, no breeze, 75F
Entry: JMB

Max Depth: 56.2
LS Depth (ft): 3.0
LB Depth (ft): 53.0
Secchi Depth (ft): 14.0

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 26.2 | 9.9 | | |
| 3 | 26.1 | 10.0 | | |
| 5 | 26.0 | 10.0 | | |
| 10 | 24.2 | 13.3 | | |
| 15 | 18.9 | 16.8 | | |
| 20 | 14.7 | 14.7 | | |
| 25 | 11.4 | 13.9 | | |
| 30 | 10.1 | 11.9 | | |
| 35 | 9.4 | 3.3 | | |
| 40 | 9.1 | 0.6 | | |
| 45 | 9.0 | 0.8 | | |
| 50 | 8.9 | 0.9 | | |
| 53 | 8.8 | 0.2 | | |
| 55 | 8.6 | 0.2 | | |



| Parameter | LS | LB |
|---|--------|-------|
| Total P (µg/L) | 9.81 | 17.90 |
| Dissolved P (µg/L) | ND | 2.00 |
| Chl-a (µg/L) | 0.45 | NA |
| TKN (µg/L) | 460.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 450.00 | NA |
| NH ₃ -N (µg/L) | 44.70 | NA |
| Total N (µg/L) | 910.00 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | ND | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

Data collected by EEH and CJF (Onterra). Very weird blueish color, looked like Mt. Dew Baja Blast.

Water Quality Data

| 2016-2017 Parameter | Surface | | Bottom | |
|--|---------|-------|--------|------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 1 | 14.0 | NA | NA |
| Total P (µg/L) | 1 | 9.8 | 1 | 17.9 |
| Dissolved P (µg/L) | 1 | ND | 1 | 2.0 |
| Chl a (µg/L) | 1 | 0.4 | 0 | NA |
| TKN (µg/L) | 1 | 460.0 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 1 | 450.0 | 0 | NA |
| NH ₃ -N (µg/L) | 1 | 44.7 | 0 | NA |
| Total N (µg/L) | 1 | 910.0 | 0 | NA |
| Lab Cond. (µS/cm) | 0 | NA | 0 | NA |
| Alkal (mg/l CaCO ₃) | 0 | NA | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | ND | 0 | NA |
| Calcium (mg/L) | 0 | NA | 0 | NA |
| Magnesium (mg/L) | 0 | NA | 0 | NA |
| Hardness (mg/L) | 0 | NA | 0 | NA |
| Color (SU) | 0 | NA | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|------------------------------|------|-------|--------|
| 1992 | | | |
| 1993 | 34.1 | 40.1 | 51.3 |
| 1994 | 38.7 | 39.2 | 42.9 |
| 1995 | | | 42.0 |
| 1996 | | | 39.6 |
| 1997 | | | 40.3 |
| 1998 | | | 42.7 |
| 1999 | | | 41.0 |
| 2000 | 38.7 | | 44.2 |
| 2001 | | | 41.7 |
| 2002 | | | 38.6 |
| 2003 | | | 38.8 |
| 2004 | | | 40.4 |
| 2005 | | | 39.4 |
| 2006 | | | 42.9 |
| 2007 | 35.8 | | 43.7 |
| 2008 | | | |
| 2009 | | | 42.4 |
| 2010 | | | 43.6 |
| 2011 | | | |
| 2012 | 43.2 | 39.9 | 50.6 |
| 2013 | 34.3 | 36.7 | 39.7 |
| 2014 | 36.6 | 37.2 | 39.4 |
| 2015 | 39.6 | 35.3 | 40.5 |
| 2016 | 37.1 | 22.7 | 39.1 |
| All Years (Weighted) | 37.5 | 36.8 | 41.3 |
| DLDL Median | 49.4 | 49.7 | 46.2 |
| NCHF Ecoregion Median | 61.1 | 57.3 | 53.2 |

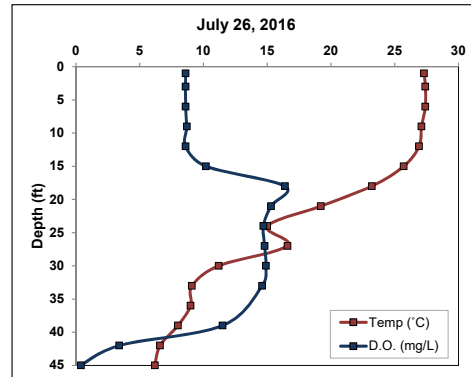
| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | Total Phosphorus (µg/L) | | | |
|------------------------------|----------------|------|--------|------|----------------------|------|--------|------|-------------------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 1992 | 1 | 13.7 | 0 | | 1 | 2.5 | 0 | | 1 | 6.0 | 0 | |
| 1993 | 3 | 11.3 | 1 | 6.0 | 3 | 2.5 | 1 | 2.6 | 3 | 6.3 | 1 | 8.0 |
| 1994 | 23 | 11.9 | 13 | 10.7 | 3 | 2.3 | 1 | 2.4 | 2 | 8.0 | 1 | 11.0 |
| 1995 | 11 | 12.3 | 8 | 11.5 | | | | | 0 | | 0 | |
| 1996 | 12 | 13.1 | 8 | 13.5 | | | | | 0 | | 0 | |
| 1997 | 9 | 13.1 | 8 | 12.8 | | | | | 0 | | 0 | |
| 1998 | 13 | 10.7 | 11 | 10.9 | | | | | 0 | | 0 | |
| 1999 | 7 | 12.6 | 6 | 12.3 | | | | | 0 | | 0 | |
| 2000 | 7 | 10.9 | 6 | 9.8 | | | | | 1 | 11.0 | 1 | 11.0 |
| 2001 | 4 | 11.7 | 4 | 11.7 | | | | | 0 | | 0 | |
| 2002 | 4 | 14.5 | 4 | 14.5 | | | | | 0 | | 0 | |
| 2003 | 3 | 14.3 | 3 | 14.3 | | | | | 0 | | 0 | |
| 2004 | 4 | 13.7 | 3 | 12.8 | | | | | 0 | | 0 | |
| 2005 | 4 | 13.8 | 4 | 13.8 | | | | | 0 | | 0 | |
| 2006 | 3 | 10.8 | 3 | 10.8 | | | | | 0 | | 0 | |
| 2007 | 4 | 10.2 | 4 | 10.2 | | | | | 1 | 9.0 | 1 | 9.0 |
| 2008 | 0 | | 0 | | | | | | 0 | | 0 | |
| 2009 | 2 | 11.1 | 2 | 11.1 | | | | | 0 | | 0 | |
| 2010 | 1 | 10.3 | 1 | 10.3 | | | | | 0 | | 0 | |
| 2011 | 0 | | 0 | | | | | | 0 | | 0 | |
| 2012 | 1 | 6.3 | 1 | 6.3 | 1 | 2.6 | 1 | 2.6 | 1 | 15.0 | 1 | 15.0 |
| 2013 | 10 | 13.8 | 8 | 13.4 | 3 | 1.9 | 3 | 1.9 | 4 | 9.5 | 3 | 8.1 |
| 2014 | 9 | 13.9 | 6 | 13.7 | 3 | 2.0 | 3 | 2.0 | 4 | 8.9 | 3 | 9.5 |
| 2015 | 13 | 12.6 | 5 | 12.7 | 3 | 1.6 | 3 | 1.6 | 4 | 12.1 | 3 | 11.7 |
| 2016 | 1 | 14.0 | 1 | 14.0 | 1 | 0.4 | 1 | 0.4 | 1 | 9.8 | 1 | 9.8 |
| All Years (Weighted) | | 12.4 | | 12.0 | | 2.0 | | 1.9 | | 9.5 | | 10.1 |
| DLDL Median | | | | 8.5 | | | | 7.0 | | | | 23.0 |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | 52.0 |

McCrosen Lake

Date: 7/26/2016
Time: 12:30
Weather: 0% clouds, 85F
Entry: JLW

Max Depth: 45.9
LS Depth (ft): 3.0
LB Depth (ft): 43.0
Secchi Depth (ft): 6.6

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|-----|-------------------|
| 1 | 27.3 | 8.6 | | |
| 3 | 27.4 | 8.6 | 8.4 | |
| 6 | 27.4 | 8.6 | | |
| 9 | 27.1 | 8.7 | | |
| 12 | 26.9 | 8.6 | | |
| 15 | 25.7 | 10.2 | | |
| 18 | 23.2 | 16.4 | | |
| 21 | 19.2 | 15.3 | | |
| 24 | 15.0 | 14.7 | | |
| 27 | 16.6 | 14.8 | | |
| 30 | 11.2 | 14.9 | | |
| 33 | 9.1 | 14.6 | | |
| 36 | 9.0 | | | |
| 39 | 8.0 | 11.5 | | |
| 42 | 6.6 | 3.4 | | |
| 45 | 6.2 | 0.4 | | |



| Parameter | LS | LB |
|---|---------|-------|
| Total P (µg/L) | 9.99 | 23.20 |
| Dissolved P (µg/L) | ND | ND |
| Chl-a (µg/L) | 1.92 | NA |
| TKN (µg/L) | 558.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 875.00 | NA |
| NH ₃ -N (µg/L) | 47.10 | NA |
| Total N (µg/L) | 1433.00 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | ND | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

Data collected by BTB & LJS (Onterra).

Water Quality Data

| Parameter | Surface | | Bottom | |
|--|---------|--------|--------|------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 1 | 6.6 | NA | NA |
| Total P (µg/L) | 1 | 10.0 | 1 | 23.2 |
| Dissolved P (µg/L) | 1 | ND | 1 | ND |
| Chl a (µg/L) | 1 | 1.9 | 0 | NA |
| TKN (µg/L) | 1 | 558.0 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 1 | 875.0 | 0 | NA |
| NH ₃ -N (µg/L) | 1 | 47.1 | 0 | NA |
| Total N (µg/L) | 1 | 1433.0 | 0 | NA |
| Lab Cond. (µS/cm) | 0 | NA | 0 | NA |
| Alkal (mg/l CaCO ₃) | 0 | NA | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | ND | 0 | NA |
| Calcium (mg/L) | 0 | NA | 0 | NA |
| Magnesium (mg/L) | 0 | NA | 0 | NA |
| Hardness (mg/L) | 0 | NA | 0 | NA |
| Color (SU) | 0 | NA | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|-----------------------|------|-------|--------|
| 2016 | 37.3 | 37.0 | 49.9 |
| All Years (Weighted) | 37.3 | 37.0 | 49.9 |
| DLDL Median | 49.4 | 49.7 | 46.2 |
| NCHF Ecoregion Median | 61.1 | 57.3 | 53.2 |

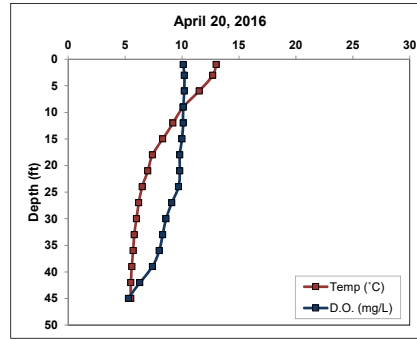
| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | Total Phosphorus (µg/L) | | | |
|-----------------------|----------------|------|--------|------|----------------------|------|--------|------|-------------------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 2016 | 1 | 6.6 | 1 | 6.6 | 1 | 1.9 | 1 | 1.9 | 1 | 10.0 | 1 | 10.0 |
| All Years (Weighted) | | 6.6 | | 6.6 | | 1.9 | | 1.9 | | 10.0 | | 10.0 |
| DLDL Median | | | | 8.5 | | | | 7.0 | | | | 23.0 |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | 52.0 |

Miner Lake

Date: 4/20/2016
Time: 11:30
Weather: 82°F, slight breeze, 95% clouds
Entry: EEH

Max Depth: 49.1
LS Depth (ft): 3.0
LB Depth (ft): 45.0
Secchi Depth (ft): 17.3

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 13.0 | 10.1 | | |
| 3 | 12.7 | 10.2 | | |
| 6 | 11.5 | 10.2 | | |
| 9 | 10.1 | 10.1 | | |
| 12 | 9.2 | 10.1 | | |
| 15 | 8.3 | 10.0 | | |
| 18 | 7.4 | 9.9 | | |
| 21 | 7.0 | 9.8 | | |
| 24 | 6.5 | 9.7 | | |
| 27 | 6.2 | 9.1 | | |
| 30 | 6.0 | 8.6 | | |
| 33 | 5.8 | 8.3 | | |
| 36 | 5.7 | 8.0 | | |
| 39 | 5.6 | 7.4 | | |
| 42 | 5.5 | 6.3 | | |
| 45 | 5.5 | 5.3 | | |



| Parameter | LS | LB |
|---|---------|-------|
| Total P (µg/L) | 15.30 | 23.30 |
| Dissolved P (µg/L) | ND | 1.70 |
| Chl-a (µg/L) | 1.89 | NA |
| TKN (µg/L) | 1130.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 48.30 | NA |
| NH ₄ -N (µg/L) | 276.00 | NA |
| Total N (µg/L) | 1178.30 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | NA | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

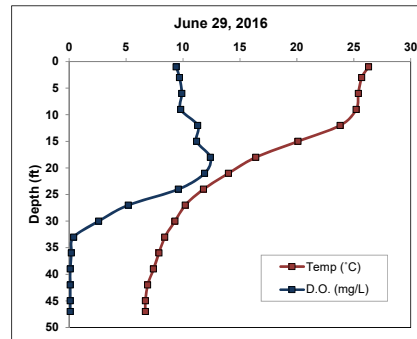
Data collected by JLW and EEH (Onterra).

