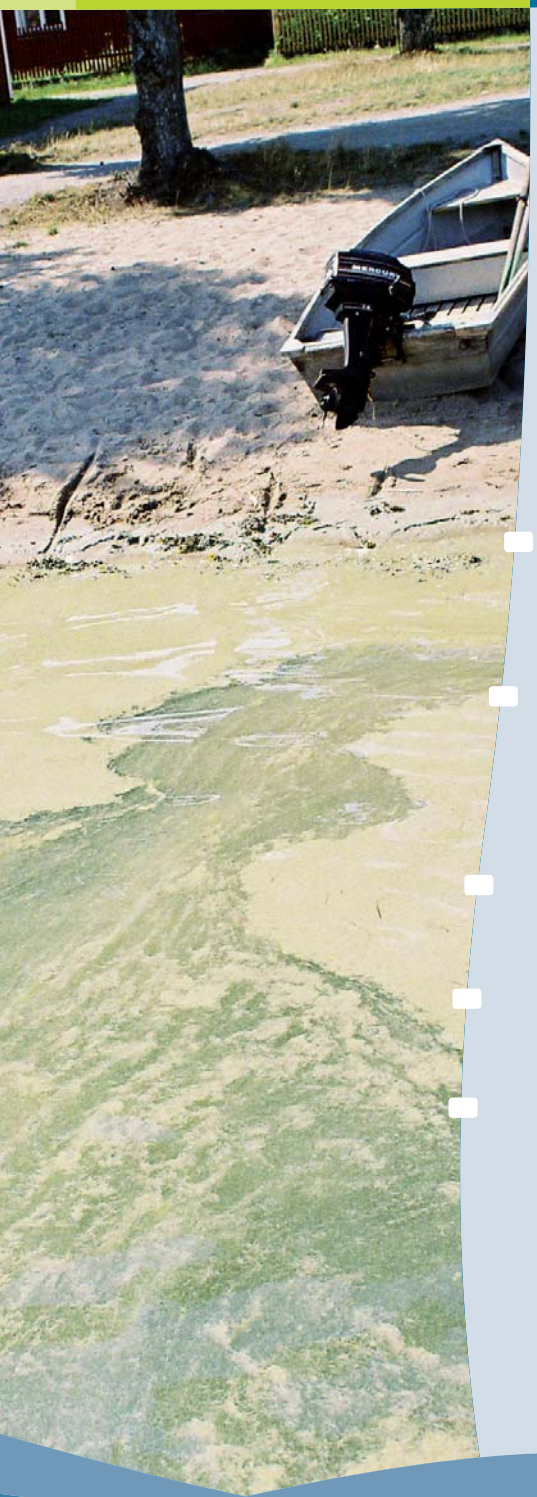
November 2010

Water Framework Directive

EN WATER



The EU Water Framework Directive

In 2000, the European Union took a groundbreaking step when it adopted the Water Framework Directive (WFD). It introduces a new legislative approach to managing and protecting water, based not on national or political boundaries but on natural geographical and hydrological formations: river basins. It also requires coordination of different EU policies, and sets out a precise timetable for action, with 2015 as the target date for getting all European waters into good condition.

Water supports life. It is a crucial resource for humanity, generating and sustaining economic growth and prosperity. It is also at the core of natural ecosystems and climate regulation.

Europe's water is under pressure. Recent figures show that 20% of surface water is at serious risk from pollution; 60% of European cities over-exploit their groundwater resources; 50% of wetlands are endangered. Demand for water is growing all the time.

Three-quarters of Europeans get their supply from groundwater, locked in the Earth.

Nearly half the EU population lives in 'water-stressed' countries, where the abstraction of water from freshwater sources is too high.

River basin management plans are the key tools for implementing the WFD. They are drawn up after extensive public consultation, and are valid for a six-year period.

water

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environment

Fact 1: Europe's water is under pressure

Everyone needs water – and not just for drinking. We depend on our rivers, lakes, coastal and marine waters, as well as groundwaters, in many ways. Society uses water to generate and sustain economic growth and prosperity, through activities such as farming, commercial fishing, energy production, manufacturing, transport and tourism. Water is also in demand for recreational activities, and forms a key element in the beauty of natural landscapes.

Water is at the core of natural ecosystems, and climate regulation. But the pattern of supply is particularly vulnerable to climate change. Scientists warn of increased risk of both droughts and floods in the coming decades. Demand for water is growing everywhere – in the house and garden, for industry, agriculture and irrigation, leisure and tourism – putting a strain on available supplies.

