POSITION PAPER ON WATER FRAMEWORK DIRECTIVE

1. Introduction

After many years of deliberation and consultation the European water policy received a boost when the Water Framework Directive (WFD) (2000/60/EC) was adopted.

The key elements are :

- All waters are covered : surface waters, rivers, lakes, coastal waters and also groundwater. The goal is that water quality gradually improves and all waters in the EU achieve a good quality ('good status') by 2015 !
- One coherent management frame based on river basins and involving all water-related legislation.
- Participation of representatives of all stakeholders in the consultation process.
- Economic instruments are introduced to support environmental objectives.
- As a framework directive it is ambitious and binding on objectives, whilst flexible on ways and means to achieve them.

A framework directive is precisely what the term suggests :

- It provides a frame for the development of more detailed policies and implementation aspects.
- It leaves flexibility to accommodate specific and local conditions that may have a bearing on water quality.
- In this particular case the WFD also integrates pieces of existing legislation concerning quality of water.

The WFD replaces the following Directives (which will be repealed) :

- 1975 Surface Water Directive
- 1976 Dangerous Substances Directive
- 1977 Decision on Exchange of Information on Surface Waters Directive
- 1978 Fish Water Directive
- 1979 Shellfish Water Directive
- 1979 Daughter Directive on Sampling and Analysis
- 1980 Groundwater Directive

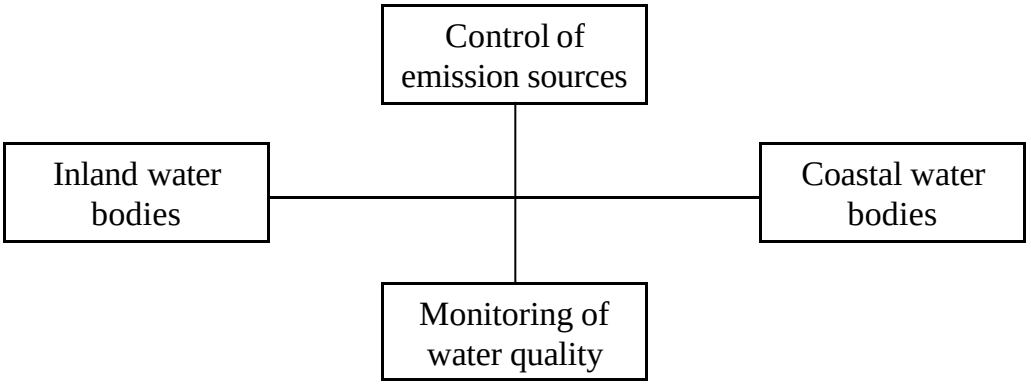
The WFD provides the framework for the following Directives that address piecemeal quality issues :

- Drinking Water Directive (98/83/EC)
- Bathing Water Directive (76/160/EEC) (under revision)
- Urban Waste Water Directive (91/271/EEC)

The WFD provides the umbrella for Directives dealing with sources of contamination :

- Sewage Sludge Directive (under revision)
- Nitrates Directive (agricultural sources !) [1].
- Integrated Pollution Prevention and Control (96/61/EC)
- And - finally - a new Groundwater Directive is currently under development.

The WFD is comprehensive in the sense that it covers all water bodies and all elements that may influence water quality.



The Water Framework Directive is very ambitious in its goal in that it integrates existing legislation on water quality and aims to improve water quality across Europe to what is defined as ‘good’. The implementation process of the WFD runs through 2010. By the end of 2003 Member States should have incorporated the legislation at national level. Guidance documents that define what ‘quality’ means and which set threshold values, have been published during 2003.

[1] It is important to realise that existing directives form already a sword of Damocles for certain established sectors. For ex. The Netherlands do not meet the obligations under the Nitrates Directive because of unsustainable agriculture, which uses excess nitrate that ends up in surface waters. It is not fair to blame the WFD for this.

2. Water management based on river basins

One of the Framework Directive's innovations is that rivers and lakes will need to be managed by river basin - the natural geographical and hydrological unit - instead of only within administrative or political boundaries.

For each river basin district - many of which will transcend national frontiers - a River Basin management plan will need to be established and updated every six years. This plan will have to include an analysis of the river basin's characteristics, a review of the impact of human activity on the status of waters in the basin, and an economic analysis of water use in the district.

Groundwater and coastal waters would be assigned to the nearest or most appropriate river basin district. Examples of a good river basin management structure exist for the Rhine and the Elbe rivers.

