

Water Quality and Land Use Regulation under the Water Framework Directive

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'The Water Framework Directive . . . establishes new and better ways of protecting and improving rivers, lakes, estuaries, coastal waters and groundwater. These include a single way of managing water based on river basins. The usual administrative boundaries will no longer apply. Instead we will be looking after land and water together and in a way that more effectively embraces the natural environment.'¹

Introduction

The United Kingdom has a relatively long history of legislation concerned with pollution control brought about, not least, by the early onset of industrialisation. Despite this precocious start, it would be naïve to suppose that early efforts to 'legislate away' pollution had any significant effect. The main lessons that were learnt were that effective environmental legislation needs to be sufficiently specific to be capable of enforcement and enforcement requires an independent regulatory authority with sufficient resources and expertise to exercise its regulatory functions effectively.

Beyond the basics, the progression of environmental lawmaking has to be seen as aiming to hit a moving target. Perceptions of what constitutes an 'environmental problem', of sufficient seriousness to need to be addressed through regulation, change over time. In part, this change reflects differences in human impacts upon the environment as a result of changing human activities. In part, it reflects advancements in scientific knowledge, providing new understanding of different kinds of environmental impact. The point remains, that usually gradual, though sometimes dramatic,² shifts in the perception of the problem necessitate an ongoing process of re-evaluation of whether the regulatory response is the right one.

The problem of unsatisfactory water quality is presently undergoing an important shift in perception, with significant regulatory consequences. The key difficulty is that of distinguishing between the *substance* of the

¹ Barbara Young, Chief Executive Environment Agency for England and Wales, Foreword, Environment Agency, *Water for life and Livelihoods: A strategy for River Basin Planning – a consultation* (2005).

² An example of a relatively dramatic shift in the perception of an environmental problem might be seen in the recent revision of opinion on the problem of air pollution. The problem of unsatisfactory air quality, initially perceived as a local issue of amenity or public health, has been widely reconceived as one concerning the international or global distribution of contaminating material with global climatic impacts. Accordingly, the legal responses may be traced through a progression of measures at national and international levels which reflect this shift in perception of adverse environmental impacts, the offending activities giving rise to them and the appropriate legal approaches needed to address them.

environmental problem and *symptoms* of that problem. Viewed from the perspective of the legislature in nineteenth century England, the water pollution problem was largely conceived of as that of unregulated emissions of inadequately treated effluent from industrial 'manufactories' and sewage treatment works established under recent public health legislation. The counterpart of this perception was that regulation is best applied at the point where effluent enters a watercourse. Hence, a central criminal offence was provided for where a person caused or knowingly permitted the unauthorised entry of polluting matter or effluent into a watercourse or other kinds of controlled waters.³ There can be no dispute that this paradigm continues to be extremely helpful to environmental regulatory authorities who, with regrettable frequency, bring criminal prosecutions in respect of pollution incidents, usually originating from industrial premises.⁴

However, the supposition that all instances of unsatisfactory water quality are attributable to emissions from industrial or sewage treatment activities, capable of being tackled through end-of-pipe regulation, would be a major misconception. Less dramatic, though at least equally damaging, diffuse kinds of contamination enter watercourses through diverse means other than identifiable discharges from discrete points of origin. In various respects, the traditional paradigm fails to fit this aspect of the modern understanding of the environmental problem. Unsatisfactory water quality, therefore, is increasingly seen having different kinds of cause and needing to be addressed by other means. As will be seen, this involves a supplementation of end-of-pipe regulation by a range of approaches that, in various ways, involve the regulation of land use. This recharacterisation of the environmental problem has taken place over many years and is in the process of continuing development. Indeed, the indications are that the shift from end-of-pipe regulation to land-use regulation has accelerated over recent years for reasons that will be discussed.

The purpose of this paper is to consider the mechanisms by which laws relating to land use have progressively adopted an anti-pollution dimension and, in particular, those respects in which water quality problems have been addressed by land-based control mechanisms. Although early examples are provided of regulation of the most polluting kinds of land use for the purpose of protecting the aquatic environment, the most comprehensive and powerful weapon in the armoury is the land use planning system. In effect, the extent to which development control mechanisms should be used to prevent authorisation of potentially polluting developments, is the most prominent issue needing to be addressed in facilitating an effective means of securing satisfactory water quality.

³ S.85 Water Resources Act 1991. 'Controlled waters' are defined in s.104 to encompass relevant territorial waters, coastal waters, inland freshwaters and ground waters. Historically, essentially the same offence may be traced back to the ss.2 and 3 Rivers Pollution Prevention Act 1876, though some local provision for water pollution offences predate this (see W. Howarth and D. McGillivray, *Water Pollution and Water Quality Law* (2001) Ch.2).

⁴ See Environment Agency website for annual statistics on pollution incidents: www.environment-agency.gov.uk.

Land use planning law in England and Wales has its historical roots in the idea of preserving the public 'amenity',⁵ primarily of urban areas. However, over recent years it has incorporated an increasingly important environmental protection dimension. At least in relation to the protection of the aquatic environment, the role of planning law has recently been placed under intense scrutiny. The reasons for this arise from the need to implement the European Community Water Framework Directive⁶ in national law. Although the Directive is set to have profound effects upon all aspects of water management, it raises some momentous challenges in respect of land use issues, where these adversely impact upon the aquatic environment. Centrally, the concern is with the ways that the Directive will require greater cognisance to be taken of water quality impacts in making land use determinations under the planning system. Whilst the full implications upon national law are not yet entirely clear, there are good reasons to think that the role of planning procedures will need to be significantly bolstered if the objectives of the Directive are to be fully realised.

The argument to be presented is that a change of approach to water quality issues is needed within the land use planning system. Past tendencies for environmental quality issues to be sidelined in the face of developmental pressures should not be allowed to subvert realisation of the objectives of the Water Framework Directive. In effect, a more substantive approach is needed in land use planning decisions if the new water quality obligations under Community law are to be fulfilled.

Modernisation and Prevention

The United Kingdom has many ancient examples of legislation for the protection of water quality, with local statutes enacted for this purpose since mediaeval times.⁷ More recently, however, the impetus for such legislation is not so much because of any especial 'green-mindedness' on the part of its legislature so much as the early impacts of industrialisation. The squalid living conditions that prevailed in many nineteenth century industrial towns caused environmental legislation to be regarded as a *necessity* if living conditions were to be brought up to an acceptable standard. Hence, the earliest generally applicable legislation was motivated by concerns about public health and prevention of the spread of disease and removal of nuisances, but legislation protecting the quality of water independently of public health concerns followed not long afterwards.⁸ This early legislation tended to adopt a reactive and punitive approach to the problems, as might be expected in primitive environmental law, basically, seeking to introduce blanket criminalisation of water pollution. In theory, this might look an

⁵ Hence, in earliest form, planning law made provision was made for local authorities to prepare 'development schemes' to secure 'proper sanitary conditions, *amenity* and convenience' in connection with the use of the land and neighbouring lands (see Housing, Town Planning etc. Act 1909).

⁶ 2000/60/EC.

⁷ Nuisances Act of 1388 and see other historical references in W. Howarth and D. McGillivray, *Water Pollution and Water Quality Law* (2001) Ch.2.

⁸ Rivers Pollution Prevention Act 1876.

attractively retributive approach, but in reality, putting the law into operation was beset with difficulties, not least because of the lack of any specialised regulatory authority, which in many respects rendered it a dead letter. Certainly, the United Kingdom has served as a 'laboratory' for experimentation in water legislation, but, as in any laboratory, not all experiments can qualify as a success!

It was not until the latter part of the last century that water pollution laws came to resemble anything like a modern system of environmental legislation. Criminal offences were supplemented by environmental licensing systems which allowed legal controls upon discharges to be applied strategically, in relation to the activity being licensed, the contaminants being discharged and the sensitivity of the receiving environment.⁹ This flexible approach to the regulation of discharges allowed environmental regulatory authorities to balance the stringency of controls against the environmental objectives and standards that were being sought, in terms of the quality of the receiving waters that needed to be secured. Progressively, therefore, the approach of blanket criminalisation of water pollution came to be replaced by a more purposive approach, involving the strategic use of the laws to achieve environmental quality objectives, insofar as these were capable of being achieved through restrictions upon point sources of polluting emissions.

The flexibility provided by environmental licensing systems, or 'discharge consents', allowed an important means of facilitating strategic objectives for the aquatic environment, but with recognised limitations. The point of entry of effluent into a watercourse might still be seen as too late a stage to impose regulatory controls. The issue needs to be raised whether the entry of effluent is capable of being avoided in the first place by the adoption of more preventative kinds of control. Moreover, end-of-pipe regulation must be seen as limited to those pollutants that actually enter the environment through point sources. End-of-pipe regulation, by definition, has no relevance to those contaminants that enter watercourses through other routes. Pertinently, diffuse contaminants are now recognised to be an increasingly large part of the problem of unsatisfactory water quality, but require a different kind of regulatory approach. The implication is that regulation of discrete points of emission, by itself, will not be sufficient to ensure that water quality objectives and standards are met. In effect, land use regulation needs to supplement point source control if satisfactory water quality is to be realised. This appreciation is illustrated by the progressive extension of water quality law into land use regulation.

