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## Summary Report

### Workshop: “From Monitoring to Programmes of Measures”

24-25 October 2007, Brussels

**Note on workshop summary report**

Please note that this workshop summary report is not an official Common Implementation Strategy (CIS) document. It has been compiled by Ecologic (Anna Leipprand, Eleftheria Kampa & Cornelius Laaser) on behalf of the workshop co-organisers and will be distributed to all workshop participants.

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## **1 Introduction**

### **1.1 Objectives of the workshop**

The DE-UK workshop “From Monitoring to Programmes of Measures” (24/25 October 2007, Brussels) took place in the context of the ongoing implementation process of the EU Water Framework Directive (WFD). It was jointly organised by the Water Working Group of the German Federal States (Bund/Länder-Arbeitsgemeinschaft Wasser, LAWA), the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and authorities from the UK (Department for Environment, Food and Rural Affairs - Defra; the Scottish Government; Department of the Environment of Northern Ireland - DOENI; Welsh Assembly Government and the UK Technical Advisory Group UKTAG). The organisation of the workshop was supported by Ecologic, Institute for International and European Environmental Policy, Berlin.

Focus of the workshop was the exchange of information on the different approaches followed in Germany and the UK in relation to key current WFD implementation tasks. The workshop focused on three main issues:

- A Different approaches on the use of biological and environmental standards
- B Setting environmental objectives
- C Current status of work on the programmes of measures

Approximately 90 delegates participated in this workshop. The majority of participants were from the UK and Germany, but delegates from several other European Member States (The Netherlands, Slovenia, Portugal, Romania, France, Latvia, Lithuania, Austria, Ireland) and the European Commission were also present.

In order to assist participants to prepare for the workshop discussions, an issues paper was prepared and circulated to participants prior to the workshop. This issues paper introduced the key themes and problems put up for discussion at the workshop and outlined guiding questions. It is available online at <http://www.ecologic-events.de/wfd2007/en/index>.

### **1.2 Structure of the workshop**

In several plenary sessions, speakers from the UK and Germany presented approaches on current implementation challenges, including examples from particular river basin districts. In addition, keynote speeches were delivered by representatives of France and Romania.

In the afternoon of day 1 and in the morning of day 2, participants convened in moderated working groups to discuss the three main themes of the workshop. Conclusions were agreed in each of the working groups and presented to the plenary by the rapporteurs. The workshop was concluded by a panel discussion. Panellists commented on the technical workshop results from a political point of view and presented their visions for the future.

The workshop programme can be found in the Annex on page 19.

### 1.3 Structure of this report

This report summarises the main workshop discussions. Section 2 gives an overview of the issues raised by the individual statements and presentations. Note that all PowerPoint presentations given during the workshop are available on the workshop website (see <http://www.ecologic-events.de/wfd2007/en/index>). In addition, the issues paper (also available at this website) includes short abstracts of the presentations.

Sections 3.1 - 3.3 summarise the discussions and results from the three working groups; section 3.4 reports on the concluding panel discussion. The final key workshop conclusions are presented in the Annex (page 15).

## 2 Statements and presentations

### Block 1: Setting the scene

**Werner Theis**, Chair of the Water Working Group of the German Federal States and the Federal Government, opened the conference and welcomed the participants. A welcome note was also delivered by **Heidrun Piwernetz**, Head of the Representation of Bavaria to the EU, as the host of the event. Three introductory statements were given by **Martin Hurst** (Water Director, UK), **Fritz Holzwarth** (Water Director, DE) and **Joachim D'Eugenio** (WFD Team Leader, European Commission/DG Environment).

Statements stressed, among other things, that the coming years will be a crucial period in WFD implementation, and pointed to important issues to be discussed, such as dealing with uncertainty, the comparability of different approaches, cost-effectiveness and cost-benefit analyses, interlinkages between different levels of administration, and the importance of stakeholder involvement.

### Block 2: Biological and environmental standards

For Germany, **Klaus Wendling** (LAWA, DE) presented the state of affairs on biological assessment methods in Germany, with a focus on new assessment methods required by the Water Framework Directive (in particular based on fish, macrozoobenthos, water plants, phytoplankton), and on efforts in Germany to develop new metrics and indices.

**Martin Marsden** (Scottish Environment Protection Agency - SEPA, UK) explained that in the UK, biological tools will first be used for classification in 2008. However, since the available data will not provide for sufficient confidence in biological assessment before 2011, in the first planning cycle measures will be identified mostly on the basis of environmental standards (chemistry, hydrology and morphology), combined with those biological data that are available.

### Block 3: Objective setting

For Germany, **Sven Schulz** from the Elbe Commission/Sachsen-Anhalt presented the approach taken for the river Elbe on setting objectives and identifying measures. Since good status cannot realistically be achieved by 2015 (nutrient input reduction of 45% would be necessary), the deadline will have to be extended. Preliminary interim targets

will be set for the first planning cycle. Measures are identified and the reduction effects that can be expected from their implementation are summed up in order to define these interim targets. Several examples of measures were also presented.

**Peter Pollard** (SEPA, UK) presented conceptual approaches for dealing with uncertainty in objective setting in the UK. He pointed out that uncertainty exists both with respect to current status, and to the effectiveness of potential measures. When setting objectives in the face of less than high confidence levels, the risk of not meeting the objectives stands against the risk of unnecessary investments. The UK is developing a methodology to manage expectations and prioritise action based on different levels of confidence. Explicitly expressing and communicating uncertainty is part of the UK approach.

