



Massachusetts Water Watch Partnership

Standard Operating Procedure Lakes-5 For Temperature Revision 0

MF Walk

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Overview

This procedure describes how to measure lake water temperature using either an alcohol thermometer or an electronic thermometer.

1.0 Equipment List

- ___ Depth electronic thermometer or Max-Min thermometer or:
- ___ Alcohol thermometer
- ___ Calibrated line
- ___ Field data sheet and pencils

2.0 Measurement Protocol

2.1 Alcohol thermometer:

- 2.11 Take a surface measurement on the shady side of the boat by holding the thermometer for two minutes at elbow's length below the surface.
- 2.12 If you collect a bottom dissolved oxygen sample, take another temperature reading as instructed in SOP L-4. **(DO NOT PUT YOUR HANDS IN THE WATER, ONLY THE TIP OF THE THERMOMETER!).**
- 2.13 Record both of these temperature readings on your lake field sheet.

2.2 Max-Min thermometer or electronic temperature probe:

- 2.2.1 Your calibrated line or cable should be weighted to ensure correct depth recording.
- 2.2.2 Measure the temperature at one meter intervals from top to bottom.
- 2.2.3 Always wait two minutes for the thermometer to reach water temperature before raising it to the surface.
- 2.2.4 Record temperature readings and depths on the lake field sheet.

3.0 Maintenance

- 3.1** All thermometers must be compared to an NIST-certified thermometer at the beginning and end of the sampling season.
- 3.2** Before leaving home, ensure that the alcohol column in your thermometer is not broken. If it is, obtain a spare thermometer from coordinator.