The Water Act 1989 is usually noted for the momentous transfer of water utility functions of water supply and sewage treatment from the public to the private sector in England and Wales.¹⁰ Alongside the privatisation of water

⁹ Rivers (Prevention of Pollution) Acts 1951 to 1961.

¹⁰ For general discussion of the Water Act 1989 see R. Macrory, *The Water Act 1989: Text and Commentary* (1989); S. Gordon, *Down the Drain: Water Pollution and Privatisation* (1989); D. Kinnersley, *Troubled Waters: Rivers, Politics and Pollution* (1988); W. Maloney and J. Richardson, *Managing Policy Change in Britain: The Politics of Water* (1995); and J. Hassan, *A History of Water in Modern England and Wales* (1998) Ch.6.

services, however, the Act enabled the introduction of various kinds of secondary legislation concerned with precautionary regulations, water protection zones and nitrate sensitive areas. These new mechanisms fell as responsibilities to the specialised environmental regulatory authority established under the Act.¹¹ Hence, traditional, reactive regulatory mechanisms addressing end-of-pipe discharges came to be supplemented by a range of anticipatory measures directed towards different land-use activities contributing to water quality problems.

Precautionary regulations were provided for under a broadly-worded enabling power given to the Secretary of State to prohibit or regulate the activities of persons having custody of polluting matter, to prevent entry into controlled waters.¹² This power has been exercised to regulate agricultural activities involving silage, animal waste and oil storage on farms¹³ and to regulate the storage of oil more generally.¹⁴ Under the relevant regulations, criminal offences are provided for in respect of the inadequate storage of potentially polluting matter, regardless of whether or not any actual water pollution occurs as a result of inadequate storage. In terms of the number of the diminishing number of water pollution incidents arising from agricultural activities, the use of preventative regulations in this context was generally regarded as a success.¹⁵ This success must be attributed to a shifting of attention from water quality, as such, to the regulation of activities taking place on waterside land. Perhaps for the first time, anticipatory land use regulation was established to be the most effective way of addressing specific kinds of water quality problem.

Water Protection Zones are provided for by way of another enabling power given to the Secretary of State to designate zones where land use needs to be strictly regulated, normally because of the vulnerability of receiving waters.¹⁶ Within these zones particular activities, such as the storage of pollutants, can be regulated, but the approach is area-specific, rather than activity-specific, in the first instance. Less use has been made of this approach, with only one area designated for this purpose.¹⁷

The facility for designation of 'nitrate sensitive areas' constituted the initial, national, approach to tackling problems of nutrient enrichment, eutrophication,

¹¹ The Water Act 1989 established the National Rivers Authority as the environmental regulatory authority with responsibility for protection of the aquatic environment in England and Wales. The Environment Act 1995 transferred the powers of the National Rivers Authority to the Environment Agency along with regulatory responsibility for waste management, integrated pollution control of major industrial processes and various other areas of environmental responsibility.

¹² S.92 Water Resources Act 1991.

¹³ Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) Regulations 1991 (SI 1991 No.324) as amended (by SI 1996 No.2044).

¹⁴ Control of Pollution (Oil Storage) (England) Regulations 2001 (SI 2001 No.2954).

¹⁵ See National Audit Office, *National Rivers Authority: River Pollution From Farms in England* (1995) para.3.7.

¹⁶ S.93 Water Resources Act 1991.

¹⁷ Water Protection Zone (River Dee Catchment) Designation Order 1999 (SI 1999 No.915) and Water Protection Zone (River Dee Catchment) (Procedural and Other Provisions) Regulations 1999 (SI 1999 No.916).

arising from fertiliser and manure application to agricultural land. This problem had become a particular concern because the levels of nitrate contamination in some areas in England had resulted in a guilty verdict in the European Court of Justice in 1993¹⁸ for supplying drinking water which exceeded parameters in the European Community Drinking Water Quality Directive.¹⁹ The tentative national approach involved designating nitrate sensitive in which farmers were compensated for changing land use activities to reduce nitrate transmission to surface and ground waters. This initial approach was always recognised to be a 'pilot' scheme, primarily intended to ascertain the effects of changing agricultural land use upon water quality. The national approach to the problem has now been superseded by measures which implement the European Community Agricultural Nitrates Directive.²⁰ The Directive provides for mandatory, rather than voluntary, controls upon farming activities where nitrate levels of surface or groundwaters exceed parameters that are set both for the protection of water supplies and for more general ecological protection.²¹ Setting aside detailed discussion of the mechanisms for control of agricultural nitrate,²² the basic point to be emphasised is that land use control mechanisms are now seen as the only effective mechanism by which water quality can be protected against excessive levels of nitrification.

Cumulatively, these three different kinds of preventative regulatory mechanisms for control of land-use represent important alternatives to end-of-pipe controls upon discharges as the means of securing water quality objectives and standards. They represent an evolution of water protection law through the progressive regulation of activities taking place on waterside land, at least insofar as they focus upon the most contaminating kinds of land use. A further, more recent, development, which may be added to the preventative mechanisms initially provided for is the adoption of a statutory regime for the remediation of contaminated land. The national contaminated land regime involves polluters or landholders being compelled to meet the cost of decontamination activities, where past land-uses have given rise to continuing water quality or other environmental problems.²³ The common theme is that regulating the entry of pollutants from contaminated sites into watercourses is too late to address the problem. In specified situations, usually where past industrial use gives rise to continuing problems, land decontamination is the only effective means of addressing water quality problems. Again,

¹⁸ *Commission v United Kingdom* Case C-337/89 [1993] Env LR 299.

¹⁹ 80/778/EEC.

²⁰ 91/676/EEC.

²¹ See *R v Secretary of State for the Environment and Minister of Agriculture, Fisheries and Food, ex parte Standley and other and Metson and others and National Farmers Union (Intervener)* Case C-293/97 [1997] Env LR 589 and *Commission v United Kingdom* Case C-69/99 [2000] ECR I-10979.

²² See W. Howarth and D. McGillivray, *Water Pollution and Water Quality Law* (2001) S.13.5 and website of Department for Environment, Food and Rural Affairs for recent developments in 'Catchment Sensitive Farming' (seeking to reduce diffuse water pollution from agriculture in England) at www.defra.gov.uk/environment/water/quality/diffuse/agri/index.htm.

²³ Under Part IIA Environmental Protection Act 1990, as amended. For general discussion of the contaminated land regime see S. Tromans and R. Turrall-Clarke, *Contaminated Land: The New Regime* (2000).

preventative approaches, involving the regulation of adversely impacting land uses, need to take precedence over traditional end-of-pipe regulation if satisfactory water quality is to be secured.

Land Use Planning and Prevention

Although the particular mechanisms that have been noted are clearly important in addressing distinct kinds of water quality problem, they may be seen as having a rather *ad hoc* character in addressing relatively specific kinds of land use activities. For the future, the preventative strategy needs to be extended to involve the regulation of *all* kinds of land use according to their impacts upon water quality. The most comprehensive means of addressing this is through the land use planning system.

Over recent years, legislation and policy concerned with development planning (the formulation of development plans) and development control (the control of particular developments) have gained an increasingly prominent environmental dimension. Town and Country planning law,²⁴ rooted in concerns for public health and premised upon the need for preservation of amenity of land, has placed increasing emphasis upon the environmental implications of decisions concerning land use. Hence, development plans have devoted increasingly explicit attention to the impacts of development upon the environment and environmental regulatory authorities have taken an increasingly active role as consultees, both in relation to the formulation of development plans and in relation to the determination of particular development proposals.²⁵

However, land use planning concerns have never been conceived of as being solely concerned with environmental protection, but envisage environmental protection as one factor to be weighed into the balance against the social and economic benefits that may be brought about by allowing development to proceed. In this respect, planning decisions reflect the approach taken in other kinds of administrative decision which have as their objective the realisation of sustainable development. That is, environmental costs must be recognised and weighed into the balance against developmental benefits. The need for resolutions of this kind to be made is reflected in the general duty upon planning authorities to 'consider' or 'take into account' any representations of environmental regulatory authorities in formulating development plans and determining planning applications. Considering or

²⁴ Provided for under the Town and Country Planning Act 1990, as amended, most recently by the Planning and Compulsory Purchase Act 2004.

²⁵ Provision for consultation in relation to the formulation of development plans was made by ss.33 and 40 Town and Country Planning Act 1990 and the Town and Country Planning (Development Plan) (England) Regulations 1999 (SI 1999 No.3280). In relation to consultation on particular applications for planning permission, consultation is provided for under s.71 Town and Country Planning Act 1990 and the Town and Country Planning (General Permitted Development Procedure) Order 1995 (SI 1995 No.419). New provisions have been made for consultation and public participation in plan formulation in England, under the Planning and Compulsory Purchase Act 2004, under the Town and Country Planning (Regional Planning) (England) Regulations 2004 (SI 2004 No.2203) and the Town and Country Planning (Local Development) (England) Regulations 2004 (SI 2004 No.2204).

taking environmental concerns into account, does not mean that such concerns must invariably prevail over other factors, but merely that they are a 'material consideration' that must be weighed into the balance in planning decisions. In the past at least, the rather open-ended or unstructured status of environmental considerations against other factors has been a source of concern.

