



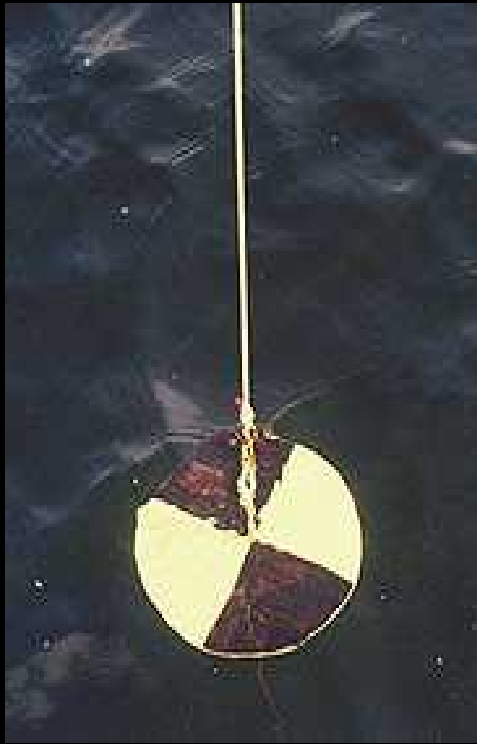
# Level 1 Monitoring

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# Why Monitor?

- Baseline data about physical conditions and water quality conditions; trends over time or changes with development.
- Detect changes in water quality that might affect beneficial uses, for example: increased bluegreen blooms.
- Explore restoration measures to improve conditions in a lake.

# Instruments Used For Level I



Secchi Disk



Lake Level Gauge (cm)



Rain Gauge (mm, inches)

# What We Measure (Level I) - Daily

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- **Lake Level & Precipitation**
  - Annual and seasonal fluctuations
  - Response to rain events
  - Surface and ground water movement

# Level I Data Sheets – Daily

LEVEL 1: DAILY PRECIPITATION  
& LAKE LEVEL

Date	February		
	Precip. (mm)	Lake Level (cm)	Optional Goose Count
1	8	96.5	0
2	1	92.0	0
3	0	88.0	0
4	13	86.0	12
5	3	83.5	0
6	2	81.0	0
7	10	80.0	0
8	4	78.5	6
9	3	77.0	0
10	0	75.5	0
11	0	74.0	10
12	0	72.5	0
13	0	71.0	14
14	6	70.5	8
15	3	69.0	10
16	4	68.0	0
17	10	68.5	0
18	6	68.5	2
19	1	68.0	0
20	0	67.5	2
21	0	66.5	0
22	0	66.0	4
23	0	65.0	0
24	1	64.0	0
25	0	63.5	0
26	1	62.5	4
27	20	64.0	3
28	1	64.0	0
29	TR	64.5	2

# What We Measure (Level I) - Weekly

- **Secchi Depth** (water clarity)
  - Primary productivity (algae)
  - Storm or erosion inputs from outside the lake
  - Impacts on beneficial uses.
- **Instructions & Tips**
  - Lower until disk disappears, raise until reappears, average of the two
  - Work in the shade (no glare) and no sunglasses

# Level I Data Sheets - Weekly

Level One Weekly Datasheet											
Week Of	Date Recorded	Time (24:00)	Secchi Depth (m)	Temp. °C (at 1m)	Cloud Cover	Wind Conditions	Algae and Particle Count		Optional Goose Count	Lake Use	Comments
							Shoreline	Sample site			
3-Apr-16					<input type="checkbox"/> Sunny <input type="checkbox"/> Pt. Cloudy <input type="checkbox"/> Cloudy <input type="checkbox"/> Raining	<input type="checkbox"/> None (glassy water) <input type="checkbox"/> Slight (ripples) <input type="checkbox"/> Breezy (small wavelets) <input type="checkbox"/> Stormy (waves/whitecaps)				Boats____ Fishing____ Swimmers__	
10-Apr-16					<input type="checkbox"/> Sunny <input type="checkbox"/> Pt. Cloudy <input type="checkbox"/> Cloudy <input type="checkbox"/> Raining	<input type="checkbox"/> None (glassy water) <input type="checkbox"/> Slight (ripples) <input type="checkbox"/> Breezy (small wavelets) <input type="checkbox"/> Stormy (waves/whitecaps)				Boats____ Fishing____ Swimmers__	
17-Apr-16					<input type="checkbox"/> Sunny <input type="checkbox"/> Pt. Cloudy <input type="checkbox"/> Cloudy <input type="checkbox"/> Raining	<input type="checkbox"/> None (glassy water) <input type="checkbox"/> Slight (ripples) <input type="checkbox"/> Breezy (small wavelets) <input type="checkbox"/> Stormy (waves/whitecaps)				Boats____ Fishing____ Swimmers__	
24-Apr-16					<input type="checkbox"/> Sunny <input type="checkbox"/> Pt. Cloudy <input type="checkbox"/> Cloudy <input type="checkbox"/> Raining	<input type="checkbox"/> None (glassy water) <input type="checkbox"/> Slight (ripples) <input type="checkbox"/> Breezy (small wavelets) <input type="checkbox"/> Stormy (waves/whitecaps)				Boats____ Fishing____ Swimmers__	
					<input type="checkbox"/> Sunny <input type="checkbox"/> Pt. Cloudy <input type="checkbox"/> Cloudy <input type="checkbox"/> Raining	<input type="checkbox"/> None (glassy water) <input type="checkbox"/> Slight (ripples) <input type="checkbox"/> Breezy (small wavelets) <input type="checkbox"/> Stormy (waves/whitecaps)				Boats____ Fishing____ Swimmers__	

Algae and particles: No algae or other particles (NA) 1-10 particles (P1) 10-100 particles (P2) over 100 particles (P3) Count all particles on 1/4 Secchi disk at 6 inches deep.

# Rain & Lake Level Gauge Instructions & Tips

## ■ Rain Gauge

- Read in millimeters (METRIC)
- Keep clean
- Snow: melt and take reading

## ■ Lake Level Gauge

- Staff will assist with installation
- Windy days: average highs and lows
- Watch for changes