

# SUSTAINABILITY IN THE ENGLISH WATER INDUSTRY – PART I

## AN EVALUATION OF HOW THE INTRODUCTION OF THE ENVIRONMENTAL INFORMATION REGULATIONS 2004 INTO THE WATER INDUSTRY MAY IMPROVE SUSTAINABLE WATER PROVISION

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*This article aims to explore the impact of the Environmental Information Regulations 2004 on private water and sewerage providers in England. The Environmental Information Regulations 2004 mandate that water providers must provide environmental information, such as the cause of pollution incidents, upon request. This article aims to analyse whether the new legislation has changed organisational transparency or operational processes in relation to pollution. It hopes to answer the following research question: how far has implementing the Environmental Information Regulations made water companies more transparent and to what extent could these changes lead to a potential reduction in water pollution by water and sewerage providers?*

### 1 INTRODUCTION

In an attempt to make water and sewerage undertakers (undertakers) more accountable and transparent, the courts have recently decreed that they must adhere to the requirements imposed by the Environmental Information Regulations 2004.

The focus of this article is on water pollution in England by private water and sewerage undertakers. The article aims to understand if the environmental information rights gained by individuals as a result of the Environmental Information Regulations has altered the undertakers' transparency and could alter their behaviours.

The scope is limited to considering changes in corporate transparency and operational change based on the new legislation. As the legislation has only recently been held applicable (February 2015), an analysis of the effect of legislation on water pollution results is premature.

The chosen methodology has focused on qualitative 'elite interviewing'. This enables experts to contribute to the findings expressed in this article through the interview process, which allows the procurement of first-hand insight and information. Thirty elites were interviewed, the majority of whom were representatives from water and sewerage undertakers or organisations affected by water pollution.

The results showed a dramatic increase in undertakers' transparency. Undertakers have had to alter their structures in order to meet the legal demands of the new powers, which enable individuals and organisations to

access previously withheld information. However, many undertakers declared that there have as yet been no significant organisational changes relating to pollution reduction in response to environmental information requests.

Opinions are polarised as to whether there will be direct operational changes aimed at reducing pollution in the future. Some organisations believe that, as competition will soon enter the market, customer and retailer demands for a reduction in pollution will necessitate operational change. The undertakers' operational changes in relation to answering information requests, their increase in information provision and increase in transparency, however, are significant.

The research question is therefore: 'how far has implementing the Environmental Information Regulations made water companies more transparent and to what extent could these changes lead to a potential reduction in water pollution by water and sewerage providers?'

The first part of the article introduces the reader to the relevant literature and case law. It discusses the impact that water pollution has on the environment and describes how the introduction of the Environmental Information Regulations has now become applicable to water and sewerage undertakers.

The second part of the article (to be published 25 *JWL* 4) will present the empirical evidence gathered and the resulting conclusions.<sup>1</sup>

#### 1.1 Context of the water industry in England and Wales

In 1973, the British Government consolidated multiple different water and sewerage providers into 10 regional authorities. In 1989 the Water Act was passed by Parliament. This completely revolutionised how water and sewerage services were provided. The Act transferred ownership of the assets of provision and the responsibility for the provision itself to privately owned corporate providers. The purpose behind this transfer was to increase

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1 The author would like to thank those interviewed for this research, including: Albion Water, Anglian Water, Angling Trust, Berwin Leighton Paisner, British Association for Shooting and Conservation, Canal River Trust, Game and Wildlife Conservation Trust, Natural England, National Farmers' Union (NFU), Northumbrian Water, Otters' Trust, Salmon and Trout Conservation Trust, Southern Water, South East Water, South Staffs Water, Surfers Against Sewage, United Utilities, Wessex Water, Wild Trout Trust and Yorkshire Water. In addition, the author would like to thank Cambridge University and the Cambridge Institute for Sustainable Leadership.

the efficiency of provision and fundamentally to reduce the financial burden on the state.<sup>2</sup> Corporate providers under the title of water and sewerage ‘undertakers’ (as defined in the 1989 Water Act) have provided both the retail and the wholesale functions of the industry, which were previously under public ownership and control.

Concerns about privatisation were raised, including concerns that the focus of the water companies would be on profit maximisation and not on the quality of service or water.<sup>3</sup> In order to ensure that private ownership facilitated the provision of water in a manner that was acceptable to the UK Government and, importantly, to ensure that water was safe, regulatory authorities were empowered to supervise the industry. These included the Water Services Regulation Authority (Ofwat), the Drinking Water Inspectorate (DWI) and the Consumer Council for Water (CCW). Most environmental issues are controlled by the Environment Agency (EA) through the Department for the Environment, Food and Rural Affairs (Defra). However, currently only 27 per cent of UK water bodies (rivers, streams, lakes, estuaries, coastal waters and groundwater) are classified as ‘good’ under the Water Framework Directive.<sup>4</sup> The prime reason for this is water pollution.<sup>5</sup> Ironically, however, water and sewerage undertakers are some of the biggest culprits for polluting the waterways, as discussed further below.

The water and sewerage market has been a restricted free market, where both domestic and non-domestic customers have been unable to choose their retailer. The largest change since the initiation of privatisation is currently underway as a result of the introduction of the Water Act 2014. This Act has allowed for a completely free retail market, enabling non-household customers (factories, industries and businesses) to choose their retailer for water and sewerage services from the beginning of 2017. It also enables individuals and organisations to choose their retailer, which could in part be influenced by the retailer’s performance and values. Undertakers were previously both wholesalers and retailers, but this vertical integration has now been broken, with existing water companies being required to divide into two separate organisations: wholesale provision and retail provision.

A corporate body may still own wholesale and retail companies, but these companies now have to operate independently to allow competitors to enter the market in the form of new retail providers. This provides the non-domestic consumer with the ability to purchase services from a retailer of his or her choice, who then in turn purchases water and other services from a wholesaler (determined by location). The philosophy behind the division is that retailers will hold wholesalers to account

on behalf of their customers regarding issues such as pollution and will provide an improved service. If the customer is unhappy with the service or representation, he or she can change retailer. A retailer cannot change wholesaler. However, as a customer, the retailer has the power to influence wholesalers’ operations.

If a non-household customer is unsatisfied with a wholesaler’s attitude towards pollution incidents, that customer has the ability to pressurise the retailer to lobby the wholesalers for operational change. If a water and sewerage undertaker owns wholesale and retail companies that are operated as separate entities, the customer could change his or her retailer to another provider in protest of the associated wholesaler’s behaviour.

Recently, Ofwat has made the revolutionary statement that there may be an extension in the future to initiate domestic competition, which would allow households to choose their retailer. This would completely change the dynamic of the market and provide the power of choice to all consumers.<sup>6</sup>

## 1.2 Parameters of research

This literature is focused on the research question: ‘How far has implementing the Environmental Information Regulations made water companies more transparent and to what extent could these changes lead to a potential reduction in water pollution by water and sewerage providers?’ It does not set out to explain all of the variations needed or required to provide sustainable water provision. Whilst recognising that there are many important elements, including catchment management<sup>7</sup> and land stakeholder communication,<sup>8</sup> this article focuses on pollution. In addition, it recognises that the legal obligations that have been imposed on water companies through the Environmental Information Regulations are relatively new. It therefore seeks to increase understanding as to whether there has been a change since the enlargement of the legislation or, if change has not occurred, if it is possible and/or probable that it will occur in the future.