A telling illustration of the environmental limitations of the customary approach to water quality concerns in determining planning applications is to be seen in *Ynys Mon Borough Council v. Secretary of State for Wales*.²⁶ Here, the proposed development involved building six houses, from which the developer would be allowed to make a connection of sewerage pipes into the local sewerage system.²⁷ The development was strongly opposed by environmental regulatory authority²⁸ because the sewerage system was already acknowledged to be inadequate, in that it allowed untreated foul sewage to be discharged into coastal waters. As a consequence, the authority had formulated a policy of opposing all developments involving further connections to the sewerage system until improvements had been made.

On appeal, it was accepted that the environmental duties upon the authority were of high importance in representing the public interest in the environment and recognised that the conditions at the existing sewage outfalls in the locality were unsatisfactory. Nevertheless, the policy of a total embargo upon building development advocated by the authority was not accepted to be finally determinative of the planning issues. Whilst the policy objectives of the authority were important material considerations, all that was required was that they should be weighed against all other relevant matters. Following this approach, it was legitimate to conclude that the discharge contributed by the additional houses would not give rise to such deleterious consequences as to override other merits arising from the proposed development. In effect, increasing water pollution is not necessarily a bar to authorisation of a proposed development, providing the proper consideration was given to the environmental costs.

Essentially the same problem, of environmental cost being overridden by developmental gain, is also illustrated in the treatment of environmental considerations in the formulation of development plans. Despite the evolution of specific techniques of 'sustainability appraisal' of development plans, there is limited confidence that this has succeeded in affording environmental factors adequate weight in land use planning.²⁹ 'Sustainability appraisal' is

²⁶ [1993] *Journal of Planning and Environment Law* 225.

²⁷ Under s.106 Water Industry Act 1991.

²⁸ At the time, this was the National Rivers Authority, though its functions were subsequently the Environment Agency under the Environment Act 1995.

²⁹ Initially, sustainability appraisal was provided for in Department of Environment, Transport and the Regions, *Good Practice Guide to Sustainability Appraisal of Regional Planning Guidance* (2000) building upon earlier guidance in Department of the Environment, *Environmental Appraisal of Development Plans: A Good Practice Guide* (1993). Subsequently, s.5(4) Planning and Compulsory Purchase Act 2004 has provided for sustainability appraisal for the draft revision of proposals for regional spatial strategies.

seen as 'a systematic and iterative process undertaken during the preparation of a plan or strategy, which identifies and reports on the extent to which the implementation of the plan or strategy would achieve the environmental, economic and social objectives by which sustainable development can be defined'.³⁰ The approach focuses upon the formulation of objectives and targets at a regional level which seek to define sustainable development by headline indicators, against which an emerging strategy can be appraised.

Although progress towards, or regress from, sustainable development is helpfully informative in regional planning, as in other sectors, the absence of any specific quantifiable objectives in the sustainability appraisal process has been noted. Indeed, the weighty criticism has been raised that the approach may actually serve to marginalise environmental appraisal against the more dominant role of economic criteria in the assessment of regional plans. Hence, at the very least, it has been suggested that the environmental component needs to be bolstered if sustainability appraisal is to be worthy of retention.³¹ Even with such bolstering, it is difficult to see what response could be offered to the sceptical view that the kind of qualitative assessment involved is based solely upon the assessor's subjectivity. 'Attempts to quantify impacts, using scoring systems in matrices, for example, only result in subjectivity being built into the results. One assessor might rank an impact on the air quality very high and an impact on water quality less high in comparison, whereas another assessor would do the contrary, both using their own sensitivity to decide on the ranking'.³²

In summary, the processes of development planning and development control might seem to offer tremendous scope for a more broadly preventative approach towards water quality protection. However, the theoretical advantages of this approach from an environmental perspective are greatly curtailed by the practicalities of planning procedures. Primarily, this is because the obscurity of the duty to 'take into account' or 'consider' environmental factors in planning matters and the lack of any guidance as to the *weight* to be given to environmental concerns in deciding whether they must be sacrificed for developmental gains that are readily open to financial measurement. Even where local authorities are subject to a duty to act in

Guidance on the details of the process is provided for in Planning Policy Statement 11, *Regional Spatial Strategies* (2004) paras.2.36 to 2.39. S.19(5) of the 2004 Act also provides for sustainability appraisal in the preparation of local development documents and guidance on this is provided in Planning Policy Statement 12, *Local Development Frameworks* (2004) para.3.17. A consultation paper, *Sustainability Appraisal of Regional Spatial Strategies and Local Development Frameworks*, was issued by the Office of the Deputy Prime Minister in September 2004. Generally, see M. Stallworthy, *Sustainability, Land Use and Environment: a Legal Analysis* (2002) pp.156 to 157 and 177 to 180.

³⁰ Department of Environment, Transport and the Regions, *Good Practice Guide to Sustainability Appraisal of Regional Planning Guidance* (2000) para.2.1.

³¹ Royal Commission on Environmental Pollution, Twenty-third Report, *Environmental Planning*, Cm.5459 (2002) para.7.47. The Government broadly accepted the need for the environmental component of sustainability appraisal to be strengthened, United Kingdom Government, *The Government's Response to the Royal Commission on Environmental Pollution's Twenty-Third Report on Environmental Planning England*, Cm 5887 (2003) p.13.

³² C. Roger-Marchart and S. Tromans, 'Strategic Environmental Assessment: Early Evaluation Equals Efficiency' [1997] *Journal of Planning and Environment Law* 993 at p.996.

accordance with the principle of sustainable development,³³ the gravity that must be attached to environmental matters in decision-making is either nebulous or subjective. In short, the theoretical advantages of land-use regulation to protect water quality and other parts of the environment, have been foregone because of the lack of substance afforded to these interests in planning decisions.

The interesting question is whether, in future, greater substance will need to be attached to the protection of water quality as a result of implementing the European Community Water Framework Directive. Addressing this issue requires some introductory discussion of the status of Community environmental law in the 25 Member States, including the United Kingdom.

The European Dimension to Water Quality Regulation

The earlier account of how water quality protection has developed in England and Wales now represents, at most, only half of the picture. The other half is to be seen in the progressive Europeanisation of water quality law in the Member States of the European Community. Remarkably, when the Treaty of Rome was agreed in 1957, establishing the original European *Economic* Community, it did not seem to be envisaged that the creation of a common market had any environmental implications. However, it was not too long before the Community came to appreciate that polluting emissions did not respect national boundaries. From that realisation followed the acceptance that common environmental standards were needed to avoid distortion of competition between nations that had markedly different national environmental standards.³⁴

The recognition, that harmonisation of at least minimum environmental standards was needed, has provided the basis revision of the European Community Treaty³⁵ and for a massive amount of environmental legislation enacted at Community level. On a conservative estimate, there are over 400 European Community Directives on the environment, and at least 20 of these are directly concerned with water quality. In fact, the number of measures concerned with the environment may be considerably greater when it is appreciated that there is often an environmental dimension to legislation enacted across the diverse sectors of Community activity, concerned with industry, agriculture, energy, transport etc. In each instance of adoption of a Community Directive, it is necessary for the national laws of each member state to implement the obligations agreed at Community level, though some flexibility is allowed for in the way that national legislation and administrative systems are used to transpose Community law.³⁶

³³ S.4 Local Government Act 2000 and s.39 Planning and Compulsory Purchase Act 2004.

³⁴ For an early appreciation that environmental concerns could justify departure from common market principles see Case 240/83 *Procureur de la République v Association de Défense des Brûleurs d'Huiles Usagées* [1985] ECR 531 (the 'ADBHU (Used Oils)' case).

³⁵ Now see Title XIX of the European Community Treaty, as amended, on the Environment.

³⁶ See Art.249 European Community Treaty, making provision for directives to be binding as to the result to be achieved, but leaving to the national authorities the choice of form and methods (of implementation).

Although, Community legislation has spanned the whole spectrum of environmental concerns, water has been one of the most precocious areas and arguably represents perhaps the most fully developed sector. Early measures concentrated upon regulation of emissions of the most harmful kinds of chemical contaminants to surface and groundwater.³⁷ Other relatively early legislation sought to establish environmental quality objectives and standards for different kinds of waters used for water supply purposes, for bathing or to support fisheries.³⁸ Slightly later measures focused upon the regulation of particular activities that were perceived to be especially harmful to the aquatic environment were adopted, such as the treatment of waste water and the use of nitrate fertilisers in agriculture.³⁹ Each of the water quality directives adopted at Community level involved significant rethinking of legislative, administrative and environmental management approaches adopted in the Member States. The United Kingdom was not alone in failing to recognise the mandatory need to give full effect to its Community obligations in relation to water quality and has, on several occasions, been found guilty before the European Court of Justice in this respect.⁴⁰

In short, the legal duty to implement Community water quality directives is an uncompromising one that involves member states faithfully transposing each directive into national law and notifying the European Commission that this has been done by the appointed deadline. Beyond that, various kinds of administrative measures are normally required to implement directives, such as the identification of competent national authorities, the designation of areas or the instigation of action plans of various kinds, along with related monitoring obligations. Ultimately, the object of most directives is that precisely specified water quality objectives must be met for those waters to which they apply and this substantive obligation is capable of being extremely expensive to meet where, for example, major improvements in sewerage treatment infrastructure are needed.⁴¹

The legally binding character of the range of obligations arising under Community water quality law must be strongly emphasised. Failure to fulfil any of the matters referred to leaves a member state open to proceedings brought by the Commission before the European Court of Justice. Moreover, subsequent amendments of the European Community Treaty have allowed the Court to impose potentially weighty penalty payments against member

³⁷ See Dangerous Substances Directive (76/464/EEC) and Groundwater Directive (80/68/EEC).

