

# **COMMON IMPLEMENTATION STRATEGY FOR THE WATER FRAMEWORK DIRECTIVE**



## **ENVIRONMENTAL OBJECTIVES UNDER THE WATER FRAMEWORK DIRECTIVE**

### **POLICY SUMMARY AND BACKGROUND DOCUMENT**

Note: This document was discussed and the policy summary endorsed at the Water Directors' meeting on 20 June 2005 in Mondorf-les-Bains. The document should be regarded as presenting an informal consensus agreed by all partners. However, the document does not necessarily represent the official, formal position of any of the partners.

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- Appendix 2: Main Findings of the Workshop on “Water Framework Directive Objectives”, Berlin, 26-27 May 2005.

## ENVIRONMENTAL OBJECTIVES UNDER THE WATER FRAMEWORK DIRECTIVE

### POLICY SUMMARY

#### 1. INTRODUCTION

The environmental objectives of the Water Framework Directive (WFD) are the core of this EU legislation providing for a long-term sustainable water management on the basis of a high level of protection of the aquatic environment. Further to a discussion initiated by the Water Directors, this policy summary was prepared, with the assistance of a Drafting Group, in order to identify some key issues and make recommendations for further work in the context of the WFD Common Implementation Strategy.

Subsequently, a summary of the key issues and key messages is provided. This policy summary is complemented by a more detailed background document which explains these issues and justifies the key messages in more detail. The background document is enclosed to this summary. In addition, some practical examples from the Member States about the current thinking in relation of environmental objectives and exemptions have been presented during the Workshop on “Environmental Objectives and Exemptions” on 26/27 May 2005 in Berlin<sup>1</sup>. All these documents aim at providing informal guidance and support to variety of different readers involved or interested in the implementation of the Water Framework Directive.

#### 2. KEY ISSUES

Under the Water Framework Directive, the stated goal is the achievement of environmental objectives by 2015. It is therefore essential that we try and develop a common understanding of the level of ambition, we are aiming towards. Otherwise there may be wide distortions and lack of comparability in the way the directive is implemented across the EU. As for many of the challenging concepts under the WFD, the text of the directive provides the framework and gives the general orientation but there is scope for differences in understanding and application.

The discussion on environmental objectives has intensified during the last year since the first results of the analysis on pressures and impacts emerge. This discussion is, to some extent, driven by water users which contribute to the pressures and impacts in river basins and which are concerned about the implications of measures under the WFD onto their uses.

Often, the reflections on these issues do not reflect the nature and the ambition of the WFD in a correct way. In particular, the substantial benefits of achieving the

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<sup>1</sup> <http://forum.europa.eu.int/Public/irc/env/wfd/library>

environmental objectives, i.e. benefits for the environment, the individuals, water users and the economy and society as a whole, are neglected.

A first issue is the terminology which is often used in different ways. The following terms and concepts have been used when drafting this summary and the related background document.

The Article 4 WFD sets out the “environmental objectives” mainly in Article 4 §1 and provides that the most stringent shall apply (4 §2). For heavily modified and artificial water bodies, Article 4 §1 set out “specific objectives” for these specific water bodies. In Article 4 §3, strict criteria for the designation of artificial or heavily modified water bodies are described. Thereafter, a number of “exemptions” from the Art. 4 §1 objectives are introduced (see Article 4 §4 (extension of deadlines), §5 (less stringent objectives), §6 (temporary deteriorations) and §7 (new modifications)) which describe the conditions and the process in which they can be applied. It is recommended to avoid the term “derogations” since it is used differently in other EU legislation and has a different connotation in some EU languages. Finally, Article 4 §8 and §9 give general “minimum requirements” when applying the exemptions.

During the preparations and extensive consultations of this document, a number of questions arose for which relevant observations and recommendations are discussed in more detail. These identified key issues are, in particular (further details, see enclosed background document):

- Article 5 results
- Prioritised action
- Relationship between exemptions
- Less stringent objective
- Key terms
- Scale
- New modifications
- Associated water bodies
- Funding instruments

Moreover, as a starting point for a common understanding of the WFD environmental objectives, the following key messages have been identified in the preparatory process (further details, see enclosed background document):

1. Artificial and heavily modified water bodies do not constitute a conventional objective or exemption. They are a specific water bodies category – with its own classification scheme and objectives – which is related to the other exemptions in requiring certain socio-economic conditions to be met before it comes to play.
2. The so-called “exemptions” are an integral part of the environmental objectives set out in Article 4 and the planning process.
3. The translation of the WFD’s normative definitions into numeric class boundaries for good status is driven by a scientific-based approach.
4. Socio-economic considerations are fully addressed through the integrated mechanisms provided by the WFD, namely through “exemptions” from achieving

Article 4 objectives (e.g. no-deterioration and good status in 2015) and through cost-effectiveness analysis.

5. If there is sufficient evidence that costs seem to be disproportionate, careful assessment and balanced decision-making on benefits and costs is an integral part of the Water Framework Directive, in particular through the “exemptions” tests.
6. The WFD provides for environmental objectives which should be achieved by the most cost-effective combination of measures. Cost-effectiveness assessment and public participation of proposed choices are the key instruments in this process.
7. The preliminary results of pressure and impact analysis reveal that the condition of our aquatic ecosystems is to some extent more worrying than anticipated or hoped for (based on 2004 not 2015 results). This is partially due to the non-achievement of objectives under other environmental/water legislation and the considerable lack of information about many aspects.
8. The objective setting and exemptions should be used to prioritise action in river basin plans and programme of measures (see figure 1 of background document).
9. The relationship between exemptions is not a hierarchy in the sense that some are easier to justify than others. However, the conditions for setting “less stringent objectives” require more information and in-depth assessment of alternatives than those for extending the deadline. Therefore, there should be a stepwise thinking process for considering what sort of exemption may be most appropriate (see figure 1 of background document).
10. “Less stringent objective” represents the nearest quality one can get to “good status” given the impacts that are either infeasible or disproportionately expensive to address.
11. When applying exemptions, application of key terms and/or provisions in the exemptions needs to be done in an open and transparent manner in order to make the methodologies subject to consultation.
12. A harmonised, comparable and transparent approach for the application of the “exemptions” and the cost-effectiveness assessment should be co-ordinated within river basin districts and Member States. The appropriate scale of application of assessments may be different for different issues.
13. The planning of “new modifications” requires the carrying out of an environmental impact assessment which demonstrates, at least, that the criteria and conditions of Article 4 §7, but also 4 §8 and 4 §9, are met.

Summarising these key messages, the conclusion is that the WFD is based on a sound and integrated management of environmental quality in river basins which will enable the right choices for society, in particular the setting of ambitious objectives, the consideration of socio-economic and cost-effective aspects. However, there is still a lot of work to be done on objective setting and exemptions. Ongoing activities need to be continued with high priority and additional work in the Member States needs to start now. In particular, it appears that data availability for the justification of the exemption tests is still limited. Given the importance of a sound basis for using exemptions, this data gap should be closed in the coming years.

### **3. CONCLUSION AND NEXT STEPS**

The Water Framework Directive already provides for a stepwise approach to ensure that the achievement of the objectives and the related benefits and costs are being

addressed in the management cycle. It follows from the above considerations that there is a sequence of steps which, for the first river basin management plan could be summarised as follows:

**Step 1 (2004-2006):** EU harmonisation of criteria for status assessment on the basis of common methodologies and approaches.

**Step 2 (2005-2009):** Evaluation of the most cost-effective measures and identification of potential socio-economic impacts including a public consultation of these issues.

**Step 3 (2007 onwards):** Monitoring of water quality.

**Step 4 (2008-2009):** The step 2 process culminate in setting objectives including, if necessary and appropriate, application of exemptions following public participation.

