

LEGAL  
ORGANISATION  
OF WATER AND  
WASTEWATER IN  
COMPARATIVE  
PERSPECTIVE  
Case of **England**

MARCH 2019

RESEARCH REPORT

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# Introduction

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The regulation of supply of water and sanitation services in the United Kingdom can be traced all the way back to mid-19th Century. Raw sewerage was routinely disposed of in Thames causing repeated outbreaks of cholera and in one of the worst cases in 1853, almost 10,000 Londoners lost their life to the epidemic. In 1854, John Snow a scientist proved the link between the epidemic and contaminated water leading to serious attempts at creating a sewerage network for the city. Things further worsened in 1858 when a particularly hot summer resulted in London's 'The Great Stink' which affected the populace in and around Thames including the Parliament. Legislators soon sprang into action with the construction work on the sewerage network beginning in 1859. By 1866, most of London was covered by a sewerage network designed by Joseph Bazalgette and the intersecting sewer system diverted contaminated water below the streets and along embankments next to Thames to newly constructed treatment plants. The sewer system continued expanding through the century and was adopted across the country reducing outbreaks of epidemics and some of this extended sewer system is still in use today in London and elsewhere.

In the 20th Century attempts were made to consolidate water supply and sanitation services throughout England. A severely fragmented industry comprising of about 1000 bodies involved in water supply and about 1400 bodies involved in sewerage services was a feature of England's water supply and sanitation services pre and post-World War II. Planning for these services was localized characterized by local bodies involved in providing these services and this proved to be a roadblock to responding to the rising population, demands of industrial growth and urbanization and therefore, the post-war legislation relating to water services focused on enabling consolidation – helping water suppliers take advantage of improved infrastructure for water supply and sanitation services and enabling public investment into expanding infrastructure to rural areas. England suffered a severe drought in 1959 followed by a year of flooding and the Parliament decided to focus on a coordinated approach towards water resource planning and conservation of water resources. The Water Resources Act, 1963 sought to achieve these primarily by introducing a system of abstraction permits. The difficulties in water resources planning and forecasting future demands because of the fragmentation of water industry led to far-reaching restructuring at the turn of the 60's with the Water Act 1973 which established 10 new regional authorities to

provide water services on an integrated basis. However, the system of cost recovery mandated by the Water Act 1973 became increasingly unworkable because of strict fiscal controls exercised by the Government in the two decades following the legislation and stringent European legislation on the subject.

The Government introduced a stop-gap measure in 1983 with legislation liberalizing access to private capital markets for the industry and reducing the role of local government in decision-making, however, these measures failed to achieve the desired objectives and flow of private capital into the sector didn't receive the necessary boost resulting in a number of pollution incidents due to failing infrastructure. In 1989 keeping pace with privatization of a number of hitherto government provided services, water services were privatized. This involved transfer of assets of the 10 authorities to private limited companies, listing them on London stock exchange, write-off of existing debt, one-time capital infusion, capital tax allowances on infrastructure investment and separating the functions of regulation and provision of services. Three new independent bodies were established to regulate water services in England (National Rivers Authority now replaced by the Environment Agency, the Drinking Water Inspectorate and the Office of Water Services).

The process of restructuring and reforming water services and water resource management continued through the Water Industry Act, 1991, the Water Industry Act, 2003 and the Water Act, 2014. In the meantime, European Union issued a number of binding directives relating to water and sanitation standards which were made applicable in the UK. These directives issued as part of European Union's environment regulatory mandate primarily related to quality standards for consumption as well as conservation of water resources.

In this paper we will examine the development of legal and regulatory framework in the UK with particular focus upon England and trace this development in light of the European directives on the subject. In Chapter I we will examine the various statutes governing water in England till privatization in 1989, in Chapter II we will examine the current legal framework governing water in England, in Chapter III we will take a look at the roles and functions of various regulatory authorities regulating water in England, in Chapter IV we will examine EU's role in regulating water and in conclusion we will look at certain challenges plaguing the sector.

# CHAPTER I

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By the mid-19th Century private companies were already providing piped supply of water to households in England, however, few were concerned with water contamination and a number of these companies also disposed of household sewerage in the same rivers from which they drew their water. Complaints about the water quality; especially in London; due to widespread contamination of Thames led to the cities taking over responsibility for supplying water and sanitation services. In 1902, the Metropolitan Water Board responsible for supplying water to Greater London was established.

A need to achieve greater centralization in water management and supply was felt during the Second World War. A Central Advisory Water Committee formed during the war to look into water shortages; especially for fire-fighting services at the height of Germany's bombing campaign over London; proposed that the water supply services be re-grouped in such a manner that even smaller communities outside large water systems could have a steady water supply. This directly led to the first legislative intervention towards greater consolidation and centralization of water services.

The water supply in England post-war was governed by the Water Act, 1945 ("1945 Act") and this legislation ushered in an era of water supply being regulated by the National Government rather than being the domain of the local authorities. The Minister of Housing and Local Government was made responsible for conservation and proper use of water resources, the provision of water supplies and to secure effective execution of a national policy governing water by water undertakers under his jurisdiction. The 1945 Act provided all water suppliers with statutory powers to provide a water supply for domestic purposes and granted them powers to construct necessary works. The Act however, made little headway in organizing and restructuring water supply in England with over 1000 water supplies in operation at that time and at the same time, little attention was paid to conservation of water resources. Rapid industrialization post-war and increased demand for water for irrigation, power generation, industry and domestic consumption impressed upon the government the need to follow an integrated approach to water use and conservation of water resources. This led to the passing of the Water Resources Act, 1963 ("1963 Act").

This was the first serious legislative attempt to centralize regulation of water in England. It must be noted that this Act did not touch upon the supply of water services; existing local authorities and statutory water undertakes continued to carry out this function and the focus of this Act was to create an integrated structure for water resource management. One of its primary objectives was to empower the Minister of Housing and Local Government with oversight functions in relation to water resources. The Act also led to establishment of river authorities and a Water Resources Board which would exercise similar control over water resources as the Minister. The Act also made provisions for controlling abstraction and impounding of water through a system of licenses.