³⁸ See Drinking Water Quality Directive (80/778/EEC now replaced by 98/83/EC) Bathing Water Directive (76/160/EEC) and Freshwater Fish Waters Directive (78/659/EEC).

³⁹ See Urban Waste Water Treatment Directive (91/271/EEC) and Agricultural Nitrates Directive (91/676/EEC).

⁴⁰ For early cases involving the United Kingdom, see *Commission v United Kingdom* Case C-337/89 [1992] ECR I-6103 (the 'Drinking Water' case) and *Commission v United Kingdom* Case-56/90 [1993] ECR I-4109 (the 'Bathing Water' case).

⁴¹ Where, for example, such improvements are needed to meet the requirements of the Bathing Water Directive (76/160/EEC) or the Urban Waste Water Treatment Directive (91/271/EEC).

states for repeated failure to implement and enforce legislation.⁴² The upshot of all this is that the somewhat casual approach to transposition, implementation and enforcement of Community environmental legislation, which may have prevailed in some member states in previous times, has been superseded by a recognition that failings in these matters are likely to have serious legal consequences. As a practical result, the greater part of environmental legislation enacted in the United Kingdom is actually made for the purpose of implementing Community measures, and there is no reason to suppose that it is atypical amongst the other member states in this respect.

The Water Framework Directive

Having noted the increasing pre-eminence of European Community environmental laws over purely national measures, particularly in the field of water quality, a further observation concerns a particular legislative measure that has recently been adopted in this sector. By the end of last century, Community water quality legislation was beginning to show its age. Directives adopted over a 30 year period reflected markedly different approaches that had prevailed at different times over that period. Directives focussed upon particular contaminants, particular kinds of waters and upon particular kinds of polluting activity could be seen to have been based upon significantly different environmental strategies and objectives. These measures needed to be integrated into a consistent body of controls directed towards contemporary environmental concerns and based upon coherent environmental management principles.

The outcome of the modernising and integrating process that took place is the Water Framework Directive (2000/60/EC),⁴³ which is the successor to much of the earlier water legislation and also the mechanism for introducing some quite radical new initiatives. The new obligations incorporated into the Directive are recognised to be challenging and this is reflected in the quite lengthy time period over which it is to be implemented, extending at least to 2015 in respect of its key requirements. Hence, for as far into the future as

⁴² See Art.228(2) European Community Treaty, allowing for lump sum or penalty payments where a member state has failed to take necessary to comply with a judgment of the European Court of Justice. See, for example, *Commission v Spain* Case C-278/01 [2003] ECR I-14141, where a financial penalty was imposed for failure to comply with a previous judgment (Case C-92/96) under Bathing Water Directive in relation to inshore waters. The penalty payment imposed by the Court was Eu 624,150 per year for each 1% of non-conforming bathing waters.

⁴³ For general academic literature on the Water Framework Directive see D. Matthews, 'The Framework Directive on Community Water Policy: A New Approach for EC Environmental Law' [1997] *Yearbook of European Law* p.191; W. Howarth, 'Accommodation without Resolution? Emission controls and environmental quality objectives in the proposed EC Water Framework Directive' [1999] *Environmental Law Review* 6; D. Grimeaud, 'Reforming EU water law: towards sustainability' [2001] *European Environmental Law Review* 41 to 51, 88 to 97 and 125 to 135; A. Farmer, 'The EC Water Framework Directive' [2001] *Water Law* 40; G. Kallis and D. Butler, 'The EU Water Framework Directive: Measures and Implications' [2001] *Water Policy* 125; and W. Howarth and D. McGillivray, *Water Pollution and Water Quality Law* (2001) Ch. 5. From the perspective of environmental non-governmental organisations, see World Wide Fund for Nature and European Environmental Bureau, '*Tips and Tricks*' for Water Framework Directive Implementation (2004) available at, www.eeb.org.

anyone is capable of seeing at least, water quality regulation in the Member States will be almost totally preoccupied by the need to implement the Directive.

As a consolidation of existing legislation, the Directive is based upon a general principle that its provisions should be at least as stringent as those already required under previous Community water legislation.⁴⁴ However, in many respects, its requirements actually extend considerably beyond the requirements of previous legislation. Hence, the diverse objectives for water quality are consolidated and extended into a single mission. Broadly, this is to secure 'good status' for all waters within the scope of the Directive within the timescale that is allowed. For surface waters, two key elements are encompassed, 'good ecological status' and 'good chemical status'. The new element of good ecological status is defined in terms of the quality of the biological community in relation to each category of water. 'Good chemical status' is defined in terms of compliance with quality standards established for chemical substances at Community level.⁴⁵ For groundwaters, good status involves a combination of good 'chemical status' and good 'quantitative status', that is, where groundwater exploitation does not exceed rate of recharge. Again, the extension of Community water legislation into quantitative considerations is a new departure.⁴⁶

Concisely stated, good status means that relevant waters must not fall below what is required for the following 'environmental objectives' of the Directive to be met.

1. Preventing deterioration of water quality;⁴⁷
2. Protecting, enhancing and restoring waters with the aim of achieving good status (encompassing both good chemical status and good ecological status of surface waters) by 2015;⁴⁸
3. Protecting, enhancing and restoring artificial or heavily modified waters with the aim of achieving good status by 2015;⁴⁹
4. Progressively reducing pollution by priority substances and phasing out emissions, discharges and losses of priority hazardous substances;⁵⁰
5. Preventing or limiting inputs of pollutants into groundwaters;⁵¹

⁴⁴ Recital 51 Water Framework Directive states that implementation is to achieve a level of protection of waters at least equivalent to that provided in certain earlier acts, which should therefore be repealed once the relevant provision of the Directive have been fully implemented.

⁴⁵ See Art.2.24 Water Framework Directive which defines 'good surface water chemical status' to mean the chemical status required to meet the environmental objectives for surface waters established by Art.4.1.a, that is, the chemical status achieved by a body of surface water in which concentrations of pollutants do not exceed the environmental quality standards established in Annex IX and under Art.16.7, and under other relevant Community legislation setting environmental quality standards at Community level. Art.2.25 defines 'good groundwater chemical status' as the chemical status of a body of groundwater which meets all the conditions set out in Table 2.3.2 of Annex V to the Directive.

⁴⁶ Art.4.1.b.ii Water Framework Directive.

⁴⁷ Art.1.a.i and b.i Water Framework Directive.

⁴⁸ Art.4.1.a.ii and b.ii Water Framework Directive

⁴⁹ Art.4.1.a.iii Water Framework Directive.

⁵⁰ Art.4.1.a.iv Water Framework Directive.

⁵¹ Art.4.1.b.ii Water Framework Directive.

6. Reversing significant upward trends in the concentration of any pollutant in groundwater;⁵² and
7. Complying with standards and objectives for protected areas by 2015 including objectives for areas for the abstraction of drinking water.⁵³

The environmental objectives of the Directive are to be secured through a sequence of tasks, involving characterising waters according to specified categories, assessing their existing status and undertaking a range of monitoring activities. Moreover, the basis for water management is harmonised across the Community at the river basin level. Hence, the Directive requires management by river basin, as a natural geographical and hydrological unit, rather than according to administrative or political boundaries.⁵⁴ Accordingly, river basin management plans will need to be established and updated every six years, and these will provide the context for water quality improvement measures which must be put in place. Management plans will need to incorporate specific protection zones within river basins where more stringent requirements are needed for ecological protection or particular uses such as drinking water supply.⁵⁵ River basin management plans will also need to encompass programmes of measures intended to ensure that water quality within the district will meet the environmental objectives of the Directive by the required deadline.

From the perspective of England and Wales at least, the idea of managing water bodies at a catchment level is not entirely unfamiliar. Integrated catchment management had been a prominent aspect of the Water Act 1973,⁵⁶ whereby 10 regional water authorities had integrated responsibility for all water functions including water supply, effluent treatment and environmental regulation. Viewed in retrospect, these arrangements may have secured coordination between different water management functions within river catchments at the expense of lacking an independent environmental regulatory body and placing the regional water authorities in poacher-gamekeeper role with regard to the proper enforcement of water pollution legislation. This shortcoming was redressed by the Water Act 1989 in putting environmental regulation upon a proper footing by establishment of an independent regulatory authority, the National Rivers Authority, which, under the Environment Act 1995 was superseded by the Environment Agency.