The process does not stop after the first planning cycle for preparing a river basin management plan but will continue in the second and third cycle. In addition, further activities and discussions within the Common Implementation Strategy process will deepen and widen the common understanding elaborated by this document.

During their discussion of the document on the meeting of 20/21 June 2005 in Mondorf-les-Bains, the Water Directors drew the following conclusions:

*“We, the Water Directors of the European Union<sup>2</sup>, the Accession Countries<sup>3</sup> and the EFTA Countries<sup>4</sup>, welcome this policy document “Environmental Objectives under the Water Framework Directive”. It is a timely and valuable contribution to the ongoing discussions on the “heart” of the Directive, namely the ambitious objectives and the related exemptions. The lessons learnt from this constructive preparatory work will be essential for a successful implementation process.*

*The Water Directors agree to publish the document and disseminated widely amongst everybody dealing with or interested in the implementation of the Directive. The Water Directors encourage the use of the observations and recommendations made in the preparation of the river basin management plans including, in particular, the programme of measures. The Water Directors recognise, however, that some aspects will need to be discussed in more detail and work should continue within the Common Implementation Strategy process.”*

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<sup>2</sup> Austria, Belgium, Czech Republic, Cyprus, Denmark, Estonia, France, Finland, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, United Kingdom, the European Commission and the European Environment Agency

<sup>3</sup> Bulgaria, Romania

<sup>4</sup> Iceland, Norway, Switzerland and Liechtenstein

## **ENVIRONMENTAL OBJECTIVES UNDER THE WATER FRAMEWORK DIRECTIVE**

### **BACKGROUND DOCUMENT**

#### **1. INTRODUCTION**

The environmental objectives of the Water Framework Directive<sup>5</sup> are the core of this EU legislation providing for a long-term sustainable water management on the basis of a high level of protection of the aquatic environment. Inevitably, the achievement of these objectives will have enormous benefits for the protection of human health and environment. However, there are also economic consequences and implications to consider, both positive and negative.

At the meeting of the Water Directors in Rome (24/25 November 2003), the Commission was invited to prepare a discussion paper on the implications of the environmental objectives set out in Article 4 of the Water Framework Directive. On the meeting of the Water Directors on 22/23 June 2004 in Dublin, a first discussion document on environmental objectives under the WFD was presented. Whilst the document was widely appreciated, the Water Directors invited the Commission (DG ENV D.2) to further develop this document with the assistance of a Drafting Group (members of Drafting Group enclosed). Following a wider consultation and a discussion in the Drafting Group, a revised discussion document (version 3.1) was presented to the Water Directors in Amsterdam on 2/3 December 2004. The Water Directors endorsed the general direction and agreed conclusion that should guide the finalisation of the document. Another round of written consultation in January/February and the work of the Drafting Group in March was incorporated in this final version of the document. In addition, the document was presented to a stakeholder workshop in Berlin (26/27 May 2005).

This background document supplements the policy summary presented and endorsed by the Water Directors on their meeting of 21/21 June 2005 under Luxemburg Presidency. The document describes the Article 4 of the WFD, the environmental objectives and exemptions (section 2), identifies the general benefits and costs of achieving these objectives (section 3) and discusses several key issues which were identified during the preparatory process (section 4). Final considerations round up the document (section 5).

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<sup>5</sup> European Parliament and Council Directive 2000/60/EC establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1) as amended by Decision 2455/2001/EC (OJ L 331, 15.12.2001, p.1).

## 2. ENVIRONMENTAL OBJECTIVES AND EXEMPTIONS

The environmental objectives and the exemptions are set under Article 4 of the Water Framework Directive. The subsequent paragraphs aim at describing the Article 4 in a summarised way and in the order presented in the Directive (for details please refer to Article 4 of Directive 2000/60/EC).

First, however, a common terminology is introduced in order to facilitate understanding. The Article 4 WFD sets out the “**environmental objectives**” mainly in Article 4 §1 and provides that the most stringent shall apply (4 §2). For heavily modified and artificial water bodies, Article 4 §1 point (a) indent (iii) sets out “**specific objectives**” for these specific water categories. In Article 4 §3, strict criteria for the designation of artificial or heavily modified water bodies are described.

Thereafter, a number of “**exemptions**” from the Art. 4 §1 objectives are introduced (see Article 4 §4, §5, §6 and §7) which describe the conditions and the process in which they can be applied. It was recommended to avoid the term “derogations” since it is used differently in other pieces of EU legislation and has a different connotation in some EU languages. Finally, Article 4 §8 and §9 give general “**minimum requirements**” when applying the exemptions or designating heavily modified or artificial water bodies.

Second, the **main environmental objectives** in the Directive are manifold and include the following elements (for details see Article 4 §1, (a) surface waters, (b) groundwaters and (c) protected areas):

- **No deterioration** of status for surface and groundwaters and the protection, enhancement and restoration of all water bodies;
- Achievement of **good status** by 2015, i.e. good ecological status (or potential) and good chemical status for surface waters and good chemical and good quantitative status for groundwaters;
- **Progressive reduction of pollution** of priority substances and **phase-out** of priority hazardous substances in surface waters<sup>6</sup> and prevention and limitation of input of pollutants in groundwaters;
- **Reversal** of any significant, upward **trend** of pollutants in groundwaters;
- Achievement of standards and objectives set for **protected areas** in Community legislation.

It is important to note that where more than one of the objectives relates to a given body of water, the most stringent shall apply (Art. 4 §2), irrespectively of the fact that all objectives must be achieved.


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<sup>6</sup> pollution of “other pollutants” than PS and PHS need to be reduced by Member States in accordance with Article 11 (3) (k) WFD.



In order to achieve the specific objectives for heavily modified and artificial water bodies (i.e. good ecological potential and good chemical status), the provisions for designation (see Article 4 §3), contain elements of comparing the consequences of achieving the ‘good ecological status’ to a number of aspects including economic considerations. Moreover, the assessment of “good ecological potential” is linked to the possible mitigation measures<sup>7</sup>.

There has been a long debate whether these requirements should be interpreted as “alternative objectives” or “exemptions”. In both cases, however, the consequences for and the process of the implementation of the Directive are the same. It is recognised, though, that some elements of Article 4 §3 are similar to elements of the exemptions (e.g. the concept of disproportionate costs). Thus, consistency should be ensured in the application of these similar elements throughout the Directive.

	<p><b>Artificial and heavily modified water bodies do not constitute a conventional objective or exemption. They are a specific water body category – with its own classification scheme and objectives – which is related to the other exemptions in requiring certain socio-economic conditions to be met before it comes to play.</b></p>
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An integral part of the environmental objectives set out in Article 4 are the so-called exemptions (not “derogations”, see above). These exemptions range from small-scale temporary exemptions to mid- and long term deviations from the rule “good status by 2015”<sup>8</sup>, and include the following aspects:

- the **extension of the deadline** by two times six years, in other words, good status must be achieved by 2027 at the latest (Article 4 §4);
- the achievement of **less stringent objectives** under certain conditions (Article 4 §5);
- the **temporary deterioration** of the objectives in case of natural causes or “*force majeure*” (Article 4 §6);
- **new modifications** to the physical characteristics of a surface water body or alterations to the level of bodies of groundwater, or failure to prevent status deterioration of a body of surface water (including from high status to good status) as a result of new sustainable human development activities (Article 4 §7).

Common to all these exemptions are strict conditions to be met and a justification to be included in the river basin management plan. Furthermore, the assessment of the socio-economic impacts including the environmental and resource costs and benefits of achieving the objectives is one key element when considering the application of any exemption.

<sup>7</sup> See Guidance Document No. 4 on “Identification and Designation of HMWB and AWB” for more detail. [http://europa.eu.int/comm/environment/water/water-framework/guidance\\_documents.html](http://europa.eu.int/comm/environment/water/water-framework/guidance_documents.html)

<sup>8</sup> or “good ecological potential by 2015 ” for HMWB and AWB.

