

ALL ABOARD? PROGRESS WITH IMPLEMENTATION OF THE EU WATER FRAMEWORK DIRECTIVE

Paper presented to the 31st PIANC Congress, 14th – 18th May 2006 by
Jan Brooke, Director, Jan Brooke Environmental Consultant Ltd., Peterborough, UK
jan@janbrooke.co.uk

ABSTRACT

The Water Framework Directive had to be transposed into law in EU Member States by the end of December 2003. More than two years on, what progress has been made with its implementation and how much do we understand about its implications for ports, navigation and dredging? This paper provides an update on key aspects of the Directive including the role of sediment management; progress with the priority substances daughter Directive; the designation of heavily modified water bodies; the preparation of river basin management plans; and the possible implications of the WFD for new developments. It also provides an overview of the activities of the PIANC-led WFD Navigation Task Group.

KEYWORDS: EU Water Framework Directive, ecological status, heavily modified water body, priority substances, river basin management plan

1. OBJECTIVE OF THE WATER FRAMEWORK DIRECTIVE

The EU Water Framework Directive (WFD) introduces a new, integrated regime of water protection, improvement and management to all water bodies, including rivers and canals, coastal and estuarine waters and, in some countries, large marine areas. In addition to preventing further deterioration in water status and reducing pollution from so-called priority substances, a key objective of the WFD is to ensure that water bodies reach 'good status' by the end of 2015. Reaching good status requires both chemical and ecological targets to be met.

As the WFD targets are derived from natural, unmodified conditions, the ability of a water body to meet 'good ecological status' (GES) depends in part on the extent to which it has been subject to hydromorphological modification. Where a water body has been modified such that the achievement of GES is not possible, the WFD allows it to be designated as a 'heavily modified water body' (HMWB) and have a lower ecological target (good ecological potential, GEP) set. In all cases (ie. irrespective of whether or not a water body is designated a HMWB), exemptions in the form of extended deadlines or less stringent objectives may be allowed if meeting the required targets is not technically feasible or is disproportionately expensive.

Another important element of the WFD is the proposed priority substances daughter Directive. This will aim to reduce pollution from a number of priority substances and phase out certain priority hazardous substances (Murray et al, 2004). There are also WFD objectives to contribute to mitigating the effects of floods and droughts, and ensuring sustainable water use.

2. WFD IMPLEMENTATION

The measures required to meet WFD objectives need to be summarised in a series of new 'river basin management plans' (RBMP). Such plans must be prepared for each river basin district (RBD): as shown in Figure 1, WFD river basin districts vary in size from the Danube catchment involving 18 countries (including non-EU Member States) to smaller catchments such as the Dee river basin district in the UK.

Programmes of WFD measures could potentially affect ports, navigation and dredging in a number of ways depending on the characteristics of the particular water body. For example, measures could require the removal of redundant infrastructure in order to restore a water body to its natural condition, or the modification of existing structures such as training walls or breakwaters to mitigate their effects. Measures affecting activities or operations are also possible - for example, the introduction of technical or temporal constraints on dredging and disposal activities to meet ecological targets.

