

**Common Implementation Strategy  
for the Water Framework Directive  
“Work Programme 2005/2006”**



**Preliminary joint environmental NGO input on  
Draft mandate for an activity on  
“Water Framework Directive and hydromorphological  
pressures resulting from hydropower, navigation and flood  
defence activities”  
Phase I: 2006**

24 October

**i. Introduction**

In early 2005, MS have delivered their reports on the risk assessment of water bodies according to Art. 5 WFD. Inter alia Art. 5 of the WFD has required a review of the impact of human activity on the status of surface water bodies, i.e. the identification of the type and magnitude of significant anthropogenic pressures including point sources, diffuse sources of pollution, abstraction or regulation and hydromorphological alterations as well as an assessment of their impacts according to the technical specifications set out in Annexes II 1.4/1.5.

The risk analysis has been supported by several CIS activities, e.g. the IMPRESS and HMWB guidance documents.

The reports on risk analysis of the MS have shown that hydromorphological changes are the most important [impacts pressures](#) resulting in a high percentage of surface water bodies probably failing the good ecological status. In addition a high percentage of surface water bodies have been provisionally identified as heavily modified water bodies (HMWB)

**COMMENT 1**

The analysis has also provided evidence of remarkable differences in the techniques applied in identifying water bodies “at risk” of failing to meet Good Status or as being heavily modified water bodies. These differences even apply within river basins, e.g. the Danube<sup>1</sup>. The Prague EU CIS Workshop on “WFD and Hydro-morphology” highlighted problems and differences in the approaches used so far and discussed possible measures to improve and, in some cases, correct the situation for the next steps of the designation process., Serious effort is needed to preserve and improve the hydro-morphology of surface waters. Otherwise, the general goal of the WFD, achieving good ecological status, and the overall “enhanced protection and improvement of the aquatic environment” (WFD, Article 1c) are in jeopardy.

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<sup>1</sup> Environmental NGOs have already expressed their concern that such identification has already been influenced by new infrastructure projects that are now on the pipeline, e.g. new TEN-T projects for navigation in Danube stretches.

The main hydromorphological driving forces identified in risk analysis are hydropower, [coastal management](#)<sup>2</sup>, flood protection, navigation, [urban development](#)<sup>3</sup> and agriculture<sup>4</sup>. Other activities such as ~~urbanisation~~, gravel and water abstractions, outdoor recreation activities and fisheries are also of some importance. Hydromorphological alterations are often undertaken for more than one reason, e.g. a multi purpose dam for hydropower generation, flood protection, and water abstraction or river chanalisation for navigation and flood protection.

The main hydromorphological alterations ~~supporting the driving by these~~ forces are dams/weirs, surface water body maintenance e.g. sediment management, chanalisation/straightening, alterations of the surface water body profile. These alterations cause hydromorphological changes such as disruption of sediment transport, alteration of the hydraulic and hydrological characteristics (e.g. reduced water flow), loss of flooding areas, drying of wetlands as well as disruption of the biological continuity and direct damage of biota. The impacts of these subsequent changes and effects endangered the occurrence of the type specific aquatic communities, i.e. the good ecological status.

#### **COMMENT 2**

The aim and contents of the WFD in respect of hydro-morphologic pressures/impacts are very closely linked to the aims of aquatic ecosystem conservation. The relationship between hydro-morphology and biology (of species) will gain importance in the next steps of implementation. Thus, the integration of the Natura 2000 network aims in WFD implementation (Article 6 and others) requires the inclusion of some “conservation” issues into the mandate of this activity.

Therefore, the Water Directors agreed at their meeting in Luxembourg in June 2005 to start a new activity referring to hydromorphological alterations as the most important [impacts pressures](#) on surface water bodies resulting in a high percentage of surface water bodies probably failing the good ecological status.