Miner Lake

Date: 6/29/2016
Time: 12:20
Weather: 40% clouds, no wind, 75D
Entry: JLW

Max Depth: 47.5
LS Depth (ft): 3.0
LB Depth (ft): 45.0
Secchi Depth (ft): 20.4

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 26.3 | 9.4 | | |
| 3 | 25.7 | 9.7 | | |
| 6 | 25.4 | 9.9 | | |
| 9 | 25.2 | 9.8 | | |
| 12 | 23.8 | 11.3 | | |
| 15 | 20.1 | 11.2 | | |
| 18 | 16.4 | 12.4 | | |
| 21 | 14.0 | 11.9 | | |
| 24 | 11.8 | 9.6 | | |
| 27 | 10.2 | 5.2 | | |
| 30 | 9.3 | 2.6 | | |
| 33 | 8.4 | 0.4 | | |
| 36 | 7.9 | 0.2 | | |
| 39 | 7.4 | 0.1 | | |
| 42 | 6.9 | 0.1 | | |
| 45 | 6.7 | 0.1 | | |
| 47 | 6.7 | 0.1 | | |



| Parameter | LS | LB |
|---|-------|--------|
| Total P (µg/L) | 16.90 | 155.00 |
| Dissolved P (µg/L) | NA | NA |
| Chl-a (µg/L) | 0.87 | NA |
| TKN (µg/L) | NA | NA |
| NO ₃ + NO ₂ -N (µg/L) | NA | NA |
| NH ₄ -N (µg/L) | NA | NA |
| Total N (µg/L) | NA | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | NA | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

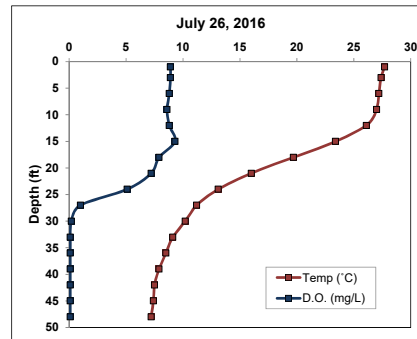
Data collected by TAH & CTB (Onterra).

Miner Lake

Date: 7/26/2016
Time: 11:08
Weather: 0% clouds, 85F
Entry: JLV

Max Depth: 48.2
LS Depth (ft): 3.0
LB Depth (ft): 45.0
Secchi Depth (ft): 10.7

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|-----|-------------------|
| 1 | 27.7 | 8.9 | | |
| 3 | 27.4 | 8.9 | 8.4 | |
| 6 | 27.2 | 8.8 | | |
| 9 | 27.0 | 8.6 | | |
| 12 | 26.1 | 8.8 | | |
| 15 | 23.4 | 9.3 | | |
| 18 | 19.7 | 7.9 | | |
| 21 | 16.0 | 7.2 | | |
| 24 | 13.1 | 5.1 | | |
| 27 | 11.2 | 1.0 | | |
| 30 | 10.2 | 0.2 | | |
| 33 | 9.1 | 0.1 | | |
| 36 | 8.5 | 0.1 | | |
| 39 | 7.9 | 0.1 | | |
| 42 | 7.5 | 0.1 | | |
| 45 | 7.4 | 0.1 | | |
| 48 | 7.2 | 0.1 | | |



| Parameter | LS | LB |
|---|--------|--------|
| Total P (µg/L) | 13.30 | 140.00 |
| Dissolved P (µg/L) | ND | 26.70 |
| Chl-a (µg/L) | 2.56 | NA |
| TKN (µg/L) | 658.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | ND | NA |
| NH ₃ -N (µg/L) | ND | NA |
| Total N (µg/L) | 658.00 | NA |
| Lab Cond. (µS/cm) | 274.00 | NA |
| Lab pH | 8.74 | NA |
| Alkalinity (mg/L CaCO ₃) | 115.00 | NA |
| Total Susp. Solids (mg/L) | ND | NA |
| Calcium (mg/L) | 23.00 | NA |
| Magnesium (mg/L) | 20.10 | NA |
| Hardness (mg/L) | 140.00 | NA |
| Color (SU) | 5.00 | NA |
| Turbidity (NTU) | NA | NA |

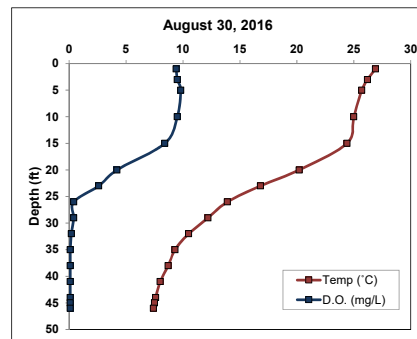
Data collected by BTB & LJS (Onterra).

Miner Lake

Date: 8/30/2016
Time: 13:45
Weather: 10% clouds, 78F, light breeze
Entry: JMB

Max Depth: 47.4
LS Depth (ft): 3.0
LB Depth (ft): 45.0
Secchi Depth (ft): 13.5

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 26.9 | 9.4 | | |
| 3 | 26.2 | 9.5 | | |
| 5 | 25.7 | 9.8 | | |
| 10 | 25.0 | 9.5 | | |
| 15 | 24.4 | 8.4 | | |
| 20 | 20.2 | 4.2 | | |
| 23 | 18.8 | 2.8 | | |
| 26 | 13.9 | 0.4 | | |
| 29 | 12.2 | 0.4 | | |
| 32 | 10.5 | 0.2 | | |
| 35 | 9.3 | 0.1 | | |
| 38 | 8.7 | 0.1 | | |
| 41 | 8.0 | 0.1 | | |
| 44 | 7.6 | 0.1 | | |
| 45 | 7.5 | 0.1 | | |
| 46 | 7.4 | 0.1 | | |



| Parameter | LS | LB |
|---|------|--------|
| Total P (µg/L) | 8.51 | 232.00 |
| Dissolved P (µg/L) | NA | NA |
| Chl-a (µg/L) | 3.81 | NA |
| TKN (µg/L) | NA | NA |
| NO ₃ + NO ₂ -N (µg/L) | NA | NA |
| NH ₃ -N (µg/L) | NA | NA |
| Total N (µg/L) | NA | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | NA | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

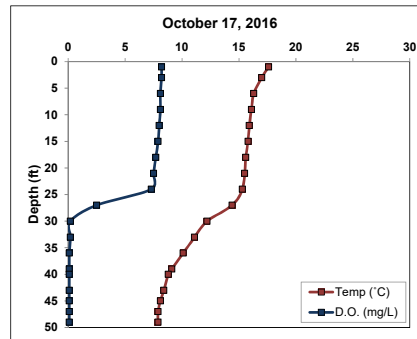
Data collected by TAH and AAH (Onterra).

Miner Lake

Date: 10/17/2016
Time: 11:55
Weather: 68F, 75% clouds, breezy
Entry: JMB

Max Depth: 49.6
LS Depth (ft): 3.0
LB Depth (ft): 47.0
Secchi Depth (ft): 15.1

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 17.6 | 8.2 | | |
| 3 | 17.0 | 8.2 | | |
| 6 | 16.3 | 8.1 | | |
| 9 | 16.1 | 8.1 | | |
| 12 | 15.9 | 8.0 | | |
| 15 | 15.8 | 7.9 | | |
| 18 | 15.6 | 7.7 | | |
| 21 | 15.5 | 7.5 | | |
| 24 | 15.3 | 7.3 | | |
| 27 | 14.4 | 2.5 | | |
| 30 | 12.2 | 0.2 | | |
| 33 | 11.1 | 0.2 | | |
| 36 | 10.1 | 0.1 | | |
| 39 | 9.1 | 0.1 | | |
| 40 | 8.8 | 0.1 | | |
| 43 | 8.4 | 0.1 | | |
| 45 | 8.1 | 0.1 | | |
| 47 | 7.9 | 0.1 | | |
| 49 | 7.9 | 0.1 | | |



| Parameter | LS | LB |
|---|-------|--------|
| Total P (µg/L) | 15.00 | 334.00 |
| Dissolved P (µg/L) | NA | NA |
| Chl-a (µg/L) | 2.10 | NA |
| TKN (µg/L) | NA | NA |
| NO ₃ + NO ₂ -N (µg/L) | NA | NA |
| NH ₃ -N (µg/L) | NA | NA |
| Total N (µg/L) | NA | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | NA | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

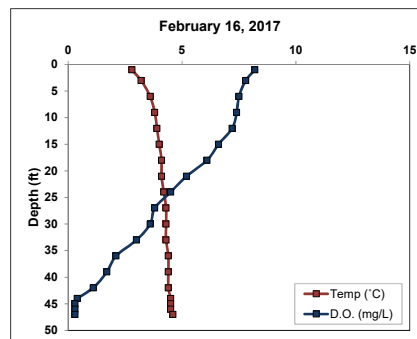
Data collected by JMB and LIS (Onterra).

Miner Lake

Date: 2/16/2017
Time: 12:45
Weather: 100% clouds, 29F 6mph wind
Entry: JMB

Max Depth: 46.7
LS Depth (ft): 3.0
LB Depth (ft): 44.0
Secchi Depth (ft): 22.8

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 2.8 | 8.2 | | |
| 3 | 3.2 | 7.8 | | |
| 6 | 3.6 | 7.5 | | |
| 9 | 3.8 | 7.4 | | |
| 12 | 3.9 | 7.2 | | |
| 15 | 4.0 | 6.6 | | |
| 18 | 4.1 | 6.1 | | |
| 21 | 4.1 | 5.2 | | |
| 24 | 4.2 | 4.5 | | |
| 27 | 4.3 | 3.8 | | |
| 30 | 4.3 | 3.6 | | |
| 33 | 4.3 | 3.0 | | |
| 36 | 4.4 | 2.1 | | |
| 39 | 4.4 | 1.7 | | |
| 42 | 4.4 | 1.1 | | |
| 44 | 4.5 | 0.4 | | |
| 45 | 4.5 | 0.3 | | |
| 46 | 4.5 | 0.3 | | |
| 47 | 4.6 | 0.3 | | |



| Parameter | LS | LB |
|---|--------|-------|
| Total P (µg/L) | 13.40 | 96.10 |
| Dissolved P (µg/L) | 3.00 | 69.00 |
| Chl-a (µg/L) | NA | NA |
| TKN (µg/L) | 824.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | ND | NA |
| NH ₃ -N (µg/L) | 301.00 | NA |
| Total N (µg/L) | NA | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | NA | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

Data collected by TWH & JMB (Onterra). Ice depth: 1.4ft.