#### **Block 4: Programmes of Measures**

Two presentations highlighted different aspects of approaches in Germany. **Stefan Hill** (LAWA) presented the approach followed in Rhineland-Palatinate, with a focus on “early measures” based on existing programmes, e.g. on water renaturation and development (“Programme Blue”). **Joachim Bley** (Baden-Wuerttemberg) emphasised the importance of involving the public in WFD implementation and presented experiences and approaches from pilot participation processes in the Rhine basin.

Approaches to developing PoMs in the UK were presented by **Dave Martin** (Environment Agency, UK). His presentation focused on the organisation of stakeholder involvement, and also referred to the importance of detailed technical and economic analysis, and co-ordination across the UK.

The French approach to Programmes of Measures was presented by **Jean-Claude Vial** (Deputy Water Director, FR). He stressed the role of significant water management issues, disproportionate cost and cost-benefit analyses, and presented a case example of planning in the Loir river.

#### **Block 7: Keynote speech Danube**

**Carmen Toader** (Ministry of Environment and Sustainable Development, Romania) presented current approaches to dealing with nutrient loads, in particular phosphorus, in the Danube river basin. The presentation included information about management objectives, environmental objectives, measures, and the expected results of investments.

### **3 Discussion results**

#### **3.1 Working group A: Biological and environmental standards**

The working group on biological and environmental standards was chaired by **Ulrich Irmer** (Federal Environment Agency, DE). **Clifford Henry** (Department of the Environment of Northern Ireland) reported the results back to the plenary.

The main conclusions out of the discussions of this group were the following:

## **Biological Assessment**

- Biological standards will be the ultimate method for assessing the status of a water body. However, as long as not all biological assessment methods are completed and not enough data have been compiled for a reliable assessment, physical and chemical parameter and other proxy data (the old assessment methods) will play an important role both in UK and Germany. Confidence in biological tools will increase with time across Member States.
- In the UK, chemical and physical parameters have long been used for communication to stakeholders and as a basis for regulation, and will remain important.
- Physical and chemical environmental standards are necessary for predicting the impact on the biology of a water body for example in the context of “no deterioration” or for new developments.

## **Uncertainty in biological assessment – confidence and precision**

- It was agreed that uncertainty is most important at the good-moderate status border. Moreover, uncertainty has to be interpreted to justify and prioritise the need for measures (money spending) and to help targeting investigation to reduce uncertainty;
- Reducing uncertainty in classification is an important issue. However, it was agreed that high confidence levels of about 95% can not be reached for the results of the biological assessment. The WFD does not require the achievement of specific levels of confidence.
- There are different ways of reducing uncertainty. Starting from the pressure analysis, the right parameter should be chosen to reflect the pressure (e.g. fish for changes of morphology). The results of the assessment can then be checked for plausibility by another parameter (e.g. macroinvertebrates for changes in hydromorphology).
- In the UK, if certainty is low, expensive action will not be taken in the first cycle until uncertainty is reduced. Basic measures will always be applied.
- It was mentioned that confidence and precision of results have different importance in the UK and Germany due differences in the legal systems.

## **The role of the Intercalibration process**

- The outcome of the intercalibration will allow to compare the results of the national assessment methods, but not to compare the methods themselves or the status of water bodies.
- The intercalibration process was seen as an important building block for next stages. It was recognised as very valuable when explaining fairness in approaches across Europe.
- The intercalibration process is not finished yet, but the results provide a sufficient basis for the next steps (setting objectives, planning measures). However, further development of the classification systems and continued efforts of the Member States

will be necessary to successfully finalise the intercalibration work. For support, knowledge from the status-quo assessment can be taken into account.

- The German participants stressed the issue that the importance of the intercalibration and the results of the process have to be carried to the lower levels of administration. It needs to be ensured that operational staff at the local level in charge of conducting the assessment are sufficiently informed and aware of the importance of this issue.
- Participants agreed that a further crucial point is how to achieve the status classification of an individual water body (number of stations in a water body, location of stations, calculating the status in a water body). Comparability between Member States on these points was seen to be relevant.

### **Remaining problems to be addressed**

- Regarding metrics and pressure evaluation, participants felt to be in a good position for rivers in general and with elements where they have long experience with. However, scattered problems with some other elements still exist (eg. fish).
- In **Austria** metrics have been developed for almost all biological elements, but not for macroinvertebrates and phytobenthos in lakes, because this will not give new information.
- In **Germany**, assessment of fish and macroinvertebrates in lakes is problematic. In Rhineland Palatinate, however, macroinvertebrates are assessed in all water bodies.
- In the **UK**, the assessment of fish is problematic, and there are not yet enough experts to conduct the necessary number of biological assessments. The assessment of hydromorphological pressures is still problematic as well.
- All participants agreed that impacts from diffuse sources can not easily be separated and tracked down.

### **3.2 Working group B: Objective setting**

The working group on objective setting was chaired by **Martin Marsden** (Scottish Environmental Protection Agency). **Sybille Pawlowski** (Environment Ministry, North-Rhine Westphalia, DE) reported the results back to the plenary. Discussions in the working group sessions focussed to a large extent on how to deal with uncertainty.

