



# WATER FRAMEWORK DIRECTIVE



## What is the Water Framework Directive?

The Water Framework Directive (WFD) is a substantial piece of legislation produced by the European Commission, and is the driving force behind achieving sustainable management of water in the UK and other member states.

The need for the WFD has been identified for the following reasons:

- Rivers, lakes and coastal waters are vital natural resource they provide drinking water, habitat diversity and are an important resource for industry and recreation.
- A significant proportion of water bodies are environmentally damaged or under threat due to the continual demand for the resource.
- Protecting and improving the environment is vital in achieving sustainable development.
- For long term health and well being of all users of these valuable areas.

Its objectives are to establish a framework for the protection of inland surface waters (rivers and lakes), transitional waters (estuaries), coastal waters and groundwater. It applies seaward to one nautical mile offshore. It also aims to ensure that all aquatic ecosystems, (with regard to their water needs) terrestrial ecosystems and wetlands meet 'good status' by 2015.

The Directive entered into force in December 2000 and member states were required to transpose it into national legislation by December 2003. A series of implementation deadlines stretch to December 2015. Reviews then take place every six years.

The Environment Agency is the government agency primarily responsible for implementing the Directive in England and Wales. For the Solent, the Southern Regional Office leads on this work.

## River Basin Districts and Plans

The Directive requires that each member state establishes river basin districts and develops a river basin management plan. These plans will provide a mechanism for the integrated management of groundwater, rivers, canals, lakes, reservoirs, estuaries and other brackish and coastal waters. It will also assess the water needs of terrestrial ecosystems that depend on groundwater, such as wetlands.

The Solent lies within the South East River Basin District. These Districts have been established by the Environment Agency to provide a framework for implementing the Directive at the regional level.

Over 3.1 million people live in the South East River Basin District, and the population is forecast to grow by 4.6 percent between 2002 and 2015. Water resources are very limited. The environment is constantly under pressure from competing human demands for space and natural resources, as well as natural changes such as sea-level rise.



*Eastern Yar, photo courtesy of Isle of Wight Council*

## Measuring Water Quality

Previously water quality was measured using a general quality assessment (GQA) scheme. The WFD provides a more sophisticated way of assessing the whole water environment by monitoring the following:

- Biological Quality (indicator of overall 'health' of rivers)
- Chemical Quality (indicator of organic pollution)
- Nutrient Status (phosphate and nitrate in rivers)

More specifically, for each surface waterbody, the Competent Authorities, in this case the Environment Agency, will assess as appropriate:

- Biology (plankton/phytobenthos, macrophytes, invertebrates and fish);
- Hydromorphology;
- Physico-chemical (including organic pollutants); and
- Priority and priority-hazardous substances.

The data collected will set the environmental objectives for the water body and design its management programme. It will, however, take time to collect sufficient monitoring data to understand water quality trends. For the first River Basin Management Plans, both new and existing data will be used to assess risk and to classify water bodies.



*Photo courtesy of Southern Water*

## Issues to be addressed in the Solent

Characterisation work completed by the Environment Agency in 2004, showed that most water bodies in the South East River Basin District are at risk of failing the objectives of the Water Framework Directive. The main areas for concern are manmade physical changes to water bodies and diffuse source pollution. The Environment Agency, and members of the South East River Basin District liaison panel, have identified the following specific pressures that need to be addressed.

- Abstraction and other artificial flow regulation
- Nitrates
- Organic pollution
- Pesticides
- Phosphates
- Physical modification (estuaries and coasts)
- Physical modification (rivers and lakes)
- Sediment
- Urban and transport pollution pressures