At the same time, threats to water quality come from pollution and physical changes to water courses, such as new dams. Damage is caused by households, industry and agriculture, through urban developments, flood defences, power generation, use of fertilisers and pesticides, navigation, recreation, wastewater discharge, coastal defences, freshwater fishing, mining and forestry.

Although humanity has long realised its dependence on water, we in Europe are now also becoming more and more aware that the supply is not infinite, and that we need to value it accordingly. Water must be managed and protected. It is not merely a consumer product, but a precious natural resource, vital to future generations as well as our own. Without water, no life can survive.

Fact 2: EU action is necessary because river basins and pollution cross borders. The river basin approach is the best way to manage water

Rivers do not stop at national frontiers – they flow on through different countries to reach the sea. All EU Member States apart from islands like Cyprus and Malta share waters with neighbouring countries. A river basin or a catchment covers the entire river system, from the sources of small tributaries to the estuary, including its groundwater. The EU and the Member States have divided the river basins and associated coastal areas into 110 river basin districts, 40 of which are international and cross borders, covering about 60% of EU territory.

Isolated measures to improve water quality cannot be successful without taking account of what happens upstream and downstream. Integrated river basin management adopts a holistic approach to protecting the whole body of water, its source, tributaries, delta and river mouth, through a coordinated strategy involving all the interested parties in decision-making. The river basin approach is the best way to manage water. This is the thinking behind the Water Framework Directive.

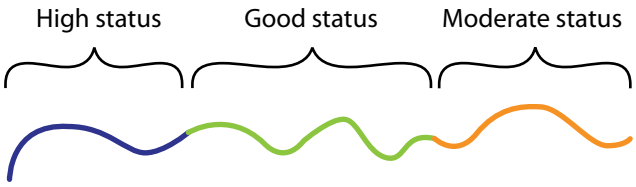
Member States have had to draw up **river basin management plans (RBMPs)** to safeguard each one of the 110 river basin districts. Public participation is a fundamental principle, so European citizens are playing an influential role in planning and implementing the WFD measures.

Fact 3: Waters must achieve good ecological and chemical status, to protect human health, water supply, natural ecosystems and biodiversity

The definition of **ecological status** looks at the abundance of aquatic flora and fish fauna, the availability of nutrients, and aspects like salinity, temperature and pollution by chemical pollutants. Morphological features, such as quantity, water flow, water depths and structures of the river beds, are also taken into account.

The WFD classification scheme for **surface water** ecological status includes five categories: high, good, moderate, poor and bad. 'High status' means **no** or **very low** human pressure. 'Good status' means a 'slight' deviation from this condition, 'moderate status' means 'moderate' deviation, and so on.

The EU now has more than 100 000 surface water bodies: 80% of them rivers, 15% lakes and 5% coastal and transitional waters. The same river can contain different water bodies, since the status of the water may change. The diagram below applies to a river with high-quality water at its source, which gradually becomes more polluted downstream.



To define good **chemical status**, environmental quality standards have been established for 33 new and eight previously regulated chemical pollutants of high concern across the EU. The WFD is backed up by other EU legislation such as the REACH regulation on chemicals and the Directive for Integrated Pollution and Prevention Control (IPPC) for industrial installations.

The rules for **groundwater** are slightly different and good chemical and quantitative status is the objective. Member States must use geological data to identify distinct volumes of water in underground aquifers, and European law limits abstraction to a portion of the annual recharge. Groundwater should not be polluted at all – any pollution must be detected and stopped.

Fact 4: It is crucial to get people involved

Under the WFD, Member States had to hold extensive consultations with the public and interested parties to identify first the problems, and then the solutions, to be included in river basin management plans. This meant a comprehensive consultation process, which had to be launched by the end of 2006, with a consultation on significant water management issues in 2007, and a broad consultation lasting at least six months on draft river basin management plans in 2008.

Public support and involvement is a precondition for the protection of waters, and for the identification of both the problems and the most appropriate measures to solve them, including their costs. Without popular backing, regulatory measures will not succeed. European citizens have a key role to play in implementation of the WFD, and in helping governments to balance the social, environmental and economic questions to be taken into account.

Fact 5: Some progress already, but more to be done

The Directive is implemented through six-year recurring cycles, the first of which covers the period 2009-2015. After the Directive came into force, Member States had to define their river basin districts geographically, and identify the authorities responsible for water management (2003). The next task was to undertake a joint economic and environmental analysis (2004), and to identify water bodies at risk of not achieving the 2015 target. By 2006, countries had to launch water monitoring networks.

The Commission checks each step of the implementation of the Directive. In 2007, in the first WFD implementation report, it issued its first assessment of progress. In 2009, a second WFD implementation report evaluated efforts to establish monitoring networks.

