Water Framework Directive (WFD): Note from the UK administrations on the development of environmental standards and conditions

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Aim

The EC *Water Framework Directive* (WFD) requires the UK administrations[1] to introduce environmental standards and conditions to help us with the classification and objective-setting processes which will underpin the river basin management planning process. This paper outlines the steps which the UK administrations will undertake to develop and introduce such standards and conditions.

This paper is issued to coincide with the publication of a report produced by UKTAG[2] seeking comments on the scientific principles underpinning the environmental standards and conditions they have been developing for the implementation of the WFD in the UK. The note sets out the Government's intended process for the development of environmental standards and conditions including UKTAG's external review, as well as setting both in a national and devolved policy context.

WFD – objectives and standards

Our note of March 2005 [3] set out the background to the assessment of water quality required under the WFD. The Government and its agencies have until now been using largely chemical water parameters, together with a biological parameter relating to invertebrates, in assessing the overall quality of our rivers, lakes and estuaries. These have formed the basis of the annual announcements on water quality which have shown a steady improvement in the UK's rivers and coastal waters since 1990. This reflects the significant investment made over recent years to tackle point source water pollution, particularly from sewage treatment works.

The WFD sets environmental objectives for the whole aquatic ecosystem. They are therefore much broader than the objectives of previous water Directives. This is because the WFD requires Member States to aim to achieve 'good ecological and chemical status' in surface waters and 'good chemical and quantitative status' in groundwaters by 2015. Those surface waters which are subsequently identified as Heavily Modified Water Bodies (HMWB) and Artificial Water Bodies (AWBs) must aim to achieve 'good ecological potential' and 'good surface water chemical status' by 2015 (recognising that changes to water body morphology

[1] Department for Environment, Food and Rural Affairs; Department of the Environment Northern Ireland; Scottish Executive; Welsh Assembly Government

[2] UKTAG – UK Technical Advisory Group on the WFD (members comprise the EA, EHS, SEPA and the UK Conservation Agencies)

[3] http://www.defra.gov.uk/environment/water/wfd/pdf/character-nextsteps.pdf

may make good ecological status very difficult or impossible to meet). In addition the WFD also requires that no deterioration in water status takes place and that protected area objectives are met.

This shift from largely chemical standards to ecological as well as chemical standards means that any human activities that lead to biological changes e.g. morphological impacts (altering the physical shape of water bodies), changes in rates or volumes of flow (e.g. physical structures in the river channel or abstractions) or the introduction of alien species must be taken into account. Activities and practices that lead to diffuse water pollution (both urban and rural) will also need to be tackled if we are to improve our waters to meet the environmental objectives of the WFD.

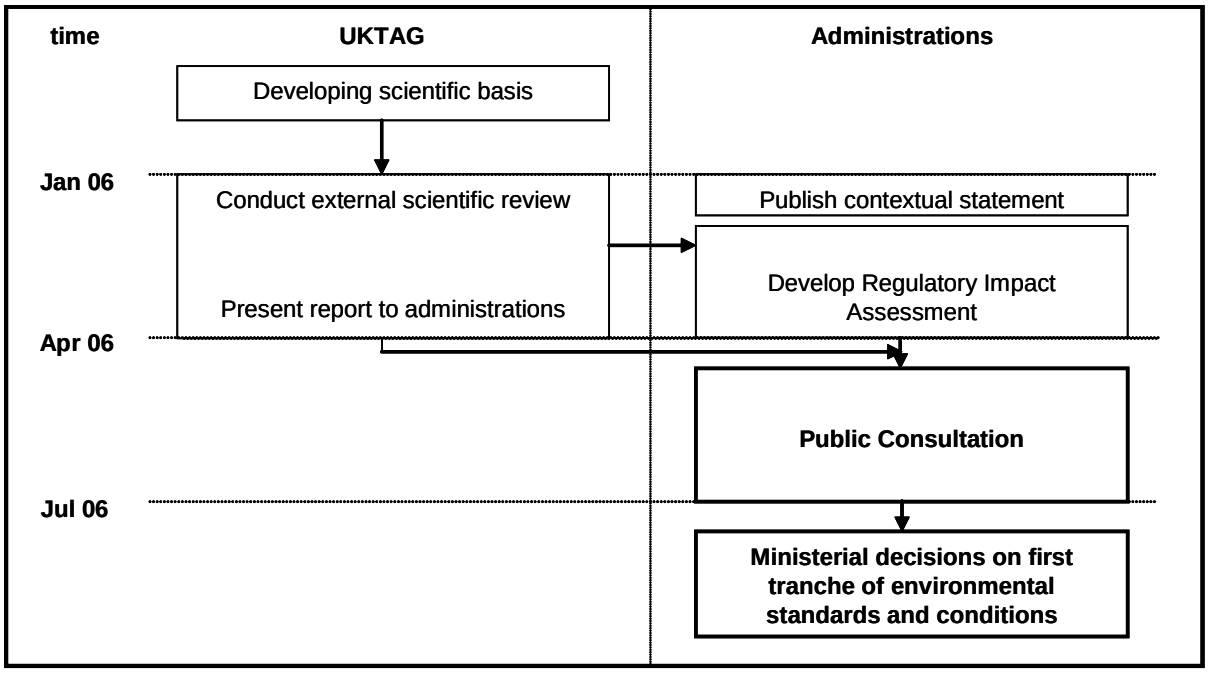
In order to determine what we need to do to achieve those objectives, it is necessary to develop environmental standards by which we can measure the ecological health of the water environment. As the use of definitive *standards* would not be helpful in assessing morphological impacts effectively, we consider it more useful to develop a set of *conditions* to support a decision-making framework.