The 1963 Act empowered the Minister to create various river authority areas which exercised jurisdiction over water resources in their prescribed area (governed by water boards subordinate to the river authority). These river authorities were primarily in charge of the catchment area of a particular river and the Act permitted creation of 27 river authorities corresponding to 27 major rivers of England. Each of these river authorities apart from their specific functions was required to take all necessary steps to conserve, re-distribute, augment and ensure proper utilization of water resources in their area. The functions of existing river boards under previous legislations were also transferred to respective river authorities. One of the principal duties assigned to the river authorities was to create a demand forecast taking into account the future demand of the statutory water undertakers. Further, in exercise of their functions The membership of these river authorities in indicative of the approach that the Parliament sought to take in water management. The river authorities had to be comprised of members of constituent councils (county councils or county boroughs) of a river authority area and experts from the field of land drainage, fisheries, agriculture, public water supply and industry other than agriculture. While retaining some local representation, the river authorities were to also benefit from the expertise of appointed technocrats. In addition to the river water authorities the Act contemplated constitution of a Water resources board entirely comprised of appointed board with advisory and monitoring functions reporting to the Minister.

Section 23 of the 1963 Act mandated that no person except in pursuance of a valid license could abstract water from a source of supply in a river authority area. The restriction on abstraction was absolute subject to certain exceptions in as much as it included abstraction of ground water through wells, boreholes etc. In terms of who could be issued such a license to abstract water, the 1963 Act followed the riparian principles – eligibility to abstract water from a source was determined by occupation of the land contiguous to the water source and in cases of sub-strata water; occupation of the land on which extraction was to take place. Section 30 of the 1963 Act specified the conditions of license which were mandated to provide the quantity of water to be abstracted, the assessment mechanism, the location and the purpose of extraction. Penalties up till 100 pounds were prescribed for contravention of the restriction on extraction or license conditions under which extraction had to be carried out. The annual charges for licenses to extract water was determined at 5 pounds subject to certain exceptions although the Minister on proposal from river authorities could vary institute a variable license charge scheme having regard to the characteristics of the source of supply, the season of the year when water is abstracted, the purpose for which abstracted water is used and the manner of disposal of the water after use. On the other hand, the river authorities themselves could abstract / impound water from sources of supply within their jurisdiction and subject to certain exceptions, the licenses for such abstraction and impounding were deemed to have been granted by the Minister to these river authorities.

In addition to the control to be exercised on abstraction of water, the river authorities were also responsible for regulating discharge of trade effluents, sewage effluents and other pollutants into the underground strata.

This legislation was soon found to be incompatible with the needs of England and it was felt that a more integrated approach was required to better manage the water resources in light of future demand which was proving difficult to estimate under the system established by the 1963 Act. Planning for future increases in demand was complicated by the significant conflicts of interest between the different requirements of water users. Rivers in England and Wales were important for both water supply and effluent disposal, yet there was no organisation in place to co-ordinate the roles of the water suppliers and sewerage and sewage disposal authorities. Most local city councils sought to dispose sewage cheaply leading to asymmetric investment in water supply and sewage treatment works

leading to increased costs of water abstraction. By 1973 the mismatched nature of consolidation was apparent with 198 statutory water undertakers for supply of water as opposed to almost 1400 sewerage and sewage disposal authorities. At the beginning of this decade, the Government had woken up to the need for an integrated approach to water supply and sewage treatment to rein in pollution and in this context the idea of all-purpose authorities was given legislative force. The government proposed that planning and management could best be achieved on an integrated river basin basis under a responsive management structure with water authorities directly responsible for all functions relating to water resources. This would allow each river and its tributaries to be regulated and managed to ensure discharges did not pollute water supplies. It would also ensure that abstractions did not put at risk river life and the enjoyment of river users. The government considered that integrated water resource management could be best achieved by a total of between six and fifteen vertically integrated regional monopolies, providing all the required services to their customers, from extraction of raw water, delivery of processed water, to collection, treatment and discharge of wastewater and management of the quality and quantity of water resources. The discussion document outlined the boundaries of between seven and 13 possible water authorities. Taking a range of views into account, the government proposed a restructuring to give ten water authorities based on the ten major river basins in England and Wales.

The Parliament passed the Water Act, 1973 (“1973 Act”) leading to creation of a National policy for water, clarity on the discharge of functions relating to water supply, sewerage, sewage disposal, fisheries and land drainage and the charges to be levied by water authorities, statutory water undertakers etc. The Secretary of State was tasked with securing the effective execution of the National Water Policy in as much as it related to the conservation, augmentation, distribution and proper use of water resources, the provision of water supplies, sewerage, the treatment and disposal of sewage and other effluents, the restoration and maintenance of the wholesomeness of rivers and other inland water, the use of inland water for recreation, navigation through inland water, enhancement and preservation of amenity in connection with inland water and the use of inland water for recreation. The Minister of Agriculture, Fisheries and Food on the other hand was tasked with ensuring effective execution of the policy relating to land drainage and fisheries in inland and coastal waters.

The 1973 Act created 10 regional water authorities (which replaced the river authorities created by the 1963 Act) which were tasked with the following key functions apart from the functions of the erstwhile river authorities: conserving water resources, supply water within their area through a statutory water company or otherwise, prevention of pollution, provide public sewers including sewage disposal works (which were earlier the responsibility of local authorities) and make arrangements for domestic sewage disposal through private sewers connected to public sewers provided appropriate charges are paid. Each authority consisted of a chairman and up to 17 other members appointed by central government, and a number of appointments by local and district councils. Each authority was required to have at least two-thirds of its members from local authorities.

The 1973 Act mandated that water authorities manage their functions and finances through prudent means such that they are revenue sufficient and further, the Secretary of State could prescribe a rate of return on the net assets of a water authority to be achieved within a prescribed period. The water authorities were empowered to fix, to demand, take and recover such charges for the services performed, facilities provided or rights made available by them to satisfy the return required to be achieved which could be levied pursuant to a general scheme of charges or by way of a specific agreement between the authority and the recipient of the water services. The water authorities were also empowered to install meters to measure the volume of water supplied and volume of sewerage discharged in case the charges for these services are determinable on such volumes and the meter reading was to be taken prima facie evidence of the appropriate charges to be levied. However, a significant portion of revenues continued to be collected based on property values rather than volume of supply and usually the bills were averaged across an authority's supply jurisdiction rather than be determined by consumption at an individual household level leading to rural areas paying as much as urban areas within the same water authority area and wastage of water.

