

# 4. Measuring pH

## Calibrating the pH meter (pHScan2 WP)

1. Remove the protective cap and turn the meter on.
2. Rinse an empty film canister and the end of the electrode with the pH buffer solution, and add some fresh solution to the film canister.
3. Record the pH of the buffer solution (pH 7.0) and the date prepared onto your Field Data Sheet. These values should be listed on the buffer solution bottle.
4. Dip the electrode into the pH buffer solution and record the value shown under 'Result 1' on your Field Data Sheet.
5. Press the 'CAL' button. The reading on the meter will flash.
6. Once the reading has stabilised, press the "HOLD/CON" button to confirm the result. Record the result after calibration under 'Result 2' on your Field Data Sheet.
7. Rinse the electrode with tap water or remove excess buffer with a tissue.
8. Put excess buffer solution into your waste container.

## Measuring pH

9. Rinse an empty film canister and the end of the pH electrode with some sample water, and add some fresh sample water to the canister.
10. Place the electrode into the sample, and allow the reading to stabilise.
11. Record the reading on your Field Data Sheet.
12. Rinse the electrode with either tap water or pH 7 buffer solution, and store with a wet sponge in the cap.

### Hints, suggestions and techniques

- The glass probe on the pH meter is very sensitive and needs to be well maintained. When not in use, keep a piece of sponge moistened with tap water or pH 7 buffer around the electrode.
- Do not reuse buffer solutions. Discard used portions into a waste container.

### ACT Guidelines

For most reaches of the Ginninderra Creek, the acceptable pH range is between 6.0 - 9.0.

Source: Australian Capital Territory, Environment Protection Regulations, Table of Provisions, Water Quality Standards, Ecosystem maintenance 1997.

### Waterwatch Australia Guidelines

Changes of more than 0.5 pH units from the natural maximum or minimum on fresh water should be investigated.

Source: Waterwatch Australia National Technical Manual. Module 4 - Physical and Chemical Parameters.