



# WFD and Hydromorphology

European Workshop

17-19 October 2005, Prague

Technical Issues Paper  
for Workshop Day 2

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## **1 Background and introduction to the aims of the workshop**

The overall aim of the workshop is to help identify work that could usefully be undertaken in relation to the assessment and management of hydromorphological pressures and impacts as part of the Common Implementation Strategy.

The conclusions of the workshop will be used to help finalise the draft mandate for a Common Implementation Strategy activity on hydromorphological issues. Member States will be asked to approve this mandate at the next Water Directors' meeting in London on 28-29 November 2005.

Day 1 of the workshop will explore how policy integration issues could be addressed as part of the follow-up activity on hydromorphological issues. Discussion on policy issues will be concluded on day 1 so that policy experts can choose to attend for that day only if they wish.

Day 2 and 3 will focus on identifying work that could usefully be undertaken in relation to technical aspects of implementation.

Day 2 of the workshop will also provide an opportunity for participants to exchange information on:

- The hydromorphological risk assessment criteria Member States intend to use for further characterisation and the design of programmes of measures;
- The criteria Member States intend to use to confirm the designation of heavily modified water bodies; and
- The hydromorphological mitigation measures considered compatible with some of the main water uses, such as navigation, hydropower and flood defence.

This exchange of information will facilitate implementation by enabling Member States to share each other's expertise and by helping to promote consistent approaches.

## **2 Aims of the issues paper**

The workshop is intended to be a working meeting and will require the active participation of delegates, if it is to achieve its aims. The purpose of this issues paper is to help delegates prepare for the technical sessions of the workshop.

To this aim, the paper sets out the questions that delegates will be asked to address in the parallel working groups on day 2 of the workshop. Delegates should use this paper to prepare their respective contributions.

This issues paper has been prepared by the workshop organisers of UK and Germany supported by Ecologic.

### **General arrangements for the parallel working groups (each of 2,5 h duration):**

During sessions IV and V on day 2 of the workshop, participants will be invited to join one of four parallel working groups.

Each working group will be introduced by one short presentation designed to stimulate discussion.

Each working group will have a moderator and a rapporteur.

The role of the moderator will be to ensure that:

- The group covers the range of questions that it has been asked to consider; and
- Time is provided for each delegate to report on the response of his/her Member State or organisation to each question.

The role of the rapporteur will be to:

- Record the key results of the working group's discussions;
- Prepare a short summary of the key findings and agree this with the moderator; and
- Present the summary findings (in no more than 10 minutes) to the plenary session on day 3 of the workshop.

In each parallel working group, delegates will be asked to present a summary of the relevant work and views of their Member State or their organisation.

## **3 Workshop session IV**

### **Hydromorphological risk assessment criteria; and Criteria for identifying and designating HMWB**

#### **General arrangements for the Session IV working groups**

There will be four parallel working groups in Session IV of the workshop.

Two of these groups will focus on hydromorphological risk assessment criteria. The focus of the other two will be on the identification and designation criteria for heavily modified water bodies (HMWB).

The two topics are partly interlinked within the heavily modified identification and designation process. Consequently, the groups focused on HMWB identification and designation criteria may consider, among other things, the hydromorphological risk assessment criteria relevant to the designation process. The groups focused on risk assessment criteria may consider,

among other things, how risk assessment criteria contribute to the HMWB identification and designation process.

Delegates will be expected to be familiar with the Common Implementation Strategy Guidance on identification and designation of heavily modified and artificial water bodies<sup>1</sup>. The Annex of this issues paper illustrates the stepwise approach to the identification and designation of HMWB and AWB as proposed in the CIS Guidance on heavily modified and artificial water bodies. Member State delegates will also be expected to be familiar with the hydromorphological risk assessment criteria used in undertaking the pressures and impacts analysis required by Article 5 of the Directive and with the HMWB identification and designation processes of their Member State.

The introductory presentations to the parallel working groups will give examples of criteria that have been used in the first stages of implementation or that are being developed to support the next stages of implementation.

### Tasks for the working groups on hydromorphological risk assessment criteria

The achievement of the Directive's objective of good ecological status by 2015 will not be possible if the hydromorphological conditions necessary to support healthy aquatic plant and animal communities are not protected and, where necessary, restored.

As part of the review of pressures and impacts analysis completed at the end of 2004, the Directive required Member States to assess the risk of failing to achieve good status because of modifications to the hydromorphological characteristics of surface water bodies.

Because of differences in the natural characteristics of surface water bodies and in the information available on pressures and impacts, Member States have used different criteria to assess hydromorphology-related risks to the achievement of good status.