Comparing the criteria for applying the various exemptions (or “exemption tests”), there are some similarities between them. Thus, it should be discussed how and when to apply particular exemptions and whether there is a certain sequence or hierarchy when applying them together (see chapter 4 for more details).



**The so-called “exemptions” are an integral part of the environmental objectives set out in Article 4 and the planning process.**

Finally, paragraphs 8 and 9 of Article 4 introduce two principles applicable to all exemptions,

- first, exemptions for one water body must not compromise achievement of the environmental objectives in other water bodies
- second, at least the same level of protection must be achieved as provided for by existing Community law (including those elements to be repealed) .

Coming back to the main objectives, it is important to understand that the normative definitions for the environmental objective of “good status” are described in the Directive in great detail in Annex V. However, the development of specific numerical criteria and classification schemes including class boundaries is described only as regards the process. The development of such criteria is still ongoing:

- For **surface waters**, the definition of “good chemical status” will, for priority substances<sup>9</sup>, be harmonised across the EU through environmental quality standards. Furthermore, for the purpose of the intercalibration process, Member States should put forward their assessments for where the boundaries between high/good and good/moderate ecological status lie as part of the intercalibration process. The classification systems should be finalised before the Member States are required to implement the monitoring systems starting at the end of 2006. The boundaries between high/good and good/moderate ecological status set by the Member States will be assessed as regards their consistency with the normative definitions in Annex V WFD and the comparability across Europe in the so-called intercalibration process. This needs to be decided by the WFD Committee two years after the publication of the register of intercalibration sites<sup>10</sup>.
- For **groundwaters**, the criteria for “good quantitative status” are provided for in Annex V, point 2.1.2. Furthermore, the WFD sets out some criteria for “good groundwater chemical status” in Annex V, point 2.3.2. In addition,

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<sup>9</sup> A Commission proposal is under development with the aim of presentation in 2005.

<sup>10</sup> The register of intercalibration sites is finalised and the WFD Committee issued a favourable opinion on 20 May 2005. The Commission will adopt and publish the formal decision on the network shortly. Thus, the deadline for publication of results of the intercalibration exercise will be mid-2007 in accordance to Annex V, section 1.4.1, point viii and ix.

the Commission proposal for a Groundwater Directive<sup>11</sup> suggests further specific criteria for “good groundwater chemical status” for few substances (nitrates, pesticides). Moreover, the Commission proposed that Member States are requested to set national standards on the basis of a number of criteria and report them to the Commission with the aim to identify whether a further harmonisation of standards across Europe is necessary and feasible taking account of the different groundwater typology. The outcome of the ongoing co-decision process will have to be awaited to determine the exact nature of the process for setting further criteria for “good groundwater chemical status”.

The Directive clearly sets out the timetable and the decision making process for setting these criteria. Regarding timetable, the above-mentioned processes should be finalised by the end of 2005 and 2006 at the latest for groundwaters and surface waters respectively (see Art. 16, 17 and Annex V, 1.4.1 for details).

The decision-making process differs for chemical and ecological status criteria. As mentioned above, on proposal of the Commission, the European Parliament and the Council adopt the specific criteria for “good chemical status”, both for surface and groundwaters (“co-decision process”). Regarding the “good ecological status”, Member States are required to develop their national classification schemes which should be consistent with the WFD Annex V provisions. In order to compare these national classification systems, the results of the above-mentioned intercalibration will be agreed through comitology. In other words, the Regulatory Committee established under Article 21 will give an opinion on the report presenting the final results of the intercalibration and the Commission will subsequently endorse and publish this report.

For “good ecological status”, there is a distinction between the intercalibration process<sup>12</sup> and the objective setting<sup>13</sup>. It is important that the intercalibration delivers a baseline from which all Member States can work.

Setting the criteria for the status classes should be based on the current and best scientific knowledge which inevitably will improve with time. This should ensure that the purpose of the Directive can be achieved if those criteria for the water quality are met. According to the WFD, socio-economic considerations or technical feasibility shall not play a role in the definition of classification systems.

However, what needs to be carefully considered when setting the criteria for environmental objectives are the uncertainties related to a fixed, target. In the assessment of monitoring results there is always a likelihood of “false negative” or

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<sup>11</sup> COM(2003) 550 final of 19/09/2003

<sup>12</sup> which is about agreeing the general meaning of the status classes for each water body typology in order to ensure consistency with the WFD and comparability between the classification systems of the Member States.

<sup>13</sup> which is about setting individual objectives (not status class as in footnote above) for each water body, having considered current status/potential and whether or not exemptions apply.

“false positive” results<sup>14</sup>. In addition, when setting the environmental standards, certain data may not be available or reliable to judge certain impacts (e.g. the occurrence of synergistic or antagonistic effects).

Whilst for chemical status assessment, tools for the consideration of uncertainties are available, widely accepted and used, there are no agreed tools readily available as regards the ecological status assessment. The Working Group A on Ecological Status (ECOSTAT) is addressing this issue, amongst others, in the context of the development of a **boundary setting protocol** for the intercalibration exercise. This protocol should be finalised by the end of 2005 and endorsed by Water Directors.

On the basis of this protocol, the intercalibration results will be presented to the WFD Committee which should consider these various aspects and decide upon the results as described above.



**The translation of the WFD’s normative definitions into numeric class boundaries for good status is driven by a scientific-based approach.**

Article 4 introduces options for testing applicability of exemptions. These tests allow Member States to take full account of socio-economic considerations. The tests apply in relation to the costs and benefits associated with the measures that would be needed to achieve good status. They do not apply in relation to the translation of the Directive’s normative definitions into numeric class boundaries for good status.

In addition to these exemption tests, the cost-effectiveness analysis required for the development of the programmes of measures ensures that the most sustainable solutions are being chosen as measures. Certain issues relating to cost-effectiveness have to be assessed on transboundary scale, in particular it should be shown in a transparent way what attempt has been made regarding the assessment and how the calculations have been carried out. A starting point is to use existing data and, if there are limitations, to apply a pragmatic approach.



**Socio-economic considerations are fully addressed through the integrated mechanisms provided by the WFD, namely through “exemptions” from achieving Article 4 objectives (e.g. no-deterioration and good status in 2015) and through cost-effectiveness analysis.**

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<sup>14</sup> For more detail, refer to Guidance Documents No. 7 on Monitoring and No. 13 on Classification. [http://europa.eu.int/comm/environment/water/water-framework/guidance\\_documents.html](http://europa.eu.int/comm/environment/water/water-framework/guidance_documents.html)

### 3. BENEFITS AND COSTS

#### 3.1. Benefits

The environmental objectives set in the Water Framework Directive shall ensure the long-term protection and the sustainable use of the water resources and prevent further deterioration. The achievements of these objectives will have numerous **benefits** and socio-economic gains for this and coming generations. When examining the proportionality of costs required for achieving the objectives, these benefits can and should be taken into account. Some examples of such benefits are listed below:

- Protection and enhancement of **health and biodiversity** of the aquatic ecosystem (in particular since good ecological status requires good quality of the structure and the functioning of this ecosystem).
- Protection of **human health** through water-related exposure (e.g. through drinking, drinks and food production, bathing and consumption of fish, shellfish and seafood).
- **Lower costs for water uses**, e.g. water supply or fisheries and **more cost effectively achieved improvements** by reducing treatment and remediation costs (e.g. drinking water supply, sediment pollution).
- Improvement of **efficiency and effectiveness** of water policy based on the “polluters-pays principle” (in particular by adequate water pricing policies and cost-effectiveness assessment of measures, example: reduction of amount of water use per capita).
- Increased **cost-effectiveness** of water management, in particular of measures to implement and apply, for example the Nitrates, Urban Wastewater Treatment and IPPC Directives.
- Integrated river basin management – as introduced by the WFD – should help authorities to **maximise the economic and social benefits** derived from water resources in an equitable manner instead of repeating the mistaken and fragmented approaches of the past, which dealt with problems in a local, and usually temporary, basis. This should translate, *inter alia*, in designing more cost-effective measures to meet the environmental objectives of other EU legislation (see above). Especially for new Member States, the cost-saving potential is great the lessons from the experiences in EU15 are learnt.<sup>15</sup>
- Improvement of the **quality of life** by increasing the amenity value of surface waters (e.g. for visitors, tourists, water-sports users, conservationist) and by increasing its non-use value and all non-market benefits associated.