2009 was also the deadline for Member States to draw up RBMPs and programmes of measures to meet the WFD's objectives. All European waters have to achieve 'good ecological and chemical status' by 2015. That means not only low levels of chemical pollution but also sustaining healthy aquatic ecosystems.

The Commission will prepare its third implementation report by 2012, including a review of progress and of the status of EU waters, and a survey of the river basin management plans with suggestions for their improvement.

Fact 6: Water management is linked to many policies: integration is the only way forward for sustainable water

Water is involved in a huge range of human activities, and therefore in the policies applied to regulate them. For example:

- Water is vital for agriculture, farming and livestock. Since 1985, the area of irrigated land in southern Europe has gone up by 20%. Agriculture is the main consumer of water.

Case study: the Danube River

The Danube river basin district is the largest in the EU, and illustrates the variety of waters within one river basin. It includes mountain streams in the Carpathians and the Alps, groundwater bodies, a vast delta, and the Black Sea coastal waters. International cooperation around this crucial waterway has a long tradition. The first free navigation treaty was concluded in 1856, and in 1994, 14 countries and the EU got together to sign the International Convention on the Protection of the Danube River (ICPDR).

The WFD is a framework for EU water policy and is complemented by other legislation regulating specific aspects of water use:

- **The Groundwater Directive** (2006)
- **The Environmental Quality Standards Directive** (2008)
- **Two Commission Decisions** (2005 and 2008), on ecological status, established a register of almost 1 500 sites included in an intercalibration exercise to allow for comparison of different countries' standards, and published the results.

Previous and related legislation includes:

- **The Urban Wastewater Directive** (1991)
- **The Nitrates Directive** (1991)
- **The new Bathing Water Directive** (2006)
- **The Drinking Water Directive** (1998)

More recent related legislation expanding the scope of integrated water management:

- The **Floods Directive** (2007)
- The **Marine Strategy Framework Directive** (2008)

- Decisions about land-use and development are influenced by the availability of water resources and facilities for wastewater disposal.
- Energy generation uses water for cooling and other purposes. Much of it is returned to water courses after use.
- Industry uses water for the manufacturing processes, while many other sectors of the economy, such as tourism, impact on water resources.
- Water is indispensable for healthy ecosystems, which themselves underpin our quality of life. It is not only a *provisioning service* – a basic material – but also plays a part in the *regulating services* that govern climate and weather and keep our planet functioning. For example, wetlands provide services such as water purification and carbon absorption, which in economic terms are worth billions of euro.

Therefore, good water management has to be integrated into all these areas, while the WFD takes account of all aspects of water use and consumption.

Fact 7: A changing environment creates challenges for the future, including climate change, floods and drought

Since 2000, new factors, such as accelerating climate change and the economic crisis, have come into play. In the coming years, climate change will pose a major challenge for water management across the EU. It is likely to bring:

- Lower rainfall and higher summer temperatures in the south, putting stress on scarce resources. The Commission's 2007 Communication on **Addressing the challenge of water scarcity and droughts** finds that implementing the WFD will be crucial.
- More rain and a higher flood risk in the north. Floods are already becoming increasingly frequent: since 1990, 259 major river floods have been reported, 165 of them since 2000. The 2007 **Floods Directive** adopts a new, proactive approach, requiring Member States to prepare preliminary flood risk assessments for all river basin districts by 2011, followed up in 2013 by flood hazard maps. By 2015, Member States should have flood risk management plans, ready to link into the next cycle of RBMPs (2016-2021).

In the view of this, **public involvement** will be crucial to meet the goals of the WFD as well as the Floods Directive. Yet large numbers of Europeans are still unaware of their right to have a say on the future of water. It is important to communicate that every effort makes a difference. Consultations on the next cycle of river basin management plan preparation together with consultations on the preparation of flood risk management plans should start by the end of 2012.

Useful resources:

Commission homepage on EU water policies and links to river basin management plans:
http://water.europa.eu/policy

Water notes:
http://ec.europa.eu/environment/water/participation/notes_en.htm

WFD implementation reports 2007 and 2009:
http://ec.europa.eu/environment/water/water-framework/implrep2007/index_en.htm

Maps and graphs:
http://ec.europa.eu/environment/water/water-framework/facts_figures/index_en.htm

Plunge into the debate – consultations and local RBMPs:
http://water.europa.eu/participate

Common Implementation Strategy:
http://ec.europa.eu/environment/water/water-framework/objectives/implementation_en.htm

CIRCA:
http://circa.europa.eu/Public/irc/env/wfd/library?l=/&vm=detailed&sb=Title

WISE: Water Information System in Europe:
http://water.europa.eu

European Environment Agency – water:
www.eea.europa.eu/themes/water

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