The focus on change is twofold: first, regarding a change in relation to the transparency of the corporate undertaker in its operations; and, secondly, whether there have been actual operational changes by undertakers with the aim of reducing water pollution. As these Regulations have only recently been determined by the court to apply to undertakers it is premature to assess the actual impacts on water pollution. Thus, transparency and possible operational changes are being assessed.

## 1.3 Relevance to sustainability

Water is the essence of life. Fresh water resources have faced a crisis worldwide for the last five decades. The crisis is growing rapidly. This is manifested in numerous challenges showing the various elements of the problem. These challenges include, increasing scarcity of fresh water, lack of accessibility to adequate clean drinking water and sanitation, deterioration

2 S G Ogden ‘Transforming frameworks of accountability: the case of water privatization’ (1995) 20(2) *Accounting, Organizations and Society* 193.

3 R E Caves ‘Lessons from privatization in Britain: state enterprise behaviour, public choice, and corporate governance’ (1990) 13(2) *Journal of Economic Behaviour & Organization* 145–69.

4 Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy OJ L327.

5 Defra, the Rt Hon Elizabeth Truss MP, Environment Agency, Natural England and the Water Services Regulation Authority ‘2010 to 2015 Government policy: water quality’ (May 2015) [www.gov.uk/government/publications/2010-to-2015-government-policy-water-quality](http://www.gov.uk/government/publications/2010-to-2015-government-policy-water-quality).

6 BBC ‘Water market overhaul proposed by Ofwat’ (2016) [www.bbc.co.uk/news/business-37403368](http://www.bbc.co.uk/news/business-37403368).

7 E K Weatherhead and N J K Howden ‘The relationship between land use and surface water resources in the UK’ (2009) 26 *Land Use Policy* 243.

8 R Ashley et al. ‘Sustainable decision making for the UK water industry’ (2003) 156(1) *Engineering Sustainability* 41.

of water quality, fragmentation of water management, nationally and globally, decline of financial resources allocation for water development, threat to world peace and security and a continuing lack of awareness of the magnitude of the problem by the decision makers and the public at large.<sup>9</sup>

The article quoted above was based on a keynote address made at the International Conference on Water and Sustainable Development in Paris in 1998, and is as pertinent now as it was then. Water is not only essential to the well-being of the environment but, for human life to exist at all, there must be a source of clean water.<sup>10</sup> Gleick suggests that the failure to provide clean drinking water and satisfactory sanitation services to everyone is perhaps the greatest development failure of the 20th century.<sup>11</sup> Gleick recognises that global freshwater provision is essential to sustainability and acknowledges that access to freshwater in England is marked at 100 per cent,<sup>12</sup> but that there are still areas in which the water cycle is negatively impacted through human intervention, namely pollution.

Schaltegger et al. argue that: 'Companies have without doubt a large influence on the economy and life in general. No sustainable development is possible without a sustainable development of corporations'.<sup>13</sup> Corporations have in the past been forced to alter their practices in an attempt to make them more sustainable.<sup>14</sup> More recently, corporations have incorporated both the concepts of transparency and sustainable development into their corporate governance.<sup>15</sup> Sustainable business models have not only become more common within corporations,<sup>16</sup> but some have even found financial advantages through the incorporation of sustainable practices.<sup>17</sup> Water and sewerage undertakers are corporate bodies, although highly regulated. The Environmental Information Regulations have imposed non-voluntary obligations on undertakers in an attempt to alter their practices. This article now seeks to contribute to the academic assessment and hopefully the improvement of corporate practices of water and sewerage undertakers and the sustainability of their corporate decisions.

9 M A Abu-Zeid 'Water and sustainable development: the vision for world water, life and the environment' (1998) 1(1) *Water Policy* 9.

10 S Galiani, P Gertler and E Schargrodsky 'Water for life: the impact of the privatization of water services on child mortality' (2005) 113(1) *Journal of Political Economy* 83.

11 P H Gleick *Dirty Water: Estimated Deaths from Water-related Diseases 2000–2020* (Pacific Institute for Studies in Development, Environment, and Security 2002).

12 P H Gleick and N Ajami *The World's Water Volume 8: The Biennial Report on Freshwater Resources* (Island Press 2014).

13 S Schaltegger, F Lüdeke-Freund and E G Hansen 'Business cases for sustainability: the role of business model innovation for corporate sustainability' (2012) 6(2) *International Journal of Innovation and Sustainable Development* 95.

14 P Shrivastava 'The role of corporations in achieving ecological sustainability' (1995) 20(4) *Academy of Management Review* 936.

15 J Ricart, M Rodríguez and P Sánchez 'Sustainability in the boardroom: an empirical examination of Dow Jones Sustainability World Index leaders' (2005) 5(3) *Corporate Governance* 24.

16 N M P Bocken et al. 'A literature and practice review to develop sustainable business model archetypes' (2014) 65 *Journal of Cleaner Production* 42.

17 S Sharma and H Vredenburg 'Proactive corporate environmental strategy and the development of competitively valuable organizational capabilities' (1998) *Strategic Management Journal* 729.

## 2 LITERATURE REVIEW

This literature review is divided into three parts. The first section (2.1) is a discussion of the definitions of the terms 'sustainable' and 'sustainable development' from a legal and academic perspective, including methods of sustainable assessment. The second section (2.2) focuses on pollution, how it impacts the environment and water pollution in England. The third section (2.3) focuses on transparency as a concept, and then discusses the Environmental Information Regulations and how they have been drafted to increase corporate transparency (2.4). In addition, a description of the case law pertinent to the research is provided, following which the effectiveness of the legislation is considered. After the literature review the methodology is provided and explained, followed finally by an analysis on the research findings (2.5).

### 2.1 Defining sustainability in the water sector

#### 2.1.1 Legislative definitions

It is important to consider legislative definitions to ascertain what national and European legislation determines sustainable water provision to be. Defining sustainability and the concept of sustainable provision is not considered in the 1989 Water Act or the 1991 Water Industry Act. This legislation concerned itself more with the duties imposed on the undertakers to provide water, as opposed to the manner in which the utility was provided and whether it was sustainable or not. For example, the 1991 Act effectively creates a practical framework which enables the undertakers to carry out their duties of laying and maintaining pipes for both sewerage and water services.

The term sustainable was introduced at a European level by the Water Framework Directive in 2000. One of the purposes of this directive was to 'promote sustainable water use based on long term protection of available water resources'.<sup>18</sup> Article 23 states that: 'Common principles are needed in order to coordinate Member States efforts to improve the protection of Community waters in terms of quality and quantity, to promote sustainable water use ... and to safeguard and develop potential uses of Community Waters'.