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<sup>15</sup> See e.g. EEA report on “Effectiveness of urban wastewater treatment policies in selected countries: an EEA pilot study”. Final draft of 19 April 2005.

- Mitigation of impacts from **climate change and security of water supplies** (e.g. by forward planning in river basin management, water demand and supply management and mitigation of flood and drought events)
- Mechanisms to address **conflicts and regional disadvantages** by balancing interests of different water users and creating a level playing field for water users across the EU<sup>16</sup> (in particular by addressing and managing all demands on water resources from drinking water supply, agricultural and industrial uses, navigation, hydropower, etc. in a consistent and comparable way)
- Promotion of sustainable uses thereby **creation of new jobs** (e.g. in ecotourism, fisheries and nature conservation sector).

Some of these benefits are financial like e.g. the saving of costs for water supply (economic benefits) and therefore can be expressed in monetary terms, or, if the acquisition of the corresponding data requires a disproportionate effort, can at least be estimated. However, on the basis of existing methodologies, it is difficult to attribute a monetary value to many types of environmental and social benefits. The existing Information Sheet on “Environmental and Resource Costs” clarifies many concepts and outlines a few examples of how to measure them in monetary terms. Another useful tool is the “Millennium Ecosystem Assessment Report”<sup>17</sup> which includes substantial information on freshwater ecosystem values. Member States need to make an effort to value or assess social and environmental benefits/costs more appropriately than in the past. Without this, it is likely that many assessments of disproportionate costs, taking place as part of the WFD implementation, will be incorrect.

However, it will not always be necessary to quantify a monetary value to all costs and benefits. Member States will need to collect sufficient information on costs and benefits to support good decision making, taking into account the costs associated with the collection of the relevant information. There is a need for pragmatic approaches in order to be able to take benefits into account if this monetary information is incomplete or not fully available. Some of these benefits may be assessed by using qualitative information. In other cases, an appropriate alternative may be the application of the “precautionary principle” or it might be possible to make a qualitative assessment of the benefits and to weigh them up against the costs.

More work is required to achieve full assessment of benefits (monetary or not) derived from the implementation of measures under the WFD. It is expected that, e.g. the ongoing work on environmental costs (both within the WFD implementation as well as in a wider context<sup>18</sup>) will improve this situation.

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<sup>16</sup> and with non-EU countries sharing a river basin with the EU.


<sup>17</sup> <http://www.maweb.org/en/index.asp>

<sup>18</sup> A project on “Assessment of the monetary value of environmental and resource costs for water services” will start in later 2005 as part of the RTD FP6 priority on scientific support to policy.

### 3.2. Costs

While recognising the considerable benefits, achieving the environmental objectives may have additional **costs** on those water uses or “driving forces” which have a negative impact on the aquatic environment or beneficiaries from improvements and which have not – up until now – contributed to address such impacts (e.g. not paying for the water use). At the moment, these potential costs are not known for various reasons. First, it is impossible to determine the costs before criteria for the environmental objectives are available. The water quality has to be monitored in accordance with the Directive. Only when comparing the monitoring results with the environmental standards (as defined through Annex V WFD) will it be possible to assess the “distance to target” and thereby the required investments. Second, the costs are largely dependent on the choices of instruments and combination of measures that Member States will use. Third, application and enforcement of other water protection legislation, in particular the UWWD, NiD and the DWD, are inadequate in a number of countries and, thus, costs related to implementing those are easily, but wrongly, added to the costs of implementing the WFD. In the end, it is not always possible to distinguish between the water management costs incurred due to the implementation of the WFD, and the costs which would have been incurred in the absence of the WFD. However, this distinction is crucial for performing the different analysis of costs. If such distinction is possible, the costs for basic measures according to existing EC water related directives (UWWD, IPPC, Nitrate etc.) can not be included directly into the analysis for justification of exemptions.


Independent of the lack of concrete cost-estimates, the Water Framework Directive incorporates mechanisms that the socio-economic impacts are properly addressed in the decision-making and that the least cost option is selected. The way that such considerations are addressed in the directive is mainly through the above-mentioned exemptions and the development of the programme of measures as an integral part of the planning process (see section 4 for more detail).

	<p><b>If there is sufficient evidence that costs seem to be disproportionate, careful assessment and balanced decision-making on benefits and costs is an integral part of the Water Framework Directive, in particular through the “exemptions” tests.</b></p>
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Further to the considerations in the objectives, the socio-economic aspects and, in particular the **cost-effectiveness**, is a central part in the development for the programme of measures. The Member States should attempt to ensure that the combination of measures for achieving the environmental objectives is resulting in the least cost option after giving sufficient attention and consideration to environmental and resource costs. Such approaches, which should be applied on

national or river basin, sub-basin or water body level, leave enough flexibility in order to address issues of concern<sup>19</sup>.

Furthermore, the proposed options including the use of certain exemptions and the proposed programme of measures must be subject to **public participation** in which all interested parties, in particular the concerned water users and the environmental NGOs, are encouraged to be involved.

	<p><b>The WFD provides for environmental objectives which should be achieved by the most cost-effective combination of measures. Cost-effectiveness assessment and public participation of proposed choices are the key instruments in this process.</b></p>
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#### 4. KEY ISSUES

Since the start of the implementation process, considerable progress has been achieved to develop and enhance the common understanding of the various technical aspects of the Water Framework Directive across the EU. As the understanding of the processes and the knowledge of the criteria defining the good status increases, the question is being raised on what the consequences for the planning of the river basin plans, the preparation of measures and the setting of the environmental objectives including the related socio-economic impacts may be. The current paper provides general reflections on some of the key issues. Practical examples were not included in the document but are increasingly available in the Member States. Some examples have been presented during the Workshop on “Environmental Objectives and Exemptions” on 26/27 May 2005 in Berlin<sup>20</sup>. However, it appears that there are only few examples available and that most of these do not necessarily have sufficient information and data to allow a sound application of the exemption tests. It will therefore be useful to continue collecting examples and highlight in particular those which can be used as a reference or good practice.

The key issue identified during the consultation process are, in particular:

##### *Article 5 results*

The first preliminary results of the pressure and impacts analysis indicate that a high number of water bodies are “at risk or possibly at risk of failing the environmental objectives set out by the WFD”. In particular, the hydromorphological alterations mainly due to navigation, hydropower, flood defences and other uses and pressures from agriculture and urbanisation are a common concern across Europe. In some parts of the EU, insufficiently treated wastewater from municipalities and industries

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<sup>19</sup> In addition, the activity on “cost-effectiveness assessment” under WG B of the WFD CIS Work Programme 2005/2006 will provide further input in this debate.

<sup>20</sup> <http://forum.europa.eu.int/Public/irc/env/wfd/library>



still plays a considerable role in the deterioration of water quality<sup>21</sup>. There are a number of factors which will enhance this situation regarding the achievement of the objectives such as the uncertainties of the analysis and the ‘worst case’ approach often followed<sup>22</sup>.

