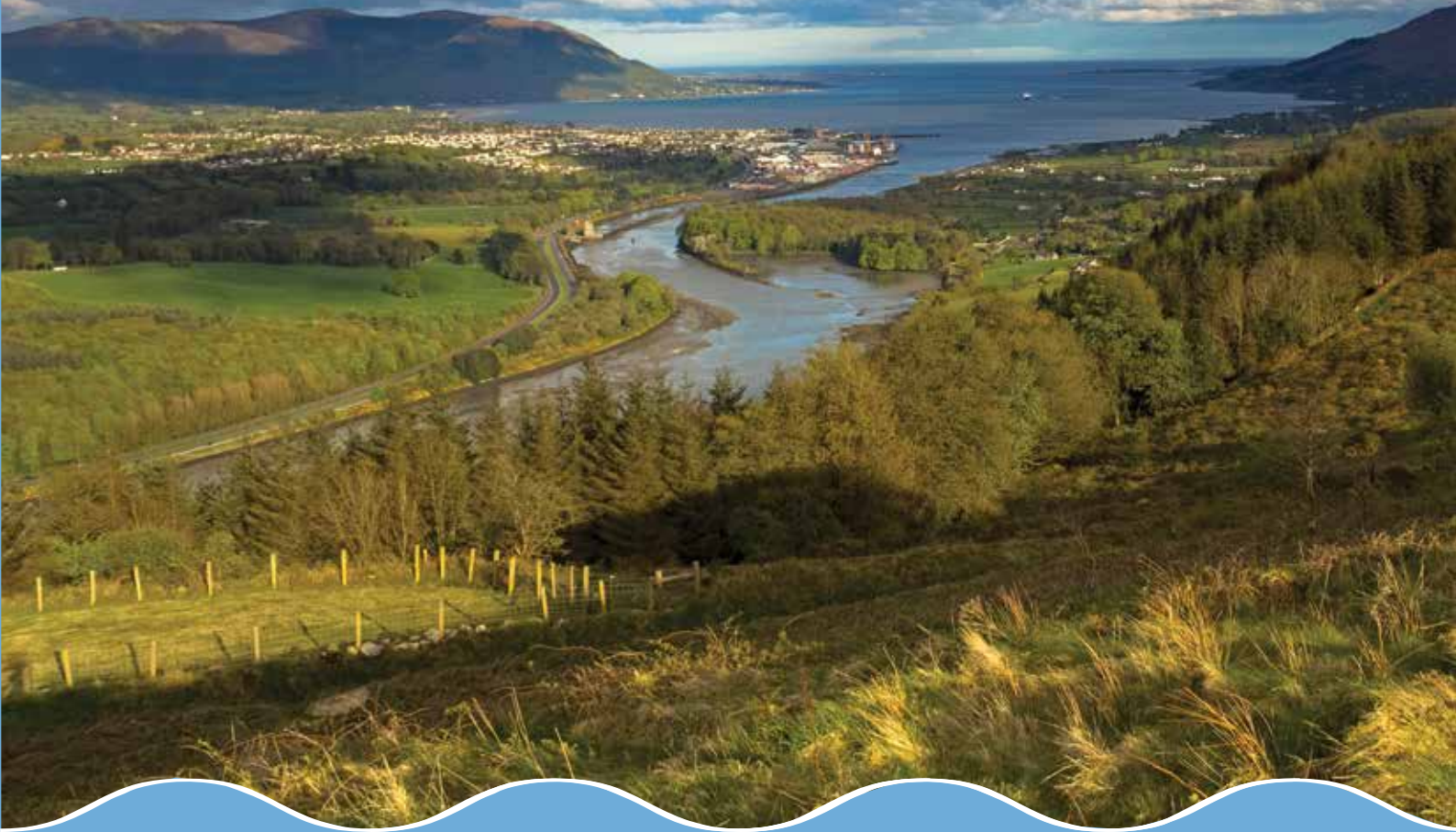


IRELAND'S WATER ENVIRONMENT & THE WATER FRAMEWORK DIRECTIVE



Introduction

Ireland's rivers, lakes and coastal waters are a wonderful heritage and valuable resource. They contain rich and varied habitats that sustain a wealth of biodiversity and they have attracted and supported human settlement, with its diversity of commercial and leisure activities, for thousands of years.

The pleasure that a peaceful, unspoilt stretch of water can bring is priceless, and for most tourists a visit to a seashore, river or lake is one of the highlights of their holiday. However, these special places are under threat from a range of human activities and there is a real and urgent need for action to protect them.

Ireland's water is the final recipient and carrier of many chemicals and pollutants that we release, knowingly and unknowingly, while going about our daily lives and business. Some of these are absorbed and diluted by soil and water. Many persist in the water environment and interact in ways we don't yet fully understand. Physical alterations of our rivers, lakeshores and coastline, including building development, flood control and infill of wetlands, cause damage to a range of habitats and can have serious cumulative effects on the water environment.

One piece of European legislation provides a potentially powerful tool to protect our inland waterways, groundwaters and coast. The EU Water Framework Directive has been the driver behind an unprecedented programme of activity in the areas of water mapping, monitoring and planning over the past ten years.





What is the Water Framework Directive?

In 2000, the EU Parliament and Council adopted the 'EC Directive 2000/60/EC establishing a framework for Community action in the field of water policy' (the Water Framework Directive (WFD)). This Directive provided the framework for the protection of all waters, (rivers, lakes, canals, reservoirs, estuaries, coastal waters and groundwaters), wetlands and other water dependent ecosystems and associated habitats. It has since been widely recognised as one of the most comprehensive and progressive pieces of EU environmental legislation ever enacted because it requires Member States to take a holistic, inclusive and ecological approach to water management.