The passing of the Water Framework Directive has necessitated Member States of the European Union (EU) to incorporate its principles at national level in order that each Member State's laws are in unison. The United Kingdom (UK) has, since the directive, incorporated its principles into national laws and practice through the European Communities Act 1972.

Since the entry into force of the Water Framework Directive there have been two major national pieces of legislation: the Water Act of 2003 (the 2003 Act) and the Water Act of 2014 (the 2014 Act). The 2003 Act importantly obliges Ofwat, the financial and primary regulator of the industry, to carry out its duties in a manner best calculated to contribute to sustainable development. In addition, it introduces the consumer representative group, the Consumer Council for Water (CCW) and stipulates that its duties should consider sustainable development. The promotion by the financial regulator (Ofwat) of

18 Water Framework Directive (n 4) 3.

sustainable water provision is again highlighted in the 2014 Water Act. This legislation does not, however, describe or define the term sustainable or sustainable provision.

Some academics have considered the extent to which sustainable development and sustainability can be legal concepts.<sup>19</sup> It is apparent that the legislators have incorporated the term 'sustainable' into statute at both a European and a national level. Cashman and Lewis highlight that sustainability as a notion has been incorporated into the 'rhetoric if not the workings of government, certainly at the level of informing and framing policy'.<sup>20</sup> They go on to state that: 'It is clear that sustainable development has become an important constituent of the regulation and governance of the water industry'. What Cashman and Lewis also make clear is that there is still uncertainty regarding the term sustainability,<sup>21</sup> and in particular regarding the provision of water in the UK.

The term sustainable is not specifically defined in statute nor in statutory guidance. It should be noted that within the 1991 Water Industry Act, which governs water and sewage, a sewer is not specifically defined. Thus, a lack of definition is not uncommon and this consistency in omission does not alleviate the ambiguity that follows in interpretation. As Hendry describes, there are sustainability duties relating to the provision of water in the UK which are forged into statute. However: 'These duties are all couched in the most general terms, and it is hard to see how a court could give effect to them ... Here we are dealing with a concept which has many definitions and where there is much debate ...'.<sup>22</sup> Given that the water legislation is not specific in its definition, statutory and legal certainty has yet to be resolved.

### 2.1.2 Academic definitions

Given the ambiguity within a legislative context, it is helpful to consider academic contributions on the definition of sustainability. Here also, however, there is no single or clear definition. The complexity surrounding defining such terms is as shown by the academics below:

Anyone trying to communicate and implement sustainable practices quickly runs into definitional difficulties, which translate into operational difficulties. Simply put, sustainability, and its predecessor term, sustainable development, mean different things to different people. How can we hope to achieve a shared vision when we're not certain what vision we are sharing? This is not simply a rhetorical question, businesses and other organizations require measurable, manageable objectives to achieve progress in this area of endeavour.<sup>23</sup>

There therefore remains considerable uncertainty as to what 'sustainable development' means, both in theory and practice, especially when used in an international legal context: is there

any agreement as to what it means and as to the extent of any obligations it imposes? Is it an objective, or a process, or a principle, or all of these things? What practical consequences does it have for the behaviour of States, international organizations and other members of the international community? And how does it relate to earlier international legal developments, particularly in the fields of economic development, human rights and environmental protection?<sup>24</sup>

The two authors above highlight the definitional complexities that exist surrounding the topic. Ghosh illustrates the many faces of sustainable development by describing it as a triangle with three principal points; social, environmental and economic.<sup>25</sup> Amini and Bienstock<sup>26</sup> provide a comprehensive analysis of various academic views on the definition of sustainability and sustainable development, including those of Holdgate and Pierantoni.<sup>27</sup> Ciegis et al. highlight that there are hundreds of definitions of these terms each focusing on different elements. They conclude by stating that: 'Analysis of sustainable development concept descriptions proved that none of hundreds of sustainable development definitions found in the literature include all the aspects of the concept and provide perfect understanding of it. Therefore, we tend to think that the most appropriate definition that best expresses the idea of sustainable development is provided in the report of the Brundtland commission ...'.<sup>28</sup>

For this article the definition must apply to that of water provision. Gleick, the prominent water academic deals with the various complexities surrounding the definition of sustainable water use and provision.<sup>29</sup> After detailing the difficulties in composing a definition he resolves himself to the following: 'The use [provision] of water that supports the ability of human society to endure and flourish into the indefinite future without undermining the integrity of the hydrological cycle or the ecological systems that depend on it'. This definition would not contradict the widely accepted Brundtland definition of sustainable development: 'Development that meets the needs and aspirations of the present without compromising the ability of future generations to meet their own needs'.<sup>30</sup>

### 2.1.3 Assessing sustainable provision in the water sector

Because of the variety and range of sustainable water provision, authors have struggled to determine any definitive characteristics of a sustainable water system. This problem

24 P Sands 'International law in the field of sustainable development' (1995) 65(1) *British Yearbook of International Law* 303.

25 N Ghosh 'The road from economic growth to sustainable development: how was it traversed?' (2008) [www.researchgate.net/profile/Nilanjan\\_Ghosh\\_PhD/publication/228276431\\_The\\_Road\\_from\\_Economic\\_Growth\\_to\\_Sustainable\\_Development\\_How\\_was\\_it\\_Traversed/links/542a38630cf27e39fa8e7af5.pdf](http://www.researchgate.net/profile/Nilanjan_Ghosh_PhD/publication/228276431_The_Road_from_Economic_Growth_to_Sustainable_Development_How_was_it_Traversed/links/542a38630cf27e39fa8e7af5.pdf).

26 M Amini and C C Bienstock 'Corporate sustainability: an integrative definition and framework to evaluate corporate practice and guide academic research' (2014) 76 *Journal of Cleaner Production* 12.

27 M W Holdgate 'The sustainable use of tropical coastal resources—a key conservation issue' (1993) 22(7) *Ambio* 481; I Pierantoni 'A few remarks on methodological aspects related to sustainable development' (2004) *Measuring Sustainable Development* 63.

28 R Ciegis et al. 'The concept of sustainable development and its use for sustainable scenarios' (2009) 2 *Inzinerine Ekonomika-Engineering Economics* 28.

29 P H Gleick 'Water in crisis: paths to sustainable water use' (1998) 8(3) *Ecological Applications* 571.

30 United Nations *Our Common Future* Brundtland Report (Oxford University Press 1987) 204.

19 M W Gehring and M C C Segger (eds) *Sustainable Development in World Trade Law* (Kluwer Law International 2005).

20 A Cashman and L Lewis 'Topping up or watering down? Sustainable development in the privatized UK water industry' (2007) 16(2) *Business Strategy and the Environment* 93.

21 See also J Bebbington 'Sustainable development: a review of the international development business and accounting literature' (2001) 25(2) *Accounting Forum* 128.

22 S Hendry 'Worth the paper that it's written on? An analysis of statutory duty in modern environmental law' (2005) *Journal of Planning and Environmental Law* 1145.