Other reasons for this situation are that the analysis incorporates those environmental objectives of other EU legislation which are not achieved yet (e.g. Urban Wastewater Treatment, IPPC or Nitrates Directives). In addition, the main environmental objectives of the WFD are broader and more challenging than previous environmental objectives.



**The preliminary results of pressure and impact analysis reveal that the condition of our aquatic ecosystems is to some extent more worrying than anticipated or hoped for (based on 2004 not 2015 results). This is partially due to the non-achievement of objectives under other environmental/water legislation and the considerable lack of information about many aspects.**

#### *Prioritised action*

It is therefore unlikely that Member States will be able to address all the problems facing the water environment in a single planning cycle. The Directive allows for this by incorporating the use of exemptions as an integral part of the river basin planning process. The exemptions provide the means by which Member States can prioritise action to improve the water environment over a series of planning cycles.


From the preliminary results of pressure and impact analysis it seems that there may be water bodies which cannot be brought to good status by 2015. Member States will not be able to tackle everything at once and will need to determine which of their water bodies are the highest priorities for action and which can be tackled later.

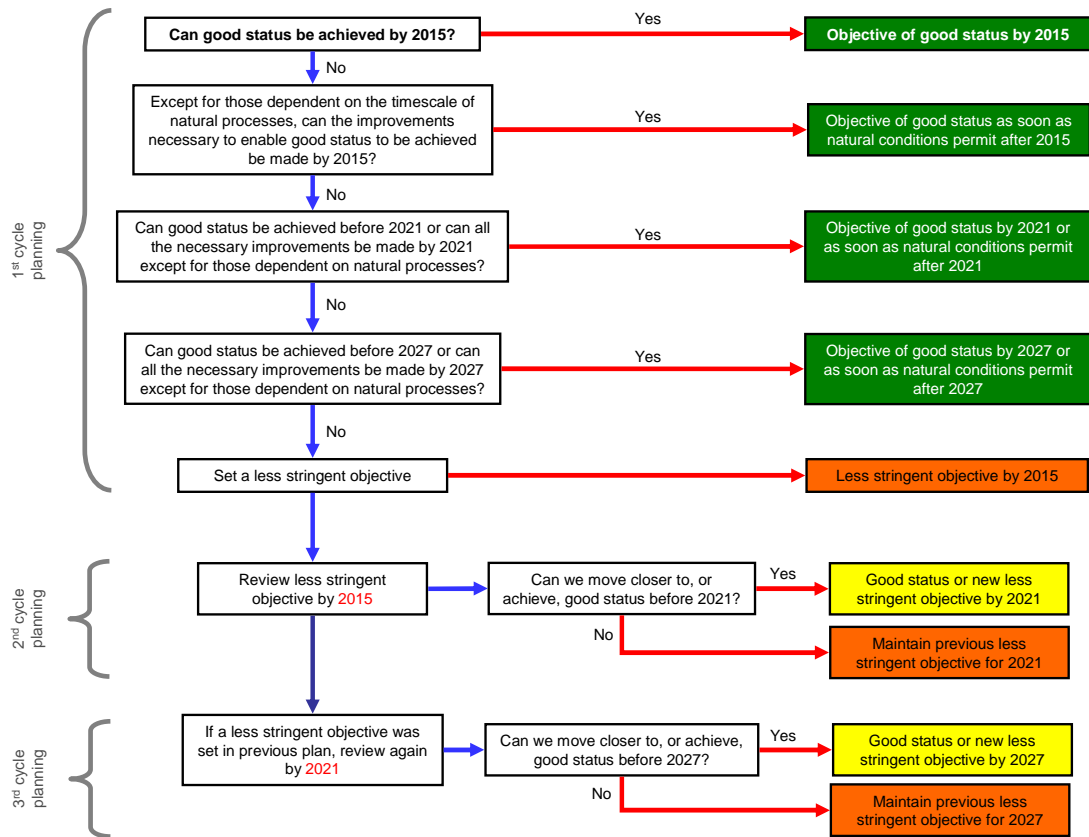
The process of setting objectives for each water body is the proper mechanism for this prioritisation of actions to meet the Directive’s objectives. Use of exemptions may be more common in the first river basin planning cycle but will reduce steadily through the river basin planning cycles, as actions are taken and the Directive’s objectives are achieved.

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<sup>21</sup> For a more systematic overview on the key issues emerging from the article 5 reports, please refer to the document prepared by Working Group B. To be found under <http://forum.europa.eu.int/Public/irc/env/wfd/library>.

<sup>22</sup> For more details see document “Principles and communication of results of the first analysis under the WFD” to be found under <http://forum.europa.eu.int/Public/irc/env/wfd/library>

 **The objective setting and exemptions should be used to prioritise action in river basin plans and programme of measures (see figure 1).**



**Figure 1:** *Stepwise thinking process for the considerations of exemptions from good status. For water bodies designated as heavily modified or artificial<sup>23</sup>, references in the Figure to ‘good status’ should be taken to mean ‘good ecological potential and good surface water chemical status’<sup>24</sup>. Note, if the objective of “good status” is aimed for (green boxes), the achievement of “good status” needs to be confirmed by monitoring data.*

*Relationship between exemptions*

<sup>23</sup> The CIS Guidance Document No. 4 on the identification and designation of heavily modified and artificial water bodies provides guidance on the application of the Article 4 § 3 tests for deciding if a water body can be designated as heavily modified or artificial. These tests include consideration of whether the changes to the hydromorphological conditions necessary to achieve good status could be made without significant adverse impacts on the wider environment or on a specified water use.

<sup>24</sup> All information needed for the decision on exemptions should be on the desk before starting the stepwise process, especially the economic data and assessments, which make it possible to test the proportionality of costs, which is one assumption for the achievement of good status.

In order to use the exemptions appropriately in the planning process, it should be recognised that the different elements of the exemptions are interrelated and should be considered in parallel rather than in sequence.

The decision making process should also factor in uncertainty (e.g. about the effectiveness of measures, changing pressures and impacts over time and knowledge of costs and benefits).

For example, a water body is at risk of not reaching good status by 2015. Measures could be taken which would improve some elements of its status but implementing all the measures needed to reach good status by 2015 would be disproportionately expensive. However, a major change in “environmental practices” is expected over the period 2017-2020. This should deliver improvements in the remaining quality elements.

If there is confidence that the change in “environmental practices” would quickly deliver sufficient improvements in the relevant quality elements, an extended deadline of good status by 2021 could be set. However, if there is uncertainty about what the effects of the change in “environmental practices” would be or how long they would take to deliver changes in ecological quality, it might be more appropriate to set a less stringent deadline for 2015 and reassess the situation when preparing the second river basin plan.

There will always be some uncertainty over whether and which measures will be effective in achieving the objectives set through the river basin planning process. Where monitoring or other data indicate that an objective set for a water body is unlikely to be achieved, Article 11 § 5 requires Member States to take such additional measures as may be necessary to achieve the established objectives. Where the additional measures necessary would be technically unfeasible or disproportionately expensive, Member States should revise the established objective in accordance with the provisions of Article 4 § 4 and 4 § 5, and include an update on the objective for the water body, the reasons for not achieving the former objective, the reasons for not taken additional measures and the measures taken to achieve the updated objective, in the following river basin management plan.



**The relationship between exemptions is not a hierarchy in the sense that some are easier to justify than others. However, the conditions for setting “less stringent objectives” require more information and in-depth assessment of alternatives than those for extending the deadline. However, there should be a stepwise thinking process for considering what sort of exemption may be most appropriate (e.g. see figure 1).**

#### *Less stringent objective*


The ecological and chemical status class of a water body are determined by a range of quality elements. If, for reasons of technical unfeasibility or disproportionate expense, one quality element cannot be restored to the condition required for good

ecological or good chemical status, then the highest objective that can be set for the water body will be below good.

