

Implementing the WEWS (Scotland) Act 2003:

Proposals for environmental standards and conditions – phase 1

LINK Freshwater Task Force (FTF) response to the consultation paper by the Scottish Executive

Scottish Environment LINK is the forum for Scotland's voluntary environment organisations representing a broad spectrum of environmental interests with the common goal of contributing to a more environmentally sustainable society.

Introduction

Thank you for the opportunity to comment on the above document. The introduction of environmental standards is a key aspect of implementing the Water Framework Directive. Ecological standards will guide the improvements that may be necessary to achieve good ecological status in all water environments in Scotland and the UK. The WFD requires these standards to be purely based on technical consideration and not pre-judged on what may be socially and politically feasible or acceptable. All scientific definitions of high, good and moderate status should therefore be completed prior to the assessment of socio-economic considerations. We therefore find it difficult to understand why the UK administrations made a decision to undertake a regulatory impact assessment at this early stage in the development of WFD standards.

LINK comments on standards developed by the UK TAG

UK Environment LINK organisations (Wildlife and Countryside Link, Scottish Environment LINK, Northern Ireland Environment Link and Wales Environment Link) joined forces and responded to the UK Technical Advisory Group on the Water Framework Directive Draft Report on UK Environmental Standards and Conditions (SR1-2006). A summary of the main concerns is given in section C of this document (Environmental Standards, Phase 1). Whilst we recognised the difficulties associated with developing a set of completely new standards, we expressed concerns over a number of standards and methodologies used to derive these, as well as about uncertainties in applying these standards. Some of these concerns have now been addressed in the Scottish Executive's consultation on '*Principles for Setting Objectives*'.

Stakeholder involvement

Scottish Environment LINK and other eNGOs in the UK expressed a concern that the UKTAG have chosen to develop these Standards and Conditions without early discussions with wider stakeholders and experts in the field of modern ecology. We fear that this has resulted in the omission of important sources of information and expertise, and misinterpretation of 'normative definitions' underlying WFD's good ecological status. In fact, a number of responses by other

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organisations and academics to the UK consultation confirm that the latest research and expert advice was not used. On the contrary, there is a number of suggestions which undermine the basic methodology used and questions UK TAG's understanding of ecology.

We therefore express serious concerns over the methodology used to derive the UK standards. It appears that UK TAG methods are limited to the use of chemical and physical composition of the water environment and not biological and ecological elements, as required by the WFD. The UK TAG received much criticism from the experts and the academic community on both the methodology and proposed standards as part of the 'peer review' process, but very little was changed as a result of this advice. We question whether the standards were derived using the best scientific evidence, or expert advice and are seriously concerned that WFD standards are being compromised as a result. **We urge the Scottish Executive to consider reviewing both the standards and the methodology used, before they are applied in Scotland.**

Comments on the Scottish Executive consultation paper

A: Overview: Environmental Standards and the WEWS Act

Environmental standards and the WEWS Act

Environmental standards will drive classification, objective setting, regulation and monitoring, but will also be an important driver for the restoration of water bodies. There is an urgent need to develop a WFD compliant system for the assessment of morphological conditions, which will assist in the selection of suitable sites for restoration. The Scottish Executive should put in place policies that would allow these restoration works to be carried out, and set clear responsibilities as soon as this may be possible.

Applying standards to activities out with SEPA's control

Whilst we understand that SEPA will use the new standards and its regulatory powers to ensure no deterioration and improvement in water status, it is unclear how these standards will be used to review impacts of activities, which are outwith SEPA's controls. These activities include engineering works taking place in coastal and marine areas, and other activities such as marine dredging.

We are concerned how these standards will be applied to marine areas out to 3 nautical miles and wetlands. Whilst SEPA has the regulatory framework and powers in place to ensure no further harm to rivers, lochs and coastal areas, how will SEPA review licences and other authorisations if no relevant standards are available for wetlands and marine areas?

B : Developing environmental standards – key principles

LINK strongly supports the Scottish Executive's intention to differentiate between policy and science in developing environmental standards. However, in our LINK response to the UK TAG consultation on standards, we have already raised concerns that this may have already taken place during the development of UKTAG standards. We have been informed that expert views on some aspects of these standards, for example water resource standards, have been rejected on the grounds of expediency, which is unacceptable. We have also been informed that there were large differences in the approach between the UK agencies, with some agencies opposing the

use of the existing system of classification and supported the more precautionary, ecology-based system that is required by the WFD.