23 M A White 'Sustainability: I know it when I see it' (2013) 86 *Ecological Economics* 213.

was highlighted by Marquez et al., who stated that: 'There is no widely accepted or established method to assess the sustainability level of urban water services. In fact, sustainability assessments face many obstacles. How can one operationalise such a wide ranging notion?'<sup>31</sup> The system of water provision is, as Marquez et al. note, large and complex. In its paper on delivering sustainable water across England, Ofwat states that sustainable provision is needed at every stage of the water cycle: precipitation, abstraction, treatment and storage, distribution, consumption, collection and treatment, and discharge.<sup>32</sup>

If there is to be a form of assessment, then this assessment would have to consider the whole range of the provision process. In addition to there being no specific legal definition of sustainable water provision, there is also no consensus on how to assess the sustainability of a water provider or, in the case of England, an 'undertaker'. Foxon et al. create a list of sustainability criteria, in an attempt to list factors that would have the greatest contribution towards assessing the sustainable provision of water in the UK, including economic, environmental, social and technical elements.<sup>33</sup>

There are different approaches to this, including focusing on the sustainable nature of the life cycle of delivery;<sup>34</sup> one form of assessment is in the study of indicators. The UK water industry does publish sustainability reports through its representative body, Water UK. The report monitors 17 indicators,<sup>35</sup> and sustainable actions by undertakers may include a variety of measures, including wetland creation.<sup>36,37,38</sup>

It is not within the scope of this article to create an extensive description of what sustainable provision is or how it should be analysed through indicators. There are a number of examples of sustainability practices regarded as improving the sustainable provision of water, including the reduction of water pollution, which is the focus of this article. Pollution is a major contributor to the degradation of the natural environment and can cause serious harm to humans. Undertakers of water and sewerage operations have a duty to provide potable water in a sustainable way, not to pollute the watercourses. This is why pollution by undertakers is not only important to the environment, but merits further study, as discussed below.

31 R C Marques, N F da Cruz and J Pires 'Measuring the sustainability of urban water services' (2015) 54 *Environmental Science & Policy* 142.

32 Ofwat '2010 Report' [www.ofwat.gov.uk/wp-content/uploads/2015/10/rpt\\_fwd\\_20100303ofwatstrategy.pdf](http://www.ofwat.gov.uk/wp-content/uploads/2015/10/rpt_fwd_20100303ofwatstrategy.pdf).

33 T.J. Foxon et al. 'Sustainability criteria for decision support in the UK water industry' (2002) 45(2) *Journal of Environmental Planning and Management* 285.

34 M Schulz, M D Short and G M Peters 'A streamlined sustainability assessment tool for improved decision making in the urban water industry' (2012) 8(1) *Integrated Environmental Assessment and Management* 183.

35 Water UK 'Sustainability indicators' (2011) <https://dl.dropboxusercontent.com/u/299993612/News/Latest%20news/Industry/water-uk---sustainability-report-2010-11.pdf>.

36 G Thiere et al. 'Wetland creation in agricultural landscapes: biodiversity benefits on local and regional scales' (2009) 142(5) *Biological Conservation* 964.

37 X Fan et al. 'Research for wetland network used to improve river water quality' (2012) 13 *Procedia Environmental Sciences* 2353.

38 T Semeraro et al. 'A constructed treatment wetland as an opportunity to enhance biodiversity and ecosystem services' (2015) 82 *Ecological Engineering* 517.

## 2.2 Water pollution and how it impacts the environment

The focus of the Water Framework Directive is to 'restore and rehabilitate' rivers and waterways, thereby increasing water quality by reducing pollution. In light of such objectives it has been said that, for there to be a sustainable provision of water, then water should not be polluted.<sup>39</sup> There are two main forms of water pollution: direct/point source (pollution directly into waterways) and indirect (pollution from land run-off into waterways).<sup>40</sup> The focus of this article is on the water and sewerage undertakers, their responsibility for pollution incidents and the increased potential for public accountability.

River pollution has a harmful impact on wildlife dependent on the watershed, including fish, birds and animals such as otters. Indeed, a decline of animals such as the otter has been linked to toxins in the riparian system detrimental to the ecology of rivers across England such as the Thames.<sup>41</sup> It is not only animals that have been affected by the polluted waters of England. Pollution has damaged flora and fauna.<sup>42</sup> Importantly, polluted waters can have an impact on human health. Pollution can severely reduce the quality of water, which can lead to disease.<sup>43</sup> In addition, when water is polluted, this can affect the safety of the food which has been grown using the polluted water. As studies have shown, untreated sewage and pesticides contain pollutants that transfer from the water to the crops.<sup>44</sup>

Pollution such as this and its degenerative effect has been highlighted predominantly in rivers of developing countries such as India.<sup>45</sup> The Yamuna River, which passes through Delhi, receives nearly 200 million litres of untreated sewage every day.<sup>46</sup> Buenos Aires treats only 2 per cent of its sewage. In addition, in China studies have shown that many rivers carry water which is undrinkable; indeed, in the Hai River only 22 per cent is considered consumable by the Chinese Government.<sup>47</sup>

39 T Moss 'The governance of land use in river basins: prospects for overcoming problems of institutional interplay with the EU Water Framework Directive' (2004) 21(1) *Land Use Policy* 85.

40 S R Carpenter et al. 'Nonpoint pollution of surface waters with phosphorus and nitrogen' (1998) 8(3) *Ecological Applications* 559.

41 C F Mason and C D Wren 'Carnivora' in R F Shore and B A Rattner (eds) *Ecotoxicology of Wild Mammals* (John Wiley & Sons 2001) 315–70; N Yamaguchi et al. 'Concentrations and hazard assessment of PCBs, organochlorine D, pesticides and mercury in fish species from the upper Thames: river pollution and its potential effects on top predators' (2003) 50(3) *Chemosphere* 265.

42 R Cohen-Sandler et al. 'Negative effects of pollution on English daisy (*Bellis perennis*)' (2016) (Height and Flower Number) *Journal of Emerging Investigators* 1.

43 K P Singh, A Malik and S Sinha 'Water quality assessment and apportionment of pollution sources of Gomti river (India) using multivariate statistical techniques—a case study' (2005) 538(1) *Analytica Chimica Acta* 355; O Schmoll et al. 'Protecting groundwater for health: managing the quality of drinking-water sources' (World Health Organization 2006) [www.who.int/water\\_sanitation\\_health/publications/protecting\\_groundwater/en/](http://www.who.int/water_sanitation_health/publications/protecting_groundwater/en/); J Mans et al. 'Diverse norovirus genotypes identified in sewage-polluted river water in South Africa' (2013) 141(2) *Epidemiology and Infection* 303.

44 Y Lu et al. 'Impacts of soil and water pollution on food safety and health risks in China' (2015) 77 *Environment International* 5.

45 S K Sarkar et al. 'Water quality management in the lower stretch of the river Ganges, east coast of India: an approach through environmental education' (2007) 15(16) *Journal of Cleaner Production* 1559.