The main aim of this activity is:

#### **COMMENT 3**

The aims do not reflect the hierarchy of the Directive’s objectives e.g. (1) *Prevent*, (2) *Restore* and (only when exemptions can be justified) (3) *Mitigate*. What is presented focuses too much on the “mitigation” element. This hierarchy of protection was agreed at the Prague EU CIS workshop on “WFD and Hydro-morphology” .We welcome this as a great success of the Workshop, but this hierarchy has to be elaborated for the list of key issues and work tasks in this mandate. We’ve had a first attempt at this but it needs to be refined.

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<sup>2</sup> Infrastructures to deal with coastal erosion control/flood defence has major implications for coastal water body morphology, see RSPB paper “The Water Framework and Flooding: Implications for flood defence and coastal management policy in England & Wales”, Robert Cunningham and Ruth Davis, RSPB, October 2004, at [http://www.rspb.org.uk/Images/spaceforwaterappendix\\_tcm5-62448.pdf](http://www.rspb.org.uk/Images/spaceforwaterappendix_tcm5-62448.pdf)

<sup>3</sup> The (urban sprawl)/development of floodplains, river corridors and the coastal fringe also place significant pressure on water body morphology. We suggest this is also considered in this “Main pressures” section

<sup>4</sup> We agree that agriculture is a major pressure on hydro-morphology. Therefore, we are surprised it does not appear in the “Objectives & Key Subjects” in section ii below.

- To exchange information on
  - Approaches to the assessment and management of significant hydro-morphological pressures and impacts in order to facilitate the transfer of expertise between Member States and to promote common and comparable approaches to implementation; and
  - Assessment and evaluation of preliminary HMWB sdesignations –in order to identify and correct possible errors or misinterpretations of the Directive and to restore and improve trust in the implementation process
  - Reference systems/conditions that allow the evaluation of water body status and the implementation of effective protection and restoration measures
  - The delivery of obligations to prevent damage/deterioration to hydro-morphology of water bodies at High Status,
  - Approaches for the protection and/or restoration - beyond water body hydro-morphology extending to the complete ecosystem (river, lake, coast) level - consistent with Good Ecological Status (GES)
  - The application of GES exemptions and approaches to mitigation in order to achieve Good Ecological Potential (GEP).
  - Available knowledge about the link between hydro-morphological changes and ecological/biological impacts<sup>5</sup>
- To identify how best to manage synergies and antagonisms between the statutory WFD hydro-morphological objectives for surface water bodies to be delivered through river basin management planning, and the requirements of other policies (e.g. renewable energy, transport agriculture land management and flood management).

#### **COMMENT 4**

The WFD cannot be “forced” to fit other policies. The Directive establishes **legally binding** objectives which can only be relaxed where strict exemption tests are passed. Other polices must be **shown** to be compatible with WFD objectives, or pass exemption tests. If these “other polices” do not, they cannot be implemented legally.

- To develop approaches and strategies for the protection and/or restoration - beyond water body hydro-morphology extending to the complete ecosystem (river, lake, coast) level - consistent with Good Ecological Status (GES)

## **ii. Objectives and key subjects**

The objective of the activity will be to identify and share good practice approaches to the delivery of WFD objectives and, in doing so avoiding, limiting and managing the adverse impacts of water uses on the hydromorphological characteristics of surface water bodies.

<sup>5</sup> See RSPB paper “Rivers, Floodplains and Wetlands: Connectivity and Dynamics A review of the importance of connectivity and dynamics on biodiversity and the implications for definitions of reference conditions and good status”, Catherine Peacock, RSPB, June 2003 at [www.rspb.org.uk/Images/rfp\\_tcm5-62106.pdf](http://www.rspb.org.uk/Images/rfp_tcm5-62106.pdf)

The activity will consider both technical and policy issues, and will focus on key pressures including in particular on navigation, hydropower, agriculture, coastal management and flood defence.

#### **COMMENT 5**

Agriculture is identified as a major pressure in the introduction and should be included here.

Some of the key questions emerging from the current discussions are:

- What is the extent of the hydromorphological pressures and impacts resulting from human activity (especially from flood-defence, hydropower and navigation activities)?
- Where are the potential areas of conflicts of those activities with ~~the water policy~~ the statutory objectives of the WFD and other water policy objectives?