3. Limit values and standards

The Directives takes a "combined approach" to pollution control :

- Firstly, by limiting pollution at the source by setting emission controls (e.g. chemical industry, waste water, agricultural fertilisers); and
- Secondly, by establishing water quality objectives for water bodies (to ensure that those reduced emissions fit into the local or regional environment).

In each case, the more stringent approach will apply. Member States set both limit values to control emissions from individual point sources and environmental quality standards[2] to limit the cumulative impact of such emissions and also of secondary (diffuse) sources of pollution.

Emission limit values will, as a minimum, be set in line with Community legislation, inter alia, with the Directive on Integrated Pollution Prevention and Control (IPPC) and the Urban Waste Water Treatment Directive for installations and discharges covered by these Directives.

[2] Based on the experience with the assessment of contaminated dredged material, it has become apparent that numerical limit values of chemical substances are far from ideal as an instrument to define "good quality". The real criterion ought to be that the ecological quality is assessed. We have not found any consideration of this in the current Guidance documents.

4. Implementation strategy

The goal of the WFD is to reach gradual quality improvement of water bodies. It does not deal with short-term or transient phenomena (which would include dredging). An implementation strategy has been outlined :

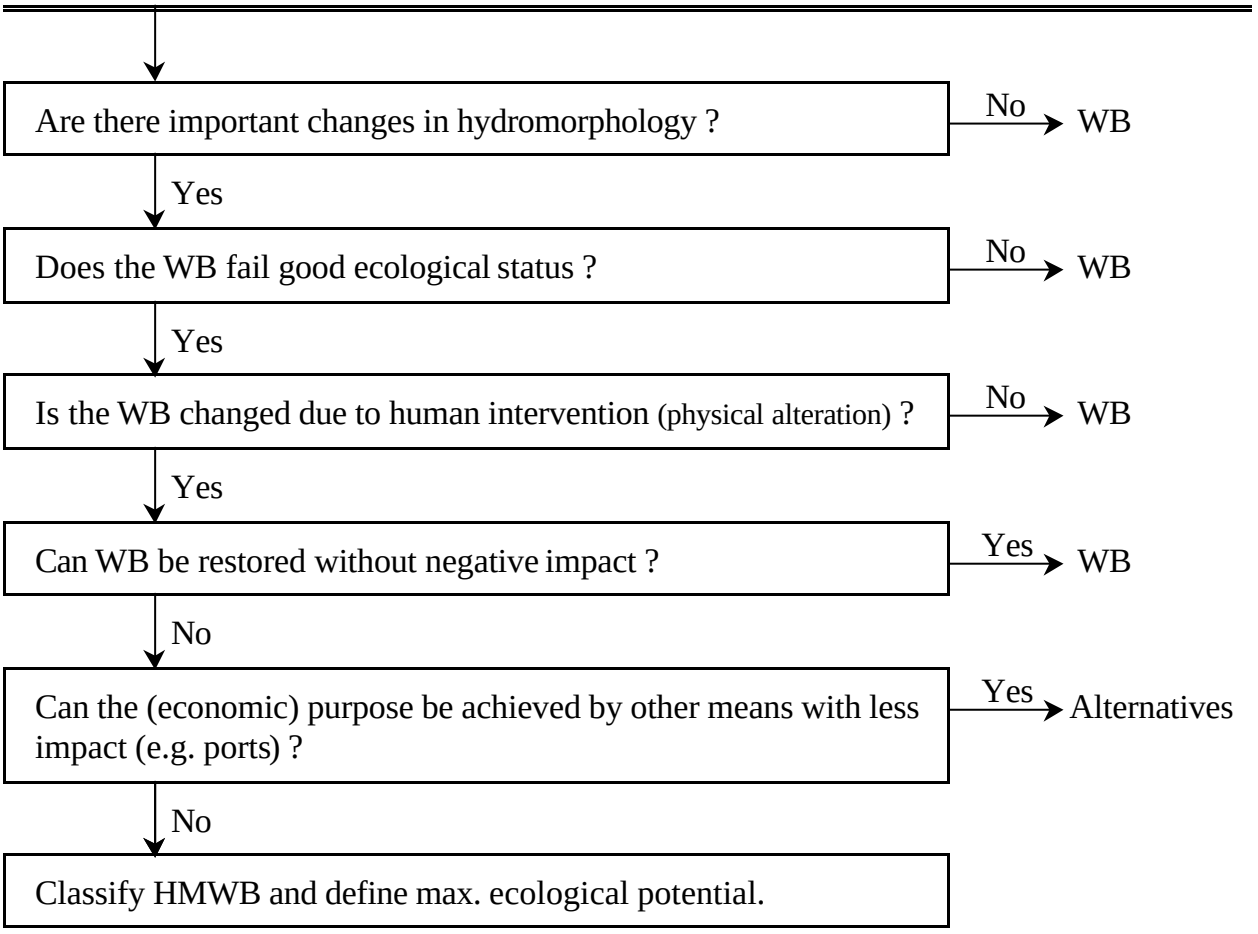
Transposition into national legislation	December 2003
Analysis of impacts and pressures	December 2004
Economic analysis of water use	December 2004
Inter-calibration of quality classification	December 2004
Monitoring programmes operational	December 2006
Latest date for starting public participation	December 2006
River basin management plans, programme of measures	December 2009