The main objectives of the Directive are:

- To protect and, where necessary, to improve the quality of all our inland and coastal waters, groundwater and associated wetlands and to prevent their further deterioration
- To achieve 'good status' for all these waters by 2015, or by 2021 or 2027, in the case of certain exemptions
- To promote the sustainable use of water
- To reduce the pollution of water by particularly hazardous substances
- To lessen the effects of flooding and drought.

The key requirements of the Directive are:

Water quality based around the concept of ecological quality

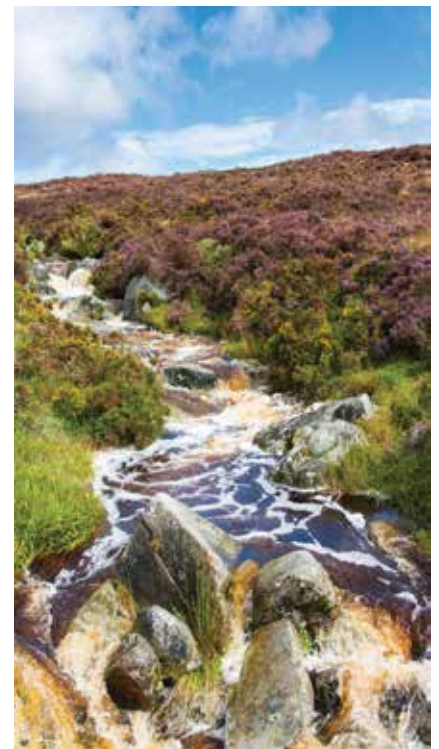
The Directive requires the quality 'status' of water bodies to be measured using ecological rather than solely traditional physical and chemical parameters, with more emphasis on the quality of the biological communities of a water body.

Integrated catchment-based water management

The WFD functional unit is based on river catchments or collections of river catchments (River Basin Districts), rather than along traditional political divisions (local authorities). River basins or catchments are made up of lakes, rivers, streams, groundwater and estuaries, and all the land that surrounds them, and drains into them. As a result, the Water Framework Directive makes obligatory the urgently needed integrated approach to water management.

Involvement of the public a key requirement

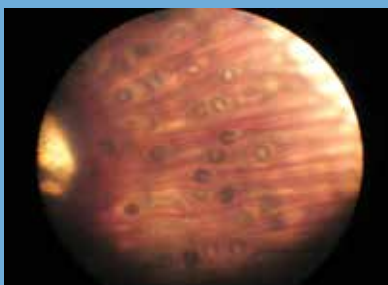
The WFD emphasises access to information, consultation and active involvement of the public more than any previous EU Directive. Article 14 of the WFD requires that '*the active involvement of all interested parties*' must be encouraged by every Member State. In this way, the WFD presents a potentially new and exciting opportunity for communities, interest groups and individual citizens to get involved in the management of water resources at local and regional (River Basin District) level.



River Basin Management Plans & integrated water management

Case Study: Freshwater Pearl Mussels

Freshwater Pearl Mussels (*Margaritifera margaritifera* and *M. durrovensis*) were historically present in most of the rivers of Ireland and indeed throughout northern Europe, but have been widespread and largely anonymous victims of our inability to protect our waters. This is due in part to their complex life-cycle: freshwater mussels are our longest-lived freshwater species (in excess of 100 years), and are able to tolerate short-term pollution incidents (owing to their ability to 'clam-up' for some days at a time and seal themselves off from malign water-borne influences such as chemicals and silt). Hence older mussels may be present in a river of only average water quality and the conclusion may be erroneously drawn that that river is ecologically sound. But what dedicated Irish researchers found over the past few decades was that, due to even low-level pollution, there were few or no juveniles present; *they are unable to successfully reproduce in the vast majority of our rivers!* Hence we must be aware that, in our negligence to employ 'best-practice' in land- and sewage-management, for instance, *we are presiding over a slow-motion but inevitable extinction of a unique and precious species in our midst!*



Left: Juvenile freshwater pearl mussels on a native trout's gill. Photograph at 250x by Evelyn Moorkens / Coomhola Salmon Trust



Right: Adult freshwater pearl mussels on a river bed. Photograph by Evelyn Moorkens

River Basin Management Plans (RBM Plans) are the key water management tools required under the Directive. Plans for each of seven regions in the country for the period 2009-2015 were published in 2010. These Plans describe the waters of each region, their current status and the pressures on them. They also outline in general terms measures to be implemented up to 2015 to meet WFD objectives. A further two cycles of Plans up to 2021 and 2027 are also required, by which time all waters must be of 'good' status (aside from limited exemptions). The current Plans, however, do not set out clearly the specific actions which must be taken to restore unsatisfactory water bodies to WFD required standards, or to prevent deterioration. SWAN has highlighted this as a significant weakness.

There was a general consensus when it came into force that the WFD would have a dramatic effect on the way water was managed in Ireland and Europe. Whilst it has been the driver for a gradual move towards more integrated management of water, it is fair to say that its effects so far have been far more limited than was hoped. The diversity and complexity of the pressures on water, set against the current fragmented, unwieldy water management structures in Ireland, involving multiple agencies, highlights the urgent need for a restructuring of water management to provide the consolidated, integrated water management approach necessary if Ireland is to meet its WFD obligations and secure real protection for our water environment.

