

# Chemical Field Protocol (D.O., pH, Nitrate, Orthophosphate)

1. For all test kits, collect water samples upstream of all other River Watch activity. Take five steps upstream from any other sampling activity that is occurring. Sampling equipment should be rinsed well with stream water prior to collecting samples.

2. Sample water in the center of the stream or several feet from shore if stream is not wadable. Avoid collecting surface

water samples. For dissolved oxygen sampling, avoid stirring up water or generating bubbles when sampling, as this aerates the water.

3. Repeat tests 2 times. Hold samples and references up to the light to help with color comparisons. Record results on 'Physical and Chemical Data' sheet.

4. When testing is complete, dispose of sample in a waste container or if this is not possible, on land in vegetation away from the stream. According to federal and state guidelines, these reagents are "safe" to dispose of in the environment in the quantities in which we use here.

5. If possible conduct all chemical tests in the field. However all test, except dissolved oxygen, can be conducted on water samples brought back to the classroom if necessary. The dissolved oxygen test kit should be used on fresh water samples while in the field.

6. For the nitrate and orthosphosphate test kits pay attention to what test is used (ex. low-range or high –range) and be sure to make the multiplication that is required by the test. Please note on the data sheet what range test was used for your data. It is useful to review the level of nutrients that was found at your site the previous year and sample within that range.