**Uncertainty.** There was agreement that uncertainty is an important issue in water management planning. Different methodological approaches for dealing with uncertainty were discussed, and an attempt was made to analyse whether these different approaches in practice lead to differences in setting objectives.

The present representatives from UK, Germany, Austria and Slovenia confirmed that they would respond in the following way to two basic scenarios:

- If it is uncertain whether good status can be reached in 2015, an extension of the deadline to 2021/2027 (subject to Art. 4.4 tests) would be considered as best option.

- If it is clear that good status cannot be reached, then less stringent objectives would be set (2015/2021/2027). In the first cycle, Germany would only apply this in case of technical infeasibility and natural conditions.

**Case examples.** In order to further clarify approaches for dealing with different levels of uncertainty and different time scales, three case examples were discussed. Martin Marsden presented three different scenarios to the participants, and likely responses of different countries were recorded.

- **Case 1: Contaminated groundwater.** The status is currently “poor”, and it will take 100 years to recover.

The UK, Germany, Austria and Slovenia would all set less stringent objectives in this case.

- **Case 2: River.** The status is currently “poor” because of diffuse pollution. Measures have been set which may lead to an improvement to “good” by 2027, but there is uncertainty.

In this case, all (UK, DE, AT, SI) would apply for an extension of the deadline. This would give more time to improve measures and settle financing issues. The aim would be to reach good status in 2027, the final decision would be made in 2021. Interim targets would be part of the planning process.

- **Case 3: River.** The status is currently poor because of urban pollution. Surface water runoff has a large impact because the river passes through large cities. It is only a relatively small water body, but it is clear that it would be extremely costly to improve quality to “good”.

In this scenario, the present Member States would likely choose different approaches. While Germany would apply for an extension of the deadline, the UK, Austria and Slovenia would set less stringent objectives in 2009.

The consideration of uncertainty is also part of the assessment of disproportionate costs, and plays a particularly important role in this context.

**Interim objectives.** There was agreement that in the case of extended deadlines, interim objectives are important, in particular as a basis for communication with the public, and to ensure that action is taken in time. All participants agreed that interim objectives will be set domestically. However, Member States have not yet decided whether these interim targets will be officially reported in the RBMPs.

**Details of objective setting.** Another common conclusion was that the objectives will not only refer to overall “status”, but also to different components or quality parameters (e.g. hydromorphology, physico-chemical). This may be illustrated by different maps for individual components or parameters, which will help to show why some objectives may not be achieved, and also to capture improvements in individual elements.

**Steps in setting objectives.** There was no controversy as to the steps to be followed in setting objectives. Setting objectives starts from the default objectives (“good status”). The most cost-effective measures are identified that would be necessary to reach the default objectives. Then an assessment of disproportionality will be conducted, both regarding the extension of deadlines and regarding less stringent objectives. Based on the results of this assessment, the objectives will finally be set.

**Spatial scales.** The issues of spatial scales and objective setting was discussed briefly. The WFD states clearly that objectives are to be set and reported at water body scale. In the working group, no one considered that scale was an important issue affecting the setting of objectives. However, it was stated that choosing the appropriate scale is relevant for facilitating public participation.

### **3.3 Working group C: Programmes of Measures**

The rapporteur of working group C on Programmes of Measures was **Peter Pollard** (SEPA, UK). The group discussion was moderated by **Simone Pio** (INAG, Portugal).

The main conclusions out of the discussions of this group were the following:

#### **Exemptions**

- It is unlikely to be possible to achieve good status everywhere by 2015. In 2015, a large number of water bodies may still be at worse than good status. Considering this, exemptions (especially extended deadlines) may not be exceptional in the 1<sup>st</sup> RBMP.

#### **Prioritisation**

- Prioritisation is an important part of planning the programmes of measures. The main reason for prioritisation is to get the biggest environmental benefits from the money spent and to increase acceptability by reflecting stakeholder priorities. Discussions showed that the UK and Germany use a mix of top down and bottom up prioritisation approaches.

#### **Scale-specific and problem-targeted measures**

- In the programmes of measures, we need to include measures to address basin-scale problems; otherwise, we may not get the benefits of local efforts.
- Additionally, addressing a specific problem may require a package of measures rather than just a single measure.
- The use of management targets for certain pressures (e.g. for a 30% nutrient reduction in one area as an assumption to achieve good status) can be helpful in developing measures for the WFD.

#### **“Clear” measures and “new” measures**

- The proportion of “clear” measures will be high in the 1<sup>st</sup> programmes of measures (PoM). “Clear” measures in the 1<sup>st</sup> PoM are understood as measures coming from older Directives as well as measures taken to meet on-going national and local water management objectives. “Clear” measures are thus measures agreed before we get to the RBMPs of the WFD. The proportion of “new” measures is likely to be low in the 1<sup>st</sup> PoM but “new” measures will be important for closing the gap towards the WFD objectives.

