

Testing for Phosphates & Nitrates

How rowing clubs can help monitor nutrients

Citizen science can be an important way to help us understand the health of our rivers and identify pollution sources. **The data you gather is most useful when the testing takes place regularly, and the information gathered is shared with a wider group.** This way, your data can become part of a nationwide picture of river water quality, and feed in to wider conservation and monitoring plans.



To set your club up to deliver ongoing phosphate and nitrate (P/N) testing, and to access guidance, support and testing equipment, consider joining Earthwatch's FreshWater Watch (freshwaterwatch.org). The membership typically costs £400 and includes access to their nationwide database, an online portal and app for recording your results, support from their in-house scientists and a testing kit for checking nutrient levels and turbidity. If you are interested in occasional testing, join the **Great UK WaterBlitz** (earthwatch.org.uk/greatukwaterblitz/) to receive free N/P phosphate tests (events run every Spring and Autumn).

Why is P/N testing important?

Phosphate and nitrate are found in agricultural fertiliser, animal waste, and sewage. Fertiliser run-off and leaking sewage pipes mean that dangerously high nutrient levels are an increasing occurrence across British rivers and waterways.

Identifying the presence of high phosphate and nitrate levels is an essential start to preventing their catastrophic effects on rivers, allowing us to locate sources of pollution.



Blue Green Algae. Credit: Jeff Hunt
Nottinghamshire County Rowing Association

Phosphates and nitrates are important nutrients in rivers, used by plants and wildlife to build proteins and photosynthesize. However, in large amounts, these nutrients have detrimental effects on water quality and ecosystem health.

High nutrient levels can lead to vast algal blooms. These algal blooms produce toxins, as well as use up the available oxygen and block out sunlight to choke the other flora and fauna in the river - a process known as eutrophication. Consequently, these nutrients can be a threat to entire river ecosystems.