Water Quality Data

| 2016-2017 Parameter | Surface | | Bottom | |
|--|---------|-------|--------|-------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 6 | 16.6 | NA | NA |
| Total P (µg/L) | 6 | 13.7 | 6 | 163.4 |
| Dissolved P (µg/L) | 3 | 3.0 | 3 | 32.5 |
| Chl a (µg/L) | 5 | 2.2 | 0 | NA |
| TKN (µg/L) | 3 | 870.7 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 3 | 48.3 | 0 | NA |
| NH ₃ -N (µg/L) | 3 | 288.5 | 0 | NA |
| Total N (µg/L) | 2 | 918.2 | 0 | NA |
| Lab Cond. (µS/cm) | 1 | 274.0 | 0 | NA |
| Alkal (mg/l CaCO ₃) | 1 | 115.0 | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | ND | 0 | NA |
| Calcium (mg/L) | 1 | 23.0 | 0 | NA |
| Magnesium (mg/L) | 1 | 20.1 | 0 | NA |
| Hardness (mg/L) | 1 | 140.0 | 0 | NA |
| Color (SU) | 1 | 5.0 | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|-----------------------|------|-------|--------|
| 1992 | | | 38.1 |
| 1993 | | | 37.9 |
| 1994 | 32.2 | 40.7 | 58.3 |
| 2000 | 35.8 | 37.4 | 38.6 |
| 2013 | | | 33.5 |
| 2014 | | | 32.3 |
| 2015 | | | 37.6 |
| 2016 | 41.0 | 39.2 | 36.9 |
| All Years (Weighted) | 37.8 | 39.0 | 46.2 |
| DLDL Median | 49.4 | 49.7 | 53.2 |
| NCHF Ecoregion Median | 61.1 | 57.3 | |

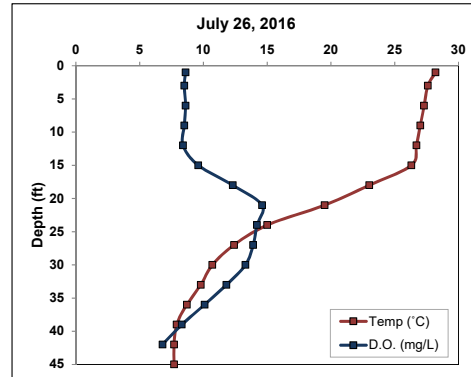
| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | Total Phosphorus (µg/L) | | | |
|-----------------------|----------------|------|--------|------|----------------------|------|--------|------|-------------------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 1992 | 1 | 12.3 | 0 | | 1 | 4.5 | 0 | | 1 | 5.0 | 0.0 | |
| 1993 | 3 | 16.2 | 1 | 15.0 | 3 | 3.9 | 1 | 2.0 | 2 | 7.0 | 1.0 | 7.0 |
| 1994 | 5 | 13.5 | 3 | 15.2 | 3 | 4.3 | 1 | 2.8 | 3 | 8.7 | 1.0 | 7.0 |
| 2000 | 1 | 3.7 | 1 | 3.7 | 1 | 2.0 | 1 | 2.0 | 1 | 9.0 | 1.0 | 9.0 |
| 2013 | 4 | 14.5 | 4 | 14.5 | 0 | | 0 | | 0 | | 0.0 | |
| 2014 | 7 | 21.4 | 5 | 20.7 | 0 | | 0 | | 0 | | 0.0 | |
| 2015 | 2 | 16.8 | 1 | 22.5 | 0 | | 0 | | 0 | | 0.0 | |
| 2016 | 6 | 15.8 | 4 | 15.5 | 5 | 2.2 | 3 | 2.4 | 5 | 13.8 | 3.0 | 12.9 |
| All Years (Weighted) | | 16.1 | | 16.3 | | 3.3 | | 2.3 | | 10.3 | | 10.3 |
| DLDL Median | | | | 8.5 | | | | 7.0 | | | | 23.0 |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | 52.0 |

Nessling Lake

Date: 7/26/2016
Time: 12:54
Weather: 0% clouds, 85F
Entry: JLW

Max Depth: 45.8
LS Depth (ft): 3.0
LB Depth (ft): 42.0
Secchi Depth (ft): 4.6

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|-----|-------------------|
| 1 | 28.2 | 8.6 | | |
| 3 | 27.6 | 8.5 | 8.2 | |
| 6 | 27.3 | 8.6 | | |
| 9 | 27.0 | 8.5 | | |
| 12 | 26.7 | 8.4 | | |
| 15 | 26.3 | 9.6 | | |
| 18 | 23.0 | 12.3 | | |
| 21 | 19.5 | 14.6 | | |
| 24 | 15.0 | 14.2 | | |
| 27 | 12.4 | 13.9 | | |
| 30 | 10.7 | 13.3 | | |
| 33 | 9.8 | 11.8 | | |
| 36 | 8.7 | 10.1 | | |
| 39 | 7.9 | 8.3 | | |
| 42 | 7.7 | 6.8 | | |
| 45 | 7.7 | | | |



| Parameter | LS | LB |
|---|---------|-------|
| Total P (µg/L) | 11.30 | 11.30 |
| Dissolved P (µg/L) | ND | ND |
| Chl-a (µg/L) | 0.83 | NA |
| TKN (µg/L) | 655.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 633.00 | NA |
| NH ₃ -N (µg/L) | 32.60 | NA |
| Total N (µg/L) | 1288.00 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | 2.80 | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

Data collected by BTB & LJS (Onterra).

Water Quality Data

| 2016-2017 Parameter | Surface | | Bottom | |
|--|---------|--------|--------|------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 1 | 4.6 | NA | NA |
| Total P (µg/L) | 1 | 11.3 | 1 | 11.3 |
| Dissolved P (µg/L) | 1 | ND | 1 | ND |
| Chl a (µg/L) | 1 | 0.8 | 0 | NA |
| TKN (µg/L) | 1 | 655.0 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 1 | 633.0 | 0 | NA |
| NH ₃ -N (µg/L) | 1 | 32.6 | 0 | NA |
| Total N (µg/L) | 1 | 1288.0 | 0 | NA |
| Lab Cond. (µS/cm) | 0 | NA | 0 | NA |
| Alkal (mg/l CaCO ₃) | 0 | NA | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | 2.8 | 0 | NA |
| Calcium (mg/L) | 0 | NA | 0 | NA |
| Magnesium (mg/L) | 0 | NA | 0 | NA |
| Hardness (mg/L) | 0 | NA | 0 | NA |
| Color (SU) | 0 | NA | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|-----------------------|------|-------|--------|
| 1992 | | | 47.2 |
| 1993 | | | 47.2 |
| 1994 | 30.0 | 45.9 | 47.2 |
| 2016 | 39.1 | 28.8 | 55.1 |
| All Years (Weighted) | 35.5 | 42.9 | 49.4 |
| DLDL Median | 49.4 | 49.7 | 46.2 |
| NCHF Ecoregion Median | 61.1 | 57.3 | 53.2 |

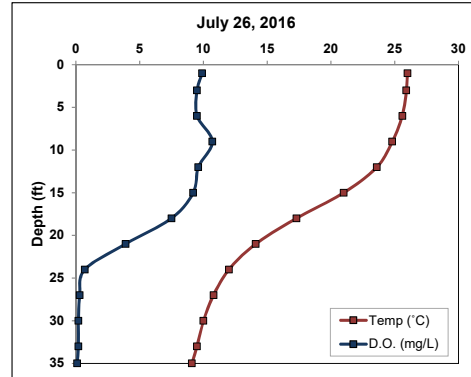
| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | Total Phosphorus (µg/L) | | | |
|-----------------------|----------------|------|--------|------|----------------------|------|--------|------|-------------------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 1992 | 1 | 7.4 | 0 | | 1 | 4.8 | 0 | | 1 | 70.0 | 0 | 0.0 |
| 1993 | 3 | 8.3 | 1 | 8.0 | 3 | 5.5 | 1 | 4.9 | 2 | 8.5 | 1 | 9.0 |
| 1994 | 5 | 8.0 | 1 | 8.0 | 3 | 5.1 | 1 | 4.8 | 3 | 8.0 | 1 | 6.0 |
| 2016 | 1 | 4.6 | 1 | 4.6 | 1 | 0.8 | 1 | 0.8 | 1 | 11.3 | 1 | 11.3 |
| All Years (Weighted) | | 7.7 | | 6.9 | | 4.7 | | 3.5 | | 17.5 | | 8.8 |
| DLDL Median | | | | 8.5 | | | | 7.0 | | | | 23.0 |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | 52.0 |

Lake Orlando

Date: 7/26/2016
Time: 10:22
Weather: 0% clouds, no breeze, 75F
Entry: JMB

Max Depth: 36.2
LS Depth (ft): 3.0
LB Depth (ft): 33.0
Secchi Depth (ft): 16.5

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 26.0 | 9.9 | | |
| 3 | 25.9 | 9.5 | | |
| 6 | 25.6 | 9.5 | | |
| 9 | 24.8 | 10.7 | | |
| 12 | 23.6 | 9.6 | | |
| 15 | 21.0 | 9.2 | | |
| 18 | 17.3 | 7.5 | | |
| 21 | 14.1 | 3.9 | | |
| 24 | 12.0 | 0.7 | | |
| 27 | 10.8 | 0.3 | | |
| 30 | 10.0 | 0.2 | | |
| 33 | 9.5 | 0.2 | | |
| 35 | 9.1 | 0.1 | | |



| Parameter | LS | LB |
|---|---------|--------|
| Total P (µg/L) | 13.00 | 180.00 |
| Dissolved P (µg/L) | ND | 109.00 |
| Chl-a (µg/L) | 2.14 | NA |
| TKN (µg/L) | 565.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 553.00 | NA |
| NH ₃ -N (µg/L) | 35.80 | NA |
| Total N (µg/L) | 1118.00 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | ND | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

Data collected by CJF and EEH (Onterra).

Water Quality Data

| 2016-2017 Parameter | Surface | | Bottom | |
|--|---------|--------|--------|-------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 1 | 16.5 | NA | NA |
| Total P (µg/L) | 1 | 13.0 | 1 | 180.0 |
| Dissolved P (µg/L) | 1 | ND | 1 | 109.0 |
| Chl a (µg/L) | 1 | 2.1 | 0 | NA |
| TKN (µg/L) | 1 | 565.0 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 1 | 553.0 | 0 | NA |
| NH ₃ -N (µg/L) | 1 | 35.8 | 0 | NA |
| Total N (µg/L) | 1 | 1118.0 | 0 | NA |
| Lab Cond. (µS/cm) | 0 | NA | 0 | NA |
| Alkal (mg/l CaCO ₃) | 0 | NA | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | ND | 0 | NA |
| Calcium (mg/L) | 0 | NA | 0 | NA |
| Magnesium (mg/L) | 0 | NA | 0 | NA |
| Hardness (mg/L) | 0 | NA | 0 | NA |
| Color (SU) | 0 | NA | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|------------------------------|------|-------|--------|
| 1993 | 32.2 | 35.3 | 37.2 |
| 1994 | 43.2 | 42.0 | 40.0 |
| 1995 | | | 39.8 |
| 1996 | | | 37.2 |
| 1997 | | | 37.1 |
| 1998 | | | 38.1 |
| 1999 | | | 37.5 |
| 2000 | | | 37.9 |
| 2001 | | | 38.8 |
| 2002 | | | 41.0 |
| 2003 | | | 35.8 |
| 2004 | | | 37.3 |
| 2005 | | | 37.8 |
| 2006 | | | 36.5 |
| 2007 | | | 35.4 |
| 2008 | | | |
| 2009 | | | 39.1 |
| 2010 | | | 33.6 |
| 2011 | | | |
| 2012 | | | |
| 2013 | | | |
| 2014 | | | |
| 2015 | | | 40.1 |
| 2016 | 41.1 | 38.1 | 36.7 |
| All Years (Weighted) | 39.6 | 38.9 | 38.2 |
| DLDL Median | 49.4 | 49.7 | 46.2 |
| NCHF Ecoregion Median | 61.1 | 57.3 | 53.2 |