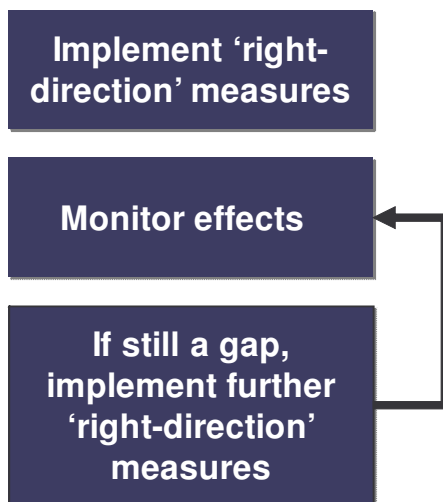
- In the 2<sup>nd</sup> PoM, the proportion of “clear” measures will decrease, while further “new” measures will gain in importance.
- In any case, the focus of discussions on river basin management planning should be on the “new” measures.
- Flexibility in the hands of Member States depends on the type of measures considered, distinguishing between measures coming from older Directives, other basic measures and supplementary measures to implement the WFD (see following table). For instance, in the case of measures coming from older Directives, there is some toolkit flexibility (“*how we do it*”) but less flexibility on the objectives.

Type of measure	Member State flexibility		WFD 'Exemptions'
	Tool kit	Objective	
Old Directives	Sometimes	- <sup>1</sup>	-
Other Basic Measures	-	Π	✓
Supplementary Measures	Π	Π	Π

<sup>1</sup> Limited derogations apply under some old Directives

### Measures and uncertainty

- Uncertainty will also affect our decisions on measures. However, it was agreed that uncertainty is not an excuse to do nothing. Uncertainty may mean doing less now but this should be accompanied by a follow-up process (e.g. monitoring, assessments, etc.) aimed at learning and reducing uncertainty.
- We should start early on with measures that we know will work. There is no point in doing complicated analysis of things we agree on. In the same time, we should focus more difficult discussions on controversial measures.
- A technical approach to uncertainty and about what can be achieved was discussed (see figure below).



- According to this technical approach, we implement “right-direction” measures, monitor their effects and, if there is still a gap, we implement further “right-direction” measures. This is a learning, iterative process.
- *How we do things in practice* in terms of objectives setting in view of uncertainty is in essence the same in UK and Germany. Differences exist in *how we communicate and present* uncertainty and its implications for objectives and measures. The different manner of presenting objectives in the 1<sup>st</sup> RBMP may, nevertheless, imply different levels of ambition. The following table summarised two options for reflecting uncertainty in objectives and their presentational implications.

Scenario	Approach 1	Alternative
Possible but uncertain if can reach good status by 2015	Good by 2021 or 2027	Good by 2015 Confidence medium or low
Possible but uncertain if can reach good status by 2027	Good by 2027	Good by 2027 Confidence medium or low
Likely not to reach good status by 2027	Good by 2027	Less stringent objective by 2015 Confidence H,M or L

- In the 1<sup>st</sup> approach, extended deadlines are used all the way to 2027. In the alternative approach, we set less stringent objectives when we think we are definitely not reaching our environmental objective.

### Comparability

- The group also discussed the issue of comparability of Member State efforts and levels of ambition. The WFD gives discretion to Member States over how to achieve the objectives and which objectives to set. Interested parties will indeed expect

comparability. The group did not reach a conclusion on this issue but different possibilities for comparison were mentioned, in terms of:

- “how much good status is achieved”
- “by how much common types of pressure are reduced, e.g. nutrient loads”
- “what measures are ruled-in or ruled out”

**Discussion on benefits**

- Water managers will have to justify measures (sometimes in terms of costs and benefits). It should be emphasised that the benefits of good status are potentially very large. Indeed, the way of communicating benefits will be important in gaining acceptability for measures. In the context of the benefits discussion, it is important to make the link to water supply, flood management and fish as well as to engage early on in a dialogue with stakeholders.

**Measures and climate change**

- In drafting the programmes of measures, water managers will also be expected to consider climate change issues. Some key points on this are summarised in the following table.

Impact of water measures on climate change	Impacts of climate change mitigation/adaptation measures on the water environment
Choose more climate-friendly measures where there are options	Make use of any synergies - e.g. no regret measures for flood risk management
Take account of high climate change costs in objective setting	Try and integrate policies and ensure coherence
	Use Article 4.7 where appropriate

- It was emphasised that sustainable water management in itself is a contribution to climate change adaptation.

**Further opportunities given by the WFD measures**

- Finally, it was pointed out that the WFD programmes of measures give an opportunity for better cross-sectoral and transboundary coordination as well as integration of water management.

**3.4 Panel discussion**

The last plenary session of the workshop was held in the form of a panel discussion. The panel was chaired by **Bernd Mehlhorn** (Federal Environment Ministry, DE). Panellists were **Helena Matoz** (Environment Ministry, SI), **Fritz Holzwarth** (Federal Environment Ministry, DE), **Stefan Hill** (LAWA, DE), **David Baxter** (Environment Agency, UK),

**José Rocha Afonso** (Deputy Water Director, PT), **Helmut Blöch** (EU COM, DG Environment).

The panel discussion built upon the reports from the working session, commenting on the technical working group conclusions and placing them in the political context. The panel discussion also provided an outlook to future key WFD tasks.

Panellists stressed that uncertainty is a challenge for many WFD implementation tasks (intercalibration, objective setting, effectiveness of measures etc.). However, there was agreement that uncertainty will not be in the way of fulfilling the WFD, that there are ways to deal with it step-by-step, and that it may even support decision-making, for instance when defining priorities for action. A need for adequate communication of uncertainty and its implications to the public was identified as another important issue.