The 1973 Act made far-reaching changes to the water services administration in as much as it abolished the Water Resources Board, the Central Advisory Water Committee, all river authorities and all statutory water undertakers (except statutory water companies) and local authorities whose functions were taken over by other authorities under the 1973 Act. Under the 1973 Act, the government retained ultimate responsibility for the full range of functions of the water industry and had a duty to collate and publish information on the demand for water

and of actual and prospective water resources. The 1973 Act also gave central government the duty to examine and approve the water authorities' plans and programmes, thereby exerting significant influence on the levels of capital investment.

In the years following the 1973 Act, the water authorities racked up significant debt primarily due to lack of infrastructure and investment in boosting the water sector. The United Kingdom joined the European Community on 1 January 1973. Four Directives had immediate effect on water resources which prescribed standards for: (i) the quality of drinking water; (ii) the discharges of dangerous substances to the aquatic environment; (iii) the quality of bathing water; and (iv) the quality of fresh water for fish life. The government was ultimately responsible for ensuring that the Directives were codified into law and for ensuring that the respective standards were met. Each Directive required a significant programme of capital investment by each water authority. The attempt to unifying water services under a single structure as mandated by the 1973 Act proved difficult as well. In spite of abolishing the erstwhile river authorities, the new water authorities retained a similar structure to administer the 1973 Act with divisions for water supply largely comprising of erstwhile statutory water undertakers, river divisions comprising of erstwhile river authorities and new divisions for sewage treatment. The fact that the same water authority was responsible for monitoring river quality and sewage treatment, quality breaches went on unabated. In 1983 faced with the large-scale involvement of local authority members in water management a new Water Act (Water Act of 1983) sought to reorganize the different bodies responsible for management of water services into boards like those favored by private enterprise. The river quality was still deteriorating as of 1985 and in a damning report published in 1988 it was found that more than 10% of the sewage treatment plants were defunct.

In the meantime, England had seen a wave of privatization of public enterprise (gas and telecom) and a 1986 discussion paper published by the government mooted the idea that water authorities become private companies with little or no change to their powers and functions. Before, the general election of 1987 the Conservative Party eased their stance on complete privatization and their manifesto proposed a regulatory model whereby pollution control, flood protection and land drainage would be the remit of a new national body by the name of "National Rivers Authority" whereas private companies would water supply, distribution, sewerage and sewage disposal.

To give some context to the proposed privatization which is criticized by a few commentators; it was the largest privatization attempt at that time and privatization of water services was unprecedented at that time. It must be noted that the 1973 Act was passed by the Conservative government but with the Labour government coming to power in 1974; the proposed re-organization of water authorities was unsatisfactory. When Thatcher's Conservative government came to power in 1979, far-reaching changes began to be introduced with reduction and finally elimination of local government membership in the governing boards of water authorities. Commentators blame government policies for the failure of all-purpose water authorities rather than the 1973 Act. The two major problems faced by the water authorities were finance and water quality in the rivers, and these were aggravated by the policies of the government. The rates were adequate for operation and maintenance, but funds for capital construction were not available. The government limited external borrowing by the water authorities. One reason later given for privatization was the need for capital to replace and build infrastructure. Similarly, when conflict of interest was cited as a reason for a fall in water quality, it is believed that this was a result of financial constraints rather than a lack of will.

The proposals for privatization of water differed in a few fundamental aspects as opposed to earlier privatization of the gas and telecom sector. Firstly, the privatization of water would not involve one but ten Water authorities; secondly, the environment protection aspect had to be taken care of with the privatization of water and sewerage industries and thirdly, a natural monopoly situation prevailed in case of water in the absence of a national distribution network with local and regional monopolies controlling water.

On the other hand the economic regulation aspect had to be given serious thought to avoid a scenario where customers are over-charged for sub-standard services. Initial price limits were set by the Secretary of State for Environment in England and by the Secretary of State for Wales in Wales for 10 years and for future price limits, the economic regulation power was vested in the Director General of Water Services (the staff supporting him was collectively known as Office of Water Services or Ofwat). The economic regulation model was largely derived from the Littlechild Report, 1986 and the economic model proposed in this report was similar to the one proposed in Littlechild Report 1983. The Littlechild Report, 1983 favoured

a RPI-X formula for price control rather than the commonly used return on investment formula for tariff determination. This same formula was also used for water charges. The RPI-X formula allows for a fixed increase in charges every year based on the Retail Price Inflation, however adjusted to efficiency gains represented by 'X' in the formula. The price cap had to be reviewed periodically to ensure that there was no significant variance from the cost-base over a long period of time and the efficiency gains represented by 'X' were to be imposed across the companies because at the time of privatisation, each of these companies would have started at the same position. The 1986 Report also made certain other critical recommendations:

- (i) Regulation would have to take into account quality standards as well since only a price regulation could lead to reduction in quality.
- (ii) The regulator should compare the costs and quality of service across the 10 water authorities and privatised water companies already in existence through a standard measurement metric to assess the performance of these privatised authorities.
- (iii) The 10 privatised authorities would have to compete in the capital market and that would encourage innovation. The government would also have to prevent any hostile takeover of these privatised authorities.
- (iv) The franchisee model followed in France was not to be followed (where the municipality retained the ownership of the assets and franchised out their management and functions to private players) as this was perceived to be not competitive enough. However, the privatised authorities themselves were allowed to franchise their services out to limit government intervention and this was left to the discretion of the managers of these privatised authorities.

One aspect that was not covered under the 1986 report was the environment regulation which after widespread criticism was handed over to an independent watchdog (National Rivers Authority).

The privatisation was achieved through the Water Act, 1989 ("1989 Act"). It re-characterized the existing water authorities into private companies (Water and Sewerage Companies) and appointed them as undertakers for their respective regions. Three authorities were also mandated to carry out regulatory functions: (i) the Secretary of State for the Environment was tasked with the overall

responsibility of ensuring quality of drinking water (ii) the National Rivers Authority was tasked with managing pollution and exercise environmental control whereas (iii) the Director General of Water Services was designated as the economic regulator. The existing statutory companies were also allowed to come into this new regulatory framework by registering as private companies under the Companies Act, 1985 and restrictions on their borrowings and dividend pay-outs were removed.