#### **Working group task 1**

**The first task of the working groups will be to share information on how Member States have so far assessed risks from hydromorphological alterations. This will help identify common difficulties and provide ideas on how to improve the assessments, where necessary.**

- Member State delegates will be asked to briefly describe the methods and risk criteria used in characterisation work to date and to help complete a list of risk assessment criteria. Delegates may wish to prepare up to two *PowerPoint* slides for this purpose.

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The results of the pressures and impacts analysis (risk assessments) will be the basis for the design of the monitoring programmes and the programmes of measures. To enable the effective and efficient design of these programmes, most Member States are likely to need to

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<sup>1</sup> Available online on the WFD CIRCA system:  
[http://forum.europa.eu.int/Public/irc/env/wfd/library?!=/framework\\_directive/guidance\\_documents&vm=detailed&sb=Title](http://forum.europa.eu.int/Public/irc/env/wfd/library?!=/framework_directive/guidance_documents&vm=detailed&sb=Title).

undertake further characterisation to better understand the risks to the achievement of good status from hydromorphological alterations. Such assessments will identify the level of protection and improvement of hydromorphological characteristics that would be needed to achieve good status. This in turn will inform the development of programmes of measures and the setting of appropriate objectives.

### **Working group task 2**

**The second task for the working groups will be to share information on (a) the steps Member States are planning to take to confirm and refine their risk assessment results during further characterisation and (b) how this work will feed into the development of programmes of measures. This information will help Member States in planning the next stages of implementation.**

- Member State delegates will be asked to briefly describe the methods and risk criteria they plan to use in the next round of characterisation work and to outline how they expect this work to feed into the development of programmes of measures. Delegates may wish to prepare up to two *PowerPoint* slides for this purpose.

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The draft mandate for the follow-up activity on hydromorphological issues will be presented by the European Commission on day 1 of the workshop. Common Implementation Strategy activities provide a means of developing common approaches to implementation and sharing expertise. The activities undertaken in the Common Implementation Strategy can range from information exchange through to the development of common guidance.

### **Working group task 3**

**The third task of the working group will be to identify any work on hydromorphological risk assessment criteria that could usefully be undertaken as part of the Common Implementation Strategy. The results of this task will be taken into account in finalising the draft mandate for the follow-up activity.**

- All delegates will be asked to briefly outline their views on what follow-up work on risk assessment criteria could usefully be undertaken as part of the Common Implementation Strategy.

### **Tasks for the working groups on HMWB identification and designation criteria**

The Directive provides that Member States may designate water bodies as heavily modified if certain conditions are met (Article 2.9; Article 4.3). For example:

- (a) The body must be substantially changed in character as a result of physical alterations;
- (b) It must not be possible to make the changes to the body's hydromorphological characteristics necessary to achieve good ecological status without significant adverse effects on a specified water use or on the wider environment; and
- (c) It must not be possible for reasons of technical feasibility or disproportionate costs to provide the benefits served by the modified characteristics by other means that would represent a significantly better environmental option.

The Common Implementation Strategy Guidance on identification and designation of heavily modified and artificial water bodies indicated that Member States should identify provisional heavily modified water bodies as part of the characterisation and pressures and impacts analysis, due to be reported in March 2005.

Because of differences in the data available to support characterisation work, Member States have used different criteria to identify provisional heavily modified water bodies.

### **Working group task 1**

**The first task of the working groups will be to share information on the criteria Member States used to identify provisional heavily modified water bodies for the purposes of the Article 5 characterisation reports.**

- Member State delegates will be asked to briefly describe the methods and criteria used to identify provisional heavily modified water bodies in their country and help complete a list of these criteria. Delegates may wish to prepare up to two *PowerPoint* slides for this purpose.

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Member States have to complete the designation process prior to the publication of their river basin management plans in 2009. To do this, Member States will need to confirm that the conditions of WFD Article 2.9 and Article 4.3 listed above are met.

### **Working group task 2**

**The second task of the working groups will be to exchange information on the process and the supporting criteria that will be used to confirm the designation of heavily modified water bodies.**

- Member State delegates will be asked to briefly describe the work they are planning to undertake to confirm that the conditions for designation are met and to outline the criteria they plan to use in assessing whether the conditions are met. Delegates may wish to prepare up to two *PowerPoint* slides for this purpose.

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The draft mandate for the follow-up activity on hydromorphological issues will be presented by the European Commission on day 1 of the workshop. Common Implementation Strategy activities provide a means of developing common approaches to implementation and sharing expertise. The activities undertaken in the Common Implementation Strategy can range from information exchange through to the development of common guidance.