#### **COMMENT 6**

Lets not forget, the WFD is a statutory instrument, not just a policy

- What is necessary from the ecosystem perspective, combining hydro-morphology and biology, at the river basin or coastal level according to WFD objectives?
- What technologies and infrastructure designs exist that deliver relevant/desired water uses while being GES compatible/consistent.
- What instruments and measures exist or should be established to reconcile those different policies and what result do they achieve/are likely to achieve as regards reducing the pressures?
- How can the co-operation and exchange of information between the competent authorities and stakeholders for the relevant policies be optimised in order that they make full use of their potential to understand promote each other's objectives?
- How can hydropower generation and programmes of measures under the WFD be managed?
- What are the fundamentals of surface water maintenance for navigation including sediment management concerning GES or GEP? How can a common understanding be developed?
- Are specific recommendations on good practice for restoration and mitigation measures useful and compliant/consistent with GES or GEP as defined by the WFD?
- How can we build on the experience gained by the delivery of conservation and biodiversity objectives and use the synergies to develop better results?

Answering those questions will require 2 different types of approach:

- A technical approach, targeted at the identification of good practice in relation to preventing deterioration and/or restoring ation hydro-morphological conditions consistent with GES and mitigation measures consistent with GEP. Knowledge and research gaps will also be identified
- A political approach, targeted to policy recommendations for a better integration alignment of between the different policies so as not to jeopardise the achievement of the WFD objectives.

As those 2 approaches are from different levels, with a different relevant audience, it is proposed to split the mandate into 2 different but linked activities.

### iii. Technical Activity –

#### Purpose

The purpose of the technical activity is to facilitate the exchange of information on, and where possible identify common criteria for, the hydromorphological conditions considered necessary to enable the achievement of good ecological status; and mitigation measures considered necessary to enable the achievement of good ecological potential.

#### Scope

The workshop held in Prague on 17<sup>th</sup> – 19<sup>th</sup> October 2005 ~~tried to will~~ assess the extent of the impact of hydromorphological alterations across Europe and the main causes of these alterations.

The assessment ~~will was be a first scoping exercise as it was~~ based on ~~very different a review of the~~ Member States' article 5 reports together with information provided by the Member States ~~and stakeholders~~ at the workshop. ~~This varied from rather detailed to "have not started". As this information base is thus still patchy, some follow-up technical work on hydro-morphological issues can be identified as listed below , while further task may still emerge~~~~will~~:

- Provide an overview of the results of the Article 5 risk assessments for hydromorphological pressures and impacts, and hence the overall scale of the problem across Europe;
- Identify the main causes of the hydromorphological pressures and impacts placing water bodies at risk of failing to achieve good status;
- Identify the number of provisional Heavily Modified water bodies and the water uses responsible for the modifications to their physical characteristics;
- Identify the criteria used by Member States for the purpose of assessing risks from hydromorphological alterations and for identifying provisional heavily modified water bodies;
- Identify key gaps in the scientific knowledge of the effects of hydromorphological pressures on ecological status.

This information ~~will be is~~ used to help develop the scope of, and prioritise, the follow up technical work on hydromorphological issues.

#### Main tasks

- Exchange information on Member States approaches to defining reference hydro-morphological conditions, identify gaps and research needs for further refinement.
- Exchange information on the approaches Member States plan to use to refine and evaluate their risks assessments to facilitate the design of their programmes of measures, including identification of heavily modified water bodies. Risk assessment criteria will inform the design of the restoration measures necessary to achieve good status;