Guidance documents have been developed to assist in the implementation process, in particular in the assessment and development of management plans. In order to give a feel for what may be involved the approaches on water bodies and on pressure and impact analysis are briefly reviewed.

5. Classification of water bodies

At stake is whether the water body is natural and has the potential to be restored, or whether other uses lead to classification as "Heavily Modified Water Body" (HMWB). Alternatively, artificial water bodies may be distinguished. The implication is that the quality criteria for water in a HMWB are less stringent. The proposed logic to distinguish between a "Water Body (WB)" and a "HMWB" is the following :

HMWB or WB ?



N.B. : It should be clear that ports will in most cases be classified as HMWB and this implies less stringent criteria.

6. Guidance on pressure and impact analysis

Overall goal / aims :

- To support the development of river basin management plans.
- Identify human activities that may have negative impact on water quality.
- Target appropriate monitoring programme.
- Set reasonable goals and devise proportionate measures.

Objectives stated in WFD (relative to surface water) :

- Prevent (long-term) deterioration in the status of water bodies.
- Protect, enhance and restore all bodies of surface water to 'good quality' (by 2015).
- Progressively reduce pollution (by hazardous chemicals) and phase out their emission.

6.1. P&I analysis

The analysis is a systematic review of factors and trends in the river basin that may have negative impact on water quality, starting with 2004 and looking ahead to 2015.

This analysis should result in the identification of 'bodies at risk', i.e. possibly not achieving "good quality" status in 2015. This process is not arbitrary, but should be based on the measurement and monitoring of the relevant data and relevant uses. The guidance manual outlines an approach to assessment of the risks.

6.2. What is the link between 'HMWB' and 'P&I' analysis ?

The tables 1 and 2 illustrate the link between specified uses and possible pressures and impacts respectively. Specified uses listed in the table will normally trigger the question whether or not the water body concerned should be classified as heavily modified ? The logic of section 5 is followed.

The pressures (Table 1) and impact (Table 2) are seen as logical implications of specified use and not as events that ought to be avoided.

The P&I analysis of 2004 will not deliver the definitive designation of waters as heavily modified or artificial water bodies but only a first assessment based on the (in many cases limited) data available now.

The final designation of HMWB and artificial bodies of water involves a mandatory consultation with all interested parties and stakeholders. The consultation process obviously includes the inland navigation and ports sectors. The designated status will be part of the river basin management plan (draft by December 2008, final version by December 2009)

Table 1 : Overview of the main specified uses and physical alterations (pressures)

Specified uses / Physical alterations (pressures)	Navigation	Flood protection	Hydro-power generation	Agriculture / forestry / fish farms	Water supply	Recreation	Urbanisation
Dams & weirs	X	X	X	X	X	X	
⇨ Channel maintenance / dredging / removal of material	X	X	X	X		X	
Shipping channels	X						
Channelisation / straightening	X	X	X	X	X		X
Bank reinforcement / fixation / embankments	X	X	X		X		X
Land drainage				X			X
Land claim				X			X
Creation of back waters through embankments	X					X	X

Table 2 : Overview of the main specified uses and possible impacts on hydromorphology and biology