A ‘less stringent objective’ does not mean that (a) the other quality elements are permitted to deteriorate to the status dictated by the worst affected quality element or (b) the potential for improvement in the condition of other quality elements can be ignored.


The achievement of a so called “less stringent objective” may require the implementation of measures that are as stringent, if not more so, than the measures that are required for water bodies for which the objective is good status.

For example, a water body has a less stringent objective set because of a significant abstraction that is disproportionately expensive to reduce. Achieving an EQS for a pollutant in such a water body may require more stringent discharge controls than would the achievement of the same EQS in a water body not subject to such an abstraction.

	<p><b>“Less stringent objective” represents the nearest quality one can get to “good status” given the impacts that are either infeasible or disproportionately expensive to address.</b></p>
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#### *Key terms*

As mentioned earlier, the exemptions contain a number of conditions for their application. To some extent, these conditions are qualified by terms which are not easy to interpret. The most important terms are “disproportionately expensive”/“disproportionate costs”, “technically feasible”, “significantly better environmental option” or “sustainable (human) development”. It will hardly be possible to agree on a common application of these terms. Thus, it is even more important that the methodologies developed by the Member States are presented in an open and transparent manner so that they can be discussed in the public consultation process.

	<p><b>When applying exemptions, application of key terms and/or provisions in the exemptions needs to be done in an open and transparent manner in order to make the methodologies subject to consultation.</b></p>
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For some of these terms, guidance is already available. On “disproportionate costs”, the WATECO Guidance<sup>25</sup> provides some reflections. On the “significantly better environmental option” or “sustainable (human) development” the application of the

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<sup>25</sup> Guidance Document No. 1: “Economics and the Environment – The Implementation Challenge of the Water Framework Directive”, find under [http://europa.eu.int/comm/environment/water/water-framework/guidance\\_documents.html](http://europa.eu.int/comm/environment/water/water-framework/guidance_documents.html)

SEA or EIA Directive<sup>26</sup> offers a legal framework to assess these aspects. On “overriding public interest”, the guidance document developed for the Article 6 of the Habitat Directive provides some reflections<sup>27</sup>.

### *Scale*

It should also be noted that the scale of the assessments is important and should be clarified in the preparation of the river basin management plan. For example, the cost-effectiveness of measures should take account of geographic target of these measures, i.e. upstream and/or downstream. It is recognised that different scales (national, basin, sub-basin, water body) may be appropriate for different assessments or different aspects of the same assessment. E.g. transboundary issues have to be assessed on a transboundary scale. However, the choice of the scale should be justified by the provisions of the WFD. Thereby, the fundamental concept of the WFD needs to be recognised which introduces the water resource management on a catchment scale.



**A harmonised, comparable and transparent approach for the application of the “exemptions” and the cost-effectiveness assessment should be co-ordinated within river basin districts and Member States<sup>28</sup>. The appropriate scale of application of assessments may be different for different issues.**

### *New modifications*

Article 4 (7) has a considerable impact on new developments and modifications. For example, hydropower plants, flood protection schemes and future navigation projects are covered by this provision. The assessment of whether the criteria and conditions are met, need to be carried out in the planning stage. Thus, it makes sense to incorporate such an evaluation into the environmental impact assessment which has to be done for most of such types of projects. However, even if certain projects are not covered by the Environmental Impact Assessment Directive 85/337/EEC, article 4 (7) may apply. For plans and programmes affecting the environmental


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<sup>26</sup> See guidance document on the implementation of the SEA Directive:  
<http://europa.eu.int/comm/environment/eia/sea-support.htm>

<sup>27</sup> “Methodological guidance on the provisions of Article 6 (3) and (4) of the Habitats Directive 92/43/EC: Assessment of plans and projects significantly affecting Natura 2000 sites”. Find under [http://europa.eu.int/comm/environment/nature/nature\\_conservation/eu\\_nature\\_legislation/specific\\_articles/art6/index\\_en.htm](http://europa.eu.int/comm/environment/nature/nature_conservation/eu_nature_legislation/specific_articles/art6/index_en.htm)

<sup>28</sup> It is the duty of the European Commission to ensure that a harmonised, comparable and transparent approach on implementing the Water Framework Directive is taking place in-between Member States and in-between river basin districts. The WFD Common Implementation Strategy is a contribution to this process.

objectives of the WFD, the evaluation in accordance to 4 (7) should be incorporated into Strategic Environmental Assessment (Directive 2001/42/EC)<sup>29</sup>.

	<p><b>The planning of “new modifications” requires the carrying out of an environmental impact assessment which demonstrates, at least, that the criteria and conditions of Article 4 §7, but also 4 § 8 and §9, are met.</b></p>
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After a new hydromorphological alteration has occurred, it may be subject to the application of the provisions for heavily modified water bodies in the subsequent river basin management plan if the conditions of Article 4 (3) apply. However, water bodies cannot be designated as HMWBs before the new modification has taken place because of the anticipation of the significant hydromorphological alteration. In any case for the designation of new HMWB’s the step by step approach developed with the HMWB Guidance Document should be applied without the “provisionally identification” after the evaluation in accordance to Art. 4 (7) has been carried out.

#### *Associated water bodies*

Article 4 § 8 specifies that when applying an exemption to a water body, “a Member State shall ensure that the application does not permanently exclude or compromise the achievement of the objectives of this Directive in other bodies of water within the same river basin district and is consistent with the implementation of other Community environmental legislation.” This minimum requirement contains two elements, first the linkages between water bodies and second, the consistency with other environmental legislation. The latter should ensure that, under no circumstances, the exemptions under the WFD are being used in order to derogate from requirements imposed by other relevant EU Directives.

Regarding the link between water bodies, the application of this requirement will depend strongly on the approach applied for the identification of water bodies. It is clear that there cannot be an automatic mechanism for justifying exemptions in an adjacent water body on the basis of an assessment carried out for another water body. This does not necessarily imply that the reasons (e.g. water uses or significant pressures) for justifying an exemption must always be located within the water body for which the exemption is sought for. Concrete “best practice examples” should be exchanged in order to avoid the risk of misapplication of this essential provision.

#### *Funding instruments*

Finally, it is evident that the assessment of the proportionality (or disproportionality) of costs may be dependent on the funding options. In this regards, the possibility to use EU funding instruments will influence the discussion and decision-making in the Member States. In particular, the Common Agricultural Policy, the Financing Instrument for Fisheries Guidance (or future European Fisheries Fund), the European Regional Development Fund and the Cohesion Fund

<sup>29</sup> See guidance document on the implementation of the SEA Directive:  
<http://europa.eu.int/comm/environment/eia/sea-support.htm>

may be applicable. It will need to be identified which measures required by the river basin management plan (which includes the programme of measures) are eligible for any of these funds. Ongoing activities under the Common Implementation Strategy will provide useful input to this end.

## 5. FINAL CONSIDERATIONS

The discussion paper introduces the key elements as regards the environmental objectives of the Water Framework Directive and the approach on how benefits and socio-economic consequences are being integrated into the management cycle in the river basin districts.

The Water Framework Directive already provides for a stepwise approach to ensure that the achievement of the objectives and the related benefits and costs are being addressed in the management cycle. It follows from the above considerations that there is a sequence of steps which, for the first river basin management plan could be summarised as follows.

**Step 1 (2004-2006):** EU harmonisation of criteria for status assessment on the basis of common methodologies and approaches.

**Step 2 (2005-2009):** Evaluation of the most cost-effective measures and identification of potential socio-economic impacts including a public consultation of these issues.

**Step 3 (2007 onwards):** Monitoring of water quality.

**Step 4 (2008-2009):** The step 2 process culminate in setting objectives including, if necessary and appropriate, application of exemptions following public participation.

The process does not stop after the first planning cycle for preparing a river basin management plan but will continue in the second and third cycle.



