

Consultation on UKTAG Water Framework Directive: Proposed recommendations on biological standards - Anglian Water response

We welcome the opportunity to comment on the UKTAG stakeholder recommendations on biological standards. The consultation document is highly technical in nature but we have provided general and specific comments where we felt able to do so.

Whilst we support the need to review and develop methodologies to ensure environmental quality standards are appropriate and that “expensive action at a site should be considered only where there is supporting evidence of adverse biological impacts”, we are concerned about the impact, timing and potential costs arising from the proposed change in methodology.

The prime objective of the recommendations to provide intercalibration between member states is welcome and important to ensure consistency in approach across all European member states. However, the impact of changes on both regulators and stakeholders needs to be fully assessed.

General comments

1. Changes in methodology and impact on 2009 baseline

The impact of a proposed change in classification methodology on 2009 baseline waterbody classifications is not clear. It is important that this is considered as it has an impact on how ‘no deterioration’ will be assessed.

Changes to methodologies made within a River Basin Planning cycle may give rise to uncertainty over outputs from measures currently being delivered and those being considered for future RBMPs (and associated NEP obligations). Measures identified may not have had sufficient time for planned outputs to be achieved and the level of success assessed. In this situation we must guard against the risk of abortive investment and ensure new methodologies can be compared with old.

2. Impact of monitoring programmes

A more comprehensive biological monitoring programme may be required to support the assessment methodology. If so, resource and cost implications on regulators and stakeholders needs to be considered.

3. Concerns about datasets

We would question how representative recent data sets collected during extreme climatic events (drought, flood) are if they have been used. Concerns have also been previously expressed about whether the biology dataset is statistically comprehensive enough to make conclusions from.

We would suggest that intensive site specific pilot studies representative of different catchment types be undertaken over a two to three year period to prove the effectiveness of the revised methodology. This approach would allow cost benefit analysis to be undertaken, allow best practice to be shared and would reduce the risk of abortive investment.

4. Impact Assessment

A Regulatory Impact Assessment should be undertaken before the proposals are approved. It is important to understand what impact a change in classification methodology will have on the sectors expected to deliver RBMP measures and on those measures currently being delivered.

Specific Comments:

The provision of worked examples in some annexes is good and thought should be given to expanding this approach for all standards / annexes. The inclusion of benchmarked examples for each standard would improve understanding further.

Standards (e.g. Lake Phytoplankton, annex 8) which include the provision of tools such as spreadsheets into which data can be entered and values generated for ecological status and trophic index should be encouraged and will provide consistency among users. Thought should be given to making tools widely available and the development of similar tools relating to other standards promoted.

Detailed comments on standards are as follows:

Rivers and Lakes: Macrophytes and Phytobenthos (Annexes 1, 2, 3, 9, 10 & 11)

We appreciate the attempts made to link macrophyte and phytobenthos community structure to total phosphate and hardness concentration and refer you to our separate response on phosphorous standards.

We would however question the use of diatoms in isolation as an indicator of trophic status; other algal species could be considered together with use of relevant measures such as silica as it is a vital building block in diatom communities.

The role of phytobenthos as a primary producer is well understood but population structure should be assessed alongside a measure of habitat suitability and availability. An assessment of the physical habitat should be made and considered when interpreting results and indices used to arrive at class status for macrophyte and phytobenthos communities.

The following implications of methodologies in these annexes needs to be considered:

- Resource implications of identification to species level (availability of suitably trained staff)
- Ease of access to and availability of representative sites
- Quality control of sampling techniques and species identification
- Accreditation of consultants to ensure sufficient data quality

Interpretation of outputs from sampling techniques needs to be approached with caution and consideration given to the primary function of the waterbody. For example reservoirs artificially created for potable storage rather than the

optimisation of habitats for wildlife; draw-down of reservoirs would jeopardise environmental optimisation especially of rooted macrophytes.

Rivers and Lakes: Benthic Invertebrates (Annexes 4, 5 & 12)

The use of abundance scores, environmental variables, boundaries and ecological quality ratios (EQRs) is a welcome improvement on previous approaches and we agree that this will help better target improvements.

The role of habitat however needs looking at more specifically and we recommend that future techniques include provision for a habitat survey to be included and interpreted alongside the results from either the WHPT or WFD-AWIC techniques. In many cases a simple photograph could be used in-conjunction with a habitat pro forma assessment sheet which looks at aspects such as shading, macrophyte cover, substrate type etc. Alternatively an abridged version of techniques used for macrophytes and phytobenthos such as those in annexes 1, 2 & 3 could be used.

Rivers and Lakes: Fish (Annexes 6 & 13)

We welcome the acknowledgement that many factors complicate the interpretation of assessments results particularly barriers to migration. To these factors we would add increased pressure from unlicensed fish removal for human consumption and Avian predation.

Interpretation of outputs from sampling techniques needs to be approached with caution and consideration given to the function that the waterbody has been modified to provide (e.g. role in land drainage or flood alleviation) not only when assessing status but also when setting realistic targets for future status. For example is it reasonable for a waterway with a primary function as a flood relief channel to achieve a high fishery standard?

Rivers and Lakes: Ecological Indicators of hydromorphological alterations (Annex 7)

We would welcome the opportunity to comment on the ecological indicators to be used to assess standards when they become available. Whilst the indicator descriptions in Annex 7 maybe valid we would again refer to our comments for Fish above in that the function of the waterbody needs to be considered when setting future standards.

The intention to develop methods which can detect the ecological effects of abstraction, engineering works and morphological alterations is a positive one as we believe such factors often have a greater impact on ecological status than water chemistry.

We appreciate there are a lot of factors to consider and would suggest management actions from the output of any future methodology is subject to cost benefit analysis.

Lakes: Phytoplankton (Annex 8)

We support the move to an assessment based on biomass, taxonomic and blue green biomass metrics to arrive at a Plankton Trophic Index (PTI) however consideration could be given to the use of other chlorophyll pigments such as Chlorophyll 'b' for estimation of blue green algal biomass.