It was pointed out that while exemptions should not be the norm, they are going to be a reality, since it will in many cases not be possible to reach good status in 2015. Interim targets should be used as management objectives, to allow for a step-wise approach towards a larger vision for river basin development. The WFD also provides the necessary flexibility when a target is missed, by creating room for update and review of measures.

In this context, it was pointed out that the first RBMPs will often emphasise existing measures. New measures will mostly be added in later planning cycles.

International co-ordination was seen as both a particular challenge and a crucial factor for ensuring success of international river basin management. In international basins, the objectives set in one country are important for the neighbouring country. In the 1<sup>st</sup> planning cycle, a visionary statement is needed in the international part of the RBMP, which describes the direction we aim to develop the basin to and which helps us keep the river basin perspective. First positive experiences with riparian co-ordination in large basins such as the Danube suggest that there is reason to be optimistic.

The question was also raised whether Member States will exchange drafts of PoMs among themselves before they are complete, and at what level of planning which information should be shared. There is need for both a bottom-up and top-down approach in planning. Except for basin issues, sub-basin and local issues should also be identified. Common principles and guidelines may be necessary here.

Several **key challenges for the future** were emphasised during the panel discussion:

One of the key tasks for the future is the integration of water management efforts into other sectors, such as agriculture, infrastructure, and transport, in order to ensure coherent and effective approaches.

While we should focus on priority actions to implement the WFD, we should not lose sight of long-term goals (2027 vision). In the same time, realistically achievable interim objectives need to be formulated to avoid frustration and to support communication of WFD implementation to stakeholders.

There is a need for a broader involvement of stakeholders, and the dialogue with users and stakeholders (e.g. inland navigation, hydropower, agriculture) in the framework of the CIS process needs to be continued.

Water is at the heart of public interest. Public support can best be ensured by clearly communicating the benefits of WFD management efforts for people.

Finally, the water management community should “translate” technical issues into a more communication-friendly language to gain broader acceptance on the political level.

The workshop was closed by **Werner Theis** (LAWA Chair, DE).

## **Annex: Key workshop conclusions**

At a time when Member States are finalising their approaches for setting objectives and planning of measures, the Anglo-German workshop “From monitoring to programmes of measures” provided a platform to exchange ideas and discuss different options. It was welcomed by participants as a timely event that helped to clarify and further refine concepts and approaches at a crucial stage in WFD implementation.

### **General issues**

- It is important to develop a long-term vision (for 2027 and beyond) for river basin districts. These visions should clearly address the identified key water management issues. While it may be necessary to prioritise action and to define interim objectives, this long-term goal should never be lost from sight. Long-term visions are particularly important for transboundary catchments since they will facilitate international co-operation and co-ordination.
- At many sites, it will not be possible to reach Good Ecological Status by 2015.
- Uncertainty at different stages of the management process (assessment of status, effects and response time of measures, reaching objectives) is an important issue and presents many challenges for river basin management. However absolute certainty is neither possible nor required for the WFD River Basin management – the cyclical review process of the WFD provides adequate scope for necessary corrections and refinements.
- Stakeholder involvement is crucial. The dialogue with users and stakeholders in the framework of the CIS process needs to be continued.
- Water is at the heart of public interest. Public support can best be ensured by clearly communicating the benefits of WFD management efforts for people.

### **Biological and environmental standards**

- Biological methods and data will ultimately be used for status assessment. However, they will not be fully operational or still in the testing phase by 2008. In the interim, environmental standards and guide values for supporting elements will be used as a proxy in combination with the available biological data.
- Uncertainty is most important at the border of good and moderate status. There are different ways of reducing uncertainty and presenting confidence levels (eg. plausibility checking, adaptive monitoring).
- The development status of biological assessment methods is relatively advanced with respect to rivers in general, and some elements have long been used for water quality assessment. However, with respect to some other elements such as fish, problems still exist.

- Intercalibration is important as a basis for ensuring comparability of classification results and explaining fairness in approaches across Europe. The current results of the intercalibration are already a good basis for planning; however, further development of the classification systems and continued efforts of the Member States will be necessary to successfully finalise the intercalibration work.

### Setting objectives under uncertainty

- Conceptual approaches for dealing with situations where it is unlikely that Good Status could be reached by 2015 used in different Member States may look different but have very similar outcomes (see examples in Table 1 and Table 2 below).
- One option is to apply **extended deadlines** to allow for longer timescales. This will maintain ambition and ensure support for taking action. A stepwise approach is appropriate, whereby “right-direction” measures are implemented and their effects monitored (see Figure 1). Applying less stringent objectives from the beginning without the perspective of Good Status in subsequent management cycles should be restricted to clear cases where it is highly unlikely from the present knowledge that Good Status can be reached by 2027.
- **Interim targets**, either formulated as objectives for environmental status or in terms of management objectives on a regional scale (e.g. anticipated load reduction or implementation of specific measures/investments), are necessary when deadlines are extended, in order to ensure that action is not delayed. Interim targets can serve as a basis for checking progress, and can facilitate public information, participation and planning at lower administrative levels. Interim targets should not be confused with compliance objectives (legal concern). They will be set domestically at national or regional level, but may not be reported in the RBMPs.