Notwithstanding these changes, the basic idea of watershed management of water quality survives in the regional organisation of the Environment Agency organised, now, into eight regions defined hydrologically according to

⁵² Art.4.1.b.ii Water Framework Directive.

⁵³ Art.1.c and Art.7 Water Framework Directive.

⁵⁴ Arts.3 and 13 Water Framework Directive. Note also the provision for International River Basin Districts, where a river basin district covers the territory of more than one Member State or the coordination of national water management activities in respect of transboundary river basin districts under these Arts.

⁵⁵ Art.13.4 and Annex VII Water Framework Directive.

⁵⁶ Water Act 1973 and see D. Okun, *Regionalization of Water Management: A Revolution in England and Wales* (1977) and D. Kinnersley, *Troubled Water: Rivers, Politics and Pollution* (1988) noting, at p.51, that river basin management had originally been advocated in 1879.

watersheds of major rivers rather than administrative boundaries of local authorities. The system retains a degree of integration insofar as the same regulatory body is entrusted with responsibility for enforcement of a wide range of environmental controls. These mechanisms can be applied purposefully to secure objectives for the quality of the environment, including the aquatic environment. The similarities of this national approach to that adopted by the Water Framework Directive has caused the Directive to be dubbed the 'British Directive' by continental member states, because of its adoption of river basins as the appropriate unit for water management.⁵⁷ Nonetheless, despite water having been managed at catchment level nationally for at least three decades, the Community obligations that need to be applied at river basin levels are far more extensive and complex than those previously undertaken in national practice.

Specifically, realisation of the environmental objectives of the Directive envisages programmes of measures, encompassing 'basic' measures and, where necessary, further 'supplementary' measures, being incorporated into river basin management plans. In summary, the basic measures encompass the need for mechanisms to address the following issues:

- (a) implementation of certain Community water legislation;
- (b) cost recovery for water services;
- (c) promotion of efficient and sustainable water use;
- (d) protection of water abstracted for drinking water supply;
- (e) abstraction and impoundment controls;
- (f) artificial recharge or augmentation of groundwater;
- (g) control of point source discharges;
- (h) control of diffuse sources;
- (i) significant adverse impacts, including hydromorphological conditions;
- (j) prohibition of certain direct discharges to groundwater; and
- (k) elimination of pollution by priority substances
- (l) prevention of losses of pollutants from technical installations.⁵⁸

The categories of supplementary measures are specified, non-exclusively, to include mechanisms such as economic or fiscal instruments; negotiated environmental agreements; codes of good practice; restoration measures; and demand management measures.⁵⁹

Although river basin management planning and the realisation of the good status objective are probably the key elements of the Directive, a number of other features should also be noted as important innovations. The first is the adoption of a combined approach towards emission controls and environmental quality objectives, requiring both of these to be met.⁶⁰ Second, is the adoption of cost recovery pricing for water, whereby Member States will be required to ensure that the price charged to water consumers represents

⁵⁷ Anon., 'DEFRA gets more bad press over Water Framework Directive' *ENDS Report* 335, December 2002, p.40.

⁵⁸ Art.11.3 Water Framework Directive.

⁵⁹ Art.11.4 and Part B of Annex VI Water Framework Directive.

⁶⁰ Art.10 Water Framework Directive and see W. Howarth, 'Accommodation without Resolution? Emission controls and environmental quality objectives in the proposed EC Water Framework Directive' [1999] *Environmental Law Review* 6.

the true economic and environmental costs.⁶¹ Third, is the requirement to encourage public participation through a process that requires information and consultation before river basin management plans are established or revised.⁶²

Perhaps the most challenging aspect of the good status requirement arises in relation to securing ecological quality standards.⁶³ Whilst previous attempts to legislate for water quality at Community level have focused upon physical and chemical characteristics, the Directive takes an ambitious step beyond this. So far as surface waters are concerned, the Directive requires good ecological status to be achieved according to an explicit classification system.⁶⁴ Hence, in relation to different kinds of water the composition and abundance of phytoplankton, aquatic flora, benthic invertebrate fauna and fish need to be assessed. Essentially, the approach is that of characterising a paradigm of each kind of water and stipulating features of its biological and hydromorphological quality which must be met by actual waters to reach a particular ecological quality classification.⁶⁵

The need to secure good ecological status for surface waters is not intended to detract from the massive challenges, and substantial costs, that are involved in meeting other environmental objectives of the Directive. For example, the regulation of land management to secure adequate quality of water for drinking water supply purposes is clearly a major concern. However, the contrast is that securing the quality of drinking water supplies

⁶¹ Art.9 Water Framework Directive.

⁶² Art.14 Water Framework Directive, concerned with public information and consultation, applies the requirements of the UN ECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters of 25 June 1998 (the Aarhus Convention) to planning procedures under the Directive. Notably, the Directive emphasises that its success relies upon 'information, consultation and involvement of the public' (Recital 14) and imposes a duty upon member states to '*encourage the active involvement of all interested parties*' in the implementation of the Directive and to ensure consultation and access to background information (Art.14.1). See European Commission, Common Implementation Strategy for the Water Framework Directive (2000/60/EC), Guidance Document No.8, *Public Participation in relation to the Water Framework Directive* (2003) and Environment Agency, *A Framework for Stakeholder Engagement* (2005). However, in relation to proposed river basin management plans and programmes of measures, the national transposing legislation requires only that the Environment Agency to take such steps 'as it thinks fit', or as directed, to (i) provide opportunities for the general public and those persons likely to be interested in or affected by its proposals to participate in discussion and the exchange of information or views in relation to the preparation of those proposals; (ii) publicise its draft proposals to those persons; and (iii) consult those persons in respect of those proposals (Reg.10(2)(b) The Water Environment (Water Framework Directive) England and Wales Regulations 2003, SI 2003 No.3242, similarly see Reg.12(2)). Although allowing for consultation of a traditional kind, it is unclear how these measures are intended to *encourage* active involvement.

⁶³ See W. Howarth, 'The Progression towards Ecological Standards', forthcoming *Journal of Environmental Law* 2006.

⁶⁴ Art.2(22) and Annex V Water Framework Directive.

⁶⁵ Generally see European Commission, Water Framework Directive Common Implementation Strategy Working Group 2 A Ecological Status (ECOSTAT), *Overall Approach to the Classification of Ecological Status and Ecological Potential* (2002) available at <http://forum.europa.eu.int/Public/irc/env/wfd/library>.

has been a requirement of Community law for some years,⁶⁶ whereas meeting ecological standards is a substantially new and uncertain requirement.

The effect of full implementation of the Directive will be a major rationalisation of Community water legislation. This will involve the phased repeal of directives on drinking water abstraction (and related measures on sampling and exchanges of information); freshwater fish waters, shellfish waters, and groundwater directives; and the Directive on dangerous substances.⁶⁷ Operative provisions will in future be contained in the Framework Directive but, as has been noted, these will be at least as stringent as requirements under the previous directives.

The magnitude of the challenges involved in implementing the Directive is generally accepted. The key questions are whether the timescale for implementation is commensurate with the actions that must be taken by Member States. The following table lists the formal requirements alongside their respective deadlines.

Implementation Schedule for the Water Framework Directive

December 2000: Water Framework Directive enters into force (by publication in the Official Journal of the European Communities on 22 December) (Art.22).

December 2003: deadline for transposition into national law (Art.24).

June 2004: competent national authorities to be identified (Art.3).

December 2004: establish register of protected areas; and characterisation reports for each River Basin District to be completed (Arts.5, 6 and 7).

December 2005: criteria for preventing and controlling groundwater to be agreed by Member States (if no agreement at Community level) (Art.17).

December 2006: monitoring programmes for surface water status, groundwater status and protected areas to be operational; commence public consultation on River Basin Management Plans and Member States are to establish environmental quality standards for surface waters (if no agreement at Community level) (Arts.8, 14 and 16).

December 2007: publish and consult on significant issues for each River Basin District, and repeals of the Drinking Water Abstraction Directive, Information Exchange Decision and Drinking Water Sampling Directive (Arts.14 and 22).

December 2008: commence public consultation on draft River Basin Management Plans (Art.14).

December 2009: Programmes of Measures and Draft River Basin Management Plans are to be published (Arts.11 and 13).

December 2010: establish cost-recovery water pricing policies (Art.9).

December 2012: programmes of measures are to be operational and Commission to publish first report on implementation (Arts.11 and 18).

December 2013: first review of initial characterisation; requirements for the combined approach are to be met and repeals of Freshwater Fish Waters Directive, Shellfish Waters Directive, Groundwater Directive and Dangerous Substances Directive (Arts.5 and 22).

December 2015: deadline for meeting environmental objectives and review of initial River Basin Management Plans (with review and update of Plans every six years after 2015) (Arts.4, 13, 14 and 15).

December 2019: Commission to review the Directive (Art.19).

Progress at Community Level

⁶⁶ Under the Drinking Water Abstraction Directive (75/440/EEC).

⁶⁷ That is, the Drinking Water Abstraction Directive (75/440/EEC); Drinking Water Sampling Directive (79/869/EEC); Information Exchange Decision (77/795 amended by 86/574/EEC); Freshwater Fish Waters Directive (78/695/EEC); Shellfish Waters Directive (79/923/EEC); Groundwater Directive (80/68/EEC); and the Dangerous Substances Directive (76/464/EEC).