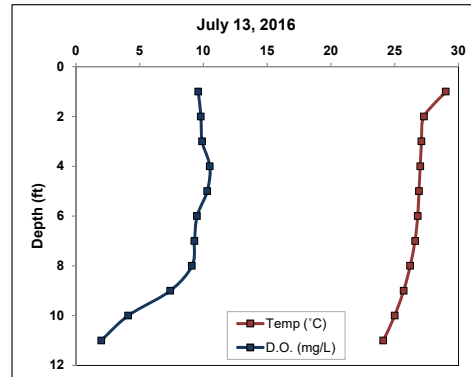
| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | Total Phosphorus (µg/L) | | | |
|------------------------------|----------------|------|--------|------|----------------------|------|--------|------|-------------------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 1993 | 3 | 15.1 | 1 | 16.0 | 3 | 2.1 | 1 | 1.6 | 3 | 12.3 | 1.0 | 7.0 |
| 1994 | 24 | 14.5 | 14 | 13.2 | 3 | 2.9 | 1 | 3.2 | 3 | 11.7 | 1.0 | 15.0 |
| 1995 | 11 | 13.4 | 8 | 13.3 | | | | | | | | |
| 1996 | 12 | 15.1 | 8 | 16.0 | | | | | | | | |
| 1997 | 9 | 15.9 | 8 | 16.1 | | | | | | | | |
| 1998 | 13 | 14.7 | 11 | 15.0 | | | | | | | | |
| 1999 | 7 | 15.5 | 6 | 15.6 | | | | | | | | |
| 2000 | 7 | 14.6 | 6 | 15.3 | | | | | | | | |
| 2001 | 4 | 14.3 | 4 | 14.3 | | | | | | | | |
| 2002 | 4 | 12.3 | 4 | 12.3 | | | | | | | | |
| 2003 | 3 | 17.6 | 3 | 17.6 | | | | | | | | |
| 2004 | 4 | 16.0 | 3 | 15.8 | | | | | | | | |
| 2005 | 4 | 15.3 | 4 | 15.3 | | | | | | | | |
| 2006 | 3 | 16.8 | 3 | 16.8 | | | | | | | | |
| 2007 | 3 | 18.1 | 3 | 18.1 | | | | | | | | |
| 2008 | 0 | | 0 | | | | | | | | | |
| 2009 | 2 | 14.0 | 2 | 14.0 | | | | | | | | |
| 2010 | 1 | 20.5 | 1 | 20.5 | | | | | | | | |
| 2011 | 0 | | 0 | | | | | | | | | |
| 2012 | 0 | | 0 | | | | | | | | | |
| 2013 | 0 | | 0 | | | | | | | | | |
| 2014 | 0 | | 0 | | | | | | | | | |
| 2015 | 7 | 16.9 | 4 | 13.1 | | | | | | | | |
| 2016 | 1 | 16.5 | 1 | 16.5 | 1 | 2.1 | 1 | 2.1 | 1 | 13.0 | 1.0 | 13.0 |
| All Years (Weighted) | | 15.1 | | 14.9 | | 2.4 | | 2.3 | | 12.1 | | 11.7 |
| DLDL Median | | | | 8.5 | | | | 7.0 | | | | 23.0 |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | 52.0 |

Ottman Lake

Date: 7/13/2016
Time: 13:47
Weather: 40% clouds, 88F
Entry: JLW

Max Depth: 12.1
LS Depth (ft): 3.0
LB Depth (ft): 9.0
Secchi Depth (ft): 7.2

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 29.0 | 9.6 | | |
| 2 | 27.3 | 9.8 | | |
| 3 | 27.1 | 9.9 | | |
| 4 | 27.0 | 10.5 | | |
| 5 | 26.9 | 10.3 | | |
| 6 | 26.8 | 9.5 | | |
| 7 | 26.6 | 9.3 | | |
| 8 | 26.2 | 9.1 | | |
| 9 | 25.7 | 7.4 | | |
| 10 | 25.0 | 4.1 | | |
| 11 | 24.1 | 2.0 | | |



| Parameter | LS | LB |
|---|--------|-------|
| Total P (µg/L) | 24.10 | 26.20 |
| Dissolved P (µg/L) | ND | ND |
| Chl-a (µg/L) | 3.14 | NA |
| TKN (µg/L) | 963.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | ND | NA |
| NH ₃ -N (µg/L) | 16.50 | NA |
| Total N (µg/L) | 963.00 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | 2.00 | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

Data collected by TWH & CJF (Onterra).

Water Quality Data

| 2016-2017 Parameter | Surface | | Bottom | |
|--|---------|-------|--------|------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 1 | 7.2 | NA | NA |
| Total P (µg/L) | 1 | 24.1 | 1 | 26.2 |
| Dissolved P (µg/L) | 1 | ND | 1 | ND |
| Chl a (µg/L) | 1 | 3.1 | 0 | NA |
| TKN (µg/L) | 1 | 963.0 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 1 | ND | 0 | NA |
| NH ₃ -N (µg/L) | 1 | 16.5 | 0 | NA |
| Total N (µg/L) | 1 | 963.0 | 0 | NA |
| Lab Cond. (µS/cm) | 0 | NA | 0 | NA |
| Alkal (mg/l CaCO ₃) | 0 | NA | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | 2.0 | 0 | NA |
| Calcium (mg/L) | 0 | NA | 0 | NA |
| Magnesium (mg/L) | 0 | NA | 0 | NA |
| Hardness (mg/L) | 0 | NA | 0 | NA |
| Color (SU) | 0 | NA | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|-----------------------|------|-------|--------|
| 1992 | | | |
| 1993 | | | |
| 1994 | | | 38.6 |
| 2016 | 50.0 | 41.8 | 48.7 |
| All Years (Weighted) | 50.0 | 41.8 | 42.8 |
| DLDL Median | 49.4 | 49.7 | 46.2 |
| NCHF Ecoregion Median | 61.1 | 57.3 | 53.2 |

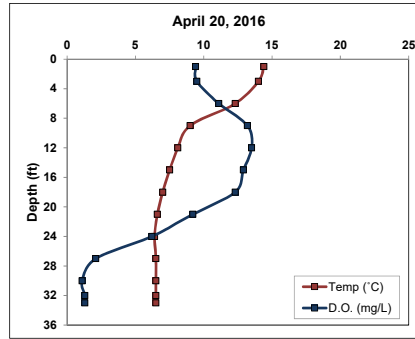
| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | Total Phosphorus (µg/L) | | | |
|-----------------------|----------------|------|--------|------|----------------------|------|--------|------|-------------------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 1992 | 1 | 7.3 | 0 | | 1 | 31.7 | 0 | | 0 | | 0.0 | |
| 1993 | 0 | | 0 | | | | | | 0 | | 0.0 | |
| 1994 | 2 | 13.0 | 1 | 14.5 | | | | | | | | |
| 2016 | 1 | 7.2 | 1 | 7.2 | 1 | 3.1 | 1 | 3.1 | 1 | 24.1 | 1.0 | 24.1 |
| All Years (Weighted) | | 10.1 | | 10.9 | | 17.4 | | 3.1 | | 24.1 | | 24.1 |
| DLDL Median | | | | 8.5 | | | | 7.0 | | | | 23.0 |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | 52.0 |

Pope Lake

Date: 4/20/2016
Time: 14:00
Weather: 95% clouds, 64F, slight breeze
Entry: EEH

Max Depth: 34.9
LS Depth (ft): 3.0
LB Depth (ft): 32.0
Secchi Depth (ft): 8.1

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 14.4 | 9.4 | | |
| 3 | 14.0 | 9.5 | | |
| 6 | 12.3 | 11.1 | | |
| 9 | 9.0 | 13.2 | | |
| 12 | 8.1 | 13.5 | | |
| 15 | 7.5 | 12.9 | | |
| 18 | 7.0 | 12.3 | | |
| 21 | 6.6 | 9.2 | | |
| 24 | 6.4 | 6.2 | | |
| 27 | 6.5 | 2.1 | | |
| 30 | 6.5 | 1.1 | | |
| 32 | 6.5 | 1.3 | | |
| 33 | 6.5 | 1.3 | | |



| Parameter | LS | LB |
|---|---------|-------|
| Total P (µg/L) | 18.00 | 26.80 |
| Dissolved P (µg/L) | ND | ND |
| Chl-a (µg/L) | 2.75 | NA |
| TKN (µg/L) | 347.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 1170.00 | NA |
| NH ₃ -N (µg/L) | 19.90 | NA |
| Total N (µg/L) | 1517.00 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | NA | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

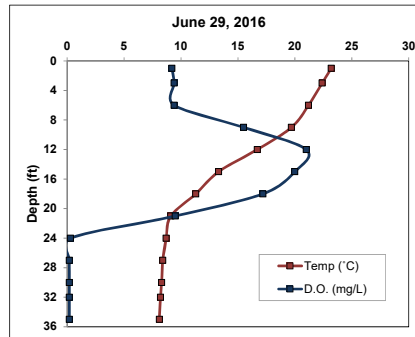
Data collected by JLW and EEH (Onterra).

Pope Lake

Date: 6/29/2016
Time: 10:30
Weather: 10% clouds, breezy, 70F
Entry: JLW

Max Depth: 35.2
LS Depth (ft): 3.0
LB Depth (ft): 33.0
Secchi Depth (ft): 9.0

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 23.2 | 9.2 | | |
| 3 | 22.4 | 9.4 | | |
| 6 | 21.2 | 9.4 | | |
| 9 | 19.7 | 15.5 | | |
| 12 | 16.7 | 21.0 | | |
| 15 | 13.3 | 20.0 | | |
| 18 | 11.3 | 17.2 | | |
| 21 | 9.1 | 9.5 | | |
| 24 | 8.7 | 0.3 | | |
| 27 | 8.4 | 0.2 | | |
| 30 | 8.3 | 0.2 | | |
| 32 | 8.2 | 0.2 | | |
| 35 | 8.1 | 0.2 | | |



| Parameter | LS | LB |
|---|-------|-------|
| Total P (µg/L) | 20.10 | 92.10 |
| Dissolved P (µg/L) | NA | NA |
| Chl-a (µg/L) | 4.87 | NA |
| TKN (µg/L) | NA | NA |
| NO ₃ + NO ₂ -N (µg/L) | NA | NA |
| NH ₃ -N (µg/L) | NA | NA |
| Total N (µg/L) | NA | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | NA | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

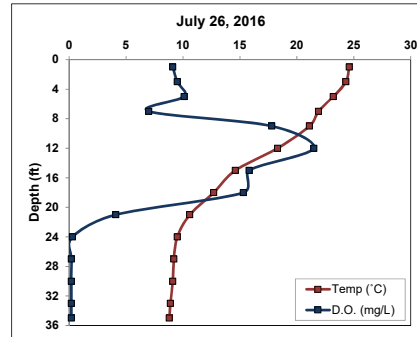
Data collected by TWH & CTB (Onterra). DO was 200+% saturated at 12ft and 15ft.

Pope Lake

Date: 7/26/2016
Time: 9:13
Weather: 0% clouds, no breeze, 75F
Entry: JMB

Max Depth: 35.8
LS Depth (ft): 3.0
LB Depth (ft): 33.0
Secchi Depth (ft): 10.6

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 24.6 | 9.1 | | |
| 3 | 24.3 | 9.5 | | |
| 5 | 23.2 | 10.1 | | |
| 7 | 21.9 | 7.0 | | |
| 9 | 21.1 | 17.8 | | |
| 12 | 18.3 | 21.5 | | |
| 15 | 14.6 | 15.3 | | |
| 18 | 12.7 | 15.3 | | |
| 21 | 10.6 | 4.1 | | |
| 24 | 9.5 | 0.3 | | |
| 27 | 9.2 | 0.2 | | |
| 30 | 9.1 | 0.2 | | |
| 33 | 8.9 | 0.2 | | |
| 35 | 8.8 | 0.2 | | |



| Parameter | LS | LB |
|---|---------|-------|
| Total P (µg/L) | 18.90 | 98.60 |
| Dissolved P (µg/L) | ND | 2.60 |
| Chl-a (µg/L) | NA | NA |
| TKN (µg/L) | 400.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 794.00 | NA |
| NH ₃ -N (µg/L) | 25.30 | NA |
| Total N (µg/L) | 1194.00 | NA |
| Lab Cond. (µS/cm) | 333.00 | NA |
| Lab pH | 8.34 | NA |
| Alkalinity (mg/L CaCO ₃) | 162.00 | NA |
| Total Susp. Solids (mg/L) | 2.00 | NA |
| Calcium (mg/L) | 34.00 | NA |
| Magnesium (mg/L) | 24.20 | NA |
| Hardness (mg/L) | 185.00 | NA |
| Color (SU) | 10.00 | NA |
| Turbidity (NTU) | NA | NA |

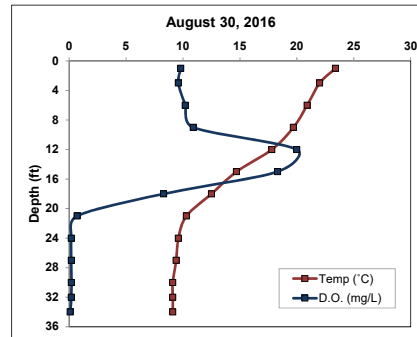
Data collected by CJF and EEH (Onterra). At 7ft probe struggled to stabilize.