The 1989 Act also introduced statutory water quality classifications and standards for the first time. These replaced the discharge quality standards prescribed under the Control of Pollution Act. The Regulations issued by the Secretary of State for the Environment pursuant to the 1989 Act prescribed a wholesome standard for drinking water quality. The Regulations also contained provisions for monitoring of water supplies prescribing appropriate sampling points and frequency of sampling by the water undertakers. Further, these Regulations also prescribed sampling at treatment works to ensure that water leaving treatment works and entering water streams (from which supply was to be made) was treated in accordance with the prescribed parameters. The Regulations also prescribed treatment of raw water before supplying water for drinking, washing and cooking, prescribed standards of treatment if contamination from pipes was likely.

The 1989 Act contained detailed provisions relating to control of pollution and flood defence which were new additions as compared to the erstwhile legislations on water and water resources. The RPI-X economic regulation model proposed to be introduced for water charges perceived to provide strong incentives to companies for improving efficiencies and cutting costs so as to enable them to retain all profits made within the prescribed price cap was however discarded in favour of a different mechanism. Because of the unique financial constraint plaguing the water industry in the 1980s (requirement of significant investment to remedy past under-investment, funding requirement to bring water and wastewater quality up to the standards prescribed by EC directives), the water prices to the consumers would have had to be increased. Therefore, the formula for determining the price-cap had to be computed at  $RPI + K$  (K referred to as the K factor). The K factor for a water company was primarily based on K factors are based primarily on water undertakers's revenue requirement over a long period of time which took into account its capital investment (to meet the statutory standards), operating expenditure

budget, cost of capital and tax requirements. Thus, the K factor represented the maximum percentage by which the total income of a water undertaker can be increased for a basket of tariffs (domestic, business, metered or unmetered). The tariff basket formula allowed for tariff rebalancing which meant that changes in tariffs for one type of service or consumers could be offset against tariffs for other services or consumers. The initial K factor was fixed for a decade by the Secretary of State till March 2000. While setting the K factor, the comparative efficiency of each company and the minimum return expected by investors was taken into account.

The government worried that given the performance of the water industry in the preceding decades, investor appetite for this sector had to whetted with attractive return plans (7% for water and 8% for sewerage companies). Further, the Government to give a push to these companies when they were floated on stock exchanges, forgave total debt of the erstwhile authorities to the tune of 4.9 billion pounds (in 1989 prices), provided a cash injection of 1.5 billion pounds (in 1989 prices) and capital tax allowances of 7.7 billion pounds were provided. The Government retained a "golden share" in each of these companies that would prevent any individual or a company to control more than 15% of the voting power in these companies to prevent any unwanted take-overs.

On being listed, 100% of the companies were offered for sale, on an individual share basis and a special share package was offered to UK institutions as well as overseas investors. 2183 million shares were issued at a price of 2.40 pounds each and this issue was oversubscribed by almost 3 times. The Government to give these water companies a chance to recover from their cash-poor days offered these shares at an attractive price with returns being expected in the range of 8.1% to 9.7% and the Government had accounted for the target premium to go up to 10%. The listing was a huge success and the total proceeds of the sale was estimated to be at 7.6 billion pounds offsetting the cash injection and the costs of privatisation including the debt write-off leading to no net effect on the taxpayers. The trading in water shares was also popular and on the day of listing itself (December 12, 1989), the share prices rose 0.40 pounds per share representing a premium of 8.7% after accounting for general movement in shares on listing and by January 1990, these shares were outperforming the index and the premium on these shares was in excess of 20%.

# CHAPTER II

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Post privatization, the Parliament began the process of consolidating the existing water laws in the country and these were codified in 4 primary legislations:

1. **The Water Industry Act, 1991** – This replaced the powers and duties of the Water and Sewerage companies set out in the 1989 Act and also listed out the powers of the Director General of Water Services.
2. **The Water Resources Act, 1991** – The duties of the National Rivers Authority were defined and water quality classifications and standards to be met were elaborated keeping the core defined in the 1989 Act intact.
3. **The Statutory Water Companies Act, 1991** – This set out the powers and functions of the erstwhile statutory water companies which had come into the new regulatory framework via the 1989 Act.
4. **The Land Drainage Act, 1991** – This transferred the powers of local authorities relating to land drainage to the National River Authority.

Subsequently, a number of other legislations although not directly related to the water services framework amended the manner in which these services are rendered:

- a. **The Competition and Service (Utilities) Act, 1992** – This provided wide-ranging dispute resolution powers to the Office of Water services.
- b. **The Environment Act, 1995** – This restructured the entire environment regulation landscape in England and created the Environment Agency which took over the powers and functions of the National Rivers Authority, Inspectorate of Pollution, the Waste Regulation authorities and some functions of the Department of Environment. This legislation required the Water companies to promote efficient use of water by customers.
- c. **The Competition Act, 1998** – The Water companies were brought into the purview of competition regulation with the Director General of Water Services sharing investigative powers with the Office of Fair Trading constituted under this Act.
- d. **The Water Industry Act, 1999** – This was a consumer-friendly intervention and made far-reaching changes to the framework in which water services were provided

by the Water companies. It prohibited disconnection of domestic water connections for non-payment of bills, tightened the compulsory metering power of the Water companies and put in place an approval mechanism for the charging schemes of Water companies with such approval to be given by the Director General of Water Services.

- e. **The Water Act, 2003** – This amended the framework for abstraction of water, licensing of water services and replaced the Ofwat with the Water Services Regulation Authority.
- f. **The Water Act, 2014** – Amended the Water Industry Act, 1991 introducing additional types of water supply and sewerage licenses to companies other than water undertakers.

In this context; it is pertinent to examine the duties of the water undertakers and the sewerage undertakers who are responsible for providing water supply and sewerage services to end-consumers. The manner in which these services will be provided is largely within the ambit of the Water Industry Act, 1991. The water undertakers (responsible for water supply) are required to :

- i) Develop and maintain an efficient and economical system of water supply within their area of operation
- ii) Provide supplies of water to premises in their area of operation on demand; and
- iii) Maintain, improve and extend the water undertaker's water mains and other pipes

Apart from these; the water undertakers are also responsible for connecting premises to the network in the event of a request for domestic supply and recovery of expenses for the same, maintain this connection and supply which is sufficient for domestic use (drinking, washing, cooking, central heating and sanitary purposes), provide supply of water for various other public purposes including fire-fighting and other non-domestic purposes if such supply won't affect the ability of the water undertaker to maintain a cost-effective supply of water for domestic purposes, disconnect supply for maintenance, non-payment of bills or at the request of customers, provide sufficient pressure, provide water that meets wholesomeness standards.