46 M de Villiers *Water: The Fate of Our Most Precious Resource* (Houghton Mifflin Harcourt 2001).

47 Hu Hong Ying and Song Yu Dong *Water Environmental Situation and Pollution Control in China* (ESPC State Joint Laboratory, Department of Environmental Science and Engineering 2009) [www.doc88.com/p-92232306272.html](http://www.doc88.com/p-92232306272.html).

### 2.2.1 *Water pollution in England*

The issues of pollution are not restricted, however, to countries such as India and China, but these issues are also pertinent to the rivers and catchments of the UK. As stated above, currently only 27 per cent of UK waterbodies are classified as 'good' under the Water Framework Directive. The prime reason for this is water pollution.<sup>48</sup>

For a long time, the UK was known to have the dirtiest beaches in Europe, a result of direct pollution into the sea (10 per cent of all sewage was pumped without treatment into the sea) and a lack of governmental concern. In 1975, the European Commission implemented the Bathing Water Directive,<sup>49</sup> which stipulated measures of compliance for beaches to be deemed safe. In 1990, only 77 per cent of British Beaches complied with the directive. This can be compared with Ireland (85 per cent), France (86 per cent) and the Netherlands (90 per cent). The symptoms of swimming in polluted seawater are irrefutable and dangerous and can cause a variety of infections, including (but not restricted to) Typhoid, Hepatitis A and a variety of gastro-intestinal diseases.<sup>50</sup>

Since privatisation, there have been improvements in bathing waters. In 2015, 97 per cent of bathing waters passed government standards. There has been a continuous improvement in quality since water privatisation, prior to which only 27 per cent of waters met standards. In addition to this, over £2.5 billion has been invested by water companies to improve bathing waters.<sup>51</sup> Such improvements have not been seen in all water bodies such as rivers, as was highlighted at the outset of this article. Although there have been improvements since privatisation and these improvements should be noted, there is still an acute problem concerning water pollution, in particular water pollution by water and sewerage undertakers:

The most persistent and frequent polluters of England's rivers and Beaches are the nations' 10 biggest water companies ... The companies which are responsible for treating waste water and delivering clean supplies, have been punished for more than 1,000 incidents in the past nine years, but fined a total of only £3.5 million.<sup>52</sup>

There have, however, been significant changes in the last two years. Yorkshire Water, for example, received a fine of £1.1 million<sup>53</sup> and now prospective penalties are as high as a year's annual profits, although it must also be considered that United Utilities (for example) made a profit of £653 million at the year end of 2015 and this was not the largest profit in the sector.

A serious pollution incident (level 1) is classed as an incident which has caused significant harm to people or the environment through air pollution, destruction of habitats or pollution to rivers. Currently, there is one

serious or significant pollution incident every 14 hours. In addition to this, from 2008 to 2013 there has been an upward trend of pollution incidents in the water sector. This has now reduced to levels that were experienced in 2008; however, notably this has not been a steady decline.<sup>54</sup> A great number of pollution incidents relate to the escape of untreated sewerage from the sewerage network, which is a breach of section 33(1)(a) of the Environmental Protection Act 1990. That section states that: 'a person shall not ... deposit controlled waste ... in or on any land'. It might be presumed that the problem of raw sewage in waterways is a problem for developing countries alone, but that presumption is incorrect. All of the main water and sewerage undertakers have been guilty of pollution.

### 2.2.2 *Sustainability and the reduction of water pollution*

Even though sustainability and sustainable provision are mentioned, they are not specifically defined in the Water Framework Directive. However, certain other objectives are indeed made clear in the directive. Its content is focused on improving the water environment, including the catchments through which water passes, the ecological well-being of river catchments and the quality of the water itself. A major focus of the directive relates to actions necessary to reduce pollution:

The purpose of this Directive is to establish a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater which: (a) prevents further deterioration and protects and enhances the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems; (b) promotes sustainable water use based on a long-term protection of available water resources; ... (d) ensures the progressive reduction of pollution of groundwater and prevents its further pollution ...<sup>55</sup>

The directive has been described by academics as novel and holistic by incorporating and integrating a variety of factors that all relate to an improvement of water provision, including water quality, water habitat, pollution and river catchment management.<sup>56</sup> Although the legislation has not specifically linked sustainable water use in such a way as to include a reduction in pollution, it has evidently been written with this concept at the fore.

Indeed, one of the major aims of the directive is to improve rivers and coastal waters. One way of doing this is through the reduction of pollution.<sup>57</sup>

Pollution comes in two main forms. As briefly discussed above, the first is at source pollution and the second is diffuse pollution, both of which are highlighted in the Water Framework Directive. At source pollution is where toxins are released directly into watercourses or watersheds. Diffuse pollution is where pollution occurs through, for example, pesticides seeping through the land

48 Defra 'England's bathing water results' (November 2015) [www.gov.uk/government/news/englands-bathing-water-results-2015](http://www.gov.uk/government/news/englands-bathing-water-results-2015).

49 Council Directive 76/160/EEC of 8 December 1975 concerning the quality of bathing water <http://rod.eionet.europa.eu/instruments/204>.

50 A Walker 'Swimming: the hazards of taking a dip' (1992) 304(6821) *British Medical Journal* 242.

51 Defra (5 November 2015).

52 'Revealed: how UK water companies are polluting Britain's rivers and beaches' *The Guardian* (3 August 2013) [www.theguardian.com/environment/2013/aug/03/water-companies-polluting-rivers-beaches](http://www.theguardian.com/environment/2013/aug/03/water-companies-polluting-rivers-beaches).

53 Environment Agency Press Release (April 2016) [www.gov.uk/government/news/yorkshire-water-fined-11-million-for-illegal-sewage-discharge](http://www.gov.uk/government/news/yorkshire-water-fined-11-million-for-illegal-sewage-discharge).

54 Environment Agency 'Water and sewerage companies' performance' (2015) [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/541622/Water\\_company\\_performance\\_report.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/541622/Water_company_performance_report.pdf).

55 Water Framework Directive (n 4) art 1.

56 R L Wilby et al. 'Risks posed by climate change to the delivery of Water Framework Directive objectives in the UK' (2006) 32(8) *Environment International* 1043.

57 D Hering et al. 'The European Water Framework Directive at the age of 10: a critical review of the achievements with recommendations for the future' (2010) 408(19) *Science of the Total Environment* 4007.

and into rivers. Members of the farming community are the largest group of culprits of diffuse pollution in the UK.<sup>58</sup> Before focusing on direct pollution caused by water and sewerage suppliers, it is important to acknowledge the level of pollution caused by farming practices.