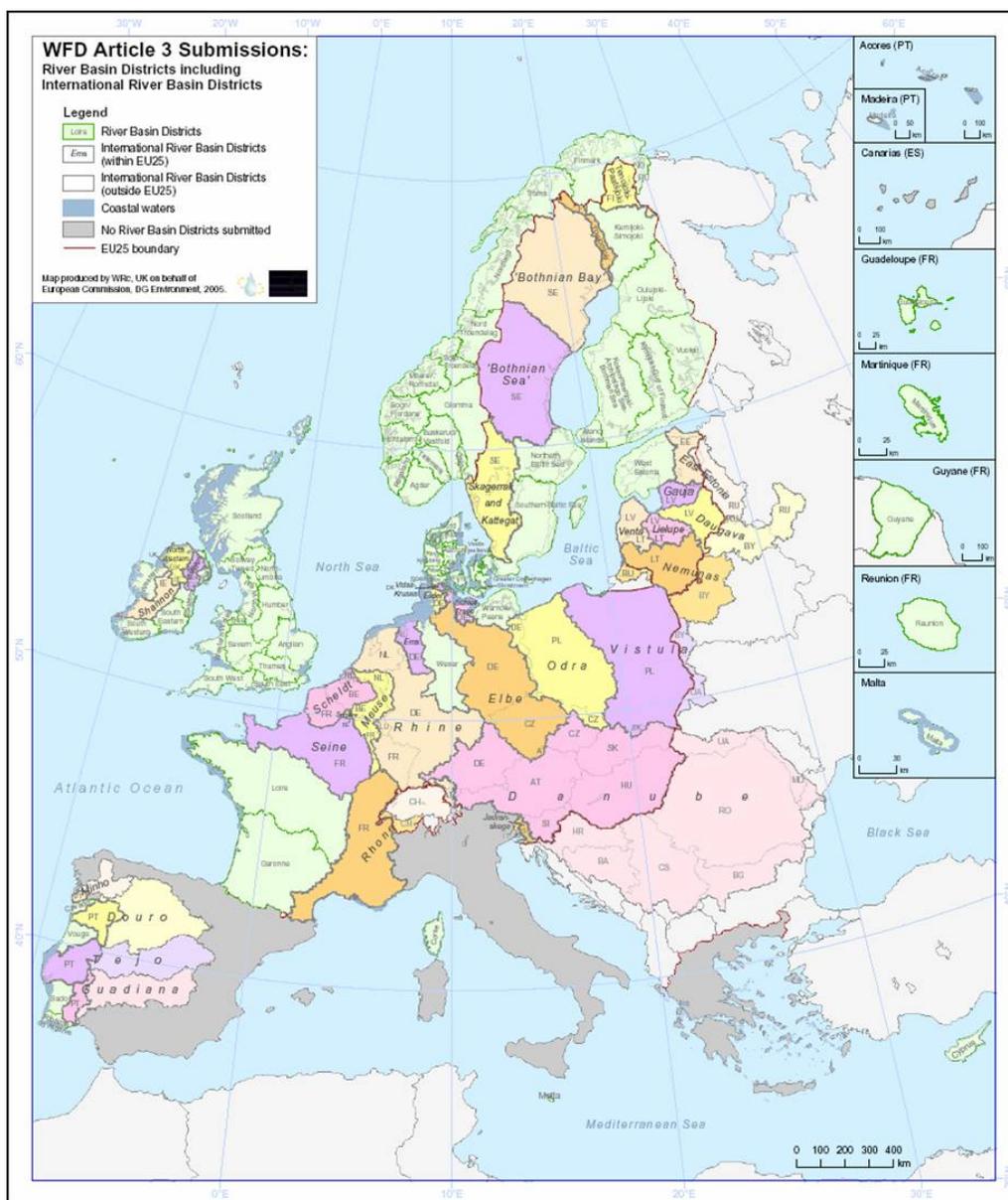


Figure 1 : EU River Basin Districts

Insofar as the development of programmes of measures is concerned, it is important to note that stakeholder participation is a key principle of WFD implementation: thus port and navigation authorities should have the opportunity to get involved in - and influence - the development of the programmes of measures.

In addition to the possible implications of the WFD for existing physical modifications or structures and/or for ongoing operations and activities, Article 4(7) of the Directive may affect new developments. Specifically, modifications or developments which affect water status will have to meet a set of criteria before they can be approved.

An early component of WFD implementation required Member States to undertake a risk assessment of the pressures and impacts affecting water bodies in each RBD. This exercise, documented in the so-called 'Article 5' reports submitted to the EC, highlighted that significant numbers of water bodies in all Member States are 'at risk' of failing to meet good status by

2015 (the end of the first river basin planning cycle). The Directive identifies two further planning cycles running to 2021 and 2027.

This paper identifies and discusses five key issues associated with WFD implementation which are potentially of particular relevance to port, navigation and dredging interests:

- sediment management
- priority substances daughter Directive (WFD Article 16)
- heavily modified water bodies
- river basin management plans
- implications for new developments (WFD Article 4(7))

More information on these and other provisions of the WFD can be found in Brooke (2004).

In the first instance, however, Section 3 introduces and describes the work being undertaken by the PIANC-led 'WFD Navigation Task Group'.

3. TASK GROUP ON THE IMPLICATIONS OF THE WFD FOR PORTS, NAVIGATION AND DREDGING

In order to improve understanding of the WFD and its possible implications, several European professional bodies and trade associations concerned with ports, navigation and dredging collaborate in a WFD Task Group, chaired by PIANC. The aims of this Task Group are:

- to raise awareness of the WFD amongst these sectors
- to collate information
- to try to facilitate a level playing field with regard to WFD implementation, and
- to coordinate contact with the European Commission.

At the time of writing, in addition to PIANC, nine other organisations are members of the Task Group: the Central Dredging Association (CEDA); European Barge Union; European Boating Association; European Community Shipowners' Associations; European Dredging Association (EuDA); European Federation of Inland Ports; European Sea Ports Organisation, EU Recreational Marine Industries Group, and Inland Navigation Europe. The Central Commission for Navigation on the Rhine also attends Task Group meeting as an observer.