A quote from the UK TAG response papers by CCW and EN states that:

'We have highlighted instances in which we are concerned that the treatment of uncertainty has not been adequately precautionary on the context of protecting high or good ecological status. The environmental agencies (SEPA, EA?) 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 Intercalibration exercise will judge the validity of their interpretation'.

We are seriously concerned that WFD standards are being compromised at the UK level and **urge the Scottish Executive to independently review the proposed standards.**

The development of standards should be based on science and best knowledge about ecology of the water environment. Policy decisions should only be incorporated into the process at the objective setting process and follow the WFD tests for alternative objective setting process. We therefore find it contradictory to WFD principles that a partial RIA has been carried out at this early stage of standards setting procedure. It would have been more acceptable if the RIA was carried out during the RBMP objective setting, which would better reflect the costs associated with the implementation of these standards.

Phased introduction of environmental standards

We agree with the proposed 'phased' approach of environmental standards, however, as stated above, we would welcome a full review of the proposed standards before they are applied in Scotland. We also request the publication of a list of sites which SEPA considers as being in 'reference condition', and which were used to set benchmark for environmental standards.

We are further concerned about the omission of turbidity from the consultation document, which was agreed to be developed in the second phase of environment standards. We seek clarification from the Scottish Executive as to why this has been omitted.

We believe that the second phase of standards should be developed in a more transparent and open manner. All standards should be introduced well in time for the objective setting process, and follow closely CIS guidance and expert advice.

C: Environmental Standards phase 1 – detailed proposals

Summary of comments from LINKs response to the UK TAG consultation on standards

- WFD requires the foundation of these standards be based on biological quality elements; from which associated chemical and physical parameters are derived. This is contrary to the UK TAG methodology of deriving physical and chemical parameters without cross-referring these to the impacts on biological quality elements. We therefore question whether the proposed standards meet the needs of the Directive.

- Greater clarity is required on how these Standards and Conditions relate to the existing standards within other directives, and how these existing standards will be transferred into WFD classification system.
- Some of the methods used to derive water quality standards need to be reviewed, in particular the use of appropriate reference conditions and the selection of the taxa against which to judge sensitivities. The UK TAG did not provide information on selection of reference sites, which would have been used to benchmark the derived values. It is therefore impossible to judge whether the selection of benchmark values is WFD compliant, and we therefore seek further clarification on this issue. The selection of high, or reference values should be subject to proper scrutiny and public consultation.
- Consideration needs to be given as to how strong across-the-board standards can be supplemented by risk-based approaches, for example to water quality 'spikes' or morphological improvement.
- Standards for Phosphorus in rivers are alarmingly high. Considering that under undisturbed conditions P values are extremely low, we strongly object to the proposed standards.
- Standards for BOD, dissolved oxygen and ammonia have been developed using existing RIVPACS framework. This framework is limited in that it only takes into consideration the sensitivity of invertebrate fauna, and not the wider biological community as required by the WFD. Fish, for example, are known to be more sensitive to ammonia than invertebrates. Some of the UK TAG developed standards could have therefore underestimated the sensitivity of other aquatic fauna to these elements and set values, which may be too low for a given status.
- Expert views on water resource standards have been rejected on the grounds of expediency. The standards for hydrology and water resources are perhaps the weakest of all standards proposed. Experts involved in the discussions about water resource standards suggested the use of more sophisticated flow assessments that are already in use in other European countries. This proposal, together with proposals to use the existing system but with precaution in mind has been rejected. We do not find this acceptable.
- The proposed morphological standards address the issues only partially and the proposed approach is in itself inadequate and requires further development. The proposed standard appears to only consider the impact of engineering alterations, without taking into account other significant morphological impacts, such as land drainage and erosion. Non-native plants can also cause significant change to the structure of riparian zones, and all of these aspects must be considered together with engineering works.
- Standards on turbidity and nitrogen must be developed in time for the first river basin plans.

Full LINK response is attached for information. Many aspects of our responses, as well responses from experts in the field of modern ecology have not been taken into account when finalising the first set of environmental conditions, and we are still concerned that these standards are not as robust as they should be.