The sewerage undertakers (responsible for sewerage services) are required to :

i) Provide, improve and extend a system of public sewers, and to cleanse and maintain them to ensure effective drainage services in their area of operation;

ii) Make provision for emptying the sewers and treatment of sewage

Apart from this, the sewerage undertakers have a duty to provide public sewer for domestic sewerage on request and payment for connection and a local authority as provided under Section 97 could carry out the functions of a sewerage undertaker as long as it doesn't absolve the sewerage undertaker from its responsibility.

All these functions of water undertakers and sewerage undertakers are enforceable against them by the Secretary of State or the Director General of Water Services and all charges to be imposed for the functions on the end consumers can be through a charges scheme or by a specific agreement. The charges scheme since 1999 are subject to annual approval by the Director General of Water Services.

The water and sewerage undertakers are appointed by the Secretary of State for the Environment in England and Secretary of State for Wales and the conditions of appointment (sometimes referred to as the license) were originally issued in 1989 for a 25-year period and are subject to termination with a 25-year notice. The license relates to setting conditions for water services and primarily is concerned with quality of services and the charges for services to ensure that the consumers are protected. A brief overview of the conditions is provided below:

**Condition B** – Deals with the K factors which are reviewed every 5 years and adjustments can be made in any when there is a change in circumstances due to a material impact as measured over five years or fifteen years exceeds 10% of the annual turnover. These license conditions can be reviewed suo motto by the Director General or on a request by the water undertaker and allows for an increase in the K factors resulting in increased prices due to unforeseen cost overruns or a reduction in case costs turn out to be lower than anticipated. Further, these reviews can take place more frequently on account of certain “notified items” which include a significant change in the number of metered households or defaulting customers.

**Condition C** – Relates to the cap on charges for a first-time connection (infrastructure charge)

**Condition D** – Relates to annual issuance of a charges scheme setting out tariffs for supply of water and drainage of sewage for domestic purposes and this must be approved by Ofwat.

**Condition E** – Prohibits discrimination or undue preference against / for customers or a particular class of customers.

**Condition F** – Requires the undertakers to provide accounts to Ofwat for assessment of relative performance and certify that they have sufficient financial resources to continue with supply of services for at least a 12-month period.

**Condition G** – Water undertakers must submit a code of practice to deal with consumers and address their grievances.

**Condition H** – Water undertakers must submit a code of practice to deal with defaulting consumers.

**Condition I** – Water undertakers must have a code of practice to deal with unidentified leaks in metered households in pipes which are maintained by the consumers.

**Condition J** – Requires reports to be submitted to Ofwat on levels of services being provided by the water undertakers.

**Condition K** – Requires undertakers to have sufficient assets to be able to perform their duties and operate as an independent company.

**Condition L** – Requires the companies to prepare and submit long-term plans for investment in and maintenance of water distribution systems in a manner that prescribed standards for supply can be maintained.

**Condition M** – Requires the undertaker to submit such information as required by the Director.

**Condition N** – License fees to be imposed by the Director General for the maintenance of his staff and office.

**Condition O** – Lists the situation and circumstances in which a water undertaker can be replaced with another.

**Condition P** – Sets out the condition that in case of merger or amalgamation, the water undertaker must operate independent of the group of companies it has now become part of.

**Condition Q** – Deals with compensation to consumers in case of interruptions because of drought conditions.

# CHAPTER III

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In this Chapter we will examine the roles and responsibilities of various regulatory authorities involved in regulating water services in England.

## Supra-national legislation

- European Union – The European Union has an important role in legislation and standard setting through formal issue-based directives which are issued to all member nations and such directives are legally binding and have to be transposed into domestic law through appropriate domestic legislation. Since, the UK is a member nation of the European Union, it has to pass appropriate legislation for England as well as Scotland and Northern Ireland on receiving a directive from the European Union and it will be in breach of the directive if it is not fully and correctly implemented within the prescribed time-limit.

## Environmental regulation

- National Rivers Authority – The successor authority to the erstwhile water authorities is now responsible for protection and management of water resources and management of abstraction licenses. Additionally, it is responsible for navigation, salmon and freshwater fisheries, flood defense, recreation, conservancy and harbor authority activities. Prior to 1995 it had the responsibility of maintaining the quality of inland and coastal waters, control of water pollution which have now been consolidated with the Environment Agency.
- Environment Agency – Follows an integrated approach to protection of environment by taking over environment regulatory functions of a number of authorities. A separately constituted body, its decision-making is subject to the approval of the Secretary of State and it is largely responsible for implementing the European legislation relating to environment. The responsibilities pertaining to water industry include (i) preservation and improvement of the quality of rivers, estuaries and coastal waters to prevent pollution, (ii) conserve, redistribute, augment and secure proper use of water resources, (iii) general supervision over flood defense, (iv) maintenance and improvement of fisheries and (v) conservation and enhancement of inland and coastal waters for recreational purposes. The Environment Agency meets its budget requirements from water abstraction, waste management, recreational fishing licenses, flood defense

levies and government grants. The Agency also reviews the water resource plan submitted by water undertakers to ensure that they are compliant with its objectives relating to conservation of water resources. The Agency acts as the licensing authority for abstraction licenses and issues new licenses only on a demand analysis and environment impact assessment of creation of new water sources. The Agency also is responsible for controlling and monitoring the discharges made by private industry and sewerage undertakers into receiving waters and issues permits for such discharges and such discharge permits must comply with the European Union directives, Surgence Waters (River Ecosystem) (Classification) Regulations, 1994, Statutory Water Quality Objectives set by the Secretary of State and any other legal obligations under the Water Resources Act, 1991.

## Economic Regulation

- Ofwat (now Water Services Regulation Authority) – It is the non-ministerial government department accountable to the Parliament for economic regulation of the privatized water industry. The authority (as mandated by the Water Act, 2003) is responsible for protecting the interests of the consumers by encouraging competition, ensuring that water and sewerage companies carry out their functions properly as mandated by the Water Industry Act, 1991, to ensure that water companies are able to finance their functions and are able to earn a reasonable rate of return on their capital. The authority also has the additional responsibility of ensuring the license conditions are met by the water and sewerage companies and appropriate price limits are established through computation of the K factors every 5 years. The authority also acts as a watchdog for the water industry under the Competition Act, 1998.
- Competition Commission – This body acts as a 'court of appeal' to decide disputes relating to disagreement between Water Services Regulation Authority and Water companies on issues pertaining to – the five-yearly review of K factors and infrastructure charges, interim adjustments to K factors, amendments to license conditions. Decisions of the Commission has to keep in mind the objectives of the Water Industry Act, 1991. The Commission also monitors and approves mergers of two or more water undertakers.

