

Zeitschrift: Wasser Energie Luft = Eau énergie air = Acqua energia aria
Herausgeber: Schweizerischer Wasserwirtschaftsverband
Band: 98 (2006)
Heft: 3

Artikel: The European union water framework directive. 2. Teil
Autor: Hartmann, Sven
DOI: <https://doi.org/10.5169/seals-939343>

Nutzungsbedingungen

Die ETH-Bibliothek ist die Anbieterin der digitalisierten Zeitschriften auf E-Periodica. Sie besitzt keine Urheberrechte an den Zeitschriften und ist nicht verantwortlich für deren Inhalte. Die Rechte liegen in der Regel bei den Herausgebern beziehungsweise den externen Rechteinhabern. Das Veröffentlichen von Bildern in Print- und Online-Publikationen sowie auf Social Media-Kanälen oder Webseiten ist nur mit vorheriger Genehmigung der Rechteinhaber erlaubt. [Mehr erfahren](#)

Conditions d'utilisation

L'ETH Library est le fournisseur des revues numérisées. Elle ne détient aucun droit d'auteur sur les revues et n'est pas responsable de leur contenu. En règle générale, les droits sont détenus par les éditeurs ou les détenteurs de droits externes. La reproduction d'images dans des publications imprimées ou en ligne ainsi que sur des canaux de médias sociaux ou des sites web n'est autorisée qu'avec l'accord préalable des détenteurs des droits. [En savoir plus](#)

Terms of use

The ETH Library is the provider of the digitised journals. It does not own any copyrights to the journals and is not responsible for their content. The rights usually lie with the publishers or the external rights holders. Publishing images in print and online publications, as well as on social media channels or websites, is only permitted with the prior consent of the rights holders. [Find out more](#)

Download PDF: 10.02.2026

ETH-Bibliothek Zürich, E-Periodica, <https://www.e-periodica.ch>

The European Union Water Framework Directive

(2. Teil)

■ Sven Hartmann



Abstract

The EU Water Framework Directive (WFD), which is widely described as the most important, far-reaching water legislation ever to emerge from the EU, came into force in 2000. Its timetable for implementation extends over 15 years, requiring good ecological status to be achieved by 2015. The aim of WFD is to «establish a Community framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater, in order to prevent and reduce pollution, promote sustainable water use, protect the aquatic environment, improve the status of aquatic ecosystems and mitigate the effects of floods and droughts». It updates and consolidates existing piecemeal EU water legislation, whilst establishing a new, integrated approach to water protection, improvement and sustainable use.

1. Introduction

Early European water legislation began, in a «first wave», with standards for those European rivers and lakes used for drinking water abstraction in 1975, and culminated in 1980 in setting binding quality targets for drinking water. It also included quality objective legislation on fish waters, shellfish waters, bathing waters and groundwater. Its main emission control element was the Dangerous Substances Directive. In 1988 the existing legislation was reviewed identifying a number of improvements that could be made and gaps that could be filled. This resulted in the second phase of water legislation, the first results of this were, in 1991, the adoption of the Urban Waste Water Treatment Directive, the Nitrates Directive, addressing water pollution by nitrates from agriculture, a new Drinking Water Directive, reviewing the quality standards and, where necessary, tightening them, and a Directive for Integrated Pollution and Prevention Control, adopted in 1996, addressing pollution from large industrial installations.

Pressure for a fundamental rethink of Community water policy came to a head in mid-1995: The Commission, which had already been considering the need for a more global approach to water policy, accepted requests from the European Parliament's environment committee and from the Council of environment ministers. Whilst EU actions such as the Drink-

ing Water Directive and the Urban Waste Water Directive can duly be considered milestones, European Water Policy had to address the increasing awareness of citizens and other involved parties for their water. This is why the new European Water Policy was developed in an open consultation process involving all interested parties. The outcome of this consultation process was a widespread consensus that, while considerable progress had been made in tackling individual issues, the current water policy was fragmented, in terms both of objectives and of means. All parties agreed on the need for a single piece of framework legislation to resolve these problems. In response to this, the Commission presented a Proposal for a Water Framework Directive (WFD) with the following key aims:

- expanding the scope of water protection to all waters, surface waters and groundwater,
- achieving «good status» for all waters by a set deadline,
- water management based on river basins,
- «combined approach» of emission limit values and quality standards,
- getting the prices right,
- getting the citizen involved more closely,
- streamlining legislation.

As part of a substantial restructuring of EU water policy and legislation, the Directive establishing a new framework

for Community action in the field of water policy (2000/60/EC) was agreed by the European Parliament and Council in September 2000 and came into force on 22nd December 2000.