Figure 1: Step-wise approach

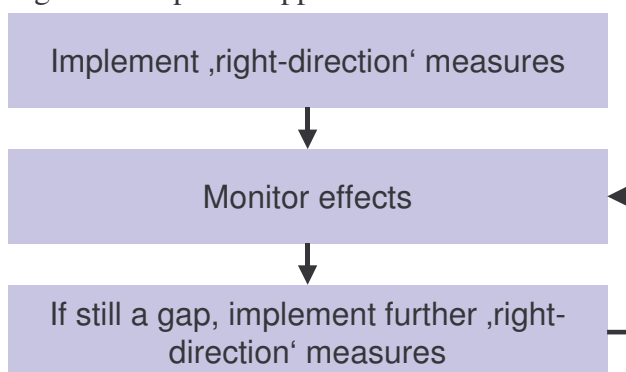


Table 1. Examples of different approaches to setting and communicating objectives for a poor status water body where achievement of good status is considered possible within the timeframe of the WFD but unlikely during the first management cycle.

	2009	2015	2021	2027
Option 1	Poor			Good
Option 2	Poor	Moderate	Moderate	Good
Option 3	Poor	Good (L)	Good (L)	Good (H*)

\* L = low confidence; H = high confidence

Table 2. Examples of different approaches to setting and communicating objectives for a moderate status water body where achievement of good status is considered possible within the timeframe of the WFD but unlikely during the first management cycle.

	2009	2015	2021	2027
Option 1	Moderate			Good
Option 2	Moderate			Good
Option 3	Moderate	Good (L)	Good (L)	Good (H*)

\* L = low confidence; H = high confidence

Option 1. Sets good status as the objective in 2027. Advantage: Ensures that – based on present knowledge – a realistic time frame to reach the objectives is developed and communicated. Disadvantage: May be difficult to motivate people to get measures in place early. Measures may be delayed.

Option 2. Sets good status as the objective in 2027 but also sets interim environmental or management objectives in 2015 and 2021. Advantage: Ensures that – based on present knowledge – a realistic time frame to reach the objectives is developed and communicated. When it is possible to set interim management objectives this helps to drive measures.

Option 3. Sets good status as the objective already in 2015 and communicates the present knowledge of a realistic timeframe in terms of confidence levels to reach the objective at a certain point in time. Advantage: Communicates the ultimate level of ambition throughout the whole process but avoids unrealistic expectations. Interim management objectives as good status provide strong incentive to drive measures.

Most participants in the workshop intend to use option 1 or option 2.

### Programmes of Measures

- The first RBMPs will include many measures that are already existing and/or decided.
- **Prioritisation** is an important part of planning the programmes of measures. Prioritisation helps to maximise environmental benefits from investments and to

increase acceptability by stakeholders. The UK and Germany use a mix of top down and bottom up prioritisation approaches.

- Information on **uncertainty** on the success of measures is one aspect used to prioritise action. Where confidence levels are too low, further investigations and clear follow-up activities should be a priority in order to reduce uncertainty. Other aspects in the prioritisation include inter alia cost effectiveness, dependence of other measures in the catchment, legal opportunities (e.g. renewal of licences) and availability of specific funding resources.
- Local knowledge is an important factor to design successful measures, especially when dealing with projects to improve hydromorphology. The **public participation** process is a key instrument to ensure its integration in the management process.
- **Co-ordination** of measures between different parts of river basins is crucial, since the effectiveness of local measures may depend on measures taken elsewhere in the basin. Measures to address basin-scale problems need to be agreed at basin level and to be included in the programmes.

## Workshop Programme

<b>1st Day: 24 October 2007</b>		
<b>Block 1</b>	<b>Setting the scene</b>	Chair: Werner <b>Theis</b> , LAWA Chair
10:00 – 10:40	Welcome note	Heidrun <b>Piwernetz</b> , Head of the Representation of Bavaria to the EU
	Welcome and introduction	Werner <b>Theis</b> , LAWA Chair
	Setting the scene – United Kingdom	Martin <b>Hurst</b> , Water Director, UK
	Setting the scene – Germany	Fritz <b>Holzwarth</b> , Water Director, DE
	Setting the scene – European Commission	Helmut <b>Blöch</b> , EU COM
<b>Block 2</b>	<b>Biological and environmental standards</b>	Chair: Martin <b>Hurst</b> , Water Director, UK
10:40 – 11:20	Biological monitoring for rivers according to WFD - Principles for the approach and evidences for the programme of measures	Klaus <b>Wendling</b> , LAWA, DE
	Using environmental standards to identify where measures are necessary	Martin <b>Marsden</b> , SEPA, UK
	Questions	
<b>11:20 – 11:50</b>	<b>Coffee break</b>	
<b>Block 3</b>	<b>Objective setting</b>	Chair: Fritz <b>Holzwarth</b> , Water Director, DE
11:50 – 12:50	Approaches to objective setting in Germany – How can agricultural pressures be addressed?	Sabine <b>Rosenbaum</b> , Federal State Schleswig-Holstein / Sven <b>Schulz</b> , Federal State Sachsen-Anhalt, DE
	Setting environmental objectives in the UK	Peter <b>Pollard</b> , SEPA, UK
	Questions / discussion Block 2 & 3	
<b>12:50 – 13:50</b>	<b>Lunch</b>	
<b>Block 4</b>	<b>Programmes of Measures</b>	Chair: José Rocha <b>Afonso</b> , Deputy Water Director, PT
13:50 – 15:30	Importance of early measures in terms of the set-up and implementation of the first River Basin Management Plan	Stefan <b>Hill</b> , Federal State Rheinland-Pfalz, DE
	Involving the public in planning of measures - Experiences from Baden- Wuerttemberg	Joachim <b>Bley</b> , Federal State Baden-Wuerttemberg/Rhine Commission, DE
	Steps towards developing programmes of measures to address water quality pressures in UK	David <b>Martin</b> , Environment Agency, UK
	Programmes of Measures – state of play in France	Jean-Claude <b>Vial</b> , Ministère de l'Ecologie, FR
	Questions / discussion	
<b>15:30 – 16:00</b>	<b>Coffee break</b>	
<b>Block 5</b>	<b>Working sessions</b>	
16:00 – 18:00	<b>A: Biological and environmental standards</b>	Chair: Ulrich <b>Irmer</b> , UBA, DE Rapporteur: Clifford <b>Henry</b> , DOENI, UK
	<b>B: Objective setting</b>	Chair: Martin <b>Marsden</b> , SEPA, UK Rapporteur: Sibylle <b>Pawlowski</b> , Federal State North-Rhine Westphalia, DE
	<b>C: Programmes of Measures</b>	Chair: Simone <b>Pio</b> , INAG, PT Rapporteur: Peter <b>Pollard</b> , UK
<b>18:30</b>	<b>Dinner</b>	