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This position is only confirmed by responses from other organisations, especially from the academic environment. Some quotes from responses to the UK TAG consultation include:

- ...*'The perverse intention to achieve 'good ecological status' without measuring the ecology is breathtaking. This is an engineers version of 'good ecological status' not an ecologists'. (Dr A. Feest, University of Bristol)*
- *'...the consideration of ecology is woefully inadequate' (Dr A. Feest, University of Bristol)*
- *'The UK TAG report has used very little of the best science available' and 'UKTAG does not understand ecology very well...it needs to restart the exercise as one on ecological status rather than as one on water quality'. (Prof. Brian Moss, University of Liverpool)*
- *'Not surprisingly, an approach has been taken that is essentially that of a water quality chemist. I believe that this is quite a wrong approach to a Directive on ecological status. What UK TAG has done is to provide a more complicated water quality scheme than the existing EA scheme rather than to provide a scheme that will assess ecological status. I believe that it has sacrificed the spirit of the WFD to convenience, both technical and political' (Prof. B. Moss, University of Liverpool)*
- ***'Were I an EU commissioner, I would not accept this document. I would thank you kindly for a lot of time spent but I would politely send you back to talk to a wider range of informed people than evidently you have yet seen fit to consult'*** (Prof. B. Moss, University of Liverpool)
- *'The values for soluble reactive P are so high as to be ridiculous. Had you set them for total P, they would still be high but more credible. In a high quality system there is virtually no SRP detectable at all, and you quote no evidence whatsoever to justify these values. Reasonable values for good status can not be without scenarios for good status. Values of 20 and more are associated with excretal contamination from stock, manuring or heavy fertilisation. Values of 120 are characteristic of a river with high proportion of sewage effluent that has not had P removal'. (Prof. B. Moss, University of Liverpool)*
- *...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' (English Nature/CCW)*
- *...there are serious problems associated with identifying lowland riverine sites in reference condition...across all types, the effect is to over-estimate the P-concentrations associated with reference condition and high ecological status...(EN/CCW)*

2. Implications of the proposal

The fact that the new proposals are very similar to the existing standards only confirms our concerns that the new WFD standards rely too much on existing data, and status quo situation, and do not incorporate all aspects of the aquatic ecology as required by the WFD:

WFD requires the foundation of these standards be based on biological quality elements; from which associated chemical and physical parameters are derived. This is contrary to the UK TAG methodology of deriving physical and chemical parameters without cross-referring these to the impacts on biological quality elements. We therefore question whether the proposed standards meet the needs of the Directive.

The Scottish Executive's consultation document does not explain how the new standards will apply to marine areas out to 3 nautical miles and Protected Areas, including SSSIs. We also seek clarification on these issues.

3. How SEPA will use the proposed standards

Special considerations need to be given to the consideration of consents that may affect, directly or indirectly, a Natura 2000 Protected area. We strongly recommend the use of the precautionary principle when assessing such applications, which should be treated as 'plans and projects' under the Article 6 of the Habitats Directive, and subjected to an appropriate assessment. All activities, including those currently authorised by General Binding Rules are 'plans and projects' and must therefore be subjected to appropriate assessment. SEPA must seek advice from SNH on all aspects related to Natura 2000 Protected sites and SSSIs.

Taking action to improve the status of the water environment

We would like to stress that **regulation alone will not achieve the improvements in status that may be required.** Any regulatory action must be supported and complemented by additional measures, which will encourage good practice and active restoration of the aquatic environment.

Taking action to protect the water environment

Again, we would like to stress that no activities should take place in Protected Areas without the carrying out of appropriate assessment. SEPA must seek advice from SNH on all aspects of protection and improvements in SACs, SPAs and SSSIs.

D: Second phase of standards

As stated earlier, we agree with the proposed 'phased' approach of environmental standards, but would like to stress that some of the existing standards will require further refinement as more scientific information becomes available. However, we are concerned that the Scottish Executive did not include 'turbidity' as part of the future programme for standards. This element is included in the final UK TAG report (p6) and should therefore be included in the Scottish Environmental Standards report.

Full review of all environmental standards should be carried out before the roll out of the first RBMP. We believe that the second phase of standards should be developed in a more transparent and open manner. All standards should be introduced well in time for the objective setting process, and follow closely CIS guidance.

E: Summary of Regulatory Impacts Assessment

As stated earlier, we find it difficult to understand why the UK administration made a decision to undertake a regulatory impact assessment at this early stage in the development of WFD standards. Applying costs at this early stage of developing ecological standards is against the principles of the WFD, and only gives projected, and not true, costs. The introduction of these standard which will be (as stated) later in 2006 by a Ministerial Direction should have been

informed by the ecological assessments required under the WFD, and not preliminary costs assessment associated with the introduction of these standards. As stated in the Scottish Executive paper, the intention should have been to focus on **standards** and not **costs associated with the introduction of these standards**.