Pope Lake

Date: 8/30/2016
Time: 10:45
Weather: 78F, light breeze, 10% clouds
Entry: JMB

Max Depth: 34.6
LS Depth (ft): 3.0
LB Depth (ft): 32.0
Secchi Depth (ft): 13.0

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 23.4 | 9.8 | | |
| 3 | 22.0 | 9.5 | | |
| 6 | 20.9 | 10.2 | | |
| 9 | 19.7 | 10.9 | | |
| 12 | 17.8 | 20.0 | | |
| 15 | 14.7 | 18.3 | | |
| 18 | 12.5 | 8.3 | | |
| 21 | 10.3 | 0.7 | | |
| 24 | 9.6 | 0.2 | | |
| 27 | 9.4 | 0.2 | | |
| 30 | 9.1 | 0.2 | | |
| 32 | 9.1 | 0.2 | | |
| 34 | 9.1 | 0.1 | | |



| Parameter | LS | LB |
|---|-------|--------|
| Total P (µg/L) | 18.90 | 158.00 |
| Dissolved P (µg/L) | NA | NA |
| Chl-a (µg/L) | 36.10 | NA |
| TKN (µg/L) | NA | NA |
| NO ₃ + NO ₂ -N (µg/L) | NA | NA |
| NH ₃ -N (µg/L) | NA | NA |
| Total N (µg/L) | NA | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | NA | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

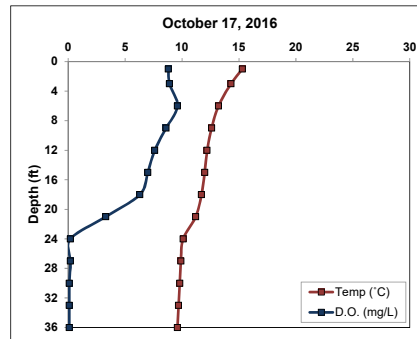
Data collected by TAH and AAH (Onterra). Depth of 12ft was 20+ for DO.

Pope Lake

Date: 10/17/2016
Time: 9:40
Weather: 100% clouds, 70F
Entry: JMB

Max Depth: 36.4
LS Depth (ft): 3.0
LB Depth (ft): 34.0
Secchi Depth (ft): 7.7

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 15.3 | 8.8 | | |
| 3 | 14.3 | 8.9 | | |
| 6 | 13.2 | 9.6 | | |
| 9 | 12.6 | 8.6 | | |
| 12 | 12.2 | 7.6 | | |
| 15 | 12.0 | 7.0 | | |
| 18 | 11.7 | 6.3 | | |
| 21 | 11.2 | 3.3 | | |
| 24 | 10.1 | 0.2 | | |
| 27 | 9.9 | 0.2 | | |
| 30 | 9.8 | 0.1 | | |
| 33 | 9.7 | 0.1 | | |
| 36 | 9.6 | 0.1 | | |



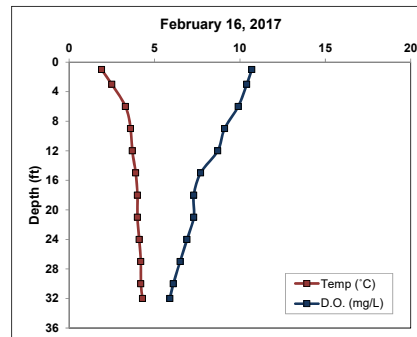
| Parameter | LS | LB |
|---|-------|--------|
| Total P (µg/L) | 18.30 | 198.00 |
| Dissolved P (µg/L) | NA | NA |
| Chl-a (µg/L) | 11.40 | NA |
| TKN (µg/L) | NA | NA |
| NO ₃ + NO ₂ -N (µg/L) | NA | NA |
| NH ₄ -N (µg/L) | NA | NA |
| Total N (µg/L) | NA | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | NA | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

Pope Lake

Date: 2/16/2017
Time: 11:00
Weather: 100% clouds, 25F, 5mph wind
Entry: JMB

Max Depth: 35.4
LS Depth (ft): 3.0
LB Depth (ft): 32.0
Secchi Depth (ft): 13.9

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 1.9 | 10.7 | | |
| 3 | 2.5 | 10.4 | | |
| 6 | 3.3 | 9.9 | | |
| 9 | 3.6 | 9.1 | | |
| 12 | 3.7 | 8.7 | | |
| 15 | 3.9 | 7.7 | | |
| 18 | 4.0 | 7.3 | | |
| 21 | 4.0 | 7.3 | | |
| 24 | 4.1 | 6.9 | | |
| 27 | 4.2 | 6.5 | | |
| 30 | 4.2 | 6.1 | | |
| 32 | 4.3 | 5.9 | | |



| Parameter | LS | LB |
|---|---------|-------|
| Total P (µg/L) | 14.40 | 17.70 |
| Dissolved P (µg/L) | 4.20 | 5.60 |
| Chl-a (µg/L) | NA | NA |
| TKN (µg/L) | 292.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 1740.00 | NA |
| NH ₄ -N (µg/L) | 127.00 | NA |
| Total N (µg/L) | NA | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | NA | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

Data collected by TWH & JMB (Onterra). Ice depth: 1.2ft.

Water Quality Data

| 2016-2017 Parameter | Surface | | Bottom | |
|--|---------|--------|--------|------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 6 | 10.4 | NA | NA |
| Total P (µg/L) | 6 | 17.4 | 6 | 98.5 |
| Dissolved P (µg/L) | 3 | 4.2 | 3 | 4.1 |
| Chl a (µg/L) | 4 | 13.8 | 0 | NA |
| TKN (µg/L) | 3 | 346.3 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 3 | 1234.7 | 0 | NA |
| NH ₃ -N (µg/L) | 3 | 57.4 | 0 | NA |
| Total N (µg/L) | 2 | 1355.5 | 0 | NA |
| Lab Cond. (µS/cm) | 1 | 333.0 | 0 | NA |
| Alkal (mg/l CaCO ₃) | 1 | 162.0 | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | 2.0 | 0 | NA |
| Calcium (mg/L) | 1 | 34.0 | 0 | NA |
| Magnesium (mg/L) | 1 | 24.2 | 0 | NA |
| Hardness (mg/L) | 1 | 185.0 | 0 | NA |
| Color (SU) | 1 | 10.0 | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|-----------------------|------|-------|--------|
| 1992 | | | |
| 1993 | 38.7 | 35.8 | 40.0 |
| 1994 | 38.7 | 36.4 | 42.5 |
| 1995 | | | 43.6 |
| 1996 | | | 42.6 |
| 1997 | | | 41.6 |
| 1998 | | | 42.3 |
| 1999 | 35.7 | | 44.6 |
| 2000 | | | 41.5 |
| 2001 | | | 44.7 |
| 2002 | | | 50.7 |
| 2003 | | | 39.3 |
| 2004 | | | 44.6 |
| 2005 | | | 44.7 |
| 2006 | | | 46.3 |
| 2007 | | | 44.6 |
| 2008 | | | |
| 2009 | | | 36.6 |
| 2010 | | | 32.9 |
| 2011 | | | |
| 2012 | | | |
| 2013 | | | |
| 2014 | | | |
| 2015 | 47.4 | 41.1 | 41.8 |
| 2016 | 46.9 | 53.7 | 44.2 |
| All Years (Weighted) | 41.7 | 48.9 | 42.8 |
| DLDL Median | 49.4 | 49.7 | 46.2 |
| NCHF Ecoregion Median | 61.1 | 57.3 | 53.2 |

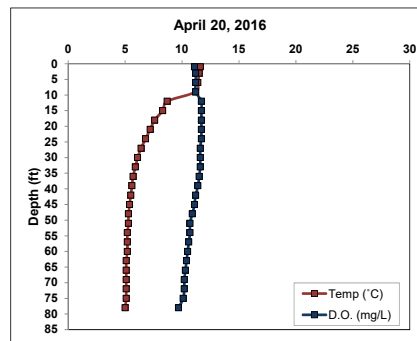
| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | Total Phosphorus (µg/L) | | | |
|-----------------------|----------------|------|--------|------|----------------------|------|--------|------|-------------------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 1992 | 1 | 16.2 | 0 | | 1 | 4.4 | 0 | | 1 | 9.0 | 0.0 | |
| 1993 | 3 | 10.3 | 1 | 13.1 | 3 | 4.7 | 1 | 1.7 | 2 | 11.0 | 1.0 | 11.0 |
| 1994 | 24 | 10.9 | 14 | 11.1 | 3 | 4.2 | 1 | 1.8 | 3 | 10.3 | 1.0 | 11.0 |
| 1995 | 11 | 10.6 | 8 | 10.3 | | | | | | | | |
| 1996 | 12 | 10.4 | 8 | 10.9 | | | | | | | | |
| 1997 | 9 | 11.9 | 8 | 11.8 | | | | | | | | |
| 1998 | 13 | 11.0 | 11 | 11.2 | | | | | | | | |
| 1999 | 7 | 9.2 | 6 | 9.5 | | | | | 11 | 8.9 | 11.0 | 8.9 |
| 2000 | 7 | 11.8 | 6 | 11.8 | | | | | | | | |
| 2001 | 4 | 9.5 | 4 | 9.5 | | | | | | | | |
| 2002 | 4 | 6.3 | 4 | 6.3 | | | | | | | | |
| 2003 | 3 | 13.8 | 3 | 13.8 | | | | | | | | |
| 2004 | 4 | 10.1 | 3 | 9.6 | | | | | | | | |
| 2005 | 4 | 9.5 | 4 | 9.5 | | | | | | | | |
| 2006 | 3 | 8.5 | 3 | 8.5 | | | | | | | | |
| 2007 | 3 | 9.6 | 3 | 9.6 | | | | | | | | |
| 2008 | 0 | | 0 | | | | | | | | | |
| 2009 | 2 | 16.6 | 2 | 16.6 | | | | | | | | |
| 2010 | 1 | 21.5 | 1 | 21.5 | | | | | | | | |
| 2011 | 0 | | 0 | | | | | | | | | |
| 2012 | 0 | | 0 | | | | | | | | | |
| 2013 | 0 | | 0 | | | | | | | | | |
| 2014 | 0 | | 0 | | | | | | | | | |
| 2015 | 12 | 11.5 | 4 | 11.6 | 3 | 2.9 | 3 | 2.9 | 4 | 19.6 | 3.0 | 20.1 |
| 2016 | 5 | 9.2 | 2 | 9.8 | 7 | 9.5 | 5 | 10.5 | 8 | 18.8 | 6.0 | 19.4 |
| All Years (Weighted) | | 10.8 | | 10.8 | | 6.3 | | 6.5 | | 13.4 | | 13.5 |
| DLDL Median | | | | 8.5 | | | | 7.0 | | | | 23.0 |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | 52.0 |

Rainbow Lake

Date: 4/20/2016
Time: 12:32
Weather: 95% clouds, 64F, breezy
Entry: EEH

Max Depth: 82.3
LS Depth (ft): 3.0
LB Depth (ft): 81.0
Secchi Depth (ft): 12.5

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 11.6 | 11.1 | | |
| 3 | 11.5 | 11.2 | | |
| 6 | 11.4 | 11.2 | | |
| 9 | 11.2 | 11.2 | | |
| 12 | 8.7 | 11.7 | | |
| 15 | 8.3 | 11.7 | | |
| 18 | 7.6 | 11.7 | | |
| 21 | 7.2 | 11.7 | | |
| 24 | 6.8 | 11.7 | | |
| 27 | 6.4 | 11.6 | | |
| 30 | 6.1 | 11.6 | | |
| 33 | 5.9 | 11.6 | | |
| 36 | 5.7 | 11.5 | | |
| 39 | 5.6 | 11.4 | | |
| 42 | 5.5 | 11.2 | | |
| 45 | 5.4 | 11.1 | | |
| 48 | 5.3 | 10.9 | | |
| 51 | 5.3 | 10.7 | | |
| 54 | 5.2 | 10.7 | | |
| 57 | 5.2 | 10.6 | | |
| 60 | 5.2 | 10.5 | | |
| 63 | 5.1 | 10.4 | | |
| 66 | 5.1 | 10.3 | | |
| 69 | 5.1 | 10.2 | | |
| 72 | 5.1 | 10.2 | | |
| 75 | 5.1 | 10.1 | | |
| 78 | 5.0 | 9.7 | | |
| 81 | 5.0 | 7.3 | | |



| Parameter | LS | LB |
|---|---------|-------|
| Total P (µg/L) | 10.60 | 15.70 |
| Dissolved P (µg/L) | ND | ND |
| Chl-a (µg/L) | 2.58 | NA |
| TKN (µg/L) | 920.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 826.00 | NA |
| NH ₃ -N (µg/L) | 405.00 | NA |
| Total N (µg/L) | 1746.00 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | NA | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

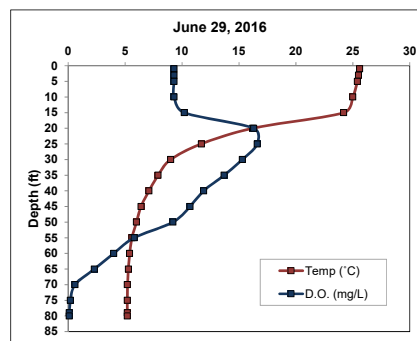
Data collected by JLW and EEH (Onterra).