The Water Framework Directive is distinguished from previous Community environmental legislation by the initiatives that have been put in place to secure its coherent and harmonious implementation across the Member States. On this, the European Commission has taken on a more active role in providing guidance to member states as to the correct approach to be taken in national practice pursuant to a 'Common Implementation Strategy'.⁶⁸ This involves the establishment of specialist groups, 'Expert Advisory Forums', bringing together national experts from the member states, to produce a series of guidance documents formulated at Community level. The Common Implementation Strategy has resulted in the production of a series of documents covering diverse aspects of implementing the Directive. However, it is to be noted that these documents are intended for the purpose of providing practical guidance, so that they are not intended to have any definitive legal status.

Alongside this pooling of expertise, the importance of a common approach to classification issues across the Community is recognised to be vitally important. To assist in this endeavour, an 'intercalibration' exercise is being undertaken with sites in different member states being surveyed and categorised, with the results being monitored to ensure that the requirements for good status are consistently applied across the different member states.⁶⁹ The United Kingdom is participating in this exercise through the River Ribble Pilot River Basin Project. The first phase of the project is the testing of Common Implementation Strategy guidance on the planning process and public participation. The second stage is the preparation of a prototype river basin management plan and programme of measures for the Ribble basin.⁷⁰

Progress at National Level

The Transposition Legislation

As has been noted, the Water Framework Directive incorporates a series of deadlines for the accomplishment of different tasks, but the first of these, formal transposition into national law, was required within three years of publication of the Directive.⁷¹ Initial progress towards this deadline in England

⁶⁸ Generally see European Commission, Common Implementation Strategy for the Water Framework Directive (2000/60/EC), *Strategic Document* (2001) and subsequent strategic documents (2003) and (2004) accessible at forum.europa.eu.int/Public/irc/env/wfd/library.

⁶⁹ Para.1.4.1 Annex V Water Framework Directive requires the results of the intercalibration exercise to be published by the Commission with 6 years of the entry into force of the Directive (22 December 2006). See Common Implementation Strategy, *Guidance Document No 6: Towards a guidance on establishment of the intercalibration network and the process of the intercalibration exercise* (2003) and *Guidance Document No 14: Guidance on the intercalibration process 2004-2004* (2005). The United Kingdom is participating in the exercise through the Ribble Pilot River Basin Project, see www.environment-agency.gov.uk/regions/northwest/501317/.

⁷⁰ Department for Environment Food and Rural Affairs and Welsh Assembly Government, *Third consultation paper on the implementation of the EC Water Framework Directive (2000/60/EC)* (2003) p.85.

⁷¹ Art.24 Water Framework Directive. That is, within three years of publication of the Directive in the *Official Journal of the European Communities*, by 22 December 2003.

and Wales seemed to be rather slow.⁷² The House of Commons Environment, Food and Rural Affairs Committee delivered a scathingly critical rebuke of the tardiness of the Department for Environment, Food and Rural Affairs.⁷³ The Committee urged the Government to view the Directive positively 'rather than doing the bare minimum required at the last possible moment'.⁷⁴ In reply, the Government was understandably eager to dispel the allegations of complacency. Assurances were provided that the Department was engaged in a work programme delivered by a 'multi-skilled team of administrators, lawyers and economists', and that the objective was that of compliance with the Directive by the legislative deadline, and not before.⁷⁵

Notwithstanding the concerns about slow progress, initial transposition of the Directive into national law took place under the Water Environment (Water Framework Directive) (England and Wales) Regulations 2003, which came into force shortly after the official deadline.⁷⁶ The 2003 Regulations impose a broad division of labours between operational matters and executive responsibilities. Operational matters are generally made responsibilities of the Environment Agency, and executive responsibilities which fall to the 'appropriate authority', meaning the Secretary of State in England and the National Assembly in Wales. Hence, it is for the central government to approve river basin management plans, to give practical guidance and, where necessary, directions for the purpose of implementing the Directive. It is for the Agency to undertake the practical exercises of analysing the characteristics of each river basin district; reviewing of impacts of human activity; identifying bodies of water used for drinking water abstraction; preparing registers of protected areas (designated for water protection or conservation purposes); undertaking programmes of monitoring of water status; formulating environmental objectives and programmes of measures; preparing, and consulting upon, river basin management plans; submitting such plans for approval and undertaking reviews; preparing such supplementary plans as thought fit; and providing various categories of public information. The only apparent exceptions to the general executive-operational division of labours are the imposition of a duty to undertake an economic analysis of water use in each river basin district upon 'appropriate authorities', and a duty to ensure that river basin maps are made available for public inspection.

River Basin Districts were identified as being made up of a river basin or neighbouring river basins, together with associated groundwater, transitional waters and coastal water⁷⁷ with definitive maps of districts provided for.⁷⁸ In

⁷² Transposition was undertaken separately in relation to Scotland and Northern Ireland.

⁷³ House of Commons, Environment, Food and Rural Affairs Committee, *The Water Framework Directive*, Fourth Report of Session 2002-03, March 2003 HC 130-I.

⁷⁴ *Ibid* para.92.

⁷⁵ Government Reply to House of Commons, Environment, Food and Rural Affairs Committee, *The Water Framework Directive*, Sixth Special Report of the Environment, Food and Rural Affairs Committee Session 2002-03, June 2003.

⁷⁶ SI 2003 No.3242, which came into force 2 January 2004.

⁷⁷ Reg.2(1)(b)) 2003 Regulations

⁷⁸ Reg.4 2003 Regulations. See Environment Agency, *Water For Life an Livelihoods – A Framework for River Basin Planning in England and Wales* (2005).

practice, this meant that eleven areas were designated in England and Wales (with two of these crossing the border with Scotland: the Solway-Tweed district and the Northumbria district). Another district covered the rest of Scotland and four districts were designated in Northern Ireland (with three of these shared with the Republic of Ireland).

Notably, there are significant costs and benefits of implementing the Directive. In assessing these matters, it is the United Kingdom practice to prepare 'regulatory impact assessments' of proposed legislative measures.⁷⁹ However, in the case of implementing this Directive it was only possible to prepare a 'partial' regulatory impact assessment, due to the uncertainties concerning some aspects of the environmental objectives of the Directive. Assessment of the financial *benefits* of legislation to improve water quality is no easy task since many of the benefits were recognised to be of an ecological kind that was 'non-quantifiable'. Assessment of costs of implementation, however, is less problematic in this respect and the Government gave a rough estimate of overall costs at between £1.3 billion and £6.2 billion, depending upon the extent of the improvements required.⁸⁰

The Initial Characterisation Exercise

As noted above, the effect of the transposition legislation for England and Wales was that the bulk of the practical work under the Directive was allocated to the Environment Agency. Following transposition, the next formal deadline was the need to complete an exercise of characterising waters and assessing pressures and impacts against the stated ecological objectives of the Directive by the end of 2004.⁸¹ By then, Member States were to have accomplished the formidable task of assessing the risk that individual water bodies would fail to meet the environmental objectives of the Directive. However, at the time of the initial assessment, those environmental objectives were not fully defined. Particular problems arose in relation to the quality specifications for groundwater, priority substances and ecological quality.

In respect of groundwater, uncertainties arose because the environmental objective of preventing or limiting inputs of pollutants into groundwater does not specify which pollutants are involved. This matter is intended to be clarified by a daughter directive⁸² in relation to groundwater, incorporating criteria to be applied in determining whether a 'significant and sustained' upward trend in groundwater contamination exists.⁸³ Until these criteria have

⁷⁹ On regulatory impact assessment see Cabinet Office website at www.cabinetoffice.gov.uk/regulation/ria/index.asp.

⁸⁰ See Department for Environment Food and Rural Affairs and Welsh Assembly Government, *Third consultation paper on the implementation of the EC Water Framework Directive (2000/60/EC)* (2003) Appendix D p.115.

⁸¹ More precisely, 22 December 2004 (under Art.5.1 Water Framework Directive) with national reports required to be submitted to the Commission within three months of completion (under Art.15.2).

⁸² Under Art.17 Water Framework Directive. See European Commission, *Proposal for a Directive of the European Parliament and of the Council on the protection of groundwater against pollution*, COM(2003) 550 final.

⁸³ Art.4.1.b.iii Water Framework Directive.

been established at Community level, Member States have to formulate their own criteria. Similar uncertainties surround the environmental quality standards for priority substances⁸⁴ which will not be finalised until agreement is reached on a daughter directive relating to these standards.⁸⁵ Likewise, there is considerable uncertainty about the boundaries between the ecological status classes for surface waters which are needed to determine whether good ecological status is met.⁸⁶ Criteria for ecological status are not expected to be finally determined until after the end of an intercalibration exercise that is being conducted across a network of sites to ensure comparability of ecological data⁸⁷ and the establishment of a monitoring network in 2006.⁸⁸

Alongside the formal reasons why the initial assessments were bound to be incomplete or uncertain, there are other, more practical, limitations that must be recognised. Broadly, these limitations arise because much of the data on water quality pressures and impacts has not previously been required to be gathered or analysed for the purposes of Community or national law. Even where data on the existing state of water bodies is available, the futuristic and cumulative assessment of how it is likely to change over the next decade, due to plans, projects and implementation of other Community environmental legislation is bound to generate a high level of speculation. Given the relatively short timescale involved, the likelihood of Member States having the expertise to be able to collect, collate and analyse the new kinds of information, in the comprehensive and consistent manner envisaged by the Directive, was remote.