**The WFD is based on a sound and integrated management of environmental quality in river basins which will enable the right choices for society, in particular the setting of ambitious objectives, the consideration of socio-economic and cost-effective aspects etc.**

The objective setting and exemptions process is fundamental to river basin plans and programmes of measures, and will be a lengthy and complex process involving many stakeholders. It will involve the coordinated assessment of technical, social and economic issues. Member States can and should begin now if they are to be in a position to consult on draft water body objectives in the draft RBMP in 2008; implement measures; and achieve the relevant objectives by 2015.

However, the process of objective setting does not stop after the first planning cycle but is **dynamic** and **iterative** which means that it should be further developed and improved on the basis of experiences in the first RBMP. It is likely that the number of water bodies for which exemptions are applied will be decreasing within the

second and third planning cycle but the application will have to be adapted each time.

One particular long-term issue to be further explored and discussed in the future is the consequences of **climate change** for the Water Framework Directive. The assessment methods for good status (e.g. typology and reference conditions for ecological status classification), will have to be further developed in the light of the predicted changes in climatic conditions<sup>30</sup>.



**There is a lot of work to be done on objective setting and exemptions. Ongoing activities need to be continued with high priority and additional work in the Member States needs to start now.**

The Common Implementation Strategy serves already as a platform to exchange information and cooperate in order to learn from the various processes in the different Member States or river basin districts. It may be necessary to intensify this cooperation on some particular aspects of the issues mentioned above, during the work programme 2005/2006 and beyond.

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<sup>30</sup> For more details, refer to “Climate Change and the European Water Dimension”, Report of the Joint Research Centre (JRC) published in February 2005, EUR 21553 under [http://ies.jrc.cec.eu.int/Scientific\\_Reports.271.0.html](http://ies.jrc.cec.eu.int/Scientific_Reports.271.0.html)



## Appendix 1

**Participants for Drafting Group on “Environmental Objectives“  
under the Water Framework Directive**

<b>Member State/Organisation</b>	<b>Name</b>	<b>Email</b>
Denmark	Jens Brøgger Jensen	<a href="mailto:jbj@mst.dk">jbj@mst.dk</a>
France	Marie-Françoise Bazerque Pierre-Jean Martinez Thierry Davy	<a href="mailto:marie-francoise.bazerque@ecologie.gouv.fr">marie-francoise.bazerque@ecologie.gouv.fr</a> <a href="mailto:pierre-jean.martinez@ecologie.gouv.fr">pierre-jean.martinez@ecologie.gouv.fr</a> <a href="mailto:thierry.davy@tiscali.be">thierry.davy@tiscali.be</a>
Germany	Sibylle Pawlowski Ulrich Irmer	<a href="mailto:sibylle.pawlowski@munlv.nrw.de">sibylle.pawlowski@munlv.nrw.de</a> <a href="mailto:ulrich.irmer@uba.de">ulrich.irmer@uba.de</a>
Italy	Giorgio Pineschi Caterina Sollazzo	<a href="mailto:pineschi.giorgio@minambiente.it">pineschi.giorgio@minambiente.it</a> <a href="mailto:sollazzo.caterina@minambiente.it">sollazzo.caterina@minambiente.it</a>
Malta	Manuel Sapiano	<a href="mailto:manuel.sapiano@mra.org.mt">manuel.sapiano@mra.org.mt</a>
The Netherlands	Sjoerd van Dijk	<a href="mailto:sjoerd.van.Dijk@minvenw.nl">sjoerd.van.Dijk@minvenw.nl</a>
Spain	Marta Moren Abat José Luis Ortiz Casas	<a href="mailto:mmoren@mma.es">mmoren@mma.es</a> <a href="mailto:jlortiz@mma.es">jlortiz@mma.es</a>
Sweden	Anne Andersson	<a href="mailto:anne.andersson@naturvardsverket.se">anne.andersson@naturvardsverket.se</a>
United Kingdom	Alice Baverstock Peter Pollard	<a href="mailto:alice.baverstock@defra.gsi.gov.uk">alice.baverstock@defra.gsi.gov.uk</a> <a href="mailto:peter.pollard@sepa.org.uk">peter.pollard@sepa.org.uk</a>
Norway	Trond Syversen Geir Taubøl	<a href="mailto:trond.syversen@sft.no">trond.syversen@sft.no</a> <a href="mailto:gta@nve.no">gta@nve.no</a>
WWF/EEB	Stefan Scheuer	<a href="mailto:stefan.scheuer@eeb.org">stefan.scheuer@eeb.org</a>
Joint Research Centre	Anna-Stiina Heiskanen Wouter van de Bund	<a href="mailto:Anna-stiina.heiskanen@jrc.it">Anna-stiina.heiskanen@jrc.it</a> <a href="mailto:Wouter.van-de-bund@jrc.it">Wouter.van-de-bund@jrc.it</a>
European Commission (DG Environment)	Joachim D'Eugenio Jorge Rodriguez Romero Gilles Crosnier	<a href="mailto:joachim.d'eugenio@cec.eu.int">joachim.d'eugenio@cec.eu.int</a> <a href="mailto:jorge.rodriquez-romero@cec.eu.int">jorge.rodriquez-romero@cec.eu.int</a> <a href="mailto:gilles.crosnier@cec.eu.int">gilles.crosnier@cec.eu.int</a>

# Water Framework Directive Objectives Workshop

## Berlin, 26 – 27 May 2005

### - main findings –

#### 1. Background

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The “Water Framework Directive Objectives Workshop” was jointly organised by Germany and the European Commission as part of the Common Implementation Strategy (CIS) for the Water Framework Directive (WFD). It was held in Berlin on the 26<sup>th</sup> and 27<sup>th</sup> of May 2005.

The **main goals of the workshop** were

- to provide an opportunity for participants to discuss their **practical experiences in defining environmental objectives** and evaluating possible **exemptions** (Article 4 of the Water Framework Directive)
- to **clarify issues** raised in the **Commission’s discussion document** on environmental objectives<sup>i</sup>
- to **create the basis for a back to back document** for the further discussion, based on practical experiences and approaches from the Member States.
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The workshop was based on the following **documents**

- 1 the draft **discussion document**<sup>i</sup> and **background document**<sup>ii</sup> on environmental objectives (both released on 12<sup>th</sup> May 2005),
- 2 an **issue paper**<sup>iii</sup>, that summarises and evaluates the case studies with respect to the issues raised in the discussion document,
- 3 **case studies** for important exemptions, that were provided by the Member states. The full text versions of the case studies can be found in the annex of the issue paper.

The discussion was structured around the **key issues** defined in the draft discussion document<sup>i</sup> and background document<sup>ii</sup>, in particular

1. **Extension of deadlines and less stringent objectives**
2. **Cost-effectiveness assessment and proportionality of costs**
3. **Other EU-Legislation and associated water bodies**
4. **Heavily modified water bodies and new modifications**

After a **key note presentation** on the mentioned issues, the provided **case studies** were presented. The key issues were further discussed in four **working groups**. Finally, the main findings of the working groups were presented and discussed in a **common session**.

Altogether 34 experts from 11 countries participated in the workshop. Besides the representatives of the Member States and the European Commission (DG Environment), 5 delegates of stakeholder groups participated (see Annex).

The document at hand provides a short overview of the main findings on the workshop. Additionally, the case studies provided by the Member States are summarized.

## **2. Summary of the case studies**

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In total, 14 case studies from 6 member states were provided. 9 of these cases were presented in the workshop<sup>iv</sup>. The following pages give a short overview on the provided case studies with respect to the problems addressed.

**Case study DE1** describes a scheme for the evaluation of measures against structural and non-structural derogations in rivers in one federal state of Germany. The scheme applies to HMWB as well as other bodies of surface water and is focused on the settling of type specific fish species. The case study evaluates different aspects of the exemptions as well as financial aspects.