<b>2<sup>nd</sup> Day: 25 October 2007</b>		
<b>Block 6</b>	<b>Working sessions: Drawing conclusions</b>	
9:00 – 10:00	<b>A: Biological and environmental standards</b>	Chair: Ulrich <b>Irmer</b> , UBA, DE Rapporteur: Clifford <b>Henry</b> , DOENI, UK
	<b>B: Objective setting</b>	Chair: Martin <b>Marsden</b> , SEPA, UK Rapporteur: Sibylle <b>Pawlowski</b> , Federal State North-Rhine Westphalia, DE
	<b>C: Programmes of Measures</b>	Chair: Simone <b>Pio</b> , INAG, PT Rapporteur: Peter <b>Pollard</b> , UK
<b>10:00-10:45</b>	<b>Coffee break</b>	
<b>Block 7</b>	<b>Presentation and discussion of conclusions</b>	Chairing panel: Bernd <b>Mehlhorn</b> , DE David <b>Baxter</b> , UK Joyce <b>Carr</b> , UK Fritz <b>Holzwarth</b> , DE Stefan <b>Hill</b> , DE Helmut <b>Blöch</b> , EU COM José Rocha <b>Afonso</b> , PT Helena <b>Matoz</b> , SI
10:45 – 11:00	<b>Keynote speech:</b> The Danube case – current issues	Carmen <b>Toader</b> , Environment Ministry, RO
11:00 – 11:45	Reports from the working sessions (Rapporteurs)	
11:45 – 12:45	Discussion of working session reports; Bringing conclusions from the technical to the political level; Outlook / key issues for the future	
12:45	Close of workshop	Werner <b>Theis</b> , LAWA Chair

## List of participants

Robert	Fenz	Federal Ministry for Agriculture, Forestry, Environment and Water Management	Austria
Veronika	Koller-Kreimel	Federal Ministry for Agriculture, Forestry, Environment and Water Management	Austria
Matthieu	Papouin	Ministère de l'Ecologie, du Développement et de l'Aménagement durables	France
Jean-Claude	Vial	Ministère de l'Ecologie, du Développement et de l'Aménagement durables	France
Melanie	Hilbert		Germany
Eleftheria	Kampa	Ecologic	Germany
Cornelius	Laaser	Ecologic	Germany
Anna	Leipprand	Ecologic	Germany
Carolin	Wolf	Ecologic	Germany
Friederike	Mechel	Environmental Advisory Council of the Federal Government	Germany
Katja	Bunzel	Federal Environment Agency	Germany
Joachim	Heidemeier	Federal Environment Agency	Germany
Ulrich	Irmer	Federal Environment Agency	Germany
Cindy	Mathan	Federal Environment Agency	Germany
Volker	Mohaupt	Federal Environment Agency	Germany
Jörg	Rechenberg	Federal Environment Agency	Germany
Udo	Bosenius	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety	Germany
Fritz	Holzwarth	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety	Germany
Bernd	Mehlhorn	Federal Ministry for the Environment, Nature Conservation and Nuclear Safety	Germany
Joachim	Bley	Ministry for the Environment of Baden-Württemberg	Germany/Baden-Württemberg
Anton	Steiner	Ministry for the Environment of Bavaria	Germany/Bavaria
Natascha	Bäßler	Working Group on water issues of the Federal States and the Federal Government (LAWA)	Germany/LAWA
Petra	Bretz	Working Group on water issues of the Federal States and the Federal Government (LAWA)	Germany/LAWA
Jochen	Fischer	Working Group on water issues of the Federal States and the Federal Government (LAWA)	Germany/LAWA
Stefan	Hill	Working Group on water issues of the Federal States and the Federal Government (LAWA)	Germany/LAWA
Ines	Polenz	Working Group on water issues of the Federal States and the Federal Government (LAWA)	Germany/LAWA
Werner	Theis	Working Group on water issues of the Federal States and the Federal Government (LAWA)	Germany/LAWA
Bettina	Thiel	Working Group on water issues of the Federal States and the Federal Government (LAWA)	Germany/LAWA
Klaus	Wendling	Working Group on water issues of the Federal States and the Federal Government (LAWA)	Germany/LAWA
Frank	Schreiber	River Basin Commission Weser	Germany/Lower Saxony
Klaus	Gütling	Ministry for the Environment of North Rhine-Westphalia	Germany/NRW
Thomas	Menzel	Ministry for the Environment of North Rhine-Westphalia	Germany/NRW