## Quality Regulation

- Drinking Water Inspectorate – Water companies as mandated by the Water Industry Act, 1991 are duty-bound to supply water that is wholesome at the point of supply and supplying water unfit for human consumption is a criminal offence. The “Wholesomeness” standard has been set by the Water Supply (Water Quality) Regulations 2000 and the DWI carries out the functions delegated by the Secretary of State for the Environment, Food and Rural Affairs under these regulations. The DWI carries out technical audit of water undertakers, enforces standards, investigates incidents which are likely to adversely affect drinking water quality, prepares cases for prosecution of water undertakers on evidence that water unfit for consumption has been supplied, assess and respond to consumer complaints on drinking water quality, provide technical and scientific advice to Ministers and relevant departments on water quality standards and water policy issues.
- Customer Service Committees – Ten regional committees (each carrying out their duties within the areas assigned to the 10 Water companies) appointed by Ofwat represent

the consumer’s interests. A new independent Consumer Council for Water was set up by virtue of Water Act, 2003 which replaced the regional customer service committees with effect from October 1, 2005 and this is a body independent of the regulator and the water industry.

## Overall Monitoring and Regulatory Responsibility

- Department for Environment, Food and Rural Affairs – The Secretary of State for DEFRA has the overall responsibility for all aspects related to legislation and policy on water in England. DEFRA prepares the legislation that govern water supply, water resource management and the regulations that govern water environment, water quality and water industry. Further, DEFRA engaged with the European Union in negotiation and implementation of the directives of the European Union. DEFRA carries out its functions by virtue of three guiding policy objectives which require maintenance of a sufficient supply of safe drinking water, environment friendly use of water resources for supply and sewerage services and observance of social and economic policies of the government.

# CHAPTER IV

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After having examined the domestic legal and regulatory environment relating to water in England, it is pertinent to examine the role of European Union in standard setting for water quality and water resource management in detail.

The European Union has issued a number of binding directives on specific matters relating to water and the Water framework directive, 2000. The European Union derives its power to issue directives from Article 249 of the Treaty of Rome (now renamed as the Treaty on the Functioning of the European Union “TFEU”). The relevant corresponding article in TFEU reads as follows:

“Article 288 (ex Article 249 TEC)

To exercise the Union’s competences, the institutions shall adopt regulations, directives, decisions, recommendations and opinions.

A regulation shall have general application. It shall be binding in its entirety and directly applicable in all Member States.

A directive shall be binding, as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods.

A decision shall be binding in its entirety. A decision which specifies those to whom it is addressed shall be binding only on them.

Recommendations and opinions shall have no binding force.”

The directives relating to water are issued under the legislative powers of the Union pertaining to environment. Article 191 (ex Article 174 TEC) relates to the EU policy on environment and seeks to achieve the following objectives:

- Preserving, protecting and improving the quality of the environment,
- Protecting human health,
- Prudent and rational utilisation of natural resources,
- Promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change.

The Treaty seeks to achieve a high level of protection taking into account diverse situations in line with the precautionary principle and on the principles that preventive action should be taken so that environmental damage can be rectified at source and that the polluter should pay.

The Treaty under Article 192 (ex Article 175 TEC) provides for the European Parliament through ordinary legislative procedure or the European Council by way of special legislative procedure could adopt provisions to achieve the objectives of Article 191. The provisions could be primarily of a fiscal nature, or could be measures affecting town and country planning, quantitative management of water resources or affecting, directly or indirectly, the availability of those resources, land use, with the exception of waste management, or measures significantly affecting a Member State's choice between different energy sources and the general structure of its energy supply.

Further, Article 193 (ex Article 176) states that protective measures adopted pursuant to Article 192 do not prevent Member States from maintaining or introducing more stringent protective measures as long as such measures are compatible with the Treaties and are notified to the European Commission.

The European Union has issued a number of general directives (to all Member States) under Article 192 (ex Article 175 TEC). The European water legislation began with setting standards for those rivers and lakes used for drinking water abstraction in 1975 and finally in 1980 binding drinking water quality targets were set. Similar quality objective legislation was made for fish waters, shellfish waters, bathing waters and ground waters. A review of the existing legislation in 1988 in Frankfurt resulted in the second wave of legislations (Urban Waste Water Treatment Directive and the Nitrates Directive) and revisions of Drinking water directive and directives on pollution.

A brief timeline of these directives and a summary of their core content is provided below:

**1975 – 1986:** Directives on diverse topics, surface waters, bathing waters, discharges of hazardous substances in surface waters and ground water.

**1991 – 2000:** Revision of existing directives and introduction of new directives on urban waste water and agricultural nitrates etc.

**2000 –** Directive 2000/60/EC (Water Framework Directive) - overhauls the entire administrative structure framework for water management.

**Surface Water Abstraction Directive** - sets quality objectives for the surface water sources from which drinking water is taken.

**Bathing Water Directive** - sets standards aimed at protecting the health of bathers in surface waters and maintaining the aesthetic quality of these bathing waters.

**Drinking Water Directive** - sets standards for drinking water to protect public health and maintain the aesthetic quality of drinking water supplies.

**Habitats Directive** – creates measures to protect and/or restore habitats for wild flora and fauna.

**Freshwater Fish Directive** - requires member states to protect designated surface waters from pollution that could be harmful to fish.

**Shellfish Waters Directive** - sets maximum pollution levels for certain substances that can be toxic to shellfish.

**Groundwater Directive** - lists substances which should be prevented from entering, or prevented from polluting, groundwater. It requires a system of prior investigation, authorisation and requisite surveillance to be put in place.

**Urban Wastewater Treatment Directive** - sets requirements for the provision of collecting systems and the treatment of sewage according to the size of the discharge and the sensitivity of the receiving surface water.