Rainbow Lake

Date: 6/29/2016
Time: 14:00
Weather: 77F, breezy
Entry: JLW

Max Depth: 81.2
LS Depth (ft): 3.0
LB Depth (ft): 79.0
Secchi Depth (ft): 10.5

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 25.6 | 9.3 | | |
| 3 | 25.5 | 9.3 | | |
| 5 | 25.4 | 9.3 | | |
| 10 | 25.0 | 9.3 | | |
| 15 | 24.2 | 10.2 | | |
| 20 | 16.2 | 16.3 | | |
| 25 | 11.7 | 16.6 | | |
| 30 | 9.0 | 15.3 | | |
| 35 | 7.9 | 13.7 | | |
| 40 | 7.1 | 11.9 | | |
| 45 | 6.4 | 10.7 | | |
| 50 | 6.0 | 9.2 | | |
| 55 | 5.6 | 5.8 | | |
| 60 | 5.4 | 4.0 | | |
| 65 | 5.3 | 2.3 | | |
| 70 | 5.2 | 0.6 | | |
| 75 | 5.2 | 0.2 | | |
| 79 | 5.2 | 0.1 | | |
| 80 | 5.2 | 0.1 | | |



| Parameter | LS | LB |
|---|-------|-------|
| Total P (µg/L) | 13.00 | 36.20 |
| Dissolved P (µg/L) | NA | NA |
| Chl-a (µg/L) | ND | NA |
| TKN (µg/L) | NA | NA |
| NO ₃ + NO ₂ -N (µg/L) | NA | NA |
| NH ₃ -N (µg/L) | NA | NA |
| Total N (µg/L) | NA | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | NA | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

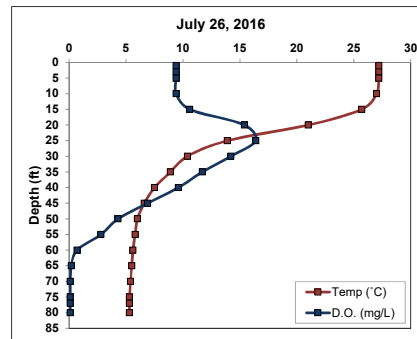
Data collected by TAH & CTB (Onterra).

Rainbow Lake

Date: 7/26/2016
Time: 12:42
Weather: 30% clouds, slight breeze, 85F
Entry: JMB

Max Depth: 80.7
LS Depth (ft): 3.0
LB Depth (ft): 77.0
Secchi Depth (ft): 7.3

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 27.2 | 9.4 | | |
| 3 | 27.2 | 9.4 | | |
| 5 | 27.2 | 9.4 | | |
| 10 | 27.0 | 9.4 | | |
| 15 | 25.7 | 10.6 | | |
| 20 | 21.0 | 15.4 | | |
| 25 | 13.9 | 16.4 | | |
| 30 | 10.4 | 14.2 | | |
| 35 | 8.9 | 11.7 | | |
| 40 | 7.5 | 9.6 | | |
| 45 | 6.6 | 6.9 | | |
| 50 | 6.0 | 4.3 | | |
| 55 | 5.8 | 2.8 | | |
| 60 | 5.6 | 0.7 | | |
| 65 | 5.5 | 0.2 | | |
| 70 | 5.4 | 0.1 | | |
| 75 | 5.3 | 0.1 | | |
| 77 | 5.3 | 0.1 | | |
| 80 | 5.3 | 0.1 | | |



| Parameter | LS | LB |
|---|---------|-------|
| Total P (µg/L) | 15.30 | 37.50 |
| Dissolved P (µg/L) | ND | ND |
| Chl-a (µg/L) | 3.32 | NA |
| TKN (µg/L) | 581.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 615.00 | NA |
| NH ₄ -N (µg/L) | 26.60 | NA |
| Total N (µg/L) | 1196.00 | NA |
| Lab Cond. (µS/cm) | 390.00 | NA |
| Lab pH | 8.40 | NA |
| Alkalinity (mg/L CaCO ₃) | 153.00 | NA |
| Total Susp. Solids (mg/L) | 3.20 | NA |
| Calcium (mg/L) | 32.50 | NA |
| Magnesium (mg/L) | 26.70 | NA |
| Hardness (mg/L) | 191.00 | NA |
| Color (SU) | 5.00 | NA |
| Turbidity (NTU) | NA | NA |

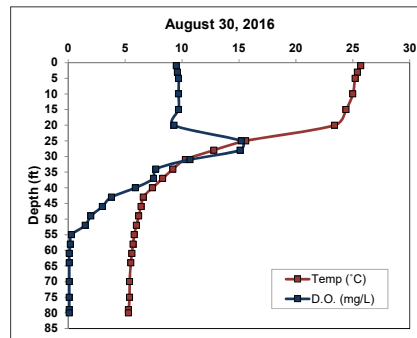
Data collected by CJF and EEH (Onterra).

Rainbow Lake

Date: 8/30/2016
Time: 12:00
Weather: 10% clouds, 78F, light breeze
Entry: JMB

Max Depth: 81.0
LS Depth (ft): 3.0
LB Depth (ft): 79.0
Secchi Depth (ft): 6.4

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 25.7 | 9.5 | | |
| 3 | 25.4 | 9.6 | | |
| 5 | 25.2 | 9.7 | | |
| 10 | 25.0 | 9.7 | | |
| 15 | 24.4 | 9.7 | | |
| 20 | 23.4 | 9.3 | | |
| 25 | 15.6 | 15.2 | | |
| 28 | 12.8 | 15.1 | | |
| 31 | 10.3 | 10.7 | | |
| 34 | 9.2 | 7.7 | | |
| 37 | 8.3 | 7.5 | | |
| 40 | 7.4 | 5.9 | | |
| 43 | 6.6 | 3.8 | | |
| 46 | 6.4 | 3.0 | | |
| 49 | 6.2 | 2.0 | | |
| 52 | 6.0 | 1.5 | | |
| 55 | 5.8 | 0.3 | | |
| 58 | 5.7 | 0.2 | | |
| 61 | 5.6 | 0.1 | | |
| 64 | 5.5 | 0.1 | | |
| 70 | 5.4 | 0.1 | | |
| 75 | 5.4 | 0.1 | | |
| 79 | 5.3 | 0.1 | | |
| 80 | 5.3 | 0.1 | | |



| Parameter | LS | LB |
|---|------|-------|
| Total P (µg/L) | 9.83 | 43.30 |
| Dissolved P (µg/L) | NA | NA |
| Chl-a (µg/L) | 2.67 | NA |
| TKN (µg/L) | NA | NA |
| NO ₃ + NO ₂ -N (µg/L) | NA | NA |
| NH ₄ -N (µg/L) | NA | NA |
| Total N (µg/L) | NA | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | NA | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

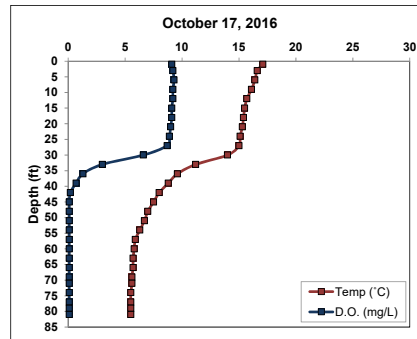
Data collected by TAH and AAH (Onterra).

Rainbow Lake

Date: 10/17/2016
Time: 12:35
Weather: 100% clouds, 70F
Entry: JMB

Max Depth: 81.1
LS Depth (ft): 3.0
LB Depth (ft): 79.0
Secchi Depth (ft): 10.2

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 17.1 | 9.1 | | |
| 3 | 16.6 | 9.2 | | |
| 6 | 16.4 | 9.3 | | |
| 9 | 16.1 | 9.2 | | |
| 12 | 15.7 | 9.2 | | |
| 15 | 15.5 | 9.1 | | |
| 18 | 15.4 | 9.1 | | |
| 21 | 15.3 | 9.0 | | |
| 24 | 15.1 | 8.9 | | |
| 27 | 15.0 | 8.7 | | |
| 30 | 14.0 | 6.6 | | |
| 33 | 11.2 | 3.0 | | |
| 36 | 9.6 | 1.3 | | |
| 39 | 8.8 | 0.7 | | |
| 42 | 8.0 | 0.2 | | |
| 45 | 7.5 | 0.1 | | |
| 48 | 7.0 | 0.1 | | |
| 51 | 6.7 | 0.1 | | |
| 54 | 6.3 | 0.1 | | |
| 57 | 5.9 | 0.1 | | |
| 60 | 5.8 | 0.1 | | |
| 63 | 5.7 | 0.1 | | |
| 66 | 5.7 | 0.1 | | |
| 69 | 5.6 | 0.1 | | |
| 71 | 5.6 | 0.1 | | |
| 74 | 5.5 | 0.1 | | |
| 77 | 5.5 | 0.1 | | |
| 79 | 5.5 | 0.1 | | |
| 81 | 5.5 | 0.1 | | |



| Parameter | LS | LB |
|---|-------|-------|
| Total P (µg/L) | 10.20 | 39.90 |
| Dissolved P (µg/L) | NA | NA |
| Chl-a (µg/L) | 2.02 | NA |
| TKN (µg/L) | NA | NA |
| NO ₃ + NO ₂ -N (µg/L) | NA | NA |
| NH ₄ -N (µg/L) | NA | NA |
| Total N (µg/L) | NA | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | NA | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

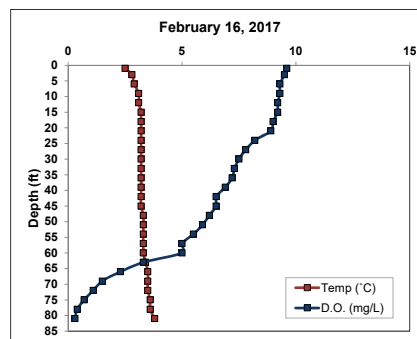
Data collected by JMB and LJS (Onterra).

Rainbow Lake

Date: 2/16/2017
Time: 13:30
Weather: 100% clouds, 25F 8mph wind
Entry: JMB

Max Depth: 81.4
LS Depth (ft): 3.0
LB Depth (ft): 78.0
Secchi Depth (ft): 14.8

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 2.5 | 9.6 | | |
| 3 | 2.8 | 9.5 | | |
| 6 | 2.9 | 9.3 | | |
| 9 | 3.1 | 9.3 | | |
| 12 | 3.1 | 9.2 | | |
| 15 | 3.2 | 9.2 | | |
| 18 | 3.2 | 9.0 | | |
| 21 | 3.2 | 8.9 | | |
| 24 | 3.2 | 8.2 | | |
| 27 | 3.2 | 7.8 | | |
| 30 | 3.2 | 7.5 | | |
| 33 | 3.2 | 7.3 | | |
| 36 | 3.2 | 7.2 | | |
| 39 | 3.2 | 6.9 | | |
| 42 | 3.2 | 6.5 | | |
| 45 | 3.2 | 6.5 | | |
| 48 | 3.3 | 6.2 | | |
| 51 | 3.3 | 5.9 | | |
| 54 | 3.3 | 5.5 | | |
| 57 | 3.3 | 5.0 | | |
| 60 | 3.3 | 5.0 | | |
| 63 | 3.4 | 3.3 | | |
| 66 | 3.5 | 2.3 | | |
| 69 | 3.5 | 1.5 | | |
| 72 | 3.5 | 1.1 | | |
| 75 | 3.6 | 0.7 | | |
| 78 | 3.6 | 0.4 | | |
| 81 | 3.8 | 0.3 | | |



| Parameter | LS | LB |
|---|---------|-------|
| Total P (µg/L) | 16.00 | 52.90 |
| Dissolved P (µg/L) | 2.30 | 3.60 |
| Chl-a (µg/L) | NA | NA |
| TKN (µg/L) | 1020.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 529.00 | NA |
| NH ₄ -N (µg/L) | 501.00 | NA |
| Total N (µg/L) | NA | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | NA | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

Data collected by TWH & JMB (Onterra). Ice depth: 1.3ft.