Since its inception in 2003, the Task Group has both been active within the sector and has participated in various EC 'common implementation strategy' activities associated with WFD implementation. Specifically, the Task Group:

- organised an international conference in Brussels in 2003
- prepared a 2004 WFD 'position paper' setting out key concerns of the sector
- participates at meetings of the WFD Common Implementation Strategy 'Strategic Coordination Group'; the Hydromorphology Strategic Steering Group (and the associated technical and policy work streams); the Chemical Monitoring Group; and the Environmental Objectives drafting group
- engages in bilateral dialogue with the EC (DG Environment, DG Tren, DG Maritime and Fisheries) on WFD issues
- responds to relevant WFD consultation papers (eg. on the Article 16 priority substances daughter Directive; the environmental objectives discussion paper; the Article 4(7) discussion paper; draft guidance documents on hydromorphology; and papers on cost-effectiveness analysis)
- will organise a conference and associated workshops on the WFD and navigation on 31st January 2007, again in Brussels

Finally, it is worth noting that the role of PIANC and other Task Group Associations in the CIS process is recognised and appreciated by the European Commission. It will be important to continue to build on this and to endeavour to influence WFD implementation where this is appropriate.

4. SEDIMENTS IN THE WFD

The Directive does not recognise sediments: indeed, materials in suspension are listed as a contaminant. Despite this, there are some important inter-relationship between sediments and the WFD, both with respect to contamination and regarding sediment transport.

A potential benefit arising from WFD implementation could be derived from improved source control upstream in catchments, in turn reducing contaminant inputs and improving the quality of the material to be dredged.

Insofar as sediment transport is concerned, the CIS hydromorphology activity has recognised that this is an important process affecting not only navigation but also hydropower, flood defence and other uses. Examples of good practice are therefore being collated as part of the technical report to help inform the programmes of measures.

Contaminated sediment issues are not yet being considered by the CIS process, but CEDA is actively promoting the inclusion of all aspects of sediment management as part of the river basin management planning process (see Section 7).

An opportunity to begin developing guidance on sediment management may now exist within the wider CIS process as a 'level 3', stakeholder-led activity. However, the complexity of some sediment management issues and the amount of data required to support informed decision making suggest that significant progress on the inclusion of sediment management in river basin management plans may not be achievable during the first river basin planning cycle.

5. ARTICLE 16 DAUGHTER DIRECTIVE

Article 16 of the WFD requires Member States to take measures to reduce pollution from certain priority substances and to phase out priority hazardous substances. It is intended that this requirement will be implemented via a daughter Directive.

A draft of the daughter Directive produced in 2004 had several significant scientific flaws and, as such, raised a number of potentially serious issues for ports and navigation (WFD Navigation Task Group, 2004). For example, there were concerns about the draft thresholds for contaminants such as TBT, and about the possibility that aquatic disposal operations and even overspill from dredgers could be regarded as representing new 'inputs' of contaminants. If such provisions were to be confirmed, the cost implications to ports and others who depend on dredging could be significant - particularly so where the material involved is currently deemed to be only slightly contaminated and hence suitable for sea disposal.

At the time of writing (July 2006), a revised proposal for a daughter Directive is imminent. The Task Group Associations have agreed that a 'good' daughter Directive (ie. assuming that concerns such as those expressed above have been resolved) would be a positive step insofar as it could help to ensure a level playing field between EU Member States. However, under its provisions, if there is no agreement on a daughter Directive by the end of 2006 Member States will need to establish their own environmental quality standards (EQS) in accordance the requirements of the WFD.

6. HEAVILY MODIFIED WATER BODIES

As indicated above, the WFD recognises that certain human uses depend on the physical modification of water bodies and makes provision accordingly for the setting of lower ecological targets for both 'heavily modified' and 'artificial' water bodies.

The Article 5 reports to the EC from Member States identified physical modifications as the second most important 'pressure' (after diffuse pollution) likely to cause the failure of water bodies to reach good status by 2015. As a result, the EC initiated an activity under the CIS process which has two components. The first is the preparation of a technical paper discussing options for the restoration of water bodies and/or for the mitigation of the impacts of physical modification (and including many case study examples of 'good practice'). The second is the production of a policy paper which seeks to promote the integration of the WFD with policies on navigation, hydropower and flood defence.

These hydromorphological reports, which deal with the physical impacts of navigation and dredging and examples of good practice with regard to dredging/disposal and bank protection, are due to be published later in 2006.

7. RIVER BASIN MANAGEMENT PLANS

The WFD programmes of measures (ie. actions required to prevent deterioration and help improve water status) will be summarised in a series of new, statutory river basin management plans (RBMP). These plans, which must be published in draft form by the end of 2008, will be important in influencing the future management of water use and activities affecting water status. They could thus have implications for ports, navigation and dredging/disposal.

Whilst the preparation of these plans should use both the CIS guidance documents prepared at EU level and national guidance, stakeholder involvement in their development will be vital - not least in helping to ensure they are technically realistic and cost effective.