**Nitrates Directive** – dealt with protection of waters against pollution caused by nitrates from agricultural sources.

The Directive 2000/60/EC establishing a framework for community action in the field of water policy (Water Framework Directive or WFD) is critical in as much as

it represents the first attempt to develop an integrated European Community policy on water. The Directive claims that its purpose is to prevent further deterioration and protection and enhancement of the status of aquatic ecosystems, promote sustainable water use based on long-term protection of available water resources, ensure progressive reduction of pollution of groundwater, contribute to mitigating the effects of floods and droughts etc. The WFD ushered in a new administrative machinery to deal with water resources by prescribing river basins as units of management by creation of river basin districts.

Apart from that the WFD mandated that water pricing policies should reward users who use resources efficiently, comprehensive strategies against combating pollution etc. The WFD set a target of 2015 to achieve “good” quality of water in water resources of the European Union. The United Kingdom has responded to this target by passing appropriate regulations under the Water Environment (Water Framework Directive), 2003 for England & Wales, Scotland and Northern Ireland. Similar regulations have also been passed pursuant to all the directives issued by the EU on the subject of water.

## CONCLUSION

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The privatization of England's water industry has enabled England to comply with EU directives, improve its water services and has helped increase the environment quality. Bathing water compliance with mandatory standards in England increased from 65% in 1988 to 99.5% in 2014. Similarly, the percentage of rivers assessed as being at good biological quality increased from 62.6% in 1990 to 72.5% in 2009 in England and in the same period rose from 79.1% to 87.1% in Wales and on good chemical quality matrix increased to 80% in England and close to 95% in Wales in the same period. More than a 100 billion pounds have been invested by the private water companies, however, the quality standards under WFD have been far from achieved. Only 17% of England's water-bodies are classified as good according to the new standards set down by the WFD at the initial target period stage.

However, one of the biggest challenges today for the regulatory framework is to rein in the private companies to consider consumer interest and not be solely focussed on the 5-yearly price reviews. Ofwat identifies this as one of the major concerns plaguing the water industry today. This comes at a time where the average water and sewerage bill has been rising (in inflation terms) even though the water companies have claimed to cut down the bills by 5% in real terms. Earlier this year Water UK a representative body of

the water companies announced that there will be a 2% increase in the bills to raise 44 billion pounds to reduce leakages, prevent flooding and clean beaches. Besides that the water companies have to deliver improvements in a way that is efficient and does not compromise the environment. Instances of the water companies being fined for environment pollution are not unheard of and notably Thames Water has been fined 20.3 million pounds for pumping 1.9 billion litres of untreated sewage into Thames under the Definitive Guideline for Environmental Offences which provides for increased fines.

The lack of transparency by the Water companies regarding their sewage treatment works and discharges is also a cause of worry. A number of Water companies had been resisting information requests by citizens claiming that they are privately owned and hence, not amenable to Freedom of Information Act, 2000 until the Upper Tribunal order of the Court of Justice of European Union in *Fish Legal v. Information Commissioner, United Utilities plc, Yorkshire Water Services Ltd and the Secretary of State for the Environment, Food & Rural Affairs* was delivered holding the Water companies to be public authorities liable under Freedom of Information Act, 2000. This may pave the way for uncovering more environmental disasters perpetrated by the Water companies.

## END NOTES

1. A reference to “England” in this paper must be construed to mean “England and Wales” which have the same regulatory framework for water and sanitation whereas Scotland and Northern Ireland (along with England and Wales forming the United Kingdom) have a separate regulatory mechanism independent of England’s regulatory mechanism.
2. Ofwat report, The Development of the Water Industry in England and Wales, page 48 accessed at [http://webarchive.nationalarchives.gov.uk/20150604030852/http://www.ofwat.gov.uk/publications/commissioned/rpt\\_com\\_devwatindust270106.pdf](http://webarchive.nationalarchives.gov.uk/20150604030852/http://www.ofwat.gov.uk/publications/commissioned/rpt_com_devwatindust270106.pdf)
3. [http://www.legislation.gov.uk/ukpga/1945/42/pdfs/ukpga\\_19450042\\_en.pdf](http://www.legislation.gov.uk/ukpga/1945/42/pdfs/ukpga_19450042_en.pdf)
4. [http://www.legislation.gov.uk/ukpga/1963/38/pdfs/ukpga\\_19630038\\_en.pdf](http://www.legislation.gov.uk/ukpga/1963/38/pdfs/ukpga_19630038_en.pdf)
5. Section 3, read with Schedule 1.
6. Section 4.
7. Functions relating to land drainage, fisheries and river pollution under River Boards Act, 1948, functions relating to navigation, conservation and maintenance of harbors under River Boards Act, 1948, functions under Rivers (Prevention of Pollution) Act, 1951 to 1961
8. Section 5.
9. Section 6.
10. Section 12.
11. Section 23(2).
12. Section 27.
13. Section 49.
14. Section 57.
15. Section 58.
16. Section 52.
17. Section 72.
18. Central Water Advisory Committee Report, 1971.
19. [https://www.legislation.gov.uk/ukpga/1973/37/pdfs/ukpga\\_19730037\\_en.pdf](https://www.legislation.gov.uk/ukpga/1973/37/pdfs/ukpga_19730037_en.pdf)
20. Section 1(2).
21. Section 1(3).
22. Section 2 read with Schedule 1.
23. Section 10.
24. Section 11 read with Section 12.
25. The Jeger Report, 1970 recommended that instead of a uniform standard for disposal of trade effluent into rivers, a system of permit standards with reference to individual treatment works and local environment effects be implemented. These recommendations were implemented through the Control of Pollution Act, 1974 which dealt with pollution and waste together, created offences for discharge of pollutants into any water stream or underground waters and transferred the pollution control functions of river authorities to the water authorities. However, no national standards for issuance of these permits were set and publication of discharge permit requirements and compliance reports as mandated by the Act wasn’t implemented till 1985.
26. Section 14.
27. Section 16.
28. Section 29(1).
29. Section 29(2).
30. Section 30.
31. Section 31.
32. Section 32.
33. The predecessor to the European Union. The European Community is an economic association of European countries founded to provide a common market without any economic barriers.
34. Directives are set by the European Union and addressed to each member state. Directives are legally binding and are implemented by the member state by it changing its domestic law. Member states are in breach if a Directive is not fully and correctly implemented within the prescribed time limit.
35. The Development of the Water Industry in England and Wales, Report published by Ofwat, 2006 accessed at [http://webarchive.nationalarchives.gov.uk/20150604030852/http://www.ofwat.gov.uk/publications/commissioned/rpt\\_com\\_devwatindust270106.pdf](http://webarchive.nationalarchives.gov.uk/20150604030852/http://www.ofwat.gov.uk/publications/commissioned/rpt_com_devwatindust270106.pdf)