Water Quality Data

| 2016-2017 Parameter | Surface | | Bottom | |
|--|---------|--------|--------|------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 6 | 10.3 | NA | NA |
| Total P (µg/L) | 6 | 12.5 | 6 | 37.6 |
| Dissolved P (µg/L) | 3 | 2.3 | 3 | 3.6 |
| Chl a (µg/L) | 5 | 2.6 | 0 | NA |
| TKN (µg/L) | 3 | 840.3 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 3 | 656.7 | 0 | NA |
| NH ₃ -N (µg/L) | 3 | 310.9 | 0 | NA |
| Total N (µg/L) | 2 | 1471.0 | 0 | NA |
| Lab Cond. (µS/cm) | 1 | 390.0 | 0 | NA |
| Alkal (mg/l CaCO ₃) | 1 | 153.0 | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | 3.2 | 0 | NA |
| Calcium (mg/L) | 1 | 32.5 | 0 | NA |
| Magnesium (mg/L) | 1 | 26.7 | 0 | NA |
| Hardness (mg/L) | 1 | 191.0 | 0 | NA |
| Color (SU) | 1 | 5.0 | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|-----------------------|------|-------|--------|
| 1981 | | | |
| 1982 | | | |
| 1991 | 34.1 | 44.2 | |
| 1992 | | | |
| 1993 | 35.8 | 45.8 | 47.2 |
| 1994 | 32.2 | 45.0 | 47.2 |
| 2000 | 38.7 | 41.4 | 51.5 |
| 2007 | 41.1 | 50.9 | 52.4 |
| 2008 | | | |
| 2009 | | | 35.1 |
| 2010 | | | |
| 2011 | | | |
| 2012 | | | |
| 2013 | | | 43.9 |
| 2014 | | | 42.5 |
| 2015 | 37.5 | 44.1 | 35.3 |
| 2016 | 40.8 | 41.4 | 47.8 |
| All Years (Weighted) | 38.2 | 44.7 | 42.6 |
| DHDL Median | 45.0 | 46.4 | 42.8 |
| NCHF Ecoregion Median | 61.1 | 57.3 | 53.2 |

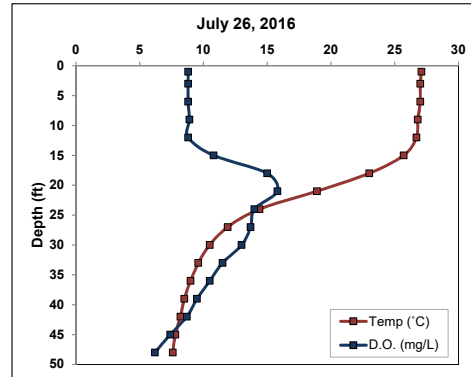
| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | Total Phosphorus (µg/L) | | | |
|-----------------------|----------------|------|--------|------|----------------------|------|--------|------|-------------------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 1981 | | | | | | | | | 2 | 20.0 | | 0.0 |
| 1982 | | | | | | | | | 1 | 20.0 | | 0.0 |
| 1991 | | | | | 3 | 4.0 | 1 | 4.0 | 3 | 7.3 | | 8.0 |
| 1992 | 1 | 8.4 | 0 | | 2 | 6.7 | 0 | | 2 | 8.0 | | 0.0 |
| 1993 | 3 | 8.2 | 1 | 8.0 | 3 | 5.5 | 1 | 4.7 | 2 | 8.5 | | 9.0 |
| 1994 | 6 | 7.9 | 2 | 8.0 | 3 | 4.5 | 1 | 4.4 | 5 | 13.6 | | 7.0 |
| 2000 | 1 | 5.9 | 1 | 5.9 | 1 | 3.0 | 1 | 3.0 | 1 | 11.0 | | 11.0 |
| 2007 | 1 | 5.6 | 1 | 5.6 | 1 | 7.9 | 1 | 7.9 | 1 | 13.0 | | 13.0 |
| 2008 | 0 | | 0 | | | | | | | | | |
| 2009 | 2 | 18.5 | 2 | 18.5 | | | | | | | | |
| 2010 | 0 | | 0 | | | | | | | | | |
| 2011 | 0 | | 0 | | | | | | | | | |
| 2012 | 0 | | 0 | | | | | | | | | |
| 2013 | 5 | 10.1 | 5 | 10.1 | | | | | | | | |
| 2014 | 3 | 11.1 | 3 | 11.1 | | | | | | | | |
| 2015 | 4 | 16.1 | 3 | 18.3 | 3 | 3.7 | 2 | 4.0 | 3 | 10.2 | 2.0 | 10.1 |
| 2016 | 6 | 8.9 | 4 | 7.7 | 4 | 4.7 | 2 | 3.0 | 5 | 11.8 | 3.0 | 12.7 |
| All Years (Weighted) | | 10.3 | | 11.0 | | 4.8 | | 4.2 | | 11.9 | | 10.6 |
| DHDL Median | | | | 10.8 | | | | 5.0 | | | | 17.0 |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | 52.0 |

Round Lake

Date: 7/26/2016
Time: 12:05
Weather: 0% clouds, 85F
Entry: JLW

Max Depth: 50.2
LS Depth (ft): 3.0
LB Depth (ft): 47.0
Secchi Depth (ft): 6.7

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|-----|-------------------|
| 1 | 27.1 | 8.8 | | |
| 3 | 27.0 | 8.8 | 8.1 | |
| 6 | 27.0 | 8.8 | | |
| 9 | 26.8 | 8.9 | | |
| 12 | 26.7 | 8.8 | | |
| 15 | 25.7 | 10.8 | | |
| 18 | 23.0 | 15.0 | | |
| 21 | 18.9 | 15.8 | | |
| 24 | 14.4 | 14.0 | | |
| 27 | 11.9 | 13.7 | | |
| 30 | 10.5 | 13.0 | | |
| 33 | 9.6 | 11.5 | | |
| 36 | 9.0 | 10.5 | | |
| 39 | 8.5 | 9.5 | | |
| 42 | 8.2 | 8.7 | | |
| 45 | 7.8 | 7.4 | | |
| 48 | 7.6 | 6.2 | | |
| 50 | | | | |



| Parameter | LS | LB |
|---|---------|-------|
| Total P (µg/L) | 9.01 | 14.20 |
| Dissolved P (µg/L) | ND | ND |
| Chl-a (µg/L) | 1.85 | NA |
| TKN (µg/L) | 689.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 1270.00 | NA |
| NH ₃ -N (µg/L) | 37.40 | NA |
| Total N (µg/L) | 1959.00 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | 2.40 | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

Data collected by BTB & LJS (Onterra).

Water Quality Data

| 2016-2017 Parameter | Surface | | Bottom | |
|--|---------|--------|--------|------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 1 | 6.7 | NA | NA |
| Total P (µg/L) | 1 | 9.0 | 1 | 14.2 |
| Dissolved P (µg/L) | 1 | ND | 1 | ND |
| Chl a (µg/L) | 1 | 1.9 | 0 | NA |
| TKN (µg/L) | 1 | 689.0 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 1 | 1270.0 | 0 | NA |
| NH ₃ -N (µg/L) | 1 | 37.4 | 0 | NA |
| Total N (µg/L) | 1 | 1959.0 | 0 | NA |
| Lab Cond. (µS/cm) | 0 | NA | 0 | NA |
| Alkal (mg/l CaCO ₃) | 0 | NA | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | 2.4 | 0 | NA |
| Calcium (mg/L) | 0 | NA | 0 | NA |
| Magnesium (mg/L) | 0 | NA | 0 | NA |
| Hardness (mg/L) | 0 | NA | 0 | NA |
| Color (SU) | 0 | NA | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|------------------------------|------|-------|--------|
| 1980 | 53.2 | 46.4 | |
| 1981 | | | |
| 1982 | | | |
| 1994 | | | 39.9 |
| 2009 | | | 43.2 |
| 2013 | | | 40.7 |
| 2014 | | | 40.2 |
| 2015 | 42.2 | | |
| 2016 | 35.8 | 36.6 | 49.7 |
| All Years (Weighted) | 47.0 | 42.7 | 41.5 |
| DHDL Median | 45.0 | 46.4 | 42.8 |
| NCHF Ecoregion Median | 61.1 | 57.3 | 53.2 |

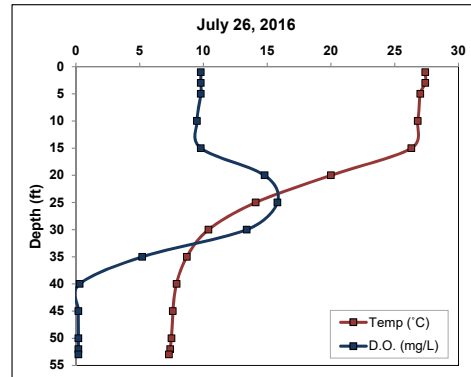
| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | Total Phosphorus (µg/L) | | | |
|------------------------------|----------------|------|--------|------|----------------------|------|--------|------|-------------------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 1980 | | | | | 1 | 5.0 | 1 | 5.0 | 1 | 30.0 | 1.0 | 30.0 |
| 1981 | | | | | | | | | 1 | 20.0 | 0.0 | |
| 1982 | | | | | | | | | 1 | 20.0 | 0.0 | |
| 1994 | 4 | 10.8 | 2 | 13.3 | | | | | | | | |
| 2009 | 2 | 10.5 | 2 | 10.5 | | | | | | | | |
| 2013 | 4 | 12.6 | 4 | 12.6 | | | | | | | | |
| 2014 | 2 | 13.0 | 2 | 13.0 | | | | | | | | |
| 2015 | 1 | 11.3 | 1 | 11.3 | | | | | | | | |
| 2016 | 1 | 6.7 | 1 | 6.7 | 1 | 1.9 | 1 | 1.9 | 1 | 9.0 | 1.0 | 9.0 |
| All Years (Weighted) | | 11.3 | | 11.8 | | 3.4 | | 3.4 | | 19.8 | | 19.5 |
| DHDL Median | | | | 10.8 | | | | 5.0 | | | | 17.0 |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | 52.0 |

Sunset Lake

Date: 7/26/2016
Time: 13:12
Weather: 30% clouds, 85F
Entry: JMB

Max Depth: 54.5
LS Depth (ft): 3.0
LB Depth (ft): 52.0
Secchi Depth (ft): 7.1

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 27.4 | 9.8 | | |
| 3 | 27.4 | 9.8 | | |
| 5 | 27.0 | 9.8 | | |
| 10 | 26.8 | 9.5 | | |
| 15 | 26.3 | 9.8 | | |
| 20 | 20.0 | 14.8 | | |
| 25 | 14.1 | 15.8 | | |
| 30 | 10.4 | 13.4 | | |
| 35 | 8.7 | 5.2 | | |
| 40 | 7.9 | 0.3 | | |
| 45 | 7.6 | 0.2 | | |
| 50 | 7.5 | 0.2 | | |
| 52 | 7.4 | 0.2 | | |
| 53 | 7.3 | 0.2 | | |



| Parameter | LS | LB |
|---|---------|-------|
| Total P (µg/L) | 10.50 | 26.90 |
| Dissolved P (µg/L) | ND | 2.10 |
| Chl-a (µg/L) | 2.65 | NA |
| TKN (µg/L) | 647.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 678.00 | NA |
| NH ₃ -N (µg/L) | 32.50 | NA |
| Total N (µg/L) | 1325.00 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | 3.00 | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

Data collected by EEH and CJF (Onterra).