- [Develop approaches and strategies for the protection and/or restoration - beyond water body hydro-morphology extending to the complete ecosystem \(river, lake, coast\) level - consistent with Good Ecological Status \(GES\)](#)
- [Develop a system for assessing approaches for avoiding further hydro-morphological/ecological deterioration; including technical approaches and an assessment of “other means” in line with HMWB tests.;](#)
- [Improve understanding and knowledge of the interaction of hydro-morphology and biology. This includes the species population and river basin as well as regional perspectives;](#)
- Exchange information on the [restoration and](#) mitigation measures Member States consider compatible with specific water uses, in particular hydropower generation, navigation, [agriculture coastal management](#) and flood defence. This task should cover the [restoration and](#) mitigation measures considered appropriate in relation to existing uses and in relation to new uses permitted in accordance with Article 4.7;
- Exchange information on the typical efficiencies, costs and benefits of different [restoration and](#) mitigation measures;
- Identify any common principles and criteria relevant to risk assessments and [restoration and](#) mitigation measures;
- [Integrate the objectives of conservation and biodiversity in order to ensure compliance with Natura 2000 obligations and the Convention on Biodiversity;](#)
- Make recommendations on (a) research priorities for improving understanding of hydromorphological pressures and impacts and their management and (b) pragmatic approaches to dealing with uncertainties in the meantime.

#### Deliverables

The expected outcome is a technical document comprising the following main sections:

[\(a\) A section on morphological conditions of Water Bodies at High Status and Natura 2000 Protected Areas, which will set out:](#)

- [Illustrative case study examples of approaches taken by Member States in protecting/restoring the morphology of pristine, or near pristine water bodies and achieving conservation objectives for Natura 2000 sites.](#)

#### **COMMENT 7**

The morphological objectives for water bodies at High Status are very strict. It is anticipated that such pristine surface water bodies (regarded as “reference systems/conditions”) will be rare and almost certainly part of the Natura 2000 network. There may be valuable experience in the management of such sites. It will also be important to explore the implications of Protected Area designation for morphological protection and restoration.

(b) A Section on **hydromorphological conditions supporting the achievement of good status**, which will set out:

- Illustrative case study examples of the approaches being taken by Member States to:
  - Identify links between hydro-morphology and ecological quality elements of the WFD.
  - Protect surface water body hydro-morphology;
  - Assessing alternative technologies and “other means” of achieving required use in line with HMWB exemption test.;
  - Restore damaged hydro-morphology in order to achieve GEP.
  - Any common difficulties and problems associated with attempts to restore GES
  - Integrate the perspective of biodiversity and conservation, especially the objectives of Natura 2000
  - Identify hydromorphological and biological objectives on a river basin and a regional scale.
- Any emerging common principles and criteria; and
- Recommendations on future research priorities

(c) A Section on **mitigation measures for achieving good ecological potential**, which will set out:

- Illustrative case study examples of mitigation measures considered by Member States to be compatible with GEP and different water uses. The examples should cover mitigation measures relevant to existing modifications and those relevant to proposed new modifications to the physical characteristics of surface water bodies;
- Any emerging common principles and criteria on mitigation measures for the main water use activities, including in particular hydropower; navigation; agriculture; coastal management and flood defence; and recommendations on future research priorities.

#### Lead

Germany and United Kingdom will lead this activity.

#### Types and intensity of the work

A small steering group (see hereafter) will assist the leaders. The steering group will act both as a drafting group and as an organisational group. It will meet twice a year.

Specific workshops involving Member States and stakeholders will be organised in order to facilitate information exchange and discussion and to provide opportunities for contributing to and commenting on the technical document. The Prague workshop, organised in October 2005, will be was the first one.

#### iv. Policy integration activity

##### Purpose

- To examine how ~~water policy and other~~ policies that can lead to hydromorphological pressures on surface water bodies interact with the statutory objectives of the WFD;
- To make recommendations for better alignment of other EU policies with WFD objectives and exemption tests. ~~integration~~

The initial focus of the activity will be on interactions and impacts between of energy (hydropower), transport (navigation), agriculture, coastal management and flood management policy and water policy with WFD objectives.

##### Main tasks

The main tasks will be organised in two steps:

Step 1: Identification of the interactions and impacts between of water policy and other policies driving hydromorphological modification (energy, navigation and flood management) and WFD objectives/exemption tests.

- Assessment of the current situation, future trends and expected policy developments; and
- Identification of the potential synergies and antagonisms between these policies.