2. Key objectives

The WFD sets a framework for comprehensive management of water resources in the European Community, within a common approach and with common objectives, principles and basic measures. It addresses inland surface waters, estuarine and coastal waters and groundwater. The fundamental objective of the Water Framework Directive aims at maintaining «high status» of waters where it exists, preventing any deterioration in the existing status of waters and achieving at least «good status» in relation to all waters by 2015. Member States will have to ensure that a coordinated approach is adopted for the achievement of the objectives of the WFD and for the implementation of programmes of measures for this purpose. The objectives of the WFD are:

- to protect and enhance the status of aquatic ecosystems (and terrestrial ecosystems and wetlands directly dependent on aquatic ecosystems),
- to promote sustainable water use based on longterm protection of available water resources,
- to provide for sufficient supply of good quality surface water and groundwater as need for sustainable, balanced and equitable water use,
- to provide for enhanced protection and improvement of the aquatic environment by reducing/phasing out of discharges, emissions and losses of priority substances,
- to contribute to mitigating the effects of floods and droughts,
- to protect territorial and marine waters,
- to establish a register of «protected areas» e.g. areas designated for protection of habitats or species.

The directive rationalises and up-

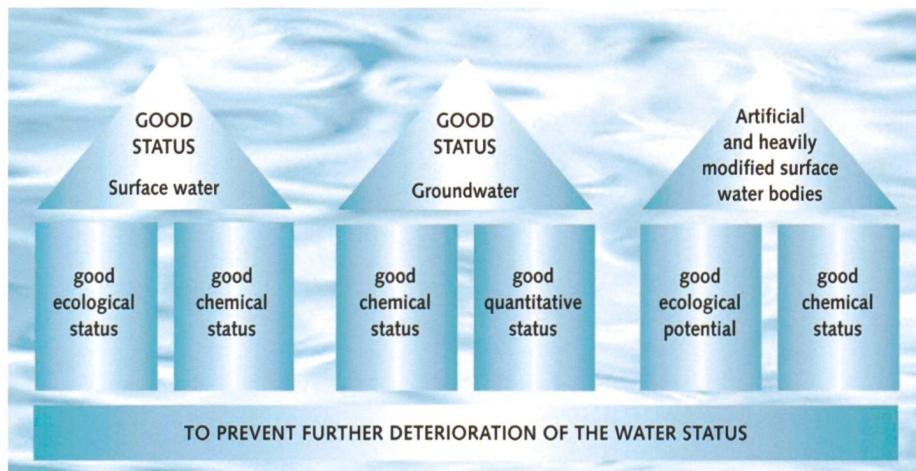


Figure 1. Objectives of the Water Framework Directive for the Status of Waters.

dates existing water legislation by setting common EU wide objectives for water. It is very broad in its scope and relates to water quality in rivers, lakes, canals, ground-water, transitional (estuarine) waters and coastal waters out a distance of at least one nautical mile on the basis of River Basin Districts (RBD's). The main activities for the implementation of the WFD will take place in the context of River Basin Management Projects led by local authorities. The overall objective of river basin projects is to establish an integrated monitoring and management system for all waters within a RBD, to develop a dynamic programme of management measures and to produce a River Basin Management Plan, which will be continually updated. Central to the Water Framework Directive is a requirement for Member States to encourage the active involvement of all interested parties in its implementation.

3. General approach

3.1 River Basin Management

The best model for a single system of water management is management by river basin – the natural geographical and hydrological unit – instead of according to administrative or political boundaries. «For river basins extending beyond the boundaries of the Community, Member States should endeavour to ensure the appropriate co-ordination with the relevant non-member States.» (Directive 2000/60/EC, Preamble [35]). Initiatives taken forward by the States concerned for the Maas, Schelde or Rhine river basins have served as positive examples of this approach, with their cooperation and joint objectivesetting across Member State borders, or in the case of the Rhine even beyond the EU territory. While several Member States already take a river basin approach, this is at present not the case

everywhere. For each river basin district – some of which will traverse national frontiers – a «river basin management plan» will need to be established and updated every six years, and this will provide the context for the coordination requirements identified above.

3.2 «Good status» for all waters by a set deadline

«Member States should aim to achieve the objective of at least good water status by defining and implementing the necessary measures within integrated programmes of measures, taking into account existing Community requirements. Where good water status already exists, it should be maintained. For groundwater, in addition to the requirements of good status, any significant and sustained upward trend in the concentration of any pollutant should be identified and reversed.» (Directive 2000/60/EC, Preamble [26]).

There are a number of objectives in respect of which the quality of water is protected. The key ones at European level are general protection of the aquatic ecology,

specific protection of unique and valuable habitats, protection of drinking water resources, and protection of bathing water. All these objectives must be integrated for each river basin. While the last three apply only to specific bodies of water ecological protection should apply to all waters: the central requirement of the Treaty is that the environment be protected to a high level in its entirety.

For this reason, a general requirement for ecological protection, and a general minimum chemical standard, was introduced to cover all surface waters. These are the two elements «good ecological status» and «good chemical status». Good ecological status is defined in Annex V of the Water Framework Proposal, in terms of the quality of the biological community, the hydrological characteristics and the chemical characteristics. As no absolute standards for biological quality can be set which apply across the Community, because of ecological variability, the controls are specified as allowing only a slight departure from the biological community which would be expected in conditions of minimal anthropogenic impact. Good chemical status is defined in terms of compliance with all the quality standards established for chemical substances at European level. The Directive also provides a mechanism for renewing these standards and establishing new ones by means of a prioritisation mechanism for hazardous chemicals. This will ensure at least a minimum chemical quality, particularly in relation to very toxic substances, everywhere in the Community.