Weatherhead states that land use is intrinsically linked to the water resources that pass through it.<sup>59</sup> One of the greatest concerns has been caused by the way in which farming methods have adapted to increase yields by introducing chemicals onto the land. This has resulted in UK water becoming increasingly polluted by run-off rich with nitrates.<sup>60</sup> Indeed, the Thames River catchment has seen a continuous rise since 1940.<sup>61</sup> Run-off from farming causes 55 per cent of nitrates in UK rivers.<sup>62</sup> Catchment management is one way in which the pollution is prevented or reduced at source, therefore increasing the quality of the water.<sup>63</sup> As undertakers, private corporations can have a great impact on the way in which catchments are managed.<sup>64</sup> 'Upstream Thinking', which was initiated by South West Water as a catchment management project, incorporated a variety of different stakeholders, including the Environment Agency, Natural England, the Farming and Wildlife Advisory Group, the National Farmers' Union and the local Catchment Partnerships.<sup>65</sup> The objective was to increase the sustainable provision of water through reducing toxins from the farm sources through education and grants to farmers. The cost of removing such chemicals from the water supply is very high. Kay, Edwards and Foulger<sup>66</sup> and Pretty et al.<sup>67</sup> state that the cost of this polluted run-off is ultimately paid by the consumer in the form of higher water prices. In addition to the aforementioned indirect pollution, there is direct pollution straight into waterways, which is the focus of this article and is discussed further below.

The next section introduces transparency. The extent to which an increase in transparency has altered the

58 M Kaika 'The Water Framework Directive: a new directive for a changing social, political and economic European framework' (2003) 11(3) *European Planning Studies* 299; Environment Agency *Pollution Incident Reports* (2013) [www.fwr.org/WQreg/Appendices/Pollution\\_Incidents\\_Report\\_2013\\_LIT\\_8547\\_b\\_70a6b.pdf](http://www.fwr.org/WQreg/Appendices/Pollution_Incidents_Report_2013_LIT_8547_b_70a6b.pdf).

59 E K Weatherhead and N J K Howden 'The relationship between land use and surface water resources in the UK' (2009) 26 *Land Use Policy* 243.

60 T P Burt et al. 'Nitrate in United Kingdom rivers: policy and its outcomes since 1970' (2011) 45 *Environmental Science Technology* 175; M E Stuart et al. 'Screening for long-term trends in groundwater nitrate monitoring data (2007) 40(4) *Quarterly Journal of Engineering Geology and Hydrogeology* 361.

61 N J K Howden et al. 'Nitrate pollution in intensively farmed regions: what are the prospects for sustaining high quality groundwater?' (2011) 47(6) *Water Resources Research* 1–13.

62 G Hughes et al. *Updating Previous Estimates of the Load and Source Apportionment of Nitrogen to Waters in the UK* (Defra 2008) [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/260399/pb14045-slurry-management-storage-report-appendix.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/260399/pb14045-slurry-management-storage-report-appendix.pdf).

63 A L Collins et al. 'Emerging priorities in the management of diffuse pollution at catchment scale' (2009) 7(3) *International Journal of River Basin Management* 179.

64 D F McGonigle 'Towards a more strategic approach to research to support catchment-based policy approaches to mitigate agricultural water pollution: A UK case-study' (2012) 24 *Environmental Science and Policy* 4.

65 South West Water 'Upstream thinking' (2012).

66 P Kay, A C Edwards and M Foulger 'A review of the efficacy of contemporary agricultural stewardship measures for ameliorating water pollution problems of key concern to the UK water industry' (2009) 99(2) *Agricultural Systems* 67.

67 J N Pretty et al. 'An assessment of the total external costs of UK agriculture' (2000) 65(2) *Agricultural Systems* 113.

practices of undertakers to increase sustainability in water provision will also be addressed.

### 2.3 Transparency

Legge states that one of the most important facets of sustainable provision in the water industry is access to information regarding the provision.<sup>68</sup> She states one is intrinsic to the other. Consumers are also increasingly interested and concerned about what they consume, its safety and the sustainable ways in which it is delivered.<sup>69</sup>

Potts, van der Meer and Daitchman<sup>70</sup> describe transparency as a window for sustainability, which allows access to information for external stakeholders who in turn can bring accountability to corporations. The authors state that an increase in transparency gives rise to greater accountability and ultimately can lead to an improved focus on sustainability.

Water companies are also obliged to publish annual sustainability reports. However, owing to the private nature of ownership in the English water sector (of the nine water and sewerage providers only three are publicly listed companies) there has been criticism that insufficient information has been made available to the public and, consequently, that there has been a lack of opportunity for academic analysis. As Molinos-Senante et al. have stated: 'There is a lack of information in the published literature that focuses on the sustainability of water companies themselves'.<sup>71</sup>

Even as far back as the 1990s, the lack of provision of environmental information was criticised by the EC Water Policy Commission, which commented:

There is no justification for keeping information about the state of the environment secret or, equally, for making access to such information difficult or prohibitively expensive. The general public should have a right to know the results of monitoring of the environment and to have it presented to them in an understandable manner. They should have the right to be informed in good time, about the policies adopted to protect the environment and to have an informed input into the decision-making process.<sup>72</sup>

The relationship between transparency and the protection of the environment has been recognised for a considerable time. In order for members of the public to be able to participate in environmental stewardship they must have

68 D Legge 'The sustainability of the water industry in a regulated environment' (2000) 12(1) *Journal of Environmental Law* 3.

69 L Ge and C A Brewster 'Informational institutions in the agri-food sector: meta-information and meta-governance of environmental sustainability' (2016) 18 *Current Opinion in Environmental Sustainability* 73.

70 J Potts, J van der Meer and J Daitchman 'The state of sustainability initiatives review 2010: sustainability and transparency' (Joint Initiative of IISD, IIED, Aidenvironment, UNCTAD and ENTWINED 2010) <http://cite.seerx.ist.psu.edu/viewdoc/download?doi=10.1.1.588.7910&rep=rep1&type=pdf>.

71 M Molinos-Senante, R Sala-Garrido and M Lafuente 'The role of environmental variables on the efficiency of water and sewerage companies: a case study of Chile' (2015) 22(13) *Environmental Science and Pollution Research* 242.

72 European Community Water Policy Commission *Communication from the Commission to the Council and the European Parliament* (Brussels, 21 February 1996) COM(96) 59 final 13 <http://aei.pitt.edu/3993/1/3993.pdf>.

the ability to gain the information relating to the issue that concerns them.<sup>73</sup>

The Aarhus Convention was adopted in 1998 in the Danish city of Aarhus. It states its objective to be as follows:<sup>74</sup>

In order to contribute to the protection of the right of every person of present and future generations to live in an environment adequate to his or her health and well-being, each Party shall guarantee the rights of access to information, public participation in decision making, and access to justice in environmental matters in accordance with the provisions of this Convention.

The Convention had 47 parties in 1998, including the EU. Since then, the EU has implemented legislation in consideration of the objective of the Aarhus Convention, including the Environmental Information Regulations. This change in operation particularly in countries such as the UK, which have been criticised as being ‘notoriously secretive’, has been seen as a dramatic and positive step towards the liberation of environmental information.<sup>75</sup>

## 2.4 Environmental Information Regulations

The Environmental Information Regulations came into force in 2005 and implement a European Directive on Public Access to Information.<sup>76</sup> This legislation compels ‘Public Authorities’ to provide information to those who request it. From the time of their proposal it was noted that there were some obvious omissions in the scope of the Regulations, namely water undertakers.<sup>77</sup> Water undertakers are also, it should be noted, excluded from the Freedom of Information Act 2000, which applies to ‘public authorities’, not private water and sewerage undertakers.