The findings of this step will be illustrated with examples of synergies and antagonisms between the different policy areas

Step 2: Suggestions for better policy integration alignment of policies with WFD objectives/exemption tests?.

- Identify how best use can be made of the potential synergies between the different policies,
- Identify how potential antagonisms between the different policies can be prevented and, where necessary managed;

##### **COMMENT 8**

The assumption of the WFD is that there will be no deterioration and GES will be achieved. Therefore the first step should be to identify where antagonisms can be avoided. Only when this cannot be achieved (with the usual caveats) should the question of applying exemptions and managing impacts through mitigation be looked at

- Identify how co-operation and co-ordination between the different relevant authorities and stakeholders can be improved; and
- Provide recommendations for further improvements of the relevant policies.

## Deliverables

The expected outcomes are three different policy papers which make recommendations on the [integration–alignment](#) of energy (hydropower) policy, transport (, navigation) policy, [agriculture](#) and flood management policy with [water policy/WFD objectives](#).

## Lead

EC will lead this activity.

## Types and intensity of the work

A small steering group (see hereafter) will assist the leader. The steering group will act both as a drafting group and as an organisational group. It would meet twice a year.

Specific workshops gathering the different interested MS and stakeholders will be organised in order to gather contributions and reactions to the different documents. The Prague workshop, organised in October 2005, will be the first one.

## **v. Links with other working groups**

In order to avoid duplication of the resources, some tasks will be tackled by already established working groups. Their inputs will be directly integrated in the activity. Should the development of the activity lead to new questions, they will be addressed to the relevant working groups.

[Strategic Steering Group on “Water and agriculture” and Drafting Group on “Water scarcity” \(under WG B on IRBM\) for hydro-morphological pressures/impacts resulting from agricultural practices. e](#)

### Working group “ecological status” (ECOSTAT)

This group will be asked openly if some principles or orientations have to be discussed at the EU level regarding the definitions of good ecological potential and ecological continuity. If the reply is positive, ECOSTAT will deal with that issue.

#### **COMMENT 9**

We consider that the expertise of ECOSTAT is important for the integration of all aspects concerning hydro-morphology and biology/ecology as well as the integration of “conservation” (Natura 2000). As a consequence, close integration and interaction of both working groups will be necessary.

### Stakeholder meeting EU flood action programme

The stakeholder meeting will discuss the identified main causes of the hydromorphological pressures and impacts regarding flood risk management measures, to exchange information and share experiences on how to deal with them. It will identify flood management policies that will contribute to the implementation of the WFD’s programmes of measures.

### Pilot River Basin (PRB) Component

The pilot river basins (PRB) will play an important role in providing some 'real life' answers to some of the questions posed. They will provide valuable case-studies and important evidence that can be used to develop practical recommendations. The issues to be addressed by interested PRBs.

#### vi. Organisation

A single Steering group will assist the leaders of the two activities. For efficiency purpose, the composition of the Steering group should be limited to no more than 10 people. However, this should be done in an equitable manner so that there is no over-representation of those stakeholders linked to specific "water-uses". The members will be experts designated by the interested MS and stakeholders.

The organisation of specific workshops will bring the opportunities of expressions for the other MS and stakeholders.

#### **COMMENT 10**

For example, there should be a stakeholder meeting on hydro-morphological status, WFD objectives and integration of conservation objectives (Natura 2000). Thus, the integration of biodiversity and conservation is a relevant synergy to identify. The workgroup should refine the understanding of WFD objectives concerning the interaction of hydro-morphology and biology/ecology including the species population aspect, both on a river scale and at a regional perspective. The Prague EU CIS Workshop on "WFD and Hydro-morphology" gave evidence of positive results from the interaction of different stakeholders (very clearly in the integration of sediments). This process should be continued and organized.

Leaders will directly report the work progresses to the SCG and the Water Directors.

#### vii. Contact person/s

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#### viii. Timetable

All the deliverables are expected for the end of 2006, to be endorsed at the last 2006 Water Director's meeting.

Further developments could be implemented later in the frame of a new round of the CIS (2007-2008).