36. Privatization of Water Services in the United States: An assessment of issues and experiences, National Research Council, Appendix A – Privatization of Water Services in England and Wales, 2002.
37. Troubled Waters, David Kinnersley – “The Undoing of All-Purpose Authorities”, 1988.
38. When Section 36 of the Water Act, 2003 came into force on April 1, 2006 the Director General of Water Services was replaced by the Water Services Regulation Authority. Wherever, the term Ofwat or the Director General of Water Services has been used in this paper, it should be taken to mean the Water Services Regulation Authority.
39. Economic Regulation of Privatised Authorities and subsequently a revised report published in 1988.
40. Regulation of the British Telecommunications’ Profitability.
41. Jon Stern, What the Littlechild Report actually said, Regulation Initiative Working Paper No. 55, August 2003, available at [http://facultyresearch.london.edu/docs/1\\_LittlechildJFINMay03.pdf](http://facultyresearch.london.edu/docs/1_LittlechildJFINMay03.pdf)
42. Section 4 read with Section 11.
43. Section 1
44. Section 5.
45. Section 52 read with The Water Supply (Water Quality) Regulations 1989 which can be accessed at <http://www.legislation.gov.uk/uksi/1989/1147/made>
46. Regulation 3.
47. Regulation 11.
48. Regulation 13.
49. Regulation 17.
50. Regulation 23.
51. Regulation 24.
52. Section 103 – 135.
53. Robert Thorp, The K factor model can be accessed at <https://www.ofwat.gov.uk/publication/k-factor-modelinperiod-odis/>
54. Peter Bailey, The Business and Financial Structure of the Water Industry in England and Wales, Research Report 14, 2003, can be accessed at [http://www.bath.ac.uk/management/cri/pubpdf/Research\\_Reports/14\\_Bailey.pdf](http://www.bath.ac.uk/management/cri/pubpdf/Research_Reports/14_Bailey.pdf)
55. Section 37.
56. Section 45-49.
57. Section 52-54.
58. Section 55-59.
59. Section 60-63.
60. This power has been removed vide the Water Industry Act, 1999.
61. Section 65.
62. Section 68 – Regulations are made by the Secretary of State regarding the wholesomeness standard under Section 67 and Section 69.
63. Section 94.
64. Although this is not a regulatory body created under an English statute, it regulates certain standards in the whole of European Union through binding directives. The legal force of the directives and the content of these directives have themselves been discussed in greater detail in Chapter IV.
65. These regulations take into account seven parameters to determine appropriate classifications of the discharged sewerage (dissolved oxygen, biochemical oxygen demand, total ammonia, un-ionised ammonia, pH, dissolved copper and total zinc).
66. In the past South West Water and Portsmouth Water appealed their price limits following the 1994 price review and after the 1999 price review Sutton and East Surrey Water and Mid Kent Water appealed their price limits.
67. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A12012E%2FTXT>
68. Ofwat report, The Development of the Water Industry in England and Wales, page 48 accessed at [http://webarchive.nationalarchives.gov.uk/20150604030852/http://www.ofwat.gov.uk/publications/commissioned/rpt\\_com\\_devwatindust270106.pdf](http://webarchive.nationalarchives.gov.uk/20150604030852/http://www.ofwat.gov.uk/publications/commissioned/rpt_com_devwatindust270106.pdf)
69. Council Directive 75/440/EEC accessed at <https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX:31975L0440>
70. Directive 2006/7/EC repealing Directive 76/160/EEC accessed at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32006L0007>

71. Council Directive 98/83/EC accessed at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31998L0083>
72. Council Directive 92/43/EEC accessed at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31992L0043>
73. Directive 2006/44/EC consolidating amendments to Council Directive 78/659/EEC accessed at <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:264:0020:0031:EN:PDF>
74. Directive 2006/113/EC consolidating amendments to Council Directive 79/923/EEC accessed at <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:376:0014:0020:EN:PDF>
75. Directive 2006/118/EEC accessed at <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:372:0019:0031:EN:PDF>
76. Council Directive 91/271/EEC accessed at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31991L0271>
77. Council Directive 91/676/EEC accessed at <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31991L0676&from=EN>
78. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32000L0060>
79. Article 3.
80. Discussion document published by Ofwat titled Towards Water 2020 – meeting the challenges for water and wastewater services in England and Wales accessed at [https://www.ofwat.gov.uk/wp-content/uploads/2015/10/pap\\_tec201507challenges.pdf](https://www.ofwat.gov.uk/wp-content/uploads/2015/10/pap_tec201507challenges.pdf)
81. [https://www.ofwat.gov.uk/wp-content/uploads/2015/10/pap\\_tec201507challenges.pdf](https://www.ofwat.gov.uk/wp-content/uploads/2015/10/pap_tec201507challenges.pdf)
82. <https://metro.co.uk/2018/02/01/price-water-set-gopeople-england-wales-7277747/>
83. <https://www.bbc.com/news/uk-england-39352755>
84. [https://www.sentencingcouncil.org.uk/wpcontent/uploads/Final\\_Environmental\\_Offences\\_Definitive\\_Guideline\\_web1.pdf](https://www.sentencingcouncil.org.uk/wpcontent/uploads/Final_Environmental_Offences_Definitive_Guideline_web1.pdf)
85. UT Case No: GIA/0979/2011 accessed at <http://www.bailii.org/uk/cases/UKUT/AAC/2015/52.html>

#### SCALING CITY INSTITUTIONS FOR INDIA: SANITATION (SCI-FI)

Sanitation programme at the Centre for Policy Research (CPR) is a multi-disciplinary research, outreach and policy support initiative. The programme seeks to improve the understanding of the reasons for poor sanitation, and to examine how these might be related to technology and service delivery models, institutions, governance and financial issues, and socio-economic dimensions. Based on research findings, it seeks to support national, state and city authorities develop policies and programmes for intervention with the goal of increasing access to inclusive, safe and sustainable sanitation. Initiated in 2013, the programme is primarily funded by the Bill and Melinda Gates Foundation (BMGF).