### **Working group task 3**

**The third task of the working group will be to identify any work on HMWB identification and designation criteria that could usefully be undertaken as part of the Common Implementation Strategy. The results of this task will be taken into account in finalising the draft mandate for the follow-up activity.**

- All delegates will be asked to briefly outline their view on what follow-up work on HMWB identification and designation criteria could usefully be undertaken as part of the Common Implementation Strategy.

## **4 Workshop session V**

### **Mitigation measures for addressing the impacts of hydromorphological alterations**

#### **General arrangements for the Session V working groups**

There will be four parallel working groups in Session V of the workshop.

Two of these groups will focus on the identification of mitigation measures compatible with hydropower generation. Another will focus on mitigation measures compatible with navigation, including port facilities. The fourth group will consider mitigation measures relevant to a range of activities covering the interests and expertise of the participants, such as flood defence.

Member State delegates will be expected to be familiar with progress on the identification of relevant mitigation measures within their Member State.

The introductory presentations to the parallel working groups will give relevant examples of work on identifying mitigation measures.

#### **Tasks for the working groups on mitigation measures**

Certain water uses, such as hydropower generation, navigation and flood defence, often depend on substantial physical alterations to water bodies that are incompatible with the achievement of good ecological status. To provide for such uses, Member States may designate the water bodies as heavily modified in accordance with Article 4.3 of the Directive and set objectives that are compatible with the specified use.

The ecological quality achievable in a heavily modified water body (i.e. its ecological potential) will depend on the extent to which the ecological impacts of the physical alterations can be mitigated without significant adverse effects on the water use.

Where a water body has been designated as heavily modified, the default objective will be to achieve good ecological potential and good surface water chemical status by 2015.

The hydromorphological conditions of a heavily modified water body will be consistent with the achievement of good ecological potential if there are no further mitigation measures compatible with the use that would deliver more than slight ecological improvements.

Accordingly, to achieve good ecological potential, Member States will first need to identify the relevant mitigation measures that are compatible with the specified water use. The identification of mitigation measures is therefore a key step in the development of the draft river basin management plan and one which will be needed as soon as possible.

The precise definition of the mitigation measures appropriate in any given situation is likely to depend to some extent on the particular characteristics of the water body and the water use concerned. However, certain types of mitigation measures are likely to be compatible with certain types of water use.

### **Working group task 1**

**The first task of the working groups is to exchange information on:**

- (a) The process Member States have used, or intend to use, to identify mitigation measures compatible with the water use being discussed by the group (e.g. process being used to identify mitigation measures expected to be compatible with hydropower generation);**
- (b) Views on the mitigation measures normally expected to be compatible with the use; and**
- (c) Examples of measures considered incompatible with the use because they would have a significant adverse impact on that use.**

**The aim of this task is to help share expertise and promote common approaches.**

- Member State delegates will be asked to briefly summarise the work being undertaken to identify mitigation measures in their country. All delegates will be asked to describe the mitigation measures they consider likely to be compatible with the use. Delegates may wish to prepare up to two *PowerPoint* slides for this purpose.

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In certain circumstances, the Directive also provides that Member States can allow new modifications to the physical characteristics of surface water bodies, even though doing so will result in a failure to achieve good status or, where relevant, good ecological potential or to prevent deterioration of status (see Article 4.7).

One of the conditions for allowing such modifications is that all practicable steps must be taken to mitigate the adverse impact on the status of the body of water.

The mitigation measures that are practicable in relation to a new water use (e.g. a new hydropower scheme) may be different to the mitigation measures that could be retrofitted to mitigate the adverse impacts of an existing water use.

### **Working group task 2**

**The second task of the working groups is to exchange information on the mitigation measures that participants consider may be practicable when new physical alterations to surface water bodies are to be made.**

- Delegates will be asked to briefly outline (a) the system in their country for ensuring all practicable mitigation measures are taken when significant new modifications to the physical characteristics of surface water bodies are made; and (b) examples of mitigation measures they consider are likely to be practicable in relation to the water use being discussed. Delegates may wish to prepare up to two *PowerPoint* slides for this purpose.

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### **Working group task 3**

**The third task of the working groups will be to identify any work on hydromorphological mitigation measures that could usefully be undertaken as part of the Common Implementation Strategy. The results of this task will be taken into account in finalising the draft mandate for the follow-up activity.**

- All delegates will be asked to briefly outline their view on what follow-up work on mitigation measures could usefully be undertaken as part of the Common Implementation Strategy.

## 5 Annex: HMWB & AWB identification and designation process