It is important to remember that the objective-setting process provides flexibility to set alternative (less stringent) objectives in certain cases where the achievement of, for example, good ecological and chemical status by 2015 is technically infeasible or disproportionately expensive. Given this flexibility the standards and conditions themselves do not automatically drive costs in all cases. In order to develop a robust process it is considered appropriate to develop the science-base first, independently of any potential cost implications of the final objective-setting process.

Summary of proposed development and engagement process

The UK administrations plan to carry out a phased approach to the development of the environmental standards and conditions to be introduced in the UK (see flowchart below). This approach comprises a number of components including –

- the development of a scientific basis for producing standards and conditions;
- an external review of those scientific bases and the emerging standards and conditions;
- a regulatory impact assessment of the proposed standards and conditions;
- stakeholder consultation; and
- Ministerial decision-making.



The UK administrations have sought recommendations from UKTAG on the environmental standards and conditions which should be introduced. UKTAG initiated a major scientific review of existing environmental standards in 2004. This review was designed to identify standards and conditions that, if met, would support the achievement of the WFD's objectives, covering a range of polluting substances, structure and conditions of physical surrounds, water flow and water level.

The next stage in the development process is an external scientific review of the evidence and the resulting initial environmental standards and conditions currently being undertaken by UKTAG. UKTAG will take comments in response to this review in producing its final report in April 2006 on the first set of standards and conditions. The UKTAG recommendations in their final report will inform the UK administrations in developing policy advice to Ministers. More detail is set out on this process below.

Engagement with stakeholders will have two separate stages. UKTAG's external scientific review will run from the end of January until April 2006 and will enable the development of a final report outlining the possible options for standards and conditions which UKTAG will then present to the UK administrations. Standards for the first list of specific pollutants will also be fed into this external review during early March 2006. Concurrently with UKTAG's review process, the administrations are preparing a joint Regulatory Impact Assessment, to help us present robust advice to Ministers on the implications of the standards and conditions recommended by UKTAG. The development of the RIA will be an on-going process in line with the continued development of the standards and conditions. A draft partial RIA covering the first tranche of standards and

conditions will be produced for Ministers in the spring of 2005. After consideration of both the final scientific report and the draft Partial Regulatory Impact Assessment Ministers will undertake a full public consultation on the proposed standards and conditions and the associated cost implications summarised in the partial RIA. The purpose of this two stage approach is to enable Ministers to have the best scientific advice on the proposed standards and conditions, whilst also ensuring that the cost implications are given due weight during the consultation process. Any comments received during the scientific review on the potential costs and benefits will be fed into the RIA.