To a degree, the imperfections of the initial assessments were widely recognised. The Common Implementation Strategy documentation which is most relevant to the assessment of risks to the attainment of the objectives of the Directive arising from human activity is *Analysis of Pressures and Impacts*.⁸⁹ Pertinently, this guidance recognises the limitations of the initial analysis of pressures and impacts that have been noted above and acknowledges that it will be necessary for some compromises to be made. An example of this is to be seen in the assessment of those surface water bodies that are to be designated as 'artificial or heavily modified', so that the environmental objective of 'good ecological status' is reduced to the lesser objective of 'good ecological *potential*'.⁹⁰ In respect of such waters, it is

⁸⁴ Under Art.4.1.a.iv Water Framework Directive.

⁸⁵ Under Art.16 Water Framework Directive. See Decision No.2455/2001/EC of the European Parliament and of the Council establishing the list of priority substances in the field of water policy and amending Directive 2000/60/EC. The Commission is in the process of preparing a proposal for Community-wide environmental quality standards (under Art.16.7 Water Framework Directive) and emission controls (under Art.16.6 Water Framework Directive).

⁸⁶ Until common criteria for ecological status are determined at Community level, national guidelines have been adopted for this purpose. See Water Framework Directive United Kingdom Technical Advisory Group, guidance www.wfduk.org/tag_guidance/.

⁸⁷ Under Annex V para.1.4 Water Framework Directive.

⁸⁸ Under Art.8 Water Framework Directive.

⁸⁹ European Commission, Common Implementation Strategy for the Water Framework Directive (2000/60/EC), Guidance Document No.3, *Analysis of Pressures and Impacts* (2004).

⁹⁰ Art.4.1.a.iii Water Framework Directive, emphasis added.

advised that the first impacts analysis should concentrate upon the risks of such waters failing to meet the good ecological status requirement, leaving for later consideration the assessment of whether those bodies subsequently designated are at risk of failing to meet the good ecological potential requirement, though this should be done 'as soon as practical'.⁹¹

This background of uncertainty or incompleteness has also been recognised by the United Kingdom competent authorities who have summarised the limitations of the initial characterisation exercise and reviewed the refinements that will be needed to improve the degree of certainty that can be achieved in future characterisation exercises.⁹² Hence, it seems to be generally conceded that quite a lot more needs to be done before meaningful assessments can be made of the states of waters against the environmental objectives required by the Directive.

The limitations that have been noted might cause the unsatisfactory initial assessment of pressures and impacts to be 'written off' as the inevitable result of the misguided short time period that was allowed for the exercise to be completed. Alternatively, the exercise might be seen more positively as a 'trial run' in an ongoing process of reassessment and refinement that will eventually become genuinely useful as a guide to the measures that are needed fully to meet the environmental objectives of the Directive. From this positive perspective, it might be noted that the initial assessments are of significant importance in relation to the monitoring programmes that must be put in place by the end of 2006.⁹³ Although the next formal assessment of pressures and impacts is not required until the end of 2013,⁹⁴ the initial assessment has served the purpose of identifying those waters needing special monitoring to inform that process, albeit imperfectly.

Despite all the shortcomings of the initial characterisation exercise, the characterisation reports for each river basin district were dutifully completed by the Environment Agency and communicated⁹⁵ to the European Commission by the deadline under the Directive. On the less positive side of things, the proportion of waters that were identified as being likely to fail to meet the environmental objectives of the Directive in 2015 is alarming. The Environment Agency produced maps indicating which waters were at risk of failure for five reasons: point discharges; diffuse pollution; abstraction; physical changes and the presence of alien species. Cumulatively, the findings were that over 92% of rivers, 84% of lakes, 98% of estuaries and

⁹¹ European Commission, Common Implementation Strategy for the Water Framework Directive (2000/60/EC), Guidance Document No.3, *Analysis of Pressures and Impacts* (2004) p.5.

⁹² Welsh Assembly Government, Scottish Executive, Department of the Environment Northern Ireland and Department for Environment Food and Rural Affairs, *Water Framework Directive (Water Framework Directive): Note from the UK administrations on the next steps of Characterisation* (2005).

⁹³ On monitoring requirements generally see s.1.3 Annex V Water Framework Directive.

⁹⁴ Art.5.2 Water Framework Directive.

⁹⁵ By the end of March 2005.

75% of groundwaters are at risk of failure.⁹⁶ Although there are marked disparities in different parts of the United Kingdom, the overall picture is daunting.⁹⁷ Major questions are raised as to how programmes of measures are to be formulated to address the substantial prospect of the environmental objectives failing to be met. In particular, the high proportion of waters that were perceived to be at risk of failing to meet their environmental objectives because of nitrate contamination and other diffuse pollutants raises the issue of what additional land-use control measures are needed to address the problems that have been revealed by the initial characterisation exercise.

Land Use Planning and the Water Framework Directive

As noted previously, the Water Framework Directive lists a range of basic measures that must be incorporated into programmes of measures under river basin management plans and further supplementary measures that may also be applied to secure the environmental objectives of the Directive. To some extent these reflect 'traditional' approaches to protection of water quality, for example, through the control of point source discharges into surface waters and discharges to groundwater. In other respects, the measures that are needed involve land use regulation, such as where measures are needed to control diffuse sources of pollution or to prevent losses of pollutants from technical installations. The respective roles of traditional kinds of control and land use restrictions, in the implementation of the Directive, is far from clearly defined. Nevertheless, given the extent of the challenges needing to be addressed, there are good reasons to suppose that realising water quality objectives will only be possible through a combination of measures, including effective controls upon offending kinds of land use applied through the land use planning system.

A central issue arising from this is the extent to which river basin management plans should influence land use policy and practice. In effect, the issue concerns the extent to which river basin management plans should be regarded as a kind of land use plan. In this respect it is important to appreciate that the planning system in England and Wales is 'plan-led'. That is, individual determinations of whether a proposed development should be authorised must follow the relevant development plan, unless material considerations indicate otherwise.⁹⁸ The national system of development plans has recently been subject to major reforms,⁹⁹ including a streamlining of

⁹⁶ The Environment Agency's summary of the river basin characterisation results 2005 is available at the Agency's website: www.environment-agency.gov.uk.

⁹⁷ Anon., 'Who will pay the costs of water pollution?' *ENDS Report* 363, April 2005, p.27.

⁹⁸ S.38 Planning and Compulsory Purchase Act 2004, replacing s.54A Town and Country Planning Act 1990.

⁹⁹ Under the Planning and Compulsory Purchase Act 2004, and secondary legislation and planning guidance under the Act. The new measures are not being fully implemented until 2007. For the policy background to the Planning and Compulsory Purchase Act 2004, which substantially amends the Town and Country planning Act 1990, see the Department for Transport, Local Government and the Regions consultation paper, *Planning: Delivering A Fundamental Change* (2001) and Office of the Deputy Prime Minister, *Sustainable Communities – Delivering through Planning* (2002), setting out the legislative proposals.

the hierarchy of plans that is provided for, but the system remains essentially plan-led.

Under the new planning regime,¹⁰⁰ the 'development plan' that must be followed in determining planning applications is a combination of the 'regional spatial strategy' and the 'local development framework' that has been adopted or approved for a locality. Local development frameworks are envisaged as a 'portfolio' of documents that are relevant to planning matters and which, taken as a whole, comprehensively set out the policies of a local planning authority with respect to development and use of land in its area. This encompasses any document, or proposed document, containing statements or policies regarding, amongst other things, any environmental, social and economic objectives which are relevant to encouraging development or use of land.¹⁰¹ Most significantly, the new emphasis upon 'spatial planning', seeks to integrate policies for the development and use of land with other kinds of policy and programme which influence the balance which needs to be drawn between competing land uses, with particular emphasis upon sustainable development. Hence, supplementary planning documents could include policies relating to diverse matters including regeneration, economic development, education, housing, health, waste, energy, biodiversity, recycling, protection of the environment, transport, culture and social issues.¹⁰²

Despite the apparently all-encompassing range of policies that are relevant to the preparation of local development frameworks, the inclusion or exclusion of river basin management plans amongst these policies remains somewhat indirect.¹⁰³ National guidance requires regional planning bodies to take into account a list of European Community, central government or central government agency national policies, guidance, research and related material when undertaking revisions of regional spatial strategies. Within this list is featured the national legislation transposing the Water Framework Directive.¹⁰⁴ Because local planning authorities must have regard to regional

¹⁰⁰ That is, under the planning regime as recently amended by the Planning and Compulsory Purchase Act 2004 and secondary legislation and guidance issued under that Act. See S. Tromans, M. Edwards, R. Harwood and J. Thornton, *Planning and Compulsory Purchase Act 2004: A Guide to the New Law* (2005).