Sibylle	Pawlowski	Ministry for the Environment of North Rhine-Westphalia	Germany/NRW
Thomas	Ehlscheid	Landesamt für Umwelt, Wasserwirtschaft und Gewerbeaufsicht	Germany/Rhineland-Palatinate
Petra	Häußling	Ministry for Economy, Transport, Agriculture and Viticulture	Germany/Rhineland-Palatinate
Andreas	Christ	Ministry for the Environment of Rhineland-Palatinate	Germany/Rhineland-Palatinate
Armin	Müller	Ministry for the Environment of Rhineland-Palatinate	Germany/Rhineland-Palatinate
Kerstin	Ramm	Ministry for the Environment of Rhineland-Palatinate	Germany/Rhineland-Palatinate
Juergen	Stein	Ministry for the Environment of Rhineland-Palatinate	Germany/Rhineland-Palatinate
Vera	Hergenröther	Struktur- und Genehmigungsdirektion Nord	Germany/Rhineland-Palatinate
Stefan	Poß	Struktur- und Genehmigungsdirektion Süd	Germany/Rhineland-Palatinate
Sven	Schulz	Ministerium für Landwirtschaft und Umwelt des Landes Sachsen Anhalt	Germany/Sachsen-Anhalt
Ulrike	Hursie	Ministry for Agriculture and Environment, Sachsen-Anhalt	Germany/Sachsen-Anhalt
Sabine	Rosenbaum	Ministry of Agriculture and Environment Schleswig-Holstein	Germany/Schleswig-Holstein
John	Sadlier	Department of the Environment, Heritage and Local Government	Ireland
Kevin	Forde	Department of the Environment, Heritage and Local Government	Ireland
Linda	Bushmane	Environmental, Geological and Meteorological Agency	Latvia
Inese	Mikelsone	Environmental, Geological and Meteorological Agency	Latvia
Laura	Jankovska	Ministry of the Environment	Latvia
Mindaugas	Gudas	Environmental Protection Agency	Lithuania
Kristina	Kibildyte	Environmental Protection Agency	Lithuania
José	Rocha Afonso	Institute of Water	Portugal
Simone	Pio	WFD implementation team	Portugal
Carmen	Toader	Ministry of the Environment and Water Management	Romania
Joerg	Prestor	Geological Survey Institute	Slovenia
Ales	Bizjak	Institute for Water	Slovenia
Helena	Matoz	Ministry of the Environment, Spatial Planning and Energy	Slovenia
Antonia	Andugar	COPA-COGECA	supranational
Helmut	Blöch	European Commission - DG Environment	supranational
Joachim	D'Eugenio	European Commission - DG Environment	supranational
Jorge	Rodriguez Romero	European Commission - DG Environment	supranational
Marieke	van Nood	European Commission - DG Environment	supranational
Monique	Berendsen	NL Ministerial Centre for Watermanagement	The Netherlands
Boris	Teunis	NL Ministerial Centre for Watermanagement	The Netherlands
Kevin	Andrews	Department for Environment, Food and Rural Affairs	United Kingdom
Robert	Hitchen	Department for Environment, Food and Rural Affairs	United Kingdom
Martin	Hurst	Department for Environment, Food and Rural Affairs	United Kingdom

Louise	Parish	Department for Environment, Food and Rural Affairs	United Kingdom
John	Ward	Department for Environment, Food and Rural Affairs	United Kingdom
William	Caldwell	Department of the Environment of Northern Ireland	United Kingdom
Dave	Foster	Department of the Environment of Northern Ireland	United Kingdom
Clifford	Henry	Department of the Environment of Northern Ireland	United Kingdom
Philip	McMurray	Department of the Environment of Northern Ireland	United Kingdom
Angus	McRobert	Department of the Environment of Northern Ireland	United Kingdom
Gabriel	Nelson	Department of the Environment of Northern Ireland	United Kingdom
Isobel	Bain	Environment Agency	United Kingdom
David	Baxter	Environment Agency	United Kingdom
John	Curtin	Environment Agency	United Kingdom
Mark	Diamond	Environment Agency	United Kingdom
John	Fraser	Environment Agency	United Kingdom
Paul	Logan	Environment Agency	United Kingdom
Dave	Martin	Environment Agency	United Kingdom
Ronan	Palmer	Environment Agency	United Kingdom
Ingrid	Baber	Scottish Environment Protection Agency	United Kingdom
Martin	Marsden	Scottish Environment Protection Agency	United Kingdom
Rob	Morris	Scottish Environment Protection Agency	United Kingdom
Peter	Pollard	Scottish Environment Protection Agency	United Kingdom
Janet	Cowden	SNIFFER	United Kingdom
Joyce	Carr	The Scottish Government	United Kingdom
David	Williamson	The Scottish Government	United Kingdom