Ultimately Ministers will take decisions in mid-2006 on the first tranche of standards and conditions for use within the UK. It is currently the intention to adopt consistent standards and conditions across the UK, and the respective UK agencies will use these to set the correct objective for each water body and develop measures to reach the environmental objectives of the WFD. This process will start from mid-2006 and end in mid-2008 when the draft River Basin Management Plans (RBMPs) will be put to UK Ministers for consideration. The approach to the implementation and adoption of these standards and conditions might vary for each administration within the UK, depending on existing and proposed legislation and policy.

Purpose of UKTAG external scientific review

The standards and conditions outlined in the scientific report from UKTAG represent a significant development on the standards previously used. Monitoring results from thousands of sites across the UK and international scientific literature has informed the process. The development process has considered a wide range of new elements (including those for morphological conditions) not previously used in our assessment of overall water quality. This process was designed to produce a scientifically robust assessment of the standards and conditions needed to protect the water environment.

As well as assisting the implementation of the WFD, the standards and conditions proposed in the UKTAG report provide a consistent basis for water management across the UK. It is therefore very important that UKTAG is able to validate its approach to the science which underpins these standards and conditions.

Wider stakeholder engagement through UKTAG's review will therefore enable the agencies to provide more robust advice to the administrations and Ministers on the proposed standards and conditions for consultation by the UK Administrations.

Purpose of Consultation by the UK Administrations

UKTAG's external scientific review will be followed by a full public consultation on the proposed standards and conditions by the separate administrations in the spring of 2006. This will provide an opportunity for each of the administrations to seek stakeholders' input on the value and implications of implementing the proposed standards and conditions. As noted above, alternative (less stringent) objectives may allow disproportionate costs to be avoided but in those cases where such alternative objectives cannot be used, the standards and conditions will drive costs. While the scientific basis of the standards and conditions recommended by UKTAG should not be influenced by the socio-economic impacts, it is equally appropriate that the standards and conditions are subject to a separate regulatory impact assessment. A partial Regulatory Impact Assessment is being prepared for this purpose and will form part of the administrations' consultation exercise in the spring of 2006.

The feedback from this stage of consultation would then inform the Ministerial decisions on which standards and conditions their respective agencies should utilise in their planning for WFD implementation. This decision making will be informed not only by the scientific underpinning of the standards and conditions but also where relevant by information on the costs from the regulatory impact assessment.

Comparison with other member states

The environmental standards and conditions developed by UKTAG will also take into account the comparison process which is currently being carried out across the EU (a process known as 'intercalibration'). To ensure there is a common understanding of what constitutes good ecological status, the UK has been working with the other member states and with the European Commission to compare and calibrate the different biological assessment and classification methods. A first set of results is expected towards the end of 2006.

The aim of this 'intercalibration' exercise is to ensure that the good status class boundaries given by each country's biological assessment and classification methods are consistent with the WFD's descriptions of good ecological status and comparable with those given by other countries' methods. This ensures an equal internal market for industry (a so called 'level playing field') and enables better business planning across the EU. However it should be recognised that the EU process will only consider a limited range of environmental conditions and that member states need to develop their own standards for the full range of elements. Further rounds of intercalibration are expected in future river basin planning cycles as the WFD monitoring regimes in member states provide further data.

The UK has been heavily involved in the intercalibration process and has therefore been able to take into account common thinking between member states while UKTAG was developing the environmental standards and conditions. Current indications are that the proposed UK water quality standards align closely to those being developed at EU level although at this stage it is unclear whether there is comparable work in other member states on morphological conditions. The environmental standards and conditions adopted in the UK during 2006 will need to take into account the outcome of intercalibration and be revised as necessary during 2007.

Future developments

A phased approach to introducing environmental standards and conditions is proposed. UKTAG are currently developing standards for specific pollutants, and it is expected that a first list of standards for specific pollutants will feed into the final stages of UKTAG's scientific review during early March 2006.

UKTAG are also developing a second tranche of general standards and conditions which will include standards applicable to groundwater, and full stakeholder consultation will take place on this second tranche in late 2006. The regulatory impact assessment will be updated accordingly.

These initial standards and conditions will not be set in stone. It is expected that the standards and conditions will be refined in due course as the data from monitoring programmes increases our knowledge and as new information emerges from other member states through intercalibration.

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