As a result, however, of the recent court interpretation of European legislation, the way in which the undertakers are required to share information has completely altered.

### 2.4.1 The case that changed everything

The two cases below are the most important to the topic. In the latter, the Upper Tribunal handed down a judgment stating that the Environmental Information Regulations were applicable to water and sewerage undertakers. This fundamentally changed the way in which the legislation was perceived and any change in operational process or transparency was initiated by this determination.

### 2.4.2 SmartSource v Information Commissioner

In 2008, SmartSource requested information from various water and sewerage companies under the Environmental

73 M Gavouneli ‘Access to Environmental Information: Delimitation of a Right’ (1999) 13 *Tulane Environmental Law Journal* 303; A du Plessis ‘Public participation, good environmental governance and fulfilment of environmental rights’ (2008) 11(2) *Potchefstroomse Elektroniese Regsblad* 170 [www.saflii.org/za/journals/PER/2008/12.html](http://www.saflii.org/za/journals/PER/2008/12.html).

74 Convention on Access to information, public participation in decision-making and access to justice in environmental matters 1998 (Aarhus Convention); see Aarhus Convention art 1.

75 P H Sand ‘The right to know: environmental information disclosure by government and industry’ in Proceedings of the 2002 Berlin Conference on the Human Dimensions of Global Environmental Change ‘Knowledge for the Sustainability Transition. The Challenge for Social Science’ (2002) 1.

76 Council Directive 90/313/EEC (2003).

77 W Birtles ‘A right to know: the Environmental Information Regulations 1992’ (1993) *Journal of Planning and Environmental Law* 615.

Information Requests. Many of the companies provided certain information but, in addition, also withheld information, stating that they did not consider themselves as ‘public authorities’ and therefore were not under any obligation to provide such information:

The crux of the debate within SmartSource is whether the water companies were purely private bodies, or came within the definition of a public authority. Private bodies are excluded from such regimes as they do not serve the public interest and are independent of the democratic system. The importance of this differentiation is that purely private bodies do not have the same social obligation as public authorities. However, this distinction is muddled when private companies are appointed to provide a public service in lieu of public authorities. While the company structure remains the same, the service they provide changes from being private to public in nature.<sup>78</sup>

Purdie also provides a detailed review of the case.<sup>79</sup>

After the *SmartSource* judgment,<sup>80</sup> Etemire highlighted why it was so important that UK water providers should be subject to the Regulations.<sup>81</sup> Etemire was highly critical of the *SmartSource* judgment and considered (among other points) that the nature of the key public function should be considered a public authority and that to do otherwise would not be within the letter and spirit of European legislative intentions. Such information, important to the public, should not be restricted. Concluding the article, after strongly disputing the logic of the judgment, Etemire pointed towards the *Fish Legal* case (which was pending at that time),<sup>82</sup> with a hope that the *SmartSource* case would be superseded, which indeed it was.

### 2.4.3 Fish Legal v Information Commissioner

In 2009, Fish Legal (the legal representatives for the Angling Trust) and Mrs Shirley (an independent consumer) complained in the same manner as SmartSource had done to the Information Commissioner’s Office. Eventually this was heard on appeal by the Upper Tribunal, which revisited the issues discussed in *SmartSource*. In order to gain clarification, advice was sought from the Court of Justice of the European Union (CJEU). Indeed, the case was deemed to be so important that it was heard in the Grand Chamber by 15 judges. The CJEU provided extensive guidance on the issues but refused to apply the principles to the case thus it fell to the Upper Tribunal to dispose of the case in consideration of the CJEU’s judgment. The Upper Tribunal determined that indeed a private water company should be classed as a public authority. They answered that indeed it should. This was not an easy judgment, considering that privatisation of the water industry had blurred the division of public and private; however, the divide is significant.<sup>83</sup>

The *Fish Legal* final determination superseded that of *SmartSource*, because ultimately it was provided out of

78 S Whittaker ‘Access to environmental information and the problem of defining public authorities’ (2013) 15 *Environmental Law Review* 230.

79 M Purdie ‘Case commentary: *SmartSource*’ (2011) 4 *Journal of Planning Law* 455.

80 *SmartSource Drainage & Water Reports Ltd v Information Commissioner & Ors* [2010] UKUT 415 (AAC).

81 U Etemire ‘Public access to environmental information held by private companies’ (2012) 14(1) *Environmental Law Review* 7.

82 *Fish Legal v Information Commissioner* [2012] UKUT 177 AAC; [2015] UKUT 52 AAC.

83 C Reid ‘Bodies Subject to Environmental Information Regulations’ (2014) 161 *Scottish Planning and Environmental Law* 11.



guidance from the CJEU, as stated in the Tribunal's determination.<sup>84</sup> The Upper Tribunal did not dissect the incorrect ruling of *SmartSource*, but thought it prudent to consider the issues 'afresh'.<sup>85</sup> This left the water undertakers in the same class as public authorities, 'on the hook' and subject to the Environmental Information Regulations.

#### 2.4.4 Implications

The complexity of the argument is highlighted in the 62-page judgment. It is, however, important to understand the reasons behind the action, which was to increase the transparency of the water industry.

It was the applicant's intention to obtain this previously withheld information in order to deal with issues relating to the water supply and, indeed, the pollution within it. Fish Legal, said that:

We are delighted with this result which has at long last asserted the rights of our angling members and the wider public, to get information from these companies when they cause pollution or other damage. Being able to obtain environmental information directly about activities that affect the environment will make it much easier to deal with complex issues affecting fisheries. We sincerely hope that with the industries greater accountability will come higher environmental performance.<sup>86</sup>

This sentiment has been mirrored by academics. Lee, referring to the Environmental Information Requests and their potential impact on the water sector, stated that:

*There is a tendency to picture environmental information as in the Aarhus context of supporting single issues often by the way of objection or litigation. It may be however that from the point of view of environmental protection information becomes more crucial in non-contentious contexts. The free flow of information supports market forces in generating environmental improvement and negating environmental risk ... Environmental Information should be treated as a public good.*<sup>87</sup>

As William Rundle stated, his hope was that this increase in accountability in turn will increase the environmental performance of the companies. This hope is also voiced by organisations affected by water pollution, organisations which were interviewed for this article as described below.

The rulings have effectively 'imposed considerable burdens', which were previously avoided by the water undertakers.<sup>88</sup> These burdens were considered so onerous that counsel for the respondent companies stated that they would have to consider legislative change in order to divest themselves of these powers (see paragraph 98 of the ruling). This statement could be considered dramatic as, at the time of writing, no such statutory change has been proactively advanced. Smaller companies, concerned with the potential burden imposed by certain extensive requests, have sought to exclude themselves from the larger undertakers; however, such efforts have been in vain.