**Case Study DE2** and **DE4** describe problems related to open cast lignite mining areas in Germany. Case study **DE2** describes that as a result of the mining activities in the Elbe river basin district, several groundwater bodies are expected to fail the environmental objectives (quantitative and qualitative status). **Case study DE4** describes the situation in open cast lignite mining areas in the Lower Rhine lowland. The dewatering of the mining areas cause large scale lowering of the groundwater table. Both case studies come to the conclusion that “less stringent objectives” would be the most likely exemption.

**Case studies DE3 and ES1** describe the problem of nitrate leaching from farmland. In both cases it is argued that groundwater bodies are at risk of failing to achieve good chemical status by 2015 due to exceeded nitrate levels. Case **DE3** states that it is necessary to extend the deadline for achieving the objective of good chemical status. Several questions regarding the cost effectiveness assessment of possible measures are raised.

**Case study ES2** describes the problems related to salt mining activities in the Catalan River District (Spain). The mining activities cause a high salt concentration in some rivers and it is stated that the District will fail to achieve good status by 2015 in some water bodies. Several measures to mitigate the problem are discussed, which are

described as costly and complex.

**Case study ES3** describes the case of slate exploitation in the area of the Casoyo River, Spain. Slate extractions and their disposals are affecting especially the riverbanks.

**Case study ES4** describes the problem of saline intrusion in the lower reaches of the Llobregat River in Spain. The problem is caused by groundwater abstraction in the river catchment.

**Case study FR1** describes a methodology applied in rivers in the Normandy (France) for the definition of values for good status, the evaluation of risks of failing the objective of good status as well as the analysis of possible measures.

Case **MT1** describes the problem of the nitrate content in the groundwater body of Malta. It is explained that due to the specific situation in Malta, where the volume of groundwater in storage is relatively large compared to the volume of annual recharge and abstraction, it will not be possible to reach the corresponding objective. To calculate the timeframes for different scenarios, a mixing model for the groundwater body is suggested. Especially “less stringent objectives” and “extension of deadlines” are taken into consideration.

**Case study NO1** describes the dilemma of applying “Less stringent objectives” (Art. 4 § 5) or “Heavily Modified Water Bodies” (Art. 4 § 3) in the case of a Norwegian hydropower project, comprising four reservoirs, two hydropower plants and a complex network of stream diversions / transfer tunnels. The question is raised if “ecological continuum” as stated in annex V of the Water Framework Directive is to be seen as an absolute requirement.

**Case study PL1** describes the case of a retention reservoir in Poland. A 41 meter high dam does not have any structures for the migration of fish. This causes a discontinuity in the river ecosystem. The case raises the question if “Heavily Modified Water Bodies” (Art. 4 § 3) should be applied, as the restoration of good ecological status is seen as not possible.

**Case study PL2** describes the case of a river catchment in Poland. The rivers are regulated on almost half of their length (cross-structures and rout correction). It is stated that the water body is in risk of failing the objective of what is here referred to as a good hydromorphological status. The exemption “extension of deadlines” is considered.

**Case study UK1** describes a methodology for calculating the cost-effectiveness of measures in national programmes according to the WFD. It is also linked to issues of other EU-legislation such as the phosphorous standards required by the UWWTD, which

were used as a benchmark data set. It is proposed to use this methodology for the evaluation of the applicability of Article 4 § 4 a (less stringent objective).

**Case study UK2** describes the situation in the Scotland River Basin District. The interrelations between the WFD and the Freshwater Fish Directive as well as the Urban Waster Water Directive are evaluated. Temperature and nutrient impacts are analyzed as examples.

### **3. Key findings of the workshop**

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The findings of the workshop concur with the Commission's discussion document<sup>i</sup> and background document<sup>ii</sup> on environmental objectives. Two minor adjustments of the papers were suggested (see number one, last sentence, and number three below).

The key findings of the workshop were discussed in the final common session. The participants were asked for their comments after the workshop. In the following text, the key findings of the workshop are structured around the key issues raised in the COM discussion document<sup>i</sup> and background document<sup>ii</sup>. The text was adapted to the comments of the participants.

#### **Extension of deadlines and less stringent objectives**

1. The stepwise thinking process, as illustrated in figure 1 in the COM background document on environmental objectives<sup>ii</sup>, is accepted: Use first the extended deadlines. Only if this is not sufficient the less stringent objectives can be applied. All information needed for the decision on exemptions must be on the desk before starting the stepwise process.
2. Legaly it is not possible to extend the deadlines from 2027 onwards (except for natural reasons). If necessary, less stringent objectives have to be applied. The message is: all possible measures have to be done until 2027 at the latest.
3. In case of significant pollution there is a need to clarify the possible role of natural conditions as a reason for less stringent objectives.

#### **Cost-effectiveness assessment and proportionality of costs**

4. Cost-effectiveness assessment has to be done before the assessment of proportionality. Certain issues have to be assessed on a transboundary scale. In a transparent way it should be shown how the assessment/calculation has been tried. Use the existing information and data, see the limitations and be pragmatic.
5. Make reasonable efforts to collect environmental cost and benefit information.
6. Proportionality of costs is an open issue: work on it! The costs for basic measures according to existing EC water related directives (UWWD, IPPC, Nitrate etc.) can

not be included into the cost-benefit analysis for justification of exemptions.

### **Other EU-Legislation and associated water bodies**

7. Exemptions under the WFD must not be used if other EU legislation would be compromised.
8. Effects on associated water bodies outside of the RBD (e.g. marine areas) have to be taken into account (e.g. eutrophication). This is an ongoing issue in regional marine conventions and EU's marine strategy, too.
9. Start the exemption setting process early and discuss it open with your neighbours in transboundary river basins.

### **Heavily modified water bodies and new modifications**

10. HMWBs have specific objectives with an ambitious goal. The designation as HMWB does not mean that we do nothing.

The findings of the workshop as well as the documents provided by the Member States will be documented in the final workshop report. Issues related to Article 4 § 7 of the WFD will be discussed in the workshop in Prague, that will be organized by the UK in autumn 2005.

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<sup>i</sup> Discussion document on environmental objectives under the water framework directive, draft, 12 May 2005, Version 4.0.

<sup>ii</sup> Environmental objectives under the water framework directive (Background document), revised draft, 12 May 2005.

<sup>iii</sup> Environmental Objectives and Exemptions - Practical Examples from the Member States - Draft, Bensheim/Berlin, May 19, 2005.

<sup>iv</sup> The following case studies were presented in the workshop: **DE1** (Settlings of typespecific fish species - Germany); **DE2** (Groundwater Status of former open cast Lignite Mining Areas, Germany); **DE3** (Agriculture and exemptions from the objective "good chemical status of groundwater" - Germany); **FR1** (Good status, risk assessment, measures and environmental objectives - Testing in Normandy - France); **MT1** (Remediation of groundwater - Malta); **NO1** (The Aura hydropower project - Norway); **PL1** (Dobczyce retention reservoir - Poland); **PL2** (STRADOMKA river – hydromorphological changes - Poland); **UK2** (Freshwater Fish Directive / Urban Waste Water Directive & Water Framework Directive - Scotland, UK).

The following case studies were not presented in the workshop, but can be found in the annex of the document "Environmental Objectives and Exemptions - Practical Examples from the Member States", Bensheim/Berlin, May 19, 2005: **DE4** (Reducing the consequences of lignite mining - Germany); **ES1** (Groundwater bodies polluted by nitrates - Spain); **ES2** (High concentration of chlorine in river water - Spain); **ES3** (Slate quarry in Casoyo river – Spain); **ES4** (Marine intrusion in ground water bodies – Spain); **UK1** (Indicative Assessment of Disproportionate Cost - Scotland, UK).