The PIANC-led Task Group is already participating in EC level WFD implementation activity as well as attempting to facilitate dissemination of relevant information to the members of the Associations represented on the Task Group. However, levels of participation by individual port operators, navigation authorities, etc. in the river basin planning process across the EU is, at best, patchy.

Much of the activity on WFD implementation over the next two years (mid-2006-2008) will take place at river basin district and local (water body) level: there is thus an urgent need for port, harbour and navigation authorities to better understand - and to get involved in - this process. Involvement in the river basin planning process, whether through representatives at RBD or at a local, water body level should provide a real opportunity to ensure that any WFD measures which will have implications for the sector really are technically feasible and not disproportionately costly.

8. ARTICLE 4(7) AND NEW DEVELOPMENT PROJECTS

Article 4(7) of the WFD sets out the criteria which must be met if new modifications or developments which affect water status are to be consented. Specifically:

- such developments must include all practical mitigation measures
- it must be demonstrated that there is no technically viable, environmentally-better alternative that is not disproportionately costly; and
- reasons of over-riding public interest or similar social or economic benefits must be shown.

In addition, the development should have been described in the river basin management plan.

A discussion paper providing guidance on the application of Article 4(7) which has been prepared under the CIS process should be available towards the end of 2006. This guidance is expected *inter alia* to clarify that the requirements of Article 4(7) should typically be delivered through the Environmental Impact Assessment (EIA) process and that developments to which Article 4(7) procedures will apply, will be those with medium to long-term effects on chemical or ecological status (ie. activities such as maintenance dredging which can be shown to have only temporary effects should not normally be covered by the Article 4(7) process).

It is also worth noting that recent legal advice obtained by the EC suggests that the provisions of Article 4(7) are already in force - and have been so since 2003. That said, it is unclear how these requirements can be applied in practice since good ecological status has not yet been agreed and RBMPs have not yet been prepared.

9. WHAT NEXT? WFD PRIORITIES FOR THE NAVIGATION SECTOR

The WFD implementation process still raises more questions than answers. Nonetheless, it is clear that the following key issues require attention over the coming months:

- *sediment management* will be a potentially important consideration in certain European river basins, particularly larger river basins such as the Danube and the Rhine. The EC has been reluctant to consider sediment management as part of WFD implementation, but there is an emerging opportunity to promote sediment management principles as a 'level 3' (stakeholder-led) CIS activity. CEDA is therefore actively pursuing this possibility on behalf of the Task Group

- the *Article 16 daughter Directive* is anticipated in July 2006. When it is published, the Task Group Associations need to scrutinise it to determine whether the issues of concern identified in the 2004 draft version have been dealt with adequately. Whilst a 'good' daughter Directive arguably offers the best chance of a level playing field across the EU, it is also important to be aware that certain Member States favour developing their own EQSs. Thus the Task Group member Associations need to be prepared either to respond to the proposed Directive or to get involved in the development of EQSs at Member State level if this becomes necessary
- the *heavily modified water body* designation process and the setting of GEP targets is likely to be of relevance to many ports and navigable waterways. Whilst Task Group member Associations will continue to be involved in the development of policy guidance and technical good practice at EU level, it will be in the best interests of individual port and navigation authorities to get involved in the process locally, thus ensuring that the characteristics and activities of their port/waterway are properly accommodated and that ecological targets are realistic
- *river basin management planning* will similarly become an increasingly important activity at regional, local and water body level during 2006-2007. Again, the engagement of individual ports and navigation authorities in this process will be crucial if the interests of the sector at the local level are to be properly reflected and accommodated in these new, statutory water management plans
- Finally, *Article 4(7)* is likely to be of great importance insofar as new development proposals are concerned. Experience with the EU Birds and Habitats Directives suggest that clarity and consistency of interpretation and application will be vital if increased costs and unnecessary delays are to be avoided. The navigation sector through the Task Group has provided comments on the drafts of the discussion paper, raising the issues of concern to the sector and endeavouring to ensure that these concerns are accommodated. However, port operators and navigation authorities will also need to understand how best to make sure their proposed developments are 'WFD compliant'.

REFERENCES

Brooke, J. 2004. The EU Water Framework Directive: one year on. Presentation to World Dredging Congress, Hamburg, September 2004 www.dredging.org

Murray, L., Brooke, J. and Clay, N. 2004. The EU Water Framework Directive: Implications for the Ports, Harbours, Navigation and Dredging Industries. Terra and Aqua. Issue 24, June 2004 www.iadc-dredging.com/terra-et-aqua/

WFD Navigation Task Group. 2004. Potential implications for navigation (including ports, harbours, waterways and dredging) of EU Water Framework Directive Articles 16(1) and 16(7). See <http://www.dredging.org/documents/ceda/downloads/environment-issues-wfd-article16-tgpaperforec01-10-04.pdf>