84 A Oldfield 'Water firm: public authority?' (2014) 2(7) *Utility Week* 16.

85 *Fish Legal v Information Commissioner* (n 82) 2015 Judgment para 137.

86 Fish Legal press release 'Victory for Fish Legal Over Water Companies' *Pembrokeshire Anglers Association* (2 April 2015) [www.pembrokeshire-anglers.co.uk/victory-for-fish-legal-over-water-companies](http://www.pembrokeshire-anglers.co.uk/victory-for-fish-legal-over-water-companies).

87 R Lee 'Valuing sources of environmental information' (2012) 24 *Environmental Law and Management* 55, 55.

88 S Barot 'Beware of the Boojum: private companies as public authorities under the Environmental Information Regulations 2004' (2015) 20(2) *Judicial Review* 96.

#### 2.4.5 What information?

As Reid highlights, although there has been a definitive determination on the applicability of the Regulations to water undertakers, the issues relating to the case are not yet completely resolved.<sup>89</sup> The focus will now shift from applicability to extent. The question of what information will fall within the Regulations has yet to be specifically defined and, as the Regulations are deliberately broad, there is, as Reid states, plenty of scope for further argument. One of the major concerns of the Environmental Information Regulations is that they are too broad.<sup>90</sup> The definition encompasses a huge amount of information, which can be requested with few limiting exceptions.

Environmental Information is broadly defined as any information written, visual, oral or electronic and would include documents, maps and illustrations, recordings, electronic information and paper files, which relate to five broad categories ranging from the state of the elements of the environment such as air, atmosphere and water, factors affecting or likely to affect the elements of the environment, to [information relating to] the state of human health and safety.

The definition is broad and definitively encompasses a wide range of environmental agreements<sup>91</sup> and, pertinently, information relating to human health, particularly when food and drink are involved.<sup>92</sup>

Because of the nature of the broad brush approach taken in the definition, it is easier to ascertain when the information falls within an *exception* than when it falls within the *definition*. A public authority may refuse disclosure if it does not have the information or the information is incomplete, if it is a request for internal documents, or if the requests are too general or manifestly unreasonable. In addition, it may refuse to disclose information that would adversely have an impact on public safety, national security, defence, intellectual property and legitimately confidential or commercial information (the preceding examples are not all inclusive). The Regulations do not define what exactly is meant by these terms and, since their adoption, there has and will continue to be clarification by the courts.<sup>93</sup>

The Regulations also impose implications on charging and time in order to make the information accessible as quickly and as cheaply as possible. Companies cannot charge for applicants to access public registers. Information (not in a public register) may be charged for; however, and importantly, no profit may be gained (see section 18 of the Environmental Information Regulations). In addition to this, there is a burden on the undertakers to provide this information within 20 days of receiving the request.<sup>94</sup>

From the above it can be ascertained that the Regulations are written to favour disclosure and to burden the undertaker for the betterment of the environment and

89 C Reid 'Information and public authorities' (2015) 169 *Scottish Planning and Environmental Law* 62.

90 See eg D Welfare 'Personal data in FOIA/EIRs requests – changes and developments' (2016) 12 *Freedom Of Information* 5(7).

91 *Kirkaldie v Information Commissioner and Thanet District Council* [2006] EA/2006/001.

92 *Watts v Information Commissioner* [2007] EA/2007/0022.

93 E Tunnicliffe et al. 'EIRs manual' (DAC Beachcroft 2015).

94 Gelding Borough Council Decision Notice (2011) FER0355639.

sustainable practice through information sharing, transparency and ultimately improvements in sustainable provision. What remains to be determined is how the undertakers have altered their practices in order to comply with their now legal obligations and if these obligations have, in turn, necessitated any changes in other areas of sustainable water provision. This article aims to answer these questions.

It is important before assessing any progress or development in legal instruments to understand the effectiveness of legislation.

## 2.5 Analysis of the effectiveness of the legislation

Young states that regulations may be effective in a legal sense, that is contractual necessities or obligations may be met, but the legislation does not actually resolve the situation that led to its creation.<sup>95</sup> Therefore, one could have a situation where the Environmental Information Regulations were complied with but the effects do not improve the situation as desired. Do the regulations actually allow more information to be accessed? Is the information easily available? Do organisations consider this new access to be an improvement?

As Brown Weiss and Jacobson state, effectiveness is not only to be found in attaining the objectives of the treaty or legislation but also in addressing the problems that lead to the document's composition.<sup>96</sup> In order to analyse the effective nature of legislation, one must look beyond the legislation and analyse the extent to which there has been actual behavioural change. The pressure of interested parties is one way in which academics have observed that legislation may be implemented, not only in a legal sense but also in the sense of having become effective, resulting in actual change. If there is high public or operational scrutiny there is great pressure not only for legislation to be complied with but also for behaviour to change. The public can hold governments to account not only for the

creation and implementation of the legislation but also to monitor the desired change the legislation should offer. These behavioural changes then must in some way be linked to the regulations so that the new action can be deemed to be a result of the legislation.<sup>97</sup>

These academics argue that effectiveness of legislation should be based not only on compliance, but also on associated action. It is this action that this article's analysis seeks to assess, that is, undertakers' actions resulting from environmental information requests. Operational changes in relation to pollution and its prevention are not considered, as this would be premature, as discussed above. Young discusses the implementation of international environmental regimes under what are largely legally optional treaties.<sup>98</sup> The Environmental Information Regulations are different, in the sense that as a member of the EU the UK is obliged to follow the legislation. This academic discussion is important in that it highlights the fact that, for the effectiveness of a legal instrument to be analysed, then the resultant actions that further the principal aims of the legislation must be considered, rather than compliance alone in isolation. Drumbi states that some environmental laws are vague and are not readily transferable into actions or implementation.<sup>99</sup>

It is the level of action resulting from this legislation that will be analysed; both action of the undertakers in relation to transparency and action in relation to operational change to reduce pollution. It is too early to assess if pollution incidents have reduced. The Regulations analysed do not have as their objective pollution reduction, although this action is considered a possible additional benefit, an extension of purpose, which could evolve from an increase in transparency. This article has focused on the potential change in undertakers' transparency and subsequently the potential for operations to change in an effort to reduce pollution. The methods used to determine this are explained in the second part of this article (to be published in Volume 25 Issue 4).

95 O R Young (ed) *The Effectiveness of International Environmental Regimes: Causal Connections and Behavioural Mechanisms* (MIT Press 1999).

96 E Brown Weiss and H K Jacobson (eds) *Engaging Countries: Strengthening Compliance with International Environmental Accords* (MIT Press 2000).

97 D G Victor, K Raustiala and B Skolnikoff *The Implementation and Effectiveness of International Environmental Commitments: Theory and Practice* (MIT Press 1998).

98 See Young *The Effectiveness of International Environmental Regimes* (n 94).

99 M A Drumbi 'Poverty, wealth, and obligation in international environmental law' (2001) 76 *Tulane Law Review* 843.