

Summary of English Nature's response to the UKTAG Report on UK Environmental Standards and Conditions under the WFD External Stakeholder Review (SR1-2006)

18 April 2006

Key messages.

UK TAG task team progress with standards.

Overall, the UK TAG task teams have made good progress in coming to terms with the wider range of biological indicators and supporting environmental parameters and types of water body they now have to deal with under the WFD. This is the first step in a process aimed at providing a holistic picture of the quality of our rivers, lakes, estuaries and coastal waters, and taking strategic restorative action. The development of these proposals has been a difficult and time-consuming process, in which English Nature and the other UK conservation agencies have assisted where possible. Our comments and views have been accommodated to varying degrees over different aspects of the work. It is evident that in addition to validating suggested standards, considerable work is still required on developing standards or frameworks for ecological issues not yet considered by UKTAG task teams. In particular, we are keen to ensure appropriate resources are in place to develop morphological frameworks for lakes and TraC waters, standards for additional nutrients (N in freshwaters, P in transitional waters), and sediment delivery/siltation in freshwaters (not mentioned in the consultation document).

The link between WFD standards and designated wildlife sites.

The standards to support High and Good Ecological Status (H/GES) are distinct from standards used in the assessment of the condition and integrity of designated wildlife sites. The fit between the two will be reviewed in detail in due course, but comments made in this submission relate to English Nature's views on the appropriateness of the proposed standards for protecting H/GES only, as defined by the normative definitions laid down by the WFD. See Box 1 for further detail on this point.

Uncertainties in technical analyses.

The general process for standard-setting has involved a number of key steps, broadly comprising the definition of reference conditions, the interpretation of the normative definitions for GES and HES, and the interpretation of relationships between biological status and environmental stress gradients. Considerable uncertainty has arisen over the interpretation of each of these steps (in some cases one or more of these steps has not been explicitly considered). Owing to the timescales involved in developing these standards, those involved in data analysis within different water body categories and different quality elements have had to develop their own decision-making processes for handling this uncertainty. The specific analytical processes adopted have varied, making cross-comparison even more difficult. Considering the potential for significant variations in decision-making, some formalised technical process for consistency checking would be valuable.

Handling uncertainty in standard-setting.

In some areas of this work, English Nature has highlighted instances in which we are concerned that the treatment of uncertainty has not been adequately precautionary in the context of protecting High or Good Ecological Status. The environmental agencies have taken the view that, in the face of this uncertainty, standards should be derived in the light of the cost of management action in the short term, and that the European inter-calibration exercise will judge the validity of their interpretation (at least in terms of biological status for some quality elements). **If the standards concerned are used as they are proposed for the first RBMP, we believe that tightening in some areas will be required for the second RBMP.**

Assessment of compliance.

The quantitative value of the standards cannot be divorced from the way in which compliance with the standards will be judged. The numerical value of some of the proposed standards is placed on a point along the pressure gradient that equates to the ecological change that the standard is trying to protect against – in these cases, a highly precautionary compliance test is required to avoid that point being passed. If the numerical value of the standard were placed some way back from this point (a typical approach in environmental protection), a less precautionary compliance test may be appropriate. The nature of the compliance test is also influenced by the policy mechanism to be employed in taking management action – a regulatory approach requires a stronger burden of proof of non-compliance than a voluntary approach. The use of different compliance tests for different management purposes seems sensible.

Application of standards.

A further question arises over the appropriateness of using different approaches to applying standards and consistency with the objectives of the Directive. The consultation document refers to two possible approaches to using standards the ‘direct’ model and the ‘indirect’ model. There is likely to be significant cost implications regarding the monitoring required to support the “indirect model”. It should also be confirmed that the “indirect” model is a valid use of standards and will be WFD compliant.

Separation of ecological judgement with management decisions.

It is vital that the judgement of ecological thresholds is divorced from any problems over establishing management regimes to achieve compliance. The environmental agencies have understandable and valid concerns over the potential costs and practicalities of implementing the WFD. However, a range of options is available within the Directive in instances where achieving GES would be technically infeasible or disproportionately expensive. The Directive intends that any such concerns should be dealt with through these options, rather than compromising the definition of High and Good Ecological Status.

Validation of standards.

In some areas, data analyses have inevitably focused on making the best use of available information. Such data collation exercises invariably have problems with information gaps and variations in data quality and formats, with consequences for the power of the analyses that can be performed. A particular problem has been with the definition of reference condition, since most data have been collected from sites with known problems, rather than at largely unimpacted sites. It would therefore be useful if time could be spent on placing the resulting proposals in the context of relevant studies undertaken elsewhere in Europe and further afield, in order to validate the findings. In other cases, standards have been informed by review papers or ongoing international programmes, standards will therefore need validating (ground truthing) in the field.

Research and development.

Through the course of the first RBMP, it will be vital to put in place the kind of fit-for-purpose, strategic R&D that can provide the necessary refinement in our understanding of biological-environmental relationships in different aquatic habitats. This will require a much closer relationship between the statutory environmental and conservation agencies, other fundholders for environmental research (including NERC) and the environmental research community. Specifically, a vibrant, well-resourced and responsive UK science base in aquatic ecology is needed to underpin implementation of the Water Framework Directive and the Government's commitments towards designated wildlife sites. Recent developments at CEH, and the recent worrying review of freshwater ecological science in the UK led by the FBA, indicate that there is considerable work to do ensure this science base is available and properly directed. (FBA 2006. A Review of Freshwater Ecology in the UK. Freshwater Biological Association, Windermere p.22).

Box 1. Relationships with standards to protect designated wildlife sites

A number of definitions of environmental status are in operation within the remit of English Nature and the Environment Agency, driven by our respective source legislation, the relationships between which are not self-evident. HES and GES are defined in descriptive terms in the Water Framework Directive. Favourable Condition (FC) of SSSIs/SACs/SPAs is defined in Conservation Objectives for sites by the UK conservation agencies, using guidance developed through the Common Standards process. Site Integrity as defined within the Habitats Regulations is required to deliver Favourable Condition – indicators of environmental integrity are included to a greater or lesser degree in conservation objectives for different types of habitat, particularly in the freshwater environment where a range of major environmental stressors need to be managed.

The setting of conservation objectives for designated wildlife sites and the subsequent judgement of FC are the responsibility of the UK conservation agencies. The Environment Agency has an important role in helping to assess and manage activities that impinge on conservation objectives and FC, particularly in relation to water-related designated sites.

It is recognised by both English Nature and the Environment Agency that there is no clear relationship between HES, GES, and FC, and each needs to be interpreted separately with reference to the relevant underpinning source legislation. The level of coincidence between environmental standards to support HES/GES and FC is strongly driven by the WFD normative definitions, and the level of environmental precaution/ambition built into the interpretation of: 1) those normative definitions at UK level (which is itself influenced by EU-wide intercalibration); and 2) the statistical relationships between putative indicators of HES/GES and environmental stressors.

Ideally FC would always equate to HES as defined by the WFD normative definitions, but English Nature recognises that some types of habitat are so degraded (e.g. lowland clay rivers) that restoration of designated sites to HES is not a reasonable approach. The normative definitions associated with GES could, if interpreted with strong environmental precaution, theoretically equate to something like FC. In reality, the relationship between standards to support FC and HES/GES is likely to vary between waterbody types, quality elements and specific environmental standards, depending on the precise decision-making process used to derive each standard. Each case will need to be considered in its own right, considering the specific decision-making process used and the respective source legislation.