Specified uses / Impacts	Navigation	Flood protection	Hydro-power generation	Agriculture / forestry / fish farms	Water supply	Recreation	Urbanisation
Disruption in river continuum & sediment transport	X	X	X	X	X	X	
Change in river profile	X	X	X	X			X
Detachment of ox-bow lakes / wetlands	X	X	X	X	X		X
Restriction / loss of flood plains		X	X				X
Low / reduced flows			X	X	X		
Direct mechanical damage to fauna / flora	X		X			X	
Artificial discharge regime		X	X	X	X		
Change in groundwater level			X	X			X
Soil erosion / silting	X		X	X			X

At this stage of the implementation only qualitative guidance for developing river basin management plans is available. It should however be clear from these tables that :

- The WFD is not intended to eliminate current specified uses, but to manage them in such a way that water quality can be restored to good levels.
- The above specified uses are expected to take place, while yet others may be added (e.g. outfalls in coastal waters, seaports as part of navigation infrastructure).
- The pressures listed in table 1 are seen as common events that may be necessitated by the specified use. This includes obviously dredging activities.

7. Discussion

- The process of developing guidance, common standards, acceptable implementation procedures is in full swing. There are obviously still holes in the approach, they will be addressed in the course of time. The following remarks are therefore provisional.

- The forming of river basin management administrative structures is something that will challenge existing competent water managers, especially when more than one country is involved, or even when countries outside the EU are concerned (Ukraine, Switzerland, Russia, etc.).

- From the available guidance developed by 'water managers' of the Member States it seems that mainly fresh water bodies were kept in mind. There is very little reference to coastal waters, except in the separate guidance document for coastal waters.

- The situation on coastal waters is rather special. They have to be assigned to river basins, but in most Member States the statutory responsibility lies with a different organisation. This may create frictions and tensions.

- The WFD covers only coastal waters up till 1 mile from the coastline.

- For coastal waters there is no analogy spelled out to the concept of 'specified uses'; this could be fishing, aggregate dredging, maintenance of navigation channels, recreation, … Although these activities do not affect the quality of the water body as such, much depends on how the biological indicators will be interpreted in the classification process. (E.g. does disturbance of the benthic community affect the water quality ?)

- The role of sediment is not covered explicitly in the WFD. Reference is made to 'materials in suspension' as a potential pollutant. What is meant is probably contaminants in the form of suspended particles, but the wording does not exclude that a natural phenomenon as sediment transport is seen as degrading water quality. This must be clarified.

- While the WFD is clear on point sources and diffuse sources of pollutants, it does not give much guidance on the status of secondary sources of pollution. These could be contaminants trapped in sediment or upheld behind barriers and which are released by events such as flooding, clean-up or dredging. This aspect should be considered in management plans. On the other hand, secondary releases are usually of short duration and transient in nature and would thus not affect the quality of the water body.

- The current Guidance documents move towards defining good quality status in terms of limit values for chemical substances. This is a very indirect yardstick and can lead to costly "errors of judgement". We strongly recommend to reconsider this approach.

- Potential concerns have been raised by parties traditionally involved in the management of 'specified uses' :

  – <u>On dredging</u>

  Could the WFD have a negative impact on dredging activities?

  As we reviewed above (maintenance) dredging is seen as an activity to enhance and maintain various specified uses.

  Moreover, only in cases where the water bottom is heavily contaminated as a result of historical contamination, might longer-term releases occur due to dredging activities. In such cases, the issuance of a dredging permit is already today subject to in-depth environmental assessment. The WFD will not change this.

  – <u>On ports and harbours</u> :

  Will the WFD put restrictions on the exploitation and development of ports and harbours ?

  As indicated, many ports and harbours will end-up as heavily modified water bodies, where less stringent ecological criteria apply. The WFD puts of course strong emphasis on the prevention of pollution in ports, but that should not be restrictive for port operations and is obligatory anyway.

  Further development of ports, if not already governed by the requirements of the Habitats Directive, would be subject to a similar evaluation via which overriding public interests of economic use would have to be demonstrated. The reason is that either a water body could be turned into a HMWB or a new HMWB could be created. It is too early to tell how this will develop in practice, but in most cases the existing Habitats Directive applies already and would be more restrictive.

  Could the WFD affect the competitive position of ports ?

  Offhand one might postulate that the management structure for a river basin with seaport follows a stricter implementation regime than a neighbouring body for a river in another Member State. The development of detailed guidance documents and the undertaking of calibration exercises, as well as the development of common environmental quality standards, are reasonable instruments to prevent market distortion.

  The implementation process foresees intercalibration of the classification process and an extensive round of public participation before finalising the management plans. This should ensure equal treatment of ports in terms of water quality issues.