Water Quality Data

| 2016-2017 Parameter | Surface | | Bottom | |
|--|---------|--------|--------|------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 1 | 7.1 | NA | NA |
| Total P (µg/L) | 1 | 10.5 | 1 | 26.9 |
| Dissolved P (µg/L) | 1 | ND | 1 | 2.1 |
| Chl a (µg/L) | 1 | 2.7 | 0 | NA |
| TKN (µg/L) | 1 | 647.0 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 1 | 678.0 | 0 | NA |
| NH ₃ -N (µg/L) | 1 | 32.5 | 0 | NA |
| Total N (µg/L) | 1 | 1325.0 | 0 | NA |
| Lab Cond. (µS/cm) | 0 | NA | 0 | NA |
| Alkal (mg/l CaCO ₃) | 0 | NA | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | 3.0 | 0 | NA |
| Calcium (mg/L) | 0 | NA | 0 | NA |
| Magnesium (mg/L) | 0 | NA | 0 | NA |
| Hardness (mg/L) | 0 | NA | 0 | NA |
| Color (SU) | 0 | NA | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|-----------------------|------|-------|--------|
| 1992 | | | |
| 1993 | | | 47.2 |
| 1994 | 27.4 | 43.9 | 44.9 |
| 2016 | 38.1 | 40.2 | 48.9 |
| All Years (Weighted) | 32.5 | 43.0 | 46.1 |
| DLDL Median | 49.4 | 49.7 | 46.2 |
| NCHF Ecoregion Median | 61.1 | 57.3 | 53.2 |

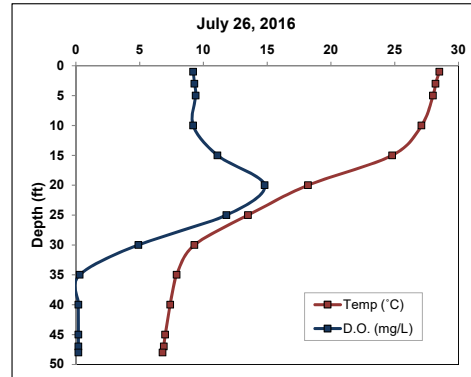
| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | Total Phosphorus (µg/L) | | | |
|-----------------------|----------------|------|--------|------|----------------------|------|--------|------|-------------------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 1992 | 1 | 9.8 | 0 | | 1 | 4.1 | 0 | | 1 | 9.0 | 0.0 | |
| 1993 | 3 | 8.2 | 1 | 8.0 | 3 | 5.4 | 1 | 4.1 | 2 | 7.0 | 1.0 | 6.0 |
| 1994 | 7 | 8.7 | 3 | 9.3 | 3 | 4.3 | 1 | 3.9 | 3 | 7.7 | 1.0 | 5.0 |
| 2016 | 1 | 7.1 | 1 | 7.1 | 1 | 2.7 | 1 | 2.7 | 1 | 10.5 | 1.0 | 10.5 |
| All Years (Weighted) | | 8.6 | | 8.6 | | 4.5 | | 3.5 | | 8.1 | | 7.2 |
| DLDL Median | | | | 8.5 | | | | 7.0 | | | | 23.0 |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | 52.0 |

Taylor Lake

Date: 7/26/2016
Time: 12:01
Weather: 30% clouds, 85F
Entry: JMB

Max Depth: 49.6
LS Depth (ft): 3.0
LB Depth (ft): 47.0
Secchi Depth (ft): 6.7

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|----|-------------------|
| 1 | 28.5 | 9.2 | | |
| 3 | 28.2 | 9.3 | | |
| 5 | 28.0 | 9.4 | | |
| 10 | 27.1 | 9.2 | | |
| 15 | 24.8 | 11.1 | | |
| 20 | 18.2 | 14.8 | | |
| 25 | 13.5 | 11.8 | | |
| 30 | 9.3 | 4.9 | | |
| 35 | 7.9 | 0.3 | | |
| 40 | 7.4 | 0.2 | | |
| 45 | 7.0 | 0.2 | | |
| 47 | 6.9 | 0.2 | | |
| 48 | 6.8 | 0.2 | | |



| Parameter | LS | LB |
|---|--------|-------|
| Total P (µg/L) | 13.20 | 40.50 |
| Dissolved P (µg/L) | ND | ND |
| Chl-a (µg/L) | 1.22 | NA |
| TKN (µg/L) | 546.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 390.00 | NA |
| NH ₃ -N (µg/L) | 41.90 | NA |
| Total N (µg/L) | 936.00 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | 2.40 | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

Data collected by EEH and CJF (Onterra).

Water Quality Data

| 2016-2017 Parameter | Surface | | Bottom | |
|--|---------|-------|--------|------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 1 | 6.7 | NA | NA |
| Total P (µg/L) | 1 | 13.2 | 1 | 40.5 |
| Dissolved P (µg/L) | 1 | ND | 1 | ND |
| Chl a (µg/L) | 1 | 1.2 | 0 | NA |
| TKN (µg/L) | 1 | 546.0 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 1 | 390.0 | 0 | NA |
| NH ₃ -N (µg/L) | 1 | 41.9 | 0 | NA |
| Total N (µg/L) | 1 | 936.0 | 0 | NA |
| Lab Cond. (µS/cm) | 0 | NA | 0 | NA |
| Alkal (mg/l CaCO ₃) | 0 | NA | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | 2.4 | 0 | NA |
| Calcium (mg/L) | 0 | NA | 0 | NA |
| Magnesium (mg/L) | 0 | NA | 0 | NA |
| Hardness (mg/L) | 0 | NA | 0 | NA |
| Color (SU) | 0 | NA | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|-----------------------|------|-------|--------|
| 1979 | | | 40.7 |
| 1992 | | | |
| 1993 | 38.7 | 45.1 | |
| 1994 | 38.7 | 47.1 | 43.7 |
| 2016 | 41.4 | 32.6 | 49.7 |
| All Years (Weighted) | 39.1 | 44.2 | 44.0 |
| DLDL Median | 49.4 | 49.7 | 46.2 |
| NCHF Ecoregion Median | 61.1 | 57.3 | 53.2 |

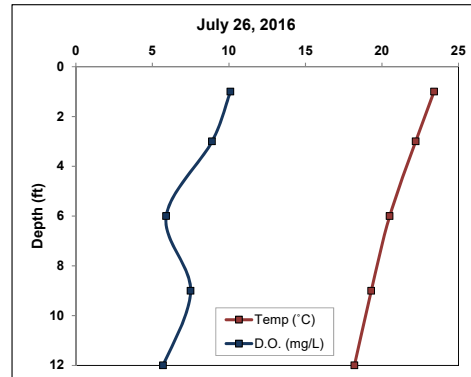
| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | Total Phosphorus (µg/L) | | | |
|-----------------------|----------------|------|--------|------|----------------------|------|--------|------|-------------------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 1979 | 1 | 12.5 | 1 | 12.5 | 1 | 5.1 | 1 | 5.1 | 1 | 10.0 | 1 | 10.0 |
| 1992 | 1 | 9.3 | 0 | | 1 | 3.9 | 0 | | 1 | 9.0 | 0 | 0.0 |
| 1993 | 2 | 8.7 | 0 | | 3 | 5.2 | 1 | 4.4 | 2 | 13.5 | 1 | 11.0 |
| 1994 | 7 | 9.3 | 3 | 10.2 | 3 | 4.8 | 1 | 5.4 | 3 | 10.3 | 1 | 11.0 |
| 2016 | 1 | 6.7 | 1 | 6.7 | 1 | 1.2 | 1 | 1.2 | 1 | 13.2 | 1 | 13.2 |
| All Years (Weighted) | | 9.2 | | 9.9 | | 4.4 | | 4.0 | | 11.3 | | 11.3 |
| DLDL Median | | | | 8.5 | | | | 7.0 | | | | 23.0 |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | 52.0 |

Youngs Lake

Date: 7/26/2016
Time: 10:00
Weather: 0% clouds, 80F
Entry: JLW

Max Depth: 14.6
LS Depth (ft): 3.0
LB Depth (ft): 11.0
Secchi Depth (ft): 11.8

| Depth (ft) | Temp (°C) | D.O. (mg/L) | pH | Sp. Cond. (µS/cm) |
|------------|-----------|-------------|-----|-------------------|
| 1 | 23.4 | 10.1 | | |
| 3 | 22.2 | 8.9 | 8.0 | |
| 6 | 20.5 | 5.9 | | |
| 9 | 19.3 | 7.5 | | |
| 12 | 18.2 | 5.7 | 7.9 | |
| 14 | | | | |



| Parameter | LS | LB |
|---|---------|-------|
| Total P (µg/L) | 15.20 | 27.00 |
| Dissolved P (µg/L) | ND | ND |
| Chl-a (µg/L) | 0.45 | NA |
| TKN (µg/L) | 545.00 | NA |
| NO ₃ + NO ₂ -N (µg/L) | 1900.00 | NA |
| NH ₃ -N (µg/L) | 74.80 | NA |
| Total N (µg/L) | 2445.00 | NA |
| Lab Cond. (µS/cm) | NA | NA |
| Lab pH | NA | NA |
| Alkalinity (mg/L CaCO ₃) | NA | NA |
| Total Susp. Solids (mg/L) | ND | NA |
| Calcium (mg/L) | NA | NA |
| Magnesium (mg/L) | NA | NA |
| Hardness (mg/L) | NA | NA |
| Color (SU) | NA | NA |
| Turbidity (NTU) | NA | NA |

Took new WQ location. Data collected by BTB & LJS (Onterra).

Water Quality Data

| 2016-2017 Parameter | Surface | | Bottom | |
|--|---------|--------|--------|------|
| | Count | Mean | Count | Mean |
| Secchi Depth (feet) | 1 | 11.8 | NA | NA |
| Total P (µg/L) | 1 | 15.2 | 1 | 27.0 |
| Dissolved P (µg/L) | 1 | ND | 1 | ND |
| Chl a (µg/L) | 1 | 0.5 | 0 | NA |
| TKN (µg/L) | 1 | 545.0 | 0 | NA |
| NO ₃ +NO ₂ -N (µg/L) | 1 | 1900.0 | 0 | NA |
| NH ₃ -N (µg/L) | 1 | 74.8 | 0 | NA |
| Total N (µg/L) | 1 | 2445.0 | 0 | NA |
| Lab Cond. (µS/cm) | 0 | NA | 0 | NA |
| Alkal (mg/l CaCO ₃) | 0 | NA | 0 | NA |
| Total Susp. Solids (mg/l) | 1 | ND | 0 | NA |
| Calcium (mg/L) | 0 | NA | 0 | NA |
| Magnesium (mg/L) | 0 | NA | 0 | NA |
| Hardness (mg/L) | 0 | NA | 0 | NA |
| Color (SU) | 0 | NA | 0 | NA |
| Turbidity (NTU) | 0 | NA | 0 | NA |

Trophic State Index (TSI)

| Year | TP | Chl-a | Secchi |
|-----------------------|------|-------|--------|
| 1993 | | | |
| 2012 | | | 41.9 |
| 2013 | | | 42.1 |
| 2014 | | | 40.2 |
| 2015 | | | |
| 2016 | 43.4 | 22.8 | 41.6 |
| All Years (Weighted) | 47.1 | 46.0 | 41.5 |
| DHDL Median | 45.0 | 46.4 | 42.8 |
| NCHF Ecoregion Median | 61.1 | 57.3 | 53.2 |

| Year | Secchi (feet) | | | | Chlorophyll-a (µg/L) | | | | Total Phosphorus (µg/L) | | | |
|-----------------------|----------------|------|--------|------|----------------------|------|--------|------|-------------------------|------|--------|------|
| | Growing Season | | Summer | | Growing Season | | Summer | | Growing Season | | Summer | |
| | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean | Count | Mean |
| 1993 | 1 | 10.1 | 0 | | 1 | 1.6 | 0 | | | | | |
| 2012 | 1 | 11.5 | 1 | 11.5 | 1 | 9.2 | 1 | 9.2 | 1 | 24.0 | 1.0 | 24.0 |
| 2013 | 2 | 11.4 | 2 | 11.4 | | | | | | | | |
| 2014 | 1 | 13.0 | 1 | 13.0 | | | | | | | | |
| 2015 | 0 | | 0 | | | | | | | | | |
| 2016 | 1 | 11.8 | 1 | 11.8 | 1 | 0.4 | 1 | 0.4 | 1 | 15.2 | 1.0 | 15.2 |
| All Years (Weighted) | | 11.5 | | 11.8 | | 3.7 | | 4.8 | | 19.6 | | 19.6 |
| DHDL Median | | | | 10.8 | | | | 5.0 | | | | 17.0 |
| NCHF Ecoregion Median | | | | 5.3 | | | | 15.2 | | | | 52.0 |

