

# Water Quality Cheat Sheet

## Important Contacts:

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Combination for key: 3113

## Interpreting YSI Professional Plus readings:

**D.O. %** - This reading is oxygen percent saturation.

- Typical readings during the summer can range from **40%** to as high as **200%**.
- Readings greater than 100% can occur if there is an algal bloom that is generating more oxygen than can escape to the atmosphere.
- Readings of **> 200%** are most likely erroneous.
- Readings **< 40%** can occur during the late summer months when water temperature is high and dissolved oxygen is low.

**D.O. mg/l**- Dissolved oxygen (DO) is measured as a concentration (mg/l – milligrams per liter).

- Typical readings range from **3 to 10 mg/l**
- Readings near the surface **at or below 5 mg/l** indicate water quality problems
- Readings near the bottom **at or below 3 mg/l** indicate water quality problems
- Theoretical maximum is approximately 8 mg/l during summer and about 14 mg/l in the coldest months
- Readings **above 12 mg/l** in the summer are most likely erroneous

**pH**- In simple terms, is a chemical measure of whether or not something is an acid or a base. It is measured on a log scale of 0 to 14, with each unit representing a ten-fold change. A pH of 7 is considered neutral and a range of 5.5 to 8.5 is usually tolerated by most aquatic organisms.

- **pH normally ranges from 7 to 8** in higher salinity water
- **pH can vary between 6 to 10**
- Values **less than 6 or greater than 10** are most likely erroneous

**IF ANY READINGS ARE ERRONEOUS PLEASE CONTACT TIM ROSEN TO RECALIBRATE THE INSTRUMENT. PLEASE ALERT TIM TO POSSIBLE WATER QUALITY ISSUES AND LOCATIONS AS WELL.**

## Secchi Disk

Record the length when the secchi disk **can no longer be seen**. The measurement is from the water surface to the secchi disk. The easiest way to complete this is to pinch the line where the water surface was and then measure on board the boat using the measuring tape. Also, record the number, 0-5, according to the color. This is completed by observing the color zip tie that is closest to, but above the water surface. See below for numbering.

