

DISSOLVED OXYGEN & TEMPERATURE

Procedure Checklist

Equipment Checklist

- Boating safety equipment and anchor
- DO meter and cable/probe
- Probe cable weight
- Safety lanyard
- Equipment storage box and supplies
- Secchi disk
- Weighted measured line
- Pencil or indelible ink pen
- DO/temperature data form(s)

Data Collection

A. Sampling location, frequency, and timing

- 1. Conduct the DO/Temp monitoring every other week from mid-May through mid-September in calm water.

B. Prepare for monitoring (on shore)

- 1. If it is not already done, connect the probe cable to the handheld meter cable at the bayonet connectors.
- 2. Turn the meter on and wait 15 minutes for the meter to warm up.
- 3. Calibrate the meter according to your owner's manual.

(Users of the Pro20 meter can disregard the next two steps.)

- 4. Record the DO calibration (% air saturation) reading (main display), the calibration temperature (°C), and the lake altitude value on the DO/temperature data form.
- 5. If the DO Calibration reading is not between 93-103%, then recalibrate the meter. If it still does not work, the membrane may need to be replaced.

C. Proceed to your monitoring location

- 1. Travel to the sampling location; anchoring will be necessary as the monitoring process can take 30 minutes or longer.

D. Measure the DO/Temperature profile using the meter

- 1. Make sure that the DO readout is in mg/L and not %. Hit MODE to switch between these measurements.
- 2. Determine the lake depth using Secchi disk; note the depth on the data sheet.
- 3. Lower the probe to 5 feet. Slightly jig the probe up and down until the meter mostly stabilizes; it is unlikely to stabilize completely so you have to use best judgment. Record the DO (mg/L) and the temperature (°C).
- 4. Lower the probe to the next depth shown on the data sheet; repeat the process for every depth on the data sheet.
- 5. Your final DO measurement will be 1 foot above the lake bottom; do not allow the probe to touch the lake bottom.

Reporting Your Results

Hold onto your datasheet. It is our intention to get these uploaded into the new MiCorps database in 2021.