***Waccamaw River Volunteer Monitors' Standard Operating Procedure:***

# **pH** (using EC10 meter)

1. Fill out # 1-6 on the pH field data sheet first and #7 onwards as you follow the following guidelines.
2. For using the procedure on this page your meter model number should be EC10.
3. DO NOT attempt to recalibrate. If you accidentally hit the 'CAL' key (or any other key that you are not supposed to touch), press the power/exit key to return to measurement mode.

Calibration Check

1. Remove the pH probe out of the storage solution bottle.
2. Rinse the probe well with DI water (provided water bottle) and blot with the soft tissue wipe.
3. Open the yellow colored Lab control Sample (LCS) and dip the pH probe into it. Gently stir the probe to dislodge air bubbles, if any.
4. Press the power key to turn the meter on. A 'Black Triangle' at the lower left corner of the screen should indicate that the meter is in pH measurement mode. If its not in the right mode press MODE key to see the pH reading.
5. Current pH value will appear on the screen with **'measure'** being displayed on the right hand upper corner of the screen. When the reading is stabilized **'ready'** would be displayed on the screen. Record the value on the specified place on the "pH field data sheet".
6. Turn the meter off and on again to record another reading after the reading stabilizes and 'Ready' is displayed. Your aim is to get a set of three readings for the LCS.
7. Similarly, measure and record the reading for the red colored LCS.
8. If the measured value for a Lab Control Sample (LCS) is not within the acceptance limits (shown on the bottle), review the measurement procedure and try again. Record the repeated measurement reading next to the previous reading.
9. If the LCS readings falls within the limits the second time, report the possible problem in the comments section on the pH field data sheet. If the readings are still out of the acceptance range, record the readings as such and report the problem in the comments section. Also, let the lab personnel know about it as soon as possible.
10. After measurement, rinse the probe with deionized water and dry with a tissue wipe.

Sample Measurements

1. After successful calibration, rinse the electrode with deionized water and blot the electrode.
2. Place the electrode in the sample. And press the power key. Current pH value will appear on the screen with **'measure'** being displayed on the right hand upper corner of the screen. When the reading is stabilized **'ready'** would be displayed.
3. Record this stabilized pH value after 'ready' is displayed.

4. When finished, turn the meter off. Rinse the electrode with deionized water and gently blot dry. Place the electrode in the bottle containing electrode storage solution. Make sure the cap is tight.
5. At the end of the process check that pH field data sheet has been completely filled.