

Office: Data: \_\_\_\_\_ Photos: \_\_\_\_\_ Hours: \_\_\_\_\_  
Property Issues Reported: \_\_\_\_\_

*The Couchiching Conservancy*

P.O. Box 704 • Orillia ON L3V 6K7



Please Return Data Sheets To:  
Dorthea Hangaard [dorthea@couchconservancy.ca](mailto:dorthea@couchconservancy.ca)  
1485 Division Road West  
(705) 326-1620 (w) (705) 331-0703 (m)

### Couchiching Conservancy Water Quality Monitoring Program

Site Name: \_\_\_\_\_

Year: \_\_\_\_\_ Month: \_\_\_\_\_ Day: \_\_\_\_\_ Time: \_\_\_\_\_

Name: \_\_\_\_\_ Volunteer Hours: \_\_\_\_\_

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Weather in past 48 hours: \_\_\_\_\_

Air Temp. \_\_\_\_\_ Water Temp. \_\_\_\_\_ Depth (cm): \_\_\_\_\_

pH: \_\_\_\_\_ Dissolved Oxygen (parts per million): \_\_\_\_\_

Low Range Phosphate (ppm): \_\_\_\_\_

Turbidity (Jackson Turbidity Units JTU): \_\_\_\_\_ Alkalinity (PPM): \_\_\_\_\_

Nitrate Nitrogen (PPM): \_\_\_\_\_ Chlorides (PPM): \_\_\_\_\_

**Environmental Observations** (plants, wildlife, pollutants, human activity). Note if you don't know what something is, you can always take a photo or record a sound and submit it for i.d.

**Did you see any minnows? ( Y / N ) If so, how many?: Approx: \_\_\_\_\_**

**Did you see any benthic invertebrates? ( Y / N ) If so, how many?: Approx: \_\_\_\_\_**

**Did you photograph any aquatic organisms? ( Y / N )**

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### **Interpreting Results/Healthy Range:**

**Water Temperature:** Temperature preference among species vary widely. All species can tolerate slow seasonal changes rather than rapid changes. Thermal stress or shock occurs when temperatures change more than 1 to 2 degrees Celsius in 24 hours.

**pH:** A range of 6.5 – 8.2 is optimal for most organisms. Rapidly growing algae or Submerged Aquatic Vegetation (SAV) remove carbon dioxide from the water during photosynthesis. This can result in a significant increase in pH levels.

**Dissolved Oxygen:** DO levels below 3 ppm are stressful to most aquatic organisms. DO levels below 2 or 1 ppm will not support fish. Levels of 5 to 6 are usually required for growth and activity.

**Low Range Phosphate:** Total phosphorous levels higher than 0.03 ppm contribute to increased plant growth (eutrophication). Total phosphorous levels above 0.1 ppm may stimulate plant growth sufficiently to surpass natural eutrophication rates.

**Turbidity:** The ideal range for turbidity in stream water is generally considered to be between 0 and 40 JTU.

**Alkalinity:** High Alkalinity in a body of water means that it is more stable and resistant to changes in pH. A Total Alkalinity of 100 to 200 ppm will stabilize the pH in a stream. Levels between 20 and 200 ppm are typically found in fresh water.

**Nitrates:** Unpolluted waters generally have a nitrate-nitrogen level below 1 ppm. Nitrate-nitrogen levels above 10 ppm are considered unsafe for drinking water.

**Chloride:** Fresh water bodies typically have a chloride concentration between 1 and 100 ppm. Long-term exposure to chloride concentrations of 120 ppm and above are harmful to aquatic ecosystems. Chloride concentrations of 640 ppm or higher are immediately toxic to freshwater organisms.

### **If something falls outside of the healthy range described above, please follow this protocol:**

1. Finish all of your tests.
2. Re-do the tests outside of the healthy range
3. If you get the same result a second time, and it is for anything but nitrates or phosphates, record the result and wrap up.
4. If it is nitrates or phosphates which are outside the normal range a second time, collect a water sample using the kit and instructions provided.
5. Either drop the water sample off at the Couchiching Conservancy office, or directly to:

Aquatic and Environmental Laboratory Inc.  
3239 Penetanguishene Rd.  
Barrie, On (Craighurst) (705) 722-5227  
Hours: Mon – Thurs 9 am to 4:30 pm and Fri 9 am to 3 pm