¹⁰¹ s.17(1)(a) Planning and Compulsory Purchase Act 2004 and Reg.6 Town and Country Planning (Local Development) (England) Regulations 2004, SI 2004 No.2204.

¹⁰² Generally see W. Upton, 'Planning Reform: the requirement to replace Supplementary Planning Guidance with Supplementary Planning Documents' [2005] *Journal of Planning and Environment Law* 34 and A. Chaplin, 'Planning for Local Development Frameworks: a new development plan regime [2004] *Journal of Planning and Environment Law* 260.

¹⁰³ The Environment Agency has called for planning authorities and development agencies to be 'duty-bound' to take account of Water Framework Directive objectives when developing regional spatial strategies and local development plans (Environment Agency, *The Water Framework Directive: Position Statement* (2005)). On the need for greater integration between land development plans and river basin management plans, see Environment Agency, *The Relationship between the land use planning system and the Water Framework Directive* (2004) (a report prepared by Baker Associates) para.4.8.

¹⁰⁴ The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003, SI 2003 No.3242. Office of the Deputy Prime Minister, *Planning Policy Statement 11: Regional Spatial Strategies* (2004) Annex A p.57.

spatial strategies in preparing local development documents,¹⁰⁵ which constitute a part of the local development scheme, they are implicitly bound to have regard to the need to implement the Directive. The indirectness of the planning law and guidance, however, contrasts markedly with the national legislation that transposes the Directive. Here it is explicitly stated that each public body, in exercising its functions so far as they affect a river basin district, must 'have regard to' the relevant river basin management plan.¹⁰⁶ Hence, the rather circuitous obligations arising under planning guidance are effectively displaced by a more specific duty under the transposition legislation.

The inference from this is that river basin management plans are documents to which regard must be had by bodies making planning determinations and, in principle, this may constitute an overriding consideration unless material considerations indicate otherwise. The implications of this for planning practice are of importance, in that planning permission would have to be declined where a development project might have the effect of preventing the good status of waters being achieved. What 'material considerations' might justify a failure to meet the requirements of the Directive is difficult to see, so the duty to have regard to the river basin management plans in planning might be seen as an especially compelling one.

On the other hand, the problem that has been noted previously is that 'having regard' to environment concerns may be insufficient to allocate an appropriate weight to those concerns against other material considerations. Until river basin plans are in place and planning authorities confronted with prospective developments that conflict with them, it is difficult to be categorical about the way in which such issues will be dealt with in practice. However, the remarkable feature of the arrangements that have been put in place is the contrast between the 'procedural' obligation that is imposed upon local planning authorities, to 'have regard' to river basin management plans, and the numerous *substantive* obligations that are imposed on the Environment Agency in relation to implementation of the Directive. As has been noted, the Agency is made responsible for a sequence of implementation tasks, each of which is couched in terms of mandatory duty. Put bluntly, the Agency is legally bound to perform each of its allocated tasks, not merely to 'have regard' to the need to do so. Given the possibility that land use development has the capacity to obstruct realisation of the environmental objectives of the Directive, it is difficult to see why the obligations upon local planning authorities should be so weakly formulated by comparison.

¹⁰⁵ S.19(2)(b) Planning and Compulsory Purchase Act 2004.

¹⁰⁶ Reg.17 The Water Environment (Water Framework Directive) England and Wales Regulations 2003, SI 2003 No.3242. See also Reg.2(1) which defines 'public body', amongst other things, as a person holding an office under the Crown or created or continued in existence by public general Act of Parliament. Similarly, see Department for Environment Food and Rural Affairs, *Third consultation paper on the implementation of the EC Water Framework Directive (2000/60/EC)* (2003) which states that 'planning authorities are required to take account of environmental considerations and, although the Water Framework Directive contains no explicit provisions in relation to land-use planning, planning authorities will need to take account of the objectives which it creates', para.2.241.

In more practical terms, the problem for local planning authorities is likely to be that of ascertaining the circumstances in which a development plan, or authorisation of a particular development, will obstruct the realisation of the objectives of the Directive. On this, a recent consultants' report to the Environment Agency concludes that 'planning authorities cannot be expected to know what it is that has to be done to achieve what is sought these are matters on which they expect to seek expert and authoritative advice, and they are entitled to expect this to come from the Agency in the first instance'.¹⁰⁷ The firm recommendation is that development planning, development control and now strategic environmental assessment of development plans,¹⁰⁸ must be used more effectively to input more precise advice about the implications of changes in land use upon water management. In practical terms, achieving this looks to involve a change of gear on the part of both the Agency and local planning authorities if the full potential of planning system is to be realised. Nonetheless, the problem remains of what consequences would arise where, after being fully informed that a prospective development project will obstruct realisation of the environmental objectives of the Directive, a local planning authority decided to authorise the project because it concluded that the developmental benefits outweigh the environmental costs.

It is difficult to determine this question in abstract, but it is notable that the Directive makes only the most qualified provision for this to happen lawfully. The Directive states that member states will not be in breach where, amongst other things, failure to achieve good status is the result of new modifications to the physical characteristics of a surface water body and a series of cumulative conditions are met. In summary, the conditions require that all practicable steps are taken to mitigate adverse effects; the reasons for the modification are set out in the river basin management plan; these reasons are of overriding public interest and/or benefits to the environment and to society in terms of their contribution to human health, human safety or sustainable development; and that these benefits, for reasons of technical feasibility or disproportionate cost, cannot be achieved by other means.¹⁰⁹

In relation to this provision for 'exceptional' development, it is notable, first, that the exception that is provided for only relates to developments actually affecting the physical characteristics of a surface water body. Implicitly, therefore, the provisions should have no relevance to land-based kinds of development which have adverse effects upon water quality which might contribute to a failure to meet the environmental objectives of the Directive. Second, the exception is only available in relation to projects that are of overriding public interest or those that confer specified kinds of environmental or human benefits that cannot be otherwise provided. This formula is reminiscent of the restrictive approach to authorisation of developments which

¹⁰⁷ Environment Agency, *The Relationship between the land use planning system and the Water Framework Directive* (2004) (a report prepared by Baker Associates) para.11.8.

¹⁰⁸ Under the European Community Strategic Environmental Assessment Directive (2001/42/EC) transposed by the Environmental Assessment of Plans and Programmes Regulations 2004 (SI 2004 No.1633).

¹⁰⁹ Art.4.7 Water Framework Directive.

impact upon nature conservation sites designated under Community law,¹¹⁰ suggesting a relatively narrow interpretation should be applied to those projects which may qualify as exceptions.

Conclusion

As the preceding discussion has made clear, there is no shortage of challenges involved in meeting the environmental obligations of the Water Framework Directive by the 2015 deadline. The present chemical, physical and ecological state of national waters within the scope of the Directive leaves much to be desired. Clearly, extensive programmes of measures will need to be put in place, through river basin management plans, to ensure that present causes of failure to meet environmental objectives are fully addressed by the deadline.

However, what remains uncertain is the role of land use regulation in programmes of measures, alongside traditional mechanisms for protection of water quality. In principle, the historical duty of local planning authorities 'to have regard' to environmental impacts, including those relating to the aquatic environment, has much to commend it. Specifically, it has allowed local control over land use planning and control over authorisation of particular developments. This may be seen as a local democratic mandate for control over the process of balancing social and economic factors against environmental impacts in determining what kinds of development are to count as 'sustainable'. On the other hand, the capacity of developmental factors to override adverse environmental impacts is a particular cause of concern where the implementation of European Community legislation is involved. The key issue is whether allowing development of a kind which results in a failure to meet the environmental objectives of the Directive could ever be justified in Community law, whatever the local perception of the development.

Given the narrow provision that the Directive makes for development which conflicts with the achievement of its environmental objectives, there may be good reasons to doubt whether the obligation imposed upon local planning authorities is insufficiently stringent. The duty 'to have regard' to the relevant river basin management plans, as has been noted, is no bar to the requirements of the Directive being overridden where there is a local perception that non-environmental material considerations are more weighty. A tentative view is that a duty upon any body merely 'to have regard' to the need to river basin management plans is not sufficiently substantive to fulfil the Community obligations at issue.

Subject to the narrow exception for sustainable kinds of development that are provided for by the Directive itself, it is suggested that the duty upon public

¹¹⁰ See Art.6.4 Habitats Directive (92/43/EEC) which makes provision for authorisation of projects that have an adverse effect upon certain sites where a project is permissible for 'imperative reasons of overriding public interest' of particular kinds depending upon the category of habitat or species impacted upon. For elaboration of the implications of this, see European Commission, *Managing Natural 2000 Sites: the provisions of Article 6 of the Habitats Directive 92/43/EEC* (2000).

bodies should be the stronger one of requiring those bodies to *act in accordance with* the requirements of the Directive. The implication of imposing that duty upon local planning authorities would be that it would not be permissible to allow development of a kind that conflicted with the environmental objectives of the Directive. Undeniably, this would involve the loss of some local autonomy in land use decision-making, but the alternative would be worse, given the prospect of proceedings against the United Kingdom in the European Court of Justice for failure fully to implement the Directive.