«In cases where a body of water is so affected by human activity or its natural condition is such that it may be unfeasible or unreasonably expensive to achieve good status, less stringent environmental

Year	Issue	Reference
2000	Directive entered into force	Art. 25
2003	Transposition in national legislation	Art. 23
	Identification of River Basin Districts and Authorities	Art. 3
2004	Characterisation of river basin: pressures, impacts and economic analysis	Art. 5
2006	Establishment of monitoring network	Art. 8
	Start public consultation (at the latest)	Art. 14
2008	Present draft river basin management plan	Art. 13
2009	Finalise river basin management plan including programme of measures	Art. 13 & 11
2010	Introduce pricing policies	Art. 9
2012	Make operational programmes of measures	Art. 11
2015	Meet environmental objectives	Art. 4
2021	First management cycle ends	Art. 4 & 13
2027	Second management cycle ends, final deadline for meeting objectives	Art. 4 & 13

Figure 2. Timetable for the implementation of the Water Framework Directive.

objectives may be set on the basis of appropriate, evident and transparent criteria, and all practicable steps should be taken to prevent any further deterioration of the status of waters.» (Directive 2000/60/EC, Preamble[31]). It is obvious that a misunderstanding of the relevance of a water body being designated heavily modified exists. Heavily modified water bodies (HMWB) will still have to meet protection and restoration targets. The emphasis for HMWB will be on improvement (where necessary) towards good ecological potential.

The case of groundwater is somewhat different. The presumption in relation to groundwater should broadly be that it should not be polluted at all. The approach taken by the Community is to comprise a prohibition on direct discharges to groundwater, and (to cover indirect discharges) a requirement to monitor groundwater bodies so as to detect changes in chemical composition, and to reverse any anthropogenically induced upward pollution trend. Taken together, these should ensure the protection of groundwater from all contamination, according to the principle of minimum anthropogenic impact. Quantity is also a major issue for groundwater. There is only a certain amount of recharge into a groundwater each year, and of this recharge, some is needed to support connected ecosystems (whether they be surface water bodies, or terrestrial systems such as wetlands). For good management, only that portion of the overall recharge not needed by the ecology can be abstracted – this is the sustainable resource, and the Directive limits abstraction to that quantity.

One of the innovations of the Directive is that it provides a framework for integrated management of groundwater and surface water for the first time at European level.

3.3 The River Basin Management Plan

The plan is a detailed account of how the objectives set for the river basin (ecological status, quantitative status, chemical status and protected area objectives) are to be reached within the timescale required. The plan will include all the results of intensive analysis: the river basin's characteristics, a review of the impact of human activity on the status of waters in the basin, estimation of the effect of existing legislation and the remaining «gap» to meeting these objectives; and a set of measures designed to fill the gap. One additional component is that an economic analysis of water use within the river basin must be carried out. This is to enable a rational discussion on the costeffectiveness of the various possible measures. As part of it Member States will be required to ensure that the price charged to water consumers – such as for the abstraction and distribution of fresh water and the collection and treatment of waste water – reflects the true costs.

3.4 Public participation

It is essential that all interested parties are fully involved in this discussion, and indeed in the preparation of the River Basin Management plan as a whole. There are two main reasons for an extension of public participation. The first is that the decisions on the most appropriate measures to achieve the objectives in the River Basin Management Plan will involve balancing the interests of those who will be affected. The second reason concerns enforceability. The greater the transparency in the establishment of objectives the greater the care Member States will take to implement the legislation in good faith, and the greater the power of the citizens to influence the direction of environmental protection.

4. Timetable for the implementation

The Water Framework Directive sets out clear deadlines for each of the requirements. The key milestones are listed in Figure 2.

5. Conclusions

Much progress has been made in water protection in Europe, in individual Member States, but also in tackling significant problems at European level. But Europe's waters are still in need of increased efforts to get them clean or to keep them clean. The initiative generated by the present political process on the Water Framework Directive aims on:

- getting Europe's waters cleaner,
- getting the citizens involved.

References

Directive 2000/60/EC of the European Parliament and of the Council.

<http://europa.eu.int/comm/environment/water/index.html>

Author's address

Sven Hartmann

Universität der Bundeswehr München/German Armed Forces University Munich
Faculty for Civil Engineering and Geoinformation

Institute for Hydrosciences
Hydrodynamics and Hydraulic Structure Engineering
Werner-Heisenberg-Weg 39
D-85579 Neubiberg/Germany
Tel. +49 (0)89 6004 2618
<http://www.bauv.unibw-muenchen.de/institute/inst6.1/index.html>
sven.hartmann@unibw-muenchen.de